Projector Toolset

User guide
For Pulse

R5906795/03
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BARCO
Visibly yours

Product revision

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1. BASIC CONCEPTS

Overview

- Introduction
- About a Configuration
- About a Snapshot
- About storing Configurations and Snapshots

1.1 Introduction

Overview

Projector Toolset is a software tool to set up, configure, manage and control Barco projectors.

The concept of this Projector Toolset software is modular. The basic package can be extended with several optional device plug-in modules, now and in the future available.

The Projector Toolset software works with configurations that can be loaded. Within a configuration, different snapshots can be taken. A snapshot represents a current state of a configuration and can be reloaded to return to this typical state. These terms will be used through the complete software.

Projector Toolset is a stand-alone application that runs on a Java Virtual Machine and that does not require extra services to run.

Several configurations can be controlled simultaneously. Even when the configurations are connected via different ways.

Screenshots through out the manual are only given as information. The content can be slightly different with the current Projector Toolset version, or connected projector.

1.2 About a Configuration

What is a Configuration?

A **Configuration** is a collection of projectors with all their current settings, connected to a computer. A configuration can contain different settings, called snapshots, for all the projectors in the configuration.

1.3 About a Snapshot

What is a Snapshot?

A **Snapshot** is collection of settings of a configuration. Such a snapshot represents the current state of a configuration.

A snapshot can contain all settings or specific settings as input settings, lamp settings, layout settings or projector settings. When restoring a snapshot, only the stored settings will be restored. The others remain on their current value.

1.4 About storing Configurations and Snapshots

Overview

All information is stored by default in the install directory of Projector Toolset in the subdirectory *Workspace*.

Configurations are directly under the subdirectory *Workspace* and have the extension *.config*. Snapshots are stored in a subdirectory of Workspace, called *Snapshots*. The files have the extension *.snapshot* .

This structure makes it possible to zip the workspace and send it the another computer for further use.

To make a backup of all your configurations and snapshots, just make a copy of *Workspace* with all its content.

2. INSTALLATION

Overview

- General requirements
- Free download of Projector Toolset
- Projector Toolset installation
- Starting up
- Manual installation of a device plug-in
- Uninstall Projector Toolset
- About this manual

2.1 General requirements

Before you begin

It assumes you are familiar with the computer system at your site.

System requirements for Microsoft Windows

Minimum hardware specifications :

- PC Pentium III or equivalent, 1 GHz
- 512 MB RAM
- Free hard disk space: 80 MB
- XGA resolution (1024 x 768) (recommended : SXGA resolution (1280 x 1024) with 32 MB video memory but better is for some advanced features to have the same resolution as the projector.)
- Serial communication port and/or Ethernet connection

Software

- Windows XP Home or Windows XP Professional, Windows Vista, Windows 7, Windows 8.

System requirements for Linux

Software

- Any Linux distribution that supports Sun's Java Runtime Environment v1.5.0 (RedHat 9.0, SuSe 8.2, Debian/Ubuntu, Mandriva, ...)
  Check out the documentation of your favorite distribution to find out if Java 1.5 is supported.

Minimum hardware specifications

- PC Pentium III or equivalent, 1 GHz
- 512 Mb RAM
- Free hard disk space: 100 MB
- XGA resolution (1024 x 768) (recommended : SXGA resolution (1280 x 1024) with 32 MB video memory but better is for some advanced features to have the same resolution as the projector.)
- Ethernet connection (serial connection is not supported)

Mac OS X

Software

- Apple's Java SE 5.0 Release 3 or better
- Mac OS X v10.4.2 or better

Minimum system requirements :

- PowerPC G3
- 256 MB RAM
- 10 MB disk space
- Display with XGA resolution (1024x768) (recommended : Display with SXGA resolution (1280x1024) but better is for some advanced features to have the same resolution as the projector)
- Network connection

2.2 Free download of Projector Toolset

Overview

The program and all necessary plug-ins can be downloaded for free from Barco's website, (URL: http:www.barco.com). Once on the home page, go to Partnerzone to enter the partnerzone. Registration is necessary.

If you are not yet registered, click on *Sign up My.barco* and follow the instructions. With the created login and password, it is possible to enter the partnerzone where you can download the Projector Toolset software and the device plug-in updates.

When downloading the complete Projector Toolset, this software contains already the latest device plug-ins.

It is not necessary to install any other software. A Java virtual machine is included with this download.

2.3 Projector Toolset installation

The installation file contains the Projector Toolset framework and the available plug-ins.

Do not install over an existing install, install in a new directory or uninstall first the previous version.

To install on Microsoft Windows

The process of installing your software involves the following steps:

1. Browse to the directory where the install program is downloaded.
2. Double click on *Ptoolset_Installer.exe* .

   The installation starts. Depending on the local Internet Explorer settings, it is possible that a warning is displayed. Just click Run to start the installation.
3. Follow the instructions given in the different install windows.
4. Complete installation is automatic.
   Note: *A restart of the computer is necessary before the software can be used.*

   Barco → Projector Toolset → Projector Toolset item is added to the program list (unless otherwise selected during the installation).

Only Projector Toolset framework is installed. To start using it, first install one or more device plug-ins. The software will request to install the plug-ins.

To install on MAC OS X

The process of installing your software involves the following steps:

1. Browse to the folder where the downloaded installer zip file is stored.
2. Double click on the zip file to unzip.
3. Double-click on the *PToolset_Installer* file.

   The installation starts.
4. Follow the instructions given in the different install windows.
5. The complete installation is done automatically.

Only Projector Toolset framework is installed. To start using it, first install one or more device plug-ins. The software will request to install the plug-ins.

To install on Linux

The process of installing your software involves the following steps:

1. Browse to the folder where the downloaded installer file (*PToolset_installer.bin*) has been stored.
2. Check if the file is executable. This is done by right clicking on the file and selecting ‘Properties’ from the popup menu.
3. Select tab **Permissions** and check if *Is executable* is enabled.

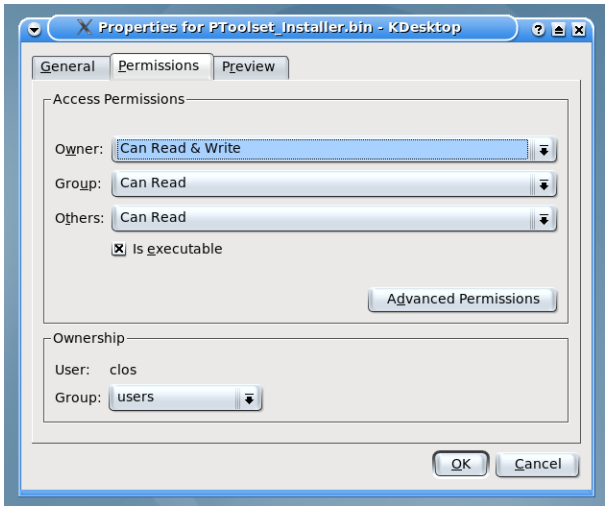


Image 2-1
File properties

4. Double click on the *Ptoolset_installer.bin* to start the installation.
5. Follow the instructions given in the different install windows.
6. The complete installation is done automatically.

Only Projector Toolset framework is installed. To start using it, first install one or more device plug-ins. The software will request to install the plug-ins.

2.4 Starting up

Launching Projector Toolset on Microsoft Windows

To start up the Projector Toolset software:

1. Click on **Start** → *Programs* and select *Barco* → *Projector Toolset* → *Projector Toolset*.
   Or,
   if a desk top icon is available, double click that desk top icon.

   The software starts up. This start up procedure can take a while. First splash screen opens.

Image 2-2
Start up splash screen

The software starts up with the latest used configuration or, if new plug-ins or updated plug-ins are downloaded, with overview table of the downloaded plug-ins. All plug-ins in the table are selected by default.

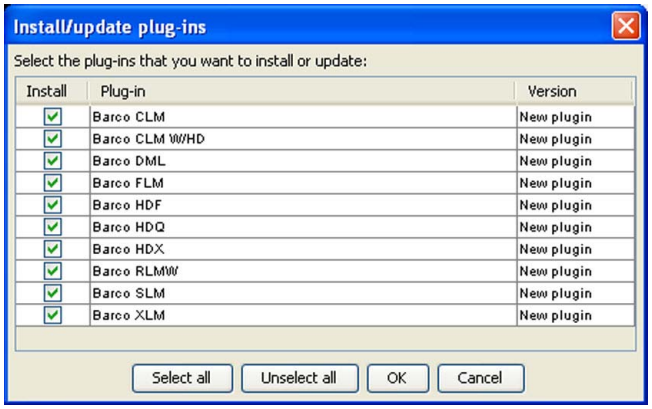


Image 2-3
Overview downloaded plug-ins

2. Unselect the plug-ins which you do not want to install.
   Or,
   click on **Unselect all** and then select the plug-ins you want to install.

