

ProMaster Master Keying

by WH Software Limited

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About

Part



1

1 About

Welcome to ProMaster Master Keying version 8 and thank you for choosing ProMaster Master Keying.

ProMaster Master Keying is a master-keying design and maintenance program for professionals. With this comprehensive instructional documentation, you will find creating your master-key systems a quick and simple task.

We are confident you will find it an easy and enjoyable program to use. Any suggestions/comments for improvements in future versions are welcome, and may be addressed via email to support@whsoftware.com

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Part

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Product manufacturers do not authorise the information contained in ProMaster Master Keying. Manufacturer names are used for identification purposes only.

License

Full license agreement: The ProMaster Master Keying installation program includes the full license agreement, which you must read and agree to in order to continue the installation. After installation, the license agreement may be read by clicking the menu Help then License on the main application window.

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Part

3

3 Contacting WH Software Limited

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New installation, just installed - what to do next

Part



4

4 New installation, just installed - what to do next

If you have just installed ProMaster Master Keying **and you have not upgraded** from a previous version (e.g. version 4, 5, 7) this is the topic that tells you what to configure next.

1. Log in as **admin**. You will know the password, you created it during the installation process.
2. Enter your registration information.
3. Enter your company details. See [Company information](#)⁵³.
4. Create at least 1 user. See [Users](#)⁴⁸.
5. Log out and log in as the user you created in step 4.
6. Perform the product activation. See [Activating ProMaster Master Keying](#)³⁴.
7. Create your key sections and keyways. See [Key sections and keyways](#)⁹⁶.
8. If you are using a system that requires manufacturer lists, import them. See [Lists](#)⁹⁹.
9. Create your system types. See [System types](#)⁹¹.
10. Enter or import locks. See [Locks and cylinders](#)⁶¹.

That is the minimum required to get up and running. It is strongly recommended that you spend some time reading the help to learn about other tasks.

4.1 Upgrade installation, just installed - what to do next

If you have just installed ProMaster Master Keying **and you did upgrade** from a previous version (e.g. version 4, 5, 7) this is the topic that tells you what to configure next.

1. Log in as **admin**. You will know the password, you created it during the installation process.
2. Enter your registration information.
3. Go to users and security groups and get that stuff configured as you want. Many tasks previously performed by the admin user are now performed by normal users who must be assigned the appropriate permissions. See [Users](#)⁴⁸ and [Security groups](#)⁴⁹.
4. Log out and log in as a normal user.
5. Perform the product activation. See [Activating ProMaster Master Keying](#)³⁴.
6. Visit ALL your key sections and keyways and for each one, in each design module, open it, fix anything that is missing and save it. Largely the upgrade process does what it can to make the data right but there is some old data that users have not entered correctly and if you have any such data you must fix it. See [Key sections and keyways](#)⁹⁶.
7. Check your system types and add any missing information. See [System types](#)⁹¹.
8. Read the log file that was created by the upgrade, and fix the errors that it has found in your data (e.g. Key colours, locks, signatories)
The log file is C:\Users**<WindowsUserName>**\AppData\Local\WH Software\PM8\Log\PM8DBCfg.log

That is the minimum required to get up and running.

Introduction

Part

5

5 Introduction

5.1 Using this guide

This user guide covers the use of ProMaster Master Keying.

This guide is for anyone who installs, uses or administers ProMaster Master Keying.

Assumptions

The assumption is made that:

- All computers involved meet the system requirements
- The installer and users are familiar with and confident using Microsoft Windows
- The installer has administrator access on the computers where the installation is to be performed
- The users understand master keying concepts. This guide teaches you about the software, but does not train you in the principles of master-keying, the characteristics of various lock systems or good master-keying practice.

5.2 Understanding concepts

This topic is a reference for a number of concepts and terminologies used in ProMaster Master Keying, gathered into one place for reference. References are made to the topics that relate to each item here.

Concepts related to installation

Server computer

The server computer is where everything is installed. The parts needed by the server, the parts needed by the client, and the database.

If you are operating on a single computer then your computer plays the roll of the server and client.

See [System requirements](#)^{□26} for hardware requirements.

Database

The database is the most important file used by ProMaster Master Keying. In fact there are 2 database files. Generally they are called PM8.fdb and PM8DocStor.fdb.

If you lost everything, but still had these two files then you are in a happy place. Ok, you may need some help reinstalling and reconfiguring ProMaster Master Keying, but that is all easy stuff.

In the topic [Backing up your data](#)^{□44} we give plenty of advice about backing up. Please take this seriously.

Client computer

If you are in multi-computer environment, one computer (Hopefully one with good quality hardware, UPS, backup solutions and fast SSD storage) is the server (see above).

Every computer where a user sits to operate ProMaster Master Keying is a client computer or workstation.

See [System requirements](#)^{□26} for hardware requirements, and [Architecture overview](#)^{□26} for more about the architecture.

Concepts related to administration and configuration

Design module

ProMaster Master Keying supports a wide range of locking products. These are supported through the technical part of ProMaster Master Keying called design modules. Each design module supports one or more locking products and implements the rules accordingly.

See [Design module overview](#)¹⁸ for a high level overview of the design modules.

System type

System types define a set of rules. At their core they define the design module, but there are numerous other settings that are very important also.

Each system you create for your clients belongs to a system type, and that defines the design module, lock system (if the design module gives a choice), key cutting data (again, if the design module gives a choice).

So what about the question "Why do I need more than 1 system type for a design module?". If you use a product where the design module defines all the rules, which is more common for high end locking products, then the answer may be that for that design you need only one system type. Now consider if the system type is for inline keys - you need at least one design module per depth and space card. Additional system types for a single set of parameters are also useful for segmenting your systems by market.

See [System types](#)⁹¹.

Key colours

Key colours are the coloured bits on the head of the key. Most design module offer a range of colours (they are under your control) and the colours are assigned to keys when the coding is performed.

See [Key colours](#)⁹⁴.

Key sections and keyways

Key section is the shape of the grooves on the key.

Keyway is the shape of the grooves in the cylinder.

A few design modules do not need key sections and keyways (e.g. Kaba Expert Plus). The lock products implemented by some design modules need a single key section and keyway in each key section family (E.g. Abloy Novel). Others need families of key sections and keyways defined (E.g. Inline, Interchangeable core). This is all under your control and should be created accurately from the information provided by your lock supplier.

See [Key sections and keyways](#)⁹⁶.

Lists

Lists are a mechanism to control the quality of systems by controlling the TMK. Several design modules use lists, and if you are a user of one of those design modules you will receive your list data from the manufacturer.

See [Lists](#)⁹⁹.

Keying types

Keying types are a value attached to each system. Their largest non-technical function is simply an annotation on the structure of the system. The most important technical function provided by the keying type is to specify if the system is construction keyed or not.

See [Keying types](#)⁵⁷.

Factories

Factory is a fancy word for "Where you make the stuff". If you have multiple manufacturing locations, then having a factory for each allows you to work-flow your jobs.

See [Factories](#)⁵⁹.

Locks and cylinders

Cylinders are the lockable product into which the key is inserted.

Locks are the hardware that mounts on a door and holds 1 or 2 cylinders. Locks are configured to make the association between lock, cylinder and system type.

A door has either 1 lock or 1 cylinder associated with it.

Many users are not interested in locks and will use only cylinders.

See [Locks and cylinders](#)⁶¹

Hardware

Hardware refers to additional door hardware that may be recorded. It has nothing to do with the lock or cylinder and is simply a way of recording other items on the door.

See [Hardware](#)⁷⁷

Users

Users are created in ProMaster Master Keying to control security and record who performed particular tasks such as creating jobs.

Everyone who uses ProMaster Master Keying must be configured as a user. You may create as many users as you want, but the total number of users who may be using ProMaster Master Keying concurrently is controlled by the license.

See [Users](#)⁴⁸, [Security groups](#)⁴⁹

Concepts related to building master keys systems

Client

The client is the owner of the system. Each system has one client. A client may have many systems. Sometimes the client and system are essentially the same, while in larger environments the client is a company, university or government department that has many systems.

See [Clients](#)¹⁰⁶

System

The system is the wrapper around keys, doors, signatories, coding and jobs.

Each system belongs to a client, and implements a single lock system defined by the associated system type.

See [Systems](#)¹¹⁰

Signatory

Each system may have signatories defined and those signatories are then used on jobs to record who authorised the order. The way signatories are checked depends on the level of signatory security defined by the system.

See [Signatories](#)¹²⁵

Key

Keys are keys. Each key has a key number which uniquely defines it. Each key is assigned to operate doors. Each key may be ordered on jobs. When a key is ordered on a job those "instances" of the key are called key issues.

See [Keys](#)¹³³

Key issues

Keys are entered and given a key number and assigned to doors. Then the keys are coded (the process of assigning the technical data to them). When you want to manufacture the key, a job is created, and the job is for 1 or more copies of the key. Each copy is numbered sequentially. Those copies of the key that you manufacture are called key issues.

Door

Doors are doors most of the time. A door may represent a real physical door, or it may be a "virtual" door representing a locking product such as a padlock.

Each door has an associated locking product (lock or cylinder) and is assigned to operate by 1 or more keys.

Normally you would order only 1 of each door, but in the case where a door represents a padlock it is likely to be ordered multiple times.

See [Doors](#)¹⁴²

Keying

Keying is the relationship between keys and doors. Keying can be seen and altered from the point of view of a door, or from the point of view of a key, or globally in the keying matrix.

See [Keying matrix](#)¹⁵⁶

Coding

Coding is the process where the technical design for the keys is created and the key codes are assigned to each key.

The assignment of key codes to keys results in the technical construction of the lock product being calculated, and that door lock assembly is referred to "door pinning" or simply "pinning".

See [Coding](#)¹⁸⁴

Jobs

The job is where you record the keys and doors that are required to be manufactured. The job represents a unit of work on the system for the client. Once a job is entered and coding is complete, the job is manufactured.

See [Jobs](#)²⁰⁹

Job manufacturing

Job manufacturing is the process of taking the job, on which keys and lock product are ordered, and turning it into physical product. Manufacturing produces all the necessary paperwork, labels, sends data to key cutting machines, sends data to marking machines etc.

See [Job manufacturing](#)²¹⁹

Concepts related to terminology

System number

The system number is the system identifier. Sometimes the system number is dictated by lock manufacturers, other times it is under your control. The system number is a unique value in your database.

Key number

The key number is the key identifier. The key number is unique within each system.

Door number

The door number is the door identifier. The door number is unique within each system.

Door stamping

The door stamping is the information that is marked on the cylinder. Some people create stamping the same as the door number. Others create the stamping sequentially (1, 2, 3...). Others, and particularly using DHI numbering, create the stamping as the key number of the lowest level key that operates the door.

TMK

TMK is the Top Master Key for the system. It is the main key code from which all other key codes are derived.

Rules

Rules are the parameters that govern the key codes permitted when coding the system. When you start coding a system, the default values for the rules are copied from the system type associated with the system, and from there you may adjust the values if required.

SOP

SOP, or sequence of progression, is the order that positions on the TMK are progressed to create other key codes. It is used primarily when using the coding matrix.

Designation

Designation is the purpose that each chamber in the lock will be used for. The designation is used to build the data for the coding tree. Examples of designation are "grand master key", "master key" and "change key".

Depth step

Depth step is the distance between derived codes in any position on the key. Some lock systems allow a depth step of 1, where others have a minimum depth step of 2 or more.

Code progression

A code progression is the rule that takes the TMK, and defines a SOP, designation, depth step (and some other values depending on the design module) to generate a tree or matrix of codes.

Standard progression

One of 2 types of code progression, this is the simple type that used depths steps and generates all possible codes in any specified positions on the key.

Custom progression

A custom progression differs from a standard progression in that you specify the depth values to be used for each position on the key. This is more complex but opens the door to more flexible coding for complex systems.

Coding tree

One of 3 ways of coding systems, this is where the code progression is present as a tree of codes. The coding tree is where codes are assigned and door pinning is calculated.

Coding matrix

The second of 3 ways of coding systems, this is where the code progression is present as a matrix of codes. The coding matrix is where codes are assigned and door pinning is calculated.

Coding grid

The last of 3 ways of coding systems applies to Kaba dimple systems and this is where the coding is performed according to the Kaba grid style progression. A code progression is not used by the coding grid. The coding grid is where codes are assigned and door pinning is calculated.

Key code

This is the value for the cuts that are assigned to the key.

Pinning

This is the calculated assembly for door locking product.

5.3 Product editions

There are 3 editions of ProMaster Master Keying available. The features available in each product vary, but at their core they are substantially similar. All editions use the same architecture.

ProMaster Master Keying Basic

This edition is single user only, and a limited range of design modules are supported. It is ideal for users who need comprehensive master keying capabilities for inline key products and do not need more than one user.

ProMaster Master Keying Premium

This is the main-stream product edition. Any number of concurrent user licenses may be purchased and almost all design modules are available.

ProMaster Master Keying Manufacturer

This product edition has additional features for manufacturers. Customers requiring bespoke feature development must be using this product edition as any such feature is not added to the other editions.

Any number of concurrent user licenses may be purchased and all design modules are available.

Support options for this edition are more comprehensive.

Design modules by edition

This table shows the design modules that may be licensed for each edition. See [Design module overview](#)¹⁸ for a description of each design module.

Design module	Basic edition	Premium edition	Manufacturer edition
Abloy Disklock/Novel	-	Yes	Yes
Abloy Protec 1/2/3	-	Yes	Yes
Abloy Standard/Exec/Sentry	-	Yes	Yes
ABUS XY14	-	Yes	Yes
AHRAM Model 1	-	-	Yes
ALC Bilock	-	Yes	Yes
ALC Galaxy	-	Yes	Yes
Assa Abloy KeyMaster	-	Yes	Yes
Assa Abloy KeyUltra	-	Yes	Yes
Assa Abloy Perk	-	Yes	Yes
Assa Abloy Union	-	Yes	Yes
Assa USA	-	Yes	Yes
Chubb Detainer	-	-	Yes
EVVA 3KS/4KS	-	Yes	Yes
EVVA DPE/DPS/EPS	-	Yes	Yes
Inline	Yes	Yes	Yes
Interchangeable Core	Yes	Yes	Yes

Kaba ACE	-	-	Yes
Kaba experT	-	Yes	Yes
Kaba experT Plus	-	Yes	Yes
Kaba experT K95	-	Yes	Yes
Kaba Gemini	-	Yes	Yes
Kaba Quattro	-	Yes	Yes
Lockwood MT5/MT5+	-	Yes	Yes
Lockwood Twin	Yes	Yes	Yes
Medeco Biaxial 10	-	Yes	Yes
Medeco Biaxial 60	-	Yes	Yes
Medeco Original 10	-	Yes	Yes
Medeco Original 60	-	Yes	Yes
MLA Binary Plus	Yes	Yes	Yes
MLA DC1	Yes	Yes	Yes
Mottura Champions	-	-	Yes
Sargent DG2/DG3	-	Yes	Yes
Tokoz Pro	-	Yes	Yes
Tokoz Tech	-	Yes	Yes
Willoughby Mogul	-	-	Yes

Machine support by edition

This table shows the manufacturing machines that are available in each edition. See [Design module overview](#)¹⁸ for information on machines supported by each design module.

Key marking

Machine	Basic edition	Premium edition	Manufacturer edition
Gravograph	Yes	Yes	Yes
Ilco Engrave-It Pro	Yes	Yes	Yes
JMA Multi-Mark	Yes	Yes	Yes
Silca Marker 2000	Yes	Yes	Yes
Generic key marker	-	Yes	Yes

Cylinder marking

Machine	Basic edition	Premium edition	Manufacturer edition
Gravograph	Yes	Yes	Yes
Ilco Engrave-It Pro	Yes	Yes	Yes
Silca Marker 2000	Yes	Yes	Yes
Generic cylinder marker	-	-	Yes

Key cutting

Machine	Basic edition	Premium edition	Manufacturer edition
Abloy LT106	-	Yes	Yes
Abloy LT120	-	Yes	Yes
ALC Galaxy	-	Yes	Yes

CYA	-	-	Yes
HPC Codemax	Yes	Yes	Yes
Ilco EZ Code	Yes	Yes	Yes
ITL 9000	Yes	Yes	Yes
Kaba CNC	-	-	Yes
Keyline Dezmo	Yes	Yes	Yes
Keyline Ninja	Yes	Yes	Yes
Keyline Ninja Laser	Yes	Yes	Yes
Keyline Ninja Total	Yes	Yes	Yes
Keyline Ninja Vortex	-	Yes	Yes
Keyline Sigma Pro	-	Yes	Yes
Keyline Versa	-	Yes	Yes
JMA MultiCode	Yes	Yes	Yes
Maromatic	-	-	Yes
Miracle	Yes	Yes	Yes
Mul-T-Lock KC5	-	Yes	Yes
Orion ECM200	Yes	Yes	Yes
Orion Luna	-	Yes	Yes
Silca UnoCode V1	Yes	Yes	Yes
Silca UnoCode V2	Yes	Yes	Yes
Silca UnoCode 199	Yes	Yes	Yes
Silca UnoCode 299	Yes	Yes	Yes
Silca UnoCode 399	Yes	Yes	Yes
Silca UnoCode 399 Evo	Yes	Yes	Yes
Silca UnoCode 399 Plus	Yes	Yes	Yes
Silca UnoCode Pro	Yes	Yes	Yes
Silca UnoCode F-Series	Yes	Yes	Yes
Silca UltraCode	Yes	Yes	Yes
Silca Triax e-Code	-	Yes	Yes
Silca Triax Quattro	-	Yes	Yes
Silca Triax Pro	-	Yes	Yes
Silca Futura	Yes	Yes	Yes
Silca QuattroCode	-	Yes	Yes
Silca QuattroCode Pneumatic	-	-	Yes
Silca Protech	-	Yes	Yes

Cylinder manufacturing

Machine	Basic edition	Premium edition	Manufacturer edition
ALC Galaxy	-	Yes	Yes

Features by edition

This table is a brief overview of feature availability that differs between editions. Some features are licensed separately.

Feature	Basic edition	Premium edition	Manufacturer edition
Export to ProMaster Master Keying 8	Yes	Yes	Yes
Import from to ProMaster Master Keying 8	Yes	Yes	Yes
Export to ProMaster Master Keying 7	-	Yes, provided system is PM7 compatible	Yes, provided system is PM7 compatible
Import from to ProMaster Master Keying 7	Yes	Yes	Yes
End user report designer *separately licensed	-	Yes	Yes
End user label designer	Yes	Yes	Yes
Optimised test keys *separately licensed	-	Yes	Yes
Manufacturer specific features *separately licensed	-	-	Yes
XML manufacturing exports	-	Yes	Yes
System type manufacturing integration parameters	-	-	Yes
Job "coding" status available	-	Yes	Yes

5.4 Design module overview

This section gives an overview of each design module including lock system supported, authorisation requirements for purchased and key cutting machines supported.

Machines are expected to have the latest on-board software from the machine manufacturer. Capabilities on some machines for some design modules may require authorisation from the machine manufacturer and this must be facilitated by the lock manufacturer and machine manufacturer.

No representation is made about the suitability of each machine for cutting any particular type of key. No representation is made about the performance or duty cycle or suitability of any machine for manufacturing master key systems.

Brief design module descriptions

Design module: Abloy Disklock/Novel

Description	Abloy Disklock Pro and Novel, various key lengths/discs
Lock systems	Abloy Disklock Pro, Abloy Novel
Authorisation	Manufacturer authorisation required for purchase. Novel lock system requires main permutation list from lock manufacturer.
Key cutting machines	Abloy LT106, Abloy LT120, Keyline Sigma Pro, Silca UnoCode 399, 399 Evo, 399 Plus, Pro, Silca Protec

Design module: Abloy Protec 1/2/3

Description	Abloy Protec 1, 2 and3, various key lengths/discs
Lock systems	Abloy Protec 1 and Abloy Protec 2 and Abloy Protec 3

Authorisation	Manufacturer authorisation required for purchase. Requires main permutation list from lock manufacturer.
Key cutting machines	Abloy LT106, Abloy LT120, Keyline Sigma Pro, Silca UnoCode 399, 399 Evo, 399 Plus, Pro, Silca Protech

Design module: Abloy Standard/Exec/Sentry

Description	Abloy Classic, Profile, Exec, Sentry, various key lengths/discs
Lock systems	Abloy Classic, Profile, Exec Left/Right, Sentry Left/Right
Key cutting machines	Abloy LT106, Silca Protech (on lock systems supported by the machine)

Design module: ABUS XY14

Description	ABUS XY14
Lock systems	XY14, X14, Y14. Mixed systems.
Key cutting machines	Keyline Dezmo, Keyline Versa, Silca UnoCode 299, 399, 399 Evo, 399 Plus, Pro, Silca Protech

Design module: AHRAM ASG Dimpled 1

Description	AHRAM ASG Dimpled 1
Lock systems	DKI1 27 - 4.1 (5+6+6), DKI1 27 - 3.5 (5+5+5), DKI1 27 - 3.5 (6+6+6), DKI1 32 - 3.5 (6+7+7), DKI1 32 - 3.5 (7+7+7) DKI1 27 - 3.5 (5), DKI1 27 - 3.5 (6), DKI1 32 - 3.5 (7)
Key cutting machines	Silca QuattroCode, CYA

Design module: ALC Bilock

Description	Australian Lock Company Bilock
Lock systems	Bilock, Bilock Exclusive.
Key cutting machines	Silca UnoCode V1, V2, 299, 399, 399 Evo, 399 Plus, Pro, Silca Protech

Design module: ALC Galaxy

Description	Australian Lock Company Galaxy
Lock systems	Galaxy Platinum
Key cutting machines	Galaxy (keys and code bars)

Design module: Assa Abloy KeyMaster

Description	Assa Abloy UK KeyMaster
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech

Design module: Assa Abloy KeyUltra

Description	Assa Abloy UK KeyUltra
Key cutting machines	Silca UnoCode 299, 399, 399 Evo, 399 Plus, Pro

Design module: Assa Abloy Perk

Description	Assa Abloy UK Perk (also available under other names)
Key cutting machines	-

Design module: Assa Abloy Union

Description	Assa Abloy UK Union extension (dimple cut inside flat cut)
Key cutting machines	Silca UnoCode 299, 399, 399 Evo, 399 Plus, Pro, Silca Triax eCode, Triax Quattro, Triax Pro

Design module: Assa USA

Description	ASSA USA locking products
Lock systems	Conventional, ASSA LFIC, ASSA Yale LFIC, ASSA Corbin Russwin LFIC, ASSA Sargent LFIC, ASSA Schlage LFIC, ASSA CAM, ASSA SFIC, Cliq
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, ITL.

Design module: Chubb Detainer

Description	Assa Abloy UK Chubb Detainer
Lock systems	Chubb 3G110 Original and new
Key cutting machines	-

Design module: EVVA 3KS/4KS

Description	EVVA 3KS/4KS
Lock systems	EVVA 3KS, 3KS+, 4KS
Authorisation	Manufacturer authorisation required for purchase.
Key cutting machines	Keyline Versa, Ninja Vortex, Ninja Total, Silca Triax eCode, Triax Quattro, Triax Pro, Silca Futura, Silca Protech Note: 4KS not available on Silca Triax eCode

Design module: EVVA DPE/DPS/EPS

Description	EVVA DPE
Lock systems	EVVA DPS (Australia), EPS (Australia)
Authorisation	Manufacturer authorisation required for purchase.
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, Orion ECM200, Ilco EZCode, Maromatic, JMA MultiCode

Design module: Inline

Description	Inline keys from 4 to 7 cuts
Lock systems	Standard, Assa Abloy UK B8/B10, Assa Abloy UK Union CounterR, Assa Abloy UK CLCS, Assa Abloy Australia Gen6T Various depth and space cards supported - enquire for more details.
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, Orion ECM200, Ilco EZCode, Maromatic, ITL, Miracle, CYA, JMA MultiCode. Some machines depend on on-board data and therefore not all cards are supported on all machines.

Design module: Interchangeable Core

Description	Various North American interchangeable core systems
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Lock systems	Best A2, Best A3, Best A4, Ilco2610, Sargent 6300, Corbin Ruswin System 70, Sargent DG1, Schlage long key, Yale long key, Kwikset, Kaba Peaks 140 A2, Kaba Peaks 140 A4, Kaba Peaks 150 A2, Kaba Peaks 150 A4 Various depth and space cards supported - enquire for more details.
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, Orion ECM200, Ilco EZCode, Maromatic, ITL, Miracle, JMA MultiCode. Some machines depend on on-board data and therefore not all cards are supported on all machines.

Design module: Kaba ACE

Description	Kaba ACE (K72)
Authorisation	Manufacturer authorisation required for purchase.
Key cutting machines	Silca Protech

Design module: Kaba expert

Description	Kaba Expert (K56)
Authorisation	Manufacturer authorisation required for purchase.
Key cutting machines	Keyline Versa, Keyline Ninja Vortex, Ninja Total, Silca Futura, Silca Triax eCode, Triax Quattro, Triax Pro, Silca QuattroCode, Silca Protech, Kaba CNC, Orion Luna

Design module: Kaba expert Plus

Description	Kaba Expert Plus (K83)
Authorisation	Manufacturer authorisation required for purchase. Requires main permutation list from lock manufacturer.
Key cutting machines	Keyline Versa, Keyline Ninja Vortex, Ninja Total, Silca Futura, Silca Triax eCode, Triax Quattro, Triax Pro, Silca QuattroCode, Silca Protech, Kaba CNC

Design module: Kaba expert K95

Description	Kaba Expert K95
Authorisation	Manufacturer authorisation required for purchase. Requires main permutation list from lock manufacturer.
Key cutting machines	Keyline Versa, Keyline Ninja Vortex, Ninja Total, Silca Futura, Triax Quattro, Triax Pro, Silca Protech, Kaba CNC

Design module: Kaba Gemini

Description	Kaba Gemini (Australia)
Key cutting machines	Keyline Versa, Keyline Ninja Vortex, Ninja Total, Silca Triax eCode, Triax Quattro, Triax Pro, Silca QuattroCode, Silca Protech, Kaba CNC

Design module: Kaba Quattro

Description	Kaba Quattro (Australia)
Authorisation	Manufacturer authorisation required for purchase.
Key cutting machines	Keyline Versa, Keyline Ninja Vortex, Ninja Total, Silca Triax eCode, Triax Quattro, Triax Pro, Silca QuattroCode, Silca Protech, Kaba CNC, Orion Luna

Design module: Lockwood MT5/MT5+

Description	Lockwood MT5
Lock systems	MT5, MT5+, mixed systems
Authorisation	Manufacturer authorisation required for purchase. Requires main permutation list from lock manufacturer.
Key cutting machines	Keyline Versa, Keyline Ninja Vortex, Ninja Total, Silca Triax eCode, Triax Quattro, Triax Pro, Silca QuattroCode (MT5 only), Silca Futura, Silca Protech, Mul-T-Lock KC5

Design module: Lockwood Twin

Description	Lockwood Twin
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, Orion ECM200, Ilco EZCode, Maromatic, ITL, JMA MultiCode

Design module: Medeco Biaxial 10

Description	Medeco Biaxial 10 series architectural locks
Lock systems	Standard, M3, M4
Key cutting machines	ITL, CodeMax

Design module: Medeco Biaxial 60

Description	Medeco Biaxial 60 series cam locks
Key cutting machines	ITL, CodeMax

Design module: Medeco Original 10

Description	Medeco Original 10 series architectural locks
Key cutting machines	ITL, CodeMax

Design module: Medeco Original 60

Description	Medeco Original 60 series cam locks
Key cutting machines	ITL, CodeMax

Design module: MLA Binary Plus

Description	MLA Binary Plus
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, Orion ECM200, Ilco EZCode, Maromatic, ITL, Miracle, JMA MultiCode

Design module: Mottura Champions

Description	Mottura Champions
Lock systems	C10, C28, C9, C30, C31, C38, C39, C43, C49, CM7, CP3, CP4, CP8
Key cutting machines	-

Design module: MLA DC1

Description	MLA DC1
Key cutting machines	Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode V1, V2, 199, 299, 399, 399 Evo, 399 Plus, Pro, Silca Futura, Silca Protech, HPC CodeMax, Orion

ECM200, Ilco EZCode, Maromatic, ITL, Miracle, JMA MultiCode

Design module: Sargent DG2/DG3

Description	Sargent DG2/DG3
Key cutting machines	ITL, CodeMax

Design module: Tokoz Pro

Description	Tokoz Pro
Lock systems	Tokoz Pro, Tokoz Pro+
Key cutting machines	Silca Protech, Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total Note: Dezmo/Ninja are for Tokoz Pro, not Tokoz Pro+

Design module: Tokoz Tech

Description	Tokoz Tech
Lock systems	Tokoz Tech
Key cutting machines	Axis 1 and 2: Silca Protech Axis 1 only: Keyline Dezmo, Keyline Ninja, Ninja Laser, Ninja Total, Silca UnoCode 199, 299, 399, 399 Evo, 399 Plus, Pro

Design module: Willoughby Mogul

Description	Willoughby Mogul
Lock systems	Willoughby Mogul Original
Key cutting machines	-

Design module: Willoughby Paracentric

Description	Willoughby Paracentric
Lock systems	Willoughby Paracentric Original
Key cutting machines	-

Installing

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6 Installing

This section describes the architecture of ProMaster Master Keying, and the installation options available. It describes the installation process and components that are installed onto your computer.

6.1 Architecture overview

ProMaster Master Keying is a client-server application, with the back-end using a Firebird database and the Firebird database engine. Communication between the client processes and the server are performed using TCP/IP.

One machine is designated as the server, and this machine hosts the database and the Firebird database engine. All clients (both other computers running ProMaster Master Keying and also ProMaster Master Keying running on the server) communicate with the Firebird database engine via the TCP/IP networking protocol.

No direct communication with the database file is performed, so client machines do not need (and should not have) physical file access to the database.

The server must always be available so that the workstations are able to access your ProMaster Master Keying database. The server must be protected from unplanned restarts and power outages.

You should install ProMaster Master Keying on the server before you install ProMaster Master Keying on the workstations.

The ProMaster Master Keying program communicates with its processes running on your server on TCP port 30636 and TCP port 30637

A common installation mistake is to assume that for ProMaster Master Keying to operate, the database on the server must be made accessible to the client machines by using a Windows Share. This is not correct. **Do not create a Windows Share to make the database file accessible to the client machines.** All communication is performed using the TCP/IP networking protocol to the Firebird database engine. The Firebird database engine, which resides on the server where the database is located performs all file operations on the database.

6.2 System requirements

ProMaster Master Keying hardware requirements

The product is installed on a single network server (which may for small installations be used also as a workstation) and a portion of the product can be installed on workstation computers for each user. All parts of the program and also the program database are located on the network server, and a portion of the program is located on each workstation.

The minimum server computer hardware requirements are:

Requirement	Minimum	Preferred minimum
Windows version	Windows 8.1 Windows 10 Windows 11 Windows 2012/2012 R2 Windows 2016 Windows 2019 Windows 2022	Windows 2019 Servers should use a server operating system
CPU	Core i5, 2 cores minimum	Core i7 or XEON
RAM (available)	4GB	

Hard disk drive space	4GB	According to the size of your database and sufficient space to leave 14 days backup on the server. For large database you will need more space to maintain a healthy database and also to store backups. For large organisations this may be 200 GB or more.
Mouse or other pointing device		
Display	1680 x 1050 24 bit colour	

The minimum workstation computer hardware requirements are:

Requirement	Minimum	Preferred minimum
Windows version	Windows 8.1 Windows 10 Windows 11	Windows 10
CPU	Core i5, 2 cores minimum	Core i7
RAM (available)	2GB	4GB
Hard disk drive space	400MB	
Mouse or other pointing device		
Display	1680 x 1050 24 bit colour	1920 x 1200 32 bit colour 2 monitors is good for complex coding.
Printer	Windows supported printer is required for reports	
Label printer	Windows supported printer label printer with a minimum 100mm label width is required for labels	

On versions of Windows prior to Windows 10, to achieve correct presentation you must use 100% font size in your display settings. On Windows 10 the font size may be set larger (125% or 150% for example) and ProMaster Master Keying will display correctly. On Windows 10 you may benefit from changing the compatibility settings for "High DPI scaling override" to "System (Enhanced)".

Notes about hardware requirements

- Ensure the most recent service pack for your operating system is installed.
- System requirements are minimum requirements and good performance depends on ensuring your hardware and networking reflect your usage style and resources required by other running applications.

Networking protocol requirements

ProMaster Master Keying requires that the TCP/IP networking protocol be installed and functioning correctly. Normally this is done as part of installing Windows. If you do not have TCP/IP installed and correctly configured then you should install it before proceeding with the installation. See your Windows documentation or systems support person for help installing TCP/IP.

If you are on a PC without a network connection (i.e. No LAN and no WIFI) then you will need to ensure that TCP/IP is available despite not having a network connection. This is because the database connection uses TCP/IP.

On Windows 10, this is how you install a loop-back adaptor, however you must seek professional

advice before making any such change as it is not something that WH Software Limited can help you with.

- (a) Run "Device Manager"
- (b) Select the computer node at the top
- (c) From the "Action" menu choose "Add legacy hardware"
- (d) Click Next
- (e) Choose "Install the hardware that I manually select", Click Next
- (f) Choose "Network adaptors", Click Next
- (g) On the left list, choose "Microsoft"
- (h) On the right list, choose "Microsoft KM-Test Loopback Adaptor", Click Next, Next, Finish

Firewall software

Firewall software is increasingly popular to help protect from malicious computer attacks. If you are running any type of firewall software you must ensure that it allows ProMaster Master Keying to communicate on TCP port 30636 and port 30637.

If ProMaster Master Keying is unable to communicate with its database (on the network server), try disabling your firewall software to identify the source of the problem.

6.3 Installing

Before you begin

- Make sure your computer meet the minimum requirements
- Make sure you have your ProMaster Master Keying registration information
- Make sure you understand what type of installation you want to perform
- Make sure you have administrator or equivalent access to each computer

When installing ProMaster Master Keying, always install the server first.

Starting ProMaster Master Keying setup

- Start your computer and log in.
- Run the setup program **PM8Setup.exe**
- Follow the instructions that appear.

Upgrading from ProMaster Master Keying 7, 5, 4

During the setup you are asked if you are performing a new installation or if you are upgrading from ProMaster Master Keying 7, 5 or 4.

Later in the installation, the ProMaster Master Keying Database Creator is launched.

For an upgrade it requires you to select the database file(s) from your previous version that will be upgraded.

The old database files are not modified. If you select a database, it is copied before it is read. If you select a database upgrade, it is restored to a temporary file before it is read. After a temporary copy of the database file to upgrade is made, that temporary copy may be modified, then the data is read from it and pumped into a new ProMaster Master Keying database. On completion the temporary files are removed.

Make sure you are not running tight on disk space - this needs about 3 times more space than that used by the old database(s).

Be aware that the upgrade process will take a long time for large database so plan around this.

New data, new user permissions

After the upgrade has completed, read the log and make a note of everything that needs to be fixed. There will be some changes that you must make yourself. These are not difficult but must be done.

- User permissions are created on groups, not individual users. The best way is to not create security groups for each user (this is a choice during the upgrade) but to do it yourself after upgrade. Regardless of your choice, there are many new permissions in PM8 that do not map to permissions in previous versions because tasks previously performed by the "admin" user are now performed by users according to their permissions.
- Depending on the design module, and the age of the key section in the old database, you may need to visit all key section families and verify that they are not missing information. Typically this needs attention when there were old tree-style key section families.
- Renamed colours, locks etc. Older versions would allow data that is not permitted in version 8. For example, you may have "Red" and "RED". During the import these will become "Red" and RED_1" and logged in the results. This is because such fields are now "case insensitive, accent insensitive, unique". The bad data needs to be merged fixed (according to the type of data), so for example with RED_1 you would right click on it, choose to replace it with another colour and then pick "Red". Do these changes carefully so you don't stuff up all your systems. Other data may get renamed in the same manner because it contains leading or trailing spaces which are now removed.

Upgrading from ProMaster Master Keying 3, 2

There is no automatic process to upgrade from ProMaster Master Keying 3 or 2.

This is a lengthy multi-step process and requires assistance from WH Software Limited.

6.4 File locations

The folder locations used by ProMaster Master Keying depend on a number of factors including:

- The type of installation that you performed.
- Any choices you made to change the default installation locations.
- The Windows operating system (32 bit or 64 bit) that you are running.

This topic describes the default locations.

For purposes of this illustration the following assumptions are made:

- The standard Windows locations are being used and that you are running an English language version of Windows.
- The login name of our user in this example is joebloggs.

For information on the files installed to each location see the topic Description Of Files Installed.

Purpose of location	Installation types	Folder location
Main location of application	All	C:\Program Files (x86)\WH Software\PM8 (and various sub folders)
Shared settings, settings used by background processes, logs created by system and background processes	All	C:\ProgramData\WH Software\PM8
User specific settings, user data cache, logs created by user processes, user dictionaries	All	C:\Users\joebloggs\AppData\Local\WH Software\PM8

Database	Server	C:\ProgramData\WH Software\PM8\Data
Database engine	Server	C:\Program Files (x86)\WH Software\PM8\FB3
Database client connectivity	Workstation	C:\Program Files (x86)\WH Software\PM8\FB3

6.5 Description of files

During the installation process, various files are installed on your computer. The following explanation describes the most important files and in doing so assumes that the default locations were used during the installation. See the topic [File locations](#)²⁹ for an overview of folder locations and differences between folder location on various versions of Windows.

Location: C:\Program Files (x86)\WH Software\PM8\Bin

File	Description
PM8.exe	The main application file for ProMaster Master Keying
PM8Back.exe	Database backup program
PM8Upg.exe	Application upgrade helper

Location C:\ProgramData\WH Software\PM8\Data

File	Description
PM8.fdb	ProMaster Master Keying database

Location: C:\ProgramData\WH Software\PM8

File	Description	Notes
PM8.ini	Application settings shared by all users and application settings for background processes (PM8Back)	This is where the database connections are configured. Other than configuring database connections, there should be no need to edit this file manually.
Log\PM8Back.log	Log file created when a database backup is run in "auto" mode.	Server only.

Location: C:\Users\joebloggs\AppData\Local\WH Software\PM8

File	Description	Notes
PM8.ini	Application settings specific to this user	All settings are configurable in PM8 so this file should not be edited manually.
Log\PM8.log	Log file created when this user performs a database upgrade.	This operation should only be performed on the server, so the only place this file should be created is on your server.
Log\PM8Back.log	Log file created when this user runs a database backup.	This operation should only be performed on the central server, so the only place this file should be created is on your server.
Spell\Custom.adu Spell\SuggestionLearn.adl	Custom spelling settings	

Spell\Autocorrect.adl		
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6.6 Licensing and product activation

License enforcement

ProMaster Master Keying maintains a record of the number of users connected. ProMaster Master Keying is licensed on a per-user basis. If you are unable to log into ProMaster Master Keying because you are attempting to use more connections than you have licenses, please contact your reseller to purchase additional licenses.

Product activation

ProMaster Master Keying requires **Product activation** before it becomes fully functional. Product activation is an anti-piracy technology designed to verify that the product has been legitimately licensed and thwart the spread of software piracy.

Activation is completed either directly via the Internet or by a telephone call to a customer service representative.

Activation on your server: Your ProMaster Master Keying installation is activated on and locked into your server. The first user to log into ProMaster Master Keying other than the admin user must perform the activation.

Activation can be achieved in one of the following ways:

- Over the internet direct to the WH Software Limited activation server
- Via your web browser to the ProMaster Master Keying web site activation page
- By telephone to your reseller or to a ProMaster Master Keying representative

Getting started

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7 Getting started

7.1 Logging into ProMaster Master Keying

To perform any tasks in ProMaster Master Keying, you must first log in by providing your login name and password. The environment option is available only for users who connect to more than one ProMaster Master Keying installation (it is normal to have only one choice for the environment)

7.2 The administrator's first time

After installing ProMaster Master Keying, the first time you log in you must use the **admin** login.

The admin password is what you set it during installation.

The first thing you must enter is your ProMaster Master Keying registration information. This information is provided by your ProMaster Master Keying reseller when you make your purchase. The details must be entered exactly as they are shown on your registration sheet or the registration will not be accepted. It is long and complex, so copy and paste it into ProMaster Master Keying rather than attempting to type it!

Proceed to configure ProMaster Master Keying by visiting these areas of the product:

- [Company information](#)⁵³
- [Company logo for reports](#)⁵⁴
- [Application parameters](#)⁵³
- [Users](#)⁴⁸

These are the "basics" for getting the product up and running. Other configurations are necessary for your data.

7.3 A user's first time

The first user who logs into ProMaster Master Keying will be required to activate the product. See [Activating ProMaster Master Keying](#)³⁴

See [Setting your preferences](#)³⁵ for help configuring ProMaster Master Keying to behave the way you work.

See [Printer setup](#)³⁷ to decide where your reports will be sent.

7.4 Activating ProMaster Master Keying

If your computer is internet connected, always choose the option to perform the activation automatically as this will allow you to perform the activation without waiting for assistance. If you are not internet connected, choose the manual option and call WH Software Limited while you are in front of your computer.

If the automatic activation is successful, you will be able to use ProMaster Master Keying immediately.

For a manual activation, the WH Software Limited customer service representative will ask you for the information presented by ProMaster Master Keying and on verification will read to you an activation code to enter into ProMaster Master Keying.

The best option is to do the activation automatically. Manual (telephone) activation should be used only when automatic activation is not available.

7.5 Changing your password

If your user account is configured to integrate with Windows or Active Directory security then passwords are not controlled by ProMaster Master Keying and this topic is not applicable to you.

At any time after logging in, the user may change their password.

Getting started

- You must be logged in.
- From the **Setup and Admin** menu, choose **Change password**.

Making a change

You must enter your old password then enter your new password twice.

7.6 Setting your preferences

Various characteristics ProMaster Master Keying of may be configured to the liking of the user.

Getting started

- You must be logged in.
- From the **Setup and Admin** menu, choose **Preferences**.

An explanation of the preferences

Display lock and cylinder images

Normally lock and cylinder images will be displayed. If you are operating on a slow network you may turn off the display of images to improve performance.

Auto find

Various areas in ProMaster Master Keying allow you to search for information. When each of these search windows is opened, whether or not all information is shown is controlled by each of the auto find options. On some search windows, particularly those where only a few items are displayed, having auto find on is useful, but when there are many items to be displayed, such as for doors, is better to leave auto find off and perform a search using criteria to identify the items you want to see.

Find warnings

On some areas in ProMaster Master Keying, a find without any search criteria to limit the number of items returned may take some time and return so many items that is is not useful. On those search windows, you are prompted to confirm that you intended to return all information. The warning message may be suppressed by turning off the corresponding warning.

System info

When a system is open, ProMaster Master Keying shows a summary of the system. Through these options you can control what information is shown.

Email

Three options are provided for how email messages will be sent.

Depending on what email application you are using and how it is configured you may determine that one option is better than the others.

The MAPI option sends email using your windows default MAPI mail client. To use this you must have a mail application must be installed correctly and configured as the MAPI client.

The Outlook option automates Outlook to send the email. You must have the 32bit version of Outlook installed.

The SMTP option sends the mail message direct to a mail server and several settings are required - see below.

Normally when Outlook is used, an add-in called "Outlook Security Manager" is used to make Outlook more cooperative. You can disable use of the Outlook Security Manager if it is problematic.

Email - SMTP settings

You may need to check with your mail administrator for the settings, and as there is a variety of mail servers in use, each with different characteristics, you may need to experiment a bit to get it right.

Option	Description
SMTP server	The name or IP address of your mail server.
Port	The port on your mail server that receives the email.
SMTP login name	If your mail server uses login based authentication, enter your mail login name.
SMTP password	If your mail server uses login based authentication, enter your mail login password.
Encryption	Choose if you use an unencrypted mail connection and how the encryption works.
Sender's name	The name of the person to appear as the sender.
Sender's email	The email address of the person to appear as the sender. Some mail servers require the sender email to be the same as the SMTP login name if SMTP login name is used.
CC email to	If you put an email address in this field, it will be added as a CC recipient to each email message. This is useful for including yourself as a recipient.
Read receipt email	If you put an email address in this field, the email message will be flagged as requesting a read receipt and using this email address (usually your own) as the receipt recipient.
Send email as HTML instead of plain text	Chooses if the email message is delivered in HTML format or plain text. Unless you have issues sending HTML email, it is a better option.
Send test message	Sends a test message using the current settings. Useful for testing before saving.

Email - SMTP settings - notes about Office 365

If you are using Office 365 as your mail provider, you will need to have it configured to provide the SMTP capability, and there are a number of settings you will need to get correct.

If you choose not to use encryption, Office 365 will need to be configured to use your external IP address as an authorised sender. In this case, the port is likely to be 25. This is not the preferred way to send to Office 365.

If you use encryption, the SMTP server is smtp.office365.com, the port is 587 and the encryption is StartTLS. This is the normal way to do it for Office 365.

Regardless of what you put in the sender's name and email address, Office 365 may override this with the name associated with the "SMTP login name".

A work of warning about Office 365 SMTP. It is slow sending. Very slow. When very large messages take a long time to send, or sometimes fail, this is outside of our control. It has been slowed down deliberately by Microsoft. That said, unless your messages are huge you may never notice a problem

Door entry

The various door entry options determine if values are copied from the previous door when adding a new door, and also which values are copied.

Some of the door entry options may be overridden by system preferences. See the topic [Modifying a system](#)¹¹⁶.

Key entry

The various key entry options determine if values are copied from the previous key when adding a new key, and also which values are copied.

Some of the key entry options may be overridden by system preferences. See the topic [Modifying a system](#)¹¹⁶.

Report stretching

For each type of information on reports, a pre-determined width is allocated. This gives the best balance between the various pieces of information shown. If the information cannot fit in the allocated space, in most places it will automatically stretch down the report. You may use these options to determine for each type of data if it will be allowed to stretch on the reports. If stretching is disabled for a type of data and it is not able to fit then it will be truncated on the report. Generally some types of data (e.g. System number, Door number, Lock part code) should always be allowed to stretch as truncating them makes little sense, while other types would be ok to truncate.

Default factory for new jobs

If the application parameter "Allow user preferences for factory to use on new jobs" is on, there will be 2 options available that alter the behaviour when creating jobs.

If a default factory is set for a user and the default factory set by the system type is blank, or the preference "Always use this selection as the default factory..." is checked, the factory selected here is used as the factory when creating a job.

7.7 Printer setup

ProMaster Master Keying remembers the printers you select and each time you print it automatically selects the correct printer.

By default these options are local to this computer (in a networked environment all computers need to have these settings configured).

For each printer you can also select the paper tray from which the paper will be drawn and whether to print on both sides.

Getting started

- You must be logged in.
- From the **Setup and Admin** menu, choose **Printers**.

Changing printers

There are printer for non-manufacturing related reports, and several for manufacturing related reports.

Almost all non-manufacturing reports are sent to the "Standard reports" printer.

Reports must be configured for each factory. Factory reports are sent to the "Factory reports" printer.

There are separate configurations for each label printer used by a factory (thus allowing each to have a different label size permanently loaded)

For each printer, select it then click Edit, then choose the printer you want.

Restricting printer access

There are some [Application parameters](#)⁴⁵³ that control the configuration of users.

Parameter	Description
Allow empty printer setup to print to default printer	Normally this option is on, meaning that if the report destination is not configured then ProMaster Master Keying will sent it to your default printer.
Users may select the printer for factory reports	If you turn this option off, users will be unable to configure the factory printers and a user with permissions to edit users will need to perform the configuration (See Users ⁴⁴⁸) This would not normally be done, but may be useful if you want to force a user to print to the correct printer for factory reports and never print to another printer by mistake.
Where are printer configurations stored	Normally printer settings are stored on the local machine. If you change this to be the "in the database" option then user settings are the same regardless of which computer the user logs in from, but the printers configured must be available where ever the user logs in.

7.8 Spelling preferences

ProMaster Master Keying includes a comprehensive spell checked with several dictionaries.

Getting started

- You must be logged in.

From the **Setup and Admin** menu, choose **Spelling preferences**.

Changing preferences

The options are self describing and will be familiar to Microsoft Office users. The second tab, **Language**, is where you choose the standard dictionary (E.g. English British) and where you may specify additional dictionaries including other languages, medical terms and technical terms.

7.9 Navigating and usage tips

Throughout this guide the assumption is made that you are confident using Windows, selecting menu items, clicking buttons, tabbing between controls etc.

For the sake of simplicity, this guide uses concise ways to refer to various actions. Because there are many ways to use Windows, the user is expected to perform many of these tasks in the way that they feel most confident.

Here are some examples:

Navigating menus

If this document says, Choose the menu option **System** then select **Open**, you could do this in any of the following ways:

- Click your mouse on the menu **System** then when the drop down menu appears click your mouse on the menu **Open**

Or

- Using your keyboard press **Alt-S** for the **System** menu then **O** for the **Open** menu.

Or

- Press **Ctrl-O** because that is the short cut key to perform the Open action.

Navigating windows

Moving around

The **Tab** key on your keyboard moves forward between fields.

Buttons

Click a button means; Either click the button with your mouse, or **Tab** to the button so it is the active control and press the **Enter** key on your keyboard, or **Tab** to the button so it is the active control and press the **Space Key** on your keyboard, or if there is a hot key for the button you may press that key combination.

Now that's a whole lot of different ways to use that button, but the real point here being that while the documentation refers to clicking a button, often the better way is to use the keyboard, especially if it is only a couple of key presses away from where you are. You certainly would not want to read the previous paragraph over and over again!

Check boxes

Checks boxes, may be referred to as flags or options throughout this document. They are called this because they are either on (they contain a tick or cross) or off (empty box). Tabbing onto them and using your **Space Key**, or clicking on them with your mouse changes check boxes.

Drop down lists or combo boxes

Combo boxes, or drop down lists give you a list of choice for that field. A value may be selected using your mouse, or by tabbing onto the field and using your keyboard. The key combination Alt-Down Arrow makes the list drop down. Often the fastest way to make a selection is to tab onto the combo box and press the first letter of the selection.

Default button

You may notice that many windows have one button that looks a little different to all other buttons. It may be a different colour or it may have a dark border around it. This button is called the **Default** button. The default button is operated by the **Enter** key on your keyboard from wherever you are on the window, provided that the current control does not have a use for the **Enter** key.

On some of the more complex windows with multiple buttons, you will notice that as you tab from one control to another the default button may change. The reason for this is to allow the Enter key to perform to most common action.

An example of this behaviour is all search windows.

As you tab between the criteria fields at the top of the window, the **Find** button is the default button. Pressing **Enter** actions the **Find** button.

After you action the **Find** button, and the results are displayed, you are positioned on the list so you can make your selection using the arrow keys on your keyboard. When you are on the list, the **Find** button is no longer the default button, but instead the **OK** button (or some other button) is now the default button.

This means that when you are on the list, pressing the **Enter** key will action the **OK** button and effectively choose that action on the highlighted item.

Cancel button

With few exceptions, when a window has a **Cancel** button, the **Escape** key on your keyboard will operate that button.

Learning to navigate and make selections with your keyboard rather than your mouse will dramatically improve the speed with which you operate.

Convert case

Various data entry fields support the key press **Shift-F3** that cycles case between lower-case, upper-case and title-case. This works on the whole entry if nothing is selected, or just the selected text if you have made a selection.

7.10 Searching for data

All search screens in ProMaster Master Keying have a number search parameters at the top.

Searches are performed by entering any search information you have and clicking **Find** (Or pressing **Enter** as the **Find** button is the default button when you are entering the search parameters.)


Search field modifier


After many search fields there is a modifier to control how the search is performed. It is indicated by a small graphic after the search field and the options on any particular search field may be cycled through by clicking on the image. The option for each field is enabled when the field contains something to search for, and your setting for each search modifier is remembered for future searches.

Here are the 4 search modifiers and a description:

 Search starting. The search on the field matches data that starts with the value you entered.

 Search containing. The search on the field matches data that contains with the value you entered, but not necessarily at the start.

 Search exact match. The search on the field matches data that exactly matches the value you entered.

 Search all values. The search on the field must contain each of the words you entered. The words must all exist in the matched value, but may appear in any order. This search is most often used in address searches where it is enhanced to search for all the words you enter in all of the associated address fields.

Notes

- All search parameters you enter must be met for any item of data to be considered a match, so enter enough information to refine your search, but not so much that you exclude items you want to see.
- After you perform the search, you are placed on the list of results where you can move up and down with the arrow keys then perform any action allowed on the selected item.

-
- See [Setting your preferences](#)³⁵ for information about auto find and find warnings.

Administering ProMaster Master Keying

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8

8 Administering ProMaster Master Keying

This section covers many topics related to administering ProMaster Master Keying, but not using it for producing or manufacturing master key systems. Some of the items described are specific to the **admin** user, but many items are applicable to users with appropriate permissions to perform the tasks. The topics are separated from those in [Using ProMaster Master Keying](#)¹⁰⁶, which relate to master key systems.

8.1 Database upgrades and backups

8.1.1 Database upgrades

Periodically, updates are made available for ProMaster Master Keying. These updates add new functionality and rectify anomalies.

Updates are always in the form of a setup program (PM8Update.exe) that installs a new version of the ProMaster Master Keying program and any necessary support files.

Updates **must** be installed only on the server. During the update process other users must not be using ProMaster Master Keying. When workstations log into ProMaster Master Keying subsequent to the update they will be upgraded automatically.

When the update is installed, ProMaster Master Keying is run automatically and you are taken to the **Database Upgrade Wizard**. The tasks shown in the **Database Upgrade Wizard** vary depending on the version you have installed and the previous version that was in use.

You need to know the **Admin** password to apply database updates.

The database upgrade window may also be accessed from the **Tools** menu when you are not logged in. This is necessary only if for some reason the update does not complete during its installation.

Both the installation of the update onto your server, and subsequent updates that are propagated to your workstations require administrator access to run as they write new versions of the program files on to your system.

8.1.2 Backing up your data

Regular backups are important. It is also very important that backups are transferred to separate media and then stored in a secure location away from your computer systems.

Rule: If you don't backup it up, you have to be happy to lose it.

Do not copy the database

Because the ProMaster Master Keying database may be used at any time by a ProMaster Master Keying user, you should never copy or backup the ProMaster Master Keying database directly unless you can be 100% certain that it will not be used while you are copying it.

The backup program provided with ProMaster Master Keying is more smart than a simple file copy. A backup created with ProMaster Master Keying backup program may be produced while others are using ProMaster Master Keying.

Extending on this, do not backup the database file (the FDB file and any associated files) directly with a third party backup solution. Only ever use ProMaster Master Keying Backup to produce backups, then you may freely backup the resultant files using a third party backup solution.

The ProMaster Master Keying backup program does another task that is vitally important to the health of the database while the backup is running. It is responsible for "garbage collection" in the database which eliminates old unnecessary data and therefore controls database performance and bloat. It is responsible also for recalculating index quality which is vital for maintained performance.

WARNING: Live backups made with ShadowProtect or similar when the database is in use are of limited use. The reason why is that they make a point in time snapshot of the database, but do not capture a read-consistent view of the data. If a backup made with ShadowProtect or similar is restored, there is a very good chance that it will be corrupt, and look to the database engine very much like someone pulled the power cord out of the wall. Consider this to be a expensive exercise to repair the database. ALWAYS run the ProMaster Master Keying backup program. The backup files produced by the ProMaster Master Keying backup can be captured safely by ShadowProtect etc.

Producing Backups

To produce a backup:

- Click the **Backup...** button.
- Select the **Database to backup** (most likely you have only the database called Default)
- Alter the destination **Folder** if you wish. You may choose to have the backup copied to a second folder. The backup folder must be a local drive on the server. The second folder is accessed by the backup program rather than the database engine, and may be located on a network share.
- Click the **Save settings and run backup** button.

The file that the backup creates has a FBK file extension. Should then need arise, the backup program can be used to restore this file to reconstruct your database.

In the normal operation of ProMaster Master Keying, the option **Perform database maintenance during the backup** is an important part of maintaining a healthy and efficient database. The only times you should do a backup with this option turned off is if you plan to discard the original database and immediately restore your backup, or if you need the backup to be performed as fast as possible. This option, while important, does add a small amount of time to the backup process.

The **Backup also the associated document database** option identifies the database used for storing ProMaster Master Keying documents and runs a separate backup for that database after the primary database backup is finished.

Backups can be configured to automatically zip the **FBK** file into a **ZIP** file. This is achieved by turning on the **Compress the backup** flag. Zipping a backup reduces the amount of disk storage required for the backup, but does use more disk space and time during the backup process. Be aware that there is a maximum file size for zip files. Failure to do this may result in an unusable zip file. Unless disk space is critically low, it is not recommended to use this option as it makes backups significantly slower and the backup file must be extracted in the event that it is to be restored.

The **Output additional progress and diagnostic messages** option produces messages about the various stages of backup. Many messages are produced and the backup will therefore run measurably slower. There is no need to use this option unless instructed to by ProMaster Master Keying support staff.

Copy the backup to somewhere else

Backup files (either those with a **FBK** file extension or the zipped backups with a **ZIP** file extension) should be copied off your computer onto separate media. Backups should then be stored according to good business and computing practice to safeguard your data investment.

The cost of producing permanent backups is extremely small compared to the cost of re-entering data.

Restoring Databases

The process of restoring a backup to produce a working database will not overwrite an existing database. If it is your intention to replace your database by restoring a backup you must first locate your existing database and rename it.

To restore a backup:

- Click the **Restore...** button.

- Choose what you are restoring (main database, document database or both)
- Click the **Select...** button, and select the backup file (the FBK file) for database, document database or both. If you zipped the backup, you must first extract the backup files from the zip archive (using WinZip or similar).
- Select the destination **Database to restore** (most likely you have only the environment called Default)
- Click the **Save settings and run restore** button.

The **Output additional progress and diagnostic messages** option produces messages about the various stages of restore. Many messages are produced and the restore will therefore run measurably slower. There is no need to use this option unless instructed to by ProMaster Master Keying support staff.

Configure Auto Backup

In the ideal world you would create daily backups.

ProMaster Master Keying Backup can be configured to:

- Backup multiple databases.
- Backup to one location and produce a copy of the backup at another location (e.g. another computer).
- Delete backups older than a given number of days (default 14).

To configure automatic backups:

- Click the **Settings...** button.
- Tick the **Database environment(s)** to be backed up.
- Click the **Select Folder...** button to choose the destination folder for the backups. This must be on a local disk.
- If you wish, check the option **After the backup is created, copy it to the folder below** and click the corresponding **Select Folder...** button to choose the destination folder copy the backup to. Be aware that the backup process must have access to this location, so there is no point in choosing a remote folder that you can see when logged in as a user unless the scheduled backup process is also able to access that folder.
- Set the options. See the notes earlier about backup options.
- There is one additional option for the auto backup - **Recalculate index selectivity**. This option should be left on as it is responsible for maintaining database optimisation. It adds a small amount of time to the backup.
- Choose how long you want to keep backups. There are separate settings for the backup folder and the "copy to" folder. It is highly recommended that you keep a reasonable number of backups, perhaps 14 days. If you don't have enough disk space, get more.

Email

If you want an email notification after the scheduled backup has run, use the settings on the Email tab.

You may need to check with your mail administrator for the settings, and as there is a variety of mail servers in use, each with different characteristics, you may need to experiment a bit to get it right.

Option	Description
Server	The name or IP address of your mail server.
Port	The port on your mail server that receives the email.
Login name	If your mail server uses login based authentication, enter your mail login name.

Password	If your mail server uses login based authentication, enter your mail login password.
Encryption	Choose if you use an unencrypted mail connection and how the encryption works.
Sender's name	The name of the person to appear as the sender.
Sender's email	The email address of the person to appear as the sender. Some mail servers require the sender email to be the same as the SMTP login name if SMTP login name is used.
Sent to	Put in the email recipients, one per line.
Test	Sends a test message using the current settings. Useful for testing before saving.

Email - notes about Office 365

If you are using Office 365 as your mail provider, you will need to have it configured to provide the SMTP capability, and there are a number of settings you will need to get correct.

If you choose not to use encryption, Office 365 will need to be configured to use your external IP address as an authorised sender. In this case, the port is likely to be 25. This is not the preferred way to send to Office 365.

If you use encryption, the SMTP server is smtp.office365.com, the port is 587 and the encryption is StartTLS. This is the normal way to do it for Office 365.

Regardless of what you put in the sender's name and email address, Office 365 may override this with the name associated with the "Login name".

Run

If you want to run a program after the backup completes, turn on the "Run" option and select the program to run.

The name of the file created from the backup (fbk or zip) is passed to the program as the first parameter and if a document database backup was created then that file name (fbk or zip) is passed to the program as the second parameter.

Schedule

- If you want to configure **Windows Scheduled Tasks** to start your backup each night, click the button **Schedule Auto Backup...**
- If you want to add the scheduled task yourself, the command to run is shown in the yellow area at the bottom of the settings.
- Finally, click **Save** to save your settings for **Auto Backups**.

Configuring Windows Scheduled Tasks

If you wish, you may access **Windows Scheduled Tasks** via your Start button and schedule the program **PM8Back.exe** to run at a time of your bidding. If you do that, be sure to start **PM8Back.exe** with the command line parameter **-auto**

Or, take the easy way. When you click on the button **Schedule Auto Backup...**, ProMaster Master Keying Backup allows you to schedule the backup in your Windows Scheduled Tasks. To do this:

- Enter the Windows login of the user who will perform the backup. Usually on a domain this will be in the form of MYDOMAIN\Administrator.
- Enter the time each day that the backup is to run. This should be started at a time such that it will have completed before your off-site backup solution kicks in and backups the backup files produced by ProMaster Master Keying Backup.

- Turn on the flag to enable the backup.
- Click **OK** to save the schedule.
- You will be prompted for the password for the Windows user account. The password is verified against the computer or domain and on success the schedule is saved.

If you wish to configure Windows Scheduled Tasks manually, consult your Windows documentation or Computer Consultant for information on how to configure your version of Windows for this task.
Your computer must remain on for Windows to be able to schedule tasks.
 Here's a simple rule: **No power = No backup.**

Just like with a backup file that you create interactively, the backups produced when your schedule software starts the ProMaster Master Keying Backup program should be copied to external media for safe keeping.

SCHEDULED TASK USER ACCOUNT

It is strongly recommended that you create a Windows user specifically for running the backup and use that user for no other purpose. The user will need to have permissions to log on to run a batch job, and will need permissions to the folders where the backup files are produced (including delete permissions so old backups can be removed). If you do this, make sure the account password is secure and never expires. It is all too common for users to configure scheduled tasks with an account, such as their own login then at some time in the future change their password. After that the backups will not run as scheduled task no longer has permissions to run.

Security

For security reasons, the ProMaster Master Keying Backup program will not allow you to backup a database located on another computer. i.e. The backup must be performed on the server where the database is located.

Always test your scheduled backup by opening your Windows Scheduled Tasks and choosing to run the task immediately and verify that the backup files are produced. Check the task options to ensure that they make sense and that the task will run even if a user is not logged in.

8.2 Configuring

8.2.1 Users

For each person who uses ProMaster Master Keying you should create a user account.

Each person then has their own login name and password, and ProMaster Master Keying tracks information about who performed changes and restricts individual user access to functionality based on the access rights that you have defined.

Initially the admin user must configure user accounts, but you may (although not necessarily should!) give a user the ability to configure user accounts.

You may create as many user accounts as you wish. ProMaster Master Keying restricts the number of concurrent users allowed by your license, but not the overall number of users that you define.

Any user that has performed activities is not able to be removed (but can be made inactive).

Getting started

- From the **Setup and Admin** menu, select **Users**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your users.
- If you have defined the [Application parameter](#)^[53] "Where are printer configurations stored" to be "Store per-user in the database" then you can right click on a user to define the printer to be used for factory

reports. Generally printers are left under the control of the user and the application parameter for this should be changed only if you want to tighten control over the print location for factory reports.

An explanation of the options

Enter the user's **first names** and **last name**. These appear in various place and are fundamental to tracking activity on a user-by-user basis.

- Enter a unique **login name** for the user. How you chose the login will depend on the size of your organisation, but here are some examples: jb, joeb, joe.b, bloggs.j
- If you want the user to be authenticated against your Windows domain, enter the Windows Logon to which this ProMaster Master Keying logon corresponds.

If you do not enter a **Windows Logon** then ProMaster Master Keying manages its own logon security. If you enter a **Windows Logon** for the user, then when you log onto ProMaster Master Keying the password you enter is authenticated with your Windows Security Provider as a match to the **Windows Logon** name. The format for the **Windows Logon** allows all the normal Windows syntaxes (e.g. JoeBloggs, MYDOMAIN\JoeBloggs, JoeBloggs@MYDOMAIN, JoeBloggs@MYDOMAIN.local etc). Because the **Windows Logon** is authenticated with your Windows Security Provider then any password policies you have in place will apply to the user.

- The after hours phone and email are optional.
- When you create a user, the **Active** flag should be on. You can disable a user at any time by editing that user and removing the Active flag.

Security

Each user belongs to a security group. Security groups control the activities that a user can perform. See [Security groups](#)⁴⁹ and [Security categories](#)⁵² for more information.

Branch

You may define branch addresses and associate an address with a user. See [Branch addresses](#)⁵⁴ for more information.

8.2.2 Security groups

Security groups control the permissions, or what is allowed for each user. Each user belongs to a single security group. While it is possible to create separate security groups for each user, it is more manageable to create security groups around classes of user and use each security group for any applicable users.

The security group **All** is pre-defined and not editable. It has all permissions, so be sure to use it carefully!

Getting started

- From the **Setup and Admin** menu, select **Security groups**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your security groups.

An explanation of the options

- Select the permissions that the members of the security group are allowed.

Permissions are grouped by program area (Setup, Client etc).

Description of permissions

Note that in some situations, ProMaster Master Keying checks more than one permission and often in conjunction with application parameters and license options. Some tasks may be permitted by more than one permission (Edit a client on the currently open system checks "Setup clients" or "Edit the client on the open system") and others may require a combination of permissions (Change the TMK on a system requires "Coding" and "Access restricted coding features")

Permission	Description
Group: Setup	
Setup company and associated data	Allows setup of company information, branch addresses, company logo on reports
Setup users and user security	Allows setup of users, security groups, security categories.
Setup general administrative settings	Allows setup of factories, lockshops, keying types
Setup application parameters	Allows application parameters to be altered.
Setup templates	Allows the user to design templates for importing and exporting to Excel. Allows configuration of templates such as registration form instructions.
Setup locks and cylinders	Allows setup of locks and cylinders and door hardware.
Setup marker models	Allows configuration of the relationship between marking models and key sections when manufacturing on the Silca Marker 2000.
Setup system types	Allows setup of system types.
Setup design parameters (Key sections, keyways, key head colours)	Allows setup of key sections, key head colours.
Import and maintain lists for restricted design modules	Allows lists to be imported and maintained if you have an applicable design module registered.
Export parameter data (CSV)	Allows various types of data to be exported including locks, door hardware, key colours, keying types, lockshops (manufacturers only), clients, factories, branch addresses
Group: Client	
Setup clients	Allows clients to be created, altered etc. Allows system signatories to be converted to a client signatory.
Group: System	
Open systems	Allows systems to be opened. Required for pretty much everyone unless the user is for admin purposes or used only for "Manufacture job".
Open high security systems	Required for the user to open systems marked as high security. Normally most users would have this permission and most systems would be marked as high security. Low security systems and users should be used for low-end master keys systems only. Without this permission, any systems created by a user are marked as low security. User must have "Open systems" also to be able to open systems.
Open unsecured systems as well as those secured by security categories	Allows unsecured systems to be opened as well as those with a security category. Without this permission all systems that the user creates/edits must have a security category assigned.
Open systems based on its design	Allows key section and key code to be used when searching for a system. Allows the option "Only systems with pending jobs and that require coding" when searching for a system.

