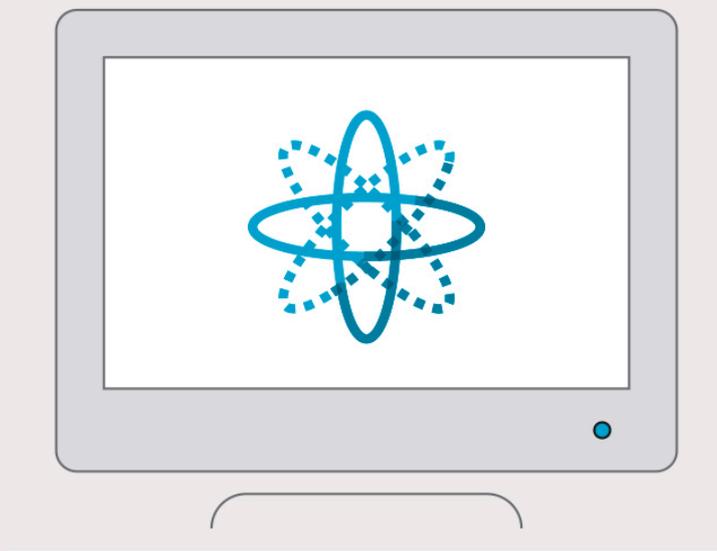


# OCS® DIGITAL LOCK



## OCS® DIGITAL LOCK V5 SYSTEM AND PC SOFTWARE MANUAL

V6.1



**ojmar®**

INTELLIGENT LOCKING SYSTEMS

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# 1. INTRODUCTION

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## 1.1 GENERAL NOTIFICATIONS

To ensure the correct operation of our product in your facilities you must follow the following rules:

**WARNING:** Product installation and use must be carried out in accordance with the technical operating conditions described in the corresponding manual.

**WARNING:** When not specifically indicated the proper installation and use of the application is the responsibility of the customer.

**WARNING:** Inspect the packaging and material for damage immediately after reception of the material. Also check that the delivery is complete (accessories, documentation, etc.).

**WARNING:** If the packaging has been damaged during transport or you suspect that it could have been damaged or may be faulty, the material must not be started up. In this case, please contact us.

**WARNING:** Our products' installation and handling must be carried out by authorised staff. The electrical connections in particular must be carried out only by qualified specialists.

**WARNING:** Any replacement or removal of the protection covers is strictly forbidden.

**WARNING:** Do not attempt to repair materials after a fault or damage and try to operate it again. In such an event, it is essential you contact us.

**WARNING:** We take no responsibility for damage caused as the result of misuse.

**WARNING:** In accordance with Royal Decree 106/2008, dated 1 February 2016, before leaving the devices in their pick-up installations, the batteries must be removed and left separately for the proper management.



## 1.2 TECHNICAL SUPPORT

Should you wish to make any enquiries on our products, please contact the Ojmar technical department:

Telephone: +34 943 748 484

Fax: +34 943 748 490

Website: [www.ojmar.com](http://www.ojmar.com)

## 2. OCS SYSTEM: ELEMENTS

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OCS is an electronic locking system mainly designed for sports and leisure centres. This system is basically made up of OCS keypad locks, a device for its programming and maintenance called programming key and management software.

The OCS lock is an electronic lock that includes a capacitive touch keypad for the user to insert a numeric code.

This locking system replaces the traditional mechanical key lock and even the transponder lock. The lock is a safety device with four, five or six digit configurable numeric codes.

The system is autonomous and 4 non-rechargeable alkaline batteries power the lock.

## 3. OPERATING DESCRIPTION

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### 3.1 OCS

The OCS lock can be configured with five different operating modes: free, free with coin, free with key, fixed with latch and fixed without latch.

The following sections describe the special features of each of these operating modes. Bear in mind that any OCS can be configured in any of the five ways, but that they have physical differences (tabs and mechanical parts), which makes certain operating modes incompatible with the different locks.

#### 3.1.1 OCS free mode

The OCS lock in free mode operates with sequence of any digits entered by the user when occupying the lock.

Free OCS are normally open. The user will enter any code to close them. Once occupied by the user, the OCS will only open if the same code is entered again, and will then open and become free so that another user can occupy it with a code of their choice.

The procedure is the same for closing and opening and consists of the following steps:

1. Press "start" to wake the lock up.
2. If the lock is open → Enter any numeric code (4, 5 or 6 digits, this is defined during the initialisation of the lock).
3. If the lock is closed → Enter the code entered previously in the locking process.
4. Click 
5. The lock closes and if we are in situation 2a and it gets occupied. The lock opens and if we are in situation 2b and is released.

#### 3.1.2. OCS automatic locking fixed mode

The OCS lock operating in fixed mode will open entering a preset numeric code, preset by the facility's staff. This lock only opens with the combination of numbers assigned to each lock.

Fixed with latch OCS are always closed, and the following steps should be used to open them:

1. Press "start" to wake the lock up.
2. Enter the assigned code into the keypad.
3. Press 
4. The lock opens and after a few seconds automatically closes.

### 3.1.3. OCS manual locking fixed mode

The OCS lock operating in manual locking fixed mode will open entering a preset numeric code, preset by the facility's staff. This lock only opens with the combination of numbers assigned to each lock.

Manual locking fixed OCS are normally closed, and the following steps should be used to open them:

1. Press "**start**" to wake the lock up.
2. Enter the assigned code into the keypad.
3. Press 
4. The lock opens. To close follow the same steps as for opening. It can only be locked with the code assigned to the lock.

#### 3.1.3.1 Assignment and/or change of the code in dedicated locks

Tras inicializar una cerradura en modo fijo ésta no se puede accionar ya que no tiene ningún código de apertura almacenado en su memoria. Para grabar por primera vez el código de apertura o para cambiar el existente por uno nuevo se debe introducir por teclado la siguiente combinación numérica.

1. Press "**start**" to wake the lock up.
2. Enter the assigned code into the keypad.
3. New code
4. Press 

Or in other words: the lock must be turned on pressing the "**start**" button. After that, enter the master code programmed on initialising, after it the new code will be 4, 5 or 6 digits depending on the configuration of the lock and to finish the sequence press the padlock key.

After carrying out this sequence the new opening code will be programmed in the lock.

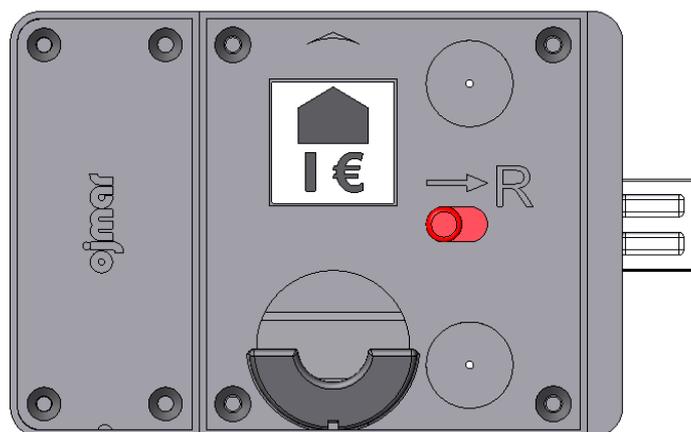
#### 3.1.4. OCS free mode with coin

The OCS lock in free mode with coin operates in the same way as in the free mode, and the only difference is that a coin has to be inserted in the slot designed for this purpose to activate it.

The lock will not close if it is open and no coin has been inserted.

If the lock is closed and the coin is removed, the lock will automatically open when the "**start**" key is pressed.

The procedure is the same as above for the free mode (see *Section 2.1.1*)



### 3.1.5. OCS free mode with card

The OCS lock in free mode with card operates in the same way as in the free mode, and the only difference is that a key has to be inserted in the slot designed for this purpose to activate it.

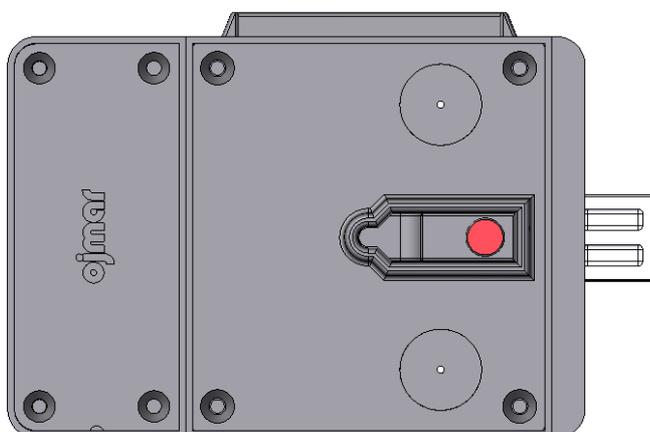
The lock will not close if it is open and no card has been inserted.

If the lock is closed and the card is removed, the lock will automatically open when the “start” key is pressed.

The usage procedure is the same as the one described in *Section 2.1.1)*

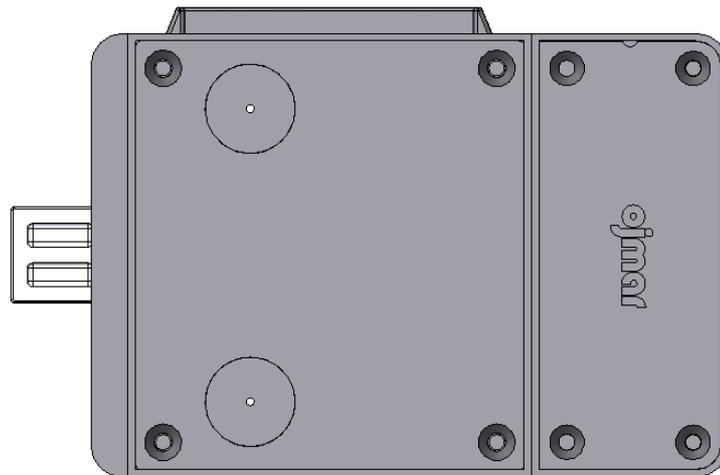
There are two types of operation with card:

#### 1. With perforated card



**(\*) NOTE: The OCS with card is only valid for perforated ISO 7810 cards.**

2° With white smooth card



**(\*) NOTE:** The OCS with card is only valid for white ISO 7810 cards.

### 3.2 Programming key

The programming key is a peripheral device capable of interacting with the OCS locks and management software.

Its main functions are:

- Master and service key
- Initialisation key and start up
- Deletion key
- User key
- Event reading key

A same programming key can carry out all of the functions described above, as it can be configured as many times as you want using the management software.



Figure 2.1.- OCS programming key

## 3.3 Programming key - OCS lock operations

### 3.3.1 Operations with programming key configured as initialisation key

When a programming key is configured as an initialisation key it can perform different operations in the OCS lock.

All these actions start with the "Connection" command, used to establish a link between the two devices. After correctly making the "Connection" the rest of the operations can be performed, distinguishing one from another entering different code sequences on the OCS lock keypad.

#### 3.3.1.1 Connection

Put the programming key, configured as an initialisation key, in front of the OCS lock. Position the key sensor at the same height as the OCS window, as shown in *Figure 2.2*. There should be no more than 30 cm between the two devices.



Figure 2.2

Press the "start" button on the OCS lock. Then press the button on the programming key.

If everything has gone well, the programming key's LED will light up in green (this may take several seconds). The connection has been carried out successfully and the rest of the operations can now be carried out. Never remove the key before the communication ends, in that case the LED of the key will stay green for 20 seconds.

#### 3.3.1.2 Event reading operation

This operation collects the last 50 events stored in the OCS lock's memory and records them on the programming key, so that they can be read in the management software later on.

1. Make the "Connection".
2. If the programming key has a low battery, the LED will light up in amber instead of in green, indicating error code 2 and no actions will be carried out on the lock.
3. Wait for a few seconds.
4. The LED will light up in red, indicating that it is receiving the events from the lock.
5. When it finishes downloading events and if everything has gone well, the LED will flash green indicating that the key can now be removed.

### 3.3.1.3 Lock initialisation operation

This operation configures the lock with the data stored in the key that have previously been downloaded from the PC software (lock number, lock type, alarms, time details...).