   Select all will check all plug-ins at once.

3. Click **OK** to install the selected plug-ins.

   When all plug-ins are installed, a restart message is displayed.

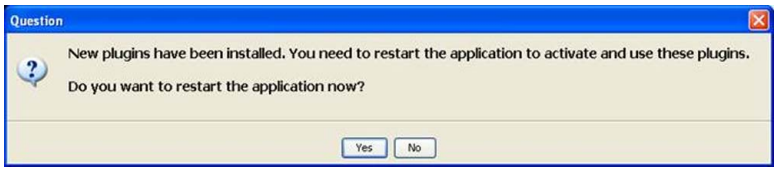


Image 2-4
Plug-ins installed

4. Click **Yes** to shutdown the application and restart the application.
   Click **No** to continue working with the old plug-ins.

Launching Projector Toolset on Mac OS X

To start the Projector Toolset software on Mac OS X system:

1. With Finder, go to the Applications folder under your home folder.
2. Double-click on the Projector_Toolset icon to start the application.

   It can take a while to start up. First splash screen opens.

   The software starts up with the latest used configuration or, if new plug-ins or updated plug-ins are downloaded, with overview table of the downloaded plug-ins. All plug-ins in the table are selected by default. (image 2-3)

3. Unselect the plug-ins which you do not want to install.
   Or,
   click on **Unselect all** and then select the plug-ins you want to install.

   Select all will check all plug-ins at once.

4. Click **OK** to install the selected plug-ins.

   When all plug-ins are installed, a restart message is displayed. (image 2-4)

5. Click **Yes** to shutdown the application and restart the application.
   Click **No** to continue working with the old plug-ins.
6. Once Projector Toolset is fully started, it has the following look and feel.

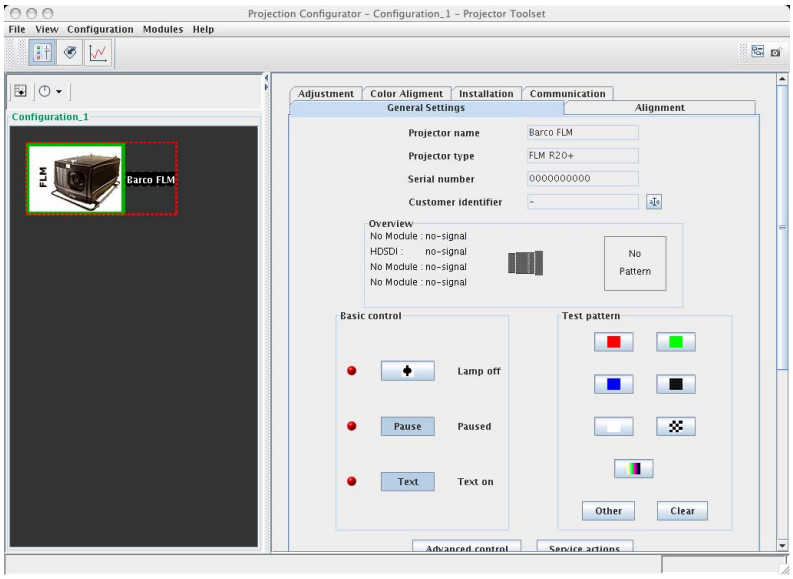


Image 2-5
Look and feel on MAC

Launching Projector Toolset on Linux

To start the Projector Toolset software on a Linux system:

1. Go to your home folder.
2. Double click on the Projector_Toolset icon to start the application.

   It can take a while to start up. First splash screen opens.

   The software starts up with the latest used configuration or, if new plug-ins or updated plug-ins are downloaded, with overview table of the downloaded plug-ins. All plug-ins in the table are selected by default. (image 2-3)
3. Unselect the plug-ins which you do not want to install.
   Or,
   click on **Unselect all** and then select the plug-ins you want to install.

   Select all will check all plug-ins at once.
4. Click **OK** to install the selected plug-ins.

   When all plug-ins are installed, a restart message is displayed. (image 2-4)
5. Click **Yes** to restart the application.
   Click **No** to continue working with the old plug-ins.
6. Once Projector Toolset is fully started, it has the following look and feel.

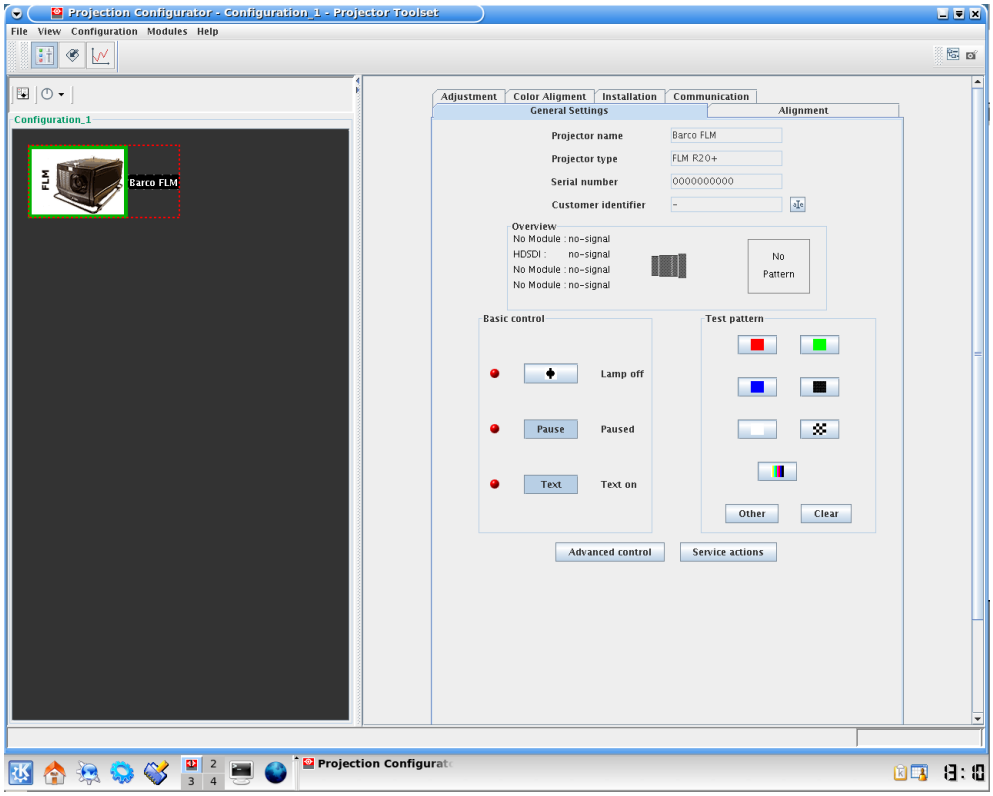


Image 2-6
Look and feel on Linux

2.5 Manual installation of a device plug-in

When should it be done manually

When a new plug-in is downloaded, and the user has decided no to install it yet for some reason. He still has the possibility to install this plug-in manually.