Create systems	Allows systems to be created. Also allows many of the system exiting functions (keys, doors, keying etc). Allows system to be created from Excel. Allows system duplicate.
Modify systems	Allows systems to be modified. Also allows many of the system editing functions (keys, doors, keying, snapshot etc). Allows alerts to be acknowledged. Set automatically when you turn on "Create systems" or "Import systems"
Edit the client on the open system	Allows the client for the currently open system to be altered. Allows system signatories to be converted to a client signatory.
Edit signatories	Allows signatories to be added and altered. Allows signatory to key/door authorities to be altered. Allows client signatories to be added and altered if the user has client permissions.
Delete systems	Allows system to be deleted.
Export systems	Allows systems to be exported (To other users or to Excel)
Import systems	Allows systems to be imported. (From other users or from Excel)
Rename a system when importing it	When importing a system, if the system number is used by an existing system, this permission allows the user to rename the existing system and also convert the existing system to a snapshot.
Omit the lock from a door	Allows the user to create doors without a cylinder or lock.
Export system information to CSV files	Allows system export of doors, keys, keying to CSV.
Print system reports	Print all types of system reports.
Change system security	Allows the user to set security categories on a system.
Change system special features	Allows a door number to be altered after the door is manufactured. Allows key and door issue quantities to be altered.
Group: Coding	
Coding	Allows access to coding. Allows key code and door pinning reports for checking coding. Allows pinning notes to be seen and edited on doors. Allows pinning notes to be imported when importing doors from a CSV file. Allows doors to be assigned to a key when it is being replaced (normally keying is copied to the new key and removed from the replaced key).
Delete the system coding design unless jobs exist	Allows the user to delete the system design when there are no jobs (other than jobs in the "entering" status).
Delete the system coding design including when jobs exist	Allows the user to delete the system design regardless of whether there are jobs or not.
Change the key code for cut keys	Enables the ability in coding to alter the code on a key that has been used by a job. Note that with this permission, the user must turn on the feature each time required in the coding screens.
Access restricted coding features (e.g. change TMK code)	Allows the user to change the TMK for a system after the design has been created. Allows the user to use the "Change a constant position" to alter all keys in a system on applicable design modules.

	Allows the user to use the "Change key sections" to alter all keys in a system on applicable design modules. Allows the system type to be altered (to a compatible one only) after the system design has been created.
Access advanced coding features (e.g. create overlapping progressions)	Allows the user to create progressions in the coding tree that "overlap". Without this permission each chamber in the lock is used for a single purpose.
Group: Job	
Create and edit jobs	Allows jobs to be created or edited. Allows jobs to be imported from ProMaster Key Manager.
Order obsolete product	Allows the user to order a lock product that is obsolete (marked as inactive).
Manufacture jobs	Allows the option to open jobs for manufacturing (can be used in a factory where other permissions are not granted). Allows jobs to be manufactured from the jobs screen. Allows configuration of machines for manufacturing.
Change a job after it is released	Allows the user to change the status of a job from "Manufacturing" to "Entering" so changes may be made to the job. Allows the user to change the status of a job from "Complete" to "Manufacturing" if permitted by the Application parameters ⁵³ . Allows the invoice number to be edited on a job when it is "Manufacturing" or "Complete" Also allows the print status of a job to be toggled when the job is in "Manufacturing". Allows a key or door to be removed after it is ordered and manufactured.
Group: Admin	
Export data	Allows systems analysis export Allows export of the list when searching for systems.
Print admin reports	Print all types of admin reports.
Design labels (everyone) and reports (requires custom reporting license)	Allows the user to design label layouts for manufacturing output to label printers. If ProMaster Master Keying is licensed for the end user report writer, it also gives the user permissions to design reports.
Group: Publishing	
Configure publishing	Allows ProMaster Master Keying to be configured as a publisher, thereby allowing devices to be configured.
Configure publishing devices	Allows devices to be created ready to receive jobs. If you have configured publishing to be restricted by factory or system type then this allows those device configurations also.
Publish jobs to devices	Allows jobs to be sent to devices from the job manufacturing screen.

8.2.3 Security categories

Security categories control access to particular systems by tying systems to security groups. If a system is linked to one or more security category, to be able to access the system the user must belong to a security group that is linked to at least one of those security categories.

Getting started

- From the **Setup and Admin** menu, select **Security categories**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your users.

An explanation of the options

- For your security category, choose the security groups that belong to the category.

The systems associated with the security category are shown but not editable. The relationship between a system and security category is controlled by the system.

8.2.4 Application parameters

Application Parameters define some program behavioural characteristics that are set by the **admin** user and are common to all users.

Getting started

- From the **Setup and Admin** menu, select **Application parameters**
- Expand or collapse branches of the tree by clicking on the **[+]** or **[-]** buttons beside the folders.
- **Double Click** on the item that you want to change, make your change and click **OK**.
- When you have finished making changes, click **Save** to make them permanent.

Notes

- Items set to their default value are indicated by the empty page icon.
- Items that have been altered are indicated by the lined page icon.
- An item you have changed and is not yet saved is indicated with a disk icon.
- To reset an item to the default value, highlight the item and press Shift+Ctrl+Alt+Delete.
- Changes are not seen by other users until they log out then log in again.
- Right click on an item to see a menu of other functionality.
- Users of earlier versions of ProMaster Master Keying will notice that there are significantly fewer options than in the past. This is because wherever possible the parameters have been move to more accessible and more applicable locations such as System Types, User Preferences etc.

Unless you know the application parameter you require, it is usually beneficial to search for some text in the parameter you are looking for. Use **Ctrl-F** to **Find** and **F3** to **Find next**.

8.2.5 Company information

Company information is displayed on the header or reports.

The company name is entered and fixed by your registration information, but you may enter address information and phone numbers.

Getting started

- From the **Setup and Admin** menu, select **Company information**

Editing company information

- Enter a address, contact name, email, telephone and fax numbers.
- Click **OK** to save.

8.2.6 Company logo for reports

You may include a small graphic in the top left corner of reports, or replace the entire company portion of report headers with a full width logo.

Getting started

- From the **Setup and Admin** menu, select **Company logo for reports**
- Choose the **Standard Image** tab for small graphic in the top left corner of reports or the **Full Width Image** tab for the logo that replaces the replace the entire company portion of report headers.

Changing the logo

- Click **Load logo** to select your graphic file.
- If you have a logo load and you no longer want to use it, clear it by clicking **Remove logo**.
- Click **OK** to save.

Notes

- The logo must be a png file. If you have a graphic in another format, you must first convert it (using a graphics editing application) to a png file.
- The small logo is rendered on the reports in a 25mm x 25mm square.
- The full width logo is rendered on the report 190mm wide for portrait reports and 277mm wide for landscape reports.
- Because the small logo is rendered in a square, you must ensure that your graphic is square (I.e. the height and width dimensions must be the same)
- The absolute number of pixels in your graphics file will determine the quality of the rendered image. Consider about 300 dpi to be satisfactory quality in which case the graphics file needs to be about 300 pixels high and 300 pixels wide.
- Change the [Application parameters](#)⁵³ **Report header style** under **Reports** to specify no logo, small log or full width logo.

Making your graphics file excessively large will not result in a noticeable quality improvement, but will have an adverse impact on performance, particularly in printing speed and the size of any PDF files produced.

8.2.7 Branch addresses

Branch addresses may be associated with users and controls the information that appears on report headers when that user is logged in.

Getting started

- From the **Setup and Admin** menu, select **Branch addresses**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your addresses.

After adding an address you likely will assign it to a user. See [Users](#)⁴⁸.

An explanation of the options

- The description is for identification purposes - it does not appear on printouts.
- Other address fields are used on report headers for linked users instead of the main company address.

8.2.7.1 Importing branch addresses from a csv file

If you have a CSV file with branch information you can import this data.

Read the topic [Branch address import \(CSV\) file format](#)¹³¹⁸ for more information on the file contents allowed.

The **name** field in the import is matched to existing values to determine if the branch address is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Branch addresses**

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.2.8 Change registration

Your registration information contains the license details for design modules, features, users etc.

Registration information is changed when you purchase additional features or users, and also when you renew support and maintenance.

Getting started

- You must be logged in as the **admin** user
- From the **Setup and Admin** menu, select **Change registration**
- The **Current registration** tab shows details of the registration currently being used by the database.
- Paste your new registration into the **Enter registration** tab.
- After pasting your new registration, the **Preview** tab is available to see the contents of the new license.
- Click **OK** to save.

If your ProMaster Master Keying is registered and activated, the **Fetch latest registration** button is available and will retrieve the latest registration from the WH Software Limited activation site. This is useful when support and maintenance is renewed or design modules or users added.

8.2.9 Configuring document storage

When ProMaster Master Keying is installed, it creates 2 databases. The first (PM8.fdb) is all of your data except for documents. The second (PM8DocStor.fdb) stores all documents (See [Documents](#)¹³²)

The reason why the data is split in this way is that the document storage can become huge, and is way less important than the other data, and by splitting the database the logistics of backups, optimisation etc can be better managed.

Or put another way, the data is split into 2 databases because that is the best way to store it.

It is possible to change the way documents are stored, but it is best to seek technical advice before doing this.

Really, there is no good reason for ever doing any of this - the ProMaster Master Keying installation already did the best thing!

DON'T MAKE ANY CHANGE BECAUSE YOU FEEL LIKE HAVING A PLAY WITH IT. SEEK GUIDANCE FROM WH Software Limited FIRST.

Getting started

- You must be logged in as the **admin** user
- From the **Tools** menu, select **Configure DocStor database**

An explanation of the options

Option	Description
Repair DocStor connection alias	The connection alias for the DocStor is stored inside the main database. It must follow the naming convention as such: Main database = PM8

	DocStor database = PM8DocStor' I.e. The docStor connection must be the name of the main connection followed by 'DocStor'. This must be configured in databases.conf and must be correct inside the main database. This checking is enforced to stop mistakes that result in documents being lost.
Create a DocStor database if it does not already exist	This option is used to create the document database (usually called PM8DocStor.fdb). The database engine must be configured with the appropriate information to know where to create the database, and this generally requires technical assistance. If the database already exists, this option will not overwrite it.
Move all internal documents to the external DocStor database	All documents stored in the main database are copied to the document database and then removed from the main database. If the document database does not exist, this option will report an error and not proceed. Note: The main database will not reduce in size (although the space previously used by the documents will be reused). A database backup and restore is required to shrink the database.
Move all external documents from the DocStor database to the internal storage and remove the reference to the DocStor database	This is the opposite of the option above. All documents stored in the document database are copied to the main database and then removed from the document database. The actual database file for the document database (PM8DocStor.fdb) is not removed from your computer, but it is no longer referenced.

The second and third options can take some considerable time (perhaps hours) to run if your database is large. You must plan downtime to perform these tasks.

- After making a selection, click the **OK** button to proceed.

Never run this process while other users are using ProMaster Master Keying. Run this process only after you have discussed it with WH Software Limited support staff.

8.3 General parameters

8.3.1 Keying types

Keying types serve three purposes. They:

- Provide a way for you to classify a system according to how it is keyed. This is important for organisations who see master-key systems in terms of Master-Keyed, Grand Master Keyed, Keyed Alike, Keyed To Differ etc.
- Control if a system is construction keyed or not (applicable only to design modules that support lost ball construction keying)
- Control whether or not a TMK will be checked to locate duplicates when you are creating a system design.

Getting started

- From the **Setup and Admin** menu, select **Keying types**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your keying types.

An explanation of the options

- Each code may appear only once
- Each keying type description may appear only once.
- Choose if the keying type is for construction keyed systems. Do not change this setting after creating systems using the keying type.

The application parameter **Default keying type for new systems** is used to pre-select a keying type when you create a system. For users who do not require keying types (other than for creating construction keyed systems), this application parameter should be set.

8.3.1.1 Importing keying types from a csv file

If you have a CSV file with keying type information you can import this data.

Read the topic [Keying type import \(CSV\) file format](#)³²⁸ for more information on the file contents allowed.

The **ref** field in the import is matched to existing values to determine if the keying type is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Keying types**

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.2 Factories

Factories model the practical scenario of manufacturing jobs in more than one location. If you make all your jobs on the bench at your only shop, then the default factory called **Workshop** is all you will need.

If however you run two shops, and you may manufacture product for master key systems at either location, then right away you can get a benefit in defining a second factory to represent the second shop. In this scenario you may wish to rename Workshop to the actual name of your first shop.

Another example where defining additional factories will benefit is if you have a mobile unit who will manufacture and install a job. Set the mobile guy up as a factory, being sure to include his mobile email address when entering the factory. Now, when you enter a job in ProMaster Master Keying, select the mobile guy as the factory. Now you now have a record against the job saying where the job was manufactured.

Getting started

- From the **Setup and Admin** menu, select **Factories**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your factories.

Other functionality

Click the **Options** button then **Export csv** to export the data to a csv file. See [Exporting parameter data to a csv file](#)¹⁰⁴.

Click the **Options** button then **Import csv** to import data from a csv file. See [Importing factories from a csv file](#)⁶⁰.

An explanation of the options

- Internally ProMaster Master Keying knows if it a factory you created or if it is imported from another user when importing a system file.
- Each factory name may appear only once (Although if you import systems from another ProMaster Master Keying user they may have a factory with the same name).
- If a factory is marked as inactive it may not be selected for a new job.

8.3.2.1 Importing factories from a csv file

If you have a CSV file with factory information you can import this data.

Read the topic [Factory import \(CSV\) file format](#)^{D326} for more information on the file contents allowed.

The **name** field in the import is matched to existing values to determine if the factory is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Factories**

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3 Locks and cylinders

Locks and cylinders are combined into a central search screen, which in turn accesses the lock or cylinder by the corresponding screen.

Cylinders are the keyed component for the door, whereas locks are the locking mechanism operated by a cylinder. Whether you use only cylinders or locks and cylinders depends on how you operate.

Each lock may have cylinders specified for each system type (See [System types](#)^{□91}) for external, internal, or double usage (In many cases it will be only an external cylinder specified).

Cylinders have a different set of properties that relate to how it operates (E.g. Core type, part type, driver pins, axes).

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**

Making a change

- Use the **Add cylinder**, **Add lock**, **Remove** and **Edit** buttons to set up your locks and cylinders.
- See [Entering locks](#)^{□62} for information on locks.
- See [Entering cylinders](#)^{□62} for information on cylinders.

Other functionality

Right click a lock or cylinder and choose **Duplicate** to add another item with the fields (except part code) copied from the selected item.

Right click a lock and choose **Copy cylinders from this lock to other locks** to do as it says. See [Copy lock cylinders](#)^{□64}.

Right click a cylinder and choose **Copy driver pins from this cylinder to other cylinders** to do as it says. See [Copy cylinder driver pins](#)^{□65}.

Right click a cylinder and choose **Cylinder sub assembly** to edit sub assembly information for the cylinder. See [Cylinder sub assembly](#)^{□72}.

Right click a lock or cylinder and choose **Remove this lock or cylinder and replace it with another lock or cylinder**. See [Replace lock](#)^{□65}.

Right click a lock or cylinder and choose **Usage report** to see where a lock or cylinder is used. See [Lock usage](#)^{□168}.

Click the **Options** button then **Bulk change** to allow easy changes to all the locks and cylinders returned by your search. See [Bulk change locks](#)^{□63}.

Click the **Options** button then **Export csv** to export the data to a csv file. See [Exporting parameter data to a csv file](#)^{□104}.

Click the **Options** button then one of the 6 **Import csv** options to import data from a csv file. See [Importing locks from a csv file](#)^{□65}, [Importing cylinders from a csv file](#)^{□69} and other surrounding topics.

8.3.3.1 Entering locks

This topic describes locks. See also [Entering cylinders](#)⁶².

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**
- Click **Add lock** to add a new lock.

Explanation of data fields

Data field	Description
Part code	The part code for the lock. Required and must be unique.
Description	A description of the lock. Required.
Item number	Used as an alternative search field, primarily in manufacturing environments where the part code is a common name that refers to a longer item number.
Brand	The brand of this product. The selection may be made from the drop down list of brands used on other products. Required.
Finish	A brief description of the finish. E.g. NP, SCP etc.
On the job parts list, this lock part code includes cylinders	If turned on, it indicates that this is a lock with a cylinder supplier, so when generating parts lists and lock usage reports the association between the lock and cylinders is not used. Normally this would not be used.
All details for this lock are complete	A flag that allows you to indicate if they have full details about this lock or not.
Image	The lock image can be loaded from a file, linked to the image used by another lock or scanned. Basic editing capabilities are provided. See also Image editor ³⁶ .
Cylinders	The Cylinders tab holds information about the relationship between this lock and cylinders that may be used with the lock. The cylinders are shown for each of your system types. Select the part codes for the external, internal or double cylinders for each system type as appropriate. See Copy lock cylinders ⁶⁴ to learn about configuring one lock's cylinders then copying that to other locks. See also Importing lock cylinders from a csv file ⁶⁷ as it may be easier to generate the relationship data externally and then import it.

8.3.3.2 Entering cylinders

This topic describes cylinders. See also [Entering locks](#)⁶².

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**
- Click **Add cylinder** to add a new cylinder.

Explanation of data fields

Data field	Description
Part code	The part code for the cylinder. Required and must be unique.

Description	A description of the cylinder. Required.
Item number	Used as an alternative search field, primarily in manufacturing environments where the part code is a common name that refers to a longer item number.
Brand	The brand of this product. The selection may be made from the drop down list of brands used on other products. Required.
Finish	A brief description of the finish. E.g. NP, SCP etc.
Style	The cylinder style. E.g. Euro, Rim. This field is used in manufacturing for sorting cylinders.
Core type	Normally this is set to "Standard or none". If the cylinder is a removable core cylinder for one of the types listed in the drop down list, choose the correct one. This field is used by a few design modules, and when applicable is essential to calculating the correct cylinder pinning. See Cylinder core types ³⁴³
Part type	Select "Cylinder" for single keyway cylinders or "Double cylinder" for cylinders with 2 keyways (E.g. double sided Euro profile cylinder)
All details for this cylinder are complete	A flag that allows you to indicate if they have full details about this cylinder or not.
Driver pins	A number of pin tumbler based design modules use the driver pins to decide which driver pin to use for each stack height (bottom pin + master pins). If your cylinder is used by this type of locking system, specify the name of the counter pin for each stack height. Leave any non-applicable stack heights empty. Some design modules will use this information for some locks systems and for other lock systems the rules are incorporated into the calculation. If a design module uses this information and it is not available, then pinning charts, on screen pinning and some other areas will not show counter pins. See also Copy cylinder driver pins ⁶⁵
Which axes does the cylinder use	Normally this is unimportant. For example, an inline cylinder has a single axis, that axis is always used and there are no options. For Abus XY14, Axis a and Axis 2 must be set correctly as this determines if pinning is calculated as X14, Y14 or XY14.
Image	The lock image can be loaded from a file, linked to the image used by another lock or scanned. Basic editing capabilities are provided. See also Image editor ³³⁶ .

8.3.3.3 Bulk change locks

Bulk change is a process where you can make the same change to a few or even many items in a single operation. It is particularly useful for achieving consistency in brand names, finishes etc.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a lock or cylinders. Bulk change acts on the locks and cylinders returned by your search.

- Click **Options** then choose **Bulk change**.

General

- Within this window, the change select is applied only to the items that are checked.
- You can check and uncheck items individually or right click and use the various selection options.
- You can make as many different changes in this window as you want before saving.
- Changes are stored in memory and saved only when you click OK, so if you stuff it up then you can cancel and start again.
- Any item that has been changed displays a graphic next to the check-box.
- If you want each value that has been changed, right click the list and choose **Show changed values**. Then a flag graphic is shown next to all changed values.

Making a change

The bulk change process is:

- Use the data type list to select the type of change you want.
- The options for that change are shown. Enter the new information for your change.
- Ensure that the correct items are selected, selecting or deselecting them as necessary.
- Click **Apply change**.

You may repeat those 4 steps as many times as you need.

When you have finished, click **OK** to save the changes.

8.3.3.4 Copy lock cylinders

Instead of selecting cylinders for each lock which would be a huge job, you can get one lock right then copy the cylinders to other locks.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a lock.
- Right click on a lock and choose **Copy cylinders from this lock to other locks**.

Using the wizard

- The lock is shown. You can click **Details** to check it before proceeding then click **Next**.
- On the **Destination locks** page, choose the locks to which the cylinders will be copied. Click **Select** to search for locks to add to the list, or if you have a document that contains part codes (1 per line) you can copy the part codes to the clipboard and load them into the destination locks list by clicking **Paste from clipboard**.
- After selecting the destination locks, click **Next**, review the task and click **Finish** to apply the changes.

8.3.3.5 Copy cylinder driver pins

Instead of entering driver pins on each cylinder which would be a huge job, you can get one cylinder right then copy the driver pins to other cylinder.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a cylinder.
- Right click on a cylinder and choose **Copy driver pins from this cylinder to other cylinders**.

Using the wizard

- The cylinder is shown. You can click **Details** to check it before proceeding then click **Next**.
- On the **Destination cylinders** page, choose the cylinders to which the driver pins will be copied. Click **Select** to search for cylinders to add to the list, or if you have a document that contains part codes (1 per line) you can copy the part codes to the clipboard and load them into the destination cylinders list by clicking **Paste from clipboard**.
- After selecting the destination cylinders, click **Next**, review the task and click **Finish** to apply the changes.

8.3.3.6 Replace lock

This process allows you to remove a lock or cylinder that is used by doors and replace all occurrences or it with a different product.

Typically this would be done if you have the same item entered twice with slightly different part codes and you wish to remove the incorrect one.

This operation can change a lot of data. Use extreme caution.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a lock or cylinder that you want to remove.
- Right click on a item and choose **Remove this lock or cylinder and replace it with another lock or cylinder**.

Making a change

- Click **Select** to choose the replacement item
- You must enter the specified text before proceeding.
- Click **OK** to replace the item.

There is no undo. When you type the confirmation text and click **OK**, the old lock or cylinder is gone and all doors using it are affected.

8.3.3.7 Importing locks from a csv file

If you have a CSV file with lock information you can import this data. See also [Importing cylinders from a csv file](#)⁶⁹.

Read the topic [Lock import \(CSV\) file format](#)³⁰ for more information on the file contents allowed.

The **part code** field in the import is matched to existing values to determine if the lock is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import locks csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.8 Importing lock cylinders from a csv file

If you have a CSV file with lock cylinder information you can import this data.

Read the topic [Lock cylinder import \(CSV\) file format](#)³³¹ for more information on the file contents allowed.

The combination of **part code + position + part type** fields in the import is matched to existing values to determine if the relationship is new (and therefore will be added) or existing (and therefore will be updated to the new information).
The **part code** must exist as a lock.
The **cylinder part code** must exist as a cylinder or double cylinder.
The value for **part type** determines which relationship is set, and the value for **part type** must correspond to the part type of the **cylinder part code**. E.g. The part type may not be "D" when the cylinder part type is "Cylinder", Etc.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import lock cylinders csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.9 Importing lock pictures from a csv file

If you have a CSV file with lock picture information you can import this data.

Read the topic [Lock picture import \(CSV\) file format](#)³³¹ for more information on the file contents allowed.

The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderPicture** (I.e. The same folder used for cylinder pictures)

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import lock pictures csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.10 Importing cylinders from a csv file

If you have a CSV file with cylinder information you can import this data. See also [Importing locks from a csv file](#)⁶⁵.

Read the topic [Cylinder import \(CSV\) file format](#)³²⁰ for more information on the file contents allowed.

The **part code** field in the import is matched to existing values to determine if the cylinder is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import cylinders csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number,

heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.11 Importing cylinder driver pins from a csv file

If you have a CSV file with cylinder driver pin information you can import this data.

Read the topic [Cylinder driver pin import \(CSV\) file format](#)³²² for more information on the file contents allowed.

The combination of **part code + stack height** fields in the import is matched to existing values to determine if the driver pin is new (and therefore will be added) or existing (and therefore will be updated to the new information).
The **part code** must exist as a cylinder or double cylinder.
There is no harm done by importing driver pin data for cylinders where it is meaningless, but if you are creating data externally for import then generally care should be taken to exclude meaningless data.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import cylinder driver pins csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not

correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.12 Importing cylinder pictures from a csv file

If you have a CSV file with cylinder picture information you can import this data.

Read the topic [Cylinder picture import \(CSV\) file format](#)³²² for more information on the file contents allowed.

The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderPicture**

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import cylinder pictures csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.13

Cylinder sub assembly

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

Cylinder sub assembly allows each cylinder to have any number of sub components, an image and a video URL. The information is included in pinning charts, parts required and on-screen pinning.

For any cylinder, the sub assembly information is specific to a [System type](#)⁹¹. If a cylinder is used by more than one system type then information is required for each system type.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a cylinder.
- Right click on a cylinder and choose **Cylinder sub assembly**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your cylinder sub assembly information.
- When you click **Add**, you will then be asked to choose the system type you want, and then taken to the editor for adding components.

Other functionality

Right click a sub assembly line for a system type and choose **Duplicate** to add the same information to another system type.

Click the **Options** button then **Item types** to set up your categories (Core, Housing Etc.). This should be done before setting up sub assembly information for a cylinder.

The list will be small, and once done it is unlikely that you need to alter it as it is used for all cylinders and all system types.

Click the **Options** button then **Export csv** to export the data to a csv file. See [Exporting parameter data to a csv file](#)¹⁰⁴.

Click the **Options** button then **Import cylinder sub assembly csv** to import the sub assembly parts from a csv file. See [Importing cylinder sub assembly from a csv file](#)⁷³.

Click the **Options** button then **Import images csv** to import the sub assembly images from a csv file. See [Importing cylinder sub assembly images from a csv file](#)⁷⁵.

Click the **Options** button then **Import video URLs csv** to import the sub assembly video links from a csv file. See [Importing cylinder sub assembly video URL from a csv file](#)⁷⁶.

The cylinder sub assembly editor

- Use the **Add**, **Remove** and **Edit** buttons to assign the components required.
- Each component may appear only once.
- For each component you specify the part code, quantity, and optionally a location (where it is in your factory)
- You may load an image in the same manner as for lock and cylinder images.
- A video URL is provided and if used is available when using on-screen pinning.
- Notes may be recorded.

Setting up sub assembly components for a large number of cylinders is a cumbersome process. It is recommended that you set up one or two for play purposes, then when you want to do the bulk of it, start by exporting the information, then create the CSV files externally based on the exported files, then when you are ready, use the import functions to bring it back into ProMaster Master Keying

8.3.3.14 Importing cylinder sub assembly from a csv file

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

If you have a CSV file with cylinder sub assembly information you can import this data.

Setting up cylinder sub assembly information is time consuming, and it would be rather crazy to enter the data in to ProMaster Master Keying manually, so the import is the best way.

Read the topic [Cylinder sub assembly import \(CSV\) file format](#)³²³ for more information on the file contents allowed.

The combination of **part code + system type + component type** fields in the import is matched to existing values to determine if the information is new (and therefore will be added) or existing (and therefore will be updated to the new information).
The **part code** must exist as a cylinder or double cylinder.
The **system type** must exist.
The **component type** must exist.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a cylinder.
- Right click on a cylinder and choose **Cylinder sub assembly**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import cylinder sub assembly csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The option "Delete items that exist but are not in the import file" removes any cylinder sub assembly entries in your database that are not in the import file.

If you turn this option on (E.g. to remove entries that exist in error), it is highly recommended that you export existing cylinder sub assembly data before you proceed with this import so you can reimport that data if you delete data by mistake.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of

those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.15 Importing cylinder sub assembly images from a csv file

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

If you have a CSV file with cylinder sub assembly image information you can import this data.

Read the topic [Cylinder sub assembly picture import \(CSV\) file format](#)³²⁴ for more information on the file contents allowed.

The combination of **part code + system type** fields in the import is matched to existing cylinder sub assembly values.
The **part code** must exist as a cylinder or double cylinder.
The **system type** must exist.
The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderSubAssemblyPicture**

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a cylinder.
- Right click on a cylinder and choose **Cylinder sub assembly**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import images csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.3.16 Importing cylinder sub assembly video URL from a csv file

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

If you have a CSV file with cylinder sub assembly video URL information you can import this data.

Read the topic [Cylinder sub assembly video URL import \(CSV\) file format](#)³²⁴ for more information on the file contents allowed.

The combination of **part code + system type** fields in the import is matched to existing cylinder sub assembly values.
The **part code** must exist as a cylinder or double cylinder.
The **system type** must exist.
The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderSubAssemblyPicture**

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a cylinder.
- Right click on a cylinder and choose **Cylinder sub assembly**.

Importing data

To import data from a csv file, click on the **Options** a button then choose **Import video URLs csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.4 Hardware

Hardware is for recording any items on the door other than the locking product. Recording of hardware is for informational purposes only and does not impact master keying or jobs.

Getting started

- From the **Setup and Admin** menu, select **Hardware**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your hardware.
- Click **Add group** to add a hardware group (a group part code that encompasses several other parts). See the topic "Hardware groups" lower in this topic.

Other functionality

You may right click a hardware item and choose **Duplicate** from the pop-up menu to add hardware with the fields (except part code) copied from the selected item.

Click the **Options** button then **Hardware types** to open the editor for hardware types. Hardware types are a classification of hardware items, such as "Closer", "Handle" and "Kick plate". You will need to add hardware types before adding any hardware items.

Click the **Options** button then **Exporting to a csv file** to export the data to a csv file. See [Exporting parameter data to a csv file](#)¹⁰⁴.

Click the **Options** button then **Import from a csv file** to import data from a csv file. See [Importing hardware from a csv file](#)⁷⁸.

Explanation of data fields

Part code, description, brand and type are required.

Item number is provided to allow a manufacturer part number to be recorded.

Hardware groups

Groups are used when adding hardware to doors to allow multiple items to be added in a single selection. The items in the group are each saved against the door. I.e. The group is expanded onto the door, but the group is then not associated with the door.

When you add a group, you must provide a part code and description and add at least one item to the group.

Really, for a group to make sense it should have two or more items.

You can alter the quantity of each item in the group. When items are added to the group the quantity is set as one, so be sure to change it if you want more.

8.3.4.1 Importing hardware from a csv file

If you have a CSV file with hardware information you can import this data.

Read the topic [Door hardware import \(CSV\) file format](#)³²⁵ for more information on the file contents allowed.

The **part code** field in the import is matched to existing values to determine if the hardware is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Hardware**.

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating

existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.4.2 Importing hardware types from a csv file

If you have a CSV file with hardware type information you can import this data.

Read the topic [Door hardware type import \(CSV\) file format](#)³²⁵ for more information on the file contents allowed.

The **description** field in the import is matched to existing values to determine if the hardware type is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Hardware**, then click on the **Options** button and choose **Hardware types** to get to the "Door Hardware Types" window.

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.3.5 Templates

Templates are rich text entries that are used in various places. For example when you print a [Signature registration form](#)¹⁷⁸ you can pick the template containing instructions to the client.

Getting started

- From the **Setup and Admin** menu, select **Templates**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your templates.

Explanation of data fields

Data field	Description
------------	-------------

Type	The type of template. The options here depend on your product registration. E.g. Signature registration, order form
Usage	What the template is used for. Currently the only option is "Template" but there may be other options if required in the future.
Description	A description that you call the template. Must be unique.

In the text area, enter the body of your template.

Notes

The templates, according to their type, may be selected in the place where they are required and the user selection is remembered for next time it is required. Some users may require multiple templates such as two different signature registration instructions, although for most people a single template for each type is sufficient.

8.3.6 Lockshops

Manufacturer edition only.

Lockshops are for manufacturers to store the name and details of locksmiths who may then be designated as the key cutting agent for a system or to record that the system was sent to a locksmith.

Getting started

- From the **Setup and Admin** menu, select **Lockshops**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your lockshops

Other functionality

Click the **Options** button then **Export csv** to export the data to a csv file. See [Exporting parameter data to a csv file](#)¹⁰⁴.

Click the **Options** button then **Import csv** to import data from a csv file. See [Importing lockshops from a csv file](#)⁸¹.

Explanation of data fields

The lockshop name must be unique.

Data field	Description
Code	A place for you to enter a code that aligns with other computer systems.
This lockshop is a key cutting agent	Allows the lockshop to be used on systems as the "key cutting agent".
System may be exported to this lockshop	Allows the lockshop to be used on systems as "exported to lockshop"

8.3.6.1 Importing lockshops from a csv file

Manufacturer edition only.

If you have a CSV file with lockshop information you can import this data.

Read the topic [Lockshop import \(CSV\) file format](#)³²⁹ for more information on the file contents allowed.

The **name** field in the import is matched to existing values to determine if the lockshop is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Lockshops**

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.4 Mobile services

General

ProMaster Master Keying Mobile services allow you to publish a job to our publishing server, and then retrieve that job on a device (Android or iOS). For example, you may send a job to a mobile locksmith to re-key some cylinders on the client site.

The publishing server is used also for sending system updates to ProMaster Key Manager 8.

The publishing server is hosted and available to users of ProMaster Master Keying as a no-cost service that is available while ProMaster Master Keying support and maintenance is current.

The number of devices available is determined by your license, and is set at 3 devices per user license. For example if your ProMaster Master Keying license permits 5 users then you will be permitted 15 devices.

Architecture

The publishing service is implemented as a web HTTPS service. ProMaster Master Keying communicates with the publishing server from each workstation, so to use the service the workstation must have internet access to the publishing server permitted.

Jobs on mobile devices

Devices run the ProMaster mobile app for Android or iOS and also communicate with the publishing server using HTTPS.

Devices are configured and associated with your ProMaster Master Keying using a handshake process during which a pairing code must be entered on the phone and the pairing code is used to retrieve and decrypt an encryption key specific to the device.

For all subsequent communications to the device (i.e. Sending jobs), the data transmitted is encrypted to the individual encryption key of the device.

The encryption keys for the device are passed through the publishing server, but are themselves encrypted and unable to be decrypted other than by the device retrieving the encryption key with the pairing code.

The only system information stored in plain text on the publishing server for each job is the system number, number of keys in the job and number of doors in the job. This information is used only in the case of technical problems that require us to aid you.

Put another way, the system description, address, client name, job details, key names, key sections, cut data, door names, keying, pinning etc are all stored encrypted to an encryption key specific to the device to which the job was published.

Furthermore, if you generate a new encryption key and pairing code for a device (See [Configuring devices](#)⁸⁸), the device will be unable to communicate with the server to retrieve job data until the new pairing code is entered and even then, existing jobs will be unreadable to the device because the encryption has changed, and in this case if you want a device to see a job you must re-publish the job to that device.

ProMaster Key Manager 8 ("KM8")

KM8 users may get system updates via the publishing server instead of receiving the updates from you by email.

KM8 users are configured and associated with your ProMaster Master Keying using a handshake process during which a pairing code must be entered into KM8 and the pairing code is used to retrieve and decrypt an encryption key specific to the KM8 installation.

For all subsequent communications to the KM8 (i.e. Sending systems), the data transmitted is encrypted to the individual encryption key of the KM8 user.

The encryption keys for the KM8 user are passed through the publishing server, but are themselves encrypted and unable to be decrypted other than by the KM8 user retrieving the encryption key with the pairing code.

The only system information stored in plain text on the publishing server for each system is the system number, number of keys in the system and number of doors in the system. This information is used only in the case of technical problems that require us to aid you.

Put another way, the system description, address, client name, job details, key names, door names, keying etc are all stored encrypted to an encryption key specific to the KM8 user to which the system was published.

Furthermore, if you generate a new encryption key and pairing code for a KM8 user, the KM8 user will be unable to communicate with the server to retrieve system data until the new pairing code is entered and even then, existing systems will be unreadable to the KM8 user because the encryption has changed, and in this case if you want a KM8 user to see a system you must re-publish the system to that KM8 user.

User permissions

There are 5 publishing permissions that you may apply to users.

Configure publishing: This permission allows the publishing service to be configured. See [Configuring publishing](#)⁸⁴.

Configure publishing devices: This permission allows devices to be configured. See [Configuring devices](#)⁸⁸.

Publish jobs to devices: This permissions allows jobs to be sent to the publishing service. See [Manufacture: Publish to device](#)²³⁷.

Configure publishing for key manager users: This permission allows devices to be configured. See [Configuring Key Manager users](#)⁸⁹.

Publish systems to Key Manager users: This permissions allows systems to be sent to the publishing service in Key Manager format. See [Exporting to ProMaster Key Manager](#)¹²⁴.

Support and maintenance

The publishing server is available to users of ProMaster Master Keying as a no-cost service that is available while ProMaster Master Keying support and maintenance is current.

When your support and maintenance expires, publishing services are no longer available until support and maintenance is renewed and the new registration information applied to ProMaster Master Keying.

Technical information

The URL of the publishing server is pmpublish01.whsoftware.com

Data is transmitted using HTTPS and operates on the standard port 443.

8.4.1 Configuring publishing

To start using mobile services you must first configure publishing. To perform this process your computer must have internet access.

Configuring publishing, and indeed all mobile services, is available only when your registration support and maintenance is current.

When a new registration is entered (See [Change registration](#)⁵⁶), you will be prompted to update the publishing information.

If the registration information in your ProMaster Master Keying database is not the same as that on the publishing server then publishing is disabled until you perform **Configure publishing** again.

Getting started

- From the **Setup and Admin** menu, select **Mobile services** then **Configure publishing**

Configuration status

The configuration status reports the current status of the publishing configuration for your database.

Some examples are:

Message	Description
OK	Publishing is configured and may be used.
Not configured	Publishing has not been configured. To use publishing you must perform the configure publishing process.
Reconfiguration required	The registration information last sent to the publishing server is different to your registration. To use publishing you must perform the configure publishing process.
Maintenance and support expired	Support and maintenance for your ProMaster Master Keying license has expired, and publishing services are unavailable until support and maintenance is renewed. To use publishing you renew support and maintenance, apply your new registration code to ProMaster Master Keying and then perform the configure publishing process.

Publishing status

The publishing status reports the current status of the publishing configuration on the publishing server.

Some examples are:

Message	Description
OK	Publishing is configured and may be used.
Maintenance and support expired	Support and maintenance for your ProMaster Master Keying license has expired, and publishing services are unavailable until support and maintenance is renewed. To use publishing you renew support and maintenance, apply your new registration code to ProMaster Master Keying and then perform the configure publishing process.
Publishing service not contactable	The publishing service could not be contacted. Most likely this means that your computer does not have internet access or that your firewall or security services are prohibiting access to the publishing server. It is possible, but rare that this may result from the publishing server being unavailable due to maintenance requirements.
Publishing service remote failure	Communication with the publishing server failed. This is not an expected condition and you should seek support.
Publishing service remote registration mismatch. Seek support.	There has been an unexpected condition where your publishing data is not consistent with that on the publishing server and this needs support intervention to be resolved.
Not registered with publishing service	Publishing has not been registered on the publish server. To use publishing you must perform the configure publishing process.
Publishing service remote registration requires updating	The registration information last sent to the publishing server is different to your registration. To use publishing you must perform the configure publishing process.

Publishing is disallowed	The publishing server has disallowed your access. This may result from tampering or unreasonable use or abuse of the publishing service.
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Explanation of data fields

Publishing settings

Option	Description
Allow publishing service to be used	This must be on for publishing to be available. If you turn this option off then publishing will not be available in ProMaster Master Keying.

Devices and Jobs - Device settings

Option	Description
Restrict which devices are available for job publishing by the job factory	When this option is on, the devices available for publishing a job (See Manufacture: Publish to device ²³⁷) are restricted to those devices permitted for the factory (See Configuring devices ²⁸⁸) used on the job. This can be useful if you want to configure a factory for a mobile person and specify that factory on the job, then with your device-factory relationships configured you can make only the appropriate device available.
Restrict which devices are available for job publishing by the system type	When this option is on, the devices available for publishing a job (See Manufacture: Publish to device ²³⁷) are restricted to those devices permitted for the system type (See Configuring devices ²⁸⁸) used on the job. This can be useful restrict which devices are available by system type.

Devices and Jobs - Device encryption key

These settings are about the pairing code generated for authorising a device to receive published data.

Option	Description
Duration in minutes	After you configure a device, a 12 character pairing code is displayed and this code must be entered into the device. This setting determines the default amount of time for which the pairing code is valid.
Allow the duration to be altered when configuring a device	Normally, this should not be required and the pairing code should be entered immediately. In the event that you need more flexibility in the time from generating the pairing code to when it may no longer be used, you may turn this option on and alter the next two settings.
Duration minimum	The minimum duration that may be set for the life of a pairing code.
Duration maximum	The maximum duration that may be set for the life of a pairing code.

Devices and Jobs - Job life on server

These settings determine the length of time that a published job is available on the publishing server for download to the device.

Option	Description
Job life in minutes	The default value, in minutes, for how long the job is available on the publishing server from publishing time.
Job life minimum	The minimum value, in minutes, for how long the job is available on the publishing server from publishing time.
Job life maximum	The maximum value, in minutes, for how long the job is available on the publishing server from publishing time.

Allow the server job life to be configured separately for each device	If you want each device to have different values for the three previous settings, turn this option on and configure the job life settings for each device.
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Devices and Jobs - Job life on device

These settings determine the length of time that a published job is available on the device.

The job life on the device should be the same or greater than the job life on the server or the life of the job on the device will ultimately be determined by the job life on the server.

Option	Description
Job life in minutes	The default value, in minutes, for how long the job is available on the device from publishing time.
Job life minimum	The minimum value, in minutes, for how long the job is available on the device from publishing time.
Job life maximum	The maximum value, in minutes, for how long the job is available on the device from publishing time.
Allow the server job life to be configured separately for each device	If you want each device to have different values for the three previous settings, turn this option on and configure the job life settings for each device.

Key Manager - Device encryption key

These settings are about the pairing code generated for authorising a Key Manager user to receive published data.

Option	Description
Duration in minutes	After you configure a Key Manager user, a 12 character pairing code is displayed and this code must be entered into the Key Manager. This setting determines the default amount of time for which the pairing code is valid.
Allow the duration to be altered when configuring a Key Manager	Normally, this should not be required and the pairing code should be entered immediately. In the event that you need more flexibility in the time from generating the pairing code to when it may no longer be used, you may turn this option on and alter the next two settings.
Duration minimum	The minimum duration that may be set for the life of a pairing code.
Duration maximum	The maximum duration that may be set for the life of a pairing code.

Key Manager - System life on the server

These settings determine the length of time that a published system is available on the publishing server for download to the Key Manager.

Option	Description
System life	The default value for how long the system is available on the publishing server from publishing time.
Allow the server system life to be altered when sending a system to Key Manager	If you want to alter how long the system may exist on the publishing server each time you send a system, you may turn this option on and alter the next two settings.
System life minimum	The minimum value for how long the system is available on the publishing server from publishing time.
System life maximum	The maximum value for how long the system is available on the publishing server from publishing time.

8.4.2 Configuring devices

Device configuration is about registering your mobile devices in your ProMaster Master Keying database and with the publishing service. To perform this process your computer must have internet access.

Configuring devices is available only when your registration support and maintenance is current.

The number of mobile devices permitted is controlled by your ProMaster Master Keying license. The number of devices permitted is 3 device per concurrent user license.

Devices must install the ProMaster Mobile app from the Apple or Android app store.

Getting started

- From the **Setup and Admin** menu, select **Mobile services** then **Configure devices**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your user devices.

When adding a device, a 12 digit pairing code is shown when the device is saved and must be entered on the device.

When editing an existing device, you may make it inactive.

When editing an existing device, you may choose **Make new encryption and pairing code for this device**. A new 12 digit pairing code is shown when the device is saved and must be entered on the device. Until the device re-registered, it will be unable to retrieve jobs.

Other functionality

Right click a device and choose **Factories** to choose which factories may send jobs to the device if this restriction is enabled in the publishing settings.

Right click a device and choose **System types** to choose which system types may be sent to the device if this restriction is enabled in the publishing settings.

Right click a device and choose **Device info** to retrieve information about the device from the publishing server, including when it was last seen and when the device retrieved the encryption key.

Right click a device and choose **Job Info** to retrieve a list of jobs that have been sent to the device. Jobs up to 1 year old are shown. See [Device jobs](#)⁸⁹.

The last time a device was seen by the publishing server refreshes automatically when a device is accessed however you options **Refresh last seen time** and **Refresh all last seen times** to force a data update.

An explanation of the options

Use the description field to record who the device is used by. This information must be unique and is shown on the device also.

Device encryption

These settings are about the pairing code generated for authorising a device to receive published data.

Option	Description
For how many minutes will the key be able to be retrieved by the device	This value determines how long the device has to retrieve the encryption key by entering the 12 character pairing code. The default value and the permitted range are set by the publishing settings.

Job life on server

These settings determine the length of time that a published job is available on the publishing server for download to the device.

If permitted by the publishing settings, the values for the device may be entered and then will be used in place of the global settings.

Option	Description
Override the global settings for the server job life when sending jobs to this device	If you want the device to have different values for the global settings (See Configuring publishing ⁸⁴), turn this option on and configure the job life settings.
Job life in minutes	The default value, in minutes, for how long the job is available on the publishing server from publishing time.
Job life minimum	The minimum value, in minutes, for how long the job is available on the publishing server from publishing time.
Job life maximum	The maximum value, in minutes, for how long the job is available on the publishing server from publishing time.

Job life on device

These settings determine the length of time that a published job is available on the device.

If permitted by the publishing settings, the values for the device may be entered and then will be used in place of the global settings.

Option	Description
Override the global settings for the device job life when sending jobs to this device	If you want the device to have different values for the global settings (See Configuring publishing ⁸⁴), turn this option on and configure the job life settings.
Job life in minutes	The default value, in minutes, for how long the job is available on the device from publishing time.
Job life minimum	The minimum value, in minutes, for how long the job is available on the device from publishing time.
Job life maximum	The maximum value, in minutes, for how long the job is available on the device from publishing time.

8.4.2.1 Device jobs

The list of jobs sent to a device and details about the job including expiry dates and device download date.

If the job has been sent more than once, the latest details are shown.

8.4.3 Configuring Key Manager users

Key Manager user configuration is about registering a Key Manager user in your ProMaster Master Keying database and with the publishing service. To perform this process your computer must have internet access.

Configuring Key Manager users is available only when your registration support and maintenance is current.

Getting started

- Open a system for the client whose Key Manager you want to configure
- From the **System** menu, select **Mobile services** then **Configure Key Manager publishing**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your Key Manager users.

When adding a Key Manager user, a 12 digit pairing code is shown when the Key Manager Publishing is saved and must be entered on the client's Key Manager.

When editing an existing Key Manager Publishing, you may make it inactive.

When editing an existing Key Manager Publishing, you may choose **Make new encryption and pairing code for this Key Manager publishing**. A new 12 digit pairing code is shown when the Key Manager publishing is saved and must be entered on the client's Key Manager. Until the Key Manager re-registered, it will be unable to retrieve systems.

Normally each client will have a **single** Key Manager Publishing and unless you change the name then it will be called "**Default**".
If your client has multiple Key Manager installations and some systems are sent to each location, create a Key Manager Publishing for each Key Manager installation and permit the appropriate systems for each Key Manager Publishing.

Other functionality

Right click a Key Manager Publishing and choose **System** to choose which system may be sent to the Key Manager.

Right click a Key Manager Publishing and choose **Key Manager Publishing info** to retrieve information about the Key Manager Publishing from the publishing server, including when it was last seen and when the Key Manager retrieved the encryption key.

Right click a device and choose **System Info** to retrieve a list of systems that have been sent to the Key Manager. See [System Info](#)⁹⁰.

The last time a Key Manager was seen by the publishing server refreshes automatically when a Key Manager Publishing is accessed however you options **Refresh last seen time** and **Refresh all last seen times** to force a data update.

An explanation of the options

Use the description field is used to name the Key Manager pairing when a client has multiple Key Manager installations. This information must be unique and is shown on the Key Manager also.

Device encryption

These settings are about the pairing code generated for authorising a Key Manager to receive published data.

Option	Description
For how many minutes will the key be able to be retrieved by the Key Manager	This value determines how long the Key Manager has to retrieve the encryption key by entering the 12 character pairing code. The default value and the permitted range are set by the publishing settings.

8.4.3.1 System Info

The list of systems sent to a Key Manager and details about the system including expiry dates and Key Manager download date.

If the system has been sent more than once, the latest details are shown.

8.5 Design module config

8.5.1 System types

System types are really important, so pay attention.

System types are a core concept in ProMaster Master Keying and define:

- The design module that is used to support the locking system.
- Parameters for the systems that belong to the system type, such as locking system, number of cuts, depth and space data and defaults that are used when creating new systems.
- The manner in which systems are numbered for the system type.
- The relationship between locks and cylinders for the system type.
- Defaults for manufacturing (factory and days required).

ProMaster Master Keying does not automatically create system types because almost always there are choices that you must make.

You may create as many system types as you like, and is particularly useful for design modules that support a diverse range of products to create system types for each product and for each use the functionality (described below) to restrict each system type to only the applicable key sections.

Getting started

- From the **Setup and Admin** menu, select **System types**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your system types.

Adding a system type

When you add a system type, you must select:

- The design module
- The lock system (on some design modules)
- The card for depths and spaces.

Once a system type is created, the design module, lock system and card cannot be changed. If you then use the system type, and code a system on the wrong lock system or card, the only way to correct this is to remove the system coding and change the system to a correct system type. The choice of card (on applicable design modules) determines the depth symbols available.

Explanation of data fields

Data field	Description
System type name	The name of the system type. Each name must be unique. It is a good idea to pick a meaningful system type name. So, instead of calling a system type "Inline", which really tells you nothing, how about something like "Sargent 6 Pin" (assuming it uses card 589 and has 6 cuts).
Active	If you make the system type inactive, it will not be available for new systems.
Starting characters	Used to generate system numbers. The starting characters for the new system number. E.G. ABC Note: Some manufacturers will instruct you on system numbering conventions for their locking systems

Pad length to	Used to generate system numbers. Used in conjunction with the field above. For example if this value is 6, then the system numbers generated will be ABC001, ABC002 etc.
Cylinder position	<p>A lock (let's call it an XYZ) may be fitted to a door, but depending on the locking system one of several cylinders may be fitted. Each lock has 100 slots where the cylinder part codes for a system type are associated with the lock parts. So, our XYZ lock may use slot 1 for Sargent 6 Pin, slot 2 for EVVA DPE, slot 5 for Kaba Expert.</p> <p>This value is used when creating locks and defining the relationship between locks and cylinders. See Entering locks⁶²</p> <ul style="list-style-type: none"> • The actual slot number you use for a system type is not important, provided you do not alter it after you begin defining the relationship between locks and cylinders. • Make a selection from the drop down list for the lock cylinder ranking. The list shows you where each slot is already used to assist you in avoiding duplications. • If you only ever record cylinders against your doors, and you never use, record, supply or otherwise think about a lock that may have a cylinder installed in it, then the lock cylinder rank has not meaning to you.
Default days for job	<p>When a job is made, the job due date is set automatically based on the current date and the "Default days for job" defined by the system type.</p> <ul style="list-style-type: none"> • Enter your expected lead time in this field. • Unless you work with known or significant lead times, you may choose to set this to 1.
Default factory	You may specify a default factory for this system type that will be used automatically when creating jobs. This is particularly useful if you manufacture one type of locking system at one location and another type of locking system at another location.
Key sections	<p>Some design modules allow you to restrict the key section families that are available to each system type at the time when you create a system design.</p> <ul style="list-style-type: none"> • To restrict the profiles available, check the key section families that are allowed. • If none are checked then all will be available.
Colours	<p>The Inline design module allow you to restrict the key colours that are available to each system type.</p> <p>If no colours are selected for a system type then all colours are allowed, thereby preserving previous behaviour.</p> <p>The colours permitted during coding are restricted to the valid colours (if defined for the system type). Existing key colour assignments are not affected, only the colours allowed for future assignments.</p>
Advanced parameters	<p>Premium and Manufacturer edition only.</p> <p>Various parameters that control which data is mandatory when jobs are released to manufacturing.</p>
Test key method	<p>Premium and Manufacturer edition only, and only if test key functionality is included in your license.</p> <p>Determines what type of test keys will be generated when a job is released to manufacturing. Unless special circumstances exist, "Method 1" is the correct choice if you want the test key calculation to be performed and "None" if you do not want it.</p> <p>Test key method descriptions.</p>

	<p>Method 1 - optimal: Calculates a set of keys to test every value in every position. On removable core systems all control keys are included.</p> <p>Method 2 - all masters, optimal change: Includes all masters, then calculates a set of keys to test every value in every position. On removable core systems all control keys are included.</p> <p>Method 3 - high/low cuts only: Calculates a set of keys to test the highest and lowest depth in each position. On removable core systems all control keys are included. This method is available in modules where 'high' and 'low' values makes sense (e.g. Not in disc-based systems).</p>
Integration	<p>Manufacturer edition only.</p> <p>Some parameters that can be used defined for integrating with manufacturing processed.</p>

System type defaults

On the right side of the system type screen are parameters specific to the design module, lock system and card.

See the design module specific information in the **System type setup** topic under the specific design module here: [Design modules](#)²⁵⁰

Other functionality

You may right click a system type and choose **Bulk move systems onto this system type** from the pop-up menu to bulk move systems for a key section family onto the selected system type. See [Bulk move systems onto system type](#)⁹³.

8.5.1.1 Bulk move systems onto system type

In the scenario where you have systems on a system type and want to move them to another system type based on the key section family, this wizard does that for you.

The system type onto which you are moving the systems must have restricted key sections defined (See [System types](#))⁹¹

The system type the systems are currently on must be compatible with the new system type (Same design module, same lock system, same card, same number of cuts).

An example of this operation is where you have a system type and that system type has been used for systems from multiple manufacturers with different key sections using the same card. Now you want to make system types for each manufacturer (and key sections) to better structure your data and move the existing systems onto the new system types.

Getting started

See [System types](#)⁹¹.

Making a change

- Choose the key section family for the systems you want to move. The available key section families are those that you have defined for the new system type.
- Choose the system type that the systems currently belong to.

Click **Next**.

- The systems that will be moved are shown. Check the list carefully.

Click **Next**.

A summary is shown. check it carefully.

Click **Finish** to move the systems.

Notes

An exclusive lock is obtained on each system before it is moved. If any system is in use by another user then it will not be moved and a message informing you is shown. If a system is not moved, you should get the user to close the system then rerun this process to move any systems that were in use.

8.5.2 Key colours

Many locking systems support coloured key heads. Some lock systems support more than one colour per key head.

ProMaster Master Keying lets you define colours for each design module that uses colours. For each colour you must also define a short name for the colour. For example, for the colour "Fluro Yellow" you may define a short name "FLY".

When multiple colours exist on a key head, the short names are used to save space. Say you had a key with three colours: Fluro Yellow + Light Green + Black. That's rather verbose, so using the short names you define, ProMaster Master Keying will show the colour something like this: Fly-LtG-Blk

Getting started

- From the **Setup and Admin** menu, select **Key colours**
- Select the design module you want to alter. The list of design modules contains all design modules you have available in your license that use key colours.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your colours.
- Enter your colour and short colour. Short colours are required for design modules that have multi-colour keys. Try to keep the colours short and short colours very short - if you make them too long they will be truncated on screen and on printouts.

Other functionality

Click the **Options** button then **Export csv** to export the data to a csv file. See [Exporting design module data](#)¹⁰⁴.

An explanation of the options

- Within each design module, each colour may appear only once

Each time a colour is used, it is referenced to the colours you define here. So, if you make a colour called Yellow, then use that colour on some keys, then later decide to be smart by changing the colour to Red, what you have done is alter every key that uses the colour. So to put it another way, then you click Edit to alter a colour, do so with the intention of fixing a spelling mistake or if applicable the short colour, but not to completely change a colour.

Fixing duplicate colours

You may do a lovely job of setting up your colours, then one day you import a system from another user who has defined the colours differently. ProMaster Master Keying does not have any magic linguistic powers, so it creates any colours required by the import rather than applying rules to detect misspelt colours. Now for example you have Yello and Yellow, and you really don't want the misspelt Yello. Here's what you do:

- Select the colour that is the erroneous duplicate.
- Right click on it and select "Remove this colour and replace it with another colour"

- Select the correctly spelt colour from the list provided.
- Enter the confirmation requested, pausing to ensure you have selected the correct colour for the replacement.
- Click OK to apply the change. Everywhere that the replaced colour is used is changed to the replacement colour, then the replaced colour is removed.

This affects every key in the design module using the replaced colour. If you do something stupid like replacing "red" with "yellow" there is no going back.

Splitting colours

This applies to design modules Inline, EVVA DPE and AL Bilock.

If you have imported data from legacy applications, you may have a single colour assigned to keys that represents multiple colours (e.g. "Blu/Red/Yel") rather than multiple separate colours. This is a bit messy as it makes many additional colours because of the number of combinations you require and is not useful for the manufacturing parts-require calculation.

Here's how to split these combined colours into multiple colours on the keys:

- Select the colour that is the multi colour entry. The colour must contain one of the following characters: -
_ / \ : ; +
- Right click on it and select "Replace this colour with multiple colours"
- Select the correctly replacement colours from each drop-down list. Colours containing the delimiters shown above are not available and also colours are available only if the short colour name is set.
- Enter the confirmation requested, pausing to ensure you have selected the correct colours for the replacement.
- Click OK to apply the change. Everywhere that the replaced colour is used is changed to the replacement colours. Note that the replaced colour is NOT removed - you may remove it yourself.

This affects every key in the design module using the replaced colour. If you do something stupid there is no going back.

8.5.2.1 Importing key colours a csv file

If you have a CSV file with key colour information you can import this data.

Read the topic [Key colour import \(CSV\) file format](#)³²⁷ for more information on the file contents allowed.

Getting started

- From the **Setup and Admin** menu, select **Key colours**
- Select the design module you want to alter. The list of design modules contains all design modules you have available in your license that use key colours.

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

8.5.3 Key sections and keyways

Key sections and keyways are used by most design modules are exclusive to each design module.

It is extremely important to configure your key section families correctly, and don't mess with them after unless you are sure of what you are doing.

For clarity: The key section is the shape of the warding on a key. I.e. It is like taking a cross-section through the key blank. The keyway is the hole in the cylinder core that the key goes into and refers to the warding on that hole.

By far the biggest problem we see in ProMaster Master Keying is incorrectly configured key section families. The reasons why are varied, but the importance of getting it right is paramount. Get it right before you start using the key sections.

Getting started

- From the **Setup and Admin** menu, select **Key sections and keyways**
- Select the design module you want to alter. The list of design modules contains all design modules you have available in your license that use key sections.
- For design modules that use rotor stators, see the topic [Kaba rotor stators](#)⁹⁹.

Other functionality

You may right click key section and choose **Replace key section family** from the pop-up menu to remove the selected keys section family and change all systems that use it to another family. See further down this topic for details.

You may right click key section and choose **Systems on this key section** from the pop-up menu to see a list of systems that use the key section family.

You may right click key section and choose **Print key section family** from the pop-up menu to produce a matrix report off the key sections and keyways in the family.

Click the **Options** button then **Print** to produce a report of key section families returned in the search.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your key section families.
- When you add a key section family, the behaviour differs between design modules.
- For modules that always or almost always don't use key section families, you are first asked for a key section and then a key section and keyway are created with that name, and often that is the only information required.
- For design modules where it is more normal to have multiple key sections or keyways in a family, you are presented with the "New key section-keyway family" screen. This is a "quick start" option - anything you do here can be altered in the full editor so don't panic.

Each time a key section is used, it is referenced to the key sections you define here. If you make a change to a key section family, it affects all the systems using those key sections. Exercise the utmost care when making changes as the change may affect many systems and some changes are not reversible.

New key section-keyway family

This is the quick start for adding a key section family.

The top key section on this screen is the key section that forms the root of the family.

You must enter the top key section and one keyway as a minimum, and indeed for a single key section and keyway this is all you will do.

If there are other key sections and keyways, add them on the corresponding lists, one per line.

After you click **OK** you will be placed in the editor.

Key sections and keyways editor

The editor is a moderately complex screen where you can add, remove and edit key sections and keyways, sort key sections, sort keyways, and change which keys sections fit each keyway.

Any key sections and keyways that are not assigned are indicated with a warning graphic.

Right click on the editor where the key section and keyway intersect for a pop-up menu with more options.

When you "find" for a key section or keyway the matching items are indicated with an arrow graphic.

The root key section is always first, but all other key sections and all keyways may be rearranged using the sort options.

The family description is optional, but can be useful for clarification if you have key section families belonging to a variety of lock systems.

When you save a key section family, it marked as **complete** if all key sections are assigned to a keyway and all keyways are assigned a key section. If the family is incomplete, fix it.

Users of previous versions of ProMaster Master Keying should note that all functions are integrated into the editor instead of using popup task windows as in the previous versions.

Replace key section family

This option is used to replace an entire key section family with another, and make the changes to all systems using the replaced key section family.

To give an example of replacing a key section family, imagine this scenario:

Let's say you had a key section called ABC with profile DEF beneath it.

Now you import a system from another ProMaster Master-Keying user and because their key sections are wrongly named, the system import has created let's say ABC1 with DEF1 beneath it.

What we want to do is change all occurrences of ABC1 to ABC, and change all occurrences of DEF1 to DEF. Here's how:

- Select key section family ABC1, right click, select **Replace key section family**
- The **Replace Key Section Family** window opens. Click **Select replacement key section family** then select the key section family that is to replace ABC1, in this example ABC.
- The key sections from the replacement family are loaded.
- Now you define the relationship between the old (replaced) key sections and the new (replacement) key sections.

Use the two lists and the **Assign replacement key section** button to create a mapping from each replaced key section to the appropriate replacement key section.

Read the warning. Don't stuff it up.

If the key sections that you are working with are anything but trivial, click the **Print** button for a preview, print the report, then examine it carefully for mistakes.

- You must enter the specified text before proceeding.
- When you are ready to proceed, click **OK**.

Now, key and each system using each of the old key sections will have its references changed to that of the new key sections. This may take a little time. Each system that is changed will be marked to indicate that it needs its coding checked. Finally, the replaced key sections, which are no longer in use, will be removed.

Interchangeable Core

In some design modules (E.g. Medeco Original 10, Medeco Biaxial 10, Interchangeable Core) the key section properties include an option for the core removal type.

Most key sections will be "Standard" but for families that have other key sections for core removal purposes (E.g. Yale long key, Schlage long key) you must set the core removal type correctly on those key sections. See also the properties in the cylinder setup for defining the cylinder core removal method.

8.5.4 Kaba rotor stators

Much like key sections and keyways are defined for most design modules, for Kaba ACE, Kaba Expert, Kaba Expert Plus, Kaba Expert K95, Kaba Gemini and Kaba Quattro there are rotor stators.

These are shipped with ProMaster Master Keying so there should no need to ever alter them. The availability of rotor stators is defined by the locking product - there will not be any added, hence no reason to make changes.

Getting started

- From the **Setup and Admin** menu, select **Key sections and keyways**
- Select the design module you want from the ones listed above.

The corresponding **Rotors** screen opens.

8.5.5 Lists

Lists are the mechanism by which lock manufacturers may control the top master key for their locking products to ensure geographic separation and avoid system interchangeability.

They control the way ProMaster Master Keying creates the TMK for your system and which positions on the code may be progressed to generate permutations.

Lists are used primarily in high end lock systems that are positioned to the customer as having unique or restricted key codes.

WH Software Limited does not supply the list data. List data is always supplied and maintained by your lock manufacturer.

8.5.5.1 Managing Abloy Novel lists

Getting started

- From the **Setup and Admin** menu, select **Lists** then **Import and maintain Abloy Novel lists**.

If you have permissions to setup lists, then you will be able to access this screen from the list selection when creating the design for a system.

Managing lists

The "Manage Lists" window shows lists available to you.

The graphic indicates the list level (I.e. how many positions are under your control).

On the list value, "X" positions are under your control and other positions are fixed.

Each list is for the key section shown adjacent to the list.

Lists are created by the manufacturer as split-able (or not) and reuse-able (or not).

Split-able lists, provided they are not used, may be split into a number of smaller lists. If the list has been split, it becomes unavailable for systems, and the sub-lists beneath it are available.

Reuse-able lists may be used for multiple systems.

Importing lists

- Click the **Import** button then select the file supplied by the lock manufacturer.

The lists in the file are imported and shown.

Note: The key sections required by the list must already exist. See [Key sections and keyways](#)⁹⁶

Splitting and joining lists

Splitting a list is the process whereby you take a list and make it into a number of smaller lists. Joining is the opposite of splitting. Large lists allow systems with many keys whereas splitting a large list into smaller lists small lists allow more systems but with fewer keys each.

- To split a list, highlight the list you want split then click the **Split from left** or **Split from right** button.
- To join a list, highlight the split list that you want to join and click the **Join** button.

A list may be split and re-split until it consists of single codes.

It is recommended that you consider the likely use of each list when you receive it, and perform just enough splitting to achieve a useful mix of system sizes.

Rules regarding splitting and joining lists:

- A list may not be split if it has been used.
- A list may not be joined if any of the split portions have been used.
- A list may not be joined if any of the split portions have been split.

Emailing the list usage

The **Email** button allows you to send a report of all your lists, their splits and their usage to the lock manufacturer. You may be asked for this information by the lock manufacturer.

8.5.5.2 Managing Abloy Protec lists

Getting started

- From the **Setup and Admin** menu, select **Lists** then **Import and maintain Abloy Protec lists**.

If you have permissions to setup lists, then you will be able to access this screen from the list selection when creating the design for a system.

Managing lists

The "Manage Lists" window shows lists available to you.

The graphic indicates the list level (I.e. how many positions are under your control).

On the list value, "X" positions are under your control and other positions are fixed.

Each list is for the key section shown adjacent to the list.

Lists are created by the manufacturer as split-able (or not) and reuse-able (or not).

Split-able lists, provided they are not used, may be split into a number of smaller lists. If the list has been split, it becomes unavailable for systems, and the sub-lists beneath it are available.

Reuse-able lists may be used for multiple systems.

Importing lists

- Click the **Import** button then select the file supplied by the lock manufacturer.

The lists in the file are imported and shown.

Note: The key sections required by the list must already exist. See [Key sections and keyways](#)⁹⁶

Splitting and joining lists

Splitting a list is the process whereby you take a list and make it into a number of smaller lists. Joining is the opposite of splitting. Large lists allow systems with many keys whereas splitting a large list into smaller lists small lists allow more systems but with fewer keys each.

- To split a list, highlight the list you want split then click the **Split from left** or **Split from right** button.
- To join a list, highlight the split list that you want to join and click the **Join** button.

A list may be split and re-split until it consists of single codes.