Follow the steps indicated below:

1. Make the "Connection".  
If all the foreseen locks have already been programmed, the LED will light up in red instead of in GREEN, indicating error code 4 and no actions will be carried out on this lock.
2. Enter the sequence "**start**" +  + 0 +  to start to programme the lock. This sequence should be entered before starting to download events.
3. If the sequence is not correctly entered or the key is removed too soon, the LED will flash in red indicating error code 3.  
If the programming key has a low battery, the LED will light up in red instead of in green, indicating error code 2 and no actions will be carried out on the lock.
4. If the lock initialisation has gone well, the green LED will flash indicating that the key can now be removed.

### 3.3.1.4 Lock deletion operation

This operation deletes all the data in the OCS lock, leaving it in the same status as when it left the factory.

- a) Make the "Connection"  
If the programming key has a low battery, the LED will light up in amber instead of in green, indicating error code 2 and no actions will be carried out on the lock.
- b) Before starting to download events, enter the sequence "**start**" +  + 1 +  to start to delete the lock.  
Deletion will take a few seconds, and the LED will remain turned on in red while this operation is being carried out.
- c) If the deletion has been carried out correctly, the green LED will flash indicating that the key can now be removed.

### 3.3.2 Operations with programming key configured as master key

A programming key configured as a master key allows activating an OCS lock when it is locked. It therefore allows opening a locker and then closing it again, leaving it in the same condition as it was before.

If the lock is configured as free it will open and close depending on its status (if it is closed or open).

If, on the contrary, the lock is configured as dedicated (normally closed), the master key will open the OCS and a few seconds later, the OCS will automatically close.

The steps to follow to use a master key are the same as those carried out in the "Connection" command:

- a) Turn the lock on pressing "**start**"
- b) Press the button on the programming key.

### 3.3.3 Operations with programming key configured as user key

The programming key can be configured as a user key, replacing having to manually enter the numeric code using the keypad.

The steps to follow to use a user key are the same as those carried out in the "Connection" command:

- a) Turn the lock on pressing "**start**"
- b) Press the button on the programming key.

## 4. OCS MANAGEMENT SOFTWARE

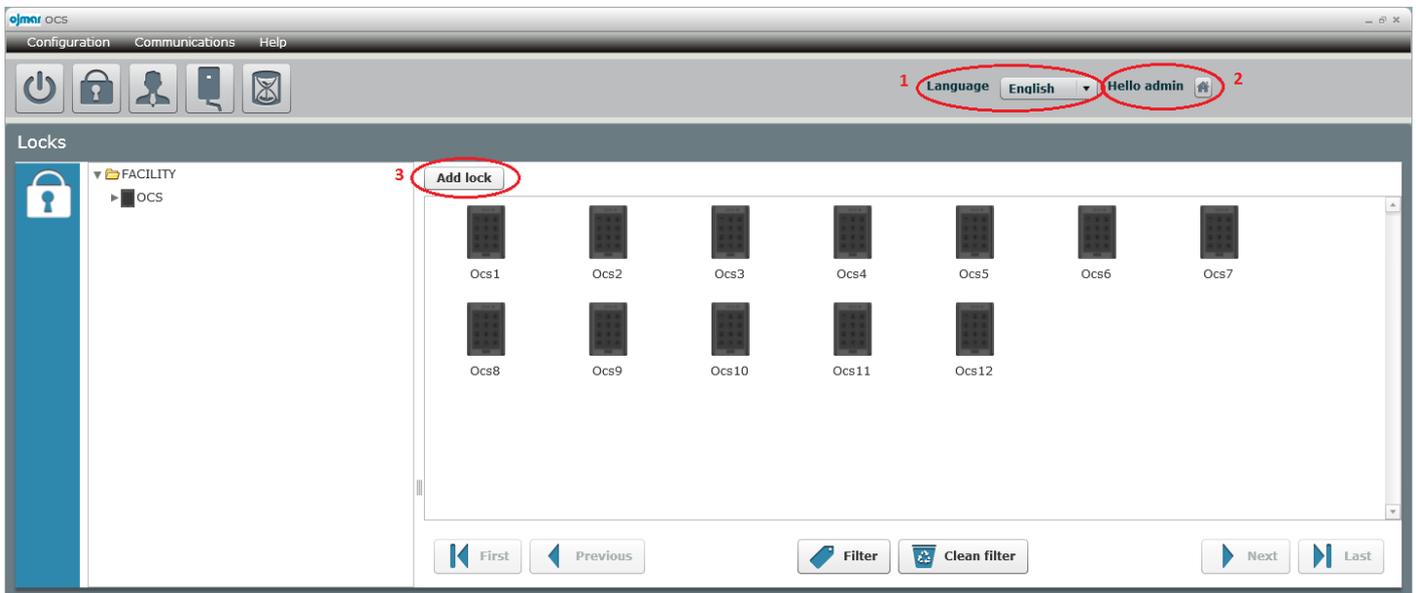


Figure 3.1.- Application home screen

It asks for a user name and a password for accessing the application. This information will be supplied by ojmar. You can find the user and your password in the installation CD, in file "*License*", written in a text document called "*Default User.txt*".

The program will be accessed after entering this information.

**IMPORTANT NOTE:** From software version V4.2.2, graphic interfaces get little changes, due to couple of changes explained below.



Note: Graphic interface from versión 4.2.2

- 1- Language: Possibility of changing language in SW. Following languages can be selected: Spanish, English, French, Deutsch or Portuguese
- 2- Hello "Operator": Identifies which operator has been logged with, and a close session shortcut is created 
- 3- Add lock: Only available in "Lock" screen. By clicking in "Add Lock" button, option to create locks appears.

## 4.1 Configuration and start-up of the locks

To start the locks up, you have to configure a series of data that must be entered for the correct operation of the system.

We find the main screen or "Lock" screen when we open the application this screen can also be reached from "Configuration→Locks" or pressing  the icon .

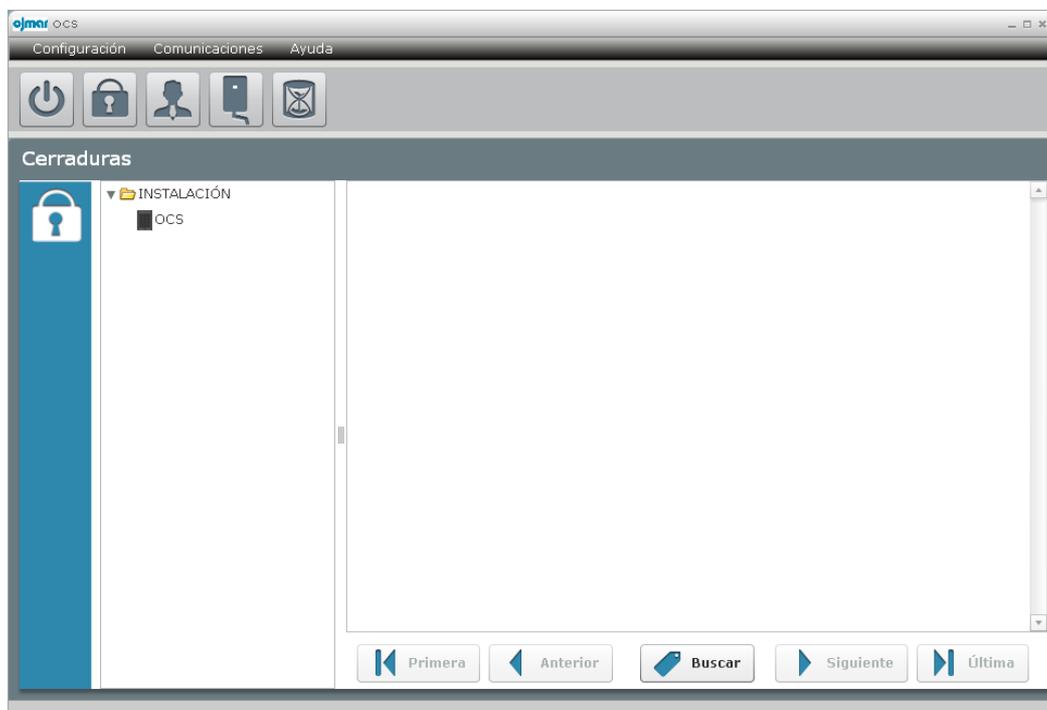


Figure 3.2.- Lock screen

## 4.1.1 Create / Eliminate locks

### 4.1.1.1 Create locks

The next step consists of creating the locks that will make up the installation in the software. To do so we return to the “Locks” screen from “**Configuration → Locks**” or  pressing the icon.

To create locks double left-click the OCS icon. The following window appears:

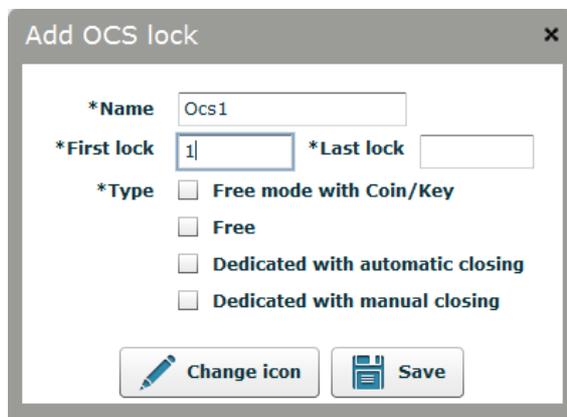


Figure 3.3.- “Add OCS lock” window

The first thing we see is the lock’s name. This field is automatically allocated by the software using consecutive numbers.

The two next fields “**First lock**” and “**Final lock**” are the lock numbers that will be created. In the example in *Figure 3.4* we are going to create locks from number 1 to 10.

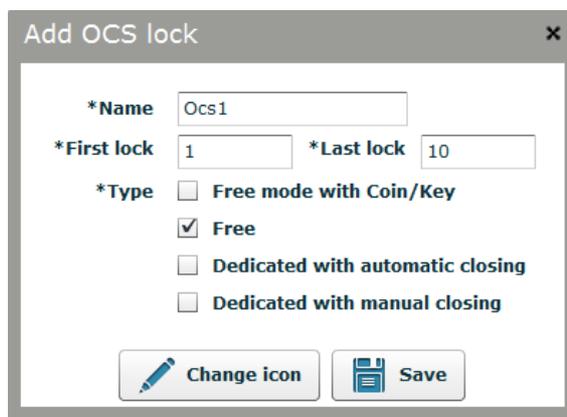


Figure 3.4.- Creating locks in free mode

- Free.** Freely assigned lock, the user can occupy an open lock entering a numeric code.
- Free with coin/key.** Freely assigned lock, the user can occupy an open lock entering a numeric code and a coin or key.
- Fixed automatic locking.** Lock assigned to a member. The lock can only be opened with a previously programmed code. The lock closes automatically.
- Fixed manual locking.** Lock assigned to a member. The lock can only be opened with a previously programmed code. The user code has to be entered to open and close the lock.

### 4.1.1.2 Eliminate locks

To eliminate an already created lock double left-click its icon again and on the window that appears click on the “ Delete” button.

If you want to delete several locks at the same time select them using the “Control” or “Shift” key on the keyboard and keep it pressed and double left-click the mouse on one of the icons. In the window click “ Delete” to delete the selected locks.

### 4.1.2 Programming key

The programming key is a peripheral of the OCS lock which can be used to carry out different functions such as initialising locks, changing their configuration, reading events, operating as a master key.

#### 4.1.2.1 Configurar y conectar la llave programadora

From “**Communications** → **Programming key**” or pressing the  icon accesses the screen from which the programming key and its functions is managed.

Before accessing this screen, make sure that all of the programming key’s controllers are properly installed.

Check that when the key is connected to a USB port the LED turns on in amber. This means that the key is connected to the computer, but that it has not been connected to the software yet. When you go to the “**Programming key**” the first time, the software will try to connect to the programming key automatically, analysing the active USB ports in the computer. The following screen will be displayed while this operation is being carried out.

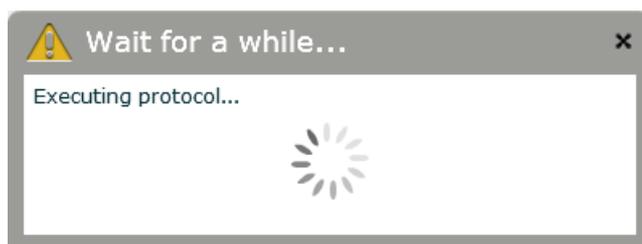


Figure 3.5.- Attempting to connect to the programming key

When the detection has finished, the  **Conectar** button will change to  **Desconectar** indicating that the key is connected and ready for use. In the same way, the key’s LED will turn from amber to green.