How to install

1. Start up Projector Toolset.
2. Click **Help** on the menu and select *Install plugin...* .

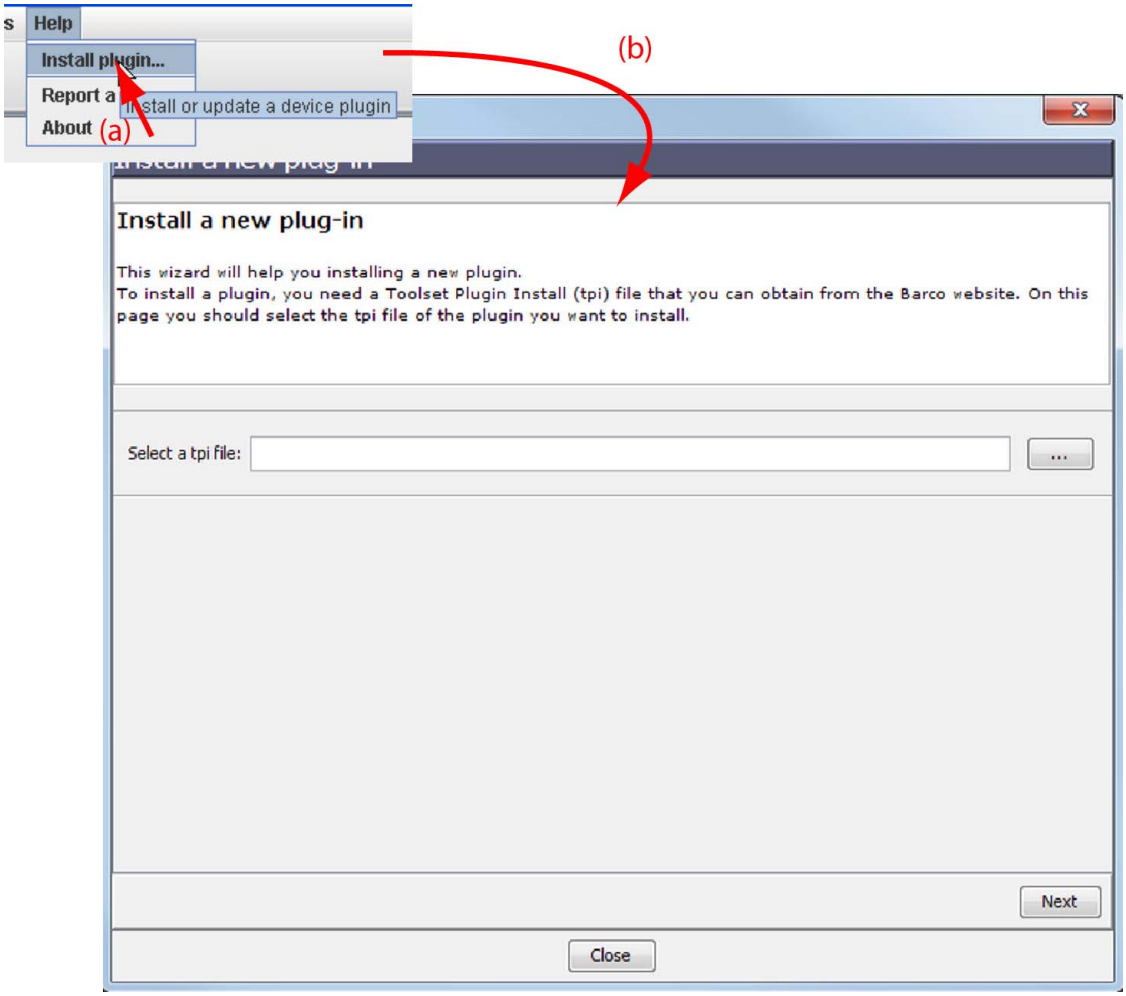


Image 2-7
Install plug-ins, start

An *Install device plug-in* dialog box opens.

3. If the path and file name is known, fill it out next to *Select a tpi file*.
   Or,
   click on the Browse button (**...**).

   An *Open* dialog box opens.
4. Browse to the desired plug-in file and click **Open**.

   Plug-in files are .tpi files and are mostly located in the Plugins subdirectory of Projector Toolset's install directory.

   The *Install device plug-in* dialog is re-displayed with the complete path filled out.
5. Click **Next**.

   An overview of projector name, plug-in ID and version is given.

   A question dialog box appears to ask if you really want to install the selected plug-in.
6. Click **Next** to continue.

   Installation procedure starts. Result is displayed in a dialog box. A restart of Projector Toolset is necessary to activate the new installed plug-in.

7. Check *Shutdown application* and click **Finish**.

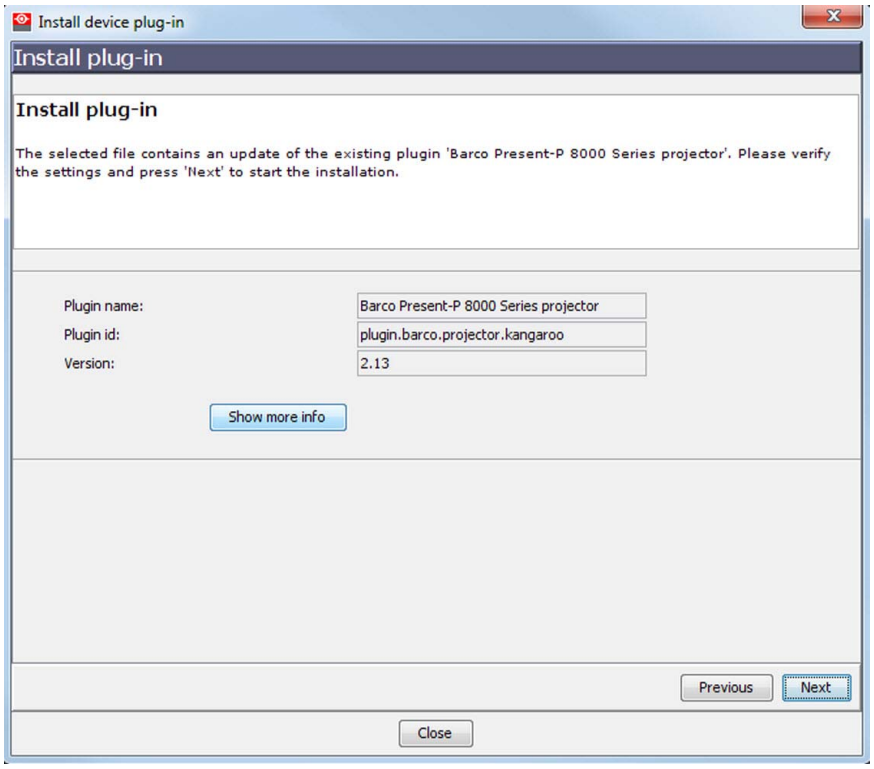


Image 2-8
Finish the installation

Projector Toolset will be closed.

8. Restart Projector Toolset.

The new plug-in is activated.

2.6 Uninstall Projector Toolset

How to uninstall on a Microsoft Windows platform

To uninstall the program, normal Windows functionality can be used to remove a software.

Click on Windows **Start**, select *Settings* and open *Add/Remove software*.

Select the version of Projector Toolset which must be removed and click on **Remove**.

The complete program will be removed from the hard disk.

How to uninstall on a Linux platform

Remove the Projector Toolset folder from the home folder.

How to uninstall on a Mac OS X platform

Remove the Projector Toolset folder from the application folder in the home folder.

2.7 About this manual

Overview

This Reference manual provides detailed information about the configuration and setup software Projector Toolset. This manual is designed to be a reference tool in your everyday work with Projector Toolset.

The following icons are used in the manual :

	Caution
	Warning
	Info, term definition. General info about the term.
	Note, gives extra information about the described subject.
	Tip, gives extra advice about the described subject.

Images given in the manual are used as illustration. The content of the image can be slightly different with the real image on the screen, e.g. version numbers, installed modules, etc. .

Typography:

- Clickable menu items or buttons are indicated in bold, e.g. **OK**
- Menu items are indicated in italic.
- A dialog window is indicated in italic, e.g. *Make a new configuration*.
- Step related notes, tips, warnings or cautions are printed in italic.
- Procedure related notes, tips, warnings or cautions are printed in bold between 2 lines preceding by the corresponding icon.

About the illustrations

The software is used to control different devices. The same function is sometimes uses in the GUI but this GUI indicates another device name or pictograph depending on the connected device. Therefore, the screenshots given as illustrations in this manual will show only one type of device, independently which device is connected, except if the way of working is different for the connected device.

What's next?

Now that you are familiar with the style of this guide, you are now ready to know more about its modules and what they can do.

3. MENUS

Overview

- General
- Menu and button bar
- Main window
- Short cut keys
- Workspace Explorer
- How to adjust a setting
- About Projector Toolset
- Snapshot management

Illustrations given in this chapter are only given as information. Depending on the projector type, the real GUI can be slightly different with the illustrations but the functions are the same and are located on the same position as in the illustration. The name of the projector is only used as illustration but can be any type of projector.

3.1 General

The right mouse button

The right mouse button is used in Projector Toolset for direct controls. The use of this button can be handy throughout the complete software.

Ergonomics

Projector Toolset works on the principle of windows with adjustable sizes that can be positioned as you like.