It is recommended that you consider the likely use of each list when you receive it, and perform just enough splitting to achieve a useful mix of system sizes.

Rules regarding splitting and joining lists:

- A list may not be split if it has been used.
- A list may not be joined if any of the split portions have been used.
- A list may not be joined if any of the split portions have been split.

Emailing the list usage

The **Email** button allows you to send a report of all your lists, their splits and their usage to the lock manufacturer. You may be asked for this information by the lock manufacturer.

8.5.5.3 Managing Kaba ACE lists

Getting started

- From the **Setup and Admin** menu, select **Lists** then **Import and maintain Kaba ACE lists**.

If you have permissions to setup lists, then you will be able to access this screen from the list selection when creating the design for a system.

Each list may be used only once.

Make a selection of the type of lists you want to see (Serial perms, Base perms LEFT, Base perms RIGHT).

Managing lists

The "Manage Lists" window shows lists available to you.

The capacity (number of positions that may be progressed) are shown for Left only, Right only and total (Left + Right).

The number of rotor stators allowed is shown.

If the list is for serial permutation the Kaba system number is shown.

Importing lists

- Click the **Import** button then select the file supplied by the lock manufacturer.

The lists in the file are imported and shown.

Emailing the list usage

The **Email** button allows you to send a report of all your lists, their splits and their usage to the lock manufacturer. You may be asked for this information by the lock manufacturer.

Serial perms

Like Base perms, serial perms also show if the entry has been used.

If a serial perm has been used on a system as the TMK (i.e. A system using a serial perm but with a single key) then that system number is shown.

If a serial perm has been used on a system that has been created as a **KD System**, then the **Used by system** value is shown as "KD System"

If a serial perm has been allocated to a KD system, and then subsequently removed (either the key was removed or the system coding was deleted), the serial perm is not released to be re-used. This would not happen under normal circumstances, but may happen during the creating and deletion of test systems. In this scenario it is necessary to recover the serial perm values. To do this, chose "Serial perms" at the top of the window, then right-click on the list of serial perms and choose the option **Recover serial perms that were allocated to keys and the keys no longer exist**.

The recovery process should not be performed whilst other people are performing coding on Kaba ACE KD systems.

8.5.5.4 Managing Kaba Expert Plus lists

Getting started

- From the **Setup and Admin** menu, select **Lists** then **Import and maintain Kaba Expert Plus lists**.

If you have permissions to setup lists, then you will be able to access this screen from the list selection when creating the design for a system.

Each list may be used only once.

Managing lists

The "Manage Lists" window shows lists available to you.

The capacity (number of positions that may be progressed) are shown for Left only, Right only and total (Left + Right).

The number of rotor stators allowed is shown.

If the list is for serial permutation the Kaba system number is shown.

Importing lists

- Click the **Import** button then select the file supplied by the lock manufacturer.

The lists in the file are imported and shown.

Emailing the list usage

The **Email** button allows you to send a report of all your lists, their splits and their usage to the lock manufacturer. You may be asked for this information by the lock manufacturer.

8.5.5.5 Managing Kaba Expert K95 lists

Getting started

- From the **Setup and Admin** menu, select **Lists** then **Import and maintain Kaba Expert K95 lists**.

If you have permissions to setup lists, then you will be able to access this screen from the list selection when creating the design for a system.

Each list may be used only once.

Managing lists

The "Manage Lists" window shows lists available to you.

The capacity (number of positions that may be progressed) are shown for Left only, Right only and total (Left + Right).

The number of rotor stators allowed is shown.

If the list is for serial permutation the Kaba system number is shown.

Importing lists

- Click the **Import** button then select the file supplied by the lock manufacturer.

The lists in the file are imported and shown.

Emailing the list usage

The **Email** button allows you to send a report of all your lists, their splits and their usage to the lock manufacturer. You may be asked for this information by the lock manufacturer.

8.5.5.6 Managing Lockwood MT5 lists

Getting started

- From the **Setup and Admin** menu, select **Lists** then **Import and maintain Lockwood MT5 lists**.

If you have permissions to setup lists, then you will be able to access this screen from the list selection when creating the design for a system.

Each list may be used multiple times.

Managing lists

The "Manage Lists" window shows lists available to you.

On the list value, "X" positions are under your control and other positions are fixed.

Each list is for the key section shown adjacent to the list.

Importing lists

- Click the **Import** button then select the file supplied by the lock manufacturer.

The lists in the file are imported and shown.

Note: The key sections required by the list must already exist. See [Key sections and keyways](#)⁹⁶

Emailing the list usage

The **Email** button allows you to send a report of all your lists, their splits and their usage to the lock manufacturer. You may be asked for this information by the lock manufacturer.

8.6 Exporting data

8.6.1 Exporting parameter data to a csv file

Various types of data that ProMaster Master Keying uses may be exported and imported via csv files.

In addition to the export from the file menu described here, within most of the search screens for each type of data there is an menu option "Export csv" on the options button that invokes this export with the types of data refined to those related to the screen from where you chose to export data.

Getting started

- From the **File** menu, select **Export** then **Export parameter data (CSV)**.

A simple wizard steps you through the process of choosing where the data will be written, choosing which data to export and choosing export options.

Multiple types of data may be exported at the same time. Each type of data is written to a separate file, named according to the type of data.

When choosing the range of data to export, you may right click on the list for selection options. The types of data are defined in logical groups allowing you to select or deselect the whole group in a single operation.

Notes

When exporting lock or cylinder images, CSV files are produced and the data files for the images and documents are written to sub folders beneath the export location.

Clearly any notes that are stored in rich text format are not suitable for exporting to a CSV file and these data fields will not be included in the export.

8.6.2 Exporting design module data

Some design module specific data that ProMaster Master Keying uses may be exported and imported via csv files.

From the place where you want to export the data (e.g. Key colours), choose the menu option "Export csv" on the options button to invokes this export.

A simple wizard steps you through the process of choosing where the data will be written, choosing which data to export and choosing export options.

Using ProMaster Master Keying

Part

9

9 Using ProMaster Master Keying

This section covers all information about managing systems.

9.1 Clients

Each system belongs to a client. A client may have more than one system.

Getting started

- From the **Setup and Admin** menu, select **Clients**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your clients.

Other functionality

You may right click a client and choose **Client signatories** from the pop-up menu to maintain client-level signatories. See [Client signatories](#)¹⁰⁷.

Click the **Options** button then **Export csv** to export the data to a csv file. See [Exporting parameter data to a csv file](#)¹⁰⁴.

Click the **Options** button then **Import csv** to import data from a csv file. See [Import clients from a csv file](#)¹⁰⁶.

An explanation of the options

When adding a client or editing an existing client, the only mandatory data field is the client name. However it is good practice to record as much information as accurately as possible.

The **notes** tab provides a space for you to record miscellaneous information about the client.

The **systems** tab shows the systems that are associated with the client.

Notes

If you have a system open and permissions to edit the client (see [Security groups](#)⁴⁹) then the client for the current system will be editable from the **System** menu then **Client**.

9.1.1 Import clients from a csv file

If you have a CSV file with client information you can import this data.

Read the topic [Client import \(CSV\) file format](#)³¹⁹ for more information on the file contents allowed.

The **name** field in the import is matched to existing values to determine if the client is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

- From the **Setup and Admin** menu, select **Clients**

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

9.2 Client signatories

Client signatories are much the same as system signatories (see [Signatories](#)¹²⁵) but they are associated with the client and linked to each system. When a client signatory is linked to a system it is editable only as a client signatory and appears read-only when looking at system signatories.

Getting started

- From the **Setup and Admin** menu, select **Clients**
- Search for a client.
- Right click on a client and choose **Client signatories**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your client signatories for the selected client.

Explanation of data fields

The signatory name is unique within each client.

Data field	Description
Mandatory signatory	The signatory must appear on each job
Expiry date	The date after which that the signatory is no longer allowed to authorise orders.
Add this signatory to new systems	All signatories with this option checked will be added to the system when you add a new system for the client. This is particularly useful for institutions that have dozens or even hundreds of master-key systems and are rolling out new master-key systems with their building program.
Signature	A place to store an image of the signatory's signature.
Photo	A place to store a photo of the signatory.
Notes	A place for you to record miscellaneous information about the signatory.

Print client signatory registration form

From the **Options** menu choose **Print signatory registration form**. See [Client signature registration form](#)¹⁸³.

Add the client signatory to systems

This is the same functionality as copying the client signatory from a system to other systems, driven from the list of client signatories instead of the list of system signatories.

From the **Options** menu choose **Add client signatory to systems**. See [Copy signatory to other systems](#)¹³¹.

Notes

Inside ProMaster Master Keying, the client signatory is linked to the corresponding signatories on each system. When you make a change to the client signatory (e.g. change phone number or signature), it affects all the associated systems.

If you have a system open and permissions to edit the client (see [Security groups](#)⁴⁹) then the client signatories for the current system will be editable from the **System** menu then **Client signatories**.

9.3 Client documents

Client documents are much the same as system documents (see [Documents](#)¹³²) but they are associated with the client and linked to each system. When a client document is linked to a system it is editable only as a client document and appears read-only when looking at system documents.

Getting started

- From the **Setup and Admin** menu, select **Clients**
- Search for a client.
- Right click on a client and choose **Client documents**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your client documents for the selected client.

Explanation of data fields

All fields are the same as system documents except:

Data field	Description
Add this document to new systems	All documents with this option checked will be added to the system when you add a new system for the client. This is particularly useful for institutions that have dozens or even hundreds of master-key systems and are rolling out new master-key systems with their building program.

Adding the client document to systems

This is the same functionality as copying the client document from a system to other systems, driven from the list of client documents instead of the list of system documents.

From the **Options** menu choose **Add to systems**. See [Copy client document to systems](#)¹⁰⁹.

Removing the client document from systems

This allows you to remove the document from multiple systems in a single operation.

From the **Options** menu choose **Remove from systems**. See [Remove client document from systems](#)¹⁰⁹.

Notes

Inside ProMaster Master Keying, the client document is linked to the corresponding documents on each system. When you make a change to the client document (e.g. change the description), it affects all the associated systems.

If you have a system open and permissions to edit the client (see [Security groups](#)⁴⁹) then the client documents for the current system will be editable from the **System** menu then **Client documents**.

The document is stored against the client and copied to each system and also linked back to the client document. This adds some additional storage for the client copy of the document, so the general advice would be to use client documents to manage documents that need to be added to several systems, but do not use them when there are only one or two systems for the client.

9.3.1 Copy client document to systems

Sometimes a client has more than one master key system, and there may be documents who are the same for more than one system. This is the process for copying documents from the client to the systems.

Getting started

See [Client documents](#)¹⁰⁸.

Making a change

A list is displayed of systems belonging to the same client. Check the systems to which you want to copy the document.

The list of systems excludes those systems with the client document already added, and excludes systems where you do not have permissions to open the system.

Click **Copy document** to perform the copy.

9.3.2 Remove client document from systems

If you have copied a client document to some systems and want to remove it from one or more systems without needing to open each system, use this procedure.

Getting started

See [Client documents](#)¹⁰⁸.

Making a change

A list is displayed of systems that are linked to the client document. Check the systems from which you want to remove the document.

The list of systems includes snapshots and closed systems, but you cannot select those systems as they are immutable. The list excludes systems where you do not have permissions to open the system.

Click **Remove document** to perform the removal.

9.4 Systems

Before any work may be done on a system, you must first open it.

If the system is open by another user you will be denied access to it.

Getting started

- From the **System** menu, select **Open system**

Searching for systems

ProMaster Master Keying offers a broad range of search criteria from which you may enter as little or as much information as you require, then click the **Find** button to show systems that match your criteria.

Most search values are self explanatory, so only the slightly tricky ones are mentioned here.

Option	Description
Status	Normally only Active systems are returned. Change this value if you want to find closed systems or system snapshots.
Show only systems with pending jobs that require coding	This option is useful for work flowing your coding staff. It allows you to find systems that are not completely coded, but have a job that is in the data entry state (if you have not turned on the "Coding" status in the application parameter "Send jobs to coding when released if coding is required") or are in the coding required state.
System type	Allows you to specify the system type of the system you are searching for. Also enables searching by key section . Additionally you may select from the list a design module instead of a system type, thereby searching all system types for that design module.
Key or door	The system must have a key or door or door stamping with the value you enter (according to the "Look in" value chosen). the value may be exact or starting with . For a key search, if you have enabled Key stamping in your application parameters then the key number you enter must match either the key number or the key stamping of a key within the system.
System key section	You may select the System key section for systems that will be located. You must first select the System type .
Key key section	The system must have a key with the selected key section, and if the key number was entered then it must match the same key as the key number.
Code	Allows you to specify a Key code for the search.
Look in change keys also	Normally the key search excludes change keys (I.e. Masters, selective, control keys etc only). Turn this option on to search in change keys also.

In performing a search, ProMaster Master Keying returns systems that match all criteria, so while entering more information may narrow your search, it is also possible that you may refine the search so much that nothing matches.

System security

If you do not have security rights to **Open high security systems**, then only low security systems will be shown.

If you do not have security rights to **Open systems based on its design**, then some search criteria will be unavailable.

When you open the system, any assigned **Security categories** are validated against your security category rights, and if you do not have the necessary permissions then you will be unable to open the system.

9.4.1 Creating a system

The process of creating a new system walks you through a step-by-step wizard, asking you questions about each aspect of the system. Everything you enter here may be modified later, so don't panic if you don't have all information.

Getting started

- From the **System** menu, select **New system**

Creating a new system

Step 1: Client Details

This information is about the client who owns the master-key system. This may be the same as the system address, but in the case of large clients often will not.

You always have the choice to make a new client by entering the client's details, however, if the client already has a master-key system with you, please don't enter the client again. In this case, choose the option **Select an existing client** and click the button **Select existing client** to choose the client.

The thing to remember here is that a single client may have many master-key systems, and by entering the client just once you maintain better records, make it easier to synchronise signatories between systems, make client level signatories possible and make exporting data for key management easier.

There are numerous application parameters that allow you to control which of the client fields are mandatory when adding a client for your system. This allows you to enforce data requirements, but remember that making field mandatory when there is no data available will result in users entering meaningless information to satisfy the mandatory field requirements.

Step 2: System identification

Select the **System type** for this new system. If you are uncertain at this time, make an educated guess. Provide the system has not been coded, the system type may be changed later.

The **System number** uniquely identifies the system. Enter a system number for this system, or click **Generate next** to make one for you (you may define the way system numbers are generated as part of the system type setup).

Stamping is optional, and for most systems will not be used. System stamping allows you to define a name for a system to be marked on keys and cylinders as an alternative to the system number.

For the **System description**, enter a description of the master-key system that provides some meaning as to its location and/or client and/or building.

Step 3: Address and contact

Enter the address of the installation, and any other contact information you have.

Step 4: System Details

Installed on: Alter the installation date to reflect when the system is likely to be installed. In the future you may do some systems analysis to determine the level of system activity and the age of systems, so this date will become important.

Keying type: Keying type serves a few purposes. First, on some design modules it is used to select a keying type that allows construction keying. Second, it allows you to classify systems for analysis purposes, and third it may be used as an indication to the type of coding required when later the coding is performed. See [Keying types](#)⁵⁷

Use key and door issue numbers: Normally this option would be left on. Sometimes records are so poor on old paper based systems or from basic master-key software that there are no records of issue numbers. In that situation you may want to turn this option off so that future keys and doors are not marked with an issue number.

Allow door hardware recording: If you turn this option on, you will be able within this system to record door hardware items other than the locking products.

User must have high security access to open this system: Each user has a flag as to whether they may access high security systems. That flag is matched with this one to determine if the user may open the system. This is a bit of a blunt instrument, and you may wish to consider Security categories (described later) for more granular control over system security.

Use DHI key and door numbering: Defaults according to the application parameter **Terminology**. If it is set to USA then this parameter will default to on.

Marking 1, 2, 3: Additional marking parameters available on premium and manufacturer editions. These values are used in the job XML files.

Step 5: Signatories And Orders

Number of signatories required to order keys: This is the global number of signatories required to order any any key, provided that there is not individual signatory security in place for the key.

Type of key signatory security: This option controls the type of signatory security that is applied to the keys. See [Signatories](#)¹²⁵ for an explanation of the choices.

Number of signatories required to order doors: This is the global number of signatories required to order any any door, provided that there is not individual signatory security in place for the door.

Type of door signatory security: This option controls the type of signatory security that is applied to the doors. See [Signatories](#)¹²⁵ for an explanation of the choices.

Quantity of each key to order: This number is used when adding keys. If you set this to 2, then as you add keys, the default quantity of each to order will be 2. If you don't like ordering keys at the same time as you create them, make this option zero. The default for this option comes from the corresponding [Application parameter](#)⁵³.

Quantity of each door to order: This is for doors as the option above is for keys.

Step 6: System notes

This is where you may record a virtually unlimited amount of notes about the system.

Step 7: Job Notes

Any notes you enter in the job notes are copied into each new job as the default notes. If the customer has particular job instructions that you want to accompany each job, this is the place to record them.

Step 8: Security

Security categories are used to restrict access to systems and correspondingly grant access to particular users.

Select any security categories that you want to apply to this system.

If the current user is not permitted to access systems without a security category then you must select one or more security categories. A user is permitted to assign only those security categories to which the user is a member.

Here's how it works: If a system is associated with a security category, then only users who are in a security group associated with the same security category may open that system. A system may be associated with several security categories, thereby allowing several groups of users access, and similarly a security group may be associated with several security categories, allowing access to any systems in those security categories.

See [Security categories](#)⁵² to define security categories.

Step 9: Finish

Click **Finish** to save the new system.

9.4.2 Creating a system from hierarchy quantities

Creating a system from hierarchy quantities is much the same as creating a system normally, with an additional process where you define a system based on the structure of the keys.

See [Creating a system](#)¹¹¹ for an explanation of all options not specific to hierarchy quantities.

Getting started

- From the **System** menu, select **New system from hierarchy quantities**

Creating a new system from hierarchy quantities

Step 2: System identification

There is an additional requirement on this step to choose the factory that will be used for making a job to order the keys and doors.

Step 4: System Details

Use DHI key and door numbering: Defaults according to the application parameter **Terminology**. If it is set to USA then this parameter will default to on.

Level: If DHI numbering is not being used, leave this at 0. If DHI numbering is used, choose the level you require for the system (from 2 to 7).

Step 9: Define key hierarchy

If you are using DHI numbering, all levels are created with a quantity 1, otherwise just the first key "GMK" is created.

In defining the key hierarchy, you build a structure of master keys, change keys and selective keys.

For each key you specify the naming convention, description, quantity to create, and quantity of each to order.

For DHI systems with a simple hierarchy, all you need to do is change the quantity of each key that is required and if doors are to be created, select the lock to be used (on the "Change" key node)

Then, use the **Add master**, **Add change** and **Add selective** buttons to build up a structure of your system.

If your system is asymmetric you can add multiple masters under any master to build the structure.

Step 10: Finish

Click **Finish** to save the new system.

How it works - International

There are a number of parameters that control how the keys are generated. Most settings are stored so that next time you add a key (in the current system or another one) your preferences are remembered.

Setting	Description
Starting characters	The characters you want at the start of the key number. If the option "Create a single key" is chosen then this value is the entire key number, otherwise the rest of the key number is generated according to your other choices.
Create a single key...	Available when the quantity is set to 1, this makes a single master key. This is particularly useful for asymmetric systems for creating masters with each branch with a different name.
Quantity of keys to create...	The number of keys to create. 1 or more. If the value is 1 for master keys, the option "Create a single key" is available
Numbering style	Numeric: Numbers keys using the sequence 1,2,3... Alpha: Numbers keys using the sequence A, B, C...
Length to make the number	When numbering style is numeric, this is the minimum length to use for the numeric portion. E.g.: Starting characters = "MK", Numbering style Numeric, Length = 4, then key numbers will be MK0001, MK0002 etc.
Number from the key above	For an example, the master above is "MK", numeric, Length = 0, quantity 3, resulting in keys MK1, MK2, MK3. Now make a change key node, starting "C", numeric, Length = 0, quantity 2, separator "." For each of the choices, here are the key names produced: Do not use it to make this key: C1, C2, C3, C4, C5, C6 Place it before the number of this key: C1.1, C1.2, C2.1, C2.2, C3.1, C3.2 Place it after the number of this key: C1.1, C2.1, C1.2, C2.2, C1.3, C2.3
Separate the number from the key above with this character	This is the character to place between the key number and the number from the key above if it is being used. In the example C1.1 the separator used is "." If alpha numbering is used for masters and numeric for change keys then it may be desirable to have the separator blank.
Description	The description to use for each key.
Quantity of each key to order	This will add the keys to a job to be manufactured if you enter a value other than 0.

For change keys, there is an option to create a door. The door settings are:

Setting	Description
Create a door for each key	Select this option to have the doors created
Numbering	Generate: The door number is formed from the door prefix and then the key number. Same as key: The door number is made the same as the key number. Sequential: The door number is created sequentially. 1,2,3... and is prefixed by value of Door prefix .
Door prefix	The starting characters if the numbering is Generate or Sequential.
Stamping	Key number: The stamping is set to the key number. Door number: The stamping is set to the door number (which could be the same as the key number). Sequential: The door number is created sequentially. 1,2,3...
Description	The description to use for each door.

Area	The area to use for each door.
Lock	The lock or cylinder to use on the door. Choose from the list of values already used or click Select lock .

How it works - DHI

The structure of the system is created from the DHI level selected in Step 9.

For each branch of the system you may specify the quantity. All other settings are unavailable as the number automatically follows DHI conventions.

For change keys you can specify other parameters for how the door is generated.

You can add additional branched for masters if your system is asymmetric.

You can add additional branched for change keys if some of the corresponding doors use different parameters (typically a different lock).

9.4.3 Creating a system from Excel

ProMaster Master Keying ships with some Excel spreadsheets that are used as templates. You may send one of these templates to your customer, and when you receive the file back with the doors and keys entered then you can use that to create a new system.

Creating a system from an Excel file is much the same as creating a system normally, many of the the answers are from the Excel and also the doors/keys/keying and job are created after the system.

See [Creating a system](#)¹¹¹ for an explanation of all options not specific to the Excel import.

About templates

Two templates are provided. They are stored in the Templates folder beneath the ProMaster Master Keying program folder (e.g. C:\Program Files (x86)\WH Software\PM8\Templates)

These are PM8System_500Doors_200Keys.xlsx and PM8System_3000Doors_1000Keys.xlsx. The only difference is the number of columns and rows that have been formatted. Why not format many thousands of columns and rows? Because it makes the file much larger and that makes emailing it more troublesome.

The templates have specific formatting to present the data correctly, and also to ensure it may be read into ProMaster Master Keying. The spreadsheets have protection to prohibit changes to areas that would interfere with the import process.

Premium and Manufacturer edition only: There is a template definition provided for reading old PM7 "xls" files. This will read the first page only. This should be used for transitional purposes only and all future work should use the PM8 excel template definition. The PM7 template definition is for new systems only, not for extending or for exporting.

Using the templates

Entering doors

Doors are entered one per line. The cells on the first line of doors have notes that you may read in Excel on how to enter the data. You may leave blank lines between doors to improve readability, however a gap of more than 4 lines is considered to be the end, and any doors after such a gap will be ignored.

Entering Keys

Keys are entered one per column. The cells for the first key have notes that you may read in Excel on how to enter the data. You may leave blank columns between keys to improve readability, however a gap of more than 4 columns is considered to be the end, and any keys after such a gap will be ignored.

Entering keying

At the intersection of each key and door, place an X if the key is to operate that door.

Before you import the system into ProMaster Master Keying

When you get your file back from your customer, here's some do's and don't's:

- Do save the file onto your computer.
- Don't save it in the folder where the templates are stored.
- Do open it in Excel before you import it into ProMaster Master Keying and study it for mistakes. If it has errors, the import will reject it, so best you find them first.
- Do not leave the spreadsheet open in Excel when you perform the import into ProMaster Master Keying.

Getting started

- From the **System** menu, select **New system from Excel file**

Creating a new system from Excel file

Step 0: File

Select the Excel file to import and choose the template definition that corresponds to the file you are importing. See [Excel template definition](#)³³⁶ for information about making your own definitions to match a custom Excel file layout.

After opening the file, its contents are analysed and if there are errors they are reported. Errors must be corrected before importing.

The contents of the file provide the answers for values on the next steps.

What next

After the import is complete, review your doors, keys and keying, then proceed to coding and manufacturing as you would with a system you entered yourself.

9.4.4 Modifying a system

Almost any of the information you enter when you create a system may later be modified. There are some constraints applied to ensure data integrity, such as:

- Once the system has been coded you may not change the **System type**.
- Once the system has been exported to a client using ProMaster Key Manager you may not change the **System number**.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Modify system**

Explanation of data fields

The majority of the data shown on the various tabs is the same as that when you create a system. For a description of the various fields, read the topic [Creating a system](#)¹¹¹.

Here's a description of data fields that are available when modifying the system that were not available during creation:

Data field	Description
Which software is the client using for managing their keys	This is where you choose the version of ProMaster Key Manager that the client is using for managing their master-key system. Versions prior to ProMaster Key Manager 7 are not supported due to the changes in field lengths and Unicode character set.
Original system number	If the system was known by another number previously, you may record it here.
Allow "Coding complete" override	Available only for legacy systems, not those build in ProMaster, allows you to continue to work on systems with errors. See Coding complete override ²⁰⁶

Preferences

The option "Use preferences for this system instead of global preferences" makes several other parameters available when you turn it on.

These other parameters are named identically to settings in the global preferences (See [Setting your preferences](#)³⁵).

If "Use preferences for this system instead of global preferences" is on, the other settings are used for this system instead of the global settings.

This allows for systems that need to behave differently for data entry to your global settings.

9.4.5 Importing a system extension from Excel

ProMaster Master Keying allows you to export your system to Excel (see [Exporting to Excel](#)¹²⁴), then re-import the Excel file, adding any new doors and keys to your system.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Import system extension from Excel file**

Importing data

Select the Excel file to import and choose the template definition that corresponds to the file you are importing. See [Excel template definition](#)³³⁶ for information about making your own definitions to match a custom Excel file layout.

Several options allow you to decide how doors, keys and keying will be imported.

After opening the file, its contents are analysed and if there are errors they are reported. Errors must be corrected before importing.

Some comparison information is shown between the system that is open and that within the Excel file. Please confirm that this information is correct before proceeding.

Select the **Factory** that will be used for making a job if doors or keys are ordered by the extension.

Other than changing the description on existing keys, and the description, area, stage and notes on existing doors, no other modification will be made to existing items. Keying will never be altered for

existing doors unless you make the choice to create keying for any doors that have not yet been keyed. Any door that has keying will never have its keying altered by importing a system extension.

9.4.6 Change system status

The system status determines if the system is able to be worked on, and also categories it so you know if it is active, closed, snapshot.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Change system status**.

Making a change

Choose the new status you want.

Notes

Here is an explanation of the system status values.

Status	Description
Active	The system is able to be worked on. This is the normal status for systems.
Closed	Use this status when a system is no longer in service. This will prohibit any further activity to the system (other than opening the system and changing its status). This is a better option than deleting a system.
Snapshot	This is the status that is set when you make a snapshot of a system - see System snapshot ¹¹⁸ (it is set on the copy, not on the original system - the original system is not altered). A snapshot system may not be altered, but you may wish to revert to it by changing its status to "Active". If you do this you should also mark the previously active system as being a snapshot (or possibly even deleting it) so there is absolutely no confusion about which copy of the system you are working on.

9.4.7 System snapshot

A snapshot is an exact copy of the system including all its activity and documents. There is nothing shared between the original system and the snapshot other than that they belong to the same client. If you snapshot a system then make some changes which you then decided you didn't want, you could delete the live system, open the snapshot and change its status from snapshot to in active and you would be back where you were just prior to making the snapshot - with one slight difference.

As no two systems may have the same name, snapshots are named the same as the original system and carry a suffix SNAP1, SNAP2 etc. If you turn a snapshot project back into a live project, you should also alter its project number so that it appears identical to the original.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Create a snapshot of the system**.

Notes

A new system number will be offered for the snapshot. You may alter this if you wish but generally the generated name is adequate.

See also [Change system status](#)¹¹⁸ for turning a snapshot into an active system and [Systems](#)¹¹⁰ for finding snapshots (Normally snapshots are not returned by the system search).

9.4.8 Duplicating a system

At times you may wish to duplicate a system so that you can start again with a new system design. This might happen for example when you have an active key system and it has reached the end of its patent and the customer wants it re-keyed on a product with an active patent. In this scenario, we don't want to touch the old system and discard its coding or history, so a duplicate, without history or coding is required.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Create a new system from this system**.

An explanation of the options

You must enter a **system number** for the new system.

The **site description** defaults to that of the old system, with the ability to change it, as does the **installation date**.

A group of check boxes allow you to decide what to copy from the current system to the new one. The availability of each option depends on what data is available in the existing system.

Finally, decide if you want to open the new system, then click OK to create it.

What happens

- A new system is created.
- Keys, key groups, doors, door groups, keying, signatories etc are copied according to the options you selected.
- The coding design is not copied.
- The key codes are not copied.
- The door pinning is not copied.
- Jobs are not copied.

What next

The system that is created is just like that which would result from you creating a new system, then entering keys, doors, keying etc.

Next you should modify the new system to set its system type and other such parameters, make any key or door changes required, then proceed with coding.

9.4.9 Revert to a snapshot of the system

If you have made a snapshot of a system (See [System snapshot](#)¹¹⁸), then experimented with changes and now want to revert to that snapshot, this procedure automates the various steps required.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Revert to a snapshot of this system**.

For the menu option to be available, you must have permissions to **modify** and to **delete** systems, and the system must be **active** (i.e. not closed or a snapshot) must have a snapshot that can be used.

A snapshot that can be used is the same system internally, linked to the same client, and has a system number the same as the one you have open but suffixed by ".SNAP" and a number.

What happens when you revert to a snapshot

The following actions are performed when you revert to a snapshot. You can do this manually, but this process automates it.

1. The current active system is renamed to the name you enter (a default value is offered).
2. The current active system is marked as closed (unless you choose not to do this).
3. The snapshot system is renamed to the name previously used by the current active system.
4. The snapshot system is marked as an active system instead of being a snapshot.
5. A new snapshot is created of the recovered snapshot which is now an active system (unless you choose not to do this).

Notes

- A new system number will be offered for the current system. You may alter this if you wish but generally the generated name is adequate. The default method is to name the system with the suffix ".BAD". Note the system is not automatically deleted.
- The default behaviour is to mark the current system as closed after it has been renamed with the ".BAD" suffix.
- From the list, choose the snapshot that you want to revert to.
- The default behaviour is to create a new snapshot to replace the snapshot that you are turning back into the live system. Generally this is the best option as it is the safe option.
- You must enter the specified text before proceeding.

See also [Change system status](#)¹¹⁸ for turning a snapshot into an active system and [Systems](#)¹¹⁰ for finding snapshots (Normally snapshots are not returned by the system search).

An example

Say you have a system 5XX123 and a snapshot called 5XX123.SNAP1.

The following happens:

1. Active system 5XX123 is renamed as 5XX123.BAD1 and marked as closed.
2. Snapshot 5XX123.SNAP1 is renamed as 5XX123 and marked as active.
3. 5XX123 (Active system, renamed from 5XX123.SNAP1) has a snapshot created and that snapshot is called 5XX123.SNAP1.

9.4.10 Deleting a system

Occasionally you may want to delete a system. E.g. Delete a system you created for testing or delete a system that was not used.

Deleting a system removes the system, all doors, keys, keying, jobs etc. A system cannot be deleted until its design is deleted.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Delete system**.

Making a change

- You must enter the specified text before proceeding.
- Click **OK** to delete the system.

There is no undo. When you type the confirmation text and click **OK**, the system is gone.

9.5 Exporting and importing systems

9.5.1 Exporting systems

ProMaster Master Keying allows systems to be exported and imported between ProMaster installations.

Some reasons why you might want to do this are:

- To send a system to ProMaster support if assistance is required.
- To relinquish the system to another company.
- To sent the system to a lock manufacturer so that a large order may be processed by their factory.
- To receive a system from a lock manufacturer.

Rules for exporting

ProMaster Master Keying allows systems to be exported without restriction to ProMaster Master Keying.

Premium and Manufacturer edition only: It is also capable of exporting to ProMaster Master-Keying 7, however some rules are applied to govern the data integrity.

Export to versions prior to version 7 are not supported.

- If the ProMaster Master Keying system uses a design module that was not available in a previous version of ProMaster, then the export is not possible.
- If the export file must be encrypted (Set in the Application Parameters), then the export is not possible.
- If the ProMaster Master Keying system uses features that result in data that is not possible to use in a previous version of ProMaster, then the export is not possible.

There is an extensive set of reasons why a system might not be able to export to an older ProMaster, including longer field names, new features, internal keying on doors, characters not supported by the older version.

If you choose to export to an old version and the export is not possible, you will be shown the reason(s) why.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Export system to ProMaster**.

Exporting data

- Choose what to export. The default selection is to export just the current system, however if you have multiple systems for the client you may choose to export them all.
- Choose the folder where the file(s) will be written
- Choose the destination ProMaster Master Keying version.
- Choose if the export is to be protected by encrypting it. If you choose to encrypt the file then you must enter a password and confirm it.

Normally the file extension is ".pmmk8". If the file is encrypted then the file extension is ".pmmk8enc". When you send an encrypted export to another ProMaster Master Keying user, **do not send the password with the file**, but transfer it securely by some other mechanism.

The encryption used is AES256 so there is no possibility of decrypting the export if you forget the password.

- You may choose to omit documents from the export, and to include an descriptive annotation to include in the export file.

Finally, choose what you want to happen after the export and click **Finish**.

9.5.2 Importing systems

ProMaster Master Keying allows you to import a system from another ProMaster Master-Keying user.

Getting started

- You must be logged in without a system open.
- From the **System** menu, select **Import system**.

Importing data

File

Select the ProMaster file to import.

If the file is encrypted (Possible with ProMaster Master Keying version 8.21001.0.0 or later) then you will be prompted to enter the password.

Normally the file extension is ".pmmk8". If the file is encrypted then the file extension is ".pmmk8enc". When you receive an encrypted export from another ProMaster Master Keying user, they must tell you the password.

The encryption used is AES256 so there is no possibility of decrypting the export if you do not know the password.

File contents and origin

A summary of the file contents is shown, including where the file came from, when it was created, the system type, the design module and the number of doors, keys, keying and jobs.

System number

You are asked about system numbers. The choices available depend on a number of things, including:

- Is there an existing system with the same System Number?
- Does the existing system use ProMaster Key Manager 7?
- Does the system being imported use ProMaster Key Manager 7?

If there is an existing system with the same system number, you must rename either the existing system (which you may be planning to remove anyway) or the system being imported.

Make your choice on system numbers.

If you choose to change the existing number, there is a choice to convert the existing system to a snapshot (See [System snapshot](#)¹¹⁸). This is a good thing to do.

System type

The system type for the system being imported is shown.

A list of compatible system types that you have defined is shown.

Choose the system type to use when the system is imported.

Key sections on the import are matched up to your key sections.

- If a key section family with the same top key section exists and it contains all the necessary key sections, then there is no further action required.
- If a key section family with the same top key section exists and is missing some key sections required by the import, you must fix it before importing.
- If a key section family with the same top key section does not exist, and the file is a version 8 file, the key section family will be created.
- If a key section family with the same top key section does not exist, and the file is a version 7 file, the key section family will not be created, and you must create it yourself. This is because the key section storage has changed in ProMaster Master Keying and sometimes not all necessary information is present for the key section family to be created automatically.

Locks

For each lock, choose if you want to use the existing item (if it exists), use a different item, or create the item (if it does not already exist).

If the file is from ProMaster Master Keying then these choices are remembered in relation to who sent you the file and automatically offered next time.

If the file is from version 7, then these choices are remembered as a global set of information and automatically offered next time. The version 7 file does not contain the necessary identifying information to remember your choice in relation to the source of the file.

Post import tasks

If a system existed with the same system number as that you imported, you have the opportunity to analyse the differences between the original system and the imported system, and also to remove the original system.

Unless you are confident that the new system genuinely replaces the existing system, it is better to leave the old system, preferably as a snapshot (i.e. Don't remove it), then examine both systems carefully before deleting the old system. See [Deleting a system](#)¹²⁰ to learn about deleting a system at some later time.

Notes

Special handling is performed for documents that are linked to a client document.

- If you export a system with client-linked documents and then reimport the system, the documents are created and linked back to the client document provided there has been no change to the document (i.e. The imported document and associated data matches the client document and associated data).
- If you import a system from another ProMaster Master Keying user, then the 'memory' of a document that it was a client document is maintained, but because you do not have the client document it becomes an independent system document.
- If you import a system from another ProMaster Master Keying user, and that system had originally been exported to them by you, and the import has identified that the client is the same, then the link between the document being imported and the corresponding client document is maintained.
- All special client document handling is dependent on ProMaster Master Keying veing v8.20901.0.0 or later.

9.5.3 Exporting to Excel

ProMaster Master Keying can export your system details, doors, keys and keying to an Excel file

This is a good way to give it to your customer, both to explain it to them but also when you want the customer to enter new doors and new keys, that you will later import into ProMaster Master Keying.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Export system to Excel**.

Exporting data

- A name for the export is offered. You may choose a different file.
- Choose the excel template to use (there are two that ship with ProMaster Master Keying but you may have added some of your own)
- Choose the template definition that corresponds to the excel template layout. See [Creating a system from Excel](#)¹¹⁵ for information about excel files and template definitions.
- Choose how you want door quantities and key quantities exported.
- Finally, choose what you want to happen after the export and click **Finish**.

The ProMaster Master Keying Excel imports and exports do not require Excel to be installed to read or write the files. You must have Excel installed if you want to view or alter the Excel files.

9.5.4 Exporting to ProMaster Key Manager

By exporting your systems to your client, they are able to maintain an accurate record of all key issues to personnel. Your client will need to purchase ProMaster Key Manager. (This is available from your ProMaster Master Keying reseller).

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Export to Key Manager**.

Exporting data

- Choose what to export. The default selection is to export just the current system, however if you have multiple systems for the client you may choose to export them all.
- Choose the folder where the file(s) will be written
- The first time you perform an export to your client, you must select from the drop down list the version of ProMaster Key Manager that your client has. This selection is remembered for future exports, but may be altered if necessary (e.g. Client upgrades to a new version of ProMaster Key Manager).

Versions prior to ProMaster Key Manager 7 are not supported due to the changes in field lengths and Unicode character set.

ProMaster Key Manager 8

If you have publishing configured (See [Configuring publishing](#))⁸⁴ and your client is using ProMaster Key Manager 8 then you can send the Key Manager system data to your client via the ProMaster publishing service.

See [Mobile services](#)⁸³ about permissions for configuring Key Manager Publishing and permissions for sending systems via the publishing service.

- Choose the Key Manager publishing configuration. Almost always for each client there should be just 1 to choose from and it will be called "Default"
- Note that the system you are exporting must be permitted for the selected publishing configuration (See [Configuring Key Manager users](#)¹⁸⁹). If you have the required permission, the **Configure Key Manager publishing button** will be available.
- If you are not using the Key Manager 8 publishing service then choose what you want to happen after the export and click **Finish**.

Update your client regularly. You must export this key management data to your client whenever changes are made to the system or an order is processed for doors or keys.

9.6 Signatories

Signatories are the people who are authorised to order keys and doors. The manner in which signatories are treated depends on way signatories are configured for your system.

System settings

The system settings which you configure are:

- Number of signatories required per to order keys.
- Type of key signatory security
- Number of signatories required per to order doors.
- Type of door signatory security

Type of signatory security

Type of signatory security is the fundamental control for how signatory authority is configured. Three choices for keys are available:

- **All keys require the system specified number of signatories:** The quantity set for "Number of signatories required per to order keys" is required to order any key. Any active signatories may make up the required number of signatories - but read also about mandatory signatories.
- **Allow a different number of signatories required for each key:** The quantity set for "Number of signatories required per to order keys" is required to order any key, but each key may be given an overriding number of signatories required for just that key. Any active signatories may make up the required quantity of signatories - but read also about mandatory signatories.
- **Individual signatories permitted and allow different number of signatories required for each key:** The quantity set for "Number of signatories required per to order keys" is required to order to order any key, but each key may be given an overriding quantity of signatories required for just that key. Each key must be assigned the signatories who are allowed to authorise that particular key. Any active signatories from those assigned to each key may make up the required number of signatories for that key - but read also about mandatory signatories.

The choices for doors are the same, but separate from the key choices.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Signatories**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your signatories.
- See [Entering signatories](#)¹²⁶ for information on signatories.

Other functionality

Right click a signatory and choose **Copy this signatory to other systems** to copy the select signatory into other systems for the same client. See [Copy signatory to other systems](#)¹³¹.

Right click a signatory and choose **Signatory history** to see changes that have been made to the signatory. See [Signatory history](#)¹²⁷.

Right click a signatory and choose **Jobs authorised by this signatory** to see a list of jobs who this signatory authorised. See [Job history for signatory](#)¹²⁷.

Right click a signatory and choose **Key authorities** to change which keys this signatory may order. Available when the type of key signatory security is "Individual signatories...". See [Key authorities](#)¹²⁷.

Right click a signatory and choose **Door authorities** to change which doors this signatory may order. Available when the type of door signatory security is "Individual signatories...". See [Door authorities](#)¹²⁸.

Right click a signatory and choose **Copy authorities from another signatory** to copy key or door authorities from another signatory to the selected signatory. Available when the type of key or door signatory security is "Individual signatories...". See [Copying authorities from another signatory](#)¹³⁰.

Right click a signatory and choose **Convert signatory from system signatory to client signatory** to promote the system signatory to become a client signatory. If a client signatory exists with the same name then the that client signatory will be used, otherwise a client signatory will be added.

Right click a signatory and choose **Convert signatory from client signatory to system signatory** to de-attach the signatory from the client signatory of the same name and leave it as a stand-alone signatory in the system.

Click the **Options** button then **Add from client** to select a client signatory and add it to the system.

Click the **Options** button then **Import signatories from another system** to select the signatories in another system and add them to the current system. See [Copy signatories to this system from another system](#)¹³⁰.

Click the **Options** button then **Key authorities matrix** to open a matrix of signatories and keys where you may alter an authority. Available when the type of key signatory security is "Individual signatories...". See [Key authorities matrix](#)¹²⁷.

Click the **Options** button then **Door authorities matrix** to open a matrix of signatories and doors where you may alter an authority. Available when the type of door signatory security is "Individual signatories...". See [Door authorities matrix](#)¹²⁹.

Click the **Options** button then **Display authorities** to toggle the display of doors and keys on or off.

The choices **Copy this signatory to other systems** and **Import signatories from another system** make copies of signatories but is better replaced with the client signatory functionality.

9.6.1 Entering signatories

Signatories may be entered against a system to be used for order authentication. Signatories may also be entered against the client and used for multiple systems.

For clients with multiple systems using the same signatories, consider using client signatories rather than adding each signatory to each system.

Getting started

See [Signatories](#)¹²⁵.

Explanation of data fields

The **Name** is required, and must be unique within this system. All other values are optional, but you may benefit in maintaining control over the system by gathering a full set of details.

The **Active** flag is used to deactivate a signatory in the future, while still maintaining a history of the signatory activity.

The **Mandatory signatory** flag indicates that the signatory must be included on every order, or if individual key authorities are assigned to a key or door then must be on the order for that key or door.

Signature

The image you store of a signatory's signature is displayed for verification when you are entering an order.

Photo

Like for the signature, the signatory photo is displayed for verification when you are entering an order, and may be beneficial for verifying over-the-counter orders.

9.6.2 Signatory history

Signatory history is used to document changes made to signatory details. When you add or change a signatory, you are prompted for information to document the change.

Getting started

See [Signatories](#)¹²⁵.

A list of changes is displayed.

9.6.3 Job history for signatory

Job history for signatory allows you to see the jobs for which a signatory has given authorisation.

Getting started

See [Signatories](#)¹²⁵.

A list of jobs is displayed.

You may click **Details** to open the highlighted job.

9.6.4 Key authorities

Available only if **Type of key signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each key**.

Key authorities is one of several ways you may see and alter the keys that a signatory is permitted to order.

Getting started

See [Signatories](#)¹²⁵.

Making a change

A list of keys is shown.

Check any keys that the signatory is permitted to order.

Right click the key list for more options.

9.6.5 Key authorities matrix

Available only if **Type of key signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each key**.

Key authorities matrix is one of several ways you may see and alter the keys that a signatory is permitted to order. The key authorities matrix is a matrix of all active signatories and all keys (other than disabled and replaced) so that you may get an overview of permissions and make rapid changes.

Getting started

See [Signatories](#)¹²⁵.

An explanation of the options

Option	Description
Find key	Search for keys. Keys that start with the text you enter are indicated with a purple arrow. If there is a key that is a full match for the text you entered then that key is selected as well as the purple arrow.
Key details	Shows information about the current key.
Find signatory	Search for signatories. Signatories that start with the text you enter are indicated with a purple arrow. If there is a signatory that is a full match for the text you entered then that signatory is selected as well as the purple arrow.
Signatory details	Shows information about the current signatory.
Toggle authority	Toggles the authority for the selected cells.
Authority on	Turns authority on for the selected cells.
Authority off	Turns authority off for the selected cells.
This key Key on	Turns authority on for the selected key for all signatories.
This key Key off	Turns authority off for the selected key for all signatories.
This key Undo changes to this key	Undoes all changes to the selected key, reverting it to the authorities it had when you opened the window.
This signatory Signatory on	Turns authority on for the selected signatory for all keys.
This signatory Signatory off	Turns authority off for the selected signatory for all keys.
This signatory Undo changes to this signatory	Undoes all changes to the selected signatory, reverting it to the authorities it had when you opened the window.

Other functionality

Right click on the matrix for other option. Some options on this pop-up menu are the same as the toolbar (however you can learn the shortcut keys by looking at the pop-up menu), but the new options are listed here.

Option	Description
Change orientation	Swaps the location of signatories and keys in columns/rows.
Show indicator for unassigned signatories and keys	Turn on to show a warning graphic by each key that does not have signatories assigned and by each signatory that does not have keys assigned.
Find next ...	Navigates from the current location to other authorities in each direction.

Notes

A green + graphic indicates each authority added and a red - graphic indicates each authority removed.

Changes are not saved until you click **OK**.

9.6.6 Door authorities

Available only if **Type of door signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each door**.

Door authorities is one of several ways you may see and alter the doors that a signatory is permitted to order.

Getting started

See [Signatories](#)¹²⁵.

Making a change

A list of doors is shown.

Check any doors that the signatory is permitted to order.

Right click the door list for more options.

9.6.7 Door authorities matrix

Available only if **Type of door signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each door**.

Door authorities matrix is one of several ways you may see and alter the doors that a signatory is permitted to order. The door authorities matrix is a matrix of all active signatories and all doors (other than disabled and replaced) so that you may get an overview of permissions and make rapid changes.

Getting started

See [Signatories](#)¹²⁵.

An explanation of the options

Option	Description
Find door	Search for doors. Doors that start with the text you enter are indicated with a purple arrow. If there is a door that is a full match for the text you entered then that door is selected as well as the purple arrow.
Door details	Shows information about the current door.
Find signatory	Search for signatories. Signatories that start with the text you enter are indicated with a purple arrow. If there is a signatory that is a full match for the text you entered then that signatory is selected as well as the purple arrow.
Signatory details	Shows information about the current signatory.
Toggle authority	Toggles the authority for the selected cells.
Authority on	Turns authority on for the selected cells.
Authority off	Turns authority off for the selected cells.
This door Door on	Turns authority on for the selected door for all signatories.
This door Door off	Turns authority off for the selected door for all signatories.
This door Undo changes to this door	Undoes all changes to the selected door, reverting it to the authorities it had when you opened the window.
This signatory Signatory on	Turns authority on for the selected signatory for all doors.
This signatory Signatory off	Turns authority off for the selected signatory for all doors.
This signatory Undo changes to this signatory	Undoes all changes to the selected signatory, reverting it to the authorities it had when you opened the window.

Other functionality

Right click on the matrix for other option. Some options on this pop-up menu are the same as the toolbar (however you can learn the shortcut doors by looking at the pop-up menu), but the new options are listed here.

Option	Description
Change orientation	Swaps the location of signatories and doors in columns/rows.
Show indicator for unassigned signatories and doors	Turn on to show a warning graphic by each door that does not have signatories assigned and by each signatory that does not have doors assigned.
Find next ...	Navigates from the current location to other authorities in each direction.

Notes

A green + graphic indicates each authority added and a red - graphic indicates each authority removed. Changes are not saved until you click **OK**.

9.6.8 Copying authorities from another signatory

Available only if **Type of key signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each key**, or the same setting for doors.

This procedure allows you to quickly set the key authorities for one signatory to be the same as for another signatory.

Getting started

See [Signatories](#)¹²⁵.

Making a change

From the drop down list, copy the signatory from which you want to copy the authorities.

Choose key authorities, door authorities or both.

When you click OK, authorities on the signatory are replaced to be the same as the one that you choose to copy from.

9.6.9 Copy signatories to this system from another system

Sometimes a client has more than one master key system, and there may be signatories who are the same for more than one system. This is one of two processes for copying signatories between systems for the same client.

If a client has multiple systems with the same signatories, please consider using client signatories rather than this process. If you copy signatories between systems they are individually maintained, whereas client signatories are centrally maintained.

Getting started

See [Signatories](#)¹²⁵.

Making a change

Using the drop down list, choose another system belonging to the same client from which you want to copy signatories.

In the list of signatories, check the signatories that you want to copy.

Client signatories are shown with the client graphic but may not be selected. For client signatories see **Add from client** in the topic [Signatories](#)¹²⁵.

Choose if you want to only add new signatories, or if the signatory matches an existing one if you want to update the signatory details.

Click OK to perform the copy.

Images in the list of signatories indicate that the signatory will be added if it is selected, or edited if it is selected and you have chosen the option to update existing signatories.

9.6.10 Copy signatory to other systems

Sometimes a client has more than one master key system, and there may be signatories who are the same for more than one system. This is one of two processes for copying signatories between systems for the same client.

If a client has multiple systems with the same signatories, please consider using client signatories rather than this process. If you copy signatories between systems they are individually maintained, whereas client signatories are centrally maintained.

Getting started

See [Signatories](#)¹²⁵.

Making a change

A list is displayed of other systems belonging to the same client. Check the systems to which you want to copy the signatory.

The list of systems excludes those systems with the client signatory already added, and excludes systems where you do not have permissions to open the system.

System signatory

If the selected signatory is a system signatory (i.e., not a client signatory) then:

Choose if you want to only add new signatories, or if the signatory matches an existing one if you want to update the signatory details.

If a client signatory with the same name exists on another system it will not be altered.

Click **Copy signatory** to perform the copy.

Images in the list of systems indicate that the signatory will be added if it is selected, or edited if it is selected and you have chosen the option to update existing signatories.

Client signatory

If the signatory you have selected is a Client signatory then it becomes a client signatory on the destination systems.

If a system signatory with the same name exists on another system it will not be altered.

Click **Copy signatory** to perform the copy.

9.7 Documents

Any amount of documentation may be stored within a system. Documentation may be notes only, or images, or any of the supported document types (e.g. zip, rar, pdf, xps, msg, rtf, txt, doc, docm, docx, xls, xlsx, ppt, pptm, pps, ppsm, pptx, ppsx).

Documents may be related to the system only, or may be tied to a particular job.

Once a document has been added to the system it is immutable.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Documents**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to manage your documents.

When you add a document, you will be asked if you want to add a document, image (load from disk, capture from scanner or paste from clipboard) or notes only.

If you are storing an image (from a file, your scanner or the clipboard), you will be presented with the image in the image editor (see [Image editor](#)³³⁶) where you can perform edits to the image to optimise it for readability and size.

You may drag a file from Windows Explorer or Microsoft Outlook and drop it onto the target instead of choosing a source and clicking OK to select the file. The file you drop must be one of the accepted document or image types and it must be a single file.

You may drag the whole message (.msg file) from Outlook into the document store. Outlook Express EML files are not supported.

Outlook Web Access email in eml format are supported. You must download the message from OWA then add it as a document.

Document properties

- You must provide a **Type** for your document before you store it. The **Type** is used for easy identification of the document at a later time.
- The document description should contain a useful description, helpful when later retrieving the document.
- A tab shows your document, and another tab is provided where you may record notes about the document.

The document properties may be edited at a later time, but once saved, the actual document (image, PDF, DOC etc) is immutable.

You may print the graphic by clicking on the **Print** button.

Other functionality

By right clicking on a document in the list, you may:

Option	Description
Move up	Changes the order that documents will appear in the system. Available only when all items are being displayed.
Move down	Changes the order that documents will appear in the system. Available only when all items are being displayed.
Sort by date	Sorts the documents according to the date. Available only when all items are being displayed.

Convert document from client document to system document	De-attach the document from the client document and leave it as a stand-alone document in the system.
Add from client	Select a client document and add it to the system. See Copy client document to systems ¹⁰⁹

9.8 Alerts

Alerts are messages that appear either always or after a particular date. They are shown at the bottom of the ProMaster Master Keying main window when the system is open.

Alerts flagged to always show are always shown, provided you have not unselected the Show this alert flag.

Alerts set to show on and after a date show on that date, provided you have not unselected the **Show this alert** flag and only until they are flagged as acknowledged.

Where the alerts are shown at the bottom of the ProMaster Master Keying main window, buttons step between the alerts and for alerts with a date, there is a button to acknowledge the alert so that it disappears.

Click on the alert description at the bottom of the ProMaster Master Keying main window to open the alert so that you may read its notes.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Alerts**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your alerts.
- Right click on an alert to access options for sorting the alerts. Sorting choices are available only if you have searched for all items.

Notes

The description is shown on the ProMaster Master Keying main window.

Deselecting the **Show this alert** flag will, regardless of date choices, always hide the alert.

If the alert is to be shown only after a date, you must enter the date.

The notes are shown only when you open the alert

9.9 Keys

The keys window is the hub for almost all key activity. Depending on where you have accessed keys, functionality is made available or removed to match the current requirements. None the less, the basics of how you search for keys remains the same.

Getting started

- You must be logged in with a system open.

- From the **System** menu, select **Keys**

While all the search options are clearly worded, there are some more complex options that can help you refine your key search and it is worthwhile having a look at some of the options like "Key above" and "Replaced" so that you are familiar with them should the need arise.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your keys.
- See [Entering keys](#)¹³⁴ for information on keys.

Other functionality

Click the **Door access** button to see or alter the doors operated by the key. See [Door access](#)¹³⁶.

Click the **Signatories** button to see or alter the signatories permitted to order the key. See [Authorised signatories for key](#)¹³⁷.

Right click a key and choose **Replace** to replace the selected key with a new key (e.g. It has been lost). See [Replace key](#)¹³⁷.

Right click a key and choose **History** to see a list of jobs where the key was ordered. See [Key history](#)¹³⁷.

Right click a key and choose **Move up / Move down** to change the order of the keys. This is available only if the search has returned all keys, including replaced keys. See also [Sort keys](#)¹⁴⁰.

Right click a key and choose **Find the key above this key, Find keys below this key, Find keys with the same key above as this key** to perform a new search based on the key hierarchy of the current key.

Click the **Options** button then **Bulk change** to open the bulk changer with the current selection of keys. See [Bulk change keys](#)¹⁴⁰.

Click the **Options** button then **Sorter** to open the key sorter. See [Sort keys](#)¹⁴⁰.

Click the **Options** button then **Keying matrix** to open the keying matrix with the initial view set to the current selection of keys. See [Keying matrix](#)¹⁵⁶.

Click the **Options** button then **Import CSV** to import keys from a csv file. See [Importing keys from a csv file](#)¹³⁸.

9.9.1 Entering keys

Getting started

See [Keys](#)¹³³.

Explanation of data fields

Data field	Description
Key	The number that uniquely identifies this key within the system. Each key has a unique key number.
Description	A description of the key to give it meaning beyond that attributed to the key number.
Category	Category allows you to perform basic grouping on keys. This information has no meaning beyond grouping keys together into a logical group and for searching purposes.
Key above	The Key above specifies the key above this key in hierarchy. The top level key in a system will have no keys above. See Understanding key designations and hierarchy ¹³⁶ .

Designation	The designation specifies the keys purpose. See Understanding key designations and hierarchy ¹³⁶ .
Part code	Available when the application parameter Allow entry of key part code is turned on. Allows a part code to be recorded for the key. Generally this would not be used, and is provided for customers with manufacturing integration processes.
Stamping	Available when the application parameter Allow entry of key stamping is turned on. Stamping is optional, but when entered the value is used in preference to the key number when marking keys during manufacturing.
Ship this key separate from lock parts	This option, if checked, is considered during the job process. If a key which has this option checked is ordered on the same job as any lock products (i.e. Doors) then this option will enforce the entry of two shipping addresses for the job.
Key is disabled	This flag allows you to effectively obsolete a key. A disabled key may not be assigned to any doors, nor may it be ordered.
Signatory quantity required	If your system is restricted by signatory, or allows for a different number of signatories required to order each key then this field will be available. The system default is shown, and if you enter a value for Signatories quantity required then it will take precedence when validating a job with this key.
Add this key to a job	Available when adding a key (but not modifying an existing one), the Quantity specifies the quantity of this key to order. The default value for Quantity is set for the system (and you may change the default by modifying the system details). The note is added to the line item for this key if you order it by entering a quantity. Most often this note is not required, but may be used to convey special manufacturing or delivery instructions.
Add a door for this key	If you turn on this option, then after the key is added, you will be given the opportunity to add a door, which will then be operated by this key. This option is available only when adding keys (I.e. Not when modifying existing keys).

Saving the key

When you have finished entering your key information, either click **OK** if you have no more keys to add, or click **Save / Add another** to save this key then continue adding keys. When you click **Save / Add another**, ProMaster Master Keying pre-populates some of the fields with information derived from the key that you have just saved. See [Setting your preferences](#)¹³⁵.

When you use **Save / Add another** to add multiple keys, ProMaster Master Keying indicates at the bottom of the window the key that was most recently added. This will assist you in not omitting any keys when entering them from a list.

Save / Add another is available when adding keys, but not when modifying an existing key.

Editing keys

If you edit a key that has been ordered, the **Key number** will be protected from change. The **Edit key number** button allows you to make this field editable. If keys have been manufactured and stamped, or data sent to the client then exercise discretion in doing this.

While editing a key, the **History** option access a list of jobs on which the key was ordered, and gives you the ability to see the job details.

Notes

Add a door for this key: The default for this flag is determined by the [Preference](#)¹³⁵ **When adding keys default "Add door" to checked.** There are many ways of entering doors, keys and keying so you should alter this preference to correspond to the way you operate.

In the top right of this window, **Issues** indicates the number of times this key has been ordered.

9.9.2 Understanding key designations and hierarchy

Key above and **Designation** play a number of roles.

For ProMaster Master Keying they form a central part of automatic coding. When assigning keys to doors, the key above is used to propagate the assignment to master keys. From the user perspective they perform a documentation role and help facilitate good system design and understanding. Additionally, there are some special key designations that affect specific design modules.

It is important to understand and adhere to the rules for **Key above** and **Designation**.

Key above

In a system, the top level key will not and must not have a **Key above**. All other keys should be assigned a key above that complies with the following rules.

- Any key that is a **Key above** for another key must be designation **Master**.
- If key A is above key B, then key A must operate all doors operated by key B. Or put another way, key B must not operate any doors that are not operated by key A.
- If a key is not the **Key above** another key, then its **designation** must not be Master.

Designation

Designation	Description
Master	A Master key fits into a pure hierarchy layout and is the Key above for one or more other keys
Change	A Change key is a bottom level key that fits into a pure hierarchy layout. A Change key must not be the key above for another key.
Selective	A Selective key does not fit into a pure hierarchy layout. A selective key must not be the Key above for another key.
Construction	The Construction key is available on construction keyed systems for design modules that support construction keying.
Control	The Control key available only on design modules that have interchangeable code cylinders.

If a key is the **Key above** another key, then it **must** operate all doors that the lower level key opens.

9.9.3 Door access

Door access is one of several ways to see keying. This method allows you to select a single key and see or edit the doors that it operates.

Getting started

See [Keys](#)¹³³.

The **Door access for key window** shows the door that the key operates.

Making a change

- Click **Add** to add doors to the key. When you add a door, and if the key has a key above, ProMaster Master Keying will offer to add also keys above the key you are working on to the door.
- Click Remove to **Remove** the selected door from the key.

When doors have different internal keying (for double cylinders), be careful to select the correct side of the door when adding it to the key.

Be aware that once a system is coded, any changes you make will affect the pinning for your doors. When you make keying changes, ProMaster Master Keying marks the system **as Coding required** so that coding for affected doors must be recalculated before any manufacturing may proceed.

9.9.4 Authorised signatories for key

Available only if **Type of key signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each key**.

Authorised signatories for key is one of several ways you may see and alter the keys that a signatory is permitted to order.

Getting started

See [Keys](#)¹³³.

Making a change

A list of signatories is shown.

Check any signatories that are permitted to order the key.

9.9.5 Key history

Key history allows you to see the jobs when a key was ordered.

Getting started

See [Keys](#)¹³³.

A list of jobs is displayed.

You may click **Details** to open the highlighted job.

9.9.6 Replace key

Replacing a key is the process whereby you effectively say "The old key is lost, here's the new key to replace it". Now, take a moment to dwell on this since replacing a key is much tidier than simply creating a new key and hoping the old key does not get ordered. Here's why:

When you create a replacement key, the old key remains, along with its coding and its history, but since it is flagged as replaced then it may no longer be ordered, and customers using ProMaster Key Manager see the key as deleted. All other attributes from the replaced key including its keying, signatory authorities and key groups are attributed to the replacement key.

Getting started

See [Keys](#)¹³³.

You must enter the key number for the replacement key.

Keying the replaced key

The keying from the replaced key is attributed to the replacement key, and the replaced key (which still exists out there somewhere) maintains its coding information. All the normal data entry places for controlling keying do not allow you to assign any keying to the replaced key.

Now, if the replaced key previously operated a central or maison keyed door, you may find that the replaced key appears as a phantom or error when performing coding. This is because the lock coding still allows the replaced key to pass but the replaced key is no longer keyed to operate that lock.

This is intentional, and you must make a simple choice on how you wish to handle it.

- Your first choice is to replace other keys that operate the central door, thereby changing the lock pinning so that the initial replaced key no longer presents an error. In a high security situation this will likely be the preferred answer, then the time and cost of numerous system changes must be considered.
- The other choice, and one frequently adopted is that the replaced key (the one that was lost) does not present sufficient security compromise to warrant further cost, and the replaced key should be allowed to continue operating the central door. In this case you must assign the to operate the door, thereby eliminating the phantom key error report.

All the normal data entry places for controlling keying do not allow you to assign any keying to the replaced key. When you are performing coding for a replaced key, you must assign the replaced key's keying from within the keying matrix on the coding screens (**Coding tree** or **Coding matrix**).

Assigning keying while replacing key

If you have coding permissions, then on the **Replace key** window there will be the option to select doors that will continue to be operated by the replaced key (as well as by the replacement key). Do this only if you are certain about the requirements, otherwise leave the keying until you perform the coding.

9.9.7 Exporting keys to a csv file

See [Exporting system data to a csv file](#)²⁴⁹.

9.9.8 Importing keys from a csv file

If you have a CSV file with key information you can import this data.

Read the topic [Key import \(CSV\) file format](#)³³⁴ for more information on the file contents allowed.

The **key** field in the import is matched to existing values to determine if the key is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

See [Keys](#)¹³³.

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is

the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

9.9.9 Key groups

Key groups provide a way to take a selection of keys, with no particular rules constraining your selection, and to give that selection a meaningful name. Key groups can then be used for a number of reporting operations and also to set the keying of a door group to all the keys in a selected key group.

Getting started

- You must be logged in with a system open.
- From the **Keys** menu, select **Key groups**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your key groups.

Editing the group

Whether you are adding a group or altering an existing one, the process is simple.

- The group must have a name, and than group name must not be used by another key group within this system

- Click **Add** to select keys that you want in the group. You may do this as many times as you need.
- Click **Remove** to take a key out of the group.

When you have finished editing the group, click OK to save it.

9.9.10 Bulk change keys

Bulk changing is the process whereby you may apply the same change to a few or even many keys in a single operation. It is useful for changing a number of keys when you have entered them without this information or to rapidly fix data errors.

Getting started

- You must be logged in with a system open.
- From the **Keys** menu, select **Bulk change keys**.

Alternatively, initiate the bulk change from the keys window after having searched for a range of keys. See [Keys](#)¹³³.

Making a change

The process of making a bulk change is very simple, just follow these steps.

- Ensure that the correct keys are selected, selecting or deselecting them as necessary.
- In the **Data type** list, choose what you want to change
- The options for what you may change depend on the selection made. Enter the information for your change (e.g. new value, selection, etc)
- Click the **Apply change** button.

Repeat these 4 steps as many times as you want.

Finally, to save your changes click the **OK** button.

Notes

Within this window, the selected change is applied only to items that are checked (in the far left column of each item)

You can check and uncheck items individually, or use the **Select all** and **Clear selection** buttons. Right click on the list for more selection options.

You can make as many different types of changes as you like within this window.

Changes are stored in memory, and are not saved until you click the **OK** button.

Keys that have been changed are indicated by a pencil graphic next to the key selection. You may undo changes to keys by right clicking and choosing **Undo**. Right click and choose **Show changed values** so see a graphic indicator of the individual values that have been altered.

9.9.11 Sort keys

Generally, keys are added after the selected key when adding from the keys window, otherwise at the end of the key list.

If your keys are out of order, this process gives more sorting capabilities than sorting one key at a time from the keys window. (See [Keys](#)¹³³)

Getting started

- You must be logged in with a system open.
- From the **Keys** menu, select **Sort keys**.

Making a change

The process of sorting keys involves selecting the keys to sort then applying a sorting operation to those selected keys. The process may be repeated as many times as necessary.

Selection and sorting operations are accessible through the button bar at the top of the window, through a pop-up context menu (right click mouse) and through various hot-key combinations.

Selecting keys

Keys may be selected using mouse/keyboard, including shift-clicking to select a range and ctrl-clicking to select dis-contiguous keys, or various menu options such as:

- Select all
- Select none
- Select keys with the same category (The currently highlighted key must have a category)
- Select to bottom (Selects from the currently highlighted key to the end)
- Select keys with the same key above
- Select the key above this key
- Select keys below this key

Sorting keys

The sorting operation is applied to the selected keys.

Option	Description
Move up	Moves all selected keys up one position.
Move down	Moves all selected keys down one position.
Move up page	Moves all the selected keys up half the height of the window.
Move down page	Moves all the selected keys down half the height of the window.
Bring together	Brings all the selected keys together, positioning them under the topmost selected key.
Sort key number as text	Sorts the selected keys by doing a text comparison on their key numbers.
Sort key number	Sorts the selected keys in logical numerical order. All selected keys must have a numerical component in the key number. Each key number is broken into multiple numerical components and these are compared for sorting purposes. A numeric sort will correctly produce the sequence 1.1, 1.2, ..., 1.9. 1.10, 1.11, 2.1, 2.2, ..., 2.9, 2.10
Sort USA	Sorts the selected keys according to the USA key naming convention.
Sort by description	Sorts the selected keys by their descriptions.