If for any reason the software cannot automatically connect to the key, you can retry the operation clicking the port  **refresh** button or manually selecting the port from the dropdown list with active ports and clicking “ **Connect**”.

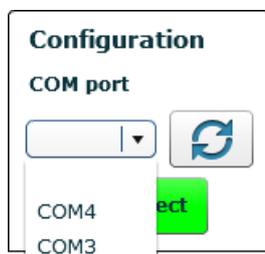


Figure 3.6.- Configuration of the programming key port

When the key has been connected, reading/writing operations can be carried out with it.

**IMPORTANT NOTE:** Before unplugging the programming key from its USB cable, it is highly recommended to use the disconnect button and wait for the key to return to its standby status (LED of the key lit in amber).

#### 4.1.2.2 Manual connection programming key port

The port the programming key is going to be connected to can be manually assigned.

From “**Communications** → **Manual connection**” the screen where the port to be used will be selected.



Figure 3.7.- Manual assignment of the programming key port

Select the port where the programming key is connected from the dropdown list of ports and click the  button.

When the connection has finished, the  button will change to  indicating that the key is connected and ready for use. In the same way, the key's LED will turn from amber to green.

#### 4.1.3 Initialisation key

An initialisation key can carry out the following actions:

1. Start-up of an OCS lock
2. Collect events from an OCS lock
3. Delete the information from the OCS lock

To know who to carry out these actions, see *Section 2.3*.

To programme the programming key as an initialisation key, we go to the “**Communications** → **programming key**”. When the key has been selected we select “**Initialisation**” and the different details to be filled in pop up on the right-hand side of the screen.

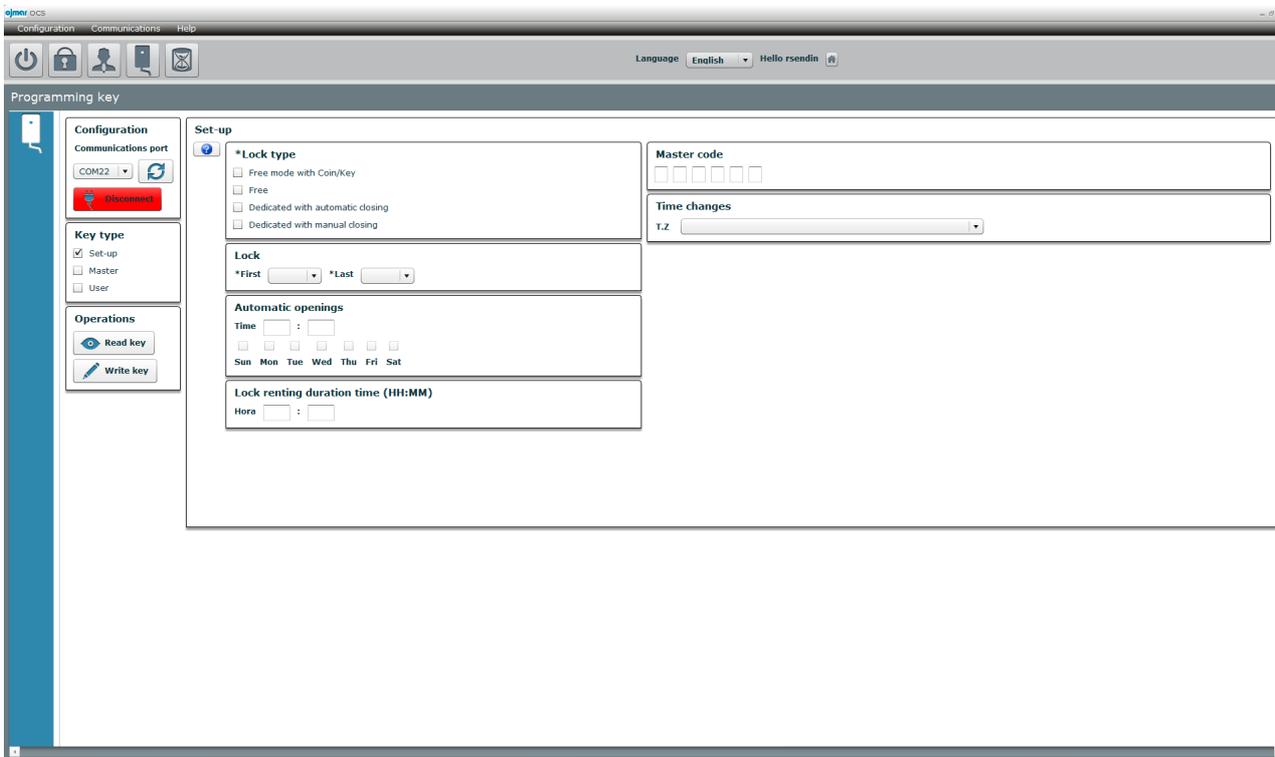


Figure 3.8.- Configuring a programming key as an initialisation key

In “**Lock type**” we will select “**Free mode with coin/card**”, “**Free**” or “**Dedicated**” depending on the type of OCS we are going to initialise. The programming key can initialise locks consecutively, so that if we want to carry out this operation with the 2 to 10 locks, we will only have to select in “**Initial**” and “**Final**” these values and the key can be used to initialise one after another.

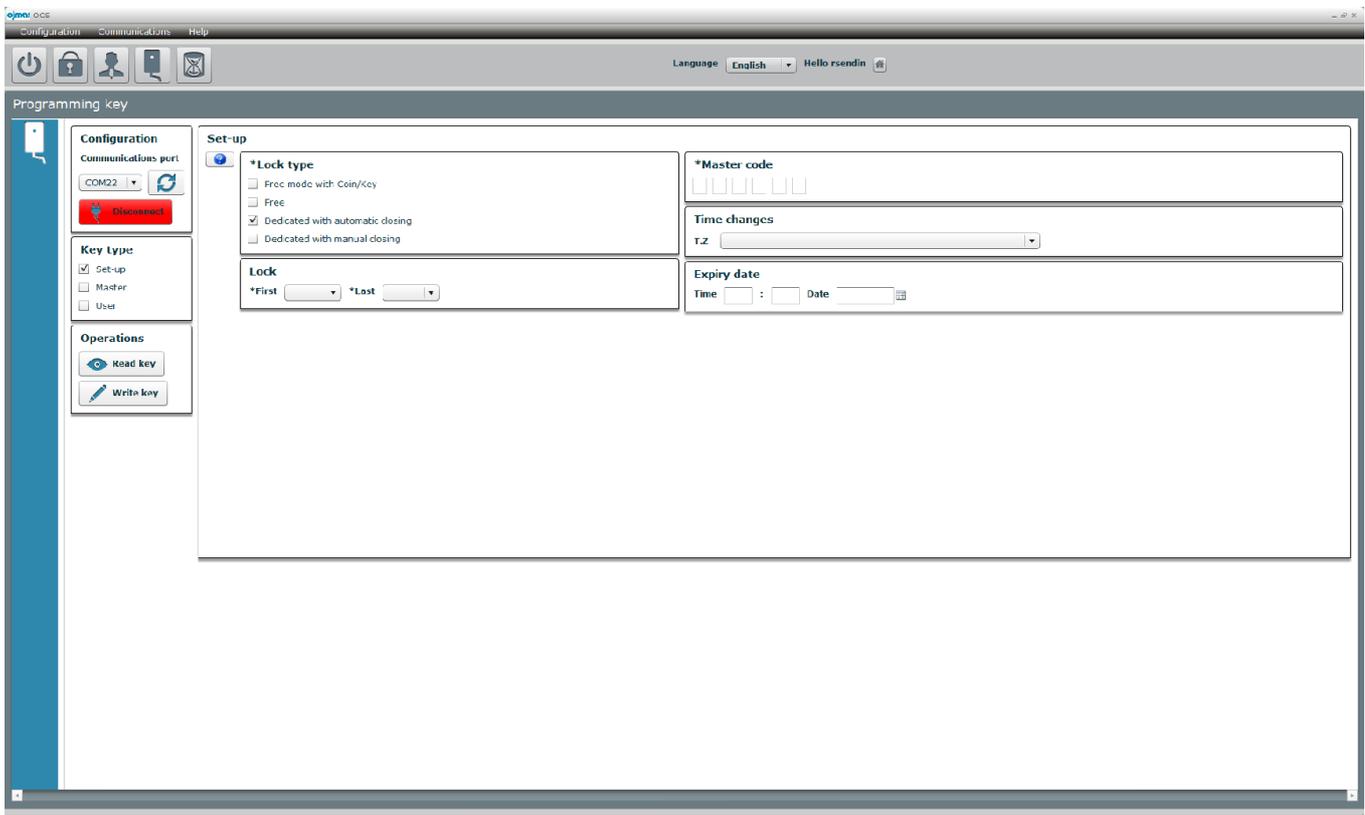
“**Automatic opening**” allows configuring an automatic opening depending on the time and day of the week selected. This function is only configurable in free locks (with or without coin/card) and it will not appear when we have selected “**Dedicated**” as “**Lock type**”.

“**Lock renting duration time**” allows defining a usage time of a lock after closing it. When this time has been exceeded, the lock will open automatically. The rental time is configured by hours (from 0 to 23 hours) and quarters of an hour (0, 15, 30 or 45 minutes). Therefore, the maximum configurable time is from 23 hours to 45 minutes. The “**Duration of locker rental**” can only be used in free lockers (with or without coin/card).

**IMPORTANT NOTE:** If the “**Automatic Opening**” option is selected, the “**Duration of locker rental**” option is disabled and vice versa. Both functions are mutually incompatible.

The “**Master code**” is a 6-figure number that can be used to open the OCS when the user does not remember the sequence of numbers he/she has entered to close his cupboard or locker. This field is optional in free locks but compulsory in fixed locks.

In “**Time changes**” the time zone in which the lock will be installed can be selected. In this way, the lock can be automatically adapted to the summer or winter time putting its time back or forward depending on the selected time zone.



“Expiry” allows configuring a lock to prevent it from being used after the time and date selected. This function is only configurable in only fixed locks (with automatic or manual locking) and it will not appear when we have selected “Free” as “Lock type”.

After the selected date, the lock cannot be closed again after opening with the user code until a new initialisation.

After entering the date, we click  **Write key**” and if everything has gone well, the key will be ready to carry out its functions as an initialisation key.



Figure 3.9.- Key recorded correctly

#### 4.1.4 Master key

The programming key can also be configured as a master key.

Select **“Master”** as the key type. This key has no configurable option, and therefore when it is selected all of the boxes disappear, and only the **“ Read key”** and **“ Write key”** will be active.