When Projector Toolset opens, it displays the main window along with the Menu and button bar. The drop-down menus include the usual functions of any software (File,etc.) and menus specific for Projector Toolset.

The button bar allows switching between the different modules.

An extra *Workspace explorer* window makes configuration management more easy.

3.2 Menu and button bar

Structure

The menu contains drop down menus accessible by clicking with the mouse on an item. To select an item, just click on an item in the drop down list.

The button bar contains on the left side navigation buttons to the different modules and on the right side manage buttons to the workspace explorer and snapshot function.

To activate a module, click on a navigation button. The window will change accordingly. When activating some buttons, some extra items will be added to the menu.

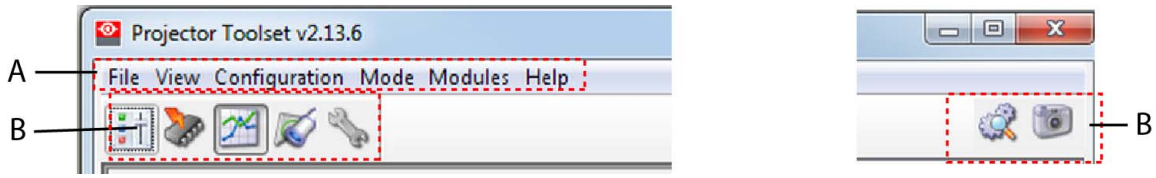


Image 3-1
Menu and button bar

3.3 Main window

Overview

The content of the main window changes when a other navigation (module) button is activated, but the main parts are the same for all modules.

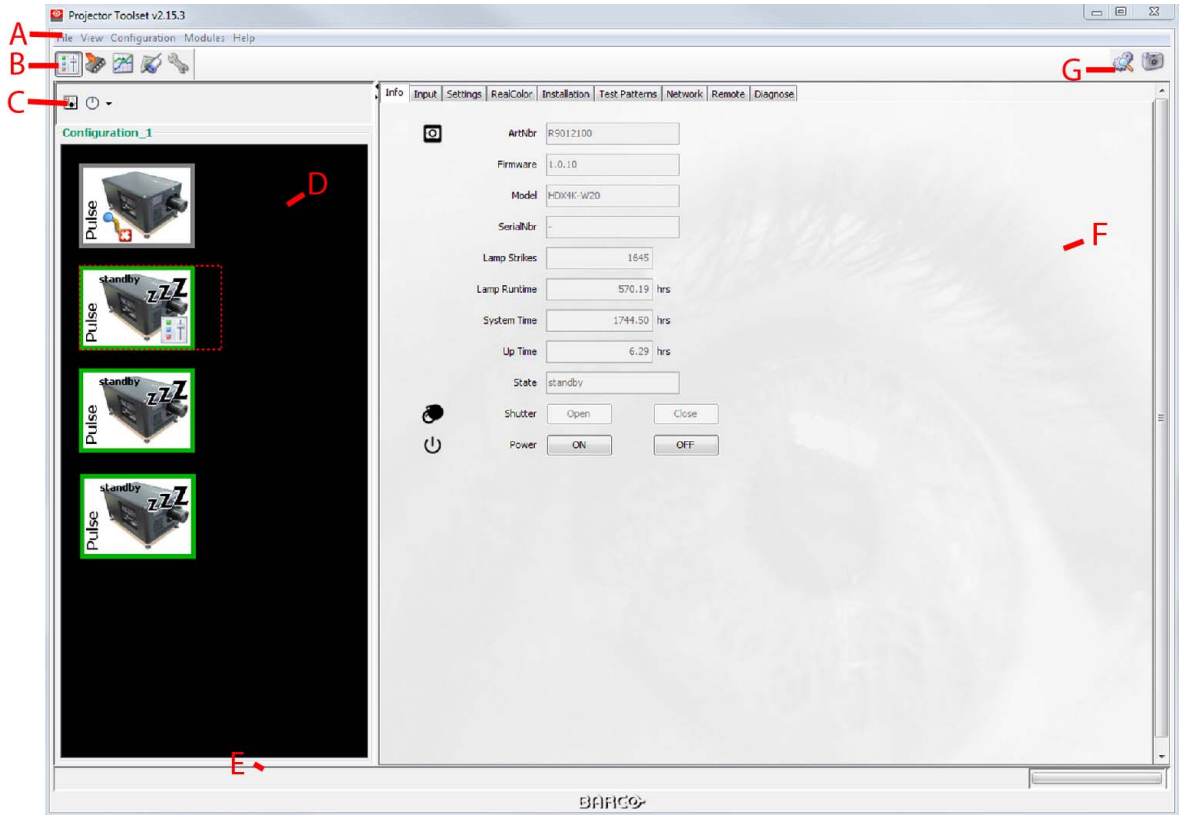


Image 3-2
Main window indications

Indication	Description
A	Window title. Construction of active module - Configuration name
B	Menu
C	Module navigation buttons
D	Configuration preview pane
E	Log window. Can be hidden by the log information button on top of the configuration preview pane.
F	Settings pane. Content changes with the selected module button and selected projector/device.
G	Manage buttons for configurations and snapshots

Tool tip

Some items and or icons show a tool tip when moving the cursor over that item or icon. This tool tip helps to identify the buttons or items.

Scroll bars

If there is more information available than displayed in a pane, vertical and horizontal scroll bars will be added to that specific pane. These scroll bars let you move up and down and left and right through the information in the pane. Vertical scroll bars are the bars on the right side of the pane. Horizontal scroll bars are the bars at the bottom of the pane.

To use scroll bars, place the cursor on the scroll box, click and hold down the mouse button. Move the scroll box the entire span of the scroll bar. Notice how you can move and up down in the information in the pane.

You can also click anywhere above or below (left or right) the scroll box in the empty space. Click once with the mouse and the scroll bar will make larger leaps in the information.

Split bar

The split bar divides the different panes. The position of the split bar is adjustable.

Image 3-3
Split bar

To adjust the position, place the cursor over the split bar separating the panes, so that the two-headed arrow cursor appears. Click on the two-headed arrow and drag it until the panes are the desired size.

3.4 Short cut keys

Overview

Window operating system	Description
F8	Take snapshot
Ctrl + F8	Apply snapshot
Shift + Ctrl + F8	Show snapshot management dialog box
F11	Show Workspace Explorer
Alt + Enter	Show configuration properties
Ctrl + Enter	Show properties of selected projector
Ctrl + S	Save configuration
INSERT	Scan for devices (on network, serial)
DELETE	Delete selected device from configuration

3.5 Workspace Explorer

Workspace explorer

Window to manage the available configurations in the current workspace.

How to display

Click on the workspace explorer icon ( ) on the left top corner or

on the menu, click on **View** → *Workspace explorer* or

press **F11**.

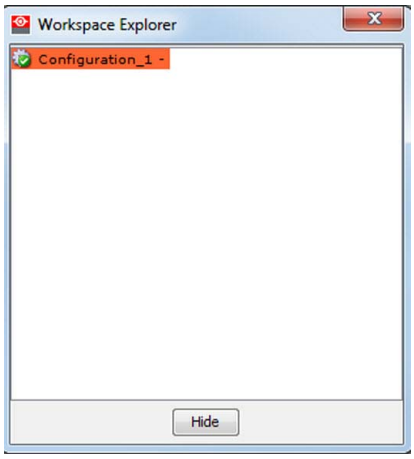


Image 3-4
Workspace explorer

What can be done

The workspace explorer window gives an overview of the existing Configurations.

To select a configuration, just click on it. The background of the selected configuration changes to blue. When the same item is open (active) the background remains blue.

When another configuration is selected, the background of this new configuration becomes blue and the background of the active (open) configuration changes to orange.

To activate (open) another configuration, double click on it. The background becomes blue. All other configurations will have no background.

An asterisk (*) behind a configuration means that a configuration setting is changed since the last saved version. A save is necessary to store the changes.

3.6 How to adjust a setting

About input boxes

To change a value:

- Click on the up down control of the spin box next to the input box until the desired value is reached.
- Click in the input field of the spin box, select the actual value and enter a new value with your keyboard.

About drop down menu settings

Click on the drop down menu. A list of possible choices opens. Select the desired item.

3.7 About Projector Toolset

Why?

The about function in the *Help* menu gives an overview of the used system parameters and the installed modules. This information can be handy when calling for help.