Finally, to save your changes click the OK button.

9.9.12 Key hierarchy

This feature shows the key hierarchy in a tree layout, and allows you to make changes by dragging a key onto a different key which then becomes it's key above.

Getting started

- You must be logged in with a system open.
- From the **Keys** menu, select **Key hierarchy**.

Making a change

- Drag a key onto a different master to change it's key above.

Exercise caution - is it easy to make a mess by dropping keys in the wrong place.

Print key hierarchy

From the **Options** menu choose **Print**. See [Key hierarchy](#)¹⁷³.

You may print the original hierarchy or the changed hierarchy (if you have made a change).

9.9.13 Set key quantity issued

Key issue numbers are tracked automatically when keys are manufactured.

For legacy systems entered into ProMaster Master Keying, it is unlikely that you have a complete order history available (and that you want to enter all historical jobs), so you may want to set the quantity of each key issued manually.

Getting started

- You must be logged in with a system open.
- From the **Key** menu, select **Set key quantities issued**.

Making a change

All keys are show, along with the quantity currently known, and as a comparison the quantity accounted for on jobs in ProMaster Master Keying.

Note that for clarity, the job quantity is displayed only if it differs from the quantity currently known.

Enter the new quantity that has been produced for any keys that are incorrect.

Do this only for legacy systems. Incorrect values will interfere with the automatic allocation of issue numbers on jobs.

9.10 Doors

The doors window is the hub for almost all door activity. Depending on where you have accessed doors, functionality is made available or removed to match the current requirements. None the less, the basics of how you search for doors remains the same.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Doors**

While all the search options are clearly worded, there are some more complex options that can help you refine your door search and it is worthwhile having a look at some of the options like "Duplicate stamping", "Keys" and "Multiple keyings" so that you are familiar with them should the need arise.

Making a change

- Use the **Add, Remove** and **Edit** buttons to set up your doors.
- See [Entering doors](#)¹⁴³ for information on doors.

Other functionality

Click the **Key access** button to see or alter the keys that operate the door. See [Door keying](#)¹⁴⁵.

Click the **Signatories** button to see or alter the signatories permitted to order the key. See [Authorised signatories for door](#)¹⁴⁶.

Right click a key and choose **Hardware** to record hardware other than the locking product. See [Recording door hardware](#)¹⁴⁶.

Right click a key and choose **History** to see a list of jobs where the door was ordered. See [Door history](#)¹⁵⁰.

Right click a key and choose **Move up / Move down** to change the order of the doors. This is available only if the search has returned all doors. See also [Sort doors](#)¹⁵⁴.

Click the **Options** button then **Bulk change** to open the bulk changer with the current selection of doors. See [Bulk change doors](#)¹⁵³.

Click the **Options** button then **Sorter** to open the door sorter. See [Sort doors](#)¹⁵⁴.

Click the **Options** button then **Keying matrix** to open the keying matrix with the initial view set to the current selection of keys. See [Keying matrix](#)¹⁵⁶.

Click the **Options** button then **Duplicate doors** to duplicate one or more doors multiple times. See [Duplicating doors](#)¹⁴⁶.

Click the **Options** button then **Duplicate area** to duplicate a door areas one or more times. See [Duplicating a door area](#)¹⁴⁸.

Click the **Options** button then **Import CSV** to import keys from a csv file. See [Importing doors from a csv file](#)¹⁵⁰.

Click the **Options** button then **Import door renaming CSV** to import keys from a csv file. See [Importing door renaming from a csv file](#)¹⁵¹.

9.10.1 Entering doors

Getting started

See [Doors](#)¹⁴².

Explanation of data fields

Data field	Description
Door	The number that uniquely identifies this Door within the system. Each Door has a unique key number.
Stamping	The stamping is information that may be marked onto the cylinder during manufacturing. The way in which you use the stamping will depend on which school of thought you follow. Some people want the stamping to be the same as the door number, others believe that the stamping should be the key number of the lowest level key that is to operate the door, while others use the stamping in a more abstract manner.
Description	A description of the door to give it meaning beyond that attributed to the door number.
Area	The area is used to represent the physical location of the door. In a multi building project, the area should contain a reference to the building and to the level. You may type in a new area, or pick one used on another door within the system from the drop down list.

Stage	While normally not used, the stage allows you to record doors by stage in large ongoing building projects.
Non keyed	Used to indicate that the door does not have a locking product and is not operated by any keys. You may record the details of non-keyed doors, including additional hardware if you have enabled the hardware recording functionality, however a non-keyed door may not be assigned any keys and may not be ordered.
Door is disabled	This flag allows you to effectively obsolete a door. A disabled door may not be ordered. Disabled doors still form part of the pinning calculation and checking and therefore must comply with the rules (Note that often a door is disabled because the customer no longer uses it, but the cylinder still exists somewhere). Disabled doors are not exported to ProMaster Key Manager 8.
Lock	If the door is keyed (I.e. It has a lock on it and is operated by one or more keys) then this lock is the part code of the lock or cylinder installed on this door. You may select a lock by clicking on the Select lock button, or choose one from the drop down list of locks used on other doors within this system.
Different keying side 2	Turn this on for doors with a double cylinder that are keyed differently on the inside. If the internal keying is the same as the external keying, do not turn this on.
Notes	A place for you to store a small amount of notes about this door
Height, Width, Thickness	The dimensions of the door. Useful if you have this information and wish to record it so you have it available later to assist in determining appropriate products.
Signatory quantity required	If your system is restricted by signatory, or allows for a different number of signatories required to order each key then this field will be available. The system default is shown, and if you enter a value for Signatories quantity required then it will take precedence when validating a job with this key.
Pinning notes	Available only if you have coding rights, the pinning notes allow you to record any special manufacturing instructions for this door. Typically the pinning notes would not be required.
Info URL	Available if enabled by the setting "Allow entry of door Info URL" in the Application parameters ⁵³ . The URL must start "http://" or "https://". There is an option to open the URL in your browser.
Add this door to a job	Available when adding a door (but not modifying an existing one), the Quantity specifies the quantity of this door to order. The default value for Quantity is set for the system (and you may change the default by modifying the system details). The note is added to the line item for this door if you order it by entering a quantity. Most often this note is not required, but may be used to convey special manufacturing or delivery instructions.
Add a key to this door	If you turn on this flag, then after the door is added, you will be given the opportunity to add a key, which will then be assigned to operate this door. This option is available only when adding doors (I.e. not when modifying existing doors).
Add hardware to this door	If you turn on this flag, then after the door is added, you will be given the opportunity to record additional hardware (e.g. closer) against the door. This option is available only if you have enabled hardware recording in the configuration of this system.

Saving the door

When you have finished entering your door information, either click **OK** if you have no more doors to add, or click **Save / Add another** to save this door then continue adding doors. When you click **Save / Add another**, ProMaster Master Keying pre-populates some of the fields with information derived from the door that you have just saved. See [Setting your preferences](#)¹³⁵.

When you use **Save / Add another** to add multiple doors, ProMaster Master Keying indicates at the bottom of the window the door that was most recently added. This will assist you in not omitting any doors when entering them from a list.

Save / Add another is available when adding doors, but not when modifying an existing door.

Editing doors

If you edit a door that has been ordered, the **Door number** and **stamping** will be protected from change. The **Edit door number** button allows you to make these fields editable. If doors have been manufactured and stamped, or data sent to the client then exercise discretion in doing this.

While editing a door, the **History** option access a list of jobs on which the door was ordered, and gives you the ability to see the job details.

Notes

Stamping: Then you are adding a door, and then save it, the application parameter **When adding doors, copy keying from doors with the same stamping** is read, and if the parameter is set on, ProMaster Master Keying then locates a door with the same stamping and copies the keying from that door to the one that you have just added. For those users who use the stamping to identify doors that are keyed identically, this is a parameter which you might consider turning on.

Add a key to this door: The default for this flag is determined by the [Preference](#)¹³⁵ **When adding doors default "Add key" to checked**. There are many ways of entering doors, keys and keying so you should alter this preference to correspond to the way you operate.

In the top right of this window, **Issues** indicates the number of times this door has been ordered.

9.10.2 Door keying

Door keying is one of several ways to see keying. This method allows you to select a single door and see or edit the keys that operate it.

Getting started

See [Doors](#)¹⁴².

The **Door keying** shows the keys that operate the door.

Making a change

- Click **Add** to add keys to the door. When you add a key, and if the key has a key above, ProMaster Master Keying will offer to add also keys above the key you are adding to the door.
- Click **Add group** to select a key group. All keys in the selected group will be assigned to operate the door.
- Click Remove to **Remove** the selected key from the door.

When doors have different internal keying (for double cylinders), two sets of keying are shown. Click in then external or internal keying to select that side of the door.

Bottom level key

If the application parameter **Allow keys to be ordered as "Key quantity per cylinder" on each door** is turned on to allow the ordering of change keys for an ordered cylinder, then the **bottom level** key for the door will be shown at the top of the window. By default, the **bottom level** key is defined as the only change

key that operates a door. In the event that several change keys operate a door, or that no change keys operate a door then you must define which key is considered the bottom level key. This is done by right clicking on the key within the list that you want to make into the bottom level key and choosing the menu option to **Set bottom level key**. Your setting may be removed with the **Clear bottom level key** menu selection, reverting to the algorithm that selects the singular change key for the door. This feature is not available for internal keying on doors.

Be aware that once a system is coded, any changes you make will affect the pinning for your doors. When you make keying changes, ProMaster Master Keying marks the system as **Coding required** so that coding for affected doors must be recalculated before any manufacturing may proceed.

9.10.3 Authorised signatories for door

Available only if **Type of door signatory security** is set to **Individual signatories permitted and allow different number of signatories required for each door**.

Authorised signatories for door is one of several ways you may see and alter the doors that a signatory is permitted to order.

Getting started

See [Doors](#)¹⁴².

Making a change

A list of signatories is shown.

Check any signatories that are permitted to order the door.

9.10.4 Recording door hardware

ProMaster Master Keying allows you to record hardware items for your doors other than the locking product required for your key system. Door hardware recording is enabled on a system-by-system basis, either when you create the system or at any later time by altering the system setting **Allow door hardware to be recorded**.

Getting started

- From the **Doors** menu, select **Doors**.
- Search a door.
- Right click the door and select **Hardware**.

Making a change

- Use the **Add, Remove** and **Edit** buttons to set up your door hardware.
- Use **Increase** and **Decrease** to alter the quantity of the selected item.

9.10.5 Duplicating doors

The process of duplicating doors takes one or more doors, preferably with some commonality in the way they are numbered, and from this it produces piles more doors.

Duplicating doors is a feature that will save you a huge amount of time on large and well structured projects. To use this feature to its maximum potential, you need to plan your data entry.

Getting started

- From the **Doors** menu, select **Doors**.

- Search for the first door you want to duplicate.
- Click **Options** the **Duplicate doors**.

Making a change

Select doors

The first door will be displayed.

- Use the **Select doors** and **Remove door** buttons to build up the list of doors you want to duplicate.

Door numbering

The door numbers of the doors you selected are analysed, and ProMaster Master Keying determines which parts of the door numbers can be changed to produce the new doors.

- Choose the method for how new door numbers will be created.

Here are the methods and how they work:

Method	Description
Create new door numbers using structured numbering	<p>Looks for common parts in the door numbers and if common parts are available then this method is allowed. For example, doors 1.1A, 1.1B and 1.1C would be analysed as Numeric,Symbol,Numeric,Alpha and as the numeric parts are the same on all doors, they would be available for this method.</p> <p>You must enter the number that new doors will start from and progress up to.</p> <p>So, in this example, if you chose the second numeric portion and choose starting from 2 and progressing up to 4, then the following door numbers are generated: 1.2A, 1.2B, 1.2C, 1.3A, 1.3B, 1.3C, 1.4A, 1.4B, 1.4C.</p>
Create new door numbers using door number generation rules	<p>This method works regardless of how existing doors are numbered and generates a sequence of new numbers for the new doors.</p> <p>You may enter a prefix and suffix. You must specify what the starting number is and how many of each door are generated.</p> <p>So, using the example where you are duplicating 3 doors, and you enter Prefix "X", Suffix "SP", Number from "2", Qty of each door "3" and pad number length to "2", then the following door numbers are generated: X02SP, X03SP, X04SP, X05SP, X06SP, X07SP, X08SP, X09SP, X10SP.</p>

Door description

If there is no portion of the door description that reflects the door number, there are no options available. More often than not this should be the case as it is usually superfluous to include the door number as part of the door description.

If however the door Descriptions did include a representation of the door number (e.g. Apartment Entrance 1.1, Bedroom 1.1, Bathroom 1.1) then the wizard determines if the door descriptions can be automatically generated and gives you choices accordingly.

The option to change the way door descriptions are generated is available only when you are using structured numbering.

Door stamping

Choose if the stamping for each new door is to be the same as the door from which it was created, or if the stamping for the new doors should be made the same as the new door number.

Confirm new door numbers

All the door numbers and descriptions that will be created are displayed. Peruse the list to be certain that it is what you are expecting.

Ready to duplicate doors

A summary of the change that will be applied is shown.

Each door generated will have the same lock, area and other attributes as the door from which it is generated.

9.10.6

Duplicating a door area

The process of duplicating door areas takes all the doors in an area, preferably with some commonality in the way they are numbered, and from this it produces new areas that are a copy of the original area. For example, you might enter doors for level 1 of an apartment building and then duplicate this for areas 2 and 3.

Duplicating door areas is a feature that will save you a huge amount of time on large and well structured projects. To use this feature to its maximum potential, you need to plan your data entry.

Getting started

- From the **Doors** menu, select **Doors**.
- Search for the first door you want to duplicate.
- Click **Options** the **Duplicate area**.

Making a change

Select area

Select the area you want to duplicate. The choice is pre-populated with the door you selected before starting the wizard.

Select doors

The doors in the area you selected are shown. Initially they are all selected. Before proceeding, peruse the list and deselect any doors that you do not want to duplicate for the new area.

Door numbering

The door numbers of the doors you selected are analysed, and ProMaster Hardware determines which parts of the door numbers can be changed to produce the new doors.

- Choose the method for how new door numbers will be created.

Here are the methods and how they work:

Method	Description
Create new door numbers using structured numbering	Looks for common parts in the door numbers and if common parts are available then this method is allowed. For example, doors 1.1A, 1.1B and 1.1C would be analysed as Numeric,Symbol,Numeric,Alpha and as the numeric parts are the same on all doors, they would be available for this method. You must enter the number that new doors will start from and progress up to.

	So, in this example, if you chose the first numeric portion and choose starting from 2 and progressing up to 3, then two areas are created with the following door numbers are generated: 2.1A, 2.1B, 2.1C, 3.1A, 3.1B, 3.1C.
Create new door numbers using door number generation rules	<p>This method works regardless of how existing doors are numbered and generates a sequence of new numbers for the new doors.</p> <p>You may enter a prefix and suffix. You must specify what the starting number is and how many of each door are generated. The number of each door generated is effectively the number of new areas created.</p> <p>So, using the example where you are duplicating 3 doors, and you enter Prefix "X", Suffix "SP", Number from "2", Qty of each door "3" and pad number length to "2", then the following door numbers are generated: (X02SP, X03SP, X04SP), (X05SP, X06SP, X07SP), (X08SP, X09SP, X10SP). The parentheses show each of the 3 areas.</p>
Create new door numbers by altering the leading characters of the door number	<p>Using this method, you enter pairs of existing leading characters and what those characters will be replaced with on the new doors.</p> <p>Using this method, only one new area may be generated. To make another area you must run the wizard again.</p> <p>Here's an example.</p> <p>Say you are copying doors called DL4-1, DL4-2, APT401-1, APT401-2, APT403-1, APT402-2</p> <p>Specify change "DL4" to "DL5" and "APT4" to "APT5".</p> <p>The door numbers produced will be: DL5-1, DL5-2, APT501-1, APT501-2, APT503-1, APT502-2</p>

Area names

ProMaster Master Keying shows the first new door in each new area, and what it has determined the new areas will be called.

If you want to change the names of the new areas, then for each entry in the list, click to highlight the new area, enter a new area name in the space provided below then click **Update** to apply the new area name.

You must then specify the name for each area.

Door stamping

Choose if the stamping for each new door is to be the same as the door from which it was created, or if the stamping for the new doors should be made the same as the new door number.

Confirm new door numbers

All the door numbers and descriptions that will be created are displayed. Peruse the list to be certain that it is what you are expecting.

Ready to duplicate doors

A summary of the change that will be applied is shown.

Each door generated will have the same lock, area and other attributes as the door from which it is generated.

9.10.7 Door history

Door history allows you to see the jobs when a door was ordered.

Getting started

See [Doors](#)¹⁴².

A list of jobs is displayed.

You may click **Details** to open the highlighted job.

9.10.8 Exporting doors to a csv file

See [Exporting system data to a csv file](#)²⁴⁹.

9.10.9 Importing doors from a csv file

If you have a CSV file with door information you can import this data.

Read the topic [Door import \(CSV\) file format](#)³³² for more information on the file contents allowed.

The **door** field in the import is matched to existing values to determine if the door is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

See [Doors](#)¹⁴².

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The Operation determines how the import is processed. Choose if you want new items, if you are updating existing items, or both.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Data remapping

Any values that match existing information are mapped automatically and you will see on those lines the **Value from database** will be completed. For all lines where the **Value from database** is blank, you must: Click the line then choose the correct value from the **Use value** drop down list, then click the **Set** button to set that value for the line you are working on. Repeat this process for all incomplete lines. If you make a mistake simply repeat the process on the erroneous line to alter it.

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

9.10.10 Importing door renaming from a csv file

If you have a CSV file with door renaming information you can import this data.

Read the topic [Door renaming import \(CSV\) file format](#)³³³ for more information on the file contents allowed.

This is not a normal process. It is useful if you create a system not knowing what the doors are called (And perhaps you have netered sequential names) and then later receive the correct door numbers.

Getting started

See [Doors](#)¹⁴².

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

9.10.11 Importing from ProMaster Hardware

ProMaster Hardware is used for designing and managing the door hardware aspects of a building construction project. Invariably after the construction phase of a building is complete, a master key system is required. At this time, rather than starting from scratch in ProMaster Master Keying, great efficiencies can be realised by importing data from ProMaster Hardware into ProMaster Master Keying.

It may be that your business runs both ProMaster Master Keying and ProMaster Hardware, or you may receive a ProMaster Hardware export from the architectural hardware specifier.

General

The file produced by ProMaster Hardware includes only those doors that are flagged within ProMaster Hardware as being keyed.

The file produced by ProMaster Hardware may include only the lock product, or may contain all the door hardware. This choice is made by the ProMaster Hardware user when the export is produced for you.

If the ProMaster Hardware user has created any keys, these too will be exported to you.

The file produced by ProMaster Hardware is used within ProMaster Master Keying to introduce doors and possibly keys to master-key system. It does not produce a new master key system for a number of reasons, not limited to the following: There is often not a one-to-one correlation between a building project and a master-key system, and the building project may be an extension to an existing building so an existing master-key system must be extended.

Doors and keys are added to the system you have open. The import does not create a new system. If you require a new system, then create it before performing the import.

Getting started

- You must be logged in with a system open.
- From the **System** menu, select **Import doors and keys from ProMaster Hardware 7**.

Importing data

The wizard shows you information about the data in the file and asks about how you want doors and keys imported.

The doors and/or keys are added to your system.

Any doors or keys that already exist with the same door number or key number as one being imported will not be altered. Those doors or keys in the import file will be ignored.

9.10.12 Door groups

Door groups provide a way to take a selection of doors, with no particular rules constraining your selection, and to give that selection a meaningful name.

Door groups can then be used for a number of reporting operations and in the keying matrix.

Getting started

- You must be logged in with a system open.
- From the **Door** menu, select **Door groups**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your door groups.

Editing the group

Whether you are adding a group or altering an existing one, the process is simple.

- The group must have a name, and that group name must not be used by another door group within this system
- Click **Add** to select doors that you want in the group. You may do this as many times as you need.
- Click **Remove** to take a door out of the group.

When you have finished editing the group, click OK to save it.

9.10.13 Bulk change doors

Bulk changing is the process whereby you may apply the same change to a few or even many doors in a single operation. It is useful for changing a number of doors when you have entered them without this information or to rapidly fix data errors.

Getting started

- You must be logged in with a system open.
- From the **Doors** menu, select **Bulk change doors**.

Alternatively, initiate the bulk change from the doors window after having searched for a range of doors. See [Doors](#)¹⁴².

Making a change

The process of making a bulk change is very simple, just follow these steps.

- Ensure that the correct doors are selected, selecting or deselecting them as necessary.
- In the **Data type** list, choose what you want to change
- The options for what you may change depend on the selection made. Enter the information for your change (e.g. new value, selection, etc)
- Click the **Apply change** button.

Repeat these 4 steps as many times as you want.

Finally, to save your changes click the **OK** button.

Notes

Within this window, the selected change is applied only to items that are checked (in the far left column of each item)

You can check and uncheck items individually, or use the **Select all** and **Clear selection** buttons. Right click on the list for more selection options.

You can make as many different types of changes as you like within this window.

Changes are stored in memory, and are not saved until you click the **OK** button.

Doors that have been changed are indicated by a pencil graphic next to the door selection. You may undo changes to keys by right clicking and choosing **Undo**. Right click and choose **Show changed values** so see a graphic indicator of the individual values that have been altered.

9.10.14 Sort doors

Generally, doors are added after the selected door when adding from the doors window, otherwise at the end of the door list.

If your door are out of order, this process gives more sorting capabilities than sorting one door at a time from the doors window. (See [Doors](#)¹⁴²)

Getting started

- You must be logged in with a system open.
- From the **Doors** menu, select **Sort doors**.

Making a change

The process of sorting doors involves selecting the doors to sort then applying a sorting operation to those selected doors. The process may be repeated as many times as necessary.

Selection and sorting operations are accessible through the button bar at the top of the window, through a pop-up context menu (right click mouse) and through various hot-key combinations.

Selecting doors

Doors may be selected using mouse/keyboard, including shift-clicking to select a range and ctrl-clicking to select dis-contiguous doors, or various menu options such as:

- Select all
- Select none
- Select doors with the same area (The currently highlighted door must have an area)

- Select doors with the same stage (The currently highlighted door must have a stage)
- Select to bottom (Selects from the currently highlighted door to the end)

Sorting doors

The sorting operation is applied to the selected doors.

Option	Description
Move up	Moves all selected doors up one position.
Move down	Moves all selected doors down one position.
Move up page	Moves all the selected doors up half the height of the window.
Move down page	Moves all the selected doors down half the height of the window.
Bring together	Brings all the selected doors together, positioning them under the topmost selected door.
Sort door number as text	Sorts the selected doors by doing a text comparison on their door numbers.
Sort door number	Sorts the selected doors in logical numerical order. All selected doors must have a numerical component in the door number. Each door number is broken into multiple numerical components and these are compared for sorting purposes. A numeric sort will correctly produce the sequence 1.1, 1.2, ..., 1.9. 1.10, 1.11, 2.1, 2.2, ..., 2.9, 2.10
Sort by stamping as text	Sorts the selected doors by doing a text comparison on their stamping.
Sort by stamping	Like "Sort door number" but performed on the stamping.
Sort by description + door number	Sorts the selected doors by their descriptions then door number.
Sort by area + door number	Sorts the selected doors by their areas then door number.
Sort by area + description + door number	Sorts the selected doors by their areas then descriptions then door number.

Finally, to save your changes click the OK button.

9.10.15 Set door quantity issued

Door issue numbers are tracked automatically when doors are manufactured.

For legacy systems entered into ProMaster Master Keying, it is unlikely that you have a complete order history available (and that you want to enter all historical jobs), so you may want to set the quantity of each door issued manually.

Getting started

- You must be logged in with a system open.
- From the **Door** menu, select **Set door quantities issued**.

Making a change

All doors are show, along with the quantity currently known, and as a comparison the quantity accounted for on jobs in ProMaster Master Keying.

Note that for clarity, the job quantity is displayed only if it differs from the quantity currently known.

Enter the new quantity that has been produced for any doors that are incorrect.

To restrict the doors that are displayed, click on the **Door display** button and make your filter choices.

Do this only for legacy systems. Incorrect values will interfere with the automatic allocation of issue numbers on jobs.

9.11 Keying matrix

The keying matrix is the most comprehensive way to view keying for a system.

Getting started

- You must be logged in with a system open.
- From the **Doors** menu, select **Keying**
- Also accessible from doors search window and keys search window

An explanation of the options

When the keying matrix is opened, all doors and keys are loaded, however there are options to restrict the view to a subset of keys or doors to make it easier to understand.

Option	Description
Find key	Search for keys. Keys that start with the text you enter are indicated with a purple arrow. If there is a key that is a full match for the text you entered then that key is selected as well as the purple arrow.
Key details	Shows information about the current key.
Key display	<p>Show all keys: All keys are shown.</p> <p>Show selection: This option is available if you invoke the keying matrix from the keys search window and restricts the keys displayed to those returned in the key search window.</p> <p>Hide masters: Master keys are not shown but all other keys are shown. This can be use for for large hierarchical, particularly in conjunction with the propagation options, to simplify the display.</p> <p>Show keys in group: This option is available if you have key groups defined. After you choose a group, the matrix is redrawn to show only the keys in that group.</p> <p>Show keys that operate displayed doors: This option shows keys that operate any of the currently displayed doors. The set of keys displayed does not change dynamically as you alter keying (That would be very difficult to use), so each time you select this option it recalculates the set of keys to display.</p> <p>Changed keys: This option shows keys where keying has been added or removed, and is useful for checking your changes before saving. This option makes the keying matrix read-only.</p>
Find door	Search for doors. Doors that start with the text you enter are indicated with a purple arrow. If there is a door that is a full match for the text you entered then that door is selected as well as the purple arrow.
Door details	Shows information about the current door.
Door display	Show all doors: All doors are shown.

	<p>Show selection: This option is available if you invoke the keying matrix from the doors search window and restricts the doors displayed to those returned in the door search window.</p> <p>Show unique stamping: This options doors by stamping rather than door number, and shows only the first door for each stamping.</p> <div data-bbox="687 450 1479 562" style="border: 1px solid black; background-color: #ffff00; padding: 5px;"> <p>When this display mode is used and you change the keying, it is always propagated to other doors with the same stamping, regardless of the propagation settings.</p> </div> <p>Show only first door for each keying: This option shows the first door for each unique combination of keying. It does this by walking through all the doors and each time a door has a different set of keys to previous doors then the door is added to the display. This option makes the keying matrix read-only.</p> <p>Show doors in area: After you choose an area, the matrix is redrawn to show only the doors in that area.</p> <p>Show doors in group: This option is available if you have door groups defined. After you choose a group, the matrix is redrawn to show only the doors in that group.</p> <p>Show doors operated by displayed keys: This option shows doors that are operated by any of the currently displayed keys. The set of doors displayed does not change dynamically as you alter keying (That would be very difficult to use), so each time you select this option it recalculates the set of doors to display.</p> <p>Changed doors: This option shows doors where keying has been added or removed, and is useful for checking your changes before saving. This option makes the keying matrix read-only.</p>
Propagation	<p>Same stamping: With this option on, then when you turn keying on or off for a cell, the same change is made to all doors with the same stamping and on the same side (External/Internal).</p> <p>The drop-down menu on the "Same stamping" option determines if the doors to which the keying is copied are (a) All doors with the same stamping or (b) Doors with the same stamping only if they are displayed according to the "Door display" options.</p> <div data-bbox="687 1597 1479 1800" style="border: 1px solid black; background-color: #ffff00; padding: 5px;"> <p>Normally if doors are stamped according to the keying, the first and default choice is correct. In the rare (and messy) case when stamping relates to keying for only some doors, and you have entered the keying matrix from the door search to restrict the displayed doors by some other criteria then the second choice may be helpful.</p> </div> <p>Add keys above: With this option on, then when you turn keying on for a key, all keys <u>above</u> that key are turned on also.</p> <p>Remove keys above: With this option on, then when you turn keying off for a key, all keys <u>above</u> that key are turned off also.</p>

	Remove keys below: With this option on, then when you turn keying off for a key, all keys <u>below</u> that key are turned off also.
Toggle keying	Toggles the keying when a single cell selected or a valid selection (green highlight, horizontal, vertical or diagonal).
Keying on	Turns keying on when a single cell selected or a valid selection (green highlight, horizontal, vertical or diagonal).
Keying off	Turns keying off when a single cell selected or a valid selection (green highlight, horizontal, vertical or diagonal).
Selection on	Turns keying on for all cells in a selection, regardless of the shape of the selection. Propagation does not apply.
Selection off	Turns keying off for all cells in a selection, regardless of the shape of the selection. Propagation does not apply.
This key Key on	Turns keying on for the selected key for all doors.
This key Key off	Turns keying off for the selected key for all doors.
This key Undo changes to this key	Undoes all changes to the selected key, reverting it to the keying it had when you opened the window.
This door Door on	Turns keying on for the selected door for all keys.
This door Door off	Turns keying off for the selected door for all keys.
Copy keying from this door	See description below under "Other functionality"
Paste keying to this door	See description below under "Other functionality"
This door Undo changes to this door	Undoes all changes to the selected door, reverting it to the keying it had when you opened the window.

Other functionality

Right click on the keying matrix for other options. Some options on this pop-up menu are the same as the toolbar (however you can learn the shortcut keys by looking at the pop-up menu), but the new options are listed here.

Option	Description
Disallow changes to manufactured doors	When on, changes to doors that have been manufactured are not possible. The default value for this option is from an Application Parameter "In keying matrix, make manufactured doors read-only by default"
Copy keying from this door	Copies the keying from the current door ready to paste into another door. See note below.
Paste keying to this door	Overwrites the keying for the current door with that from the door that you copied. See note below.
Copy keying from this key	Copies the keying from the current key ready to paste into another key. See note below.
Paste keying to this key	Overwrites the keying for the current key with that from the key that you copied. If any of the doors from the copied key OR existing doors on the key being copied-to have been manufactured then you must first turn off the option "Disallow changes to manufactured doors" that protects doors manufactured doors from change. See note below.

	Copying keying from one key to another is not a normal practice, but is provided to assist in special circumstance in complex systems.
Copy keying to doors with the same stamping	Copies the keying from the current door and side, to other doors with the same stamping and to the same side of each of those doors.
Import keying from CSV file	See Import keying from a csv file ¹⁵⁹ .
Change orientation	Swaps the location of doors and keys in columns/rows.
Use condensed layout	Turn on for a compressed layout. Changed keyings are not shown and less information for each door and key is shown, but many more doors and keys will be visible without scrolling.
Show indicator for unassigned doors and keys	Turn on to show a warning graphic by each key that does not have doors assigned and by each door that does not have keys assigned.
Show indicator for doors with the same stamping	Turn on to show a blue arrow graphic by each door that has the same stamping as the current door. This operates on the same side of each door (I.e. either external or internal, but not both at the same time)
Find next ...	Navigates from the current location to other keyings in each direction.

Notes

In normal layout (not condensed), a green + graphic indicates each keying added and a red - graphic indicates each keying removed.

When using the copy and paste keying for a door, the destination door may not be the source door, and if you change the keying for the source door then it is no longer "copied" ready for pasting.

When using the copy and paste keying for a key, the destination key may not be the source key, and if you change the keying for the source key then it is no longer "copied" ready for pasting.

Changes are not saved until you click **OK**.

9.11.1 Import keying from a csv file

If you have a CSV file with keying information you can import this data.

Read the topic [Keying import \(CSV\) file format](#)³³⁵ for more information on the file contents allowed.

The **key** field in the import is matched to existing values to determine if the key is new (and therefore will be added) or existing (and therefore will be updated to the new information).

Getting started

See [Keying matrix](#)¹⁵⁶.

Importing data

To import data from a csv file, click on the **Options** button then choose **Import csv**.

A simple wizard steps you through the import process.

Select the file to import

- Click **Select file** to select the file you are importing.
- Click **Next**

File contents and operation

The wizard shows you the first four lines of the file so that you can see how it has been parsed. From this you may determine if the file content is what you were expecting or not.

It is common for the first line of a CSV file to contain column headings. The wizard tries to determine if that is the case with the file you selected, and sets the options accordingly. If the option for the first line is not correct, be sure to check or un-check it as necessary.

The **Operation** determines how the import is processed. First you must choose if your import file refers to **Key numbers** and **Door numbers** or if it refers to **Key numbers** and **Door stamping**. In the latter scenario, imported data will be applied to all doors with the stamping and the **propagation** choice is changed correspondingly.

Propagation: If you are importing by **Door number**, you may choose any of the propagation rules. If you are importing by **Door stamping**, then you must choose a propagation rule **Propagate keys to same stamping**. See [Keying matrix](#)¹⁵⁶ for a more comprehensive description of propagation rules.

- Click **Next**

Choose data columns

The wizard looks at the column headings (if they are included in the file) and from these it attempts to determine what each column in the file is used for.

You may change the source column for each type of data. In each drop-down list, the column number, heading and first piece of data is shown.

Before proceeding you must correct any errors in the automatic column selection and also for any unassigned column make a selection for the source.

For all data types not contained in the import file the selection **Not available** must be made.

- Click **Next**

Data analysis

A comprehensive data analysis is performed and any problems are reported.

If the analysis indicates that there are errors contained in the file, then you have the option to see the detail of those errors.

If there are errors, you must either fix the file and restart the import, or if you are happy to ignore the erroneous rows then you can check the option to skip those rows.

- Click **Next**

Ready to finish

A summary is displayed.

Click **Finish** to perform the import.

Notes

The imported keying is stored in the keying matrix. To save it, you must now click OK in the keying matrix. If the keying imported was not what you expected, click Cancel in the keying matrix to discard all changes.

9.12 Reporting

9.12.1 Printer options

Most reports allow you to access printer options by clicking on the **Printer options** link on the bottom left of the report options screen.

Printer options allow you to:

- Choose a different printer and paper tray for the report to be sent to.

- Print on both sides of the paper (if your printer supports duplexing)
- Print multiple copies
- Access the printer's advanced settings.

If you select the option to **Show advanced printer settings before printing**, the printer settings for your printer are displayed before the report is sent to the printer. This allows you to access printer specific features such as printing multiple pages onto a single sheet of paper, selecting a different output bin or requesting the report be stapled.

9.12.2 Admin reports

9.12.2.1 Unreturned system registration forms

This report tells you about systems where you have printed a signature registration form (see [Signature registration form](#)¹⁷⁸) but it has not been returned from the customer and recorded.

Running this report periodically and chasing unreturned registration forms should be undertaken periodically.

Getting started

- From the **Admin Reports** menu, choose **Unreturned system registration forms**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include. This can be useful for partitioning your follow-up calls between high-end security systems and low security ones.</p>
How should the follow-up date be treated	<p>Systems where the follow-up date is before today: The follow update date on each system printed has passed.</p> <p>Disregard follow-up date: The follow up date on each system is not considered when selecting the systems to print.</p> <p>Systems where the follow-up date has passed by 7 days or more: The follow up date on each system was passed 7 days ago or more.</p> <p>Systems where the follow-up date has passed by 14 days or more: The follow up date on each system was passed 14 days ago or more.</p>
Include systems that have not had a signature registration form printed	When selecting systems to show on the report, this flag allows you to not consider if a registration form has been printed, and only consider if a registration card has been received. This may produce many more systems on the report.

Notes

When you add, edit or import signatories for a system and a registration form has been printed but not received you will be asked if it has now been received.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.2

Blank signature registration form

This report is used to gather signatory information, particularly the signatures of each signatory, but is used when the system is not yet productd.

See also [Signature registration form](#)¹⁷⁸

This report is available (with appropriate permissions) whe a system is not open.

Getting started

- From the **Admin Reports** menu, choose **Blank Signature registration form**.

Options

Option	Description
Show the client name	Shows a placed for the client name on the form.
Show system information	Shows a place for the system address and other properties on the form.
Show mandatory option	Shows a place for the signatory mandatory value.
Show expiry date	Shows a place for the signatory expiry date.
Show user's choice of agent	Manufacturer edition only. Prints a place for the client to enter the name of there preferred key cutting agent.
Number of blank signatory places to show	After any existing signatories, places for new signatories will be printed. You can choose from 1 to 20 places.
Use layout with increased text size	Choose between 2 layouts.
Template	Choose your instructions to the signatories. This is printed at the top of the form. See Templates ⁸⁰ to create templates.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.

Email	The report is sent via email as a PDF attachment.
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9.12.2.3 System without signatories

This report tells you about systems where the number of active signatories recorded is less than the number of signatories required to order keys or doors.

Getting started

- From the **Admin Reports** menu, choose **Systems without signatories**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
Include systems where the required number of signatories is zero	Normally systems that require no signatories to order keys will be excluded from this report. Select this option to include these systems.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ¹³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.4 Signatories without a signature picture

This report tells you about systems and active signatories where there is not a picture of the signatory's signature recorded.

Getting started

- From the **Admin Reports** menu, choose **Signatories without a signature picture**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
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Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
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Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.5 Jobs awaiting coding or manufacturing

This report can best be considered as a "to do" list, showing jobs that are awaiting coding (I.e. Systems where a job has been entered, but has not proceeded to manufacturing because coding is not complete) or jobs that are awaiting manufacturing.

The "coding" status of jobs, where the job has been entered and locked but not released to manufacturing because coding is not complete, is available in Premium and Manufacturer edition and to use it requires the application parameter "Send jobs to coding when released if coding is required" be turned on.

Getting started

- From the **Admin Reports** menu, choose **Systems without signatories**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
Which job status do you want to include	Choose between "coding and manufacturing", "coding" only and "manufacturing" only.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.

	more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.6 Job administration summary

This report gives a look into the job activity. It gives flexibility to slice the data numerous ways, and for large companies provides an insight into the job activity.

Getting started

- From the **Admin Reports** menu, choose **Job administration summary**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which factory do you want to include in the report	You may choose all factories or an individual factory
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
Which job status do you want to include	Select which of the job status you want to include. Your selection determines which dates are considered.
What date range do you want to include	<p>You may select a date range for each job status.</p> <p>If you do not want a starting date or an ending date to be applied when selecting the date, check the proximate "Any" check box and the date will be disabled and ignored in the data selection.</p>

Notes

The more options you select, the more restricted will be the result.

For example, if you request "entering" and "manufacturing" jobs, and specify a start and end date for both the "created" date and the "manufacturing" date, then what you will get is:

- Jobs in the data entry state (and those in the coding state) that were created in the date period stipulated for the "created" date.

and also

- Jobs in the manufacturing state that were sent to manufacturing in the date period stipulated by the "manufacturing" dates **and** that were created in the date period stipulated for the "created" date.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.

Email	The report is sent via email as a PDF attachment.
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9.12.2.7 Job key section usage

This report gives a summary by design module and by key section of the number of each key section used in manufacturing.

Getting started

- From the **Admin Reports** menu, choose **Job key section usage**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which factory do you want to include in the report	You may choose all factories or an individual factory
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
What date range do you want to include	You may select a date range for when the job was sent to manufacturing. If you do not want a starting date or an ending date to be applied when selecting the date, check the proximate "Any" check box and the date will be disabled and ignored in the data selection.

Notes

When you choose the factory selection "All", then all jobs are considered for the report including inactive factories and external factories (Such as when a system has been transferred to you from another locksmith).

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.8 Aged systems

This report is used to identify systems that have been inactive, or are old. The result of this report can be managed as a sales opportunity to install a newer more secure solution for your customers.

Getting started

- From the **Admin Reports** menu, choose **Aged systems**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
Select systems by considering the most recent job	Allows you to select systems by specifying a date after which a job has not been created.
Select systems by considering the system installation date	Allows you to select systems by specifying a date before which the system was installed.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.9

Key Manager users

This report identifies your systems that are enhanced by ProMaster Key Manager at the customer site. By using this report to identify users on old versions of Key Manager, you can facilitate their transition to a newer more feature rich version of Key Manager.

Getting started

- From the **Admin Reports** menu, choose **Key manager users**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which system types do you want to include	<p>Include all system types: No particular attention is applied to system types when making the selection for the report</p> <p>Include only selected system types: You may choose one or more system types to include.</p>
Which Key Manager versions do you want to include	Select one or more versions of Key Manager to include.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.10

Lock usage

This report shows you everywhere a lock or cylinder is used.

Getting started

- From the **Setup and Admin** menu, select **Locks and cylinders**.
- Search for a lock or cylinder.
- Right click on a cylinder and choose **Usage report**.

Options

Option	Description
Include doors using a lock that contain this cylinder	When the chosen product is a cylinder, and this option is checked, then any door using a lock that references the cylinder is included.
Include closed systems	Determines of systems marked as "closed" are included.
Include system snapshots	Determines of systems marked as "snapshot" are included.
Show only the system summary and do not show doors	If checked, the report is significantly shorter with only a quantity for each system. If unchecked, each door is listed. The first is useful for seeing how many times a lock is used whereas the second is useful for locating doors using a lock or cylinder.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.2.11

Custom reports - general

This is where you may print "general" custom reports. That is to say, they are not related to the system that is open or to the job that is being manufactured.

This is available on premium and manufacturer editions with the "end user reporting" feature purchased with your ProMaster Master Keying license.

Getting started

- From the **Admin Reports** menu, choose **Custom reports - general**.

Range

Choose from the list the report you want.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3 System reports

9.12.3.1 Initial system reports

Initial system reports is a collection of other reports gathered into a single place. The Initial system reports collection is designed to simplify the task of producing reports for the customer after you have entered the doors, keys and keying so they may be approved prior to coding and manufacturing.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Initial system reports**.

The 5 reports available are:

[System details](#)¹⁷⁰

[Signature registration form](#)¹⁷⁸

[Order form](#)¹⁷¹

[Keys](#)¹⁷²

[Doors](#)¹⁷⁴

Initial system reports has most of the options that the individual reports have, but simplified to some extent in that all keys and doors rather than having a selection available.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.2 System details

This report summarises the system, with address information, optional client information and optional signatories.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Systems details**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Show client	Choose if you want the client information included on the report.
Show signatories	Choose if you want the signatories included on the report. Inactive signatories are not included in the report.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.3 System lock usage

This report gives you quantities of locking product used by a system.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Systems lock usage**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
How do you want to count locks	<p>Count the items defined for each door: This choice examines all doors and their locks, and counts the quantity of each lock product. I.e. The quantity of products defined for each door, not the quantity actually ordered.</p> <p>Count the items ordered on all manufactured job: This choice examines all products on each door on each job. Jobs in the "coding" state, "manufacturing" state and "completed" state are considered for this report.</p>

Count the product ordered on a single job: Much the same as the previous choice, but for a single job that you select from the list.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.4

Order form

The order form is used to facilitate an accurate order from your customer if they are not blessed with electronic ordering through ProMaster Key Manager.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Order form**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which keys do you want to include Located on the "keys" tab	<p>None: Keys are not show on the order form.</p> <p>All: All keys are included on the order form.</p> <p>A selection of keys: You select the keys to be included on the order form.</p> <p>Keys in a category: Select a key category. Keys in that category are included on the order form.</p> <p>Keys fitting a single door area: Select a door area. All keys that fit doors in that area are included on the order form.</p>
Which doors do you want to include Located on the "doors" tab	<p>None: Doors are not show on the order form.</p> <p>All: All doors are included on the order form.</p> <p>A selection of doors: You select the doors to be included on the order form.</p> <p>Doors in an area: Select an area. Doors in that area are included on the order form.</p>

Show signatories on each page	Show the area where signatories write their names and sign on each page of the order form.
Signatory quantity	Choose the number of signatory boxes shown (from 0 to 9)
Key display	Choose if the key description, key colour, or both are shown.
Template	Choose your instructions (if any). This is printed near the top of the form. See Templates ¹⁶⁰ to create templates.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.5

Keys

This is one of the most frequently used reports. It is also part of the collection of reports produced by the [Initial system reports](#)¹⁶⁹.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Keys**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which keys do you want to include in this report	<p>All: All keys are printed.</p> <p>A selection of keys: You select the keys to be included on the report.</p> <p>Keys in a category: Select a key category. Keys in that category are included on the report.</p> <p>Keys in a group: Select a key group. Keys in that group are included on the report.</p> <p>Keys that have been manufactured: All keys that have been manufactured are included on the report.</p> <p>Keys that have not been manufactured: All keys that have not been manufactured are included on the report.</p>

Options

Option	Description
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Show key category	When selected, the key category will be shown on the report.
Show doors	When selected, each key will be followed by the doors that it operates.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.6 Key hierarchy

Prints a structured view of keys using the key hierarchy (key above).

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Key heierarchy**.

Also printed from [Key hierarchy](#)¹⁴¹ allowing a choice of original hierarchy or modified hierarchy.

Options

Option	Description
Print the key hierarchy	Prints all keys showing the key hierarchy
Print the modified key hierarchy which is not yet saved	Available when printed from the key hierarchy editor and changes have been made. This selection prints the modified key hierarchy which has not yet been saved.
Show expanded and collapsed branches as displayed	Available when printed from the key hierarchy editor. When unchecked, all keys are shows. When checked each branch is printed as currently displayed (expanded or collapsed)

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.7 Doors

This is one of the most frequently used reports. It is also part of the collection of reports produced by the [Initial system reports](#)¹⁶⁹.

The report layout determines the type of report produced.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Doors**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which doors do you want to include in this report	<p>All: All doors are printed.</p> <p>A selection of doors: You select the doors to be included on the report.</p> <p>Doors that fit a selection of keys: You select one or more keys and all doors that are operated by any of those keys are included on the report.</p> <p>Doors in an area: Select an area. Doors in that area are included on the report.</p> <p>Doors in a group: Select a door group. Doors in that group are included on the report.</p> <p>Doors that have been manufactured: All doors that have been manufactured are included on the report.</p> <p>Doors that have not been manufactured: All doors that have not been manufactured are included on the report.</p> <p>Construction keyed doors: All doors marked as having construction keying are included in the report.</p>

Options

Option	Description
Report layout	<p>The report layout determines the type of report that is produced.</p> <p>Door detail: Shows doors and associated information, but not keys.</p> <p>Doors with keys: Shows doors and associated information, and after each door shows the keys that operate the door.</p> <p>Non keyed doors: Shows only the doors that are marked as non-keyed.</p>
Show lock information	Shows lock information on the report (First 2 layouts).
Show door notes	Shows notes associated with each door.
Show quantity issued	Shows the quantity of each door manufactured (First 2 layouts).

Producing the report

See [Printer options](#)¹⁶⁹ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.8 Keying matrix

This report shows a matrix of doors and keys, with intersection points indicating the keys that operate each door.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Keying matrix**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which doors do you want to include in this report	<p>All: All doors are printed.</p> <p>A selection of doors: You select the doors to be included on the report.</p> <p>Doors that fit a selection of keys: You select one or more keys and all doors that are operated by any of those keys are included on the report.</p> <p>Doors in an area: Select an area. Doors in that area are included on the report.</p> <p>Doors in a group: Select a door group. Doors in that group are included on the report.</p> <p>Doors that have been manufactured: All doors that have been manufactured are included on the report.</p> <p>Doors that have not been manufactured: All doors that have not been manufactured are included on the report.</p> <p>Construction keyed doors: All doors marked as having construction keying are included in the report.</p>

Options

Option	Description
Show door description	Shows the door description - results in fewer doors per page.
Show door area	Shows the door area - results in fewer doors per page.
Show door quantity manufactured	Shows the quantity of each door manufactured.
Show key description	Shows the key description - results in fewer keys per page.

Show key quantity manufactured	Shows the quantity of each key manufactured.
Show keys not used by selected doors	Shows all keys instead of only those required for the doors being printed.
Show only first door for each keying	Determines which doors to print by looking at each door in order and looking at its keying then showing only those doors with a unique keying. The purpose of this layout is to allow a printout to read when determining the system structure for coding.
Show unkeyed indicator	Shows a warning graphic next to each door and key that is not assigned any keying.
Print on large paper	Prints more doors and keys per page. Useful if you have a large format printer. The other thing is that many modern printers will automatically resize A3 content to A4 if the printer does not support the larger paper - the result if this is more doors and keys per page and somewhat smaller writing which is agreeable only to younger eyes!

Notes

Large systems may require a number of pages to be joined together sideways as well as vertically. When you preview the report, one vertical section is shown at a time.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.9

Key history

This is a report that shows for each key the jobs where the key was ordered. Jobs of any status are considered (Except when choosing by "Keys on jobs in a date range"), including any jobs that are currently being entered. The status of each job is shown.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Keys history**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which keys do you want to include in this report	<p>All: All keys are printed.</p> <p>A selection of keys: You select the keys to be included on the report.</p> <p>Keys in a category: Select a key category. Keys in that category are included on the report.</p>

Keys in a group: Select a key group. Keys in that group are included on the report.

Keys on jobs in a date range: Select a date range for the job manufactured date.

Options

Option	Description
Show signatories	Beneath each job the signatories for that job are shown.

Notes

When the range "Keys on jobs in a date range" is select, a different report layout is generated and the criteria for the report is considered differently.

- The layout shows each job then keys on that job instead of keys and the jobs on which the key was ordered.
- Jobs in manufacturing and completed state are included.
- The date range entered is matched to the date on which the job was released to manufacturing. The date shown for each job is the released to manufacturing date. The other variants of this report don't select the data based on a date range, but display the date when the job was created.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.10 Door history

This is a report that shows for each door the jobs where the door was ordered. Jobs of any status are considered, including any jobs that are currently being entered. The status of each job is shown.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Doors history**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which doors do you want to include in this report	All: All doors are printed.
	A selection of doors: You select the doors to be included on the report.

Doors that fit a selection of keys: You select one or more keys and all doors that are operated by any of those keys are included on the report.

Doors in an area: Select an area. Doors in that area are included on the report.

Doors in a group: Select a door group. Doors in that group are included on the report.

Construction keyed doors: All doors marked as having construction keying are included in the report.

Options

Option	Description
Show lock information	Shows lock information on the report.
Show door notes	Shows notes associated with each door.
Show issue numbers	Shows the issue numbers assigned on each job. Generally this is significant only when a door represents a padlock that may be ordered multiple times.
Show signatories	Beneath each job the signatories for that job are shown.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.11 Signature registration form

This report is used to gather signatory information, particularly the signatures of each signatory.

After you receive the form back from your client you will do two things. First, scan the whole form and store it in the system documents so you have a permanent record of it. Then scan each signature into ProMaster Master Keying against the corresponding signatory. This way you may verify signatures for each signatory when processing a job.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Signature registration form**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
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Show existing active signatories that do not have a signature recorded	This option is useful for gathering signatures on signatories that you have entered but don't have a signature, or if you want to get updated signatory details
Show existing active signatories that have a signature recorded	This option is useful if you want to get updated signatory details
Select which signatories to show	The list of signatories becomes available and you must choose one or more signatories. The two options described above become unavailable.

Options

Option	Description
Show the client name	Shows the client name on the form.
Show system information	Shows the system address and other properties on the form.
Show system description	Shows the system description on the form.
Show mandatory option	Shows a place for the signatory mandatory value.
Show expiry date	Shows a place for the signatory expiry date.
Show user's choice of agent	Manufacturer edition only. Prints a place for the client to enter the name of their preferred key cutting agent.
Number of blank signatory places to show	After any existing signatories, places for new signatories will be printed. You can choose from 0 to 20 places.
Use layout with increased text size	Choose between 2 layouts.
Template	Choose your instructions to the signatories. This is printed at the top of the form. See Templates ¹⁶⁰ to create templates.

System update

Option	Description
Update the system to record printed date and follow-up date	Causes a follow up date to be recorded, so that you may later report on unreturned registration forms. See Unreturned system registration forms ¹⁶¹
How many days from today until follow-up date	If the system is to be updated with a follow up date, this option allows you to specify how far in the future that date is from today.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.12 Signatory key authorities

This report produces a matrix of signatories and keys permitted and is available when the system is configured to have individual key signatory authorities.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Signatory key authorities**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which information do you want to include in this report	<p>All: All keys and active signatories are printed.</p> <p>A selection of signatories: You select the signatories to include in the report. All keys are shown.</p> <p>A selection of keys: You select the keys to be included on the report. All active signatories are shown.</p>

Options

Option	Description
Show keys that are not used by any signatories	Determines if unassigned keys are shown. If you are using the report to gather information on permissions then likely you want this on, however if the report is to convey information about the current permissions then having this off may be useful in reducing the amount of information shown.
Show signatories that are not used by any keys	Determines if unassigned signatories are shown. Particularly useful in reducing the size of the report when only a few keys are selected for the report.
Show signatory title	Includes the signatory title after each signatory. This results in fewer signatories per page.

Notes

Large systems may require a number of pages to be joined together sideways as well as vertically. When you preview the report, one vertical section is shown at a time.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.13 Signatory door authorities

This report produces a matrix of signatories and doors permitted and is available when the system is configured to have individual door signatory authorities.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Signatory door authorities**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which information do you want to include in this report	<p>All: All doors and active signatories are printed.</p> <p>A selection of signatories: You select the signatories to include in the report. All doors are shown.</p> <p>A selection of doors: You select the door to be included on the report. All active signatories are shown.</p>

Options

Option	Description
Show doors that are not used by any signatories	Determines if unassigned doors are shown. If you are using the report to gather information on permissions then likely you want this on, however if the report is to convey information about the current permissions then having this off may be useful in reducing the amount of information shown.
Show signatories that are not used by any doors	Determines if unassigned signatories are shown. Particularly useful in reducing the size of the report when only a few doors are selected for the report.
Show signatory title	Includes the signatory title after each signatory. This results in fewer signatories per page.

Notes

Large systems may require a number of pages to be joined together sideways as well as vertically. When you preview the report, one vertical section is shown at a time.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.14 Custom reports - system

This is where you may print "system" custom reports. That is to say, reports that related to the system that is open.

This is available on premium and manufacturer editions with the "end user reporting" feature purchased with your ProMaster Master Keying license.

Getting started

- You must be logged in with a system open.
- From the **Reports** menu, choose **Custom reports - system**.

Range

Choose from the list the report you want.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.15 Construction keyed doors

Getting started

- You must be logged in with a system open.

This report is available at the time you modify a system (See [Modifying a system](#)¹¹⁶) and change the keying type from a construction-keyed keying type to a non-construction-keyed keying type. After confirming that you want the change, and before all doors are modified to make them non-construction keyed, this report is available.

The report includes all construction-keyed doors.

Options

Option	Description
Show keys	Shows doors and associated information, and after each door shows the keys that operate the door.
Show lock information	Shows lock information on the report.
Show door notes	Shows notes associated with each door.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.

Preview	The report is previewed on your screen. See Previewing reports ¹³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.12.3.16 Client signature registration form

This report is used to gather signatory information from signatories added to the client, particularly the signatures of each signatory.

After you receive the form back from your client scan each signature into ProMaster Master Keying against the corresponding client signatory. This way you may verify signatures for each signatory when processing a job.

Getting started

- You must be logged in with a system open.
- In [Client signatories](#)¹⁰⁷ from the **Options** menu choose **Print signatory registration form**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Show existing active signatories that do not have a signature recorded	This option is useful for gathering signatures on signatories that you have entered but don't have a signature, or if you want to get updated signatory details
Show existing active signatories that have a signature recorded	This option is useful if you want to get updated signatory details
Select which signatories to show	The list of signatories becomes available and you must choose one or more signatories. The two options described above become unavailable.

Options

Option	Description
Show mandatory option	Shows a place for the signatory mandatory value.
Show expiry date	Shows a place for the signatory expiry date.
Number of blank signatory places to show	After any existing signatories, places for new signatories will be printed. You can choose from 0 to 20 places.
Use layout with increased text size	Choose between 2 layouts.
Template	Choose your instructions to the signatories. This is printed at the top of the form. See Templates ⁸⁰ to create templates.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ¹³⁸ for more information.

Email	The report is sent via email as a PDF attachment.
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9.13 Coding

9.13.1 Coding overview

Coding is the process of assigning key codes to keys and calculating the door pinning then checking for errors.

Coding can be performed in the **Coding tree**, **Coding matrix** or **Kaba coding grid**, depending on the way you prefer to work and also on the design module of your key system.

The first time you open a coding window, you are taken to the **System design** window to create the system design. The system design window can be accessed at any time to alter or expand the system design.

In the **System design window** you choose the TMK, and how to progress codes. You can alter the system rules (which are copied from the associated **System type**).

In the **Coding window**, keys are assigned to keys, and when all keys are assigned and door pinning calculated successfully, the system is marked that the coding is **complete**, allowing jobs to be manufactured.

Any changes to the system, such as adding keys, adding doors or altering keying, results in the system being flagged as **coding required**. You must then return to the coding window to complete any coding steps necessary including a successful pinning calculation and error check.

9.13.2 System design

The general method of creating a system design is the same for all design modules. This topic outlines the general process.

See the design module specific information in the **Creating and modifying the system design** topic under the specific design module here: [Design modules](#)²⁵⁰

After you create a system (I.e. You've entered the doors, keys and keying), you will proceed to coding the system. Depending on the way you work, coding is performed using the **Coding tree**, **Coding matrix**, or **Coding grid**. These three methods are referred to generically as **Coding windows**.

Creating the design

When you first open a **coding window**, ProMaster Master Keying identifies that the system does not have its design parameters defined, and opens the appropriate system design window.

After you have defined the design parameters, you then proceed to a **coding window** (See [Coding screen overview](#)¹⁹³, [Coding using the coding tree](#)¹⁹⁷, [Coding using the coding matrix](#)¹⁹⁹, [Coding using the kaba coding grid](#)²⁰⁰).

Changing the design

You may revisit the system design at any time by first opening a **coding window**, then click the **Change design** button (top right of the window).

The capabilities available when you are changing the design are similar to those you use when creating the design, the most notable difference being the ability to add multiple **Code progression** when changing the design.

More on changing the design later.

General process for creating system design

The general process for creating a system design is:

- Select the appropriate **key section**, if applicable, from the drop down list.
- Verify the Rules, and make any changes needed.
- Enter the **TMK**, or allow ProMaster Master Keying to generate one for you by clicking the **Create TMK** button.
- Define a **Code progression**, which is the rule that ProMaster Master Keying uses to derive codes for your system from the **TMK**. If all the keys in your system have correct designations and key above, you may use the [Design assistant](#)¹⁹¹ to create the **Code progression**.
- Click **OK** to save the design and proceed to the coding window.

Design module specific features apply, see [Design modules](#)²⁵⁰

Creating system design: Key section and TMK

When you create a system design, the first thing you must do is select the highest level **key section** that the design will use. The drop down list of key sections shows key sections grouped into their families, so if you have the same key section name in two different families, be sure to select the correct one. Most design modules have a **key section**.

Next, the **TMK** is required. In most design modules you may enter a TMK. Most design provide a button, **Create TMK**, that will create a **TMK** that adheres to the rules. **Create TMK** is not offered in design modules where the TMK is provided by the lock manufacturer. Some design modules require that you pick a **List** provided by the lock manufacturer before creating the TMK.

Creating system design: Rules

Some design modules have few rules that you may alter, while others have many. The rules are generally a mixture of physical constraints and quality control constraints. The default value for each rule is determined by your system type. See [System types](#)⁹¹

Get the system type defaults right, and each time you make a system the values are correct.

Creating system design: Standard progression

In order to produce a hierarchy of codes, you must progress some chambers and specify what each chamber is used for (e.g. Master, Change etc). There are two ways of specifying a progression. The more flexible but more complicated way is to enter your own values for SOP (sequence of progression), Depth step and Designation. Later we will look at how to do this. The easy way is to click the **Assist** button and allow the [Design assistant](#)¹⁹¹ to determine the progressed and rotated chambers.

The Design Assistant attempts to compute the size required for your system by examining your key hierarchy. However, even if your key hierarchy is not in place you may still use the Design Assistant to determine the Code Progression by entering into the Design Assistant the quantities you require of each key hierarchy.

Entering your own code progression

This might seem like a lot of information when you first read it, but knowing how it works gives you greater flexibility and many users prefer to always define their own code progression.

To enter your own code progression, most design modules require three pieces of information as follows (but remember there are differences in design modules - some do not use depth steps, others require additional information):

- Sequence of progression (SOP): All positions being progressed must have a value of 1 or greater. All other positions, including positions for rotated constants, must have the value 0. No value other than 0 may appear more than once. Numbered positions must be contiguous, but not necessarily in order, starting from 1. SOP is used **primarily** to control the drawing of the coding matrix, but also determines if codes on the coding tree progress from left to right or right to left.

- Depth step: When used by the design module, all positions that are progressed or rotated must have a depth step of 1 or greater. All other positions must have the value 0. Depth Steps are used to determine the values of code differs that will be produced.
- Designations: Designations specify the hierarchy of codes on the coding tree. They are not used in the coding matrix. The following table explains the symbols used for designating a chamber as progressed for each level of key hierarchy, and also the symbols used to designate the corresponding rotated constant.

Right click on any cell in the code progression to get a menu of available values. Learn them, it is easier to type them, but when you forget, right click for the options.

Rank	Symbol progressed	Symbol rotated
G5MK	L	l
G5XK	U	
G4MK	K	k
G4XK	V	
G3MK	J	j
G3XK	W	
G2MK	H	h
G2XK	Z	
GMK	G	g
GXK	Y	
MK	M	m
XK	X	
CK	C	c
IK	I	

A number of rules govern the use of the symbols to ensure a sensible result.

When any hierarchy symbol (L, K, J, H, G, M) is used then one of the symbols immediately beneath it must exist. E.g. If you use a "G", then you must use at least one "M" or "X" must be used.

When any cross master symbol (V, W, Z, Y, X) is used then so must the hierarchy symbol (K, J, H, G, M) at the same level.

When any rotated constant symbol is used, the corresponding progressed symbol must be used also.

Special Symbols: In addition to the symbols used for Progressed and Rotated Constants, the following special symbols are available.

Symbol	Description
B	Designates that the chamber is used for a ball for lost ball construction keying when allowed by the design module. When "B" is used, the depth step specifies the ball size and the SOP must be 0. See Construction keying ¹⁸⁹ .
A	Used on pure keyed-to-differ. "A" is construed to mean All . If you use the symbol A then you may have only one code progression, and other than 0, A is the only symbol allowed. Available only on design modules that support pure keyed-to-differ. When "A" is used, then all combinations of codes are produced, without any consideration to master keys. This is suitable only for systems that have many individual keys, but absolutely no master keys.

After entering the values for a progression, it is a good idea to review it (Click **Test**, see [Testing the system design - coding tree](#)¹⁹², [Testing the system design - coding matrix](#))¹⁹²

Creating system design: Custom progression

The standard progressions we have looked at until now use a constant depth step for each chamber and generated codes are produced in ascending order. Many design modules allow you to specify a custom progression.

Custom progressions use SOP and designations in the manner described above, but instead of depth step you specify for each progressed or rotated chamber the actual depth values you want to use and the order in which they are to be used.

To make a custom progression, click on the custom progression tab. In the appropriate cells enter the progress order and designations as you would for a standard progression, then for the depths enter the values that you want that chamber progressed to.

Custom progressions give the ability for the agile minded to produce multiple code progressions, each time using only part of a chamber. They may also assist you in making a coding tree that is compatible with a legacy system. Unless you have special coding requirements it is advisable to use standard progressions where possible.

Modifying a system design

You may revisit the system design at any time by first opening a **coding window**, then click the **Change design** button (top right of the window).

Here's an overview of things specific to changing the system design.

Making more key section available

If the design module allows multi-section systems, then the button **Promote key section** will allow you to select a new higher level key section for the system from the key section family already assigned to the system. Having promoted the system key section, there will be more key sections available in the coding window. See [Promote key section](#)¹⁸⁹.

Changing the TMK

There is little if any reason to alter a TMK after a system is coded, however as you start coding you may determine that a better main permutation selection would be beneficial. To allow the main permutation to be altered, click on the adjacent **Edit TMK** button.

Adding another code progression

Many systems need only a single code progression to derive all the codes you will need. However on occasion you may want to "slice and dice" the codes in such a way that a single code progression cannot produce. For example, when you want to make several coding trees to tightly represent a non-symmetrical system..

- To add another code progression, enter it into the **Standard progression** or **Custom progression** as described earlier.
- Enter a **brief description** of the code progression in the place provided. Please do this! When you design systems with multiple code progressions it will often be unclear why each code progression was created, particularly when you revisit the system some time later. The description appears on the coding window to assist you while coding.
- Click the **Test** button to see the solution.
- Click **Add progression** to add the code progression to the system design.

You may enter notes for the progression on the notes tab. Click back on onto the **Standard progression** or **Custom progression** (choose the one you where entered the progression) tab clicking **Add progression**.

- Click **OK** to save the system design changes. On returning to the coding window the new code progression will be available.

When you add multiple code progressions, ProMaster Master Keying applies constraints to prohibit you from entering conflicting code progressions. In particular, once a chamber has been used for one purpose you are prohibited from using it for another purpose. This is a good solution for many user, however some users will find this too restrictive. It is possible to disable these checks in the security group permissions by turning on the security flag **Access advanced coding features**. Be aware that turning on **Access advanced coding features** disables a number of sanity checks, so you are now responsible for more of the system integrity. Don't turn on **Access advanced coding features** because you want to be the most powerful person around! Turn it on only if you really need it.

Altering a code progression

There are a number of reasons why you might want to alter a code progression. For example, you might want to introduce some rotated constants.

When you alter a code progression, be careful not to make it incompatible with any existing codes. To make a simple example, let's say the Designations were **000CC0** and using this progression you coded the system. Then later you need more codes, and decide to change the Designations to **00CCCC**. This will produce key codes that are not compatible with the ones you have already used, because instead of 2 positions varying from the TMK, you now have 3 positions varying. In this situation, to get more codes for an existing system and to keep them compatible, you must rotate a constant like this: **00cCC0**. (Notice the lower case c which specifies the rotated constant).

To alter a code progression:

- Select the Code progression in the list.
- Click the **Edit Progression** button.

The code progression will be displayed in the standard progression or custom progression depending on the type of progression.

- Make your changes, being sure to enter a description if appropriate.
- Click the **Test** button to see the solution.
- Click **Save progression** to save the progression or **Cancel edit** to discard your changes.

Converting a standard progression to custom

To convert a standard progression into a custom progression so that you may specify the precise depth progressions:

- Select the Code progression in the list.
- Right click on the list, and select **Convert to custom progression**.

The code Progression will be displayed in the custom progression.

- Make your changes (you must enter the depths), being sure to enter a **Description** if appropriate.
- Click the **Test** button to see the solution.
- Click **Save progression** to save the progression as a custom progression or **Cancel edit** to discard your changes.

Removing a code progression

You may not remove the only code progression, but if you have added multiple code progressions you may also remove them.

- Select the Code progression in the list.

- Click the **Remove progression** button.

Sorting progressions

Right click on the progression list to see options for sorting progressions into the order that you want.

9.13.2.1 Promote key section

When you design a system, you select a system key section, and that key section and all key sections beneath that key section are available for coding. Promoting the key section is available only on design modules for locking systems that support multi-section families.

If you need to expand the system to use a broader range of key sections, you then use the promote key section feature.

When you **Promote key section**, the key sections available to you are determined from the current system key section and the key section (and keyway) definitions. You may then choose a new key section to use as the system key section, and subsequently you will have all key sections beneath that new key section available for coding.