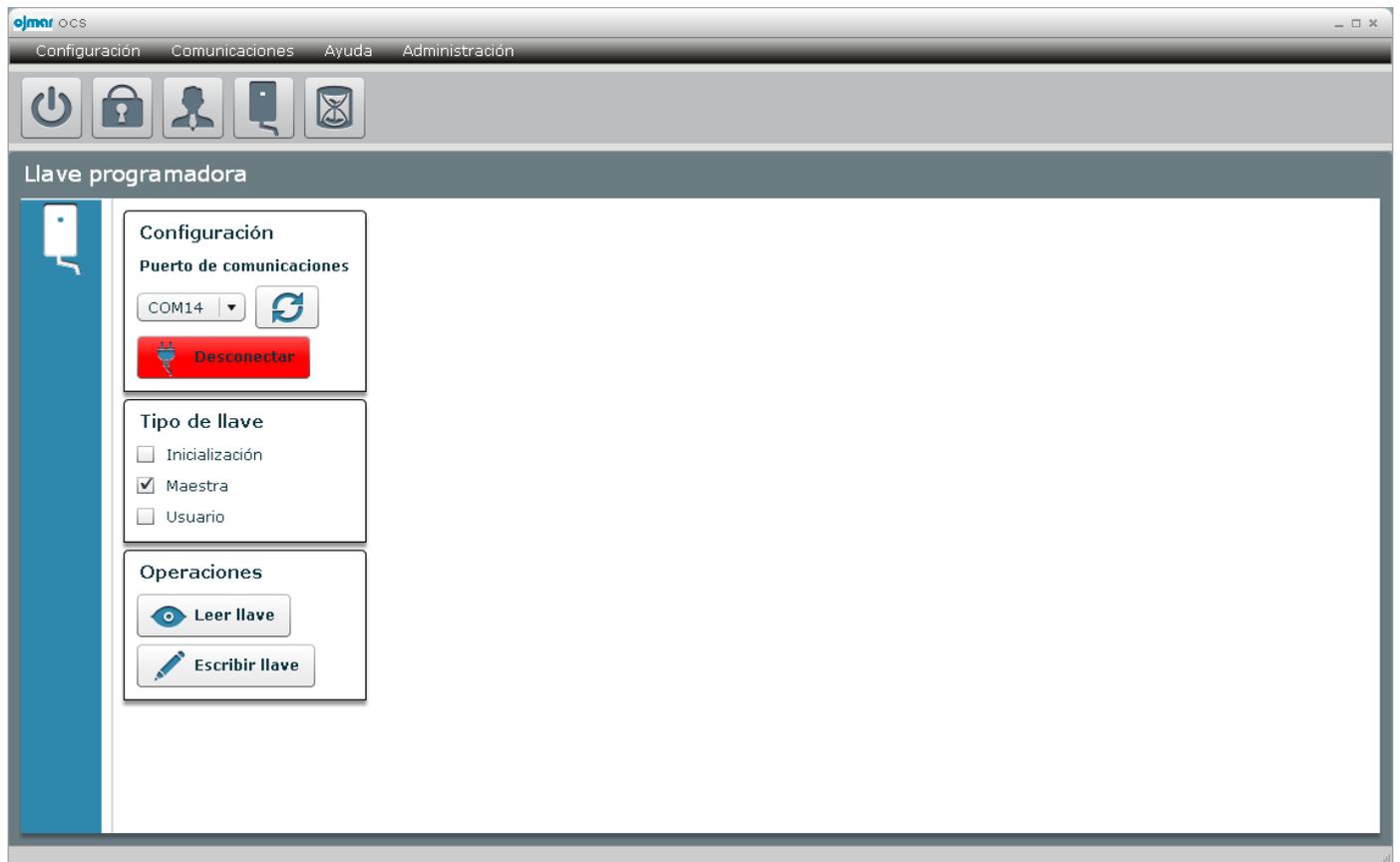


Figure 3.10.- Configuring a programming key as master key

We will click **“ Write key”** to programme the key as a master key.

#### 4.1.5 User key

The programming key can also be programmed as a user key for the disabled.

To do so we select **“User”** in **“Key type”**. A window is displayed on the right-hand side of the screen where we will select the **“Lock number”** of the dedicated type OCS we are going to assign the key to. User keys can only be used in dedicated locks, never in free mode, and therefore only the dedicated locks created up to that moment will appear.

The user keys can also be assigned an expiry date on which they stop being valid.

In the next figure (*Figure 3.11*) we are creating a user key for dedicated lock 15 and with an expiry date of 19 April 2015 at 17:00.

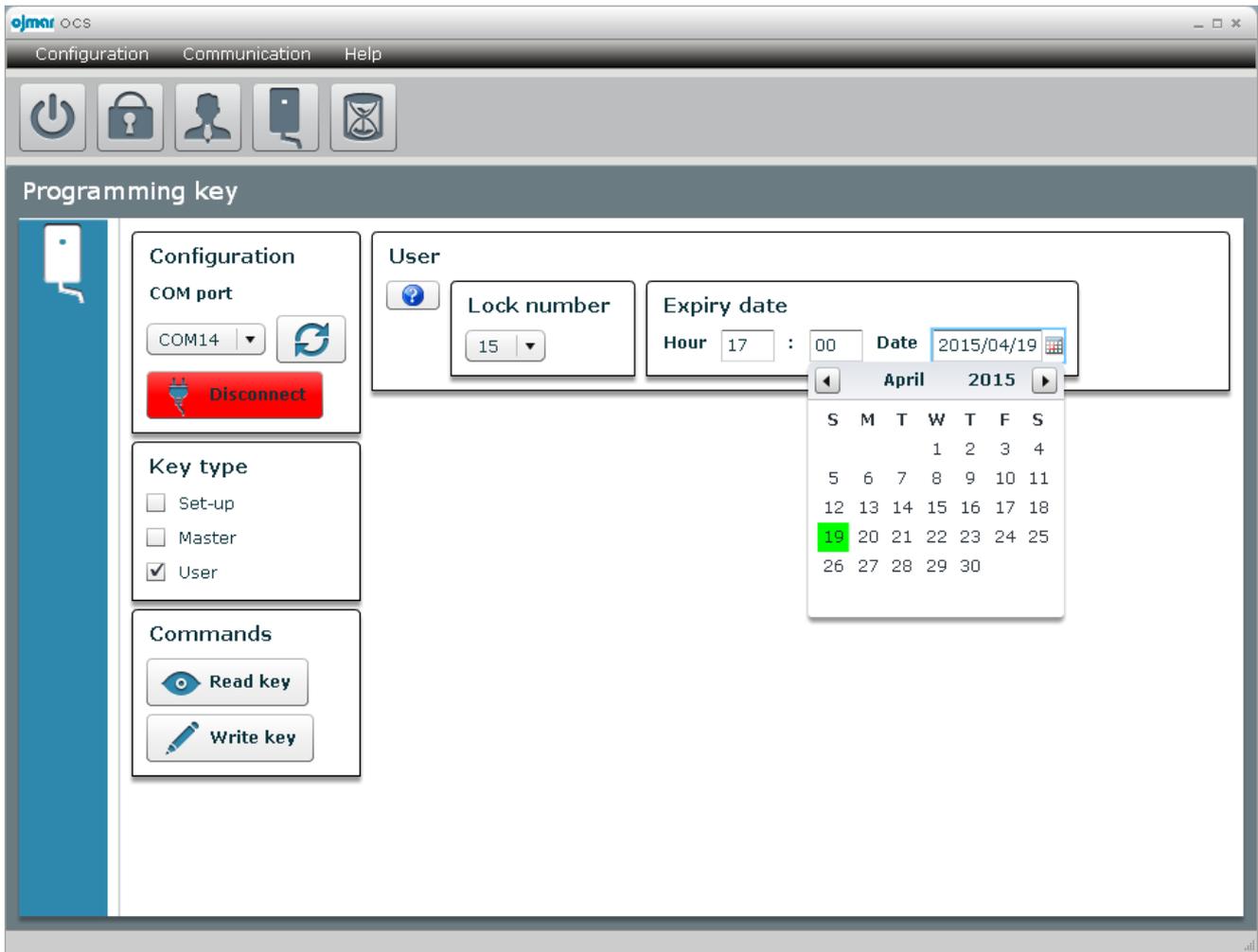


Figure 3.11.- Configuring a programming key as a user key

## 4.2 Maintenance

### 4.2.1 Reading from a key

The “  **Read key**” button allows reading both the key’s configuration and the data it has stored in its memory.

When this button is pressed, how the key is configured will be displayed, if it is initialisation, master, user, if there are locks not yet configured, if it has recorded time changes, etc. At the same time, the key events will be received if it has read them from an OCS lock. If this is the case, the software will display a message on the screen notifying that events have been received and which can be consulted on the events screen.

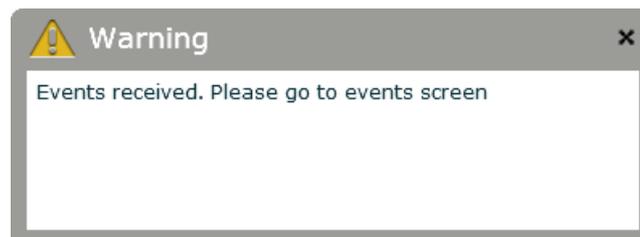


Figure 3.12.- Received events.

## 4.2.2. Event reading

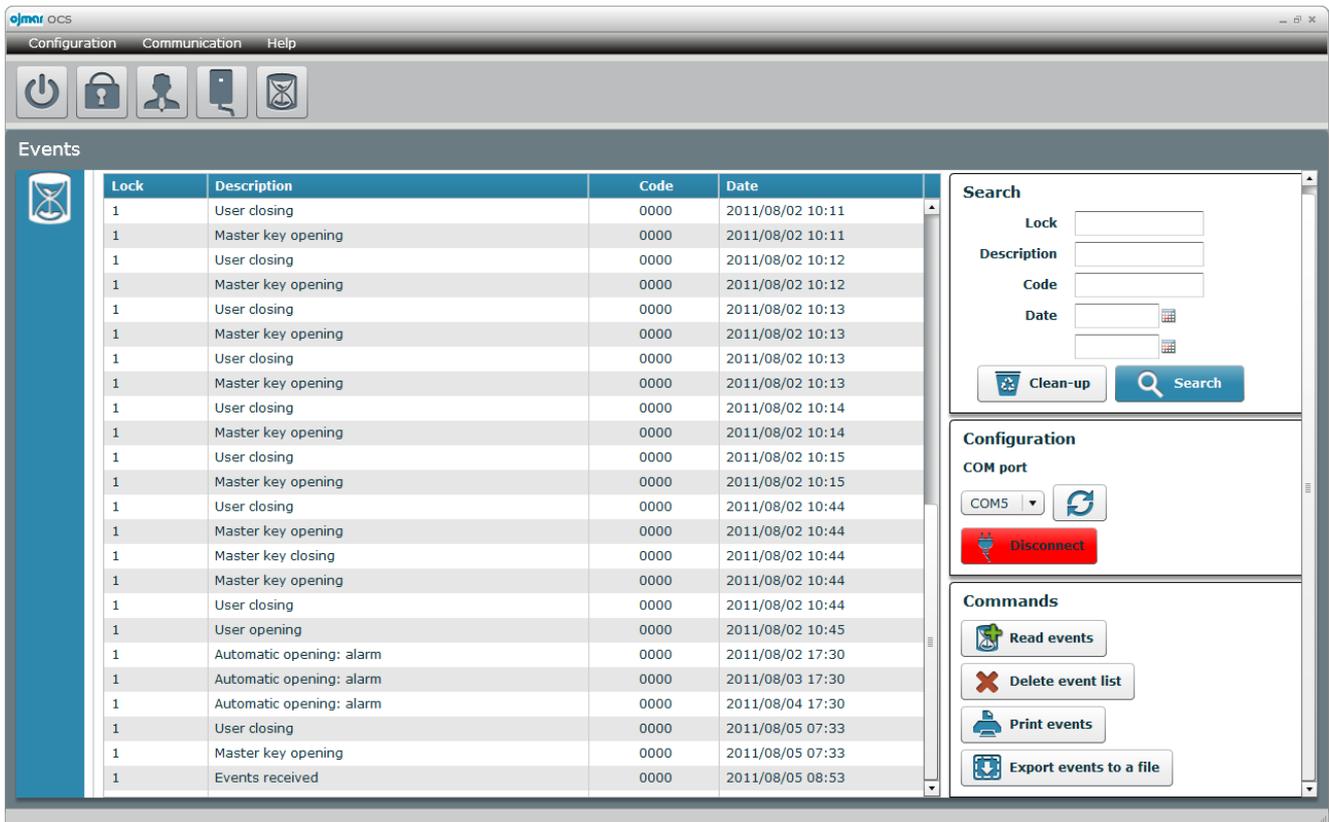
A programming key configured as an initialisation key can receive and store events from an OCS lock.

These events are consulted from the “**Communications → Events**” screen, also accessible from the icon 

As already commented, reading an initialisation key that has stored events from the “Programming key” screen, will make these events be automatically displayed on this screen.

The key can also be forced to send the events from this events screen. To do so, just have the key connected and click “ **Read events**” button.