The images given below are just example images. These images can differ from version to version.

The versions indicated on the illustrations are only given as info and these versions can be different with the current versions.

How to start up

1. Click **Help** on the menu and select *About* (a).

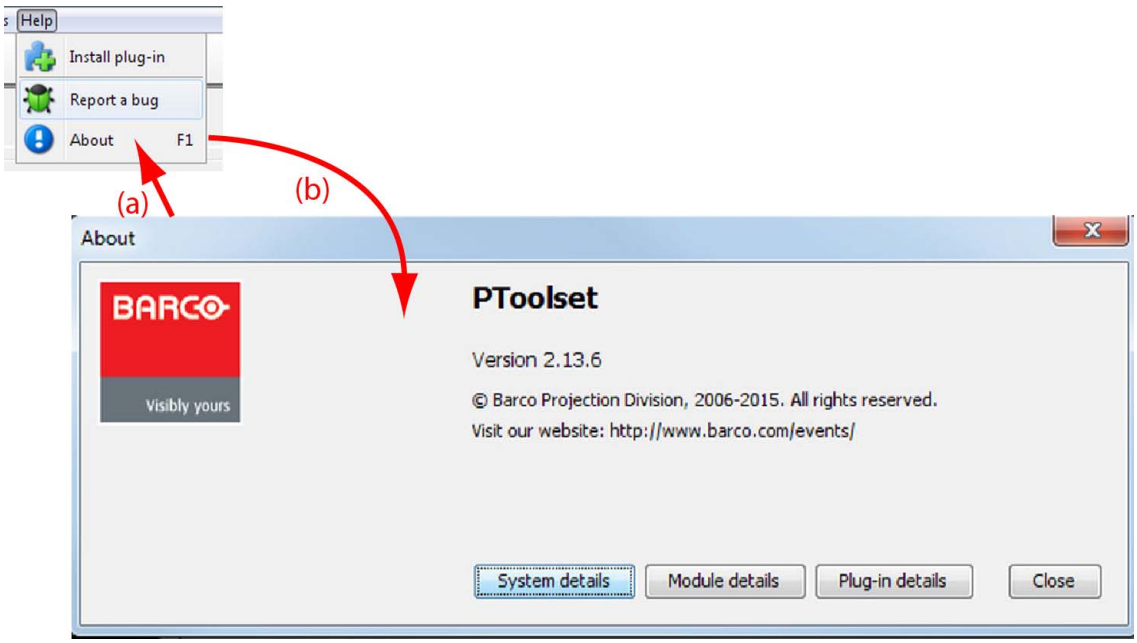


Image 3-5
About window

The *About* start up dialog box opens (b).

System details

Click on **System details** to see the system parameters on which Projector Toolset is running.

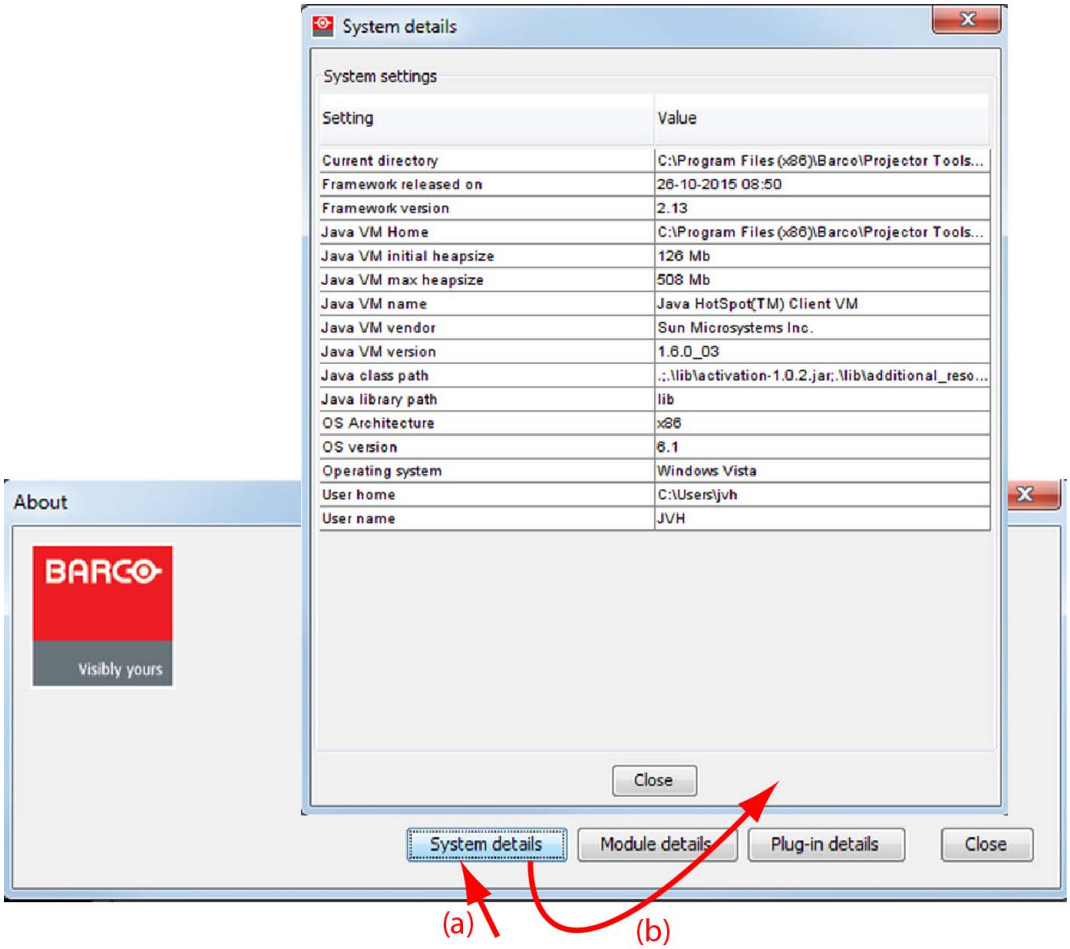


Image 3-6
System details

Module details

Click on **Module details** to get an overview of the installed modules.

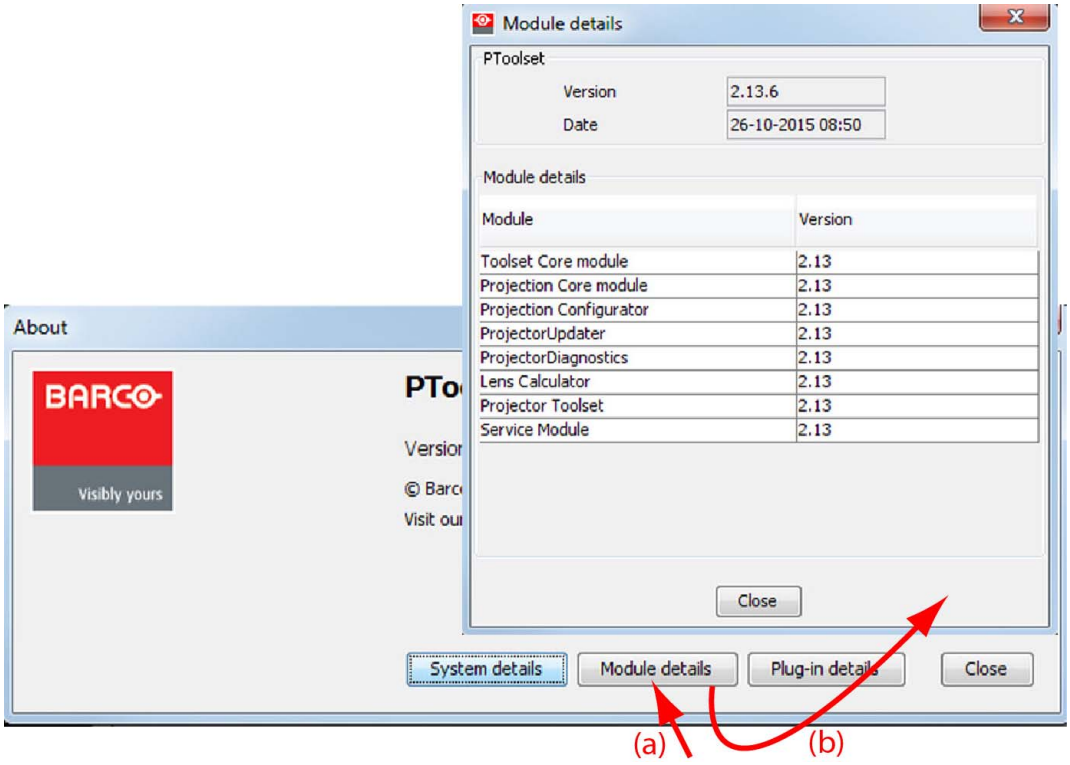


Image 3-7
Module details

First of all the software version and the release date are indicated in Module manager.