Promoting the key section is a one way operation - you can not then demote the key section. Promoting the key section does not change the coding of any keys within the system, it merely changes the system design to allow more key section to be used.

Getting started

See [System design](#)¹⁸⁴.

9.13.2.2 System design notes

Notes may be stored to document the system design.

Getting started

See [Coding screen overview](#)¹⁹³.

- From the coding windows, click the **Design notes** button.

9.13.2.3 Construction keying

Construction keying is supported in a number of design modules

Enabling construction keying

To enable construction keying for a system you must:

- Change the **Keying Type** to a Construction Keyed Keying Type.
- Flag all doors that need to be construction keyed. This can be done as you add the doors (if you had already selected a Construction Keyed Keying Type) or later in the **Door Bulk Change** window.
- Any and all construction keys must have the designation **Construction**. Once a key is flagged through its designation as being a construction key, various functions and capabilities are automatically enabled.
- Assign the construction key to operate all the construction keyed doors.

Types of construction keying

Construction keying may be done in one of two ways.

- Half key method (Inline and Lockwood Twin design modules)
- Lost ball method.

Half key construction keying.

To use the half key method of construction keying, you must manually enter the appropriate half code for your construction keys. Do this in the coding tree or coding matrix by selecting the construction key then click the **Enter code** button.

Lost ball construction keying

To use the lost ball method of construction keying, your coding progression must have the symbol B in the **designation**, and the corresponding position in the **depth step** indicates the ball size. Leave the SOP in this position as 0. In the coding tree or coding matrix you can right click on the construction key to access menu options for assigning the construction key code.

Here's an example of a system design for **lost ball** construction keying.

Item	Value
TMK	365144
SOP	000120
Designation	000CCB
Depth step	000224

Advanced construction keying

Now, few people need to do this, but it is possible to code in the same chamber that is used for construction keying. Here's how you do this in ProMaster Master-Keying 7.

Let's say our TMK is 365144, and we are using the last chamber for a construction ball. However, we want to use the last chamber to make some master keys also.

This is achieved by using two code progressions. First, a custom code progression is used to derive the master key codes, then a standard progression is used to specify the construction keying.

Here's an example.

Item	Value
TMK	365144
SOP	000321
Designation	000CCM
Custom depth step	Chamber 4 = 3, 5, 7, 9 Chamber 5 = 0, 2, 6, 8 Chamber 6 = 0, 2 Notice that we are using values in the ball chamber that are less than the TMK cut, but not those that are deeper than it.

That's the custom progression that will generate all your normal codes. Now we need to add a standard progression to define where the construction keying ball will appear. Here how:

Item	Value
TMK	365144
SOP	000000
Designation	00000B
Depth step	000004

Now, when you return to the coding tree or coding matrix, there will be one tab with the custom progression for all your standard codes, and another one for retaining the ball information.

To create the two code progressions described here, the user needs to have their security rights set to **Access advanced coding features** as the normal checks will prohibit the reuse of the chamber (It is used for M and B purposes)

9.13.3 Top master key

When you create a new design, ProMaster Master Keying will, for most design modules, generate a TMK code. To do this, click on the **Create TMK** button.

The TMK is generated according to the rules you entered when creating the design. Any TMK that ProMaster Master Keying generates is then checked against existing systems to check for a duplication.

If you accept the TMK that has been generated, click **OK**, else click **Calculate** to have another one generated.

The option to generate a TMK is not available for all design modules. Generally if the manufacturer's guide is that main permutations are to be taken from a manufacturer provided list then the option to generate one will not be available.

9.13.4 Design assistant

The **Design assistant** is available when you create a system design for the coding tree. It helps design the system coding. It is accessed from the [System design](#)¹⁸⁴ windows by clicking on the **Assist** button.

Before using the **Design assistant**, the **TMK** and system rules must be completed.

The first thing the design assistant does is evaluate your system by looking at all your keys, their designations and the key hierarchy. The results of this evaluation are offered as default values for each level of hierarchy. If the key hierarchy is flawed, you will be notified and required hierarchy quantities will not be offered.

Quantities

The key hierarchy evaluation displays in the quantity **calculated** column and offers the Quantity **required** of each level within the key hierarchy. You should adjust these numbers to allow for spare keys, system growth, etc. Some design modules will allow you to alter the depth step used for progressing the TMK in each chamber.

Logic rules are applied, and an error reported if your request does not make sense (e.g. 2 GMK keys and 3 CK, but no MK).

Options

The choice **Use rotated constants if needed**, if checked, instructs ProMaster Master Keying to construct a design using rotated constants to yield more keys if such a solution is possible.

Other choices depend on the design module you are working with. See [Design modules](#)²⁵⁰

Calculation

After making your adjustments, click **Calculate**. ProMaster Master Keying will compute a solution, or notify you if a solution is not possible.

After the solution is computed, you will see:

- For each level of hierarchy the minimum number of codes available at that level.
- The **Solution**, showing the chamber usage, depth steps and rotated constants.

You may recompute the solution if you wish by clicking the **Calculate** button again.

Viewing the solution

You may view the solution in the matrix or tree by clicking the corresponding buttons.

When you are satisfied with the proposed solution, click **OK** to return to the system design window. The computed solution will be transferred into the **Standard progression** ready for you to complete the system design.

9.13.5 Testing the system design - coding tree

Whenever you design or modify a system, it is a good idea to test your Code progression.

Getting started

- While creating or modifying the system design, to test a code progression you are creating, after you enter your progression, click **Test**.
- While creating or modifying the system design, to test an existing progression, right click on the progression and choose **Test**.
- Or from the [Design assistant](#)¹⁹¹ click **Show tree**.

General

The **Test Coding Tree Codes** window shows the coding tree derived from your **code progression**.

The information area shows:

- The image used for good codes.
- The symbols used for each rank or hierarchy.
- The image used for bad codes.
- The minimum number of good codes in any branch for each designation.
- The total number of good codes.
- The percentage of bad codes.

Beneath the legend, the **Bad code reasons** gives the reasons why the selected code is bad. As you move about the tree the reasons change to reflect your selection.

9.13.6 Testing the system design - coding matrix

Whenever you design or modify a system, it is a good idea to test your Code progression.

Getting started

- While creating or modifying the system design, to test a code progression you are creating, after you enter your progression, click **Test**.
- While creating or modifying the system design, to test an existing progression, right click on the progression and choose **Test**.
- Or from the [Design assistant](#)¹⁹¹ click **Show matrix**.

General

The **Test Coding Matrix Codes** window shows the coding tree derived from your **code progression**.

Using the **Options**, you can change the presentation of the coding matrix.

The options for **Codes to hide** allow you to determine the way codes grouped, shown and hidden. After you make any change, click **Apply settings** to see the change in the coding matrix.

The **Bad code reasons** gives the reasons why the selected code is bad. As you move about the matrix the reasons change to reflect your selection.

9.13.7 Coding screen overview

All coding windows share some functionality aspects, regardless of the design module or the type of coding window.

See the design module specific information in the **Coding** topic under the specific design module here: [Design modules](#)²⁵⁰

The following three topics cover the specific characteristics of the coding tree, coding matrix and Kaba coding grid.

General

Coding windows are where you assign codes to keys (either manually or by automatic coding), where the door pinning calculations are performed, and where a phantom check is performed to identify any erroneous conditions.

It is also where you may reserve codes or branches of codes for future use by assigning those codes as **lockout codes**.

Layout

Coding windows consist of:

- Several tabs on the left.
- A coding work-space on the right (used to show the tree, matrix or grid).
- A keying matrix on the right, below coding work-space.
- Buttons on the top right for changing the system design, coding reports and notes.

Left Tab: Keys

Overview: Of all the tabs on the left of the coding window, the **keys** tab is the one you will see most. It is where you see a list of all your keys and the codes, colour and key sections assigned to each.

Key sections: On any design module that uses key sections, you will see a list of key sections at the top of the **keys** tab. When you are working on a multi-section system, the key section that is assigned to a key, or the key section that is assigned to a lockout code, or the key section for which the keys are currently displayed in the coding window, is all determined by the key section that is currently selected.

Colours: On any design module that uses key head colours, there are one or more lists of colours at the top of the **keys** tab. The lists of colours is defined by each design module and the number of lists of colours will vary according to the design module. The colour(s) that are assigned to a key are determined by the currently selected colours. Additionally, once a key is coded, you may change the colour(s) assigned to a key by following these steps:

- Select the key whose colour you want to change.
- Select the colour(s) you require.
- Click the button above and to the right of the lists of key colours.

The colour(s) on the key will be changed.

When you use the coding tree to perform automatic coding, the currently selected colour is not used, but instead you are asked how key head colours are to be automatically assigned.

Keys: The keys list shows each key and the corresponding coding information. The select key in the list is the one that will be altered when you perform any of the following tasks:

- Click the **Find in designer** button to find the key in the coding tree or coding matrix.
- Click the **Enter code** button to manually enter a key code. See [Code entry](#)²⁰⁴.
- Click the **Remove** button to remove the key code.
- Click the **Find key above in designer** button to find the key above the selected key in the coding tree or coding matrix.
- Click the **Find key above in key list** button to find the key above the selected key in the key list.
- Assign a code from the coding tree or coding matrix.
- Click the **Assign branch** button to auto assign the codes in just that branch of the key hierarchy within the coding tree.
- Right click on the key list in some design modules to perform tasks such as assigning **construction key** codes and assigning **control key** codes.

Within the key list, in addition to the normal navigation key presses that operate in any such list, you may also use **Ctrl-UpArrow** and **Ctrl-DownArrow** to move to the previous or next key that does not have a code assigned and **F3** to search for a Key Number. Right click on the list for a menu with more options and the corresponding key presses.

Automatic Code Assignment: The buttons for automatic code assignment appear only on the coding tree. See [Coding using the coding tree](#)¹⁹⁷.

Coding: Click **Calculate coding and errors** to perform a complete calculation on all doors and to check for errors.

After coding is finished, you must always click **Calculate coding and errors** to complete the process. If **Calculate coding and errors** is successful, and other conditions are met (e.g. each key has a code assigned, each door has one or more keys assigned) then the system will be flagged to indicate that coding is complete, and jobs will be allowed to progress to manufacturing.

Coding errors: Down the bottom of the keys tab is an area that displays any errors that are identified. The coding errors area is initially shrunk (you may resize it using your mouse on the splitter just above the heading), and if errors are identified it appears automatically.

In the coding errors area, all errors are shown on the **Door errors** tab where each problem door is listed with the keys that erroneously operate it, and each error is also shown on the **Key errors** tab where each problem key is listed with the doors that it erroneously operates.

- **Print** and **Print preview** are available for the error list.
- **Door pinning report** shows the pinning report with the single highlighted door selected.
- **Door pinning report for all doors with errors** shows the pinning report with all error doors selected.
- **Key codes report for all keys with errors shows** the key codes report with all error keys selected.

If your system shows coding errors, click on one of the errors (in the **Doors errors** or the **Key errors** lists) and then click the **Find** button. The offending key will be located on the coding work space, and also the offending door-key combination will be located in the **Keying matrix**. This may also be achieved by double clicking on the phantom.

When a system is correctly coded, there will be no coding errors. Your first step to resolving coding errors should always be to assign new codes to the offending keys. If however the error is unavoidable, perhaps

because of the limitations of the locking system or because it is a replaced key whose code still operates a central door, then the resolution will be to assign that key to operate the door, thereby removing the error condition. Changing the keying should not be done without due consideration, and in the case of complex cross keyed systems that simply cannot be coded, you may have to redesign the key system in conjunction with your client.

On systems that use **Control keys** (A control key removes an interchangeable core, and is specified by setting the key designation to **Control**), the error check is performed on both the lock shear line (or equivalent) and also the control shear line. When error keys are displayed, they are sufficed with information to indicate which shear lines the key phantoms through.

Left Tab: Lockout codes

When you click on the **Lockout codes** tab, you change the operating mode of the coding windows from that of assigning key codes to locking out or reserving codes.

Locked out codes are codes that you have for one reason or another prohibited from use. Typically you might lock out a branch or more of codes that you

After having selected the **Lockout codes** tab, to create a locked out code, do one of the following:

- Double click on an unused code on the **Coding tree** or **Coding matrix**, then when prompted, enter a reason for the locked out code.
- Or, click the **Enter code** button to enter the code manually.

In the same way that keys are shown in the coding tree and coding matrix, so too are locked out codes, showing that the code is locked out and also on the coding tree the reason that you entered.

Left Tab: Options

Options

The **Display** option (Coding matrix only) allows you to choose how the coding matrix appears, whether is small, large, shows codes or shows keys.

Here are other options available:

Option	Description
Move after code assigned	After you assign a code to a key, causes the next un-coded key to be selected. Generally you would want this turned on, however if you have a messy system and you are repeatedly guessing a code and checking for errors, you would benefit from leaving this off so the key remains selected.
Calculate pinning while assigning codes	Causes pinning and phantom check calculation to occur as you assign each code. This is the best way to operate as error conditions are immediately brought to your attention.
Allow cut keys to be rekeyed	Available only if the user has the necessary security permissions. This allows the code to be altered or removed on a key that has been manufactured. For safety reasons, the setting for this option is not remembered, and if you leave and re-enter a coding window it will be off.
Show code quantities on tree	Coding tree: When the Options tab is selected, having this option on draws the tree to show the quantities of codes beneath each master.
Hide bad codes	Coding tree. Bad codes are hidden on the coding tree rather than being shown with a bad-code graphic. Coding matrix: Bad codes are greyed out.

Highlight child nodes	Coding matrix: Changes the matrix drawing to show an indicator beside each code that is immediately beneath the currently selected code.
Allow bad code usage	Allows bad codes to be assigned to keys. Before using a bad code, check the Bad code reasons .
Weak key is bad code	Available in selected design modules. Determines if a weak key is considered as a bad code. To use weak keys (not recommended), turn this option off while assigning codes.

Codes to hide (Coding matrix only)

The various options for **Codes to hide** in coding matrix allow you to slice and dice the view of the generated codes. When you make a change to any of these options, click the **Apply settings** button to apply the new options to the coding matrix.

Bad code reasons

As you select any key in the coding tree or coding matrix, the bad code reasons show any reasons why the selected code is considered bad. It is possible to use bad codes (see Options earlier), but before doing so you should consider the reason why a code is bad. For example, you may choose to use a code that is deeper in the first cut than desirable, thereby producing a weak key, but to use a key code that violates the Maximum adjacent cut variations (MACS) makes no sense since usually the key is not able to be produced.

Left tab: Doors

Shows a list of all doors in the system, and beneath each door the keys that operate the door. Right click on a door or key for more options.

In many design modules you may select a door, then click **Special pinning** to specify special pinning for the door. See [Special pinning](#)²⁰⁴.

In some design modules it is possible to have a key assigned to a door, but for the door coding to not be calculated. The menu options **Find prior door without pinning** and **Find next door without pinning** locate doors that have no pinning solution. An example of this is in the interchangeable code module, having a door with a control key assigned but no operating keys.

Top right buttons

Click **Change design** to alter the system design. See [System design](#)¹⁸⁴.

Change design

The **Change design** button gives access to a menu of options for altering the system design.

The **drop down** part of the **Change design** button access more system options, depending on the design module:

Change key sections: Allows the key sections to be replaced with different ones. See [Change key sections](#)²⁰⁶.

Change a constant cut: Opens the system design window in a manner that allows the TMK to be altered in positions that are common to all keys. The only positions that may be altered on the TMK are those that are constant across all keys. Typically this would be used if you have an existing key system where keys have been lost, and instead of a complete re-key and new keys you choose to re-cut one position in each key to a deeper code and to alter the pinning only in a single chamber in each cylinder, effectively making the system secure against the lost keys without a complete new system being required. Note however, the new value for the constant chamber must be a deeper cut than the original.

Coding work space

The coding work space appearance and functionality depends on the particular coding window you are using.

See [Coding using the coding tree](#)¹⁹⁷, [Coding using the coding matrix](#)¹⁹⁹, [Coding using the kaba coding grid](#)²⁰⁰.

Keying matrix

Over on the right with of the coding window, below the coding work space is the **keying matrix**. This keying matrix is similar in appearance to that you use when assigning keys to doors while entering the system, but with somewhat reduced functionality.

To make the keying matrix visible, grab the splitter above the keying matrix with your mouse and drag it up.

This keying matrix serves two purposes:

It allows you to view the keying in a matrix layout.

It allows you to right click any door-key junction and select **Keying on** or **Keying off**. Do this with caution as altering keying should generally not be the first tool you turn to when you have difficulty coding a complex system. When you alter the keying, the door is recalculated and errors are updated accordingly.

9.13.8 Coding using the coding tree

This topic discusses coding functionality specific to using the coding tree. For all other information on the coding window, see [Coding screen overview](#)¹⁹³.

Getting started

- You must be logged in with a system open.
- From the **Coding** menu, select **Coding tree**

If the system has not yet been designed, the system design windows will open first. Complete the design process (see [System design](#)¹⁸⁴)

After the system design is complete, the coding tree window appears.

Coding work space

The coding work space is the area on the right of the coding window. At the top of the coding work space are one or more tabs, which show the **code progression** used to produce the coding tree.

Initially, any system will have just one **code progression**, and hence just one tab at the top of the coding work space. Advanced coding, or coding in some design modules may require multiple code progressions, and these will be displayed, each on their own tab.

If the code progression has a **description**, that (or the first part if it is long) is shown on the code progression tab. If the code progression has **noted**, a note graphic is shown on the tab and you may right click to get access to the code progression notes.

When you are on the coding tree, the navigation keys on your keyboard navigate around it. To assign a code from the tree to a the selected key, either double click the code with your mouse, or press the **Space** key on your keyboard. If you use automatic code assignment then you will not need to do this.

When a code on the tree is assigned to a key, or is reserved as a **lockout code**, the key number or lockout reason is shown beside the key code.

On **multi-section** systems, the coding tree displays the keys that are assigned codes using the currently selected key section.

If there are multiple tabs at the top (I.e. Multiple code progressions have been defined, then the coding tree is drawn using the definitions from the currently selected code progression tab).

Automatic code assignment

To perform automatic code assignment, the **key above** and **designation** must be correct for all keys and the system design must have a **code progression** suitable for the **key hierarchy**. I.e. You cannot create an inappropriate design and expect ProMaster Master Keying to wave a magic wand and make it work.

The **Assign codes** attempts to assign a code to every key that does not already have a code. If you are doing automatic coding and the system does not require any intervention (such as is required on a multi-section system) then this is the button you click to do the business.

The **Assign branch** button is used when you want automatic code assignment but want some control over where the coding starts from. Here's an example of how you might do this. Imagine a multi-section system and you want a branch of a system on a particular key section. To do this, first select the key section then select the master key at the top of the branch and then assign it a single code. Now, with the master key assigned a code and still highlighted, click the **Assign branch** button to have all keys below that master key assigned a code. When you click **Assign branch**, a key section window will prompt you for the key section to use id there is a choice. E.g. Key sections ABC, AB, AC, BC, and your master or sub-master is on ABC then the window will give you a choice of ABC or the key sections beneath ABC.

The **Remove unordered** button removes the coding information from all keys that have not been ordered. Don't panic – it makes you type in a confirmation message first.

What about removing codes from all keys including ordered keys? First you must have sufficient security access, then on the **Options** tab you need turn on the flag **Allow cut keys to be rekeyed**. Now when you click on the **Remove unordered button** it gives you an option to allow all codes to be removed.

If this all seems like way too much functionality for a simple system, consider this. If you enter a straight forward sort of system, and correctly enter the **Designation** and **Key above** for each key, then the coding takes just a few seconds to (a) Create the design (See [System design](#)¹⁸⁴), then (b) Use the Design assistant (See [Design assistant](#)¹⁹¹) to make a suitable **Code progression**, then (c) In the **Coding tree**, click the **Assign codes** button. Straight forward system? All done!

Key head colours and automatic code assignment

When ProMaster Master Keying performs automatic code assignment on a system that uses key head colours, you are asked how colours are to be assigned. See [Colour rules](#)¹⁹⁸

Sometimes on highly selective systems it is very hard to find a code for a key that will not produce errors and it comes down to trying dozens of codes and seeing what happens. Here's a hint to make this process easier. First, on the **Options** tab turn **off** the option **Move after code assigned**. Highlight the troublesome key. Now when you assign a code to the key, hold down the **Shift** key on your keyboard. The **Shift** key allows you to assign a new code to the key without first removing the old code, and because you turned off the option **Move after code assigned**, then the key will remain selected after the code is assigned, thereby allowing you to immediately try a new code if errors were produced by your code assignment.

9.13.8.1

Colour rules

When using automatic code assignment with systems that use key head colours, the colour rules window offers you choices for colour selection.

Dependent on the design module in use, you will have 1, 2 or 3 colours available for each key.

The choices for how colours are assigned are:

Assign the same came colour to all keys: The colour(s) you select are applied to all keys that are assigned a code.

Assign the colour to each key based on the key hierarchy: You must select the colour(s) for each level of key hierarchy, and those hierarchy colour choices are applied to all keys that are assigned a code.

The colours you select are remembered for each design module, so when you return to automatic code assignment the colours remain the same.

9.13.9 Coding using the coding matrix

This topic discusses coding functionality specific to using the coding matrix. For all other information on the coding window, see [Coding screen overview](#)¹⁹³.

The coding matrix gives access to every conceivable code, which has some distinct benefits for achieving a solution in messy cross keyed systems, but this comes at the cost of being much more complex than the coding tree. Whenever possible you should try to achieve your solution in the coding tree as it is easier to code, easier to understand and easier for someone else to look at your work and understand it.

The coding matrix is not available for **Kaba** systems as it makes no sense. For the equivalent for Kaba systems, see [Coding using the kaba coding grid](#)²⁰⁰. Additionally, the coding matrix is not available on systems where you have specified a **pure keyed to differ code progression**.

Getting started

- You must be logged in with a system open.
- From the **Coding** menu, select **Coding matrix**

If the system has not yet been designed, the system design windows will open first. Complete the design process (see [System design](#)¹⁸⁴)

After the system design is complete, the coding matrix window appears.

How the coding matrix works

The coding matrix takes a **code progression** and produces an array of codes, displaying them in a hierarchy of codes within codes. Each hierarchy of code is shown in a different colour, and the **Codes to hide** option allow you to alter the view of the codes to simplify it down to just show the code structure that you require.

The nature of the coding matrix is such that:

- When you create the design, the **design assistant** is not available.
- When you create the design, **designations** are not used.
- When you create the design, **rotated constants** are not used.
- If you open the coding matrix for a system that has **designations** or **rotated constants** defined, they are ignored.
- To produce the equivalent of rotating a constant, you define multiple **code progressions** for the coding matrix.

Coding work space

The coding work space is the area on the right of the coding window. At the top of the coding work space are one or more tabs, which show the **code progression** used to produce the coding tree.

Initially, any system will have just one **code progression**, and hence just one tab at the top of the coding work space. Advanced coding, or coding in some design modules may require multiple code progressions, and these will be

If the code progression has a **description**, that (or the first part if it is long) is shown on the code progression tab. If the code progression has **noted**, a note graphic is shown on the tab and you may right click to get access to the code progression notes.

When you are on the coding matrix, navigation keys on your keyboard move around it. To assign a code from the matrix to a the selected key, either double click the code with your mouse, or press the **Space** key on your keyboard.

When a code on the matrix is assigned to a key, or is reserved as a **Lockout code**, the code is modified to indicate that it has been used.

On **multi-section** systems, the coding matrix displays the keys that are assigned codes using the currently selected key section.

If there are multiple tabs at the top (I.e. Multiple code progressions have been defined, then the coding matrix is drawn using the definitions from the currently selected code progression tab).

We have covered coding in the matrix fairly quickly. There are 2 reasons for this. Firstly, no amount of words are as good as getting in and trying it and learning how the codes work. Second, most users who do matrix coding are already trained in the matrix-coding principals.

Option on the options tab

The first option is the matrix **Display** style. This determines how the the keys and codes represented on the matrix - as a cube (3 sizes), showing the key code, or showing the key number assigned that code (2 sizes). For a large matrix it is often more manageable to display the matrix as a series of colour coded cubes and not display the code or key number.

Codes to hide controls which of the generated codes are shown on the matrix.

If you turn off the flag in **Incidental masters** and click the **Apply settings** button, you will see the matrix in its full glory. It is a good idea to do this on a smallish matrix (maximum 4 chambers progressed) and examine the colours and key codes to understand how the matrix shows every key code and their relationships.

When you progress several chambers from the **TMK**, there are many codes produced, and we want to look at how to classify these.

Any code that has every progressed position different from the **TMK** is a **Level 1** key. It is a **Change** key. Now look at the yellow cells in the matrix. These key codes have all but one of the progressed chambers different from the **TMK** and are referred to as a **Level 2** key. An on it goes for all other levels.

Hierarchical masters form a hierarchy going up through the levels, from **Level 1** right up to the **TMK**. Out of the codes we also select a set of master codes that we call **Cross masters**. **Cross masters** operate through different sets of keys to those operated by each **Hierarchical master**. If it helps you can think of them as horizontal versus vertical masters. Finally, **Incidental masters** are all masters that are not a **Cross master** or a **Hierarchical master**. **Incidental masters** are the most complicated to understand, and should only be turned on if you need to select one of them for a key.

Sometimes on highly selective systems it is very hard to find a code for a key that will not produce errors and it comes down to trying dozens of codes and seeing what happens. Here's a hint to make this process easier. First, on the **Options** tab turn **off** the option **Move after code assigned**. Highlight the troublesome key. Now when you assign a code to the key, hold down the **Shift** key on your keyboard. The **Shift** key allows you to assign a new code to the key without first removing the old code, and because you turned off the option **Move after code assigned**, then the key will remain selected after the code is assigned, thereby allowing you to immediately try a new code if errors were produced by your code assignment.

9.13.10 Coding using the Kaba coding grid

This topic discusses coding functionality specific to using the Kaba coding grid. For all other information on the coding window, see [Coding screen overview](#)¹⁹³.

Design modules

This topic is applicable to these design modules:

- Kaba ACE
- Kaba Expert Plus

- Kaba Expert
- Kaba Quattro
- Kaba Gemini

General

The Kaba modules all allow you to perform tree based coding (see [Coding using the coding tree](#)¹⁹⁷) and this is often an easier option for simple systems. The coding grid is used to code Kaba systems in the traditional manner and is the best way to code with multiple rotor stators or cross keying.

A prerequisite for using these design modules within ProMaster Master Keying is that you have completed appropriate Kaba training and have a comprehensive understanding of positional keying.

- You must be logged in with a system open.
- From the **Coding** menu, select **Coding matrix**

If the system has not yet been designed, the system design windows will open first. Complete the design process (see [System design](#)¹⁸⁴)

After the system design is complete, the coding grid window appears.

How the coding grid works

All coding happens by adding keys into the designer, altering the code, then saving the keys in the designer.

On the **Keys** tab there are several buttons for adding codes to the designer:

Add all to designer: Adds all the keys to the designer.

Add to designer: Adds just the selected key to the designer

Add keys below to designer: Adds all the keys below the selected to the designer.

Often you will need to add more keys into the designer than just those you plan to alter, as you need to see the pattern of how the codes are progressed. For manageability, you may find it easiest to work on a branch of the system at a time when your system is large.

When you add codes into the designer, one of two things happen.

- If the key already has a code, then it is added to the designer with its code, and the code is displayed.
- In the key is un-coded, then when it is added to the designer, the **Set TMK when adding** options above the designer are used to determine which parts of the **TMK** will be used to make a code for the key. So for example, if you want to make a key that has only left side, then you would turn on the LXX options and turn off the RXX options then add the un-coded key to the designer.

You may sort keys in the designer by dragging the **Key number** further up or further down the grid using your mouse.

Progressing individual codes

To progress codes, navigate to the designer cell that you want progress, and press the Space key. You will see the code at that position change to a 4 (or a 3 in some circumstances) and the cell will be coloured green.

Right click on the designer for more options.

Progressing multiple codes

When a single cell on a master is selected, the option **Copy master cuts to keys below** is available.

To progress a block of codes, select that block and use the **Selection progressed** and **Selection not progressed** options.

When a single cell is selected, the options **Column progressed** and **Column not progressed** are available.

Automatic progression of codes

ProMaster Master Keying provides a facility to automatically progress codes for a selected range of keys.

To do this:

- Either select a single cell on a master and use the option **Progress keys below this master**
- Or select a range of keys in a single column and use the option **Progress**

The **Progression** window opens. See [Coding grid progression](#)²⁰³

Other functionality

There are a number of buttons beneath the designer and are available options on the designer popup menu also (have a look and learn the key presses).

- **Set key cuts to TMK cuts:** Sets the selected key in the designer to the cuts of the TMK.
- **Set block to TMK cuts:** Sets the current block or segment of the selected key in the designer to the cuts of the TMK.
- **Clear block:** Clears the current block or segment of the selected key.
- **Undo key changes:** Undoes all changes to the key, reverting it to the value it had when it was loaded into the designer.
- **Discard key:** Removes the selected key from the designer without saving it.
- **Discard all:** Removes all keys from the designer without saving.

Saving the designer

To save the key codes in the designer, click **Save changes** button.

Pinning, Errors And Rotor assignment

To perform a pinning and error check, click the **Calculate coding and errors** button.

The **Calculate coding and errors** button, like several other functions is available only when the editor is empty. I.e. You must save or discard the editor first.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors (Restricted to the rotors permitted by the TMK you selected for the system).

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

Notes for Kaba Expert, Kaba Expert Plus Rotor selection

- The rotor selection is restricted to the rotors permitted by the TMK you selected for the system.
- If a door has been manufactured and you want to change the rotor assigned to it, you must first turn on the option **Allow change rotor if manufactured**.
- If the rotor selection is altered from the rotor assigned when the door was manufactured, a warning image is shown.
- If the rotor selection is blank, a question image is shown to bring your attention to it.
- An job image indicates if the door has been manufactured (and hence warning you to exercise care in altering it).
- The rotor last manufactured for the door is displayed in the Mfg rotor column.

9.13.10.1 Coding grid progression

When you are using the Kaba coding grid and choose to progress several keys, the Progression window opens.

There are two ways of using the progression window.

General

All possible rotors for the selected keys are shown in the left top list. You must first select which rotor you want to use.

Standard method

After selecting the rotor:

- Choose which positions on the rotor you want to use. Unavailable segments are disabled. A segment will be unavailable if it is the dealer segment, has no common positions across all keys that can be progressed, or is empty on one or more keys. Select which segments on the rotor you want to use for coding.
- Choose the progression direction. Right to left is normal for change keys. Left to right is often used for master keys for the reason that it makes them visually distinct on the designer.

Now a solution, if one is possible, will be shown. It will be the solution that uses the fewest positions.

- Under **Keys required and yield**, change the drop down selection for **Progress** to generate additional codes (e.g. For expansion and replacement keys) if you wish. A new solution will be shown.
- Click **OK** to produce the progression and return to the designer.

Advanced method

After selecting the rotor:

- Choose which positions on the rotor you want to use. Unavailable segments are disabled. A segment will be unavailable if it is the dealer segment, has no common positions across all keys that can be progressed, or is empty on one or more keys. Select which segments on the rotor you want to use for coding.
- Turn on the **Advanced: Individual position selection** option.
- In the **Positions available and selection in advanced mode** toggle on the positions that you want to use. When enough positions are selected to generate a solution, the **OK** buttons is available.
- Under **Keys required and yield**, change the drop down selection for **Progress** if you want to tailor the solution.
- Click **OK** to produce the progression and return to the designer.

9.13.11 Code entry

The code entry window is used for:

- Entering a code for a key in the coding windows. See [Coding screen overview](#)¹⁹³.
- Entering a lockout code in the coding windows. See [Coding screen overview](#)¹⁹³.
- Entering a code when opening a system by key code. See [Systems](#)¹¹⁰.
- Entering a special code for a key in the coding windows. This is used in some design modules that require control keys with additional options.
- Searching for a key code in the coding tree and coding matrix.

The choices vary by design module, and also by depth/space card used (when applicable).

The values available for selection are constrained by those values permitted, and any other factors, such as the **List** in some design modules.

9.13.12 Special pinning

Special pinning allows you to specify pinning information for a door and that is then combined with the key data for that door to compute its final pinning.

Special pinning is available in many design modules. The functionality varies by design module according to the lock system capabilities, some having cut selection available, some having empty positions available and some having both.

General

Sometimes the situation arises where a central (maison) door must be manufactured, however the system is not finished, so some keys which will eventually be entered and coded to fit the central door are not available. In this situation you may know that one or more chambers in the cylinder must be fully loaded (or left empty), thereby allowing not only the current keys to fit, but also future keys.

In specifying **special pinning**, you may specify any key sections that must fit the door (on multi-section systems) and any combination of key code data. There is no requirement to specify key code data for each chamber in the cylinder.

For example, you may specify nothing except the 5th chamber must fit codes 1,2,5,7,9, leaving all other chambers unspecified.

What happens when pinning is computed for the door is that any code data you specify, and any key sections you specify are then combined with the key section(s) and cut data from the keys to produce the final pinning solution for the door.

On some design modules, the option to leave a chamber empty is available. If you specify that a chamber is empty, it results in blank pinning in that position, and phantom checking adjusted accordingly to not check that position.

Getting started

On the coding window:

- Click on the **doors** tab.
- Select the door that requires special pinning.
- Click the **Special pinning** button.

Making a change

Please enter a note to explain why you have special pinning.

- For design modules that support multiple key sections, you may select any **key sections** that you want to operate the door.
- In the **Additional cuts to operate door area**, turn on any codes you want to operate the door.
- In the **Additional cuts to operate door area**, if you want a chamber left empty, turn on **Empty** for that position.
- Click **OK** to save.

When you return to the coding window, there is a indicator graphic beside the door.

Pinning is recalculated for the door.

Other functionality

It is possible to copy the special pinning from a door and paset that special pinning onto other doors.

On the coding window:

- Click on the **doors** tab.
- Select the door already has special pinning.
- Right click the door and choose **Copy special pinning**.
- Select the door to which you want to apply the special pinning.
- Right click the door and choose **Paste special pinning**.

The door special pinning is saved.

The door is updated to show the indicator graphic beside the door.

Pinning is recalculated for the door.

9.13.13 Deleting the the system design

Once in a while you will have designed a system, only to rethink it or possibly change it to a different locking system.

Deleting the system design removes the design, all key codes, key colours, pinning information and all history. If you are planning to re-key an old system, you should not delete the design, but instead duplicate the system and then recode the new system.

Consider making a snapshot before you delete the design. That way you can restore the snapshot if you later change your mind. See [System snapshot](#)¹¹⁸

Getting started

- You must be logged in with a system open.
- From the **Coding** menu, choose **Delete design**.

Making a change

- You must enter the specified text before proceeding.
- Click **OK** to delete the system.

There is no undo. When you type the confirmation text and click **OK**, the design is gone.

9.13.14 Coding complete override

ProMaster Master Keying performs automatic tracking of a system status, and when any number of a range of events occur (e.g. add key, add door, change keying, etc) then the system is flagged to indicate that coding is required.

Then, before a job may be manufactured, you must open the coding window, perform any coding tasks required and then perform successful **Calculate coding and errors**.

However, many systems imported from legacy applications and often large historically paper based systems will have errors. When systems are imported into ProMaster Master Keying from legacy applications, they are flagged internally to indicate that horrendous errors may exist, and to allow such errors to be ignored, ProMaster Master Keying provides the facility to flag the system as being ok despite these errors.

This is not a once only process. Each time you make a system change that ProMaster Master Keying knows will affect coding integrity, it flags the system as "coding not complete", and even though you want to override this, you must still enter the coding window, perform **Calculate coding and errors** (which may not be successful). Then to accept the system errors and enable the manufacturing processes, you must then follow this process.

Getting started

- You must be logged in with a system open.
- From the **Coding** menu, choose **Mark system as coding complete**.

Read the warning.

If you wish to proceed, click **OK**.

9.13.15 Change key sections

Available for many design modules, this allows you to completely change the key sections used on a system to another family of key sections.

Clearly this should be used only during the initial design phase where you decide to use a different key section family, as doing this to a system that has been manufactured makes little sense and a big mess.

On systems using multiple key sections, the process of changing key sections not only requires you select a new system key sections, but for each key sections used within the system you must choose a replacement key sections from the new key sections family.

Getting started

- From the coding tree or coding matrix, click the down arrow by the **Change design** button to get the menu, then choose **Change key sections**.

Making a change

- From the **Change key section to** drop down list, choose the new key section for the system.
- Then click **Load key sections**. The right side list is loaded with all the key sections below the key selection you selected.
- Now, for **each** key section on the left list "Old key section", select it, then on the right list select the replacement key section, and click **Assign replacement key section**. Repeat for each old key section.
- When you are finished, read your choices carefully, then enter the confirmation text and click **OK**.

9.13.16 Report: Key codes

This report allows you to print the key codes for each key.

Our advice: Don't print this report. Here's why. If you are printing it to keep a paper copy of your systems, please consider how practical and reliable that is compared to a comprehensive computer backup solution. If you are printing this so you can cut keys without entering a job, which some people do, ask yourself why you are deliberately avoiding generating accurate history for your customer's system. To top it off, most likely there will be few customers who are happy about having printed copies of their security investment floating around.

Getting started

- You must be logged in with a system open.
- From the **Coding** menu, choose **Key codes report**.

or

- From the coding windows, click the **Key codes report** button. See [Coding screen overview](#)¹⁹³

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which keys do you want to include in this report	<p>All: All keys are printed.</p> <p>A selection of keys: You select the keys to be included on the report.</p> <p>Keys in a category: Select a key category. Keys in that category are included on the report.</p> <p>Keys in a group: Select a key group. Keys in that group are included on the report.</p> <p>Keys that have been manufactured: All keys that have been manufactured are included on the report.</p> <p>Keys that have not been manufactured: All keys that have not been manufactured are included on the report.</p>

Options

Option	Description
Show codes that have not been assigned a code	When selected, keys that have not been assigned a code will be included in the report, otherwise they are excluded.
Show a line between keys	May increase readability if on.

Producing the report

See [Printer options](#)¹⁹⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for

	more information.
Email	The report is sent via email as a PDF attachment.

9.13.17 Report: Door pinnings

This report allows you to print the door pinning for each door.

Our advice: Don't print this report. Here's why. If you are printing it to keep a paper copy of your systems, please consider how practical and reliable that is compared to a comprehensive computer backup solution. If you are printing this so you can cut keys without entering a job, which some people do, ask yourself why you are deliberately avoiding generating accurate history for your customer's system. To top it off, most likely there will be few customers who are happy about having printed copies of their security investment floating around.

Getting started

- You must be logged in with a system open.
 - From the **Coding** menu, choose **Door pinning report**.
- or
- From the coding windows, click the **Door pinning report** button. See [Coding screen overview](#)¹⁹³
- or
- From the coding windows, right click on a door on the doors tab and choose the **Door pinning report**.
- or
- From the coding windows, right click on a door error (coding errors section at the bottom left of the coding window) and choose the **Door pinning report**.

Range

The range specifies the set of data that will included in the report. Here is an explanation of the range choices:

Range	Description
Which doors do you want to include in this report	<p>All: All doors are printed.</p> <p>A selection of doors: You select the doors to be included on the report.</p> <p>Doors that fit a selection of keys: You select one or more keys and all doors that are operated by any of those keys are included on the report.</p> <p>Doors in an area: Select an area. Doors in that area are included on the report.</p> <p>Doors in a group: Select a door group. Doors in that group are included on the report.</p> <p>Doors that have been manufactured: All doors that have been manufactured are included on the report.</p> <p>Doors that have not been manufactured: All doors that have not been manufactured are included on the report.</p>

Construction keyed doors: All doors marked as having construction keying are included in the report.

Options

Option	Description
Report layout	Do not show keys: Keys are not shown. Complete key information: Key number, cuts, quantity etc. is shown beneath each door. Key numbers only: The key numbers are shown beneath each door.
Show doors that have not been coded	When selected, doors that have not codes will be included in the report, otherwise they are excluded.
Show door notes	Turn on to show any notes entered in the job for each door.
Show a line between keys	Complete key information layout only. Turn on to show a line between each key. This make improve readability.
Show lock description	Turn on to include the lock description in the door information area.
Show lock finish	Turn on to include the lock finish in the door information area.
Show lock part item number	Turn on to include the lock "item number" in the door information area.
Show a line between information items	Turn on to show a line between each information item. This make improve readability.
Show cylinder assembly	Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license. Turn on to include cylinder sub assembly information in the door information area.
Pinning font size	Allows you to decide the font size used for the pinning information part of the report. A larger size may be preferable for readability.
Sort order	Choose how the doors will be sorted.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.14 Jobs

Throughout the life of a system, from the initial order, through system extensions and key reorders, you will visit the **Jobs** window to enter the customer job.

When the customer places an order, always create a job. DO NOT cut keys or supply cylinders without processing a job, or there will be no history of system activity.

Getting started

- You must be logged in with a system open.
- From the **Jobs** menu, select **Jobs**

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to manage up your jobs.
- See [Entering jobs](#)²¹⁰ for information on jobs.

Other functionality

Click the **Import job** to import a ProMaster Key Manager job file from your client. See [Importing a job from ProMaster Key Manager](#)²¹⁶.

Click the **Manufacture** to manufacture the keys and doors on the job. See [Job manufacturing](#)²¹⁹.

Click the **Options** button then **Print** to print the job list.

9.14.1 Entering jobs

Getting started

See [Jobs](#)²⁰⁹.

General

The **Job** window presents a job when it is in various states (Entering, Manufacturing, Complete, etc.) so the functionality available depends on the job status, as well as some [Application parameters](#)⁵³ that affect the functionality availability.

The **Job** window is comprised of seven tabs.

Job tab

The job tab is where you record the basic information about the job, including the factory where it is to be manufactured. It is also where you see the status of the job and information about who has performed each stage of the job and when.

Signatories tab

The signatories tab is where you record the signatories who have authorised the order. All active signatories are shown, and as you select each signatory the corresponding signature and photo is shown. To indicate that a signatory has authorised the job, place a check next to that signatory. At the bottom of the window is a summary of the signatory security that has been configured for the system. If applicable you may right click on a signatory to see individual keys and doors that the selected signatory may authorise.

Key authorities and door authorities are accessed from the toolbar also.

Notes tab

The notes tab allows you to record some notes about the job. The notes are printed on the manufacturing paperwork. The default notes may be configured for the system, and on a job-by-job basis you may enter whatever notes are necessary.

Delivery tab

As you would expect, the delivery tab is the destination to which the order will be shipped.

There are two addresses. Normally only the first address would be used, however if you order keys and doors on the same order, and one or more of those keys is flagged as **Ship this key separate from lock parts**, then you must enter a delivery address and a delivery address for keys.

Keys tab

The keys tab is where you order the keys. More on this later.

Doors tab

The doors tab is where you order the doors. More on this later.

Documents tab

The documents tab allows you to store documents for the system (see [Documents](#)^{D132}), but rather than being general document they will be associated with the job. For example, you may receive an order on paper and decide to store a scanned copy of the order.

Ordering keys

This section is focused on what you do in the **keys tab**.

When the job is being entered, the keys list shows all active keys in the system. After you release the job (Order complete), the list is revised to show just the keys you have ordered.

The list shows:

- The **key number**.
- The number of **signatories** required for the key.
- If the key must be shipped separate from lock parts ("**S/S**").
- If the order has been released, the **issue numbers** allocated to this order.
- If the order has not been released, the **quantity already cut**.
- The **type** for the current order (Shows **Key** if you are ordering new keys, or **Reissue** if you are ordering an existing key to be re-cut).
- The **quantity** on this order.
- Any **note** you want on the key line item.

Signatories: If the system uses individual key authorities, the **Signatories** button will show you the signatories who are permitted to authorise the selected key.

Ordering reissues: To order reissues of the selected key, click the **Reissue** button. You may enter any valid issue numbers, and also ranges or issue numbers. For example, if there had been 20 previous issues of a key, then this would be a valid way to order some reissues: 6-8,3,10,14,12

Reissues are to replace a damaged or broken key. The ability to order key reissues must be turned on, as it is disabled by default. In many cases, reissues should not be ordered, and you should always consider if there is a good case for ordering another copy of an existing key. In most cases, it is better that the old key be recorded as damaged and a new key with a new issue number be produced.

- To order a key, enter a **quantity** on that line.
- Enter a **note** for the key if you wish.

At times you have a pile of keys to order, and they are all the same quantity. There's an easier way to do this. After entering the quantity (and possibly a note) for the first key, press F12 to copy the quantity to the next line, or press Shift-F12 to copy the quantity and note down to the next line.

- To remove a key from the order, change its quantity to 0, or for reissues, click the **Reissue** button and alter the reissue numbers.

- To find a key, click **Find key** and enter the key number you want to locate.
- To restrict the keys that are displayed, click on the **Key display** button and make your filter choices.
- If the system uses individual key authorities, click **Signatories** to see the signatories who may authorise the key order.
- To print the keys for customer approval, click **Print** then **Print keys**. See [Report: Job pre-release key confirmation](#)²¹⁷.

You may right click on the keys list for a menu with more choices, including a door access and a history of key orders.

Ordering doors

This section is focused on what you do in the **doors tab**.

When the job is being entered, the doors list shows all keyed doors in the system. After you release the job (Order complete), the list is revised to show just the doors you have ordered.

The list shows:

- The **door number**.
- The number of **signatories** required for the door.
- The door **stamping**.
- If the order has been released, the **issue numbers** allocated to this order.
- The **part code** being ordered
- The **type** of product being ordered.
- The **quantity** on this order.
- The quantity of **Keys per cylinder** that is required (Must be enabled in the [Application parameters](#)⁵³).
- Any **note** you want on the door line item.

Because you enter each door as a separate entity, the order quantity for a door will almost always be one. The exception to this is when a door entity represents a padlock rather than a physical door, in which case you might order more than one.

- To order a door, enter a **quantity** on that line.
- If you are using **keys per cylinder ordering**, enter a quantity for this also.
- Enter a **note** for the door if you wish.

At times you have a pile of doors to order, and they are all the same quantity. There's an easier way to do this. After entering the quantity (and possibly a note) for the first door, press F12 to copy the quantity to the next line, or press Shift-F12 to copy the quantity and note down to the next line.

- To remove a door from the order, change its quantity to 0.
- To find a door, click **Find door** and enter the door number you want to locate.
- To restrict the doors that are displayed, click on the **Door display** button and make your filter choices.
- If the system uses individual key authorities, click **Signatories** to see the signatories who may authorise the key order.
- To print the doors for customer approval, click **Print** then **Print doors**. See [Report: Job pre-release door confirmation](#)²¹⁸.

You may right click on the doors list for a menu with more choices, including a key access and a history of door orders.

Modifying the ordered product

Right click on the door for menu choices, or use the toolbar buttons to alter the order if required.

Cylinders: If the product is a lock part, allows you to order all cylinders for the lock. If the product is a cylinder, reverts the order to ordering the cylinder (assuming it had previously been changed to be say just the core).

Rekey: Orders a re-key of the door, without supplying a lock or cylinder.

Core: Orders a Core (plug etc depending on your naming convention) and of course the keying/assembly, but not a lock or cylinder.

Change product: Allows you to change the product being ordered for the selected door. A list shows associated items, or you may select a completely new lock product (Must be enabled in the [Application parameters](#)⁵³). There should be little or no reason to ever do this.

Rekey for key: Allows you to select a key, then orders a re-key for all doors that are operated by that key.

Final steps

After the order is entered, the keys are specified, the doors are specified, signatories selected and job details entered, the next thing you do is tell ProMaster Master Keying that you're finished. To do that, click the **Order complete** or **Release to mfg** button (Button changes depending on whether or not you have enabled the "Coding required" job status in application parameters).

When you click the button, a number of things happen:

- The job is saved.
- The job is checked to ensure that the signatories are appropriate for the keys and doors that have been ordered.
- If you have orders keys by specifying **Keys per cylinder** then those keys are located and added to the order. If a bottom level key cannot be determined for a door, the process of completing the order will halt and you will be presented with a list of problem doors. So for example, if a door has two bottom level keys that operate it, and you specify that you want to order some keys for that door, there is no logical way to tell which key you mean, and in this case you must specify the actual keys you require rather than specifying Keys per cylinder.
- Depending on whether or not coding is complete for the system or not, and also depend in on your [Application parameters](#)⁵³ setting "Send jobs to coding when released if coding is required", the job is released to manufacturing or it is flagged as coding required.
- If the order has been released to manufacturing, **issue numbers** are allocated for all keys and doors that have been ordered.

At the time that the job is changed to **Manufacturing required** status, a snapshot of the keying for each door on the order is created, and also a snapshot of the pinning for each door on the order. All subsequent operations on the job, such as viewing keying, printing manufacturing reports, exporting to machines etc uses the keying and pinning snapshot, so a change to the door's keying does not alter historical orders. Key codes are not included in the snapshot because they are considered immutable.

To manufacture the job, click on the **Manufacture** button. See the topic [Job manufacturing](#)²¹⁹.

Other functionality

The **More** button gives access to less frequently used functionality. The availability of each function depends on the job status, application parameters, user permissions and the tab selected in the job.

Return job to manufacturing: Provided it has been allowed in the application parameters, this choice returns a **completed** job to the **manufacturing** status, from where you may manufacture the job or return it to data entry. Generally this should not be allowed as uncontrolled use of this functionality may result in reduced history integrity.

Return job to data entry: Returns a job that is awaiting coding or manufacturing to data entry so it may be altered. Note that when you return a **Manufacturing required** job to data entry, the history snapshot is discarded, and later recreated when you release the job to manufacturing.

Edit invoice no: On a job that is no longer in the data entry phase, allows entry of an invoice number and associated fields and also the job notes. See [Edit job invoice number](#)²¹⁷

Toggle "printed" status: Changes the job printed status from yes to no, or no to yes.

Change test key method: When the job is in entry state, allows the test key method derived from the System Type to be overridden. Available on modules that support test keys, when the test key module is licensed and the user has permissions to alter System Types (i.e. Normal users may not override the System Type value, but if you have permissions to alter System Types then you may also alter individual jobs).

Job summary: Shows the number of key issues, doors and re-keys that appear on the order.

Other functionality - Right click on list of keys

Order all keys: Allows you to enter a quantity to order for all visible keys (see **Ordering keys** earlier). The **keys** tab must be active.

Order consecutive keys: Allows you to enter the number of different keys to order, and the quantity of each of those keys to be ordered (see **Ordering keys** earlier). The **keys** tab must be active.

Order keys from list: See [Order keys from list](#)²¹⁵.

Other functionality - Right click on list of doors

Order all doors: Allows you to enter a quantity to order for all visible doors (see **Ordering doors** earlier). The **doors** tab must be active.

Order consecutive doors: Allows you to enter the number of different doors to order, and the quantity of each of those doors to be ordered (see **Ordering doors** earlier). The **doors** tab must be active.

Order doors for a key: Allows you to select a key and orders all doors that are operated by that key. The **doors** tab must be active.

Order doors from list: See [Order doors from list](#)²¹⁶.

Application parameters that affect jobs

Numerous application parameters affect the way jobs work. Here is a list of some you may want to look at and tailor to the way your company operates.

Application parameter	Description
Allow "Reissue" of keys to be ordered	Enables the ability to order reissues in addition to new keys. See the earlier note regarding ordering key reissues.
Allow first job on each system to be released without signatories	Turning this job on allows the first order to be released without any signatories
Allow invoice number on completed jobs to be changed	If you turn this option on, the invoice number may be edited on a complete job.
Allow jobs to be manufactured after they are flagged as "Complete"	If you turn this option on, you will be allowed to manufacture jobs that have been marked as complete. Generally it is better to leave this option off to you do not inadvertently manufacture a job that has already been manufactured.

Allow jobs to be returned to manufacturing after they are flagged as "Complete"	Allows users with permissions to alter released orders to return the job to manufacturing after it has been marked as complete. Generally you should not require this parameter turned on, and keeping it off stops complete jobs inadvertently being manufactured again.
Allow keys to be ordered as "Key quantity per cylinder" on each door	Enables the ability to order keys by specifying the key quantity per cylinder for doors. If you would never use this, leave it turned off to reduce the amount of on-screen information. This is useful for organisations for produce mostly hierarchy systems, and work on the concept of "keys per cylinder".
Allow ordered product to be changed for doors	If you turn this parameter on, the option for doors "Change product" will be available. Leave this parameter off unless you have a reason for it.
Begin manufacture of a job after it is released to manufacturing	If you turn this parameter on, the manufacturing window will be opened as soon as you release a job to manufacturing. In a factory situation where the process of completing an order and those of manufacturing happen at different times, by different people in different rooms, you would be aided by having this parameter off.
Export system to client when releasing job to manufacturing	When the order is complete, and if this parameter is turned on, and if the system is configured to use ProMaster Key Manager, then at the time the job is released to manufacturing you will be prompted to send the client an update for their ProMaster Key Manager. Consider also the option to be given the same prompt when you have finished manufacturing the job and mark it as complete.
Is the job "Invoice number" mandatory	Turning this parameter on makes the invoice number mandatory.
Is the job "Required date" mandatory	Turning this parameter on makes the required date mandatory.
Send jobs to coding when released if coding is required	<p>Premium and manufacturer editions only.</p> <p>When a job is entered, and you click the button to say "order complete", and assuming the order is correct and with sufficient signatories, then one of two things may happen.</p> <p>If this parameter is set to No then the order may not be released unless coding is complete, and if coding is complete then the job will enter the Manufacturing status, ready to be manufactured. Generally this option is the best for small organisations.</p> <p>If this parameter is set to Yes then the job will enter the Coding status if coding is not complete, effectively locking the order, but not allowing it to be manufactured until coding has been completed. Generally this is the best choice for large organisations, factories or any shop where the order entry, coding and manufacturing are treated as distinct processes, often requiring disparate staff</p>
What check should be performed for duplicate order numbers	This option determines how ProMaster Master Keying will check for duplicate customer order numbers (No check, check in system, check in all systems for client)

9.14.2 Order keys from list

If you receive a list of keys (perhaps via email) that need to be ordered, this process makes the keys to the job easier.

- Right click on the **keys** in your job and select Order keys from list
- Copy the list of keys to the clipboard
- Paste the keys into the space provided in the **Order Keys From List** window.
- Enter the quantity you require and any other options.

The list is checked and reports an error if any keys are duplicated or do not exist.

Click **OK** to add the keys to the order.

9.14.3 Order doors from list

If you receive a list of doors (perhaps via email) that need to be ordered, this process makes the doors to the job easier.

- Right click on the **doors** in your job and select Order doors from list
- Copy the list of doors to the clipboard
- Paste the doors into the space provided in the **Order Doors From List** window.
- Enter the quantity you require (typically the quantity is 1 for doors) and any other options.

The list is checked and reports an error if any doors are duplicated or do not exist.

Click **OK** to add the doors to the order.

9.14.4 Importing a job from ProMaster Key Manager

The process of ordering keys becomes even easier if your customer is running ProMaster Key Manager and sends you a ProMaster Master Keying key order as a **ProMaster Key Manager Order File**.

When you import the order file into ProMaster Master Keying, a job is created, ordering the keys that the customer requested. After the job is created, you process it in the same way you would for a job that you entered manually.

There are two ways to import an order file.

Method 1: Importing an order file into the open system

- With the system already open, go to the **Job** window. See [Jobs](#)²⁰⁹
- Click the **Import job** button.
- Step through the **Import Job From Key Manager** wizard.

When you import a job using method 1, the job must be for the system that is open.

Method 2: Importing An order file without opening the system

- From the **Jobs** menu, select **Jobs** then **Import job from Key Manager**
- Step through the **Import Job From Key Manager** wizard.

When you import a job using method 2, the current system (if one is open) will be closed and the system required for the job will be opened.

Importing data

After opening the file, the wizard shows some summary information about the order file.

If there are any jobs with the same order number, you will be shown a list of those jobs. From this you may determine if the job is being imported in error a second time.

Choose the **Factory** that will manufacture the job.

Click **Finish** to perform the import.

After the import is done, you will be taken to the **Job** window. See [Entering jobs](#)²¹⁰

9.14.5 Edit job invoice number

After a job is released to manufacturing it becomes non-editable.

If you need to enter an invoice number, customer order number etc. or the job notes after the job is manufactured, use this procedure instead of returning the job to data entry.

- Open the job
- Click the **More** button then **Edit invoice no**
- Enter the invoice number and click **OK**

9.14.6 Delete job

If a job was created in error, it may be removed. If there are subsequent jobs that have ordered the same keys or doors then choices must be made on how to handle those items.

Getting started

A job must be in the **Entering** state before it may be removed.

See [Jobs](#)²⁰⁹.

Making a change

- You must enter the specified text before proceeding.
- If there are subsequent jobs that have ordered the same keys or doors then you must make a choice on how to handle those items.

Option	Description
Deallocate key issues that can be removed, leave those that cannot be deallocated and mark the job as "Cancelled"	For this choice, the job always remains, and is marked as Cancelled . Anything that can be removed from the job is removed, and all keys and doors that have issue numbers allocated and are ordered on subsequent jobs remain on the cancelled job to account for the issue numbers. This was the behaviour of previous versions of ProMaster Key Manager.
Force the job to be deleted. There will be gaps in the issue number sequence for some of the keys or doors	The job will be removed. Any keys and doors that have issue numbers associated with them in the job will be removed, and those issue numbers will not be accounted for.

- Click **OK** to delete the job.

9.14.7 Report: Job pre-release key confirmation

This report is for the client to check before the job is released to manufacturing.

Getting started

See [Jobs](#)²⁰⁹.

Options

Option	Description
Show received signing area	Shows an area on the report for the recipient to sign for the goods.
Show signatories	Turn on to list the signatories who are on the job.
Show job notes	Turn on to include the job notes in the report
Show key notes	Turn on to show any notes entered in the job for each key.
Template	Choose your instructions to the client. This is printed at the top of the report. See Templates ⁸⁰ to create templates.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.
Email	The report is sent via email as a PDF attachment.

9.14.8 Report: Job pre-release door confirmation

This report is for the client to check before the job is released to manufacturing.

Getting started

See [Jobs](#)²⁰⁹.

Options

Option	Description
Show received signing area	Shows an area on the report for the recipient to sign for the goods.
Show signatories	Turn on to list the signatories who are on the job.
Show job notes	Turn on to include the job notes in the report
Show door notes	Turn on to show any notes entered in the job for each door.
Show lock finish	Turn on to include the lock finish.
Template	Choose your instructions to the client. This is printed at the top of the report. See Templates ⁸⁰ to create templates.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.

Email	The report is sent via email as a PDF attachment.
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9.15 Job manufacturing

Once a system is entered, coded and a job created, the next thing to do is manufacture the product. See the following topics for information about each output.

Getting started

There are three ways to get to the Manufacture Job window.

- From the Job search window, select the job to be manufactured and click **Manufacture**. See [Jobs](#)²⁰⁹.
- From the Job window (i.e. You are viewing the job properties), click **Manufacture**. See [Entering jobs](#)²¹⁰.
- Open the job for factory manufacturing. See [Open job for manufacturing](#)²²⁰.

The Manufacture Job window

The Manufacture Job window is where all manufacturing happens.

Some job summary information is shown at the top.

There are several areas on the screen for each category of report and also for key and door manufacturing.

The items that are available depend on your job. For example, a job with only keys will not have any door reports available.

For each option that you turn on:

- Many have a **settings** option
- All have a corresponding button that will print, preview, save, send or view depending on the option.
- Each manufacturing task may be run individually by the corresponding button.

At the bottom of the window are four buttons:

Option	Description
Print all selected	This button prints all the select reports.
Manufacture all selected	This button performs all the selected manufacturing tasks.
Publish to device	Opens a window for device publishing. See Manufacture: Publish to device ²³⁷ .
Mark job as complete	When, and only when, the job is manufactured, click Mark job as complete to change its status from manufacturing to complete. If the Application Parameter "Export system to client when job is marked as complete" is turned on and if the system is configured to use ProMaster Key Manager, then you will be prompted to sent the client an update for their ProMaster Key Manager.

Marking the job as complete stops it from being manufactured by mistake, and allows accurate reporting on outstanding jobs.

Other functionality

Click the options button for more choices

Option	Description
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Default print action "preview"	Adjacent to menu reports is a button that has a default action and also a drop down from which you may choose "Preview" or "Print". The default action of that button is controlled by this setting. If you usually preview reports rather than printing them, turn this option on. The availability of preview some reports is controlled by the Application parameter ⁵³ "Allow print preview of manufacturing reports".
Printer setup	Access your printer settings. See Printer setup ³⁷ .
Machine setup	Access your machine settings. See Machine setup ²³⁸ .

9.15.1 Open job for manufacturing

While you may manufacture a job by opening the system, then its jobs, there is another way that may help in larger organisations.

If you want your factory staff to be able to manufacture jobs, but not open the systems, or access any other functionality, you will find this procedure useful.

First, give your factory user the security permission "Manufacture jobs", but no other system permissions.

Now, when this user logs in, the only option available will be to locate and manufacture jobs that are awaiting manufacturing.

Getting started

- From the **Job** menu, select **Manufacture job**.

Search for the job you want then click **Manufacture** to begin the manufacturing process.

9.15.2 Settings: Print job summary

The report settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Show job address	Turn on to include the job address and other contact information in the report
Show job notes	Turn on to include the job notes in the report

9.15.3 Settings: Print key cutting chart

The report settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Show job notes	Turn on to include the job notes in the report
Show key section summary	Turn on to include total key section requirements at the top of the report.
Show key notes	Turn on to show any notes entered in the job for each key.

Show a line between keys	Turn on to show a line between each key. This make improve readability.
Key cuts font size	Allows you to decide the font size used for the key cut part of the report. A larger size may be preferable for readability.

9.15.4 Settings: Print key cutting chart - test keys

The report settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Show job notes	Turn on to include the job notes in the report
Show key section summary	Turn on to include total key section requirements at the top of the report.
Show a line between keys	Turn on to show a line between each key. This make improve readability.
Key cuts font size	Allows you to decide the font size used for the key cut part of the report. A larger size may be preferable for readability.

9.15.5 Settings: Print key labels

The report settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

For labels to print correctly on almost all label printers, the label size requested by ProMaster Master Keying must be defined in the printer preferences.

To do this:

- (1) Observe the exact label size for the layout you have selected in the **Layout**.
- (2) Open the properties for your label printer and locate the place where you define "stock" or "paper sizes".
- (3) Add a new stock size. Give it a name and set the dimensions to the size of the layout you have selected.
- (4) Set the unprintable area as small as possible.
- (5) Save the stock size. There is no need to set it as the default paper size - it simply must exist so the printer knows about the size you are printing.

Options

Option	Description
Layout	Choose the label size you are using. Standard sizes are listed first followed by any custom labels you have created.
Labels per bag	The quantity of each label to produce. Normally this will be 1.
Keys per bag	The number of keys that you put into each packet. E.g.: For key MK1, we have manufactured 27 keys. If Quantity is 2 and Keys per bag is 10 then 6 labels will be produced for the key. That being 3 bags, and 2 labels per bag.
Design labels	Click this to design labels. See Custom reports ³³⁹

9.15.6 Settings: Print pinning chart

The report settings are accessed from the [Job manufacturing](#) window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Report layout	Do not show keys: Keys are not shown. Complete key information: Key number, cuts, quantity etc. is shown beneath each door. Key numbers only: The key numbers are shown beneath each door.
Show job notes	Turn on to include the job notes in the report
Show door notes	Turn on to show any notes entered in the job for each door.
Show a line between keys	Complete key information layout only. Turn on to show a line between each key. This make improve readability.
Show key quantity	Complete key information layout only. Turn on to show the quantity of each key manufactured on the job.
Show lock description	Turn on to include the lock description in the door information area.
Show lock finish	Turn on to include the lock finish in the door information area.
Show lock part item number	Turn on to include the lock "item number" in the door information area.
Show a line between information items	Turn on to show a line between each information item. This make improve readability.
Show cylinder assembly	Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license. Turn on to include cylinder sub assembly information in the door information area.
Pinning font size	Allows you to decide the font size used for the pinning information part of the report. A larger size may be preferable for readability.
Sort order	Choose how the doors will be sorted. Generally you should pick the same sort order when producing labels.

9.15.7 Settings: Print door labels

The report settings are accessed from the [Job manufacturing](#) window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

For labels to print correctly on almost all label printers, the label size requested by ProMaster Master Keying must be defined in the printer preferences.

To do this:

- (1) Observe the exact label size for the layout you have selected in the **Layout**.
- (2) Open the properties for your label printer and locate the place where you define "stock' or "paper sizes".
- (3) Add a new stock size. Give it a name and set the dimensions to the size of the layout you have selected.
- (4) Set the unprintable area as small as possible.
- (5) Save the stock size. There is no need to set it as the default paper size - it simply must exist so the printer knows about the size you are printing.

Options

Option	Description
Layout	Choose the label size you are using. Standard sizes are listed first followed by any custom labels you have created.
Quantity	The quantity of each label, with the qualifiers For each line item (ignore quantity): Ignores the quantity of each door ordered and produces just the selected quantity of labels for each line item on the order. This is useful where the line item represents items with a quantity greater than 1, such as padlocks, and you do not require individual labels. For each door manufactured: Produces the selected quantity of labels for each cylinder manufactured. This is the normal choice.
Show system description	Turn on to show the system, description on the labels.
Print label for re-key cylinders	Normally labels are not printed for re-key cylinders (since you are not supplying cylinders). Some design modules, such as AL Galaxy do have parts supplied for a re-key.
Design labels	Click this to design labels. See Custom reports ³³⁹

9.15.8 Settings: On-screen pinning

The on-screen settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the "view on-screen pinning" then click on the **settings** link. After you change the settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Show lock description	Turn on to include the lock description in the door information area.
Show lock finish	Turn on to include the lock finish in the door information area.
Show lock part item number	Turn on to include the lock "item number" in the door information area.
Show a line between information items	Turn on to show a line between each information item. This makes improve readability.
Pinning font size	Allows you to decide the font size used for the pinning information part of the on-screen pinning. A larger size may be preferable for readability.
Sort order	Choose how the doors will be sorted. Generally you should pick the same sort order when producing labels.

9.15.9 Settings: Print client key confirmation

The report settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Show received signing area	Shows an area on the report for the recipient to sign for the goods.
Show signatories	Turn on to list the signatories who are on the job.
Show job notes	Turn on to include the job notes in the report
Show key description	Turn on to show the key descriptions. If this report is being shipped with keys and there is a risk of the shipment being lost, not showing the key

	description is more secure.
Show key notes	Turn on to show any notes entered in the job for each key.
Template	Choose your instructions to the client. This is printed at the top of the report. See Templates ¹⁸⁰ to create templates.

9.15.10 Settings: Print client door confirmation

The report settings are accessed from the [Job manufacturing](#)²¹⁹ window. Check the report then click on the **settings** link. After you change the report settings, your changes are shown on the Job manufacture window and are remembered.

Options

Option	Description
Show received signing area	Shows an area on the report for the recipient to sign for the goods.
Show signatories	Turn on to list the signatories who are on the job.
Show job notes	Turn on to include the job notes in the report
Show door notes	Turn on to show any notes entered in the job for each door.
Show lock finish	Turn on to include the lock finish.
Template	Choose your instructions to the client. This is printed at the top of the report. See Templates ¹⁸⁰ to create templates.