The application will communicate with the key and if it has events stored in its memory they will be displayed on the screen, as can be seen in *Figure 3.13*.



| Lock | Description              | Code | Date             |
|------|--------------------------|------|------------------|
| 1    | User closing             | 0000 | 2011/08/02 10:11 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:11 |
| 1    | User closing             | 0000 | 2011/08/02 10:12 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:12 |
| 1    | User closing             | 0000 | 2011/08/02 10:13 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:13 |
| 1    | User closing             | 0000 | 2011/08/02 10:13 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:13 |
| 1    | User closing             | 0000 | 2011/08/02 10:14 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:14 |
| 1    | User closing             | 0000 | 2011/08/02 10:15 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:15 |
| 1    | User closing             | 0000 | 2011/08/02 10:44 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:44 |
| 1    | Master key closing       | 0000 | 2011/08/02 10:44 |
| 1    | Master key opening       | 0000 | 2011/08/02 10:44 |
| 1    | User closing             | 0000 | 2011/08/02 10:44 |
| 1    | User opening             | 0000 | 2011/08/02 10:45 |
| 1    | Automatic opening: alarm | 0000 | 2011/08/02 17:30 |
| 1    | Automatic opening: alarm | 0000 | 2011/08/03 17:30 |
| 1    | Automatic opening: alarm | 0000 | 2011/08/04 17:30 |
| 1    | User closing             | 0000 | 2011/08/05 07:33 |
| 1    | Master key opening       | 0000 | 2011/08/05 07:33 |
| 1    | Events received          | 0000 | 2011/08/05 08:53 |

Figure 3.13.- Received events

The number of the lock from which the events have been received can be seen on the events list, in this case lock number 3. After the description of the event, the last code entered by the user to lock the locker and the date on which the event has occurred.

When we exit the events screen, the application will ask if we want to keep or delete them.

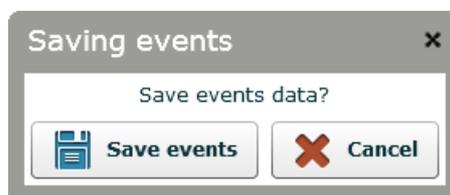


Figure 3.14.- Exiting the events screen

If “ **Save events**” is clicked, these will be stored in a database, so that they can be consulted again the next time the application is opened. On the contrary, they will be definitively deleted.

If saving the events is selected and later on we decide to delete them, we will use icon “ **Delete events list**” to delete all of them.

If you want to save the event, but do not want them in the application, they can be exported. The “ **Export events to a file**” button stores the events downloaded onto a text file in table format, which allows for saving them conveniently in the computer.

|    | A    | B                        | C    | D                |
|----|------|--------------------------|------|------------------|
| 1  | Lock | Description              | Code | Date             |
| 2  | 1    | Automatic opening: alarm | 1234 | 2011/07/29 17:30 |
| 3  | 1    | Automatic opening: alarm | 1234 | 2011/07/30 17:30 |
| 4  | 1    | Automatic opening: alarm | 1234 | 2011/07/31 17:30 |
| 5  | 1    | User closing             | 1234 | 2011/08/01 08:27 |
| 6  | 1    | Automatic opening: alarm | 1234 | 2011/08/01 17:30 |
| 7  | 1    | User closing             | 1234 | 2011/08/02 08:30 |
| 8  | 1    | Master key opening       | 1234 | 2011/08/02 08:30 |
| 9  | 1    | User closing             | 0    | 2011/08/02 08:30 |
| 10 | 1    | Master key opening       | 0    | 2011/08/02 08:30 |
| 11 | 1    | User closing             | 0    | 2011/08/02 08:32 |
| 12 | 1    | Master key opening       | 0    | 2011/08/02 08:33 |
| 13 | 1    | Master key closing       | 0    | 2011/08/02 08:33 |
| 14 | 1    | Master key opening       | 0    | 2011/08/02 08:33 |
| 15 | 1    | Master key closing       | 0    | 2011/08/02 08:33 |
| 16 | 1    | Master key opening       | 0    | 2011/08/02 08:33 |
| 17 | 1    | User closing             | 0    | 2011/08/02 09:08 |
| 18 | 1    | Master key opening       | 0    | 2011/08/02 09:08 |
| 19 | 1    | User closing             | 0    | 2011/08/02 10:07 |
| 20 | 1    | Master key opening       | 0    | 2011/08/02 10:08 |
| 21 | 1    | User closing             | 0    | 2011/08/02 10:09 |
| 22 | 1    | Master key opening       | 0    | 2011/08/02 10:09 |
| 23 | 1    | User closing             | 0    | 2011/08/02 10:10 |
| 24 | 1    | Master key opening       | 0    | 2011/08/02 10:10 |
| 25 | 1    | User closing             | 0    | 2011/08/02 10:11 |
| 26 | 1    | Master key opening       | 0    | 2011/08/02 10:11 |
| 27 | 1    | User closing             | 0    | 2011/08/02 10:11 |
| 28 | 1    | Master key opening       | 0    | 2011/08/02 10:11 |

Figure 3.15.- Events exported to a file

There is another button “ **Print events**” used when we want to print the received events. When this is used, the events will open in a file with pdf extension, from where they can be saved using this format or printed.

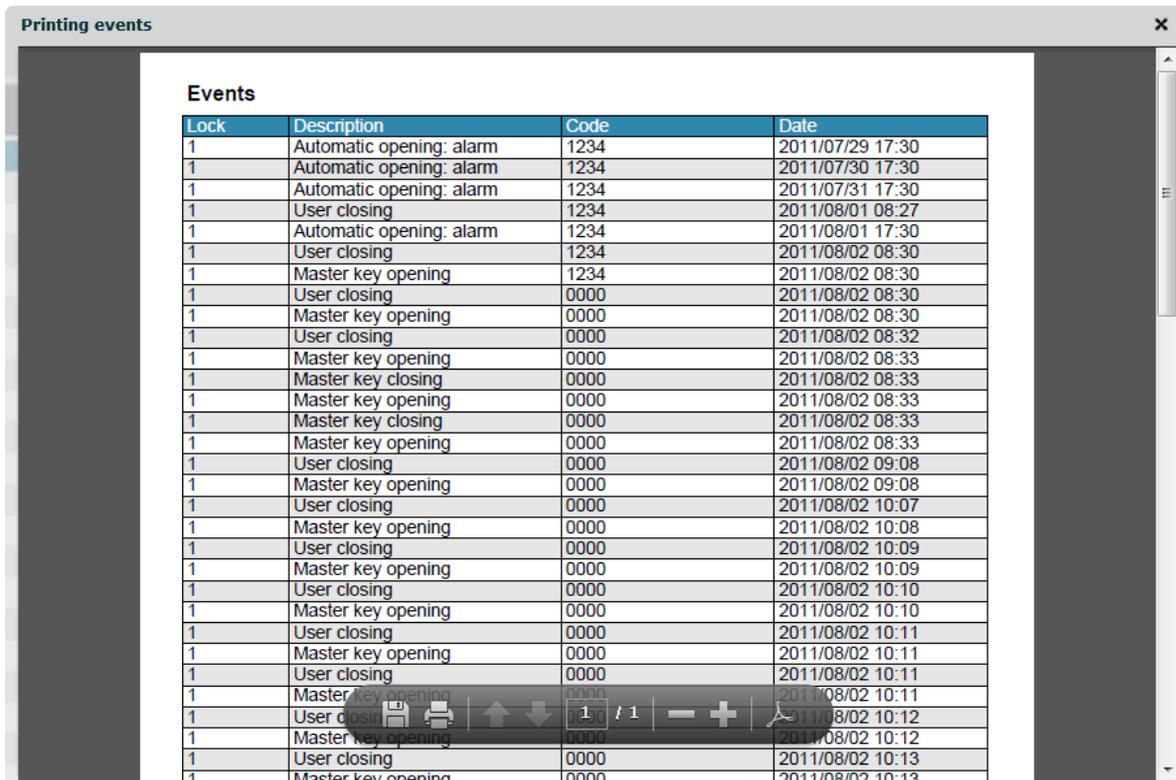


Figure 3.16.- Events exported to a pdf format The application allows saving or printing them.

### 4.2.3 Event reading

The events that can be collected on a lock are:

|   |
|---|
| Opening with user key                       |
| Settings changed by keypad                  |
| Expiry event in fixed lock                  |
| Incorrect user key                          |
| Expired user key                            |
| Cancelled user key                          |
| Invalid key in free locks                   |
| Automatic opening: clock alarm              |
| Automatic opening: coin-less lock           |
| Customer opening                            |
| Opening with master code                    |
| Opening with user key                       |
| Opening with master key                     |
| Deleting of lock                            |
| Automatic RTC time change (put forward)     |
| Automatic RTC time change (put back)        |
| Code change in fixed lock                   |
| User closing                                |
| [Closing with user key]                     |
| Closing with master key                     |
| Incorrect opening code                      |
| Low battery detection                       |
| Mechanical fault                            |
| Lock initialisation                         |
| Rejection of key due to installation number |
| Event collection                            |

### 4.3. Other options

#### 4.3.1 Operators

An operator is an access user to the software who can be assigned or refused rights to carry out certain actions.

As commented in the previously, a user name and administrator password to access the application comes with the license. Once in the application, this default administrator user can create or change new users.

There should be at least one system administrator, who can carry out all operations, and we recommend creating another with restricted access to important information for the operation of the OCS system.

Operator administration is carried out in **“Configuration→Operators”**. This screen can be also accessed pressing the icon.



Once in it, we can see the default user, and we see that it is marked as administrator (✓), and therefore have access to all of the application's functions.

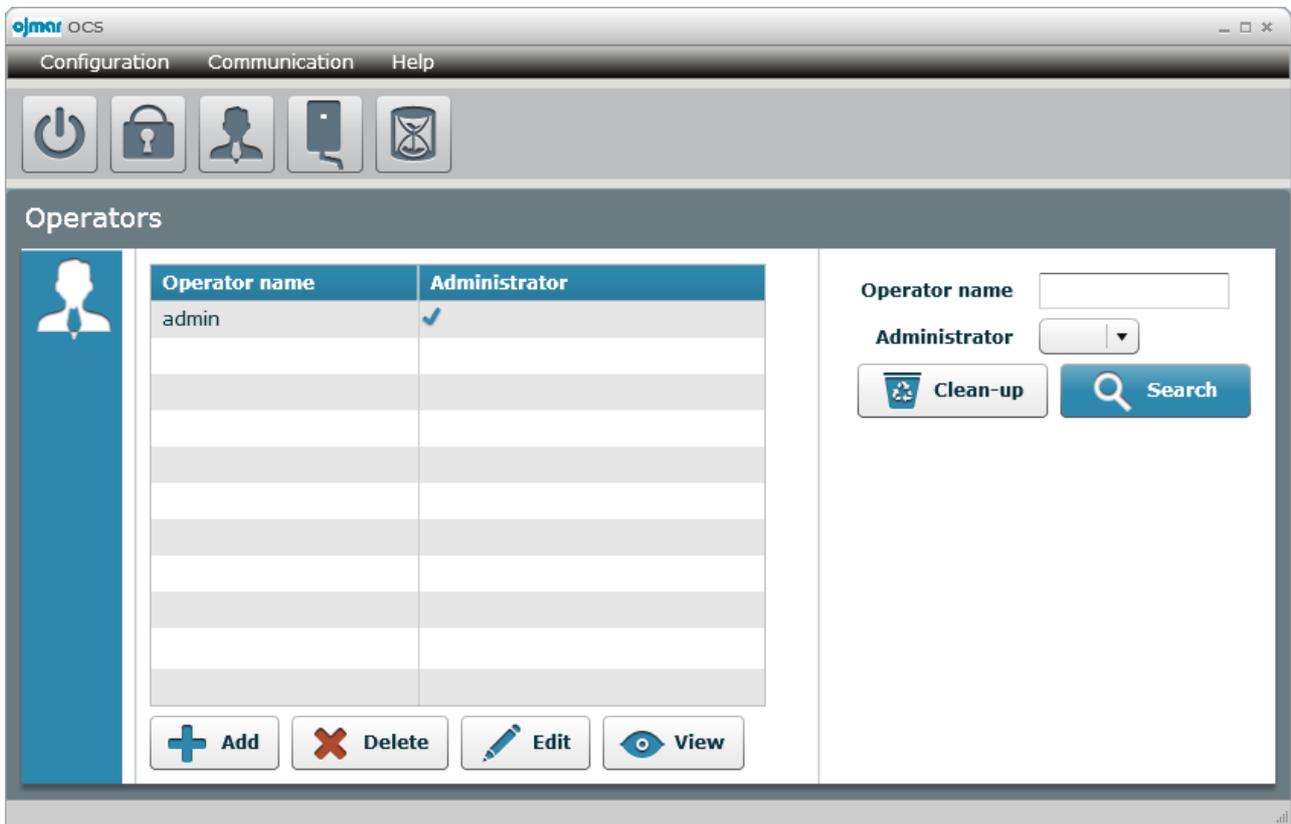


Figure 3.17.- Operator management screen

The screens gives us access to “  Add” operators, “  Delete”, “  Edit” and “  View” already created operators.