Module details gives an overview of the installed modules and their version.

Plug-in details

Plug-in details gives an overview of the installed device plug-in together with their version.

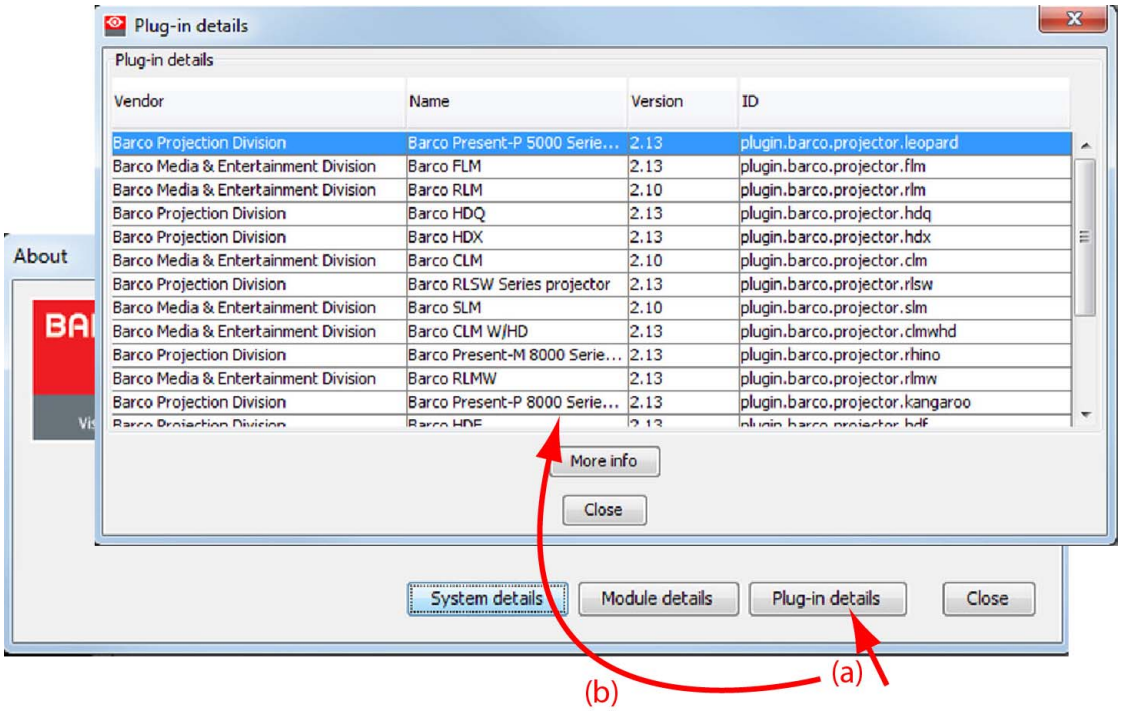


Image 3-8
Device plug-ins details

For more info about a device plug-in, click on the desired plug-in to select and then click on **More info...** .

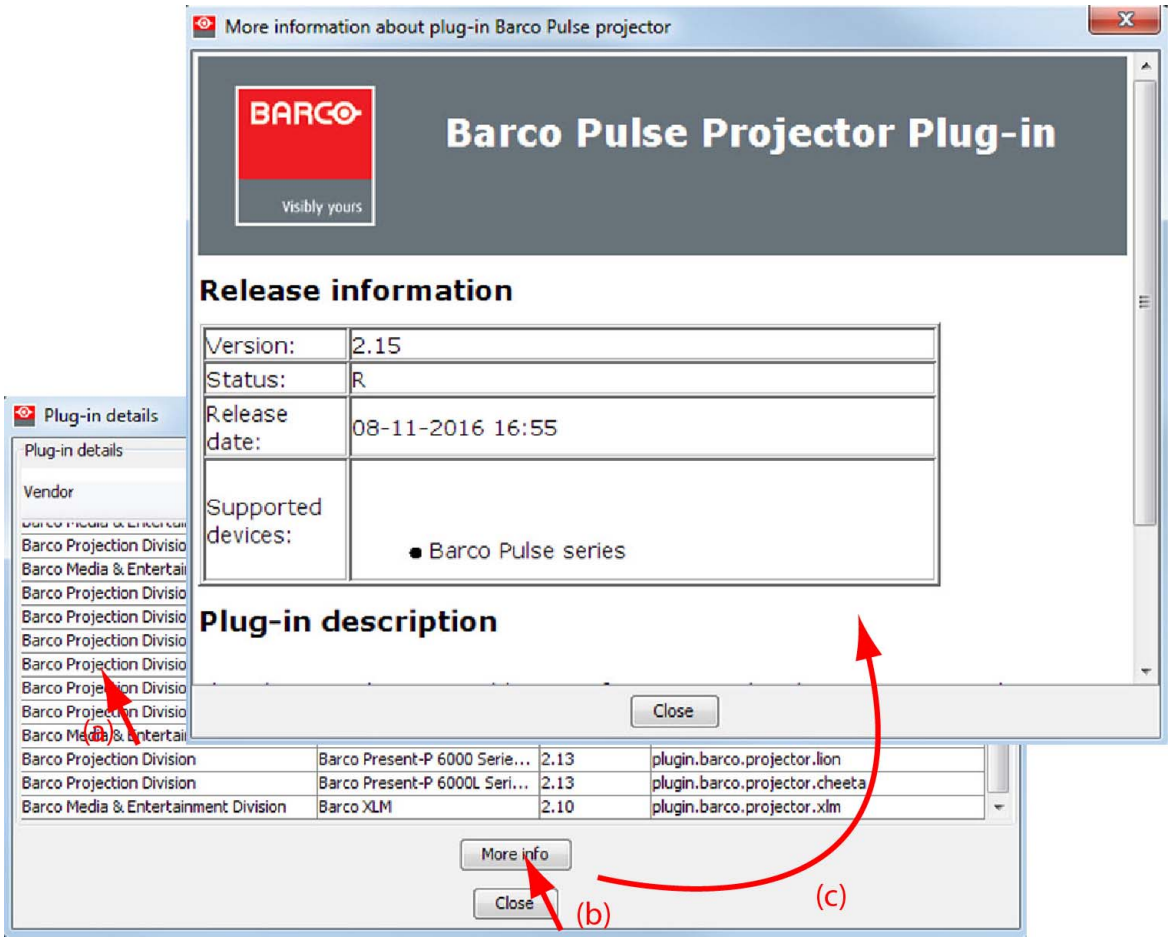


Image 3-9
More info device plug-in

Release information, plug-in description and license agreement is given.

3.8 Snapshot management

Overview

- About snapshots
- Managing snapshots
- Take a snapshot
- Apply a snapshot
- Delete a snapshot
- Add shot cut key to a snapshot
- Remove shot cut key association

When a configuration contains also Digital Cinema Touch panel devices or only these devices, these devices are not included in a snapshot.

3.8.1 About snapshots

Overview

At any moment the settings for a configuration can be saved in a snapshot file. This snapshot file can be loaded again to create the same situation as when the snapshot was taken.

A snapshot can contain:

- All settings
- All layout settings
- All input settings
- Lamp settings
- Projector settings

Snapshot

A snapshot is a collection of settings at a given point of time for a configuration

3.8.2 Managing snapshots

Overview

When opening the snapshot window an overview of all available snapshots is given. A snapshot file is built up as a tree of settings.

To open this tree of settings, click on the '+' sign to expand a branch.

A yellow warning symbol in front of the snapshot name means that something inside the snapshot does not correspond with the current active configuration. Expand the snapshot tree to see the differences. Such a snapshot can be applied to the current configuration but only the corresponding setting are loaded and for the other settings, the current values remain in place.

Some examples when a warning symbol can be displayed:

- projector not (anymore) in the configuration
- inputs on projector are swapped, or missing.

When a snapshot is selected, the name of the snapshot is yellow.