9.15.11 Print Shipping Labels

The report is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Print shipping labels**.
- The report will be included if you click **Print all reports**.
- To print the report individually, click on the preview button adjacent to the option.

For labels to print correctly on almost all label printers, the label size requested by ProMaster Master Keying must be defined in the printer preferences.

To do this:

- (1) Observe the exact label size for the layout you have selected in the **Layout**.
- (2) Open the properties for your label printer and locate the place where you define "stock" or "paper sizes".
- (3) Add a new stock size. Give it a name and set the dimensions to the size of the layout you have selected.
- (4) Set the unprintable area as small as possible.
- (5) Save the stock size. There is no need to set it as the default paper size - it simply must exist so the printer knows about the size you are printing.

Options

Option	Description
Layout	Choose the label size you are using. Standard sizes are listed first followed by any custom labels you have created.
Design labels	Click this to design labels. See Custom reports ³³⁹

Delivery address	The address to print on the label. This is pre-populated from the job delivery address.
Delivery address quantity	The quantity of delivery labels that you want.
Key delivery address	The address to print on the label for keys if there is a separate delivery address. This is pre-populated from the job key delivery address.
Key delivery address quantity	The quantity of key delivery labels that you want.
Return address	The information to print on a "sender" label. One return address label is printed for each delivery and key delivery label printed.
Print return address labels	Turn on to print the return address label.

The font size on the label is scaled to accommodate the details on the label size chosen.

Producing the report

See [Printer options](#)¹⁶⁰ for printer specific choices.

Output options

Option	Description
Print	The report is printed to the printer you have selected.
Preview	The report is previewed on your screen. See Previewing reports ³³⁸ for more information.

9.15.12 Manufacture: Mark keys

The output is accessed from the [Job manufacturing](#)²¹⁹ window.

The following sections list machine specific settings. Any machines without additional setting are omitted.

Getting started

- Turn on the option **Send data to key marker**.
- The output will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Send** button adjacent to the option.
- Select your marking machine and click **Next**.
- Manufacturing behaviour varies depending on the machine. Some machines send all the data in a single operation. Some machines take many keys in a single operation but allow you to choose a batch size. Some machines handle a single key only and you are prompted to send the next key when ready.

Options

Option	Description
Which keys do you want to manufacture	<p>All keys (ordered and test): All ordered keys and all test keys are sent to the machine.</p> <p>All ordered keys: All ordered keys are sent to the machine.</p> <p>All test keys: All test keys are sent to the machine.</p>

	Selected entry only: You select from the adjacent list the item you want for the key section and ordered/test.
Manufacturing order	Manufacture keys in order by key section, then as sorted: This option ensures that key sections are not intermingled. Manufacture keys in the order that the keys are sorted: The system key order is respected, even if that means mixing key sections.
When manufacturing ordered and test keys	This option controls how test keys are manufactured in relation to ordered keys Mix according to key section and sort order: Ordered keys and test keys are manufactured according to the order they are sorted in the system. This is usually not a good choice as it mixes the keys you are delivering to the customer with test keys. Test keys before ordered keys: Test keys are produced first, respecting the manufacturing order, then ordered keys. Test keys after ordered keys: Ordered keys are produced first, respecting the manufacturing order, then test keys.
Change start point	When "Selected entry only" is chosen, This button can be used to view the items for manufacturing and select the start point. This is useful for resuming an interrupted job.
Keys per batch	On machines where multiple keys may be sent in a single operation, this controls how many keys are sent in each batch. If there are multiple batches required, you are prompted to send the next batch.
Machine settings and information	Machine specific information or options are shown.

9.15.12.1 Machine options: Silca Marker 2000

The marker 2000 marking models must be configured using your Silca marker software.

Options

Option	Description
Use configured models for each key section	This option uses your pre-configured choices to request the marking model for each key marked according to the key section. Click Configure models to make the association between the Silca Marker 2000 models and your key sections. You must have permissions to configure marking models. See Security groups ⁴⁹ .
Cut all keys on this marking model	Choose the model you want to use from the list. All keys sent to the machine will use this marking model.

9.15.13 Manufacture: Cut keys

The output is accessed from the [Job manufacturing](#)²¹⁹ window.

The following sections list machine specific settings. Any machines without additional setting are omitted.

Getting started

- Turn on the option **Send data to key machine**.

- The output will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Send** button adjacent to the option.
- Select your key cutting machine and click **Next**.
- Manufacturing behaviour varies depending on the machine. Some machines sent all the data in a single operation. Some machines take many keys in a single operation but allow you to choose a batch size. Some machines handle a single key only and you are prompted to send the next key when ready.

Options

Option	Description
Which keys do you want to manufacture	<p>All keys (ordered and test): All ordered keys and all test keys are sent to the machine.</p> <p>All ordered keys: All ordered keys are sent to the machine.</p> <p>All test keys: All test keys are sent to the machine.</p> <p>Selected entry only: You select from the adjacent list the item you want for the key section and ordered/test.</p>
Manufacturing order	<p>Manufacture keys in order by key section, then as sorted: This option ensures that key sections are not intermingled.</p> <p>Manufacture keys in the order that the keys are sorted: The system key order is respected, even if that means mixing key sections.</p>
When manufacturing ordered and test keys	<p>This option controls how test keys are manufactured in relation to ordered keys</p> <p>Mix according to key section and sort order: Ordered keys and test keys are manufactured according to the order they are sorted in the system. This is usually not a good choice as it mixes the keys you are delivering to the customer with test keys.</p> <p>Test keys before ordered keys: Test keys are produced first, respecting the manufacturing order, then ordered keys.</p> <p>Test keys after ordered keys: Ordered keys are produced first, respecting the manufacturing order, then test keys.</p>
Change start point	When "Selected entry only" is chosen, This button can be used to view the items for manufacturing and select the start point. This is useful for resuming an interrupted job.
Keys per batch	On machines where multiple keys may be sent in a single operation, this controls how many keys are sent in each batch. If there are multiple batches required, you are prompted to send the next batch.
Machine settings and information	Machine specific information or options are shown.

9.15.13.1 Machine options: Silca UnoCode

Options

Option	Description
Use ideal cut (laser cut) rather than normal cut	If the key uses a normal cut, the option to use an ideal cut will be available. Keys should be cut to manufacturer specification, so turn this

	on only with a good reason.
Adjustments	It should never be necessary to adjust cuts if your machine is calibrated correctly and product is manufactured correctly. On rare occasions, you may wish to adjust the cuts. Any changes you set are remembered on a card-by-card basis.
For Best A2/A4 (Cards 752/754) use tip stop 4 instead of tip stop 3	Available on Interchangeable core module. When selected then tip stop 4 will be used.

9.15.13.2 Machine options: Silca UnoCode F-series

Options

Option	Description
Use ideal cut (laser cut) rather than normal cut	Changes the cut method on the machine to "Laser". Use this with caution as it is not always a good choice for security keys.
Adjustments	It should never be necessary to adjust cuts if your machine is calibrated correctly and product is manufactured correctly. On rare occasions, you may wish to adjust the cuts. Any changes you set are remembered on a card-by-card basis.
Mark keys	For F-series machines with engraving, turn on Mark keys to instruct the machine to engrave and cut.
Use configured models for each key section	Direct communication only. This option uses your pre-configured choices to request the marking model for each key marked according to the key section. Click Configure models to make the association between the UnoCode-F models and your key sections. You must have permissions to configure marking models. See Security groups ⁴⁹ .
Cut all keys on this marking model	Direct communication only. Choose the model you want to use from the list. All keys sent to the machine will use this marking model.
Model	Via SKP only. Choose the model you want to use from the list. All keys sent to the machine will use this marking model.
Data for "T02" token	Determines the contents of the marking token T02 in the data sent to the machine.

Notes

Lockwood Twin

Manufacturing Lockwood Twin systems with key section T35 on UnoCode F-series machines uses Silca card 5310 to clamp the key correctly.

Jobs that mix T35 with other key sections must be sent to the machine one key section at a time.

9.15.13.3 Machine options: Silca UltraCode

Options

Option	Description
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Use ideal cut (laser cut) rather than normal cut	If the key uses a normal cut, the option to use an ideal cut will be available. Keys should be cut to manufacturer specification, so turn this on only with a good reason.
Adjustments	It should never be necessary to adjust cuts if your machine is calibrated correctly and product is manufactured correctly. On rare occasions, you may wish to adjust the cuts. Any changes you set are remembered on a card-by-card basis.
For Best A2/A4 (Cards 752/754) use tip stop 4 instead of tip stop 3	Available on Interchangeable core module. When selected then tip stop 4 will be used.

9.15.13.4 Machine options: Silca UnoCode 199

Options

Option	Description
Use ideal cut (laser cut) rather than normal cut	If the key uses a normal cut, the option to use an ideal cut will be available. Keys should be cut to manufacturer specification, so turn this on only with a good reason.
Adjustments	It should never be necessary to adjust cuts if your machine is calibrated correctly and product is manufactured correctly. On rare occasions, you may wish to adjust the cuts. Any changes you set are remembered on a card-by-card basis.

9.15.13.5 Machine options: Silca Futura

Options

Option	Description
Use ideal cut (laser cut) rather than normal cut	If the key uses a normal cut, the option to use an ideal cut will be available. Keys should be cut to manufacturer specification, so turn this on only with a good reason.

9.15.13.6 Machine options: Silca Protech

The output folder and file name are shown.

Options

Option	Description
Data for "T02" token	Determines the contents of the marking token T02 in the data sent to the machine.
Max keys per bin	The number of keys per output bin is hard coded in the Silca Protech software. If the size of your key blank is large and overflows the output bin, you can use this option to limit the number of keys per bin. For example if you order quantity 6 of a key and set the "Max keys per bin" to 5, then the first bin will receive 5 copies and the second bin will receive 1 copy.

9.15.13.7 Machine options: Silca QuattroCode**Options**

Option	Description
Adjustments	It should never be necessary to adjust cuts if your machine is calibrated correctly and product is manufactured correctly. On rare occasions, you may wish to adjust the cuts.

9.15.13.8 Machine options: Keyline Dezmo**Options**

Option	Description
Use Dromo	If the Dromo is detected on your Dezmo, the option to request the Dromo is available.

9.15.13.9 Machine options: Abloy LT106

The output folder and file name are shown.

Options

Option	Description
Add trailing '0' cuts on 7 disc and 9 disc systems	Turn on to pad the code length to 10 characters (the leading tip '0' is removed first)

9.15.13.10 Machine options: HPC Codemax**Options**

Option	Description
Reset CodeMax	At times, CodeMax machines can be temperamental. If communication with the machines fails, you may try sending a reset to the machine to sort it out.

9.15.13.11 Machine options: Ilco EZCode**Options**

Option	Description
Use ideal cut (laser cut) rather than normal cut	If the key uses a normal cut, the option to use an ideal cut will be available. Keys should be cut to manufacturer specification, so turn this on only with a good reason.

9.15.14 Manufacture: Save job to XML for key marking

Premium and Manufacturer edition only.

To enable XML exports you must turn on the the [Application parameter](#)⁵³ "Allow "XML export" as a manufacturing output"

The export is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Save marking data to XML file** under **Key manufacturing**.
- The report will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Save** button adjacent to the option.

Options

Option	Description
Folder	Choose the folder where you want the XML files created.
File name format	Choose how the file will be named.
Export without prompting for "Manufacture all selected"	When this option is on, and only if all settings are valid, the XML output will be written without prompting when you click "Manufacture all selected". This is useful for eliminating additional user choices during manufacturing.
Spawn the following program	If you want a program to be launched after the XML file is created, choose that program by clicking the Select button. When the program is launched, the full name of the XML file is passed as the first parameter to the program.

By default, the output is written if version 8 format. Version 7 format can be enabled by turning on the option [Application parameter](#)⁵³ "Use legacy format for "XML export" manufacturing output". Version 7 format does not support new features, and will not be enhanced in the future. Use version 7 format only for compatibility with existing applications. Use version 8 for all new integration development.

9.15.15 Manufacture: Save job to XML for key cutting

Premium and Manufacturer edition only.

To enable XML exports you must turn on the the [Application parameter](#)⁵³ "Allow "XML export" as a manufacturing output"

The export is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Save cutting data to XML file** under **Key manufacturing**.
- The report will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Save** button adjacent to the option.

Options

Option	Description
Folder	Choose the folder where you want the XML files created.
File name format	Choose how the file will be named.
Export without prompting for "Manufacture all selected"	When this option is on, and only if all settings are valid, the XML output will be written without prompting when you click "Manufacture all selected". This is useful for eliminating additional user choices during manufacturing.
Spawn the following program	If you want a program to be launched after the XML file is created, choose that program by clicking the Select button. When the program is launched, the full name of the XML file is passed as the first parameter to the program.

By default, the output is written in version 8 format. Version 7 format can be enabled by turning on the option [Application parameter](#)⁵³ "Use legacy format for "XML export" manufacturing output". Version 7 format does not support new features, and will not be enhanced in the future. Use version 7 format only for compatibility with existing applications. Use version 8 for all new integration development.

9.15.16 Manufacture: Mark doors

The output is accessed from the [Job manufacturing](#)²¹⁹ window.

The following sections list machine specific settings. Any machines without additional settings are omitted.

Getting started

- Turn on the option **Send data to door marker**.
- The output will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Send** button adjacent to the option.
- Select your marking machine and click **Next**.
- Manufacturing behaviour varies depending on the machine. Some machines send all the data in a single operation. Some machines take many keys in a single operation but allow you to choose a batch size. Some machines handle a single key only and you are prompted to send the next key when ready.

Options

Option	Description
Which doors do you want to manufacture	<p>All doors: All doors are sent to the machine.</p> <p>Selected entry only: You select from the adjacent list the item you want for the part code.</p>
Manufacturing order	<p>Manufacture doors in order by part code, key-way, then as sorted: This option ensures that part codes are not intermingled.</p> <p>Manufacture doors in order by cylinder style, part code, key-way, then as sorted: This option ensures that part codes are not intermingled, but also sorts by cylinder style so the engraver clamp that holds cylinders is changed as few times as possible.</p> <p>Manufacture doors in the order that the doors are sorted: The system door order is respected, even if that means mixing part codes.</p>
Change start point	When "Selected entry only" is chosen, This button can be used to view the items for manufacturing and select the start point. This is useful for resuming an interrupted job.
Doors per batch	On machines where multiple doors may be sent in a single operation, this controls how many doors are sent in each batch. If there are multiple batches required, you are prompted to send the next batch.
Machine settings and information	Machine specific information or options are shown.

9.15.16.1 Machine options: Gravograph**Options**

Option	Description
Separate files for each part code or cylinder style	This option produces multiple files so part codes are not mixed in a single file. The options is available for the first two options for manufacturing order (I.e. where the doors are sorted by part code and possible cylinder style)
Output only door stamping	Normally the output has: System Stamping,Door Stamping,Issue Number,Door Number Turn this option on to output only the Door Stamping.

9.15.16.2 Machine options: Ilco Engravelt Pro**Options**

Option	Description
Separate files for each part code or cylinder style	This option produces multiple files so part codes are not mixed in a single file. The options is available for the first two options for manufacturing order (I.e. where the doors are sorted by part code and possible cylinder style)

9.15.16.3 Machine options: Silca Marker 2000

The marker 2000 marking models must be configured using your Silca marker software.

Options

Option	Description
Marking model	Choose the model you want to use from the list. All doors sent to the machine will use this marking model.

9.15.17 Manufacture: Doors and keys on Galaxy machine

The output is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Send data to door machine**.
- The output will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Send** button adjacent to the option.
- Select your Galaxy machine and click **Next**.
- This machine manufactures keys and door parts, so the options available will vary depending on whether the job has keys or doors or both.

Options

Option	Description
Send keys to the machine	Turn on to send keys as part of the data transfer to the machine.
Which keys do you want to manufacture	All keys (ordered and test): All ordered keys and all test keys are sent to the machine. All ordered keys: All ordered keys are sent to the machine.

	<p>All test keys: All test keys are sent to the machine.</p> <p>Selected entry only: You select from the adjacent list the item you want for the key section and ordered/test.</p>
When manufacturing ordered and test keys	<p>This option controls how test keys are manufactured in relation to ordered keys</p> <p>Mix according to key section and sort order: Ordered keys and test keys are manufactured according to the order they are sorted in the system. This is usually not a good choice as it mixes the keys you are delivering to the customer with test keys.</p> <p>Test keys before ordered keys: Test keys are produced first, respecting the manufacturing order, then ordered keys.</p> <p>Test keys after ordered keys: Ordered keys are produced first, respecting the manufacturing order, then test keys.</p>
Send doors to the machine	Turn on to send doors as part of the data transfer to the machine.
Which doors do you want to manufacture	<p>All doors: All doors are sent to the machine.</p> <p>Selected entry only: You select from the adjacent list the item you want for the part code.</p>
Change key start point	When "Selected entry only" is chosen, This button can be used to view the keys for manufacturing and select the start point. This is useful for resuming an interrupted job.
Change door start point	When "Selected entry only" is chosen, This button can be used to view the doors for manufacturing and select the start point. This is useful for resuming an interrupted job.
Marking model	Choose the model you want to use from the list. All keys and doors sent to the machine will use this marking model.

9.15.18 Manufacture: On-screen pinning

The output is accessed from the [Job manufacturing](#) ²¹⁹ window.

Getting started

- Turn on the option **View on-screen pinning**.
- The output will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **View** button adjacent to the option.
- Select your key cutting machine and click **Next**.
- Manufacturing behaviour varies depending on the machine. Some machines sent all the data in a single operation. Some machines take many keys in a single operation but allow you to choose a batch size. Some machines handle a single key only and you are prompted to send the next key when ready.

Options

Check the option then click on the **settings** link. After you change the output settings, your changes are shown on the Job manufacture window and are remembered.

Option	Description
Show lock finish	Turn on to include the lock finish in the door information area.
Show lock part item number	Turn on to include the lock "item number" in the door information area.
Show a line between information items	Turn on to show a line between each information item. This make improve readability.
Pinning font size	Allows you to decide the font size used for the pinning information part of the display. A larger size may be preferable for readability.
Sort order	Choose how the doors will be sorted. Generally you should pick the same sort order when producing labels.

Navigating the on-screen pinning

The information in the on-screen pinning window is much the same as that shown in the door pinning chart report.

At the bottom of the window are controls for navigating.

Control	Description
Prior	Navigates back 1 door, to the prior door. The door number and quantity of the prior door is shown on the button.
Next	Navigates forward 1 door, to the next door. The door number and quantity of the next door is shown on the button.
Seq, Go to	Doors are allocated a sequence, according to the position in the job according to the sort order selected. To go to a door in the job, enter the sequence number and click Go to . This is useful if you know a door you need to return to for checking.
Door, Go to	To go to a door in the job where you know the door number, enter the door number and click Go to . This is useful if you know a door you need to return to for checking.
Set bookmark	If you know a door that you may want to return to, you can click the Set bookmark button to remember that door "Bookmark". The door information is shown on the Bookmark button which then becomes enabled.
Bookmark	Returns the door you previously set as a bookmark.
Last seen	As you navigate through the doors, the door furthest into the job that you have seen is remembered and shown on the Last seen button. If you return to an earlier door, you can click this button to return to the place where you were up to.

Labels

The **Print label** button prints a label (or labels) for the current door.

The options are the same that are used for labels from the **Manufacture Job** window. See [Settings: Print door labels](#)²²². The label settings may be accessed by right clicking the **Print label** button;

9.15.19 Manufacture: Save job to XML for door marking

Premium and Manufacturer edition only.

To enable XML exports you must turn on the the [Application parameter](#)⁵³ "Allow "XML export" as a manufacturing output"

The export is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Save marking data to XML file** under **Door manufacturing**.
- The report will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Save** button adjacent to the option.

Options

Option	Description
Folder	Choose the folder where you want the XML files created.
File name format	Choose how the file will be named.
Export without prompting for "Manufacture all selected"	When this option is on, and only if all settings are valid, the XML output will be written without prompting when you click "Manufacture all selected". This is useful for eliminating additional user choices during manufacturing.
Spawn the following program	If you want a program to be launched after the XML file is created, choose that program by clicking the Select button. When the program is launched, the full name of the XML file is passed as the first parameter to the program.

By default, the output is written if version 8 format. Version 7 format can be enabled by turning on the option [Application parameter](#)⁵³ "Use legacy format for "XML export" manufacturing output". Version 7 format does not support new features, and will not be enhanced in the future. Use version 7 format only for compatibility with existing applications. Use version 8 for all new integration development.

9.15.20 Manufacture: Save job to XML for door assembly

Premium and Manufacturer edition only.

To enable XML exports you must turn on the the [Application parameter](#)⁵³ "Allow "XML export" as a manufacturing output"

The export is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Save assembly data to XML file** under **Door manufacturing**.
- The report will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Save** button adjacent to the option.

Options

Option	Description
Folder	Choose the folder where you want the XML files created.
File name format	Choose how the file will be named.
Export without prompting for "Manufacture all selected"	When this option is on, and only if all settings are valid, the XML output will be written without prompting when you click "Manufacture all selected". This is useful for eliminating additional user choices during manufacturing.
Spawn the following program	If you want a program to be launched after the XML file is created, choose that program by clicking the Select button. When the program is launched, the full name of the XML file is passed as the first parameter to the program.

By default, the output is written if version 8 format. Version 7 format can be enabled by turning on the option [Application parameter](#)⁵³ "Use legacy format for "XML export" manufacturing output". Version 7 format does not support new features, and will not be enhanced in the future. Use version 7 format only for compatibility with existing applications. Use version 8 for all new integration development.

9.15.21 Manufacture: Save job to XML for parts required

Premium and Manufacturer edition only.

To enable XML exports you must turn on the the [Application parameter](#)⁵³ "Allow "XML export" as a manufacturing output"

The export is accessed from the [Job manufacturing](#)²¹⁹ window.

Getting started

- Turn on the option **Save parts required data to XML file** under **Other manufacturing**.
- The report will be included if you click **Manufacture all selected**.
- To perform this task individually, click on the **Save** button adjacent to the option.

Options

Option	Description
Folder	Choose the folder where you want the XML files created.
File name format	Choose how the file will be named.
Export without prompting for "Manufacture all selected"	When this option is on, and only if all settings are valid, the XML output will be written without prompting when you click "Manufacture all selected". This is useful for eliminating additional user choices during manufacturing.
Spawn the following program	If you want a program to be launched after the XML file is created, choose that program by clicking the Select button. When the program is launched, the full name of the XML file is passed as the first parameter to the program.

By default, the output is written if version 8 format. Version 7 format can be enabled by turning on the option [Application parameter](#)⁵³ "Use legacy format for "XML export" manufacturing output". Version 7 format does not support new features, and will not be enhanced in the future. Use version 7 format only for compatibility with existing applications. Use version 8 for all new integration development.

9.15.22 Manufacture: Publish to device

To start using mobile services you must first configure publishing (See [Configuring publishing](#)⁸⁴) and configure devices (See [Configuring devices](#)⁸⁸)

Publishing is available only when your registration support and maintenance is current.

The device publishing is accessed from the [Job manufacturing](#)²¹⁹ window by clicking on the **Publish to device** button.

Getting started

- Select the device to which the job is to be sent. The devices available are governed by the factory for the job and the system type if those restrictions have been turned on in the publishing configuration.
- Choose how long the job is allow to be available on the publishing server.

- Choose how long the job is allow to be available on the device.
- Choose if you want to send doors, keys or both.
- Click **Send to device** to publish the job.

Other functionality

Click **Device queue and job history** to see jobs from this system that have been sent to the device.

If you are using publishing to re-key cylinders on site then you should consider:

- (a) Make a separate job for only the re-keying and put it on a factory that is specific to the destination device
- (b) Configure publishing and devices to restrict the device to that factory

This makes it difficult to send the job to the wrong device and avoids sending key information if it was not intended for the device.

9.15.23 Machine setup

The machine setup defines all machines that are attached to your computer.

The setting for each machine differ and are described in the following topics.

Getting started

There are four ways to get to the Machines window.

- From the main window, select the **Setup and Admin** menu, then select **Machines**
- From the Jobs window, click **Options** then **Machines**.
- From the Manufacture Job window, click **Options** then **Machines**.
- When manufacturing keys or doors, click the **Machine setup** button below the machine selection.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your factories.
- When you add a machine, the first selection required is the machine type.

9.15.23.1 Machine setup - Silca (Unocode, Triax)

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Machine serial number: It is important that this matches the machine. If it is wrong then the machine will not communicate. Ensure the machine is turned on and click **Read from machine** to retrieve the serial number from your machine.

Read machine version: After completing the com port and serial number, this button will read the machine version information and report it. This useful for getting the version information, but also verifying the communication is functioning.

9.15.23.2 Machine setup - Silca UnoCode F-series

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Communication method: "Direct to machine" to communicate direct with the machine or "Via SKP" to send the job to the machine via SKP.

- "Direct to machine" is the new method and "Via SKP" will be removed in the future.

TCP/IP address: When sending direct, the address of the machine. You can search your network subnet for machines.

Search for machines: When sending direct, this button opens a window to search for machines.

- The search for UnoCode-F machines displays networks available on your computer.
- Select the correct network and click **Search**.
- Each machine found that is the correct type is displayed.
- Select the machine you want (probably only one will be listed!) and click **OK**.

Machine serial number: It is important that this matches the machine. If it is wrong then the machine will not communicate.

- "Direct to machine": Click **Read from machine** to retrieve the serial number from your machine.
- "Via SKP": Click **Read machine list** to retrieve a list of machines from SKP.

Read machine version: When sending direct, this button queries the machine for its version and displays it.

Notes when sending "Direct to machine"

Unlike "Via SKP", when sending direct it is not necessary to have Silca Key Program PRO on the same PC as ProMaster Master Keying.

You must update your machine to get the new software on the machine that has this communication capability.

Take note, that just like when you send via SKP, the queue cannot handle multiple ProMaster Master Keying jobs at the same time. When sending from ProMaster Master Keying the SSI queue on the machine is cleared before sending the next job. Be careful if you try sending from more than one ProMaster Master Keying machine as the UnoCode-F is not designed to handle jobs queued like that and the second transmission will erase the first job.

The speed to send data to the machine is much faster than "Via SKP" (About 20 keys per second). ProMaster Master Keying shows estimated progress when downloading if the time is more than 2 seconds, and the estimate is adaptive so when Silca make improvements then ProMaster Master Keying will recalculate the time required.

There is a maximum size of the transmission and the machine will reject the request if it is too large. It is recommended that you send the key sin batches, perhaps 100 at a time. Additionally, if you send many keys then the machine interface and communication becomes slower.

Notes when sending "Via SKP"

Silca Key Program PRO "SKP" must be installed on the PC from where ProMaster Master Keying will be downloading to the UnoCode F-series,

Minimum version of Silca Key Program PRO required is 31.0.9.62"

SKP cannot be running while you send data from ProMaster Master Keying to the machine.

The speed to send data to the machine is poor (About 4 keys per second). This is outside our control and it is a matter which we have worked with Silca to improve and will continue to do so until we consider the performance satisfactory. ProMaster Master Keying shows estimated progress when downloading if the time is more than 2 seconds, and the estimate is adaptive so when Silca make improvements then ProMaster Master Keying will recalculate the time required.

9.15.23.3 Machine setup - Silca Futura

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

TCP/IP address: Enter the TCP/IP address used on the machine. You may need to seek assistance from your network administrator.

Test: After entering the TCP/IP address, this button will communicate with the machine and report the version number. This useful for getting the version information, but also verifying the communication is functioning.

9.15.23.4 Machine setup - Silca Marker 2000

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Machine serial number: It is important that this matches the machine. If it is wrong then the machine will not communicate. Ensure the machine is turned on and click **Read from machine** to retrieve the serial number from your machine.

Marker 2000 folder: Choose the folder where the Marker 2000 software and marking models are stored. Often this is C:\Marcator

Read machine version: After completing the com port and serial number, this button will read the machine version information and report it. This useful for getting the version information, but also verifying the communication is functioning.

Marking tokens

Keys

The marking tokens are send with the following information.

Token	Description
0	Key number, or Key stamping if different stamping is defined.
1	A description of the key and issue number
2	Blank
3	Key section

4	Issue number (if used by the system)
5	System number, or System stamping if different stamping is defined.

Doors

The marking tokens are send with the following information.

Token	Description
0	Door stamping
1	Door number
2	Blank
3	Part code
4	Issue number (if used by the system)
5	System number, or System stamping if different stamping is defined.

9.15.23.5 Machine setup - Silca Protech

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the Protech files created.

File name: Choose how the file name is created.

Abus XY14 Card: For XY14 users, if you are using XY14 keys but the dimples are pre-cut, change the card to 2658.

AL Bilock card: For Bilock users, 621 is the traditional card. The other card rounds the top of the peaks.

9.15.23.6 Machine setup - Silca QuattroCode

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Machine serial number: It is important that this matches the machine. If it is wrong then the machine will not communicate. Ensure the machine is turned on and click **Read from machine** to retrieve the serial number from your machine.

Calibrate: Each haw must be calibrated before it may be used. Click on the jaw you need, then click **Calibrate**. Form the **Calibrate Vice** window, click **Calibrate** and follow the machine instructions. When finished, click OK to save the calibration,

Read machine version: After completing the com port and serial number, this button will read the machine version information and report it. This useful for getting the version information, but also verifying the communication is functioning.

9.15.23.7 Machine setup - Silca QuattroCode Pneumatic**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the QuattroCode files created.

9.15.23.8 Machine setup - Keyline (All)**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

TCP/IP address: Enter the TCP/IP address used on the machine. You may need to seek assistance from your network administrator.

TCP/IP port: If for any reason the machine is listening on a port other than 61770, change this value to reflect your machine settings.

Search for machines: This button opens a window to search for machines. See [Keyline machine search](#)³⁴².

Test: After entering the TCP/IP address, this button will open a diagnostics window. See [Keyline machine diagnostics](#)³⁴².

9.15.23.9 Machine setup - Abloy LT106**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.10 Machine setup - Abloy LT120**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

TCP/IP address: Enter the TCP/IP address used on the machine. You may need to seek assistance from your network administrator.

Test: After entering the TCP/IP address, this button will communicate with the machine and report the version number and other information. This useful for getting the version information, but also verifying the communication is functioning.

9.15.23.11 Machine setup - ALC Galaxy

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

TCP/IP address: Enter the TCP/IP address used on the machine. You may need to seek assistance from your network administrator.

Test: After entering the TCP/IP address, this button will communicate with the machine and report the version number. This useful for getting the version information, but also verifying the communication is functioning.

9.15.23.12 Machine setup - ALC Galaxy export to manufacturer

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the export files created.

After creating the export files open the folder where it was created: Turn on to open the folder containing the job after it is created.

After creating the export file, send it by email: Turn on to email the job to ALC after it is created.

Email address: The email address where the job will be sent.

9.15.23.13 Machine setup - CYA

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.14 Machine setup - Gravograph

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.15 Machine setup - HPC Codemax**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Speed: Ensure that the speed matches the settings on your CodeMax machine.

Model: If you have the auto-angler machine, change this setting accordingly. This changes the data sent to the machine to make the head rotate for Medeco keys.

9.15.23.16 Machine setup - Ilco Engravelt Pro**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.17 Machine setup - Ilco EZCode**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Machine serial number: Enter the machine serial number.

Read machine version: After completing the com port and serial number, this button will read the machine version information and report it. This useful for getting the version information, but also verifying the communication is functioning.

9.15.23.18 Machine setup - ITL**Identification**

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Speed: Ensure that the speed matches the settings on your ITL machine.

Model: If you have 950 machine, change this setting accordingly. This makes ProMaster Master Keying wait for you to move the carriage for a reset.

Timing: This controls how fast data is sent to the machine. The default of 5 is fine for most ITL machines, but some need this to be slowed down. Slow it down too much and the downloads take longer than necessary. The problem is, there is no way to know if a transfer to the machine was successful. The ITL machine has a tiny wee brain and when it can't keep up it does some horrid things. The first thing you may notice if this happens is that your key is not cut correctly (or may not cut at all). The other common characteristic of this problem is that the standard flat widths in the ITL flat width table change (We change only the user defined values, but the others will be overwritten if the machine fails to keep up with the data transfer).

Wait for the machine to notify that reset is complete: Normally this should be on, but we have seen some ITL machines that don't respond correctly. If you turn this option off, a small delay is used in to allow them reset to complete instead of waiting for the machine notification.

Machine does not respond correctly: Normally this should be off, but we have seen some ITL machines that do not acknowledge the data sent to the machine. If you turn this option off, the data transfer assumes that the data was received.

9.15.23.19 Machine setup - JMA MultiCode

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

TCP/IP address: Enter the TCP/IP address used on the machine. You may need to seek assistance from your network administrator.

Test: After entering the TCP/IP address, this button will communicate with the machine and report the version number and other information. This useful for getting the version information, but also verifying the communication is functioning.

The machine must be running the new MultiCode software (not the original) and minimum version required is 1.0.212

9.15.23.20 Machine setup - JMA MultiMark

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

9.15.23.21 Machine setup - Maromatic

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.22 Machine setup - Miracle

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Model: Select your machine model.

Note: The miracle performs an "approximate" cut for cylinder keys using a track cutter and you need to be aware of the limitations of cutting this way.

9.15.23.23 Machine setup - MulTLock KC5

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.24 Machine setup - Orion ECM 200

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Com port: Select the communication port to which the machine is connected.

Speed: Ensure that the speed matches the settings on your ECM 200 machine.

Timing: This controls how fast data is sent to the machine. The default of 5 is fine for most ECM 200 machines, but some need this to be slowed down.

9.15.23.25 Machine setup - Orion Luna

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

Folder: Choose the folder where you want the machine files created.

9.15.23.26 Machine setup - Combination

Various "Combination" machines are available for keys that must be cut on one machine then another machine (e.g. dimples followed by side cuts).

Select the combination machine applicable to your key type then select its two machines.

The machines must be defined before using them for a combination machine.

9.15.23.27 Machine setup - Generic key marker

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

General

File name: Choose how the file name will be generated.

File extension: Choose the file extension that will be used on the file.

Append the key section...: The output is produced as multiple files for each key section used, with the file name modified to include the key section name.

File format: Choose if you want the file written as ASCII (Non-ASCII characters, if any will be omitted), UTF-8 (supports all characters and writes the UTF-8 preamble to the file).

Quantity and issues: There are 3 fields available in the Key Items, Quantity, Issue Number and Starting Issue Number.

Value	Output lines created	Quantity	Issue number	Starting issue number
One entry per key, machine generates issue numbers, quantity as ordered	1	The quantity ordered	Not applicable. It is set to "Starting issue number"	The starting issue number
One entry per key issue, PM8 generates issue numbers, quantity 1 each	Quantity	1	First line has the "Starting issue number" and subsequent lines are incremented	Not applicable. It is set to "Starting issue number" but makes no sense to use.

File Start

Add the items you want to the list.

This is written once at the start of the file.

File Items

Add the items you want to the list.

At least 1 item must be chosen.

This is written for each key or each key issue depending on the value selected for "Quantity and issues".

The CutData and CutData reversed values are available only on Inline and Interchangeable Core design modules and it is not recommended that you mark this on the key.

File End

Add the items you want to the list.

This is written once at the end of the file.

Folder: Choose the folder where you want the machine files created.

9.15.23.28 Machine setup - Generic cylinder marker

Identification

The machine type is shown. This cannot be changed.

Description: Enter a description of the machine.

Settings

General

File name: Choose how the file name will be generated.

File extension: Choose the file extension that will be used on the file.

Append the part code...: The output is produced as multiple files for each part code used, with the file name modified to include the part code.

File format: Choose if you want the file written as ASCII (Non-ASCII characters, if any will be omitted), UTF-8 (supports all characters and writes the UTF-8 preamble to the file).

Quantity and issues: There are 3 fields available in the Door Items, Quantity, Issue Number and Starting Issue Number.

Value	Output lines created	Quantity	Issue number	Starting issue number
One entry per door, machine generates issue numbers, quantity as ordered	1	The quantity ordered	Not applicable. It is set to "Starting issue number"	The starting issue number
One entry per door issue, PM8 generates issue numbers, quantity 1 each	Quantity	1	First line has the "Starting issue number" and subsequent lines are incremented	Not applicable. It is set to "Starting issue number" but makes no sense to use.

File Start

Add the items you want to the list.

This is written once at the start of the file.

File Items

Add the items you want to the list.

At least 1 item must be chosen.

This is written for each key or each key issue depending on the value selected for "Quantity and issues".

File End

Add the items you want to the list.

This is written once at the end of the file.

Folder: Choose the folder where you want the machine files created.

9.15.24 Machine job queue

The following machines allow the job queue to be viewed and purged:

- Silca Unocode F-Series when configured for direct communication (Instead of via SKP)
- All Keyline machines
- JMA MultiCode
- Abloy LT120

To remove jobs from the queue, select the jobs to delete and click **Purge**.

The queue may be updated by clicking the **Refresh** button.

9.16 Exporting data

9.16.1 Exporting system data to a csv file

Various types of system data may be exported and imported via csv files.

Getting started

- From the **File** menu, select **Export** then **Export system data (CSV)**.

A simple wizard steps you through the process of choosing where the data will be written, choosing which data to export and choosing export options.

Multiple types of data may be exported at the same time. Each type of data is written to a separate file, named according to the type of data.

When choosing the range of data to export, you may right click on the list for selection options. The types of data are defined in logical groups allowing you to select or deselect the whole group in a single operation.

Notes

The fields exported depend on a variety of parameters. e.g. Key stamping will be exported only if it is enabled in your application parameters. Signatory quantity required will be exported only if the system uses per-key or per-door signatory restrictions.

9.16.2 Exporting systems analysis data

The Systems analysis data export asks you a number of questions and then exports data about your systems that matches your selections. You may then use this data, for example in Excel, for marketing, business planning etc.

Getting started

- From the **File** menu, choose **Export** then **Export systems analysis data**

Exporting data

Choose if you want data about systems, signatories or jobs.

Continue through the following steps, making selections to refine the data that will be exported.

For example, you may be interested in only some system types, a particular date range for jobs or only some lock products.

Choose a file name for the CSV file that will be produced.

Finally, click Finish to perform the export.

Because of the wide range of choices available for this export, you may need to try a variety of options to get just the data that you want.

9.17 Design modules

9.17.1 General information

9.17.1.1 Common system type parameters

This topic defines a number of parameters used on system types and systems and explains their meaning.

Data field	Description
No of cuts	The number of cuts on the key. After systems are created using the system type, this value cannot be edited.
Minimum depth	The minimum depth symbol allowed.
Maximum depth	The maximum depth symbol allowed.
Deepest first cut	The maximum depth symbol allowed in the cut nearest the key head.
Deepest last cut	The maximum depth symbol allowed in the cut nearest the key tip.
Maximum variation	The maximum depth symbol variation allowed between adjacent cuts. Generally this is determined by the geometry of the lock system, but may be reduced if the step is considered to great, or increased if sacrificing the edge of the higher cut is acceptable.
Minimum different cuts	The minimum number of different depth symbols allowed on a code
Minimum total variation	The minimum number of depth steps from the shallowest depth symbol to the deepest depth symbol on the code.
Maximum alike adjacent	The maximum number of the same cut permitted consecutively in a code.
Maximum alike total	The maximum number of the same cut permitted in a code.
Disallow ramp up	Disallows codes that ramp in single steps from a shallow cut at the key head to a deep cut at the key tip.
Disallow ramp down	Disallows codes that ramp in single steps from a deep cut at the key head to a shallow cut at the key tip.
Safe from re-cutting	Determines if codes must have a cut deeper than the TMK value, and hence would not be able to be re-cut to create the TMK code.
Has coloured key heads	Controls whether colours for key heads will be available while coding.
Depth step for design assistant	The default step value when using the design assistant to generate a system design.
Use anti-bump pins	Determines if anti-bump pins are used in the pinning output.

9.17.1.2 Kaba Positional Keying Chart

The following chart shows the number of codes available for each combination of "positions permuted" vs "positions available".

The optimal choices for each number of positions available to produce the most codes are highlighted.

		Number of positions available (Depth 1 and 2 for Kaba Expert, but refer to capabilities of lock system)																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Positions permuted	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	2		1	3	6	10	15	21	28	36	45	55	66	78	91	105	120	136	153
	3			1	4	10	20	35	56	84	120	165	220	286	364	455	560	680	816
	4				1	5	15	35	70	126	210	330	495	715	1001	1365	1820	2380	3060
	5					1	6	21	56	126	252	462	792	1287	2002	3003	4368	6188	8568
	6						1	7	28	84	210	462	924	1716	3003	5005	8008	12376	18564
	7							1	8	36	120	330	792	1716	3432	6435	11440	19448	31824
	8								1	9	45	165	495	1287	3003	6435	12870	24310	43758
	9									1	10	55	220	715	2002	5005	11440	24310	48620
	10										1	11	66	286	1001	3003	8008	19448	43758
	11											1	12	78	364	1365	4368	12376	31824
	12												1	13	91	455	1820	6188	18564
	13													1	14	105	560	2380	8568
	14														1	15	120	680	3060
	15															1	16	136	816
	16																1	17	153
	17																	1	18
	18																		1

Example

If you progress 2 positions through 9 available positions (referred to as 2 in 9), this will produce 36 codes.

Note however, unless there are any other factors involved then 2 in 9 is not an ideal choice, because:

- (a) if you are progressing through 9 positions then you should progress 4 positions to yield 126 codes
- (b) if you required only 36 codes then you should select fewer positions to progress through (perhaps 4 in 8 to produce 70 codes, or 3 in 7 if 35 codes is enough for your purpose)

9.17.2 Abloy Disklock/Novel

9.17.2.1 Product description

General

This design module is called **Abloy Disklock/Novel**.

This design module implements the Abloy Disklock Pro and Abloy Novel lock systems.

For Abloy Disklock Pro, TMK values are user entered/generated and may be 9 disc, 11 disc or 9/11 disc combined.

For Abloy Novel, TMK values are controlled by lists proved to you by the lock manufacturer and you choose an appropriate list for your system size.

Key head colours are supported.

Key section families with multiple key sections are possible, but it is extremely unlikely to affect anyone outside of Abloy factories and you should consider key section families to have a single key section and a single keyway (in this case the keyway is the profile disc)

Key codes and cylinder pinning are presented tip to head in keeping with Abloy convention.

9.17.2.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Use group 2 codes	All lock systems. Default value applied when creating new system designs. Group 2 codes, when used with a standard progression, produce more codes but require a fill disc kit. Without group 2 codes the systems you produce will be much smaller but the parts requirement to keep stock of is somewhat smaller.
Suppress profile cut on printout	Removes the tip profile cut from each end of the key code on printouts. Makes it easier to read when cutting keys on a manual machine.

Dealer cuts

For Disklock Pro only, Novel uses lists to control the dealer cuts.

You may select a key section and the 2 dealer cut values and click **Add** to add the combination to the list.

You may make dealer cut values for each key section.

The dealer cut values are used when generating a TMK value for a new system.

9.17.2.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK - Abloy Disklock PRO

When creating the system design, you must first select the key section.

The dealer cuts on the TMK should match those allocated to you by the lock manufacturer for the selected key section.

If you have defined your dealer cuts (See [System type setup](#)²⁵²) then these will be used when creating the TMK.

TMK and List - Abloy Novel

When creating the system design, you must first select the key section, then select an appropriate list. After selecting the list, click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values.

From the list selection window you can open list management to split and join lists if you have permissions. See [Managing Abloy Novel lists](#)⁹⁹

Choose an appropriate size list. If there is not an appropriate size list, split a larger one. Contact the lock manufacturer for assistance.

Restrictions

Promote key section is not available for this design module.

Depth steps are not applicable to this design module, but do understand Group 2 codes and custom progressions for limiting the codes produced.

9.17.2.4 Coding

Enter code - Abloy Novel

If you manually enter a code for a key, it must comply with the list selected for the system design.

Special pinning - Abloy Novel

Positions allowed in special pinning are limited to those that may be progressed in the list selected for the system design.

9.17.3 Abloy Protec 1/2

9.17.3.1 Product description

General

This design module is called **Abloy Protec**.

This design module implements the Abloy Protec 1, Abloy Protec 2 and Abloy Protec 3 lock systems.

TMK values are controlled by lists proved to you by the lock manufacturer and you choose an appropriate list for your system size.

Key head colours are supported.

Key section families with multiple key sections are possible, but it is extremely unlikely to affect anyone outside of Abloy factories and you should consider key section families to have a single key section and a single keyway (in this case the keyway is the profile disc)

Key codes and cylinder pinning are presented tip to head in keeping with Abloy convention.

Lists are labelled B, A, 0, 1... according to the number of positions that may be progressed. A "B" list is a single code. An "A" list has one position that may be progressed (Denoted by "X"). A "o" list has two positions that may be progressed. Etc, all the way up to a "7" list that has nine positions that can be progressed.

9.17.3.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Maximum alike total	Default value applied when creating new system designs. The maximum number of the same cut permitted in a code.
Deep cut required	Default value applied when creating new system designs. Determines if a code must have a deep cut value.
Disallow consecutive sets of 3 alike cuts	Default value applied when creating new system designs. Determines if combinations like ...333222... are permitted.
Use group 2 codes	Default value applied when creating new system designs. Group 2 codes, when used with a standard progression, produce more codes but require a fill disc kit. Without group 2 codes the systems you produce will be much smaller but the parts requirement to keep stock of is somewhat smaller.
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁰
Bias chamber assignment toward key tip	Determines how ProMaster Master Keying assigns progression positions when the design is created with the design assistant.

Suppress profile cut on printout	Removes the tip profile cut from each end of the key code on printouts. Makes it easier to read when cutting keys on a manual machine.
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Pre-cuts to skip when manufacturing

You may select a key section and the pre-cut positions and click **Add** to add the combination to the list.

You may make pre-cut values for each key section.

The pre-cut values are used when sending data to the Silca Protec, Keyline SigmaPro and Silca UnoCode 399.

The default for each key section is "0XX", meaning that the 2 positions nearest the tip are cut on the machine.

For example, if you change it to "000" then key on that key section are not cut in those positions (the cuts are replaced with a "0" cut).

9.17.3.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK and List

When creating the system design, you must first select the key section, then select an appropriate list. After selecting the list, click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values.

From the list selection window you can open list management to split and join lists if you have permissions. See [Managing Abloy Protec lists](#)¹⁰⁰

Choose an appropriate size list. If there is not an appropriate size list, split a larger one. Contact the lock manufacturer for assistance.

Restrictions

Promote key section is not available for this design module.

Depth steps are not applicable to this design module, but do understand Group 2 codes and custom progressions for limiting the codes produced.

9.17.3.4 Coding

Enter code

If you manually enter a code for a key, it must comply with the list selected for the system design.

Special pinning

Positions allowed in special pinning are limited to those that may be progressed in the list selected for the system design.

9.17.4 Abloy Standard/Exec/Sentry

9.17.4.1 Product description

General

This design module is called **Abloy Standard/Exec/Sentry**.

This design module implements the Abloy Classic, Abloy Profile, Abloy Exec and Abloy Sentry lock systems.

TMK values are user entered/generated and may be 7 disc, 9 disc or 11 disc.

Key head colours are supported.

Key section families with multiple key sections are possible, but it is extremely unlikely to affect anyone outside of Abloy factories and you should consider key section families to have a single key section and a single keyway (in this case the keyway is the profile disc)

Key codes and cylinder pinning are presented tip to head in keeping with Abloy convention.

9.17.4.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Maximum alike total	Default value applied when creating new system designs. The maximum number of the same cut permitted in a code.
Maximum 5 cuts	Default value applied when creating new system designs. The maximum number of '5' cuts permitted in a code.
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deep cut required	Default value applied when creating new system designs. Determines if a code must have a deep cut value.
Disallow 00 at tip	Default value applied when creating new system designs. Determines if a double 0 cut is allowed at the tip of the key.
Disallow consecutive 3+3 alike cuts	Default value applied when creating new system designs. Determines if combinations like ...333222... are permitted.
Disallow consecutive 3+2+2 alike cuts	Default value applied when creating new system designs. Determines if combinations like ...3332211... are permitted.
Disallow consecutive 2+2+2 alike cuts	Default value applied when creating new system designs. Determines if combinations like ...332211... are permitted.
Use group 2 codes	Default value applied when creating new system designs. Group 2 codes, when used with a standard progression, produce more codes but require a fill disc kit. Without group 2 codes the systems you produce will be much smaller but the parts requirement to keep stock of is somewhat smaller.
Suppress profile cuts on printout	Removes the profile cuts from each end of the key code on printouts. Makes it easier to read when cutting keys on a manual machine.

9.17.4.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

There are no special considerations for the system design other than the appropriate rules.

9.17.4.4 Coding

There are no special considerations.

9.17.5 ABUS XY14

9.17.5.1 Product description

General

This design module is called **ABUS XY14**.

This design module implements the Abus XY14 and Y14.

XY14 systems may have a mix of XY14, Y14 and X14 cylinders.

The X cuts are the dimple cuts and are treated as axis 2, whereas the Y cuts are the pin tumbler cuts and are treated as axis 1.

TMK values are user entered/generated.

Key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

When configuring cylinders, the "axis 1" and "axis 2" check boxes must be set correctly for each cylinder.

9.17.5.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Allow X cut progression	XY14 only. Prohibits the progression of the X axis value when. See also the next item about Default X axis cuts.

Default X axis cuts

For XY14 only, allows you to define values that will always be used for the X axis when generating a TMK.

This is useful if you use XY14, but you have keys pre-cut on the X axis (I.e. you cut the Y axis but do not cut the X axis dimple cuts)

You may select a key section and the cut values and click **Add** to add the combination to the list.

You may make X axis cut values for each key section.

The dealer cut values are used when generating a TMK value for a new system.

9.17.5.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Depth steps

Depth steps for Axis 2 (The dimple cuts) is always represented by the character "1" when the axis 2 pins are to be progressed. The manner in which the axis 2 pins are progressed is determined by then number of "A" pins and also the designation of that position (hierarchy is progressed differently to selective).

The depths on the last position of Axis 1 are controlled by the geometry of the lock so some cut values are unavailable.

9.17.5.4 Coding

There are no special considerations.

9.17.6 AHRAM ASG Dimpled 1

9.17.6.1 Product description

This design module is called **AHRAM ASG Dimpled 1**.

This design module implements the AHRAM ASG Dimpled 1 and its variants.

This dimple key has axis 1 as pin tumbler pins and axes 2 and 3 as passive profile pins.

TMK values are user entered/generated.

Key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball.

9.17.6.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.6.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Depth steps - standard progressions

Depth steps for Axes 2 and 3 (The dimple profile cuts) are always represented by the character "1" on standard progressions when the axis 2 or 3 pins are to be progressed. The manner in which the axes 2 and 3 pins are progressed is determined by then number of "1" pins and also the designation of that position (hierarchy is progressed differently to selective).

Depth steps - Custom progressions

The progressions for Axis 2 and 3 may be selected for custom progressions. Right click on the depth cell of the custom progression entry and select **Edit**. All progression values entered must have the same number of positions progressed.

9.17.6.4 Coding

There are no special considerations.

9.17.7 ALC Bilock

9.17.7.1 Product description

General

This design module is called **ALC Bilock**.

This design module implements Bilock, Bilock QCC and Bilock CQCC.

TMK values are user entered/generated.

Single or triple key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Too many times we have seen systems where the control key is designated as a master key and is assigned as the key above the TMK. This is wrong, so don't listen to anyone saying this. The control key should be designated as a change key for QCC and as a control key for CQCC, and should have the TMK as its key above (unless the system is more complex, having multiple branches with multiple control keys)

Bilock CQCC

For QCC (the previous generation of Bilock) there was no need to distinguish between the control key and the operating keys from a coding point of view.

With CQCC it is necessary to identify control keys because they affect the cylinder coding in a different way to operating keys. For this reason, the key designation **Control key** must be used for the CQCC core removal key. Do not use the **Control key** designation for control keys for QCC.

While you could mark the control key for QCC systems as designation **Control key** in QCC only systems with no adverse effect, it is important it understand that in mixed QCC/CQCC systems the QCC keys must not have the designation **Control key**.

It is necessary to distinguish between CQCC cylinders and QCC cylinders so that coding may be calculated accordingly. When setting up cylinders for CQCC, select the value **Bilock CQCC** for the field **Core type**. Failure to configure CQCC cylinders correctly will result in incorrect pinning being calculated.

For CQCC you may want to have multiple control keys on larger systems. Generally each cylinder would have only one control key operating it, but it is possible to have multiple control keys operating a single CQCC cylinder. If you do this then you must be aware of the effect it has on coding. For example, in one position the operating cut may be "1" and the first control key cut "3", which results in a B3 pin being used. If you now assign a second control key that has a cut "4" in that position (now making the coding requirement 1 shallow, 3 deep, 4 deep) the pin that is selected is "1" because of the 2 deep cuts and that there are no pins with shallow cuts and more than one deep cut.

When coding CQCC, it is important to assign the control key first. If you don't then the operating keys will show up as phantoms for the cylinder removal because the resultant coding will use pins with only deep holes.

Bilock CQCC - 12 pin

In selecting your control key:

It must differ from any other operating key in one position, provided that position is in 3, 4, 5, 9, 10, 11

If that condition is not met then it must differ from any other operating key in two positions, provided those positions are in 2, 3, 4, 5, 8, 9, 10, 11

If that condition is not met then it must differ from any other operating key in three positions, provided those positions are in 2, 3, 4, 5, 6, 8, 9, 10, 11, 12

If that condition is not met then it must differ from any other operating key in four positions.

CQCC 12 Pin: recommendation: For anything except huge systems, make it differ from the main permutation in any 2 of the positions 3, 4, 5, 9, 10, 11. On huge systems, reduce that to 1.

Bilock CQCC - 8 pin

For a code to not remove the core in error, it must differ from the control code by at least one of the following combinations of positions:

Left 2 + Right 2

Left 3 + Right 3

Left 2 + Right 3

Left 3 + Right 2

Left 1 + Right 3

Left 3 + Right 1

Left 3 + Right 4

Left 4 + Right 3.

CQCC 8 Piin: There must be a blocking position on each side of the key and any combinations other than those shown to not provide a positive block against core removal.

9.17.7.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Weak positions	Determines which opposing positions, both with "4" cuts, will be considered as a weak key.
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Dealer cuts

You may select a key section and the dealer cut values and click **Add** to add the combination to the list.

You may make dealer cut values for each key section.

The dealer cut values are used when generating a TMK value for a new system.

For traditional Bilock, your dealer cut will consist of 2 values and the remainder are left as "x".

For Bilock CQCC this may be used also, by specifying dealer cut(s) where you want fixed values that will not be coded that you may keep for the QCC key. See [Product description](#)²⁵⁸ for information about CQCC positions.

9.17.7.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. The TMK value is checked to ensure it matches your dealer pins (if defined).

9.17.7.4 Coding

CQCC Control key

When coding CQCC, it is important to assign the control key first. If you don't then the operating keys will show up as phantoms for the cylinder removal because the resultant coding will use pins with only deep holes.

Read the CQCC information here: [Product description](#)²⁵⁸

9.17.8 ALC Galaxy

9.17.8.1 Product description

This design module is called **ALC Galaxy**.

This design module implements Galaxy Platinum.

TMK values are user entered/generated.

Control key values are user entered.

Single or dual key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Each key is handed (Left, centre or right) and has 5 cut values for the 5 fins on the key.

Too many times we have seen systems where the control key is designated as a master key and is assigned as the key above the TMK. This is wrong, so don't listen to anyone saying this. The control key should have the TMK as its key above (unless the system is more complex, having multiple branches with multiple control keys)

9.17.8.2 System type setup

See [System types](#)²⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.8.3 Creating and modifying the system design

Control key

A **Control code** must be entered before a TMK may be generated.

TMK

The **handing** must be chosen before you click **Create TMK**.

Code progressions

The **handing** must be selected for each code progression.

9.17.8.4 Coding

Enter code

If you manually enter a code for a key, it uses the handing of the current code progression.

Control key

The control key code is assigned by selecting the control key and clicking **Enter code**. The code offered will be the control code value specified in the system design, and you must choose the key section.

Assign the control key before other keys.

9.17.9 Assa Abloy KeyMaster

9.17.9.1 Product description

This design module is called **Assa Abloy KeyMaster**.

This design module implements the Assa Abloy UK KeyMaster product.

TMK values are user entered/generated.

Single or no key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball.

The key used depths 1 to 9. The 8 side cuts are 1 or 0 and are chosen from a list of permitted values, each having 4 "1" cut and 4 "0" cuts.

9.17.9.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Use anti-bump pins	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.9.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Use anti-bump pins

When turned on, checking will take place during the system design to ensure that the use of anti-bump pins may be possible.

Anti-bump will then be used in any cylinder where the use is possible and will always be placed as far back in the cylinder as possible.

9.17.9.4 Coding

There are no special considerations.

9.17.10 Assa Abloy KeyUltra

9.17.10.1 Product description

This design module is called **Assa Abloy KeyUltra**.

This design module implements the Assa Abloy UK KeyUltra product.

TMK values are user entered/generated.

Single or no key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball.

The key used depths 1 to 9, and B,C,D,E,F,G,H,J. The letter cuts correspond to depths 2 through 9 (there is no letter cut the depth of a "1" cut). Letter cuts are wider and slot cut inside the flat of the cut, and use a special pin "DuraPIN".

Each position in a code progression specifies if the TMK letter cut is to be used (and not progressed) or if a number cut is to be used.

9.17.10.2 System type setup

See [System types](#)¹⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Use anti-bump pins	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Anti-bump pin type	Controls the generation of anti-bump pins. Options are "Old" with "G" top pin and "New" with "M" and "N" bottom pins.
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.10.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Code progression letter cuts

Each code progression defines, in addition to the standard rules, a letter progression rule.

- In any position where the TMK is numeric, **Letter cuts** must contain the value **N**.
- In any position where the TMK is progressed, **Letter cuts** must contain the value **N**.
- In any position where the TMK is a letter, and it is not progressed, then normally the corresponding position in **Letter cuts** will be **L**, however you may make it **N** so that the corresponding number cut is used in the code progression.

Use anti-bump pins

When turned on, checking will take place during the system design to ensure that the use of anti-bump pins may be possible.

Anti-bump will then be used in any cylinder where the use is possible and will always be placed as far back in the cylinder as possible.

9.17.10.4 Coding

There are no special considerations.

9.17.11 Assa Abloy Perk

9.17.11.1 Product description

This design module is called **Assa Abloy Perk**.

This design module implements the Assa Abloy UK Perk product. The product is released under other names by other Assa Abloy companies.

TMK values are user entered/generated.

Single key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball.

The key used depths 1 to 7 on the first axis and 0/1 depths on the 2 profile pin axes.

There are particular values permitted for the profile pins and when used will be allocated to you by the lock manufacturer. Your profile pins will match the pre-cut on the key blanks.

The minimum master pin available is "2", and "3" is the minimum wafer size allowed in position 6.

9.17.11.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Default top/side profile cuts	The default value that will be used when generating the TMK. This should be set to match the dealer assigned to you.

9.17.11.3 Creating and modifying the system design

See [System design](#)¹⁹⁴ for general information.

TMK

When creating the system design, the profile pins must match your allocated dealer pin values, of be "00000-000000" for for a system not using profile pins.

9.17.11.4 Coding

There are no special considerations.

9.17.12 Assa Abloy Union

9.17.12.1 Product description

This design module is called **Assa Abloy Union**.

This design module implements the Assa Abloy Union product.

TMK values are user entered/generated.

Single or no key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball.

The key used depths 1 to 6, and A to F. Letter cuts are wider and dimple cut inside the flat of the cut, and use a special pin.

Each position in a code progression specifies if the TMK letter cut is to be used (and not progressed) or if a number cut is to be used.

9.17.12.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.12.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Code progression letter cuts

Each code progression defines, in addition to the standard rules, a letter progression rule.

- In any position where the TMK is numeric, **Letter cuts** must contain the value **N**.
- In any position where the TMK is progressed, **Letter cuts** must contain the value **N**.
- In any position where the TMK is a letter, and it is not progressed, then normally the corresponding position in **Letter cuts** will be **L**, however you may make it **N** so that the corresponding number cut is used in the code progression.

9.17.12.4 Coding

There are no special considerations.

9.17.13 Assa USA

9.17.13.1 Product description

This design module is called **Assa USA**.

This design module implements Assa USA cylinder types (Conventional, various LFIC, CAM, SFIC and Cliq).

TMK values are user entered/generated.

Key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed. Cliq key sections are supported.

Key codes and cylinder pinning are presented head to tip or tip to head depending on the choice you make in the system type setup.

Assa convention is tip to head. For this design module the default setting is tip to head and it is recommended that you do not change this.

The data is always stored internally as head to tip. If you change the presentation direction in the system type, it affects everywhere the key code and pinning is displayed. Changing the presentation in

the system type does not alter your data. However you must be certain to observe the presentation direction and enter/read codes correctly. If you enter data in the reverse order then it is wrong, and always be wrong. Entering data in the wrong order will result in incorrect calculations for deepest first cut, ramp up, ramp down and some core removal calculations.

The depth symbols permitted are standard Assa USA depths (9 shallow to 1 deep).

9.17.13.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Display codes TIP -> HEAD	<p>Assa convention is tip to head. For this design module the default setting is tip to head and it is recommended that you do not change this.</p> <p>Internally all codes for this design module are calculated and stored head to tip. If you want the codes and pinning to display tip to head, turn this displayed, Etc.</p> <p>The setting for this option is shown on screen, on printouts Etc, so you can see option on. It does not change any data, only the presentation of data when printed, the order that the data is being presented.</p>
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.13.3 Creating and modifying the system type

See [System design](#)¹⁸⁴ for general information.

Cylinder types

When you first create a design, ProMaster Master Keying calculates the cylinder types used in the system and sets the **Cylinder types** flags accordingly.

These flags are used to calculate the TMK and also for code progressions. If you want to ensure a system design that allows for other cylinder types to be added you can change these flags before creating your TMK and code progression.

9.17.13.4 Coding

Consideration must be given to the cylinder types operated by each key and the rules of each cylinder type.

9.17.14 Chubb Detainer

9.17.14.1 Product description

This design module is called **Chubb Detainer**.

This design module implements the Chubb Detainer 3G110 product (old and new).

TMK values are user entered/generated.

Key section families with multiple key sections and multiple keyways are allowed, but this will never be used.

The key used depths 1 to 9.

There are 9 cuts on the key and 5 detainers in the lock. On screen the key code is shown as 5 cuts and on manufacturing outputs the code is presented palindromically.

Various rules are applied to key codes according to manufacturer specifications.

9.17.14.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

	system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.14.3 Creating and modifying the system design

See [System design](#)¹⁹⁴ for general information.

There are no special considerations for the system design other than the appropriate rules.

9.17.14.4 Coding

There are no special considerations.

9.17.15 EVVA 3KS/4KS

9.17.15.1 Product description

General

This design module is called **EVVA 3KS/4KS**.

This design module implements lock systems as listed below.

TMK values are user entered or may be generated by ProMaster Master Keying.

Key head colours and special pinning is supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Pinning charts are presented in the order required cylinder assembly (i.e. The single and double track sliders are interwoven).

Pinning charts show the slider numbers and orientation.

Coding may be performed on the single track and double track. If you are in a market where the double track is factory cut, be sure to set it to your dealer permutation and to not code on it.

Lock systems

The following lock systems are implemented:

- EVVA 3KS 0.5mm
- EVVA 3KS Plus 0.5mm
- EVVA 4KS 0.5mm

Sliders

Type 1 sliders

Usage: 3KS single track positions 1..6, 3KS plus single track positions 1..6, 4KS single track positions 1..5

Name	Operates cuts orientation A	Operates cuts orientation B
11	1	9
12	2	8
13	3	7
14	4	6
15	5	

30	13	79
31	15	59
32	35	57
33	17	39
34	37	
36	24	68
37	26	48
38	46	
39	28	
50	135	579
51	137	379
52	157	359
53	357	
54	159	
56	246	468
57	248	268
70	1357	3579
71	1359	1579
76	2468	
90	13579	

Type 2 sliders

Usage: 3KS double track positions 1..6, 3KS plus double track positions 1..5, 4KS double track positions 1..5

Name	Operates cuts orientation A	Operates cuts orientation B
21	1	7
22	2	6
23	3	5
24	4	
40	13	57
41	15	37
42	35	
43	17	
46	24	46
47	26	
60	135	357
61	137	157
66	246	
80	1357	

Type 3 sliders

Usage: 3KS plus double track position 6

Note: These are sometimes referred to C and D orientation

Name	Operates cuts orientation A	Operates cuts orientation B
25	1	4
26	2	3

Type 4 sliders

Usage: 4KS single track position 6

Name	Operates cuts orientation G	Operates cuts orientation H
12	2	8
13	3	7
14	4	6
15	5	
32	35	57
34	37	
36	24	68
37	26	48
38	46	
39	28	
53	357	
56	246	468
57	248	268
76	2468	

9.17.15.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum different cuts (Axis 1)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation (Axis 1)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent (Axis 1)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total (Axis 1)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts (Axis 2)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation (Axis 2)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent (Axis 2)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total (Axis 2)	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

[system type parameters](#)²⁵⁰

Axis 2 cuts

Allows you to define values that will always be used for axis 2 when generating a TMK.

This is useful if you cut only axis 1 and your keys are pre-cut on axis 2.

You may select a key section and the cut values and click **Add** to add the combination to the list.

You may make axis 2 cut values for each key section.

The axis 2 cut values are used when generating a TMK value for a new system.

9.17.15.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Depth steps

Unless you are creating a keyed to differ system, depths steps must be 2 so key codes align with the available sliders.

Precut Axis 2 (Double track)

The default value for Axis 2 cuts may be defined for each key section in the system type setup (See [System type setup](#)²⁷²). You may use any value for Axis 2, however as only Axis 1 is cut on your key cutting machine, any Axis 2 value that differs from the keys you stock will require ordering additional stock.

If you order key blanks without axis 2 precut, then treat axis 2 like axis1 and code as you please.

9.17.15.4 Coding

There are no special considerations.

9.17.16 EVVA DPE/DPS/EPS

9.17.16.1 Product description

General

This design module is called **EVVA DPE (Australia DPS, EPS)**.

This design module implements lock systems DPE, Australia DPS, EPS.

TMK values are user entered or may be generated by ProMaster Master Keying.

Key head colours and special pinning is supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Pinning charts show the slider numbers.

9.17.16.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest last cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Depth step for design assistant - hierarchy keys	See Common system type parameters ²⁵⁰
Depth step for design assistant - selective keys	See Common system type parameters ²⁵⁰

9.17.16.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

There are no special considerations for the system design other than the appropriate rules.

9.17.16.4 Coding

There are no special considerations.

9.17.17 Inline

9.17.17.1 Product description

This design module is called **Inline**.

This design module implements the a wide variety of flat key products, and a few special lock systems.

TMK values are user entered/generated.

Key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball and half key.

The depth symbols permitted are determined by the depth/space card chosen when creating the system type.