We are going to create a new operator as an example, and to do so we click “  Add”.

We enter “**Operator name**”, “**Password**” and confirm the password for safety reasons. These are the fields to be used by the new operator to access the application. We select the options to give access to this user from the list on the right-hand side of the screen. If we select the “**Administrator**” tab, we will be creating an operator who will have access to all of the software’s functions. In this example we are going to select all the fields except options “**Advanced configuration**” and “**Operators**”, although we will give the “**View operators**” possibility in this last tab.

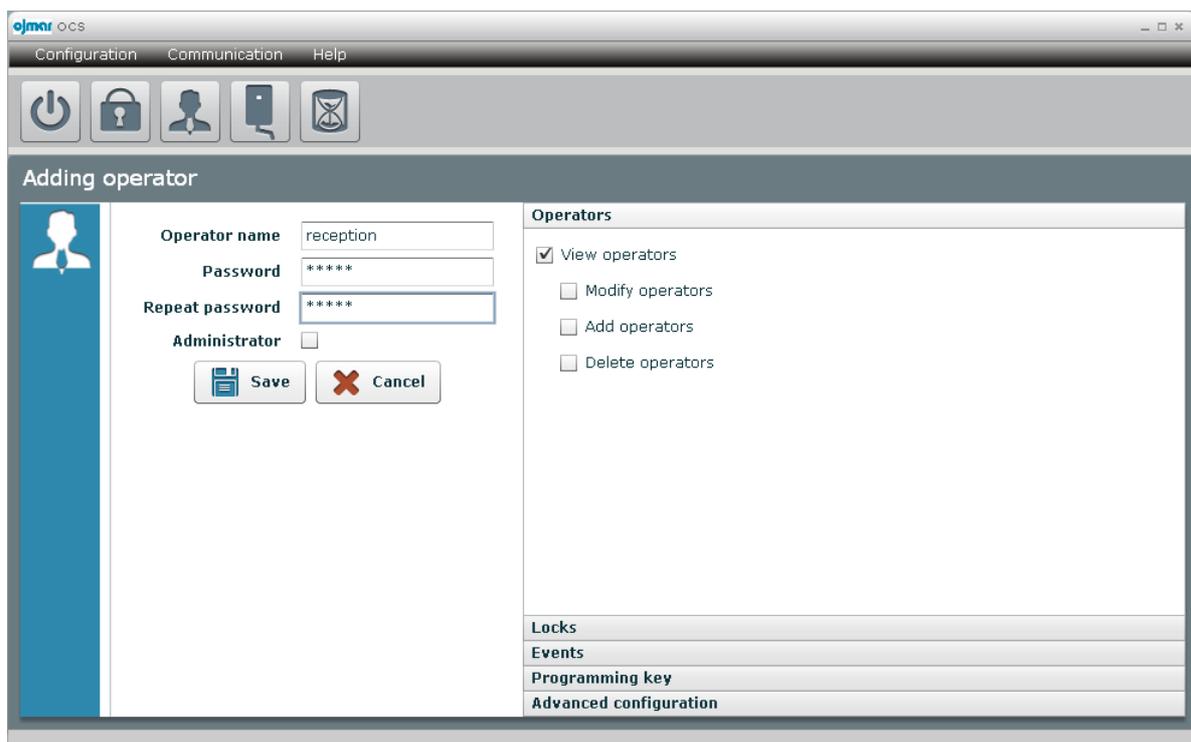


Figure 3.18.- Creating a new operator

After clicking “ Save” the new operator is created, without administrator category (). The software can now be accessed with the “reception” user name and its password.

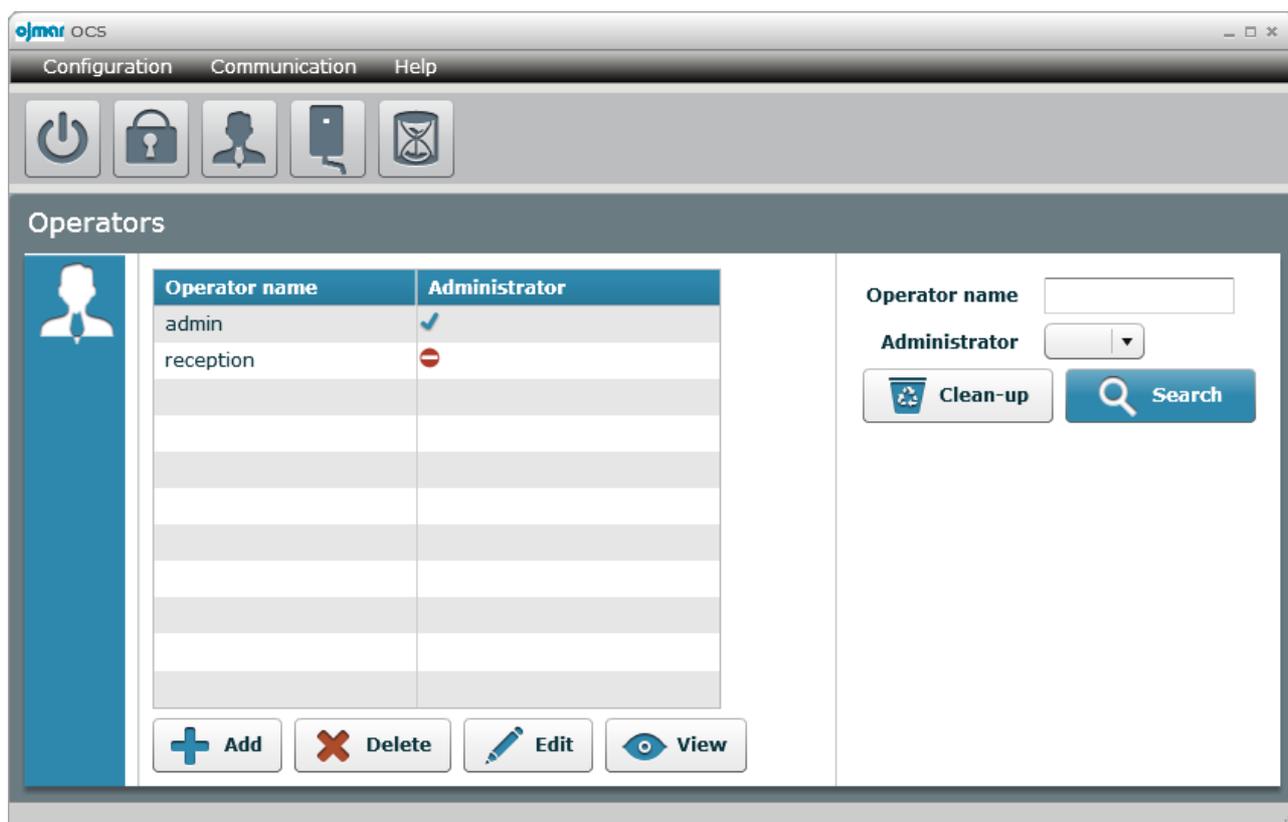


Figure 3.19.- Created “reception” operator

## 4.3.2 Advanced configuration

Before creating and initialising the locks that will make up the facility there is a series of parameters we should configure, and to do this we go to “**Configuration→Advanced configuration**”.

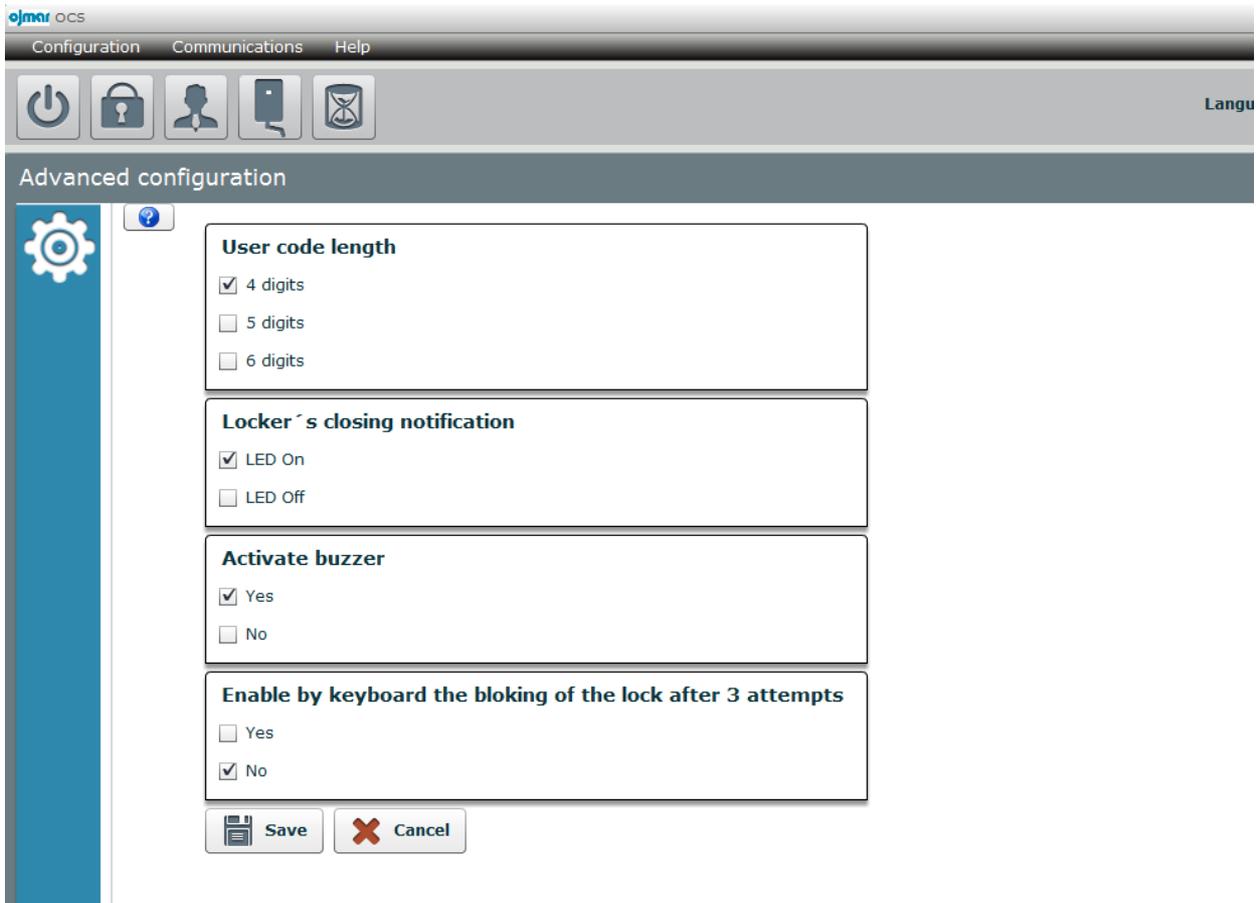


Figure 3.20.- Advanced configuration screen

### 4.3.2.1 Length of the user code

This field specifies how many numbers the user must enter using the keypad to close and/open the lock. 4, 5 or 6 digits can be configured. This option will be applied in both lockers configured in free mode (with or without coin and card option) and in dedicated mode.

### 4.3.2.2 Closed locker alert

If the “**LED on**” option is selected, the LED on the front of the lock will flash in red with a cadence of three seconds while the locker is closed, indicating that it is occupied by a user.

If on the contrary, “**LED off**” is selected, the LED will stay deactivated in any of the lock statuses (open/closed) although the rest of the luminous indications will continue.

The “**Locker's closing notification**” only applies in free or with coin or card type locks, and will not be taken into account in dedicated type locks.

**NOTE:** When the “**LED on**” option is activated the lock's consumption increases and therefore the useful life of the batteries is less.

### 4.3.2.3 Activate buzzer

If the option “**Yes**” is selected the buzzer will sound when you press a key and in the other defined cases.

If you select the option “**No**” the buzzer will not sound in any case.