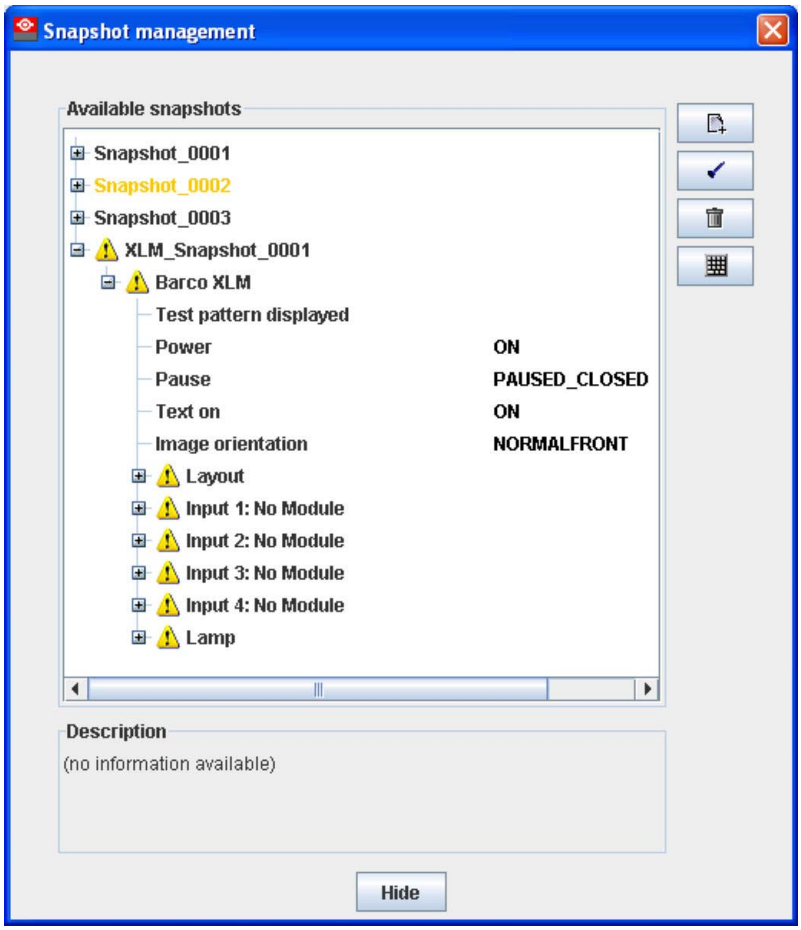


Image 3-10
Snapshot view

3.8.3 Take a snapshot

What can be done?

As a snapshot is collection of setting at a certain point in time, a snapshot of the current configuration can be taken at any moment.

How to take

1. Click on the snapshot icon on the manage button bar (a).

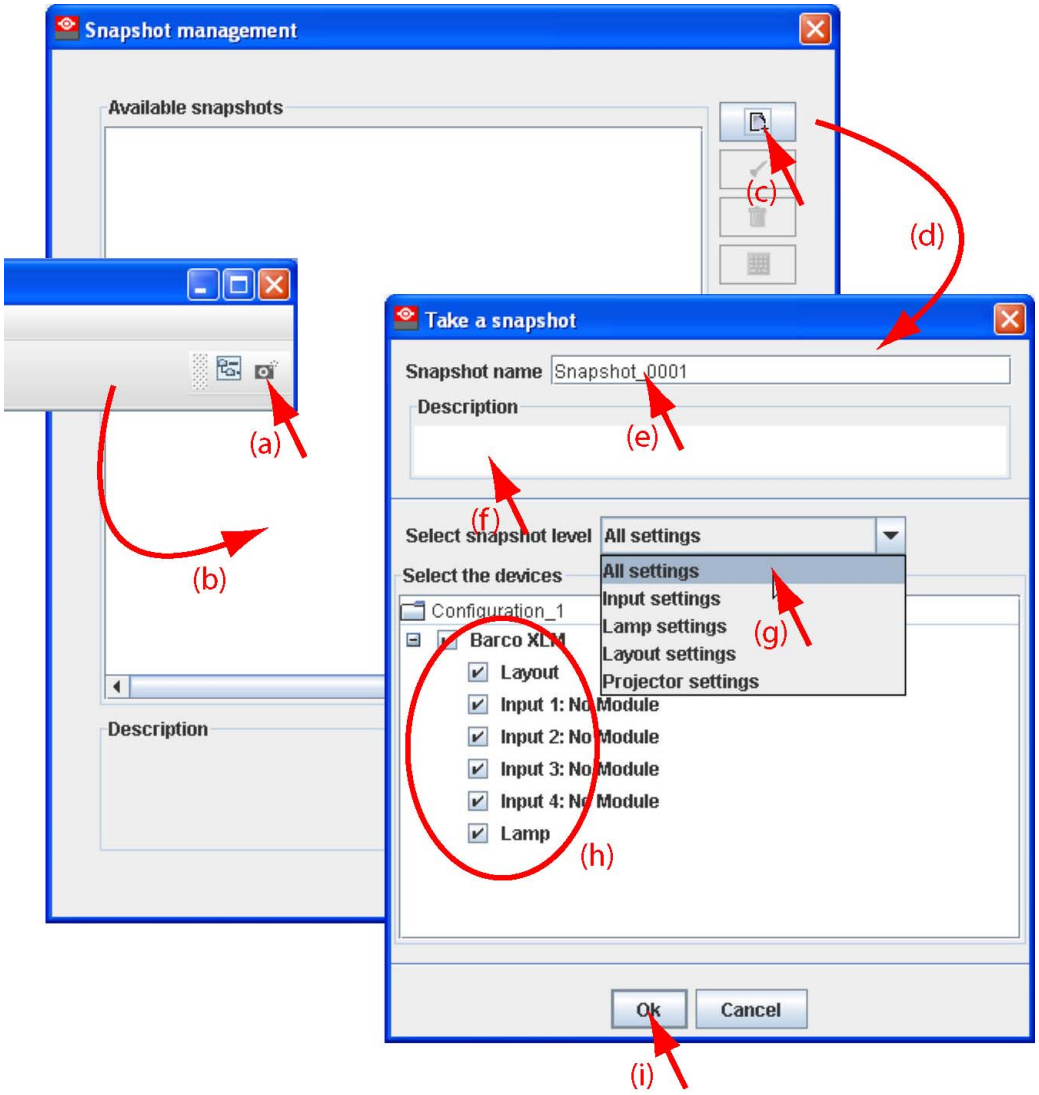


Image 3-11
Take snapshot

The *Snapshot management* dialog box opens (b).

2. Click the *Take a snapshot* icon (c).

   The *Take a snapshot* dialog box opens (d).

3. To change the proposed snapshot name, click in the input field next to *Snapshot name*, select the current name and enter a new name (e).
   Note: *Only the characters a to z, A to Z, 1 to 9 and (,), _, -, @ or allowed in a name.*

4. To enter a description for the snapshot, click in the description input field and enter a description (f).

5. To select the snapshot level, click on the drop down box next to *Snapshot level* and select the desired level from the list (g).
   The following levels are available:
   - All settings
   - All layout settings: only layout settings are saved
   - All input settings: only input settings are saved
   - Lamp settings: only lamp settings are saved
   - Projector settings: only projector settings are saved

   This is a first filtering level and can be followed by a device selection.

6. Select the device. By default all devices are selected (h).

Within the setup snapshot level it is possible to exclude some devices by un-checking that device in *Select the device*.

E.g. when selecting as snapshot level *lamp settings*, it is possible to exclude the lamp settings of a certain projector or when selecting *input settings*, it is still possible to exclude some inputs.

7. Click **OK** to take the snapshot (i).

   The snapshot is taken. A message is displayed with the result.

8. Click **OK** to finish the snapshot procedure.

3.8.4 Apply a snapshot

What can be done?

A snapshot can be fully or partially apply to the current configuration.

When there is no warning symbol in front of the snapshot name, this snapshot can be fully applied to the current configuration.

When there is a warning symbol in front of the snapshot name, that means that the current configuration is not the same as those when the snapshot was made, than only the matching parts will be applied to the current configuration. To see which items do not match, expand the snapshot. Each not matching item will have a warning symbol.