9.17.17.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest last cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Ignore "Clashes with lost ball"	For construction keyed systems, normally any code that is deeper than the TMK in the ball position is marked as a bad code with the message "Clashes with lost ball". This is the normal case when the deepest cut is the construction key, followed by the TMK cut depth and potentially other keys cut shallower than the TMK. In the scenario where you want to have a change key deeper than the TMK and the construction key cut deeper again (So the construction keying is removed by the change key instead of the master key), this option turns off the normal checking to allow you to use the codes as you want.
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Minimum wafer size	The depth step of the smallest master pin.
Differ from TMK less < minimum is bad code	If this option is on, and a code differs from the TMK by less than the Minimum wafer size then it is marked as a bad code. If this option is off then Minimum wafer size is not considered when calculating the bad code reason for a key.
Depth step for design assistant	See Common system type parameters ¹²⁵⁰

Bottom pin names

This is seldom required. If it is not required then don't put in any values. This allows you to alter the name for each size bottom pin when it is output to pinning charts, on-screen pinning, Etc..

Wafer names

This is seldom required. If it is not required then don't put in any values. This allows you to alter the name for each size master pin when it is output to pinning charts, on-screen pinning, Etc.

If you make a mistake in the bottom pin names or the wafer names, your pinning chart will display incorrectly, the product you assemble will be wrong, Etc. Check carefully before making any changes to pin names.

9.17.17.3 Creating and modifying the system design

See [System design](#)¹¹⁸⁴ for general information.

9.17.17.4 Coding

There are no special considerations.

9.17.18 Interchangeable Core

9.17.18.1 Product description

This design module is called **Interchangeable core**.

This design module implements a wide variety of flat key products with SFIC and LFIC cylinders.

TMK values are user entered/generated.

Key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip or tip to head depending on the choice you make in the system type setup.

The data is always stored internally as head to tip. If you change the presentation direction in the system type, it affects everywhere the key code and pinning is displayed. Changing the presentation in the system type does not alter your data. However you must be certain to observe the presentation direction and enter/read codes correctly. If you enter data in the reverse order then it is wrong, and always will be wrong. Entering data in the wrong order will result in incorrect calculations for deepest first cut, ramp up, ramp down and some core removal calculations.

The depth symbols permitted are determined by the depth/space card chosen when creating the system type.

9.17.18.2 System type setup

See [System types](#)²⁵⁰ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Display codes TIP -> HEAD	<p>Internally all codes for this design module are calculated and stored head to tip. If you want the codes and pinning to display tip to head, turn this option on. It does not change any data, only the presentation of data when printed, displayed, Etc.</p> <p>The setting for this option is shown on screen, on printouts Etc, so you can see the order that the data is being presented.</p> <div style="border: 1px solid black; background-color: #ffff00; padding: 5px; margin-top: 10px;"> <p>Note that if you have entered codes in the wrong manner, then changing this won't actually fix your data, simply reverse its display.</p> </div>
Conventional cylinder stack height	<p>This is the stack height used for any keys that are not operated by a control key.</p> <p>Available on some lock systems supported by this design module - others the value is fixed according to the lock system.</p> <p>This is not used by the 4 Kaba Peaks locks systems - they use the core type on the cylinder to determine the stack height.</p>
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.18.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

9.17.18.4 Coding

Consideration must be given to the rules of the lock system being used.

Notes for Kaba Peaks

The 4 Kaba Peaks lock systems require that the correct cylinders are used. On cylinders the core type should be set to the appropriate core type. This controls the core removal ability (SFIC, LFIC) as well as the stack heights and split driver pins.

9.17.19 Kaba ACE

9.17.19.1 Product description

General

This design module is called **Kaba ACE**.

This design module implements the Kaba ACE lock system.

TMK values are selected from a list provided by the lock manufacturer. Make an appropriate selection from that list for the size of your system. The lists are imported from a file provided to you. See [Managing Kaba ACE lists](#)¹⁰¹.

Key head colours are supported.

Key codes and cylinder pinning are presented head to tip.

All 4 rotor-stators (BP1 to BP4) may be used as allowed by the list you select.

The blockcode cuts are in positions L5S and R11S and those positions are unavailable for coding.

Key codes are shown in the order: L5S, L6S, EVEN, ODD, R5S, R6S

Each door (rotor stator) has 3 positions, and each must be coded on the keys that operate the door.

Pinning charts are presented in the order required for the rotor-stator loading machine.

Pinning charts show the location for mushroom/hardened pins and Titlis springs. Where blind pins are required, these are shown by the symbol B. Where blind pins are not required, these are shown as a dash.

Rotor Stator Charts

Rotor Stator	Pos 1	Pos 2	Pos 3
LOD	L5S	ODD	L6S
ROD	R6S	ODD	R5S
LE	L5S	EVEN	L6S
RE	R6S	EVEN	R5S

9.17.19.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

There are no options required for this design module.

9.17.19.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

Select a list from the available ones. Consider the capacity of the list to ensure it has sufficient capacity for now and the future but is not wasteful.

If you have a system that is keyed-to-differ and you want to use multiple serial permutations from the list, click the **KD System** button instead of selecting the TMK list.

The available rotors are shown.

Calculator

A calculator is provided to assist in determining the outcome for any combination progressed and rotated positions. The calculator does not change your code progression (when using the coding tree), but can be used to help you understand the possible outcomes.

Code progression

Code progression is not required for using the coding grid, but is for using the coding tree.

The **Mode** specifies how a position is treated

0 = No special mode, the position may have a designation

X = The position is to be blank. If a position is blank then the **whole** segment must be blank. That segment of the code is not generated in the code progression.

3/4 = Force the position to be progressed to a 3/4. This is for advanced coding only.

The **Designation** can be set for any suitable positions where the mode is "0". With Kaba coding you need to specify which chambers to use for each designation and also the number of positions to rotate across. E.g. To progress 3 positions over 7 for change keys, the following designations would be used ccccCCC.

On each key axis (A, B and C) you may progress only the left or the right segment. It is not possible to make a cylinder that used left and right (or even and odd) in the same axis, so such a code progression would not make sense.

About KD Systems

KD systems contain multiple keys which are never operating the same door. Or put another way, each door must have only one key operating it. The coding of these systems requires you to choose that is a KD system, then in the coding there is an option that (a) Assigns serial perm codes to the keys and (b) changes the key number of each key to the Kaba system number associated with that serial perm code.

When you make a Keyed-to-differ system by clicking the **KD System** button when creating the design then the behaviour of the coding changes.

- It is not possible to create a code progression.
- The coding tree does not show any values.
- The coding grid is disabled.
- Functionality to enter codes manually, remove codes and remove unordered codes are not available.

- There is a new option in each coding screen on the pop-up menu from the list of keys. This option is called **Assign serial perm codes and Kaba system number**. See [Coding](#)²⁸⁰ for more information.

9.17.19.4 Coding

For general information about the coding grid see [Coding using the kaba coding grid](#)²⁸⁰.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors.

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

Coding KD systems

See [Creating and modifying the system design](#)²⁷⁹ for an overview of how KD systems are created.

The only functionality available within the coding windows for KD systems is the right-click pop-up menu option on the list of keys called **Assign serial perm codes and Kaba system number**.

When you add keys to a KD system, the naming of the keys is not important as the key number is altered during the coding process to match the **Kaba serial number** associated with the code that is assigned to each key,

Do not attempt to assign real **Kaba serial numbers** to keys when you create them. These will not be used when coding is performed and may result in a naming conflict.

In either coding window, perform the KD system coding by choosing the option described above. This is what happens:

- For each key that not coded, ProMaster Master Keying gets an unused serial permutation and assigns it to the key, and changes the key number to the corresponding Kaba serial number.
- The currently selected colour is assigned to keys during coding - ensure you choose the colour you want prior to choosing to assign serial perm codes.
- The pinning is calculated.
- The serial perm list value that was assigned is marked as used.

If you remove a key that has been coded, or remove the coding for a coded system, the allocated serial perm codes are not released. See [Managing Kaba ACE lists](#)¹⁰¹ for the procedure to retrieve the previously-allocated codes and make them available again.

9.17.20 Kaba expertT

9.17.20.1 Product description

General

This design module is called **Kaba Expert**.

This design module implements the Kaba Expert lock system.

TMK values are user entered and you must select them from the list provided to you as a Kaba Expert dealer and make an appropriate selection from that list for the size of your system.

Key head colours are supported.

Key codes and cylinder pinning are presented head to tip.

All 16 rotor-stators (E01 to E16) may be used but you should comply with information with the TMK about which rotor-stators are permitted.

The dealer pre-cuts occupy L6S and R5S and those positions are unavailable for coding.

Key codes are shown in the order: L5S, L6S, L5C, L6C, R5S, R6S, R5C, R6C

Each door (rotor stator) has 4 positions, and each must be coded on the keys that operate the door.

Pinning charts are presented in the order required for the rotor-stator loading machine.

Pinning charts show the location for mushroom pins as **1M** and **2M**. Where blind pins are required, these are shown by the symbol B. Where blind pins are not required, these are shown as a dash.

Control keys are allowed. Control keys may not be ordered on the same job as other keys. Cutting the control key is not possible on standard key cutting machines, including the manual machine.

Rotor Stator Charts

Rotor Stator	Pos 1	Pos 2	Pos 3	Pos 4
E01	L5S	L6S	L5C	L6C
E02	R6S	L6S	L5C	R5C
E03	R6S	R5S	R6C	R5C
E04	L5S	R5S	R6C	L6C
E05	L5S	L6S	L5C	R5C
E06	R6S	L6S	L5C	L6C
E07	L5S	R5S	R6C	R5C
E08	R6S	R5S	R6C	L6C
E09	L5S	L6S	R6C	L6C
E10	R6S	L6S	R6C	R5C
E11	L5S	R5S	L5C	R5C
E12	R6S	R5S	L5C	L6C
E13	L5S	L6S	R6C	R5C
E14	R6S	L6S	R6C	L6C
E15	L5S	R5S	L5C	L6C
E16	R6S	R5S	L5C	R5C

9.17.20.2 System type setup

See [System types](#)¹⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Two fields (L6S and R5S) allow you to enter your dealer cuts. They are used when creating a system design to automatically complete those fields in the TMK.

9.17.20.3 Creating and modifying the system design

See [System design](#)¹⁹⁴ for general information.

TMK

Enter a TMK from your Kaba book of permitted TMK values and mark the code as used in your book.

Dealer pins

The TMK is checked to verify its compliance with your dealer pins (See [System type setup](#)²⁸²).

Factory system

If you specify that the system is a factory system, then coding is allowed through the dealer pins. Don't do this unless it is supplied by a Kaba factory and progresses through the dealer positions.

Calculator

A calculator is provided to assist in determining the outcome for any combination progressed and rotated positions. The calculator does not change your code progression (when using the coding tree), but can be used to help you understand the possible outcomes.

Code progression

Code progression is not required for using the coding grid, but is for using the coding tree.

The **Mode** specifies how a position is treated

0 = No special mode, the position may have a designation

X = The position is to be blank. If a position is blank then the **whole** segment must be blank. That segment of the code is not generated in the code progression.

4 = Force the position to be progressed to a 4. This is for advanced coding only.

The **Designation** can be set for any suitable positions where the mode is "0". With Kaba coding you need to specify which chambers to use for each designation and also the number of positions to rotate across. E.g. To progress 3 positions over 7 for change keys, the following designations would be used ccccCCC.

On each key axis (A, B, C and D) you may progress only the left or the right segment. It is not possible to make a cylinder that used left and right in the same axis, so such a code progression would not make sense.

9.17.20.4 Coding

For general information about the coding grid see [Coding using the kaba coding grid](#)²⁰⁰.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors.

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

9.17.21 Kaba expertT Plus

9.17.21.1 Product description

General

This design module is called **Kaba Expert Plus**.

This design module implements the Kaba Expert Plus lock system.

TMK values are selected from a list provided by the lock manufacturer. Make an appropriate selection from that list for the size of your system. The lists are imported from a file provided to you. See [Managing Kaba Expert Plus lists](#)¹⁰².

Key head colours are supported.

Key codes and cylinder pinning are presented head to tip.

All 16 rotor-stators (P21 to P36) may be used as allowed by the list you select.

The dealer pre-cuts occupy L5S and R6S and those positions are unavailable for coding.

Key codes are shown in the order: L5S, L6S, L5C, L6C, R5S, R6S, R5C, R6C

Each door (rotor stator) has 4 positions, and each must be coded on the keys that operate the door.

Pinning charts are presented in the order required for the rotor-stator loading machine.

Pinning charts show the location for mushroom pins as **1M** and **2M**. Where blind pins are required, these are shown by the symbol B. Where blind pins are not required, these are shown as a dash.

Control keys are allowed. Control keys may not be ordered on the same job as other keys. Cutting the control key is not possible on standard key cutting machines, including the manual machine.

Rotor Stator Charts

Rotor Stator	Pos 1	Pos 2	Pos 3	Pos 4
P21	L5S	L6S	L5C	L6C
P22	R6S	R5S	R6C	R5C

Rotor Stator	Pos 1	Pos 2	Pos 3	Pos 4
P23	R6S	L6S	R6C	R5C
P24	L5S	R5S	L5C	L6C
P25	L5S	L6S	R6C	L6C
P26	R6S	R5S	L5C	R5C
P27	R6S	L6S	L5C	R5C
P28	L5S	R5S	R6C	L6C
P29	L5S	L6S	R6C	R5C
P30	R6S	R5S	L5C	L6C
P31	R6S	L6S	L5C	L6C
P32	L5S	R5S	R6C	R5C
P33	L5S	L6S	L5C	R5C
P34	R6S	R5S	R6C	L6C
P35	R6S	L6S	R6C	L6C
P36	L5S	R5S	L5C	R5C

9.17.21.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

There are no options required for this design module.

9.17.21.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

Select a list from the available ones. Consider the capacity of the list to ensure it has sufficient capacity for now and the future but is not wasteful.

The available rotors are shown.

Calculator

A calculator is provided to assist in determining the outcome for any combination progressed and rotated positions. The calculator does not change your code progression (when using the coding tree), but can be used to help you understand the possible outcomes.

Code progression

Code progression is not required for using the coding grid, but is for using the coding tree.

The **Mode** specifies how a position is treated

0 = No special mode, the position may have a designation

X = The position is to be blank. If a position is blank then the **whole** segment must be blank. That segment of the code is not generated in the code progression.

4 = Force the position to be progressed to a 4. This is for advanced coding only.

The **Designation** can be set for any suitable positions where the mode is "0". With Kaba coding you need to specify which chambers to use for each designation and also the number of positions to rotate across. E.g. To progress 3 positions over 7 for change keys, the following designations would be used ccccCCC.

On each key axis (A, B, C and D) you may progress only the left or the right segment. It is not possible to make a cylinder that used left and right in the same axis, so such a code progression would not make sense.

9.17.21.4 Coding

For general information about the coding grid see [Coding using the kaba coding grid](#)²⁰⁰.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors.

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

9.17.22 Kaba experT K95

9.17.22.1 Product description

General

This design module is called **Kaba Expert K95**.

This design module implements the Kaba Expert K95 lock system.

K95A and K95B are both supported however access to K95A requires authorisation and a new product registration. K95A systems will always be created in the factory and may be sent to a dealer if necessary. The lists that dealers receive will always be K95B (base perms and serial perms)

TMK values are selected from a list provided by the lock manufacturer. Make an appropriate selection from that list for the size of your system. The lists are imported from a file provided to you. See [Managing Kaba Expert K95 lists](#)¹⁰².

Key head colours are supported.

Key codes and cylinder pinning are presented head to tip.

All 16 rotor-stators (P41 to P56) may be used as allowed by the list you select and considering whether the system is SCEC or not.

The dealer pre-cuts occupy L6S and R5S and those positions are unavailable for coding (K95A systems allow coding on some positions as the dealer pre-cut is shorter).

Key codes are shown in the order: L5S, L6S, L5C, L6C, R5S, R6S, R5C, R6C.

Each door (rotor stator) has 4 positions, and each must be coded on the keys that operate the door.

Pinning charts are presented in the order required for the rotor-stator loading machine.

Pinning charts show the location for mushroom pins as **1M** and **2M**. Where blind pins are required, these are shown by the symbol B. Where blind pins are not required, these are shown as a dash.

P49 to P56 rotor-stators may conflict between the % pin and the corresponding adjacent corner pin if the corner pin exists (i.e. Is not progressed and therefore not a blind pin) and in this scenario ProMaster Master Keying replaces the % pin with a 1 pin.

For SCEC systems, pinning charts show the requirements for the stronger "titlis" spring as **3,T** etc.

Control keys are allowed. Control keys may not be ordered on the same job as other keys. Cutting the control key is not possible on standard key cutting machines, including the manual machine.

Rotor Stator Charts

Rotor Stator	Pos 1	Pos 2	Pos 3	Pos 4
P41	L5S	L6S	L5C	L6C
P42	R6S	R5S	R6C	R5C
P43	L5S	R5S	R6C	R5C
P44	R6S	L6S	L5C	L6C
P45	L5S	L6S	L5C	R5C
P46	R6S	R5S	R6C	L6C
P47	L5S	R5S	R6C	L6C
P48	R6S	L6S	L5C	R5C
P49	L5S	L6S	R6C	R5C
P50	R6S	R5S	L5C	L6C
P51	L5S	R5S	L5C	L6C
P52	R6S	L6S	R6C	R5C
P53	L5S	L6S	R6C	L6C
P54	R6S	R5S	L5C	R5C
P55	L5S	R5S	L5C	R5C
P56	R6S	L6S	R6C	L6C

9.17.22.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
SCEC Approved	Default value when creating new system designs. A SCEC system has greater controls placed on pins and uses several stronger springs (Titlis springs) and therefore will a lesser capacity that a non-SCEC system.
Non-SCEC allow SCEC suitable list to be used	When a list is being selected for a non-SCEC system, you have the choice to select only lists that are not suitable for SCEC systems (hence reserving those lists for SCEC systems) or to select from all lists. This option controls that behaviour when selecting a list.

9.17.22.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Rules

Data field	Description
SCEC	Turn this on to make a SCEC compatible system. The list selection is altered to allow only SCEC-suitable lists. A SCEC system has greater controls placed on pins and uses several stronger springs (Titlis springs) and therefore will a lesser capacity that a non-SCEC system. The default value SCEC is determined by your system type.
SCEC Allow spring at front.	Normally there is one titlis spring on each row except the dealer row, and this must be on suitable pins and in the last 3 positions on each row. If you turn this option on then the spring may be placed closer to the front of the rotor-stator if necessary. <div style="border: 1px solid black; background-color: #f08080; padding: 5px; width: fit-content;">Do not turn this option on unless absolutely necessary. This will cause greater key wear. Seek advice from Kaba before turning this option on.</div>

TMK

Select a list from the available ones. Consider the capacity of the list to ensure it has sufficient capacity for now and the future but is not wasteful.

The available rotors are shown.

After you choose a list for the TMK, the SCEC rule may not be altered, so be sure to set SCEC if required before selecting the list.

Calculator

A calculator is provided to assist in determining the outcome for any combination progressed and rotated positions. The calculator does not change your code progression (when using the coding tree), but can be used to help you understand the possible outcomes.

Code progression

Code progression is not required for using the coding grid, but is for using the coding tree.

The **Mode** specifies how a position is treated

0 = No special mode, the position may have a designation

X = The position is to be blank. If a position is blank then the **whole** segment must be blank. That segment of the code is not generated in the code progression.

4 = Force the position to be progressed to a 4. This is for advanced coding only.

The **Designation** can be set for any suitable positions where the mode is "0". With Kaba coding you need to specify which chambers to use for each designation and also the number of positions to rotate across. E.g. To progress 3 positions over 7 for change keys, the following designations would be used ccccCCC.

On each key axis (A, B, C and D) you may progress only the left or the right segment. It is not possible to make a cylinder that used left and right in the same axis, so such a code progression would not make sense.

9.17.22.4 Coding

For general information about the coding grid see [Coding using the kaba coding grid](#)²⁰⁰.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors.

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

Notes

SCEC systems have greater control on the number of pins on each row. SCEC systems must have 3 titles springs on each of the 3 rows other than the dealer row. If the pinning for a door does not meet the SCEC criteria then an error is reported. You may need to alter the way you code the system to ensure each rotor-stator is coded in a compatible way.

9.17.23 Kaba Gemini

9.17.23.1 Product description

General

This design module is called **Kaba Gemini**.

This design module implements the Kaba Gemini lock system.

TMK values are user entered.

Key codes and cylinder pinning are presented head to tip.

Key codes are shown in the order: L5S, L6S, EVEN, ODD, R5S, R6S

Each door (rotor stator) has 3 positions, and each must be coded on the keys that operate the door.

Pinning charts are presented in the order required for the rotor-stator loading machine.

Rotor Stator Charts

Rotor Stator	Pos 1	Pos 2	Pos 3
GA	L6S	EVEN	L5S
GB	R5S	EVEN	R6S
GC	L6S	ODD	L5S
GD	R5S	ODD	R6S
GL	L6S	EVEN	R6S

9.17.23.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

There are no options required for this design module.

9.17.23.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

Enter a TMK from your Kaba book of permitted TMK values and mark the code as used in your book.

Calculator

A calculator is provided to assist in determining the outcome for any combination progressed and rotated positions. The calculator does not change your code progression (when using the coding tree), but can be used to help you understand the possible outcomes.

Code progression

Code progression is not required for using the coding grid, but is for using the coding tree.

The **Mode** specifies how a position is treated

0 = No special mode, the position may have a designation

X = The position is to be blank. If a position is blank then the **whole** segment must be blank. That segment of the code is not generated in the code progression.

3/4 = Force the position to be progressed to a 3/4. This is for advanced coding only.

The **Designation** can be set for any suitable positions where the mode is "0". With Kaba coding you need to specify which chambers to use for each designation and also the number of positions to rotate across. E.g. To progress 3 positions over 7 for change keys, the following designations would be used ccccCCC.

On each key axis (A, B and C) you may progress only the left or the right segment. It is not possible to make a cylinder that used left and right (or even and odd) in the same axis, so such a code progression would not make sense.

9.17.23.4 Coding

For general information about the coding grid see [Coding using the kaba coding grid](#)²⁰⁰.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors.

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

9.17.24 Kaba Quattro

9.17.24.1 Product description

General

This design module is called **Kaba Quattro**.

This design module implements the Kaba Quattro lock system.

TMK values are user entered and you must select them from the list provided to you as a Kaba Quattro dealer and make an appropriate selection from that list for the size of your system.

Key head colours are supported.

Key codes and cylinder pinning are presented head to tip.

All 14 rotor-stators may be used but you should comply with information with the TMK about which rotor-stators are permitted.

The dealer pre-cuts occupy L5C and R6C and those positions are unavailable for coding.

Key codes are shown in the order: L5S, L6S, L5C, L6C, R5S, R6S, R5C, R6C

Each door (rotor stator) has 4 positions, and each must be coded on the keys that operate the door.

Pinning charts are presented in the order required for the rotor-stator loading machine.

Pinning charts show the location for mushroom pins as **1M** and **2M**. Where blind pins are required, these are shown by the symbol B. Where blind pins are not required, these are shown as a dash.

Rotor Stator Charts

Rotor Stator	Pos 1	Pos 2	Pos 3	Pos 4
QA	L5S	L6S	L5C	L6C
QB	R6S	R5S	L5C	L6C
QC	L5S	L6S	L5C	R5C
QD	R6S	R5S	L5C	R5C
QE	R6S	R5S	R6C	R5C
QF	L5S	L6S	R6C	R5C
QG	L5S	L6S	R6C	L6C
QH	R6S	R5S	R6C	L6C
QJ	L5S	R5S	L5C	L6C
QK	R6S	L6S	L5C	L6C
QL	L5S	R5S	R6C	R5C
QM	L5S	R5S	L5C	R5C
QN	R6S	L6S	R6C	L6C
QR	R6S	L6S	L5C	R5C

9.17.24.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Two fields (L5C and R6C) allow you to enter your dealer cuts. They are used when creating a system design to automatically complete those fields in the TMK.

9.17.24.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

Enter a TMK from your Kaba book of permitted TMK values and mark the code as used in your book.

Dealer pins

The TMK is checked to verify its compliance with your dealer pins (See [System type setup](#)²⁸²).

Factory system

If you specify that the system is a factory system, then coding is allowed through the dealer pins. Don't do this unless it is supplied by a Kaba factory and progresses through the dealer positions.

Calculator

A calculator is provided to assist in determining the outcome for any combination progressed and rotated positions. The calculator does not change your code progression (when using the coding tree), but can be used to help you understand the possible outcomes.

Code progression

Code progression is not required for using the coding grid, but is for using the coding tree.

The **Mode** specifies how a position is treated

0 = No special mode, the position may have a designation

X = The position is to be blank. If a position is blank then the **whole** segment must be blank. That segment of the code is not generated in the code progression.

3/4 = Force the position to be progressed to a 3/4. This is for advanced coding only.

The **Designation** can be set for any suitable positions where the mode is "0". With Kaba coding you need to specify which chambers to use for each designation and also the number of positions to rotate across. E.g. To progress 3 positions over 7 for change keys, the following designations would be used ccccCCC.

On each key axis (A, B, C and D) you may progress only the left or the right segment. It is not possible to make a cylinder that used left and right in the same axis, so such a code progression would not make sense.

9.17.24.4 Coding

For general information about the coding grid see [Coding using the kaba coding grid](#)²⁰⁰.

Rotor selection

Whenever possible, ProMaster Master Keying will determine the correct rotor automatically.

If the coding is wrong, no rotor will be possible.

If the combination of keys produces multiple rotor possibilities, you will be asked to make a rotor selection for those doors.

Each door is shown, and for each segment the following apply:

Yellow key = the segment is used on all keys and is the same on each.

Purple key = the segment is used on all keys and is not the same on each, because there is variation in the coding.

To the right is the rotor currently assigned to the door. If a previously assigned rotor is no longer suitable then it will be removed.

At the top of the screen are a series of buttons, named after the rotors (and they show you which segments of the code are used). Any rotors that are not suitable for the selected door are disabled. Click on the rotor that you want for the door.

The bottom of the screen shows the keys that operate the selected door.

After you click OK, the calculation will continue with the rotors that you selected.

9.17.25 Lockwood MT5/MT5+

9.17.25.1 Product description

General

This design module is called **Lockwood MT5/MT5+**.

This design module implements the Lockwood MT5 and Lockwood MT5+ lock systems.

TMK values are controlled by lists proved to you by the lock manufacturer.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

9.17.25.2 System type setup

See [System types](#)¹⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Maximum alike adjacent	Axis 1 only. Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Axis 1 only. Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Use pointed drivers (S1/S2)	Replaces 1 or 2 "1+" master pins with an S1 or S2 driver instead of the standard driver. This option should remain on. Turn it off only if you do not have S1/S2 drivers available, but note that cylinders may malfunction with 1+ master pins so it is preferable to omit the 1+ master pins where possible and use the pointed driver.
Maximum alike adjacent (Finger pins)	Lock system MT5+ only. Axis 2 only. Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total (Finger pins)	Lock system MT5+ only. Axis 2 only. Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.25.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK and List

When creating the system design, you must first select the key section, then select an appropriate list. After selecting the list, click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values.

Restrictions

Promote key section is not available for this design module.

Depth steps are not applicable to this design module as the manner in which progressions are generated are carefully controlled to minimise cross keying issues. codes produced.

9.17.25.4 Coding

Enter code

If you manually enter a code for a key, it must comply with the list selected for the system design.

Special pinning

Positions allowed in special pinning are limited to those that may be progressed in the list selected for the system design.

Driver pin calculation

The driver pin calculation uses the cylinder "core type" to determine the correct pin to use.

If the core type is neither "Lockwood MT5/MT5+ top pin 22" nor "Lockwood MT5/MT5+ top pin 29" then a question mark is used in the counter pin name to indicate that cylinders are not configured correctly.

Pointed drivers S1/S2

Pointed drivers S1 and S2 are used to replace a single 1+ or double 1+ master pins respectively.

Examples for 29 size cylinder:

Bottom pin	Master pins Original	Master pins Changed	Driver pin	Notes
Z+	1+		S19	S1 driver pin replaces the 1+ master pin.
Z+	1+1+		S29	S2 driver pin replaces two 1+ master pins.
Z+	1+1+1+	1+	S29	S2 driver pin replaces two 1+ master pins First 1+ pin remains.
Z+	1+2+	1+2+	C29	Standard driver pin. Cannot use S1 because 1+ pin is not by the driver pin.

9.17.26 Lockwood Twin

9.17.26.1 Product description

General

This design module is called **Lockwood Twin**.

This design module implements the Lockwood Twin lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball and half key.

9.17.26.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ¹²⁵⁰
Ignore "Clashes with lost ball"	For construction keyed systems, normally any code that is deeper than the TMK in the ball position is marked as a bad code with the message "Clashes with lost ball". This is the normal case when the deepest cut is the construction key, followed by the TMK cut depth and potentially other keys cut shallower than the TMK. In the scenario where you want to have a change key deeper than the TMK and the construction key cut deeper again (So the construction keying is removed by the change key instead of the master key), this option turns off the normal checking to allow you to use the codes as you want.

Dealer cuts

Allows you to define values that will always be used for the side cuts when generating a TMK.

You may select a key section and the cut values and click **Add** to add the combination to the list.

You may make side cut values for each key section.

The side cut values are used when generating a TMK value for a new system.

9.17.26.3 Creating and modifying the system design

See [System design](#)¹¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. The side pins are set automatically from your dealer cuts (if defined).

9.17.26.4 Coding

There are no special considerations.

9.17.27 Medeco Biaxial 10

9.17.27.1 Product description

General

This design module is called **Medeco Biaxial 10**.

This design module implements the Medeco Biaxial 10 series lock system including M3 and M4.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Removable core is supported (Medeco, Schlage long key and Yale long key methods). Multiple methods may be mixed in a single system.

Special pinning

Empty positions may be specified but it is not recommended.

Control keys

The correct configuration of **core removal** type on key sections and **core type** on cylinders is crucial for correct pinning calculations and phantom calculations.

Failure to configure these values correctly will result in incorrect pinning being calculated.

Key sections

When configuring key sections, the **core removal** value for each key section must be set correctly. For Medeco-style core removal, a standard key section is used, but for Schlage long key or Yale long key the key sections for these must have their **core removal** type set (I.e. "Schlage long key" or "Yale long key").

Cylinders

When configuring cylinders that use either the Schlage or Yale method, the **core type** on the cylinder must be set accordingly

9.17.27.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Relax MACS from 4332 to 4442	Determines the permitted maximum adjacent depths which are determined from the forward or aft orientation of the adjacent cuts.
Use more restrictive factory rules	Controls the combinations of double angles and adjacent angles that are permitted. When turned on, there are fewer combinations that are allowed. For locksmith generated systems this option would normally be turned off.
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Side cuts - M4 system types

Allows you to define values that will always be used for side cuts when generating a TMK.

You may select a key section and the side cut value and click **Add** to add the combination to the list.

You may make side cut values for each key section.

The side cut values are used when generating a TMK value for a new system.

9.17.27.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. You must choose the depth and angle or double angle for each position. For M4 product you must select the side cuts.

Code progression

For each code progression, in each position, you choose the angle (assuming the corresponding TMK value was a double angle otherwise there is only one choice) and also the progression type.

The progression type is either "D" for depth or "A" for angle and depth.

If the angle is a single angle, then the only possible choice for progression type is "D".

If the angle is a double angle, then you may choose "D" or "A".

Here's an example of how the progression is generated.

If TMK = 3KD and progression type "D", then values generated are 1KD, 2KD, 4KD, 5KD, 6KD

If TMK = 3KD and progression type "A", then values generated are 1K, 1D, 2K, 2D, 4K, 4D, 5K, 5D, 6K, 6D

So, in this example, the first progression is good for making masters with double angles, while the second method produces 10 change keys in a single operation.

Code progression - M4

The **sided cuts** must be selected for each code progression. Normally this will be the same as the TMK side cuts.

KD System

If you want to make a keyed-to-differ system where all codes are entered manually, then after you click **Create TMK**, click **Make KD system**.

A pseudo TMK is assigned, and no code progression is possible.

In this type of keyed-to-differ system, each key code must be entered manually and because it is not a master-key hierarchy, you must ensure that the keying is correct. This is intended for storing codes for Medeco padlocks etc. without making a separate system for each padlock.

KD System is not available on M4 product.

Restrictions

Depth steps are not applicable to this design module.

9.17.27.4 Coding

Control keys

If a control key is for Medeco style removal, then the key is assigned a normal key section and normal code.

If a control key is for Schlage or Yale long key removable core cylinders then you must choose the appropriate key section for the key when assigning its code.

9.17.28 Medeco Biaxial 60

9.17.28.1 Product description

General

This design module is called **Medeco Biaxial 60**.

This design module implements the Medeco Biaxial 60 series lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Removable core is supported.

Special pinning

Empty positions may be specified.

Control keys

The control key is assigned a code that is 1 cut shorter than the operating codes.

9.17.28.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Use more restrictive factory rules	Default value applied when creating new system designs. Controls the combinations of double angles and adjacent angles that are permitted. When turned on, there are fewer combinations that are allowed. For locksmith generated systems this option would normally be turned off.
Disallow code with all centre cuts	Default value applied when creating new system designs. Determines if codes with all centre cuts are permitted.
Disallow progress to centre cut	Default value applied when creating new system designs. Determines if the TMK cut can be progressed to a centre cut or not.
Disallow bump codes	Default value applied when creating new system designs. Certain codes are known to be used for bumping locks. This option allows those codes to be excluded.
Disallow stair codes	Default value applied when creating new system designs. Disallows codes that ramp from a deep cut at the key head to a shallow cut at the key tip.
Disallow progress to defined TMK code	Default value applied when creating new system designs. Disallows generation of codes defined in the "Defined TMK codes"
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Defined TMK codes

Allows you to define codes that are to be prohibited for codes derived from the TMK.

The reason for these codes to be excluded is that they are the best codes for generating large master key systems and are kept for TMK codes.

If you wish to use this feature, ask the lock manufacturer for appropriate values.

9.17.28.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. You must choose the depth and angle or double angle for each position.

Code progression

For each code progression, in each position, you choose the angle (assuming the corresponding TMK value was a double angle otherwise there is only one choice). Normally this would be the same as the TMK angle.

KD System

If you want to make a keyed-to-differ system where all codes are entered manually, then after you click **Create TMK**, click **Make KD system**.

A pseudo TMK is assigned, and no code progression is possible.

In this type of keyed-to-differ system, each key code must be entered manually and because it is not a master-key hierarchy, you must ensure that the keying is correct. This is intended for storing codes for Medeco padlocks etc. without making a separate system for each padlock

Restrictions

Depth steps are not applicable to this design module.

9.17.28.4 Coding

Control keys

Select the control key and click **Enter code**. The code entered is 1 position shorter than the TMK.

9.17.29 Medeco Original 10

9.17.29.1 Product description

General

This design module is called **Medeco Original 10**.

This design module implements the Medeco Original 10 series lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Removable core is supported (Medeco, Schlage long key and Yale long key methods). Multiple methods may be mixed in a single system.

Control keys

The correct configuration of **core removal** type on key sections and **core type** on cylinders is crucial for correct pinning calculations and phantom calculations.

Failure to configure these values correctly will result in incorrect pinning being calculated.

Key sections

When configuring key sections, the **core removal** value for each key section must be set correctly. For Medeco-style core removal, a standard key section is used, but for Schlage long key or Yale long key the key sections for these must have their **core removal** type set (I.e. "Schlage long key" or "Yale long key").

Cylinders

When configuring cylinders that use either the Schlage or Yale method, the **core type** on the cylinder must be set accordingly

9.17.29.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.

Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.29.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. You must choose the depth and angle for each position.

Code progression

For each code progression, in each position, you choose the angle. It is hard to imagine why this would ever be different from the corresponding TMK angle.

Restrictions

Depth steps are not applicable to this design module.

9.17.29.4 Coding

Control keys

If a control key is for Medeco style removal, then the key is assigned a normal key section and normal code.

If a control key is for Schlage or Yale long key removable core cylinders then you must choose the appropriate key section for the key when assigning its code.

9.17.30 Medeco Original 60

9.17.30.1 Product description

General

This design module is called **Medeco Original 60**.

This design module implements the Medeco Original 60 series lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Removable core is supported.

Special pinning

Empty positions may be specified.

Control keys

The control key is assigned a code that is 1 cut shorter than the operating codes.

9.17.30.2 System type setup

See [System types](#)¹⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow code with all centre cuts	Default value applied when creating new system designs. Determines if codes with all centre cuts are permitted.
Disallow bump codes	Default value applied when creating new system designs. Certain codes are known to be used for bumping locks. This option allows those codes to be excluded.
Disallow stair codes	Default value applied when creating new system designs. Disallows codes that ramp from a deep cut at the key head to a shallow cut at the key tip.
Disallow progress to defined TMK code	Default value applied when creating new system designs. Disallows generation of codes defined in the "Defined TMK codes"
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Defined TMK codes

Allows you to define codes that are to be prohibited for codes derived from the TMK.

The reason for these codes to be excluded is that they are the best codes for generating large master key systems and are kept for TMK codes.

If you wish to use this feature, ask the lock manufacturer for appropriate values.

9.17.30.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. You must choose the depth and angle for each position.

Code progression

For each code progression, in each position, you choose the angle. It is hard to imagine why this would ever be different from the corresponding TMK angle.

KD System

If you want to make a keyed-to-differ system where all codes are entered manually, then after you click **Create TMK**, click **Make KD system**.

A pseudo TMK is assigned, and no code progression is possible.

In this type of keyed-to-differ system, each key code must be entered manually and because it is not a master-key hierarchy, you must ensure that the keying is correct. This is intended for storing codes for Medeco padlocks etc. without making a separate system for each padlock

Restrictions

Depth steps are not applicable to this design module.

9.17.30.4 Coding

Control keys

Select the control key and click **Enter code**. The code entered is 1 position shorter than the TMK.

9.17.31 MLA Binary Plus

9.17.31.1 Product description

General

This design module is called **MLA Binary Plus**.

This design module implements the Master Locksmiths Association Binary Plus lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

9.17.31.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Deepest last cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.31.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Code progression side pins

Each code progression defines, in addition to the standard rules, side pins.

The following values are allowed for side pins:

- S = Side pin
- T = Trap pin
- x = Neither side not trap pin.

9.17.31.4 Coding

There are no special considerations.

9.17.32 MLA DC1

9.17.32.1 Product description

General

This design module is called **MLA DC1**.

This design module implements the Master Locksmiths Association DC1 lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

9.17.32.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest last cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.32.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. You must choose the depth and anti-bump for each position.

The following values are allowed for anti bump:

- X = Normal pin
- B = Anti-bump pin
- D = Deep pin

9.17.32.4 Coding

There are no special considerations.

9.17.33 Mottura Champions

9.17.33.1 Product description

This design module is called **Mottura Champions**.

This design module implements the lock systems C10, C28, C9, C30, C31, C38, C39, C43, C49, CM7, CP3, CP4, CP8.

TMK values are user entered/generated.

Key head colours are supported.

Key section families with multiple key sections and multiple keyways are allowed.

Key codes and cylinder pinning are presented head to tip.

Construction keying is supported - lost ball.

9.17.33.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Options available and the range of values for each option are determined by the lock system selected.

9.17.33.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

9.17.33.4 Coding

There are no special considerations.

9.17.33.5 Recognition codes

Recognition codes are assigned to doors, keys and the system upon manufacturing and according to the naming convention and algorithm required by the manufacturer.

The highest used recognition code for each 6 character prefix is remembered. In the event that these need to be modified then this functionality may be used.

Getting started

- You must be logged in with a system open.
- From the **Setup and Admin** menu, select **Mottura Champions recognition codes**.

Making a change

- Use the **Add**, **Remove** and **Edit** buttons to set up your recognition codes.

Notes

When you save a recognition code, the value is validated to ensure it meets the algorithm required by the manufacturer.

9.17.34 Sargent DG2

9.17.34.1 Product description

General

This design module is called **Sargent DG1**.

This design module implements the Sargent DG2/DG3 lock systems.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Removable core is supported (Sargent methods).

9.17.34.2 System type setup

See [System types](#)¹⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

9.17.34.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values. You must choose the depth and angle for each position.

The 6th position (nearest the tip) uses a conical pin and the angle on this position must be "C".

Code progression

For each code progression, in each position, you choose the angle. It is hard to imagine why this would ever be different from the corresponding TMK angle.

Restrictions

Depth steps are not applicable to this design module.

9.17.34.4 Coding

There are no special considerations.

9.17.35 Tokoz Pro

9.17.35.1 Product description

General

This design module is called **Tokoz Pro**.

This design module implements the Tokoz Pro and Tokoz Pro+ lock systems.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

9.17.35.2 System type setup

See [System types](#)^{□91} for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ^{□250}
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ^{□250}
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ^{□250}
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ^{□250}
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ^{□250}
Display pinning TIP -> HEAD	If you want the pinning to display tip to head, turn this option on. It does not change any data, only the presentation of pinning data when printed, displayed, Etc. The setting for this option is shown on screen, and printouts, so you can see the order that the pinning data is being presented.

9.17.35.3 Creating and modifying the system design

See [System design](#)^{□184} for general information.

9.17.35.4 Coding

There are no special considerations.

9.17.36 Tokoz Tech

9.17.36.1 Product description

General

This design module is called **Tokoz Tech**.

This design module implements the Tokoz Tech lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

9.17.36.2 System type setup

See [System types](#)²⁵⁰ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
No of cuts	The number of cuts on the key.
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Depth step for design assistant	See Common system type parameters ²⁵⁰

9.17.36.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

Depth steps

Depth steps for Axis 2 (The dimple cuts) is always represented by the character "1" when the axis 2 pins are to be progressed. The manner in which the axis 2 pins are progressed is determined by then number of "1" pins and also the designation of that position (hierarchy is progressed differently to selective).

9.17.36.4 Coding

There are no special considerations.

9.17.37 Willoughby Mogul

9.17.37.1 Product description

This design module is called **Willoughby Mogul**.

This design module implements the Willoughby Mogul lock system.

Key head colours are supported.

Key section families with multiple key sections are possible.

Key codes and cylinder pinning are presented head to tip.

Master pin names

These are the master pin names and the length (in depth steps) of each pin.

Length	Name
1	8
2	9
3	10
4	11
5	1
6	2
7	3
8	4
9	5
10	6
11	7
12	12

9.17.37.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰

Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Deepest first cut	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum master pin size	The depth step of the smallest master pin.
Depth step for design assistant	See Common system type parameters ²⁵⁰
Minimum 1-step for phantoms	In the scenario where a change key is blocked from operating change key shear line by only differs of 1, the number of positions that must differ. The same rule is applied to master keys on the master key shear line.
Minimum MK-CK lockout	The minimum number of positions that must differ to deny a change key access to the master key shear line and to deny a master key access to the change key shear line.
Allow cuts MK #1 with CK #7	If this option is on, the combination of a master key with depth "1" and a change key with depth "7" is permitted, otherwise it is reported as an error.
Allow tip cut #1	If this option is on, a "1" cut is permitted at the tip of the key, otherwise the tip position must be "2" or deeper.

9.17.37.3 Creating and modifying the system design

See [System design](#)¹⁸⁴ for general information.

There are no special considerations for the system design other than the appropriate rules.

9.17.37.4 Coding

Change keys and interchange keys operate the inner shear line (the change key shear line). All other levels of keys (masters, cross masters) operate the outer shear line (the master key shear line).

9.17.38 Willoughby Paracentric

9.17.38.1 Product description

This design module is called **Willoughby Paracentric**.

This design module implements the Willoughby Paracentric lock system.

Key head colours are supported.

Key section families with multiple key sections are not supported.

Key codes and cylinder pinning are presented head to tip.

The design assistant and the coding matrix are not available as they make no sense for KD systems.

9.17.38.2 System type setup

See [System types](#)⁹¹ for general information about setting up system types. This topic covers values specific to this design module.

System type defaults

Data field	Description
Minimum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum depth	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum different cuts	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum total variation	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike adjacent	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Maximum alike total	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp up	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Disallow ramp down	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Safe from re-cutting	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Has coloured key heads	Default value applied when creating new system designs. See Common system type parameters ²⁵⁰
Minimum master pin size	The depth step of the smallest master pin.
Depth step for design assistant	See Common system type parameters ²⁵⁰
Disallow adjacent cuts #2/#3	If this option is on, a 2 cut beside a 3 cut is not allowed.
Disallow adjacent cuts #6/#7	If this option is on, a 6 cut beside a 7 cut is not allowed.
Phantom cuts #2/#3	If this option is on, a 2 cut is considered to operate a 3 cut and vice versa.
Phantom cuts #4/#5	If this option is on, a 4 cut is considered to operate a 5 cut and vice versa.
Phantom cuts #6/#7	If this option is on, a 6 cut is considered to operate a 7 cut and vice versa.

9.17.38.3 Creating and modifying the system type

See [System design](#)¹⁸⁴ for general information.

TMK

When creating the system design, you must first select the key section, then click **Create TMK** to generate the TMK, or select the values you want on the TMK line of drop-down values.

When ProMaster Master Keying generates a TMK for you it is always palindromic.

If you enter the TMK, as you enter the first 4 cuts the remainder of the palindromic code is created. If you enter the last 4 cuts you may create a non-palindromic code.

Progression

Designation KD and CK (A and C) are allowed, although the nature of the lock is that only KD codes make sense.

When you create a progression you may choose if it is palindromic or not.

For a palindromic progressions you may specify the progression of the first 4 positions.

For a non-palindromic progression you may specify the progression of any positions, but take note that progressing positions 7 and 8 makes no difference other than visual - so to make multiple codes you should progress only positions 1-6 unless you want that visual variation.

9.17.38.4 Coding

Doors

Each door may be assigned only 1 key.

The lock parts must be created as cylinders. For palindromic cylinders the core type must be set to "Prison 8C6T Palindromic". This is very important for checking key codes from both sides of the lock.

Appendix

Part

10

10 Appendix

10.1 Diagnostic functions

10.1.1 Diagnose database connection

If you are unable to connect to the ProMaster Master Keying database, you may gain some insight into the problem by running the diagnose connection routines.

Getting started

On the main ProMaster Master Keying window, select the Environment you are unable to connect to.

- From the **Tools** menu, select the item **Diagnose database connection**

At the top your connection details are shown, so the first thing you should determine is if this information is correct.

Running a test

To perform a test, first highlight the test that you want, then click the **Test** button. The results of the test are displayed at the bottom of the window, and when a test is completed successfully the test is flagged with a check mark.

The tests

Resolve host

This test takes the host name and resolves it to an IP Address. If the host name is already an IP Address (e.g. 127.0.0.1) then the Resolve host test will indicate that the host name does not need to be resolved. In all other cases, the test should resolve the host name to the IP Address of the machine that is hosting the database. If the name cannot be resolved, first check that the host name is correct, then address the name resolution issue with your computer network support person.

Ping host

This test attempts to ping the host. While a successful outcome for this test is useful in knowing that communication is possible, a failed test does not necessarily indicate a problem as the host machine may be configured to not respond to ping requests, or another network appliance may be blocking the ping (ICMP) requests.

Test port

This test attempts to open a socket on the host machine on the port specified in the Server name, or that resolved from the service port name if a service port name was specified. This test must succeed otherwise there is a problem. The success of this test does not however indicate that the Firebird database engine is the process that responded to the test, and in rare cases the socket connection request may be answered by another process that has hijacked the database port on the host machine.

Test database connection

This is the definitive test. If this test passes then ProMaster Master Keying should connect to the database, whereas if this test fails then ProMaster Master Keying will fail to operate. Any error messages returned from this test are indicators of the source of any problems.

10.1.2 Fixing internal numbering

Internally, ProMaster Master Keying tracks and identifies data in a way that is not visible to the user.

If the need arises during a technical support incident, you may be asked to perform the following operation.

Getting started

- You must be logged in as the **admin** user
- From the **Tools** menu, select **Synchronize internal numbering**
- Click the **OK** button to proceed.

The operation may take a small amount of time, dependent on the amount of data in your database.

Never run this process while other users are using ProMaster Master Keying. Run this process only if you are asked to by WH Software Limited support staff.

10.2 File formats used by ProMaster Master Keying

This section gives an overview of the CSV file format and describes each of the CSV files that are used for importing data.

10.2.1 CSV file format definition

Wherever data may be imported into ProMaster Master Keying from a Comma Separated File (CSV), the contents expected within the file vary according to the type of data and that is discussed in the applicable topic. This topic discusses the physical structure of a CSV file and therefore this section forms an integral part of the learning for any CSV import.

File Format

The CSV file follows standard CSV file conventions with regard to its physical structure.

That is:

- Each line in the file contains a single record.
- Each line in the file is terminated by a Carriage Return and Line Feed pair of characters.
- Within each record (line) fields are delimited (separated) by using a single comma.
- A delimiting comma must not appear after the final field in each line.
- Each line must contain the same number of fields.
- Any field that contains a comma (,) or quotation mark (") must be quoted according to standard quoting rules (The field is prefixed and suffixed with a quotation mark, and any quotation mark is repeated)
- Additionally, each line must contain the same number of fields as the first line of the file. Exercise caution using programs like Excel that will modify a perfectly readable csv file and remove trailing delimiters thereby making a different number of fields on each line. Before saving from Excel, the addition of a column containing arbitrary data (e.g. a single letter) as the rightmost column avoids this problem in Excel and when importing the data file into ProMaster Master Keying that rightmost column can be ignored just like any other column that you do not require.

ProMaster Master Keying is Unicode capable and will detect the file format being imported if it includes the standard preamble characters to designate the file as UTF-8, UTF-16BE or UTF16LE. If the preamble characters are not present for one of these three formats then the data file will be treated as an ASCII file.

ProMaster Master Keying exports CSV data in UTF-8 format (including the preamble) unless the export is for a specific purpose where only ASCII would be possible.

File Names

CSV files should always be supplied with:

- A file name that clearly describes the file contents
- The file extension being .csv

Headings

It is common when using CSV files for the first line in the file to contain field or column heading that describe the data on the subsequent lines.

ProMaster Master Keying will accept a file with or without the first line containing headings, however it is strongly recommended that the file does contain these headings as it effectively documents the data that is contained within the file and also ProMaster Master Keying will read these headings to automatically determine the contents of each field. This is particularly important as ProMaster Master Keying does not mandate the order in which fields appear in the CSV file.

Omitting the headings means that the person importing the data into ProMaster Master Keying will do so with less certainty about the fields being imported.

10.2.2 Global data file formats

10.2.2.1 Branch address import (CSV) file format

ProMaster Master Keying provides a wizard for importing branch address data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Name	Character (100)	Yes	description	Unique.
Contact	Character (50)	No	contactname	
Phone	Character (20)	No	contactphone	
Fax	Character (20)	No	contactfax	
Email	Character (250)	No	contactemail	
Postal address 1	Character (30)	No	postaladdress1	
Postal address 2	Character (30)	No	postaladdress2	
Postal address 3	Character (30)	No	postaladdress3	
Postal address 4	Character (30)	No	postaladdress4	
Postal city	Character (30)	No	postalcity	
Postal state	Character (5)	No	postalstate	
Postal post code	Character (10)	No	postalpostcode	

Postal country	Character (30)	No	postalcountry	
Physical address 1	Character (30)	No	physicaladdress1	
Physical address 2	Character (30)	No	physicaladdress2	
Physical address 3	Character (30)	No	physicaladdress3	
Physical address 4	Character (30)	No	physicaladdress4	
Physical city	Character (30)	No	physicalcity	
Physical state	Character (5)	No	physicalstate	
Physical post code	Character (10)	No	physicalpostcode	
Physical country	Character (30)	No	physicalcountry	

10.2.2.2 Client import (CSV) file format

ProMaster Master Keying provides a wizard for importing client data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Name	Character (200)	Yes	clientname	Unique.
Active	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	isactive	
Code	Character (20)	No	clientcode	Unique if provided.
Description	Character (100)	No	description	
Contact	Character (50)	No	contactname	
Phone	Character (20)	No	contactphone	
Mobile	Character (20)	No	contactmobile	

Fax	Character (20)	No	contactfax	
Email	Character (250)	No	contactemail	
Contact 2	Character (50)	No	contactname2	
Phone 2	Character (20)	No	contactphone2	
Mobile 2	Character (20)	No	contactmobile2	
Fax 2	Character (20)	No	contactfax2	
Email 2	Character (250)	No	contactemail2	
Postal address 1	Character (30)	No	postaladdress1	
Postal address 2	Character (30)	No	postaladdress2	
Postal address 3	Character (30)	No	postaladdress3	
Postal address 4	Character (30)	No	postaladdress4	
Postal city	Character (30)	No	postalcity	
Postal state	Character (5)	No	postalstate	
Postal post code	Character (10)	No	postalpostcode	
Postal country	Character (30)	No	postalcountry	
Physical address 1	Character (30)	No	physicaladdress1	
Physical address 2	Character (30)	No	physicaladdress2	
Physical address 3	Character (30)	No	physicaladdress3	
Physical address 4	Character (30)	No	physicaladdress4	
Physical city	Character (30)	No	physicalcity	
Physical state	Character (5)	No	physicalstate	
Physical post code	Character (10)	No	physicalpostcode	
Physical country	Character (30)	No	physicalcountry	

10.2.2.3 Cylinder import (CSV) file format

ProMaster Master Keying provides a wizard for importing cylinder data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	lockpartnumber	Unique.
Item number	Character (100)	No	itemnumber	
Description	Character (200)	Yes	description	
Brand	Character (100)	Yes	brand	
Finish	Character (100)	No	finish	
Cylinder style	Character (30)	No	cylinderstyle	
Part type	Character (1)	Yes	parttype	C=Cylinder D=Double cylinder
Core type	Numeric	No	ictype	0=Standard 1=Schlage long key 2= Yale long key 3=Bilock CQCC 4=Kwikset 5-Kaba Expert I/C 6=Kaba Peaks SFIC 7=Kaba Peaks LFIC 8=Kaba Peaks Mortice/Rim 9=Kaba Peaks Key-In-Knob 10=Assa Assa/Yale/CorbinRusswin LFIC 11=Assa Sargent LFIC 12=Assa Schlage LFIC 13=Assa CAM 14=Assa SFIC 15=Assa Standard CLIQ 16=Assa Assa/Yale/CorbinRusswin LFIC CLIQ 17=Assa Sargent LFIC CLIQ 18=Assa Schlage LFIC CLIQ 19=Assa CAM CLIQ 20=Assa Directional CW 21=Assa Directional CC 22=Assa Directional WL (Limited rotation) 23=Assa Directional CL (Limited rotation) 24=Medeco KeyMark X4 12-Stack 25=Medeco KeyMark X4 19-Stack 26=Medeco KeyMark X4 17-Stack 27=Lockwood MT5/MT5+ top pin 22 28=Lockwood MT5/MT5+ top pin 29
Uses axis 1	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	usesaxis1	
Uses axis 2	Boolean, see above.	No	usesaxis2	
Uses axis 3	Boolean, see above.	No	usesaxis3	

Uses axis 4	Boolean, see above.	No	usesaxis4	
Uses axis 5	Boolean, see above.	No	usesaxis5	
Uses axis 6	Boolean, see above.	No	usesaxis6	
Uses axis 7	Boolean, see above.	No	usesaxis7	
Uses axis 8	Boolean, see above.	No	usesaxis8	
Uses axis 9	Boolean, see above.	No	usesaxis9	
Uses axis 10	Boolean, see above.	No	usesaxis10	
Active	Boolean, see above.	No	isactive	
Complete	Boolean, see above.	No	complete	

10.2.2.4 Cylinder driver pin import (CSV) file format

ProMaster Master Keying provides a wizard for importing cylinder driver pin data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Part code + stack height Unique. Must be an existing cylinder part code.
Stack height	Numeric (0 to 35)	Yes	stackheight	
Pin name	Character (2)	Yes	driverpin	Characters 0..9, A..Z allowed

10.2.2.5 Cylinder picture import (CSV) file format

ProMaster Master Keying provides a wizard for importing cylinder picture data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Unique. Must exist be an existing cylinder part code.
Filename	Character	Yes	filename	Only the file name, must not include a folder name

The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderPicture**

Picture requirements

Minimum width 10, Maximum width 800, Minimum height 10, Maximum height 800

File type JPG or PNG

10.2.2.6 Cylinder sub assembly import (CSV) file format

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

ProMaster Master Keying provides a wizard for importing cylinder assembly data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Cylinder	Character (30), upper case	Yes	lockpartnumber	Part code + system type + component type Unique. Must be an existing cylinder entry.

System type	Character (100)	yes	systemtype	System type must exist.
Component type	Character (100)	yes	componenttype	Sub assembly component type must exist.
Part code	Character (30)	yes	partcode	
Quantity	Numeric, 1 to 999	Yes	quantity	
Location	Character (50)	Yes	location	

10.2.2.7 Cylinder sub assembly picture import (CSV) file format

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

ProMaster Master Keying provides a wizard for importing cylinder assembly picture data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Part code + system type Unique. Must be an existing cylinder assembly entry.
System type	Character (100)	Yes	systemtype	
Filename	Character	Yes	filename	Only the file name, must not include a folder name

The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderSubAssemblyPicture**

Picture requirements

Minimum width 10, Maximum width 1000, Minimum height 10, Maximum height 800

File type JPG or PNG

10.2.2.8 Cylinder sub assembly video URL import (CSV) file format

Manufacturer edition only. Cylinder sub assembly feature must be in your ProMaster Master Keying license.

ProMaster Master Keying provides a wizard for importing cylinder assembly video URL data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining

the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Part code + system type Unique. Must be an existing cylinder assembly entry.
System type	Character (100)	Yes	systemtype	
Filename	Character (1000)	Yes	url	

10.2.2.9 Door hardware type import (CSV) file format

ProMaster Master Keying provides a wizard for importing door hardware type data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Description	Character (100), upper case	Yes	description	Unique

10.2.2.10 Door hardware import (CSV) file format

ProMaster Master Keying provides a wizard for importing door hardware data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Unique.
Description	Character (200)	Yes	description	
Brand	Character (100)	Yes	brand	
Finish	Character (100)	No	finish	
Hardware type	Character	Yes	doorhardwaretype	Length not important, remapped during import
Item number	Character (30)	No	manufacturerpartcode	
Active	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	isactive	

10.2.2.11 Factory import (CSV) file format

ProMaster Master Keying provides a wizard for importing factory data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Name	Character (100)	Yes	clientname	Unique.

Active	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	isactive	
Code	Character (20)	No	clientcode	Unique if provided.
Contact	Character (50)	No	contactname	
Phone	Character (20)	No	contactphone	
Fax	Character (20)	No	contactfax	
Email	Character (250)	No	contactemail	
Contact 2	Character (50)	No	contactname2	
Phone 2	Character (20)	No	contactphone2	
Fax 2	Character (20)	No	contactfax2	
Email 2	Character (250)	No	contactemail2	
Postal address 1	Character (30)	No	postaladdress1	
Postal address 2	Character (30)	No	postaladdress2	
Postal address 3	Character (30)	No	postaladdress3	
Postal address 4	Character (30)	No	postaladdress4	
Postal city	Character (30)	No	postalcity	
Postal state	Character (5)	No	postalstate	
Postal post code	Character (10)	No	postalpostcode	
Postal country	Character (30)	No	postalcountry	
Physical address 1	Character (30)	No	physicaladdress1	
Physical address 2	Character (30)	No	physicaladdress2	
Physical address 3	Character (30)	No	physicaladdress3	
Physical address 4	Character (30)	No	physicaladdress4	
Physical city	Character (30)	No	physicalcity	
Physical state	Character (5)	No	physicalstate	
Physical post code	Character (10)	No	physicalpostcode	
Physical country	Character (30)	No	physicalcountry	

10.2.2.12 Key colour import (CSV) file format

ProMaster Master Keying provides a wizard for importing key colour data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining

the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Colour	Character (30)	Yes	colour	Unique.
Short colour	Character (10)	No	shortcolour	Required when short colour is mandatory, and that is determined by the design module. For design modules that support multiple colours per key the short colour is mandatory.

10.2.2.13 Keying type import (CSV) file format

ProMaster Master Keying provides a wizard for importing keying type data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Ref	Character (20), upper case	Yes	ref	Unique.
Description	Character (200)	Yes	description	
Construction	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	construction	

Ignore dup TMK	Boolean, see above	No	ignoreduplicatetmk	
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10.2.2.14 Lockshop import (CSV) file format

Manufacturer edition only.

ProMaster Master Keying provides a wizard for importing lock-shop data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Name	Character (100)	Yes	clientname	Unique.
Active	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	isactive	
Code	Character (20)	No	clientcode	Unique if provided.
Contact	Character (50)	No	contactname	
Phone	Character (20)	No	contactphone	
Mobile	Character (20)	No	contactmobile	
Fax	Character (20)	No	contactfax	
Email	Character (250)	No	contactemail	
Contact 2	Character (50)	No	contactname2	
Phone 2	Character (20)	No	contactphone2	
Mobile 2	Character (20)	No	contactmobile2	
Fax 2	Character (20)	No	contactfax2	
Email 2	Character (250)	No	contactemail2	
Postal address 1	Character (30)	No	postaladdress1	
Postal address 2	Character (30)	No	postaladdress2	
Postal address 3	Character (30)	No	postaladdress3	

Postal address 4	Character (30)	No	postaladdress4	
Postal city	Character (30)	No	postalcity	
Postal state	Character (5)	No	postalstate	
Postal post code	Character (10)	No	postalpostcode	
Postal country	Character (30)	No	postalcountry	
Physical address 1	Character (30)	No	physicaladdress1	
Physical address 2	Character (30)	No	physicaladdress2	
Physical address 3	Character (30)	No	physicaladdress3	
Physical address 4	Character (30)	No	physicaladdress4	
Physical city	Character (30)	No	physicalcity	
Physical state	Character (5)	No	physicalstate	
Physical post code	Character (10)	No	physicalpostcode	
Physical country	Character (30)	No	physicalcountry	
Key cutting agent	Boolean, see above	Yes	keycuttingagent	
Export system	Boolean, see above	Yes	exportsystem	

10.2.2.15 Lock import (CSV) file format

ProMaster Master Keying provides a wizard for importing lock data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (39), upper case	Yes	lockpartnumber	Unique.
Item number	Character (100)	No	itemnumber	
Description	Character (200)	Yes	description	

Brand	Character (100)	Yes	brand	
Finish	Character (100)	No	finish	
Parts list, lock part includes cylinders	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	partslistlockinchu descylinder	
Active	Boolean, see above.	No	isactive	
Complete	Boolean, see above.	No	complete	

10.2.2.16 Lock cylinder import (CSV) file format

ProMaster Master Keying provides a wizard for importing lock cylinder data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Part code + position + part type Unique. Must be an existing lock part code.
Position	Numeric, 1..100		lockcylinderrank	Corresponds to system types.
Part type	Character (1)	Yes	parttype	E=External cylinder I=Internal cylinder D=Double cylinder
Cylinder part code	Character (30), upper case	Yes	cylinderpartnumber	Must be an existing cylinder part code. If part type = 'D' then must be double cylinder part code, else if part type 'E' or 'I' then a cylinder part code.

10.2.2.17 Lock picture import (CSV) file format

ProMaster Master Keying provides a wizard for importing lock picture data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Part code	Character (30), upper case	Yes	partcode	Unique. Must exist be an existing lock part code.
Filename	Character	Yes	filename	Only the file name, must not include a folder name

The folder from where the pictures are loaded is the folder that contains the CSV file you are importing and then a sub folder **CylinderPicture** (I.e. The same folder used for cylinder pictures)

Picture requirements

Minimum width 10, Maximum width 800, Minimum height 10, Maximum height 800

File type JPG or PNG

10.2.3 System data file formats

10.2.3.1 Door import (CSV) file format

ProMaster Master Keying provides a wizard for importing door data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Door	Character (20), upper case	Yes	doornumber	Unique.

Stamping	Character (20), upper case	Yes*	stamping	Required when adding doors. Not required for updating doors.
Description	Character (200)	No	doordescription	
Area	Character (200)	No	area	
Stage	Character (50)	No	stage	
Lock	Character	Yes*	lockpartnumber	Required for keyed doors, blank for non-keyed doors
Non keyed	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	nonkeyed	Defaults to False
Door height	Character (20)	No	doorheight	
Door width	Character (20)	No	doorwidth	
Door thickness	Character (20)	No	doorthickness	
Signatories	Numeric, 0..999	No	signatories	
Notes	Character (200)	No	notes	
Pinning Note	Character (200)	No	pinningnotes	Specific pinning instructions for manufacturing. Not normally used.
Info URL	Character(250)	No	infourl	Available if enabled by the setting "Allow entry of door Info URL" in the Application parameters ⁵³ .
Different keying side 2	Boolean, see above	No	differentkeyingside2	Must be false if non-keyed
Disabled	Boolean, see above	No	disabled	

10.2.3.2 Door renaming import (CSV) file format

ProMaster Master Keying provides a wizard for importing door renaming data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Door	Character (20), upper case	Yes	doornumber	Unique. The existing door number.
New door	Character (20), upper case	Yes	newdoornumber	Unique. The new door number. Must not already exist for a door.

10.2.3.3 Key import (CSV) file format

ProMaster Master Keying provides a wizard for importing key data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Key	Character (20), upper case	Yes	keynumber	Unique.
Description	Character (200)	No	keydescription	
Category	Character (50)	No	category	
Key above	Character (20), upper case	No	keyabove	Must be the key number of a master key that already exists within this system, or is in the file being imported.
Designation	Character (1)	Yes*	designation	Must be one of the following values: M = Master Key S = Selective Key C = Change Key B = Construction Z = Control Other designations may not be imported. B and Z must be used only on appropriate design modules. Not required for update Required for adding keys unless application parameter is set to allow keys without designation.
Part code	Character (30)	No	partcode	

Stamping	Character (20)	No	stamping	available only if your ProMaster Master Keying is configured to use key stampings
Ship separate	Boolean, False being one of 'F', 'False', '0', 'N', 'No' and True being one of 'T', 'True', '1', 'Y', 'Yes'	No	shipseparate	
Disabled	Boolean, see above	No	disabled	
Signatories	Numeric, 0..999	No	signatories	

10.2.3.4 Keying import (CSV) file format

ProMaster Master Keying provides a wizard for importing keying data that is supplied in a comma separated values (CSV) file. This topic explains the file contents required.

For information about the physical structure of a CSV file, read the topic [CSV file format definition](#)³¹⁷.

Headings

The table below shows one heading that ProMaster Master Keying will accept for automatically determining the contents of each field. For each field there are several variations that are checked.

For example, to determine a field containing the **Part Code** from the heading, the following headings are matched: part code, partcode, part, code, part no, partno, sku, article.

Additionally, headings are matched in a case insensitive manner.

Fields

The order of the fields within the CSV file is not important as the ProMaster Master Keying CSV import wizard provides a powerful interface for selecting the source of each item of data.

The following table list all the fields that ProMaster Master Keying will accept for this import.

Field Name	Type/ Max Len	Reqd	Heading	Notes
Key	Character (20), upper case	Yes	keynumber	
Door number	Character (20), upper case	Yes*	doornumber	Required if importing by door number. Not required if importing by stamping.
Position	Character (1)	No	positiontype	If not used, defaults to E for external. Values allowed are: E = External I = Internal External is the normal keying for a door. Internal keying is permitted only when the door is flagged as having different internal keying.
Stamping	Character (20), upper case	Yes*	stamping	Required if importing by stamping. Not required if importing by door number.