### 4.3.2.4 Keypad lock activation 3 attempts

If the “**No**” option is selected the lock never becomes blocked.

If on the contrary you select “**Yes**” the lock becomes blocked for approximately 30 seconds after entering the wrong code 3 times.

### 4.3.3 Personalise installation

The “**Change icon**” button lets you select a different icon to the one that appears by default to be able to identify the locks you are going to create better. In the installation CD provided by ojmar you can find different icons for OCS locks in the “*Icons*” folder.

You can change the icon at any moment, before creating the locks or later on, when they are already created.

In the following example we are going to create ten free locks. After filling in the details we click “ **Save**” and the locks are automatically created.

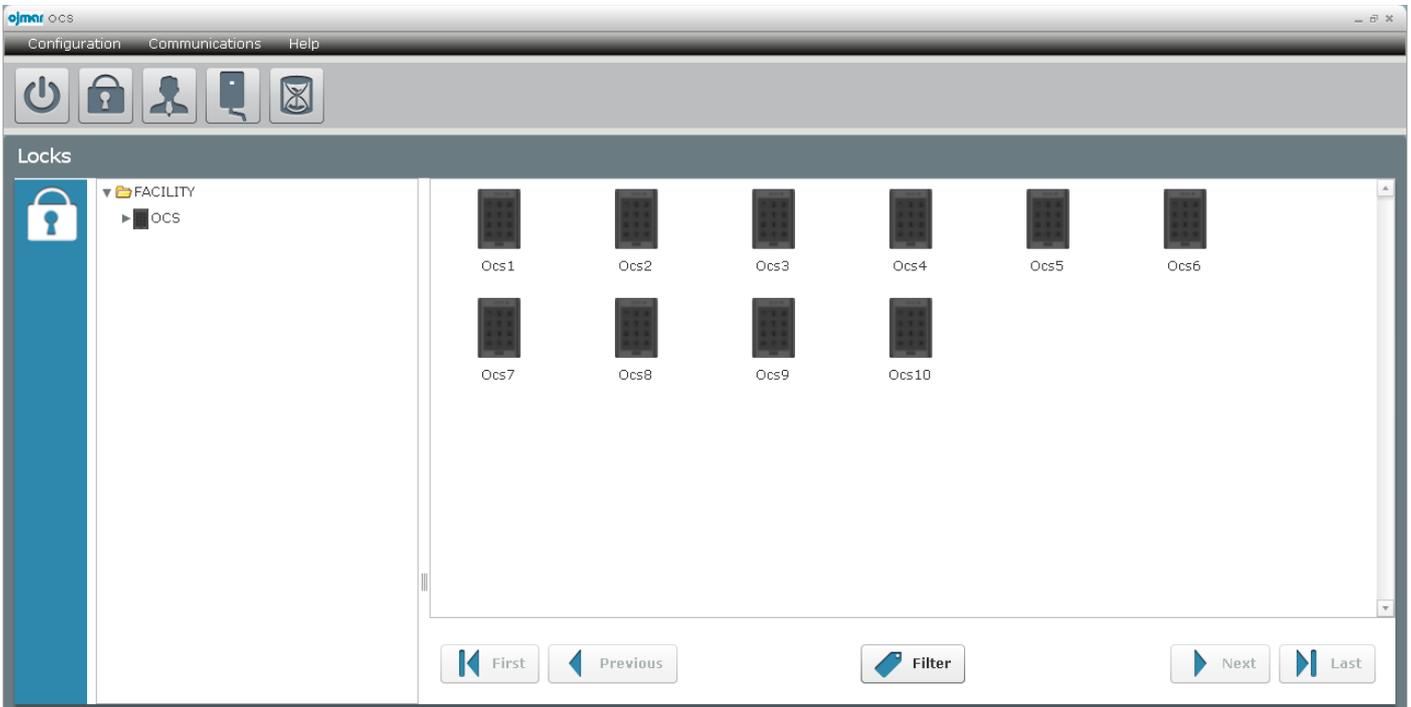


Figure 3.21.- Created free locks

We are now going to create another 5 locks, but this time of the automatic locked fixed model type.

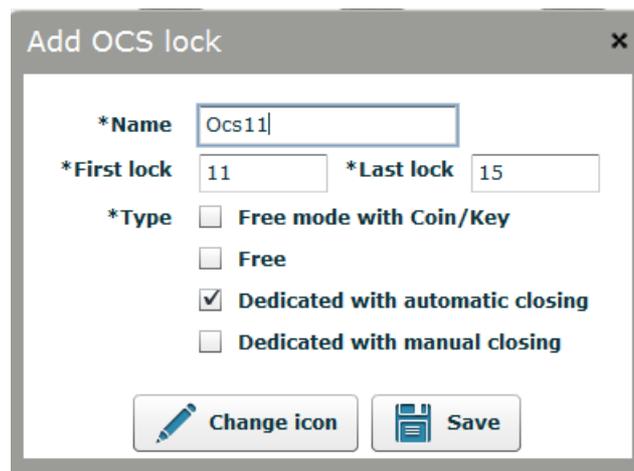


Figure 3.22.- Adding dedicated locks

We are going to change the icon to tell them apart from the already created ones. To do so, we select the locks using the “Control” or “Shift” key on the keyboard and keeping it pressed we double left click the mouse on one of the OCS icons. In the window that appears, we click on “ **Change icon**” and we look in the dialogue box for the new image in the computer. For this example we will use the image “OCS\_Copper.PNG” included in the ojmar installation CD, in the “*Icons*” folder.

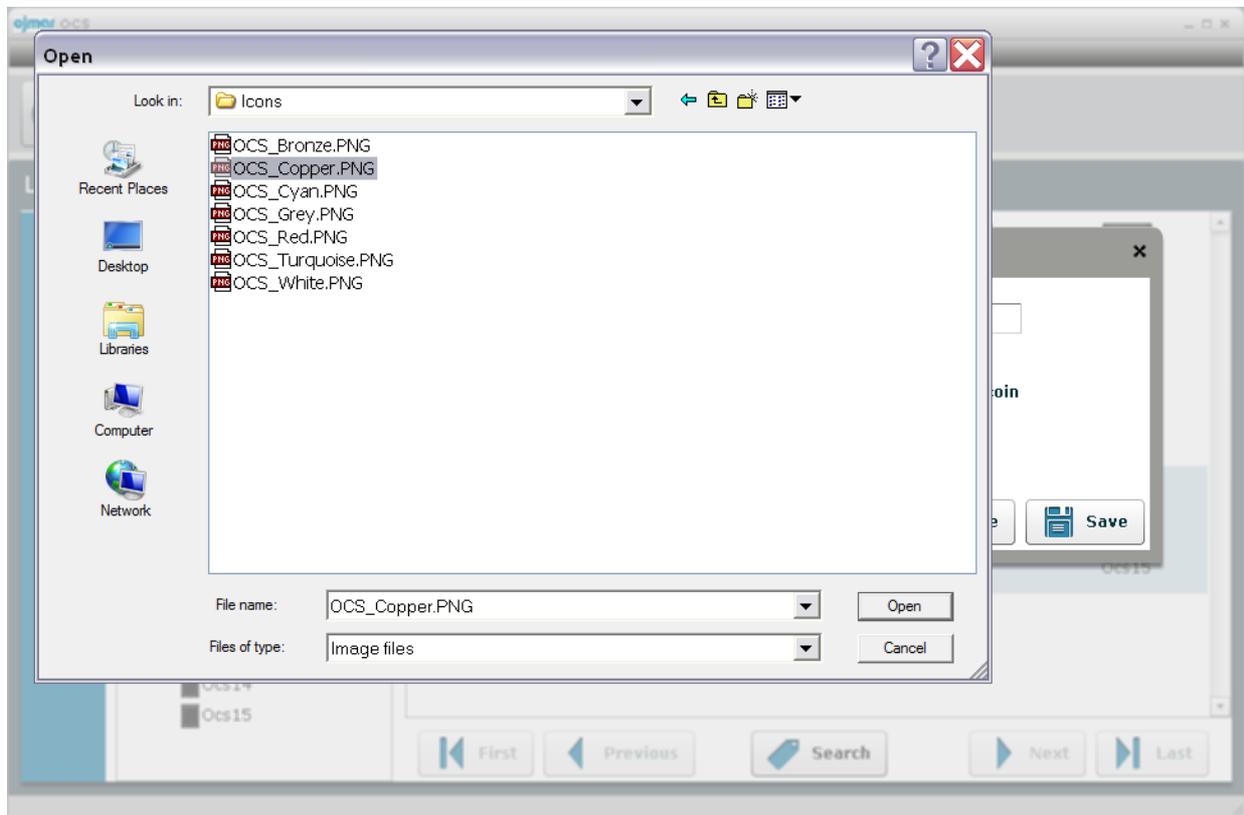


Figure 3.23.- Changing the icon of the selected locks

After clicking “**Open**”, the locks are updated with the new icon.

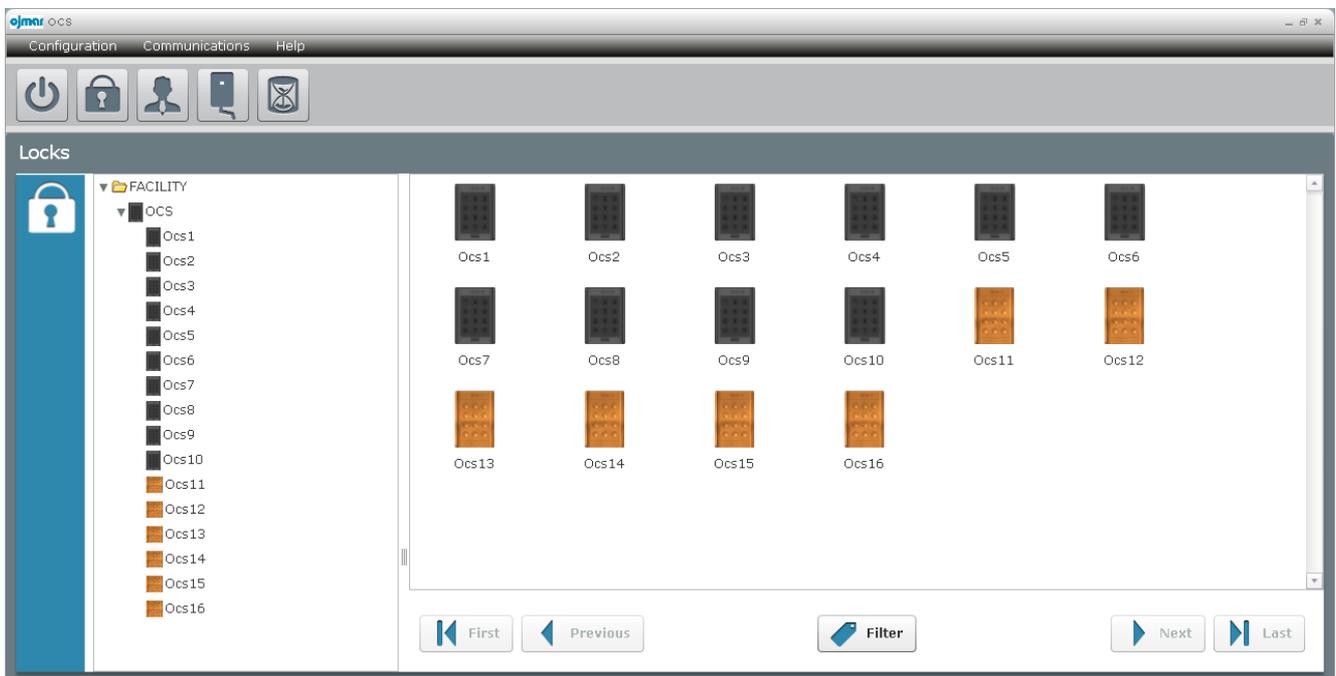


Figure 3.24.- Created locks

We right-click on the "FACILITY" text to personalise the application. A box allows us to change the name of the facility and the icon that represents it.

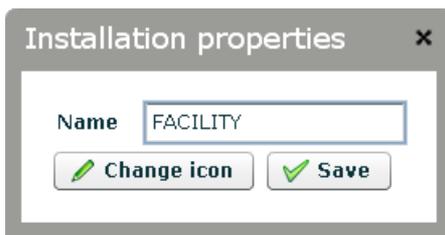


Figure 3.25.- Personalising the facility

For example, let's change the name of the facility to ojmar and select an icon from the computer's hard disk, for example this one that represents a swimming pool.

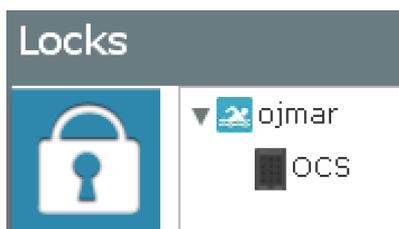


Figure 3.26.- Changing the icon

### 4.3.4 Help mode

There is a small help icon that when clicked allows us to obtain additional information on the different sections on the screen when we place the cursor on them.

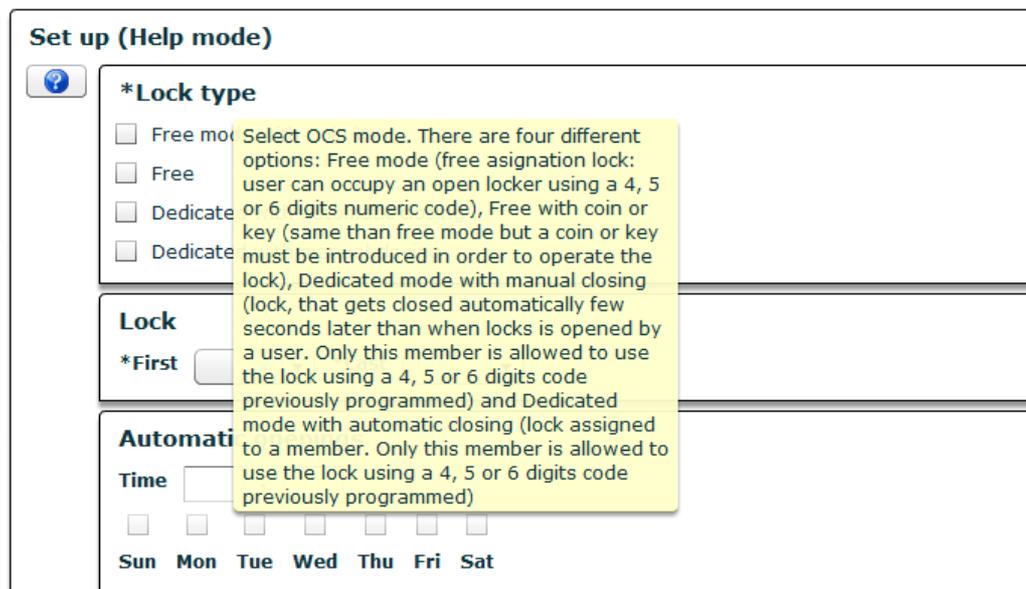


Figure 3.27.- Help mode screen

After clicking the buttons  the descriptions of the screens will not be displayed any more.

## 5. MAINTENANCE

### 5.1.1 Description of OCS lock LED flashes

The OCS lock has a LED that indicates both operations it is carrying out and errors that may be occurring. These messages are listed in the following table.

| GREEN LED | RED LED   | AMBER LED | DURATION                   | DESCRIPTION  |
|-----------|-----------|-----------|----------------------------|--|
|           |           | 3 flashes | Short<br>(100ms=1/10s)     | Turn on sequence flashing. This flashing occurs when the front part of the lock is connected to the locking module.  |
| 1 flash   |           |           | Long (1s.)                 | Correct opening or locking.  |
| 4 flashes |           |           | Short<br>(100ms=1/10s)     | Communication with the programming key ended ok.   |
| 1 flash   |           |           | Very Short<br>(50ms=1/20s) | Pressing of a key or automatic opening.  |
|           | 1 flash   |           | Long (1s.)                 | Definitive low battery detection. The OCS will not lock again until the batteries have been changed. This flashing will occur at the start of the cycle (pressing "start" and waking the lock up). |
|           | 2 flashes |           | Medium<br>(250ms=1/4s)     | The entered code is incorrect.   |
|           | 4 flashes |           | Medium<br>(250ms=1/4s)     | Mechanical error. Contact ojmar to resolve the problem.  |
|           | 5 flashes |           | Short<br>(100ms=1/10s)     | Communication error: The programming key has been removed too soon.  |
|           | 1 flash   |           | Medium<br>(250ms=1/4s)     | No coin has been inserted.   |
|           | 2 flashes |           | Medium<br>(250ms=1/4s)     | Incorrect sequence. The keypad sequence has not been entered correctly during an operation with the programming key.   |

Table 4.1. Description of the OCS lock's flashes

## 5.1.2 Description of programming key's LED flashes

The programming key has a LED that indicates both operations it is carrying out and errors that may be occurring. The different flashes emitted by the programming key when it communicates with the OCS lock are listed below.

| GREEN LED          | RED LED     | AMBER LED | DESCRIPTION  |
|--------------------|-------------|-----------|--|
|                    |             | On        | Key waiting for connection to the PC   |
| On                 |             |           | Key connected to the lock or to the PC   |
| Flashes (10)       |             |           | Operation correctly finished, the key can be removed   |
|                    | On          |           | Communication with lock ongoing, do not remove the key   |
| On<br>(20 seconds) |             |           | The key has been removed before communication with the lock has ended.                                     |
|                    | 1x3 flashes |           | Error type 1. Internal memory error in the key   |
|                    | 2x3 flashes |           | Error type 2. Low battery  |
|                    | 3x3 flashes |           | Error type 3. Communication error or incorrect sequence  |
|                    | 4x3 flashes |           | Error type 4. Error during initialisation, all lock numbers stored in the key have been programmed already |

Table 4.2. Description of the programming key's flashes

## 5.1.3 Lock commands

The following actions can be done using the keypad.

The commands for configuring the lock always have to be done with the lock open.

| OPERATION   | SEQUENCE   |
|---|--|
| Close   | Free "start"+code+🔒<br>Fixed manual locking "start"+previously assigned code+🔒     |
| Open  | Free: "start"+code entered to close+🔒<br>Fixed: "start"+previously assigned code+🔒 |
| Code change in fixed locks                                | "start"+master code+new code+🔒   |
| Connection of the key with the lock                       | "start"+button of the programming key  |
| Event reading   | "start"+button of the programming key+wait a few seconds                           |
| Initialisation of the lock                                | "start"+button of the programming key + "start"+🔒+0+🔒                              |
| Deleting of the lock                                      | "start"+button of the programming key + "start"+🔒+1+🔒                              |
| Master key  | "start"+button of the programming key (key programmed as master)                   |
| Service key   | "start"+button of the programming key (key programmed as master)                   |
| Master key opening  | "start"+master code+🔒  |
| Closing service code (only after opening with the master) | "start"+master code+🔒  |
| Enable buzzer   | "start"+master code+15+🔒   |
| Deactivate buzzer   | "start"+master code+25+🔒   |
| Change master code  | "start"+master code+new master code+77+🔒   |

|   |   |
|---|---|
| Enable keypad lock                        | "start"+master code+22+🔒  |
| Deactivate keypad lock                    | "start"+master code+33+🔒  |
| Change automatic locking fixed mode       | "start"+master code+01+🔒  |
| Change free mode                          | "start"+master code+11+🔒  |
| Change free mode with coin/card           | "start"+master code+12+🔒  |
| Change fixed mode manual locking          | "start"+master code+00+🔒  |
| Configuration 4-digit code                | "start"+master code+44+🔒  |
| Configuration 5-digit code                | "start"+master code+55+🔒  |
| Configuration 6-digit code                | "start"+master code+66+🔒  |
| Activate locker closed LED notification   | "start"+master code+85+🔒  |
| Deactivate locker closed LED notification | "start"+master code+95+🔒  |
| Change of date and time                   | <p>"start"+master code+99+HHMM+DDmmAA+🔒</p> <p>HH: Two-digits new time</p> <p>MM: Two digits new minutes</p> <p>DD: Two-digits new day</p> <p>mm: Two digits new month</p> <p>AA: Two-digits new year</p> |

Table 4.3. Description of the lock's commands

## 5.2. Battery replacement

The lock is capable of detecting low batteries. After detecting low battery it will allow opening but never closing, preventing the locker from getting blocked and having to force it to open it.

Follow the steps listed below to replace the batteries:

- Loosen the two or four screws (depending on the model) and remove the battery cover.
- Remove the battery holder.
- Replace the four AA alkaline batteries.
- Insert the battery holder.
- Put the cover on and tighten the screws.

**\*The lock will keep the time and date for a maximum of 20 seconds after removing the batteries; if this time is exceeded the lock has to be initialised.**

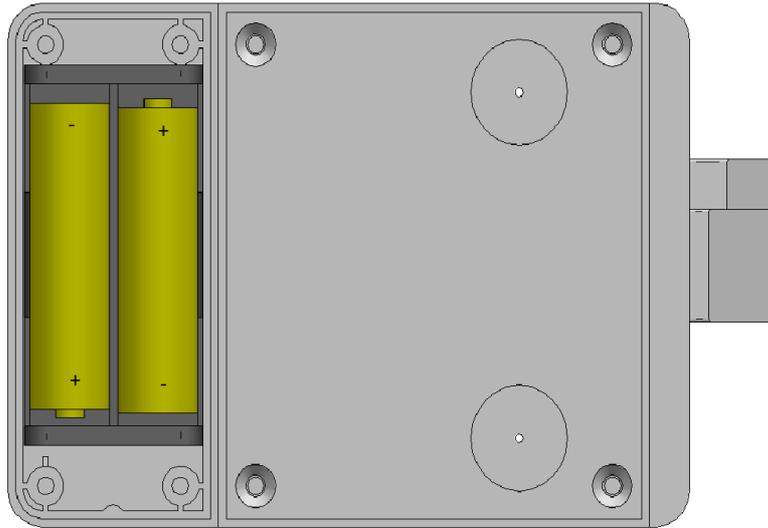
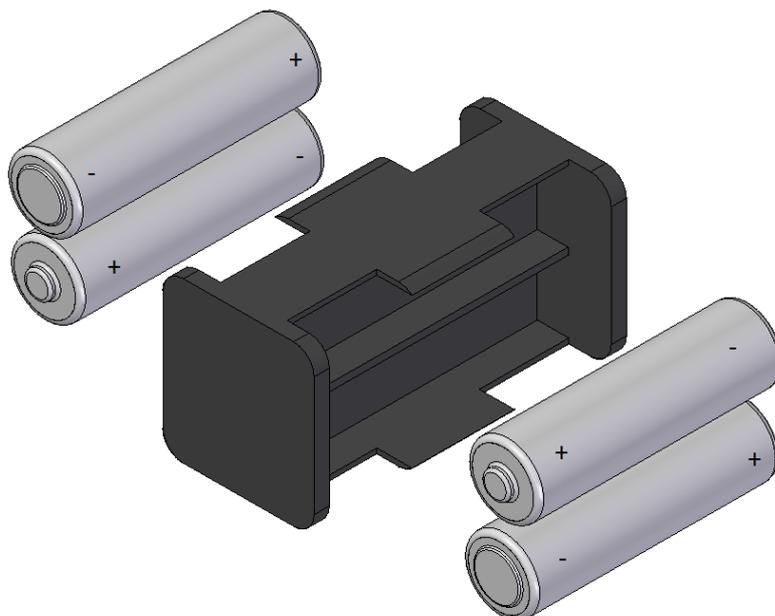


Figure 4.3.- Battery status



**Caution: Risk of explosion if battery is replaced with a battery of the wrong kind. Dispose of batteries in accordance with the instructions.**

### 5.3. Emergency opening

The lock can be powered from the outside if a battery is faulty and the lock does not have any power. In this situation a 9V 6LR61 battery will be placed in the connectors situated at the bottom of the front according to *Figure 4.4*. The connection has to be made manually so that the + pole of the battery is on the right and the – on the left. When the battery is correctly placed in the contacts, the lock will turn on and can be used normally either using the keypad, master key...



Figure 4.4.- Situation of the connectors

### 5.4 Cleaning

Clean the lock with a soft and damp cloth, and do not use any detergents. Then dry the lock completely. Do not immerse it and protect it from water and extreme temperatures. Do not expose it to direct sunlight or any other heat source. Do not allow the lock to drop or subject it to high impacts. Do not disassemble the lock.



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