10.3 Miscellaneous information

10.3.1 Excel template definition

When importing or exporting systems from Excel (See [Creating a system from Excel](#)¹¹⁵, [Importing a system extension from Excel](#)¹¹⁷, [Exporting to Excel](#)¹²⁴, part of the process it to choose the template definition that matches the Excel file you are working with.

There is a standard template called "Default" that matches the empty Excel files shipped with ProMaster Master Keying. In all likelihood this is all that most users will use.

You may make your own Excel files, and then use the template definitions to create a definition that matches your Excel file. There are some reasons why you may want to create your own Excel files (and thus a corresponding template definition, such as wanting to omit some key of door fields. You may make multiple definitions to match several Excel files if you wish.

Invoking the Excel template definition editor

From any of the three places where Excel files can be exported or imported, right click on the drop down list of template definitions to add, edit or delete. Edit and delete operate on the currently selected item in the list.

The editor

The editor has 4 tabs.

Client

The various locations for each data field can be configured. **Client name** is required but the other fields may be set to the blank value meaning they will not be exported or imported.

System

The various locations for each data field can be configured. **System description** is required but the other fields may be set to the blank value meaning they will not be exported or imported.

Doors

The **door start row** is the row number in Excel containing the first door. The only mandatory field is the **door number column**.

Keys

The **key start column** is the column in Excel containing the first key. The only mandatory row is the **key number row**.

10.3.2 Image editor

ProMaster Master Keying includes an image editor that allows you to tweak pictures. The image editor is not a drawing tool.

The image editor is used for lock photos and document images.

Invoking the image editor

There are several ways in which the image editor is invoked:

- After you **load** a picture it is displayed in the image editor.
- After you **acquire** an image from your scanner it is displayed in the image editor.

- After you **paste** an image from the clipboard it is displayed in the image editor.
- After you click an **Edit image** button.

Resize image

When the image editor is loaded as a result of a new image being loaded (load, scanner or paste from clipboard), the size of the image is checked.

If the image dimensions exceed the preferred size pre-set for that image purpose then you are prompted to resize them image. As you will not be allowed to save the image unless it is within the maximum allowed dimensions, then you should proceed with the image resize.

Options are provided to:

- Allow the width and height to be set. The image aspect ratio is maintained.
- Quickly set the **Preferred size**.

The status bar at the bottom of the image editor shows you the image dimensions and the image format.

Toolbar options

Option	Description
Editing Undo	Undo the last change you made to the picture.
Editing Redo	Reapply the last undo you made to the picture.
Editing Reload	Undo all changes you have made to the picture, reverting to the picture you started with.
Select Select all	Selects the whole image
Select Select none	Removes the selection
Select Select rectangle tool	Use the mouse to make a selection on the image.
Select Select ellipse tool	Use the mouse to make a selection on the image.
Select Select lasso tool	Use the mouse to make a freehand selection on the image.
Select Select magic wand tool	Use the mouse to make a selection on the image. This tools works best with pictures with clearly defined areas.
Image Flip horizontal	Flip the picture horizontally.
Image Flip vertical	Flip the picture vertically.
Image Rotate left 90	Rotate the picture left by 90 degrees.
Image Rotate right 90	Rotate the picture right by 90 degrees.
Image Decrease brightness	Decrease the brightness of the picture.
Image Increase brightness	Increase the brightness of the picture.
Image Decrease contrast	Decrease the contrast of the picture.
Image Increase contrast	Increase the contrast of the picture.
Image Sharpen	Sharpen the picture.
Image Blur	Blur the picture.
Image Crop	Crop the picture, leaving just the area you have selected with your mouse.
Image Clear selection	Clears the area you have selected with your mouse.
Zoom Full size	Show the picture at 100% resolution.
Zoom Fit to screen	Show the picture sized to fit the window
View Zoom in	Show the picture larger.
View Zoom out	Show the picture smaller.

General use

More often than not, the tasks you will be performing in the Image Editor are:

- Crop To Selection (For pictures where you want to remove the surrounding white space)
- Resize (To ensure the picture is the preferred size)

When you have finished your changes, click **OK** to save the picture.

10.3.3 Take photo

From signatories and client signatories, the signatory photo may be captured from a web cam (as well as being able to be loaded from an image).

To take a photo while editing the signatory, click on the **Photo** tab then on **Camera**.

The **Camera** and **Size** lists show attached cameras and suitable size resolutions offered by the camera.

When you **Connect** to the camera the live camera view is shown. Click **OK** to take the photo when ready.

If you want to change **Size** or **Camera**, you must first **Disconnect**.

10.3.4 Previewing reports

For many reports you may do a screen preview rather than sending them to your printer. This is useful for checking that the report is producing the results that you expect before you commit to printing it.

Zooming

The buttons provide three zoom settings (Whole page, Zoom to page width, Zoom to 100%) or you may enter a specific zoom value in the edit box.

Navigating

For multi-page reports, buttons are available for moving between pages, or use standard keyboard navigation (Ctrl+PgDn, Ctrl+PgUp, Ctrl+Home, Ctrl+End) or the mouse wheel.

Page Layout

Four buttons are available to change the way the pages are presented (Single page, Two pages side-by-side, Continuous and Two pages side-by-side continuous). The side-by-side layouts are useful for seeing two pages at a time on a larger display. In the continuous views the mouse wheel scrolls down the page(s) instead of jumping between pages as it does for a single page view.

10.3.5 Sending reports by email

Many reports may be sent by email rather than sending them to your printer.

When reports are sent by email, they are first generated as Adobe PDF files, then sent as attachments on the email.

There is an [application parameter](#)⁵³ that determines if PDF files are generated using Unicode. Unicode is the default behaviour and should be changed only with a very good reason. Changing this parameter to ANSI will produce smaller PDF files, but any non-ASCII characters will then not appear correctly in the PDF.

By default, PDF files are encrypted to disallow changes to them. There is an [application parameter](#)⁵³ that turns off encryption.

10.3.6 Forgotten admin password

If you have forgotten your admin password, you may reset it by entering your registration code.

Getting started

On the main ProMaster Master Keying window, select the Environment you are unable to connect to.

- From the **Tools** menu, select the item **Reset Admin password**

Resetting password

Enter your registration code

Enter the new password you want and confirm it by repeating it.

Click **OK**.

The registration code must be for the product registration used in this database. It does not have to be the current registration code (e.g. You have renewed support and updates, but not entered the new registration code), but it must be the same product registration that is in use for the database.

10.3.7 Unlocking the console

If ProMaster Master Keying has been configured in the Application Parameters to lock the console after a time of inactivity, then one of two things will happen.

- If ProMaster Master Keying is at the main window, then you will be logged out.
- If you have a window open where you may be performing a task, then ProMaster Master Keying locks the console. To unlock the console, the user who is logged in must enter their password, or alternatively, the holder of the admin password may perform an admin unlock.

The admin unlock is useful for times where the user has disappeared, and the admin wishes to unlock the ProMaster Master Keying and log the user out.

10.3.8 Data locks

Premium and Manufacturer editions.

When users are working on data, a lock is granted to the user and that prohibits other users from changing the same data until the first user is finished.

System data is locked at the system level, whereas global data is usually locked at the record level.

Getting started

- You must be logged in as the **admin** user
- From the **Setup and Admin** menu, select **Show user data locks**

The data locks are shown.

10.3.9 Custom reports

The custom report writer is available in several places.

Overview

General reports

Available in premium and manufacturer editions.

Required custom reporting license.

These reports are for administration purposes, and do not have any system or job context.

You must write the queries to return the data required by the report.

Designer location: **Setup and Admin** menu then **Design custom reports - general**.

Run location: **Admin Reports** menu then **Custom reports - general**.

System reports

Available in premium and manufacturer editions.

Required custom reporting license.

These reports are for system purposes, and provide the system context as a parameter.

You must write the queries to return the data required by the report.

Designer location: **Setup and Admin** menu then **Design custom reports - system**.

Run location: **Reports** menu then **Custom reports - system**.

Job reports

Available in premium and manufacturer editions.

Required custom reporting license.

These reports are for job purposes, and provide the system and job contexts as parameters.

You must write the queries to return the data required by the report.

Designer location: **Manufacture Job** screen click the **Design** button.

Run location: **Manufacture Job** screen select the report(s) then click **Print** or **Print preview**.

Job labels - shipping

Available in all editions.

Included in standard license.

Allows you to define your own label layouts, and own label size.

The data required is provided, so all you must do is lay out the labels.

Designer location: **Manufacture Job** screen check **Print shipping labels** and click the **Design labels** button.

Run location: **Manufacture Job** screen check **Print shipping labels** and select the desired layout from the list before printing.

Job labels - keys

Available in all editions.

Included in standard license.

Allows you to define your own label layouts, and own label size.

The data required is provided, so all you must do is lay out the labels.

Designer location: **Manufacture Job** screen check **Print key labels** and click the **Settings** and click the **Design labels** button.

Run location: **Manufacture Job** screen check **Print key labels** and click the **Settings** and select the desired layout from the list and click **OK**.

Job labels - doors

Available in all editions.

Included in standard license.

Allows you to define your own label layouts, and own label size.

The data required is provided, so all you must do is lay out the labels.

Designer location: **Manufacture Job** screen check **Print door labels** and click the **Settings** and click the **Design labels** button.

Run location: **Manufacture Job** screen check **Print door labels** and click the **Settings** and select the desired layout from the list and click **OK**.

About designing reports and labels

- Use the **Add**, **Remove** and **Edit** buttons to set up your reports or labels.

Each report must have a description and that description appears in the report or label selection.

If a report is not active, it will not be available for printing.

Click the **Edit report** button to open the report designer.

Special fields

There are some fields you may use the report layouts that automatically populate, or behave in a special manner.

All the custom fields must be the correct field type and named correctly for the automatic behaviour. All the names start with __ (That is two underscore characters).

All custom reports and labels

Field name	Field type	Description
__MemoCompany	Memo	Populated with your company name.
__MemoAddress	Memo	Populated with your company address.
__MemoSystem	Memo	Populated with system number and description.
__LblProductName	Label	Populated with "ProMaster Master-Keying 8"
__LblProductNameShort	Label	Populated with "PM8"
__MemoFooterMessage	Memo	Populated with the footer message defined in the application parameters.
__ImageLogo	Image	Populated with the small company logo. See Company logo for reports ⁵⁴

Shipping labels

Field name	Field type	Description
__MemoLabelAddress	DBMemo	The field's font will be adjusted when printing to accommodate the address data without wrapping.

10.3.10 Silca machine search

The search for Silca UnoCode-F machines displays networks available on your computer.

Select the correct network and click **Search**.

Each machine found that is the correct type is displayed.

Select the machine you want (probably only one will be listed!) and click **OK**.

10.3.11 Keyline machine search

The search for Keyline machines displays networks available on your computer.

Select the correct network and click **Search**.

Each machine found that is the correct type is displayed.

Select the machine you want (probably only one will be listed!) and click **OK**.

10.3.12 Keyline machine diagnostics

These tests communicate with your Keyline machine to check that things are working.

Getting started

From the machine configuration window for any Keyline machine, click **Test**.

At the top your machine details are shown, so the first thing you should determine is if this information is correct.

Running a test

To perform a test, first highlight the test that you want, then click the **Test** button. The results of the test are displayed at the bottom of the window.

The tests

Resolve host

This test takes the host name and resolves it to an IP Address. If the host name is already an IP Address (e.g. 127.0.0.1) then the Resolve host test will indicate that the host name does not need to be resolved. In all other cases, the test should resolve the host name to the IP Address of the machine that is hosting the database. If the name cannot be resolved, first check that the host name is correct, then address the name resolution issue with your computer network support person.

Ping host

This test attempts to ping the host. While a successful outcome for this test is useful in knowing that communication is possible.

Open TCP/IP port

This test attempts to open the a socket on the host machine on the communication port.

Read machine status

This test communicate with the machine and asks its status.

Read machine information

This test communicate with the machine and returns information about its configuration.

10.3.13 Cylinder core types

The "Core type" value for cylinders has various values that are used for particular design modules and functions. This table shows what each core type is used for.

Core type	Design module / lock system	
Standard or none	All	Most cylinders
Schlage long key Yale long key	Interchangeable core Medeco Original 10 Medeco Biaxial 10	Used to determine the core removal mechanism
Bilock CQCC	ALC Bilock	Used to determine the core removal mechanism (i.e. CQCC or "Exclusive")
Kwikset retool	Interchangeable core	Used to determine the core removal mechanism
Kaba Expert	Kaba Expert Kaba Expert Plus	Used to determine the core removal mechanism
Kaba Peaks SFIC	Interchangeable core * Kaba Peaks 140 A2 * Kaba Peaks 140 A4 * Kaba Peaks 150 A2 * Kaba Peaks 150 A4	Used to determine cylinder specific rules and calculations
Kaba Peaks LFIC	Interchangeable core * Kaba Peaks 140 A2 * Kaba Peaks 140 A4	Used to determine cylinder specific rules and calculations
Kaba Peaks Mortice/Rim	Interchangeable core * Kaba Peaks 140 A2 * Kaba Peaks 140 A4	Used to determine cylinder specific rules and calculations
Kaba Peaks Key-In-Knob	Interchangeable core * Kaba Peaks 140 A2 * Kaba Peaks 140 A4	Used to determine cylinder specific rules and calculations
Assa Assa/Yale/CorbinRusswin LFIC Assa Sargent LFIC Assa Schlage LFIC Assa CAM Assa SFIC Assa Standard CLIQ Assa Assa/Yale/CorbinRusswin LFIC CLIQ Assa Sargent LFIC CLIQ Assa Schlage LFIC CLIQ Assa CAM CLIQ Assa directional CW Assa directional CC Assa directional WL (Limited rotation) Assa directional CL (Limited rotation)	ASSA USA	Used to determine cylinder specific rules and calculations
Medeco KeyMark X4 12-Stack Medeco KeyMark X4 19-Stack Medeco KeyMark X4 17-Stack	Interchangeable core * Best A2 * Best A4	Used to calculate the correct driver pin

Core type	Design module / lock system	
Lockwood MT5/MT5+ top pin 22 Lockwood MT5/MT5+ top pin 29	Lockwood MT5/MT5+	Used to calculate the correct driver pin
Prison 8C6T Palindromic	Willoughby Paracentric	Used to check that the key code is palindromic and to trigger the phantom checking of keys in both sides.

Version numbers

Part

11

11 Version numbers

The following table shows the various file format versions used in each product release version.

Product	Database	System Export/Import
8.22102.0.0	8086	8000
8.22101.0.0	8086	8000
8.21902.0.0	8086	8000
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8.14803.0.0	8001	8000
8.14802.1.0	8001	8000
8.14801.0.0	8001	8000

Summary of changes in updates

Part

12

12 Summary of changes in updates

Version 8.22102.0.0

Resolved an issue sending several cards to UnoCode-F series machines.

Version 8.22101.0.0

Added support for Tokoz Pro in Dezmo/Ninja machines.

Resolved an issue sending card 673 (pExtra) to UnoCode-F series machines.

Version 8.21902.0.0

Rotor selection for all Kaba systems has UI changes to allow for longer door numbers.

Added Sales Order Number to the data exported in the analysis extract.

Updated cards 562, 753, 754, 821, 931, 1546 for UnoCode-F machines.

Version 8.21901.0.0

Fixed an issue with changing the client on a system when client signatories are used.

Fixed an issue exporting to Key Manager 8 when disabled doors exist and also door signatory security.

Fixed an issue upgrading from very old installations of PM8 (or PM7).

Keying matrix - added ability to copy the keying from one key to another. This is the equivalent for the exiting functionality for doors.

Enhanced system search to allow searching by door number or door stamping, and with options "exact match" and "starting" for door number, door stamping and key number.

When opening jobs for manufacturing (i.e. not from an open system) the user that released the job is shown, and there is a search option for the user that released the job.

Version 8.21702.0.0

Added support for cutting Ewa 3KS+ and 4KS on the Silca Futura machine.

Added support for cutting LW MT5, MT5+, MTL800 on the Silca Futura machine.

Added an option in the setup for Silca Protech machines to specify the output file name method.

Updated card 2012 according to manufacturer specification changes.

Version 8.21701.2.0

Internal changes to keep development tools updated.

Added support for MTL800 to the LWMT5 design module.

Added door "Disabled" property and associated changes in various places.

Version 8.21601.1.0

Customer specific changes.

Version 8.21503.0.0

Fixed an error message when sending a job to a key cutting machine and you have no machines defined.

Version 8.21502.0.0

The UnoCode-F incorrectly marks keys if a job contains multiple marking models (on multiple key sections) so now this is detected and you are notified.

Version 8.21501.1.0

Added a field on doors "Info URL" to allow each door to be linked to an external resource with additional information (e.g. Photos). To enable this you must turn on the application parameter "Allow entry of door Info URL".

Various changes to future-proof various areas of the code base - some slight visual changes as a result.

Added Ramp Up and Ramp Down constraints for design module AHRAM ASG Dimpled 1.

Fixed an issue where a cylinder part code with trailing spaces could raise a duplicates error in the "parts required" job report.

Version 8.21401.0.0

Through collaboration with Silca the UnoCode-F machines are updated to add support for us to send direct to the machine instead of via Silca Key Program. To use this you must update your UCF machine (v1.24 or later) and in PM8 you must change the machine setup to be "Direct". In the future the "Via SKP" option will be removed.

Added key section to engraving model mapping for use with the UnoCode-F machines when direct communication is used.

Added design module Kaba Expert K95.

Changes to design module Willoughby Paracentric.

Version 8.21302.0.0

Added card 244 to Interchangeable Core design module.

Version 8.21301.0.0

Adjustments to cards 2079, 2080.

Version 8.21105.0.0

Added card 344.

Version 8.21104.0.0

Customer specific changes.

Version 8.21103.0.0

Added design module Willoughby Paracentric.

Version 8.21102.0.0

Added design module Willoughby Mogul.

Version 8.21101.1.0

Kaba Expert, Kaba Expert Plus output for 'hardened pins' renamed from 1H/2H to 1M/2M to correctly identify the pins as mushroom pins (all pins are hardened).

Kaba Expert Plus better display of rotors in the System Design window to help when designing progressions.

Kaba Expert, Kaba Expert Plus "Rotor Selection" window has been enhanced to (a) Protect manufactured doors from inadvertent change, (b) Show if the door is manufactured, (c) Show the rotor used when last manufactured and (d) Show graphics for each door to warn if the rotor has changed since manufacturing or if the door is not assigned a rotor.

In coding windows there are new menu options from the errors lists (Doors and keys) that print the "door pinning report" and 'Key codes report' with the selection set to all error doors or all error keys respectively.

Mottura Champions improvements to construction key code assignment.

Version 8.21002.0.0

Added card 313 Kwikset.

Version 8.21001.0.0

Fixed an issue where mobile device factory and system type restrictions were not able to be edited when a system was not open.

Added equivalence checking between cards 558 and 673 to make imports of Kaba pExtra systems easier.

Added support for encrypting system exports. The recipient must be running this version of ProMaster Master Keying or later. There is an application parameter to allow the encryption of exports to be required.

Version 8.20905.0.0

Tokoz Pro+ pinning chart changes.

Enhanced "Edit job invoice number" to allow editing of the job notes also.

Version 8.20904.0.0

Fixed an issue when creating a blank database during a new install.

Version 8.20903.0.0

For construction keyed systems in the Inline design module there is now an option to ignore the code check "Clashes with lost ball". Read the help before using this.

For construction keyed systems in the Lockwood Twin module there is now the same checking and override for "Clashes with lost ball" as the Inline design module. Read the help before using this.

Version 8.20902.0.0

Added an option when downloading to the Silca Protech to limit the number of keys per bin.

UnoCode-F improved handling when card number not known by the machine.

Added card 2079, 2080. Yardeni.

Improvements for KD Bilock systems.

Version 8.20901.1.0

Improvements when copying a client signatory from a system to other systems.

Added option to add a client signatory to systems from the client signatories window.

Added 'client documents' which may then be copied to multiple systems. This works much the same way as client signatories. See the corresponding help topic for additional information.

Version 8.20804.0.0

Fixed a problem replacing section families when using the test key module.

Version 8.20803.0.0

Added support for the JMA MultiCode machine. The machine must be running the new MultiCode software (not the original) and minimum version required is 1.0.212.

Added functionality to bulk move systems onto another (compatible) system type.

Version 8.20802.0.0

Fixed an error when creating a new system.

Version 8.20801.1.0

Added system preferences to override several of the key entry and door entry preferences. This allows for systems that need to behave differently for data entry.

System type setup for Inline systems allows the valid colours to be specified. The colours permitted during coding are restricted to the valid colours (if defined for the system type). Existing key colour assignments are not affected, only the colours allowed for future assignments.

Key search change of behaviour. If you search for "Replaced: (All)" then that setting is remembered for next time the key search window is used, otherwise the previous behaviour of selecting "Replaced: Is not replaced" is retained.

Version 8.20701.0.0

Fixed an issue with the display of the change key count when replacing a key.

Added support for new file format for Kaba Expert Plus and Kaba Ace lists.

Added option for the order form report to show key description, key colour, or both.

Version 8.20602.0.0

Fixed an issue with an application parameter not always being read correctly.

Version 8.20601.0.0

Fixed an issue with the "Job key section usage" report and factory selection.

Version 8.20502.0.0

Customer specific changes.

Version 8.20501.0.0

Improvement to the test key calculation for design module AA KeyUltra.

Added an option on the job summary report to not show address information.

Enhanced Test Keys module to add "high/low" key selection as a calculation method on appropriate design modules.

When entering a job, and the Test Keys module is licensed, added an option "Change test key method" to allow the test key method derived from the System Type to be overridden. See the notes in the System Type setup for more information.

Version 8.20401.0.0

When entering a job, the key colour is displayed in the block that has other key details.

Key and door search, 'Exact match' has been added as a search method for the description value.

Keying matrix - added ability to copy the keying from one door to another.

Version 8.20304.0.0

Card 511 alterations.

Improved performance when choosing a system type on the "Open System" window.

Version 8.20303.0.0

Added card 511.

Version 8.20302.0.0

Enhancements to CYA manufacturing output for AHRAM ASG Dimpled 1.

Added cards 513, 516.

Version 8.20301.0.0

Fixed some searches on description fields that were incorrectly not being treated as case-insensitive.
Added card 605.

Version 8.20205.0.0

Enhancements to CYA manufacturing output for card 2047.

Version 8.20204.0.0

AA KeyMaster module, fixed an error in the phantom check.

Version 8.20203.0.0

Interchangeable core module, lock system Sargent DG1, stack height for control pins fixed.

Version 8.20202.0.0

Customer specific changes.

Version 8.20201.2.0

Changes to design module AHRAM ASG Dimpled 1 - custom progressions.

Version 8.20105.0.0

On the manufacturing outputs for pinning chart and on-screen pinning added an option to include the lock description.

Version 8.20104.0.0

Changes to design module AHRAM ASG Dimpled 1.
Changes to design module Mottura Champions KR calculation.

Version 8.20103.0.0

Additional changes to machine "Galaxy export to manufacturer".

Version 8.20102.0.0

Machine "Galaxy export to manufacturer" enhanced so it carries additional information required for printing labels so the factory can manufacture the job and print labels.

Version 8.20101.0.0

Customer specific changes.

Version 8.20005.0.0

Signatories that are expired are now excluded from the main window signatory display.
Added a new ordering method to jobs to order the same quantity of each of a consecutive range of keys (You enter how many keys and how many of each) .
Added a new ordering method to jobs to order the same quantity of each of a consecutive range of doors (You enter how many doors and how many of each).
Add an option on the job "More" menu to see a job summary. This can be used to assist in confirming that the correct number of items have been ordered.
Added functionality to perform all the steps in reverting to a snapshot, including making a new snapshot immediately.

Version 8.20004.0.0

Fixed a problem when printing shipping labels.

Version 8.20003.0.0

Customer specific changes.

Changes to design module AHRAM ASG Dimpled 1.

Version 8.20002.0.0

Added rich text templates to the job client confirmation reports (Keys and doors) and to the job pre-release client reports.

Version 8.20001.0.0

Added some navigation options in the key list in the coding screens (Find first key below, find prior sibling, find next sibling).

Version 8.19903.0.0

Added filtering options when using "Set door quantity issued" to record legacy data.

Added filtering options when using "Set key quantity issued" to record legacy data.

Door labels for jobs added several more field you can place on your labels (Job manufactured date, door stage, door keyway, lock item number, the name of the bottom level key).

Key labels for jobs added several more field you can place on your labels (Job manufactured date, key section, key colour).

Version 8.19902.0.0

Added card 2012.

Customer specific changes.

Version 8.19901.0.0

Added card 1557.

Version 8.19810.0.0

Support for adding email messages in "eml" format (From OWA) as documents.

Version 8.19809.0.0

Changes to design module AHRAM ASG Dimpled 1.

Version 8.19808.0.0

Added Silca Quattrocode Pnuematic machine for desig module AHRAM ASG Dimpled 1.

Generic key marker manufacturing output - added option split the key description as commas and use tokens 1-4.

Changes to design module AHRAM ASG Dimpled 1.

Version 8.19807.0.0

Tokoz TECH manufacturing on Silca Protech machine alterations.

Version 8.19806.0.0

Generic key marker manufacturing output - added an option to output the key stamping (if key stamping is enabled) and to not output the Key Number if the stamping is not entered.

Changes to design module AHRAM ASG Dimpled 1.

Export to and import from Excel now allows the key stamping field, if it has been turned on in the Application Parameters. Excel templates can be downloaded from <https://kb.whsoftware.com>

Version 8.19805.0.0

Added cards 2045, 2046, 2047, 2048.

Changes to design module AHRAM ASG Dimpled 1.

Version 8.19804.0.0

Tokoz PRO+ changes to Silca Protech manufacturing.

Version 8.19803.0.0

Added design module AHRAM ASG Dimpled 1.

Added various AHRAM cards for module AHRAM ASG Dimpled 1.

Updates to cards 624, 745, 967, 968, 986.

Version 8.19802.0.0

If "Key stamping entry" is enabled in the Application Parameters, the key list in a job will now show the key stamping, with search and filtering capabilities as per Key Number, Door Number, Door Stamping.

Manufacturing Lockwood Twin systems with key section T35 on UnoCode F-series machines now uses Silca card 5310.

Version 8.19801.0.0

Tokoz TECH "create system design" now sets "has coloured key heads" according to the system type settings.

Version 8.19702.0.0

Customer specific changes.

Added card 2034 (ERA).

Version 8.19701.0.0

Customer specific changes.

Version 8.19601.0.0

Door sort - added area sorting options.

Added an option in preferences to allow the door number to not be progressed when adding doors with keys.

Customer specific changes.

Version 8.19502.2.0

Added lock system "PRO+" to Tokoz Pro design module.

Card 1804 updated.

Added design module Tokoz TECH.

Version 8.19403.0.0

Keying matrix - filter keys by the currently displayed doors, fixed minor bug.

Version 8.19402.0.0

Keying matrix - added ability to filter doors by area.

Keying matrix - added ability to filter doors by the currently displayed keys.

Keying matrix - added ability to filter keys by the currently displayed doors.

Keying matrix - added keyboard short-cuts for filters.

Keying matrix - added door and key display at the bottom of the keying matrix.

Customer specific changes.

Version 8.19401.0.0

Improvements to Kaba Expert Plus lists.

Various small UI improvements.

Version 8.19301.0.0

Added card 1927 (Medeco).

Various cards minor updates.

Customer specific changes.

Fixed an issue with the 'clear' button on door and key search screens.

Added the 'Original System Number' field to the Systems Analysis Data Export.

Version 8.19103.0.0

Added card 1268 (Kale).

Changed main window leaving the logout button visible when a system is open to reduce button movement and thereby alleviate the problem with some users inadvertently logging out.

Version 8.19102.0.0

Changed download updates, registration, publishing and associated calls to use TLS 1.2

Version 8.19101.0.0

Design modules AL Galaxy and Medeco Biaxial 10 - parts required report now separates ordered keys from test keys.

Version 8.19004.0.0

Added CSV exports for Signatories and Signatory Key authorities.

AA KeyMaster disallowed #1 master pin in position 3.

Fixed an issue with calculation of minimum different cuts.

Version 8.19003.1.0

Activation service is now more tolerant of network problems.

Version 8.19002.0.0

Improved the code calculation speed (coding tree and coding matrix) on most design modules. Noticeable when calculating huge numbers of codes on the tree or matrix.

Version 8.19001.0.0

Fixed an issue reading the keying type settings.

Version 8.18902.0.0

Improved responsiveness when attempting to cancel the coding calculation on large systems.

Interchangeable core design module - big speed improvement on huge systems.

Version 8.18901.0.0

Added an annotation for inactive signatories in the "Authorised Signatories For Key" window. Same for doors.
Added information for cutting Abloy Sentry keys on the Silca Protech machine.
Customer specific changes.

Version 8.18801.0.0

Fixed an error message when doing a diagnostic on Keyline machines.
Customer specific changes.

Version 8.18703.0.0

Customer specific changes.
Added machine for "Galaxy export to manufacturer" so a job may be sent for manufacturing without the whole system being sent.

Version 8.18702.0.0

Product activation improvement on older Windows versions.
Updated system requirements, Windows 7 and 8 dropped, Windows 11 and 2022 added.

Version 8.18701.1.0

Improved pinning calculation speed when there is a huge number of phantoms.
Fixed a display issue when maximising the security group properties window.
On systems with door hardware recorded, the door search window now includes a graphic to indicate which doors have hardware recorded.
Searching for keys includes an option to search for the key coded or not coded.
Door sorter - added options to sort by the stamping.
Activation improvements to always use https.
Updated database engine to version 3.0.10.

Version 8.18503.0.0

Silca UnoCode F-Series for "Peaks" keys, use new Silca card numbers.

Version 8.18502.0.0

Job editing window - added options to show the key description, door description and door area.
Copy signatories to other systems - enhanced to also copy client signatories to other systems.
Added an option to the "Client key order confirmation" report to not show the key description.
Silca UnoCode F-Series for "A2" keys, use Silca card 4638 instead of Silca card 563.

Version 8.18501.0.0

Fixed a display issue in the key bulk change window when changing "Number of signatories required".
Fixed a display issue in the door bulk change window when changing "Number of signatories required".
Fixed a display issue in Keys and Doors search windows for signatories.

Version 8.18405.0.0

Fixed an issue when in the coding windows then turning on or turning off "Has coloured key heads".

Version 8.18404.0.0

Improved coding tree icons for bad codes.

Signature registration report - added ability so select signatories to be shown.

Added a Client signatory registration report so that signatures for client signatories can be gathered without the signatories needing to be added to a system.

Added the ability for Inline, Evva DPE and AL Bilock to split colours like "Red/Yellow/Red" into separate colours on the key. This is intended for fixing horrid legacy data imported from other applications. Use with caution.

Version 8.18403.0.0

Fixed an issue cutting 4KS keys on Silca Protech machine.

Set quantity issued (keys/doors), which should be used only for correcting legacy systems, the job quantity was not always shown correctly.

Version 8.18402.0.0

Mottura Champions progression for math pins - changed to not mandate progression for E and F pins.

Version 8.18401.2.0

Internal changes to keep development tools updated.

Fixed a button display issue in the image editor.

Fixed a rare problem where adding special pinning could raise an error.

Version 8.18305.1.0

Updated database engine to version 3.0.8. Older than in last release but newer than previously. 3.0.9 was much slower.

Version 8.18304.0.0

Altered some card descriptions.

Updated database engine to version 3.0.9.

Added cards 1995 (Iseo), 1996 & 1997 (TSS).

Version 8.18303.0.0

Fixed an issue where documents would be incorrectly displayed on a new job.

Added support for cutting Abloy Protec, Disklock and Novel on Silca F-series machines.

Version 8.18302.0.0

Added cards 623 (Titan T70), 1541 (DOM Sigma).

Version 8.18301.0.0

Medeco Biaxial (10 and 60 series) - fixed a problem where some angle progressions were not detecting MACS violations.

Version 8.18201.0.0

Card 1823 (Sargent DG1) added depth "0" according to Sargent's product modifications.

Version 8.18101.0.0

Fixed a problem adding doors where the "progress stamping" preference was not being used correctly.

Version 8.18001.0.0

Fixed a problem manufacturing Kaba Expert and Kaba ExpertPlus control keys.

Version 8.17902.0.0

Fixed a rare error causing an error when previewing reports.

Job parts required report and parts required xml export - for 'core' items, the corresponding "ItemNumber" is output for the cylinder part code just as it is on "Cylinder" part codes.

Version 8.17901.0.0

Fixed an issue searching for systems by job number.

Fixed generation of unnecessary codes in Mottura Champions C17, C27.

Version 8.17803.1.0

Added support for Kaba Expert and Kaba Expert Plus key cutting on the Silca Futura machine.

Assa Abloy KeyMaster design module - allowed side cuts '00000000'.

Version 8.17802.0.0

Improvements to allow dealer cuts "44" on ALC Bilock. Previously this was always treated as a weak key.

Version 8.17801.0.0

Added support for laser-cutting keys on the UnoCode F-series machines. You must update your SKPPRO software and UnoCode software to use this feature.

Version 8.17701.1.0

Added better handling for manufacturing jobs for ALC Galaxy when ordered product does not exist.

Customer specific changes.

Door and key editing windows - added hotkey F2 for the Edit door number and Edit key number buttons.

Added the ability to open a system read-only if it is already open by another user. This must be enabled in the application parameters.

Version 8.17603.0.0

Fixed a problem cutting Kaba Ace keys on the Silca Protech.

Version 8.17602.1.0

Added support for the Silca UnoCode F-series machines. Read the help topic about machine setup for requirements and information about performance.

Version 8.17601.0.0

Fixed a problem where the door hardware report was not available.

Fixed the on-screen pinning for the AA Perk module to show side and top profile pins.

Added functionality in coding screens to copy special pinning from a door and paste it onto other doors.

Signature registration form - added options to show/hide 'mandatory' and 'expires'.

Fixed a problem where key cutting download of test keys was not always correct.

Added design module Assa Abloy KeyMaster.

Version 8.17408.0.0

Added card 1954.

Version 8.17407.0.0

Export to Key Manager 8 was not possible with doors that had external and internal keying. Fixed.

Version 8.17406.0.0

Mottura Champions improvements to design assistant for construction keyed systems.

Version 8.17405.0.0

Mottura Champions improvements to construction key code checking.

Version 8.17404.0.0

Fixed a problem removing a job in the AA Perk design module when the test keys feature is used.

Version 8.17403.0.0

Added lock and cylinder Item Number to parts required report and XML export.

Mottura Champions improvements to construction key code checking.

Customer specific changes.

Version 8.17402.0.0

Mottura Champions improvements to TMK calculation for construction keyed systems.

Mottura Champions improvements to construction key code checking.

Version 8.17401.0.0

Mottura Champions changes to system type params and magnet positions.

Duplicated doors wizard - increased capacity.

Mottura Champions changes regarding construction keying.

Coding screens - in some design modules it is possible to have a key assigned to a door, but for the door coding to not be calculated. Menu options **Find prior door without pinning** and **Find next door without pinning** have been added to the popup menu from the doors list to locate doors that have no pinning solution. An example of this is in the interchangeable code module, having a door with a control key assigned but no operating keys.

Version 8.17303.0.0

Customer specific changes.

Version 8.17302.1.0

Fixed a minor problem when entering code manually for Kaba Quattro.

Customer specific changes.

Added driver pins for Lockwood MT5/MT5+. S1/S2 driver pins are used in place of 1+ master pins. New core types are added for cylinders which must be set correctly to get the correct driver pin.

Examples for 29 size cylinder: (a) Z+,1+ => Z+,S19 (b) Z+,1+,1+ => Z+,S29 (c) Z+,1+,1+,1+ => Z+,1+,S29

Added ABP/ATP for Lockwood MT5/MT5+

Version 8.17301.0.0

Customer specific changes.

If the job notes on a system are added or altered and there are job(s) in the Entering status, and the job(s) do not have notes, you will be asked if the notes should be copied to the job(s).

Version 8.17205.0.0

Fixed an error message when adding signatories.

Version 8.17204.0.0

Add "Find in results" for searching for a key or door in the key and door search windows.

Improved the performance of adding a system type which was sluggish when networks performance was poor.

Version 8.17203.0.0

Added "Remove description" as an option when bulk-changing keys.

When opening a system by searching for a signatory name, there is now an option for signatory active (All/Yes/No) and it defaults to "Yes".

When door signatories is set to "All doors require the system specified number of signatories" and "Number of signatories required to order doors" is 0 then the check for all mandatory signatories being on the job is now ignored.

Added an option to the keys report to not show the key category.

Version 8.17202.0.0

Fixed an error message when replacing a key section family and selecting the replacement key section.

Version 8.17201.0.0

Fixed a problem stopping manufacturing XML being written in legacy format.

Version 8.17111.0.0

Faster opening key and door search windows, particularly on systems with a huge number of jobs.

Version 8.17110.0.0

Customer specific changes.

Version 8.17109.0.0

Mottura Champions improvements.

Version 8.17108.0.0

Customer specific changes.

Version 8.17107.0.0

Changed the output when manufacturing EVVA 3KS/4KS keys on the Silca Protech machine because the Protech interpretation of the data is not the same as the Protech documentation and the machine was reversing the depths.

Version 8.17106.2.0

Improvements to design assistant algorithm for selecting rotated constants.

Version 8.17105.2.0

Improvements to colour assignment in Medeco modules.

Version 8.17104.0.0

Medeco Biaxial 10 and 60 - fixed progression editor for coding matrix to not add a designation value.

Mottura Champions - added lock systems C17, C27, C55, CP6.

Fixed Kaba Quattro key cutting on Ninja Total machines.

Improved the layout of the code progression editor for Kaba systems.

Version 8.17103.0.0

Added card 1945.

Version 8.17102.0.0

Medeco Biaxial 10 series M4 support added.

Version 8.17101.0.0

Improvements to the database upgrade process from PM7.

Added design module Mottura Champions.

Version 8.17006.0.0

Improvements to the database upgrade process from PM7.

Version 8.17005.0.0

Fixed an issue searching for key sections when there are hundreds of sub sections.

Improvements in the performance of releasing a job to manufacturing when the test keys feature is licensed and the system has thousands of keys on each door.

Version 8.17004.0.0

Customer specific changes.

Ewa DPE module - changes to allow no colour assignment to keys.

Version 8.17003.1.0

Early work for Mottura Champions.

All Kaba design modules - better handling of reports and on-screen pinning when doors have no pinning information.

Doors report - fixed handling when layout is "non keyed doors" and criteria included keys.

Customer specific changes.

Anti-pick pin calculation for AA KeyUltra design module improved.

Added an XML output from job manufacturing for parts required. Premium and Manufacturer edition only.

Allowed manual entry of bad codes from the coding tree or coding matrix when the "Allow bad codes" option is checked. Previously bad codes had to be selected from the tree or matrix to respect that option. The purpose of this change is not to encourage bad code use but to make the manual entry of legacy systems with bad codes somewhat easier.

Fixed a problem where the TMK generation on the AU Assa design module could get stuck without producing a solution.

Version 8.17002.0.0

Fixed an issue upgrading 5 pin system types in the Assa Abloy Union design module.

Version 8.17001.0.0

Improvements to download program updates.

Fixed an error message exporting all systems to a client when publishing is not configured.

Added card 1943 (CorbinRusswin).

Version 8.16903.0.0

Key Manager 8 related changes.

Altered card 453 (Yale).

Improved saving of jobs.

Version 8.16902.0.0

Fixed an issue displaying key sections as a tree (e.g. when opening a system) when the key section families contained invalid data.

Improved the speed saving the keying matrix when there are many thousand changes.

Customer specific changes.

Card 491 (Corbin) changes for assistant.

Version 8.16901.0.0

Customer specific changes.

A new Application parameter under **Report \ Manufacturing \ ALC Bilock** allows the Bilock key code to be split onto 2 lines on the key cutting chart.

Version 8.16806.0.0

On-screen pinning - added ability to print door label.

Version 8.16805.0.0

Released support Key Manager 8.

Version 8.16804.0.0

Fixed an error message when importing Kaba Expert Plus lists.

Altered card 1941 (dormakaba).

Version 8.16803.1.0

Work to support Key Manager 8.

Version 8.16802.0.0

Fixed an incorrect heading on the doors report.

Fixed a rare problem when checking for program updates.

Version 8.16801.0.0

Fixed some publishing error handling messages.

Preliminary work to support Key Manager 8.

Excel import - fixed an error when the client name was too long.

Altered card 1941 (dormakaba) with corrected information from manufacturer.

Version 8.16705.0.0

Alerts are shown more prominent.

Added card 1941 (dormakaba).

Version 8.16704.1.0

New "Stamping only" option for Gravograph cylinder marking output.

Updated database engine to version 3.0.7

Version 8.16703.0.0

Signatory and client signatory screen layout changes.

Keying matrix rewording and clarification on propagation settings.

Edit client - information about changing client added when client signatories are in use.

Show client signatories in "Copy signatories to this system from another system".

Added ability to fetch the latest registration in the Change Registration window.

Version 8.16702.0.0

XML manufacturing outputs - added key and door GUIDs to assist in integration applications.

Version 8.16701.0.0

Customer specific changes.

Version 8.16603.0.0

"Change constant" for Inline and EVVA DPE would not always be available when it should. Fixed.

Export systems analysis data - added "High Security" column to the exports.

Customer specific changes.

Version 8.16602.0.0

Installer improvements for updates.

Improved system type setup display for inline system types.

System document search shows the size of each document.

Card 315 (Weiser) changes for assistant.

Version 8.16601.0.0

Pinning calculation improvements for new KeyMark X4 cylinder types.

Version 8.16507.0.0

More new cylinder core types for KeyMark X4.

Fixed a problem importing from ProMaster Hardware when also importing keys.

Version 8.16506.0.0

Fixed a problem printing the order form report.

Fixed a problem in jobs when filtering keys by key group.

Version 8.16505.0.0

New cylinder core types for KeyMark X4.

Version 8.16504.0.0

Added automatic checking for updates. Additionally, download of updates is available on the server.

Fixed an issue importing Key Manager jobs when a snapshot of the system exists.

Version 8.16503.0.0

Improves speed of list selection and management for Abloy Protec, Abloy Novel and Lockwood MT5.

Version 8.16502.0.0

Installer improvements.

Customer specific changes.

Generic key marker, Generic door marker - file name was not always correct when using sales order number.

Version 8.16501.0.0

Resolved an issue importing locks from a CSV file.

Allowed key designation "Control" for Kaba Expert and Kaba Expert Plus. Control key may not be ordered on the same job as other keys.

Improved job entry to disallow ordering a cylinder re-key quantity greater than previously manufactured. An exception is made for doors that were never ordered to allow a re-key quantity of 1 so that legacy systems without door orders can be re-keyed.

Fixed an error when searching for door hardware by description.

Version 8.16402.0.0

Further to the enhancement in version 8.16103.0.0 regarding Abloy Protec pre-cuts, when the key cutting is sent to the Abloy LT-120, the pre-cut positions are changed to a "0" cut so they are not re-cut.

Door CSV import would not always sort new doors after existing doors. Fixed.

Version 8.16401.0.0

Fixed job display after editing customer order number on released job.

Fixed a rare problem in "Door access for key" where sometimes a door could not be added.

Added some handling for key section family errors when opening the coding screens. This is a rare scenario from old data imported from other software products that affects very few users. Now the key section indicates an error rather than generating an repeated error message.

Version 8.16306.0.0

Resolve an issue cutting Kaba Ace keys on the Silca Protech for serial perms.

Version 8.16305.0.0

Resolve an issue cutting Kaba Ace keys on the Silca Protech for serial perms.

Version 8.16304.0.0

Marking output for the gravograph machine - added an option for "Items per line" to support the Gravotrace software.

Version 8.16303.0.0

Customer specific changes.

Backup email settings storage issue fixed. If you have the ProMaster Master Keying backup program configured to send email, check the settings for the encryption after installing this update and correct the encryption method if necessary.

Fixed a missing shortcut key press when searching for jobs.

Version 8.16302.0.0

Fixed Kaba ACE list selection - fixed the capacity display for right lists.

Version 8.16301.0.0

Fixed Kaba Gemini cutting on Triax machines.

Version 8.16205.0.0

Publishing - improvements on setting device availability.

A new [Application parameter](#)^{□53} under **Coding** called **Allow coding reports (Key codes, door pinnings) to be printed**. This parameter stops the Key codes report and Door pinnings report from being printed or saved as a PDF. This parameter has been added to decrease the chance of these reports being printed in error and entering the production rather than using a job. These two reports are for checking coding ONLY and must never be used for manufacturing. See the warnings in [Report: Key codes](#)^{□207} and [Report: Door pinnings](#)^{□208}. *The default behaviour for this setting is to not allow the two coding reports to be printed, and this will be the correct setting for most users. If you want to print these reports (i.e. Like the previous behaviour) then change the value of the application parameter mentioned above.*

Fixed the status bar link for renewing support and maintenance.

Improvements in list selection for Kaba Expert Plus to separate master-key perms and serial perms and improved sorting.

Version 8.16204.0.0

Improvements to Kaba ACE serial permutation management.

Fixed an issue that stopped a key being removed when not ordered but referenced by a job on a door that had been ordered.

Version 8.16203.0.0

Improvements to Kaba ACE serial permutation management.

Version 8.16202.0.0

Changes to the Kaba ACE design module to support systems that are KD and use multiple serial permutation in the same system.

Version 8.16201.1.0

Duplicate system - fixed a minor error when incompatible choices were selected.

Database upgrade from PM7 for ABUS XY14 improved for pre-cut values.

On 2-level DHI systems with the TMK other than "AA", improved the generation of key numbers when adding keys.

Improvements self-heal connection loss to make it more robust for consecutive multiple failures.

Fixed an issue where replacing a key did not move the signatory authorities onto the new key.

Fixed an issue printing door labels for re-keyed cylinders.

Fixed the factory list in the preferences to exclude inactive factories.

Resolved an issue manufacturing doors that have 29 or more construction keys operating the door (Inline, LWTwin, AAKeyUltra, AAPerk, AAUnion).

Version 8.16103.0.0

Kaba ACE - when cutting on the Silca Protech added dummy perm where necessary to make smoother key operation.

Abloy Protec system types now have the ability for each key section to define which positions are pre-cut on the blanks. When the key cutting is sent to the Silca Protech, Keyline SigmaPro or Silca UnoCode 399, the pre-cut positions are changed to a "0" cut so they are not re-cut.

Version 8.16102.0.0

The list of devices when publishing a job was not sorted according to the sort order set when configuring the devices. Fixed.

Bilock systems - allowed "weak" positions to be up to 6, not limited to the first 4 positions.

Several typo errors corrected.

Added cards 1534, 1066 (Wilka)

Version 8.16101.0.0

Improved "Create a system from Excel" to allow retrying when Excel file has errors (i.e. after you fix the errors).

Version 8.16003.0.0

Adjustments to cutting Kaba Ace keys on the Silca Protech machine.

Version 8.16002.0.0

Database upgrade from PM7 - fixed a problem that would stop some databases from upgrading.

Added ability to cut Kaba Ace keys on the Silca Protech machine.

Version 8.16001.0.0

ProMaster Mobile publishing service is now available for sending jobs (particularly re-key jobs) to a mobile phone. See [Mobile services](#)⁸³ and [Manufacture: Publish to device](#)²³⁷.

Version 8.15906.0.0

Improved selection of text when editing doors and keys.

Improvements to self-heal when disconnected from database and systems remain locked.

Version 8.15905.0.0

Job key labels fixed partcode field.

Job XML outputs now include key part codes (if turned on in the application parameters).

Added the job sales order number to the display of the door history and key history windows.

Added the ability to order a "core" for ALC Galaxy jobs.

Version 8.15904.0.0

Customer specific changes.

Key history and door history reports - added sales order field to the reports.

Version 8.15903.0.0

Customer specific changes.

When editing invoice number on completed job, allowed other related fields to be edited.

Changed the default value from "No" to "Yes" for the application parameter "In keying matrix, make manufactured doors read-only by default". This is the safer setting. If you want the original behaviour, change the value of this parameter to "No".

Added an application parameter to permit saving documents without a description.

Version 8.15902.0.0

Fixed a problem generating test keys on Medeco Biaxial 10 if the test keys feature was licensed.

Version 8.15901.0.0

Enhanced import from ProMaster Hardware (For use with ProMaster Hardware 7.15901 or later).

Version 8.15807.0.0

Improved Silca Protech marking token output.

Version 8.15806.0.0

Added a search for stamping when editing doors on a job.

Added options to the keying matrix to determine how propagation to doors with the same stamping operates.

Added "Customer code" as a search parameter for jobs.

Various search windows - improved the tab order for moving from the result to the bottom buttons.

Version 8.15805.0.0

Customer specific changes.

Version 8.15804.0.0

Job list report was not showing the customer order number. Fixed.

Windows 2008/2008 R2 dropped from supported platforms.

Added a variant of the Key History report based on a range of job dates. Check the report documentation before using because it works a bit different to other key history reports.

Version 8.15803.0.0

Systems with multiple replaced keys could not always be deleted. Fixed.

Ewa 4KS system code generation for standard progressions has been enhanced.

Version 8.15802.3.0

Signatory search was not respecting the value for "Active". Fixed.

Email body not always correct when using Windows 7. Fixed.

Cutting Best A2/A4 (Cards 752/754) on Silca UnoCode/UltraCode machines - added option to use tip stop 4.

Silca UnoCode/UltraCode machines - fixed cutting problems on some tip aligned keys.

Adjusted card 1932 for cutting on UnoCode machines.

Fixed a problem downloading keys to the ITL machine.

Version 8.15801.0.0

Improved backwards compatibility of manufacturing XML output of test keys when using legacy output file format.

Version 8.15708.0.0

Fixed an error message when adding doors/keys with very long numeric key number or door number.

Version 8.15707.0.0

Fixed an issue on some systems with manual code entry on Medeco Biaxial 10 series systems.

Version 8.15706.0.0

On interchangeable core systems when displayed tip to head, and entering a progression by using the mouse (popup menus) instead of the keyboard then values appeared in the incorrect columns. Fixed.

Version 8.15705.1.0

Improved colour setting during coding on systems that permit two colours and a single colour is being used.

When adding a door and selecting a lock or cylinder, if the user has permissions to alter locks and cylinders then add/edit/remove are now available.

When coding on Interchangeable Core systems and doors not having a lock/cylinder (not good anyway!), auto coding was slow. Fixed.

Report subtitle font size adjusted.

Manual code entry on Medeco Biaxial 10 series systems improved to allow easier angle selection.

Version 8.15704.0.0

Fixed an error when importing a Medeco Biaxial 60 system from PM7.

Fixed an error releasing a job on the MT5 design module when the "Test keys" feature is licensed.

Version 8.15703.0.0

Added card 1933.

Version 8.15702.0.0

Added card 1932.

Version 8.15701.0.0

Fixed an error message when copying signatories to other systems if the user had never opened those other systems.

When acquiring a document from a scanner, then editor maximum size was incorrect.

Added an option to the system signature registration report to not show the system description.

On the order for keys and doors, added a template that may be user defined.

Improved the speed of saving a job on large systems when the "test keys" feature is licensed.

Several job door outputs (Pinning chart, On-screen pinning, XML) showed keys multiple times when key re-issues were ordered on the job. Fixed.

Version 8.15605.0.0

Backups. When compression a backup (zip), some third party programs (e.g. Carbon Black) can interfere with the ability to completely read the backup and the zip is incomplete. This version adds checking for anything keeping hold of the backup file and if the ProMaster Master Keying backup program cannot acquire exclusive access to the backup for zipping then it reverts to a non zipped backup.

Version 8.15604.0.0

Fixed an error message when creating a job and the client name was more than 50 characters.

Fixed a problem with construction keying being removed prematurely.

Version 8.15603.0.0

XML export from manufacturing for Medeco Original 60 series product and sorting by key symbol produced an error. Fixed.

Customer specific changes.

Version 8.15602.0.0

Tokoz Pro - allowed custom progressions to use all positions.

Design assistant - improved decision making on when to use rotated constants.

Version 8.15601.0.0

XML job manufacturing outputs - various improvements including segment information for Kaba modules.

Version 8.15508.0.0

Door pinning report for the Assa design module - fixed alignment of stamping field.

Key part code - various places fixed to convert the part code to upper case.

Printing door labels sorted by key symbol produced an error message. Fixed.

Importing systems - improved the selection of items to make the process easier.

Version 8.15507.0.0

Improvements in job XML output.

Version 8.15506.0.0

Improvements for downloading Gen6T keys to Keyline machines. December 2019 Keyline update is required to cut these keys.

Jobs - editing notes for keys and doors works a little better now.

When creating a system from hierarchy quantities, the key part code may be entered if you have this functionality enabled in the application parameters.

Job XML exports now include the Customer Code on the job.

Job list when searching for doors or keys is now sorted by the job opened time.

Improved stamping progression when entering doors on DHI systems.

Improved editing existing keys and doors so "coding required" is set only for changes that affect coding (e.g. lock change, keyed internally, non keyed, construction keyed).

Version 8.15505.0.0

Bilock pinning calculation for CQCC cylinders improved to support a lock assigned to a door with only an internal cylinder defined.

Coding matrix setting "Hide incidental masters" was not being saved. Fixed.

Improved duplicating doors with hardware.

Added support for "Special pinning empty positions" for Medeco Biaxial 10.

When adding keys to a door, the prompt for keys above now lists the masters.

Version 8.15504.0.0

Job key labels were not respecting the application parameter "Show system description". Fixed.

Version 8.15503.0.0

Door number auto progression - improved handling of bad data in door numbers. Trailing space.

Improved colour selection for automatic coding on Bilock.

Fixed coding screen key job graphic not showing.

Version 8.15502.0.0

Abloy Novel - fixed problem with list selection.

Version 8.15501.0.0

Gravograph machine - allowed multiple machines to be configured.

Version 8.15410.0.0

Customer specific changes.

Version 8.15409.0.0

Job door labels were not respecting the setting "Show system description". Fixed.

Display of key parts required (L/R/L+R) was incorrect for Kaba Expert. Fixed.

Added card 1842, KeyMark X4.

Version 8.15408.0.0

Database upgrade from Version 7 - improvements to document processing to minimise database size.

Door search - job list was incomplete in the "Manufactured" field. Fixed.

Version 8.15407.0.0

Minor layout changes to landscape reports to fit better on Letter size paper.

Version 8.15406.0.0

Import from Excel. Automatically convert Door number, Stamping, Key number, Key above and Lock part to upper case.

Import system extension from Excel - allow "Back" if errors are detected so you can correct in Excel then try again.

Added a preferences for selecting the key number / door number text when "Save / Add another" is clicked.

Version 8.15405.0.0

Fixed error when double clicking to manufacture a job.

Fixed an anomaly when adding a door from whilst adding a key then adding a second door to the same key. Door number progression was not logical.

Added functionality for converting EVVA DPE/DPS/EPS systems from the Inline module to the EVVA DPE module.

Version 8.15404.0.0

Improved weak key options for Abloy Protec and ALC Bilock.

Version 8.15403.0.0

Medeco Biaxial 10 series - added ability to create a TMK with single cuts only.

Customer specific changes.

Version 8.15402.0.0

Customer specific changes.

Version 8.15401.0.0

ASSA USA module - improvements.

Resolved an issue where a job in "Coding" status could not be returned to data entry status.

Fixed an error when open a system by system description and search option "a + b".

Job test keys feature - fixed an error that could happen on some systems using control keys.

Version 8.15308.1.0

ASSA USA module - improvements.

Version 8.15307.0.0

Added door and key preferences for how the quantity to order is set.

ASSA USA module - added support for directional and limited rotation cylinders.

Version 8.15306.0.0

Fixed an error while exporting Kaba Expert job door assembly to XML.

Improved error checking during coding when a code is assigned to a key that operated no doors.

Preliminary support for ASSA USA locking products.

Jobs, changed maximum number of each key ordered on each job from 999 to 9999. Same change for doors.

Added an Application Parameter turn on the display of the system creator when searching for systems.

New system from hierarchy quantities when using DHI numbering. When making a level 3 system and adding a second master node it was not named correctly.

Fixed an occasional access violation error when releasing a job to manufacturing.

Version 8.15305.0.0

Compatibility improvements for importing older PM7 system files.

Fixed key colour search when setting up key colours was not always working.

Version 8.15304.0.0

Added card 1925.

Improved system number generation when importing systems with the same system number as an existing system.

Version 8.15303.0.0

MT5 pinning output for some solutions was not displaying correctly.

Version 8.15302.0.0

Improved error checking for construction keyed systems with custom progressions and construction position specified in the custom progression.

Added an Application Parameter to control on job pinning reports if the door number is shown "white on black" or if the stamping is shown that way instead.

Keying matrix now has a feature to make manufactured doors read-only. The default value for this is supplied by a new Application Parameter .

Version 8.15301.0.0

Opening system - more options in the "Job number" search.

Added a preference for the check-box sensitivity in the keying matrix.

Customer specific changes.

Version 8.15208.0.0

Improved the logic for printing "(Copy)" on manufacturing reports when reprinted.

Job manufacturing reports - include system stamping in the report title when it has been set.

Key and door history issue numbers were displaying incorrect on some items. Fixed.

Lowered CPU usage during database backup.

Job search - fixed issue with date selection.

Job search for manufacturing - fixed issue with date selection, removed nonsensical options for the "Look in" selection.

Version 8.15207.1.0

Job manufacturing. Fixed an error message closing a job if the PM8 user had never previously opened the system or worked on it in any way.

Emailing system reports. Improved the handling of email addresses when emailing system reports.

Job manufacturing reports - new application parameter to permit large text identifier in the top right corner (e.g. Invoice, Sales Order etc) to assist in collating paperwork in factories.

Adjusted some XML manufacturing outputs to be compatible with PM7 when using the legacy export mode. Affects Union and KeyUltra design modules as well as Inline lock systems B8B10, CLCS, CounterR.

Version 8.15206.0.0

Job signatories - improved logic for checking signatories so that keys and doors work completely independently.

Version 8.15205.0.0

Job administration summary report was not using the selected factory parameter.

Creating a new system from an existing systems - improved key and door sorting.

Interchangeable core (A2, A4 etc) - fixed and error message when control key was the only key assigned a code.

Construction keyed systems (Inline LW Twin, AA Perk, AA Union, AA KeyUltra) did not display construction keying information correctly when manufacturing a job without having the system open.

Version 8.15204.0.0

Minor visual improvements in job window.

Customer specific changes.

Job search screens added Customer Code to the display.

Interchangeable Code - new lock systems for Kaba Peaks.

Version 8.15203.0.0

Fixed an error when cutting Abloy Protec keys on a Silca UnoCode 399.

Version 8.15202.0.0

Interchangeable core module - allowed empty position use in special pinning A2/A3/A4 systems.

Version 8.15201.0.0

Customer specific changes.

Version 8.15103.0.0

Abloy Protec and Abloy Novel, added support for cutting keys on Keyline Sigma Pro machine.

Fixed an error importing systems from older versions of PM7.

Coding tree, when Assign branch is clicked and a choice of key sections is available then you are asked which key section to use for the branch rather than assuming the key section of the currently selected master key.

Job entry, when using "Copy quantity to next" for doors it could produce an incorrect quantity on the parts required report. Fixed.

Version 8.15102.0.0

Fixed an error that could happen when turning on key head colours after creating the design.

Tidied up some warning messages to make them more concise.

Customer specific changes.

Version 8.15101.0.0

Silca Protech output - more options for T02 marking data.

Improved the order that doors and keys are added.

Silca Protech output - added support for Abloy Sentry short keys.

Silca Protech output - added support for EVVA 3KS+ and 4KS.

Resolved a problem cutting Abloy Protec keys on the Silca UnoCode 399.

Performance improvement opening coding matrix on Bilock systems with all positions progressed.

Jobs key cutting report now has font size choice.

Customer specific changes.

Added card 799.

Version 8.15013.0.0

Minor visual adjustments.

Faster opening jobs for a system.

Adjusted several cards (1547, 1548, 1885).

More pinning and error check big performance enhancements on huge systems - Kaba design modules.

Version 8.15012.0.0

Fixed wording error on the system import window.

Pinning and error check big performance enhancements on huge systems - Kaba design modules.

Customer specific changes.

Version 8.15011.0.0

Customer specific changes.

Version 8.15010.0.0

Added parameters to Abloy Protec and Abloy Disklock/Novel system types to allow the suppression of the tip "0" profile cut on printouts. This is suppressed by default.

Door bulk change was not saving changes to notes or pinning notes. Fixed.

Fixed an error message when generating a TMK for Sargent 6300 systems.

Coding now reports an error on Bilock CQCC doors that do not have a control key assigned (I.e. an impossible situation).

Version 8.15009.0.0

Improved speed when creating system from hierarchy quantities.

Improved speed when creating system from Excel.

Version 8.15008.0.0

Main window, refined the signatory names display.

Pinning and error check minor performance enhancements on huge systems - most design modules.

Improved coding window opening time on large systems.

Version 8.15007.0.0

Added a definition for creating a system from the old PM7 excel files. This should be used for transitional purposes only and all new work should be done in the PM8 Excel format. Manufacturer and premium edition.

Added numerous application parameters to allow you to make each of the client fields mandatory when creating a client for a new system.

Pinning and error check big performance enhancements on huge systems - most design modules.

Fixed a problem that could stop end user defined label layouts from being removed.

Version 8.15006.0.0

Improved wording of some items.

Improved handling on some design modules when coloured key heads are turned on or off.

Coding windows - allowed resizing of key section / colour controls.

Version 8.15005.0.0

Customer specific changes.

Version 8.15004.0.0

Customer specific changes.

Version 8.15003.0.0

Improved the way the next system number is generated.

Fixed the default parameters for signatory requirements when creating a new system.

Version 8.15002.0.0

Card 401 parameter improvements.

Version 8.15001.2.0

XML job output - enhanced output for Interchangeable Core module to respect the system type setting for presentation direction and also output a flag indicating the direction.

General speed enhancements.

Added generic key marker to manufacturer and premium edition.

Added generic cylinder marker to manufacturer and premium edition.

Version 8.14912.4.0

Construction keyed systems - fixed a problem when printing pinning reports when the construction ball was specified on a custom progression.

Import system from another PM8 user - improved performance.

Import system from another PM8 user - important fix to importing key above.

Auto assign codes - fixed problem assigning codes to selective keys.

Fixed an error when removing a lock and replacing it with another lock.

Improvements to entering construction ball depths on custom progressions.

Fixed a variety of system import/export issues.

Version 8.14911.1.0

Fixed a problem with deleting the design for Abloy Protec systems.

Fixed an error message when importing lists for Abloy Protec or Lockwood MT5 when the keys section did not exist.

Version 8.14910.0.0

Reduced CPU usage when idle with a system open.

Adding a door when adding a key - improved functionality to make it faster to add keys and doors at the same time.

Version 8.14909.0.0

Fixed PM7 export for key and door groups.

Fixed coding screens where keys appeared to be on a job when even after the job is returned to data entry.

Bulk change (Keys, doors, locks). Various improvements.

Job door pinning report and on-screen pinning - the part type was not showing for "all cylinders" or "re-key".

New system from hierarchy quantities. Many improvements. Simplified windows for DHI systems. For international systems the window has been simplified, rearranged and remembers settings. Drop down list for lock selection. Option to produce a single master with the name specified (i.e. not generated). Overall the changes make it much easier to enter non-symmetrical systems.

Kaba Expert, ExpertPlus, Quattro improved the manual entry of codes.

Auto coding performance improvements - much faster on huge systems.

Version 8.14908.0.0

Fixed 2 door preferences that were not saved.

On the key search window improved information refresh when a master key is removed.

Fixed PM7 export for Abloy Protec.

Version 8.14907.0.0

Job door filter on stamping fixed.

Corrected wording on window for removing a job.

Added support for old CYA format.

Version 8.14906.0.0

Adjustments to card 1919.

Version 8.14905.0.0

Fixed anomalies in key marking output for GravoGraph and EngraveIT Pro machines.

Version 8.14904.0.0

Improved the search for systems by customer order number.

Kaba ACE enhancements.

Version 8.14903.0.0

In the database upgrade from PM7 to PM8, fixed the import of Bilock dealer cut definitions.

Import from version 7 - added support for some earlier import files.

Kaba ACE enhancements.

Version 8.14902.0.0

Fixed an error duplicating door areas.

Increased default text size for rich text fields.

When exporting to ProMaster Key Manager, the email address of the system contact 1 is added to the email recipient list.

Version 8.14901.0.0

Kaba ACE enhancements.

Various small corrections.

Improved speed opening coding tree or coding matrix over slow connection.

Fixed problem deleting a system if the client had client signatories.

In the database upgrade from PM7 to PM8, accommodates some unusual key section data.

Adjustments to cards 38, 1754, 1755, 1756.

Added cards 1920, 1921.

Fixed an error duplicating door areas.

Fixed an error exporting to Key Manager if the client version had not been selected.

Door label printouts for jobs - added "Brand" and "Finish" as fields that can be used for your own label layouts.

Version 8.14813.0.0

Preliminary support for Kaba ACE.

Preliminary support for CYA machine in manufacturer edition.

All Kaba modules, resolved an error when printing pinning charts for un-coded doors.

Doors search - added graphic for keys and jobs.

Added an application parameter that affects pinning reports and keying matrix reports. Normally reports are "2 pass" for a variety of reasons. On these reports, the "2 pass" has only the benefit of showing the page count. You can change this application parameter to make these reports render faster and consequently not show the page count.

Import from version 7 - added support for some earlier import files.

Improved functionality of New system from hierarchy quantities.

Added some inline cards.

Version 8.14812.0.0

Added ability to print door pinning report in coding screens from (a) a door phantom and (b) from the doors list.

Improved handling of special pinning with empty positions.

Version 8.14811.0.0

Improved system import of key section families.

Version 8.14810.0.0

Changed the default value for some application parameters to better fit the requirements of most users.

Fixed a problem importing systems with driver pins specified on the cylinder.

Version 8.14809.0.0

Job On-screen pinning and job XML outputs - added handling when lock data used by job missing from lock database.

Version 8.14808.0.0

When creating users, allowed user to be created using windows domain login rather than creating user first then changing to windows domain login.

Version 8.14807.0.0

Various cosmetic fixes and tidying up of error messages when saving data.

In the database upgrade from PM7 to PM8, speed improvements.

Job door pinning report - added handling for lock data used by job missing from lock database.

Version 8.14806.0.0

Open job for manufacturing - improved performance.

AL Bilock CQCC systems - fixed incorrect phantom report on some keys.

Version 8.14805.0.0

Various cosmetic fixes.

Version 8.14804.0.0

When creating users, disallowed upper case in the login name.

Version 8.14803.0.0

In the database upgrade from PM7 to PM8, made changes to reduce memory consumption during the upgrade.

Version 8.14802.1.0

In the database upgrade from PM7 to PM8, handling has been added for key numbers and door numbers duplicated in a system.

Version 8.14801.0.0

Initial release of ProMaster Master Keying 8.