How to apply

1. Click on the snapshot icon on the manage button bar (a).

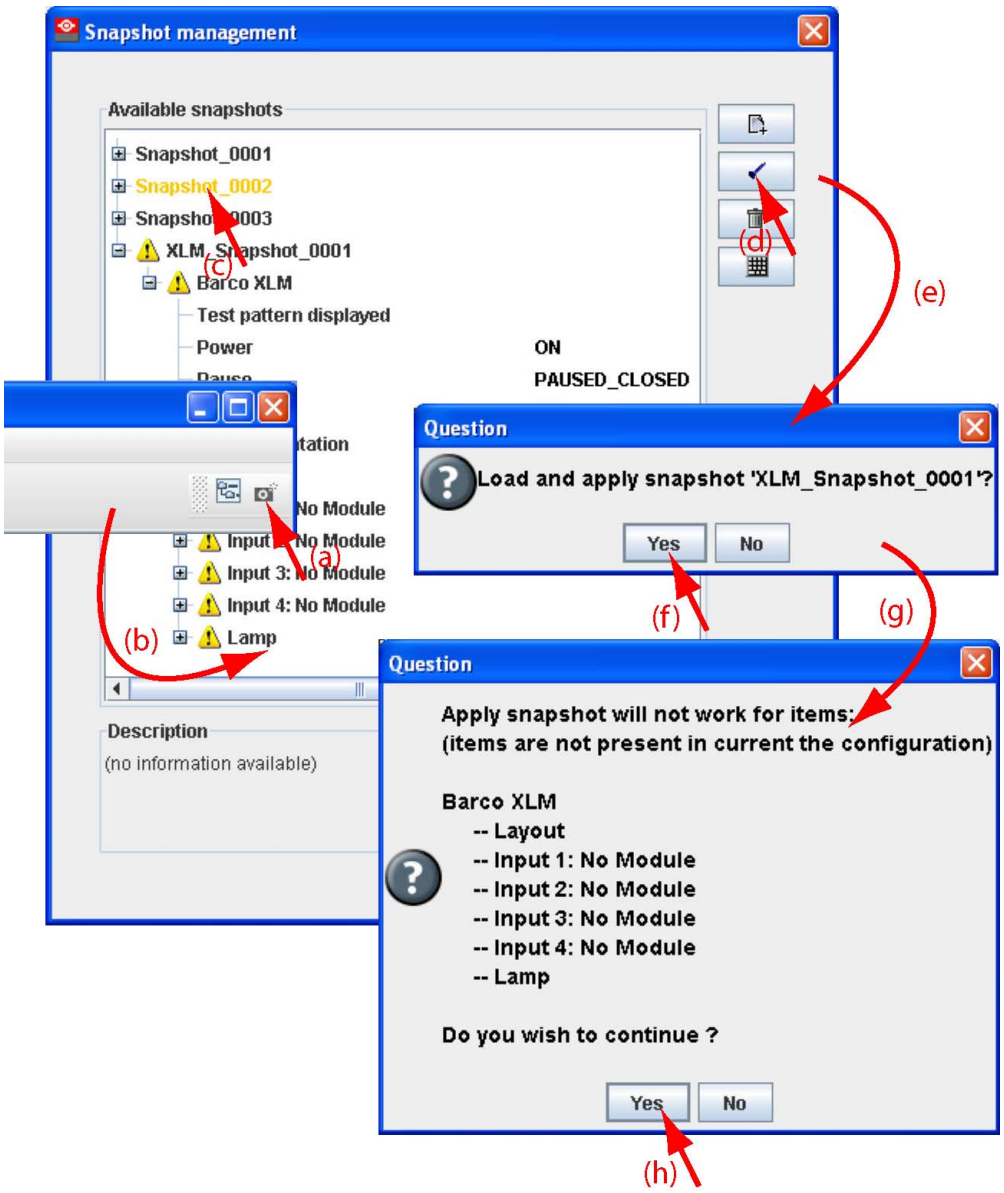


Image 3-12
Apply snapshot

The *Snapshot management* dialog box opens with all available snapshots (b).

2. Click on the desired snapshot (c).

   The name becomes yellow.

3. Click on the Apply icon (d).

   A Load and apply question dialog box opens (e).

4. Click **Yes** to apply (f).

   When it was a fully match, all items in the snapshot are applied. In all other cases a not matching dialog box opens that indicate all not matching items (g).

5. Click **Yes** if you want to continue apply the matching items (h).

3.8.5 Delete a snapshot

How to delete

1. Click on the snapshot icon on the manage button bar (a).

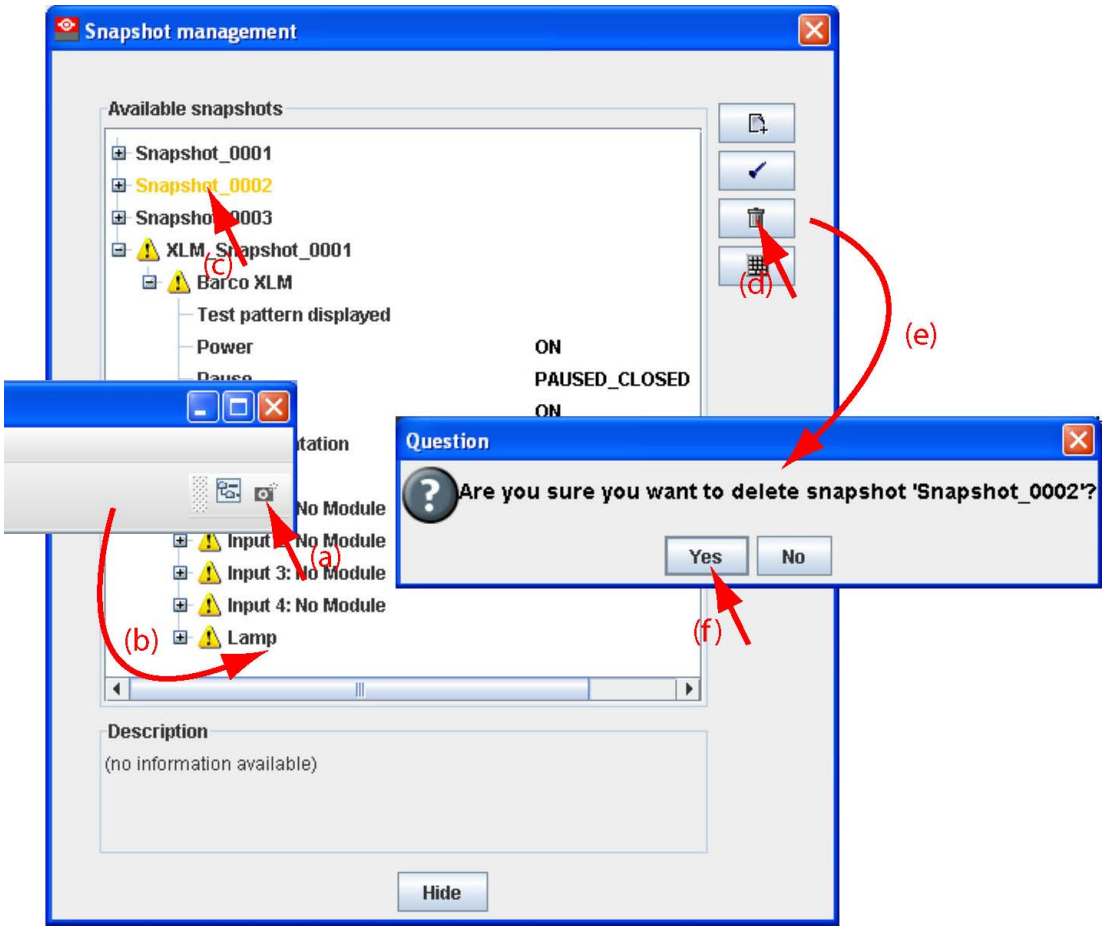


Image 3-13
Delete snapshot

The *Snapshot management* dialog box opens with all available snapshots (b).

2. Click on the snapshot to delete (c).

   The name becomes yellow.

3. Click on the delete icon (d).

   A confirmation dialog box is displayed (e).

4. Click **Yes** to delete (f).

3.8.6 Add shot cut key to a snapshot

What can be done?

To each snapshot a key stroke can be associated so that it can be used as short cut key. This short cut key can be activated at any time. Depending on the apply settings, the snapshot will be loaded without any notice or will be loaded after asking for confirmation. Once the snapshot is loaded, the statuses will be refreshed.

How to create a short cut key

1. Click on the snapshot icon on the manage button bar (a)

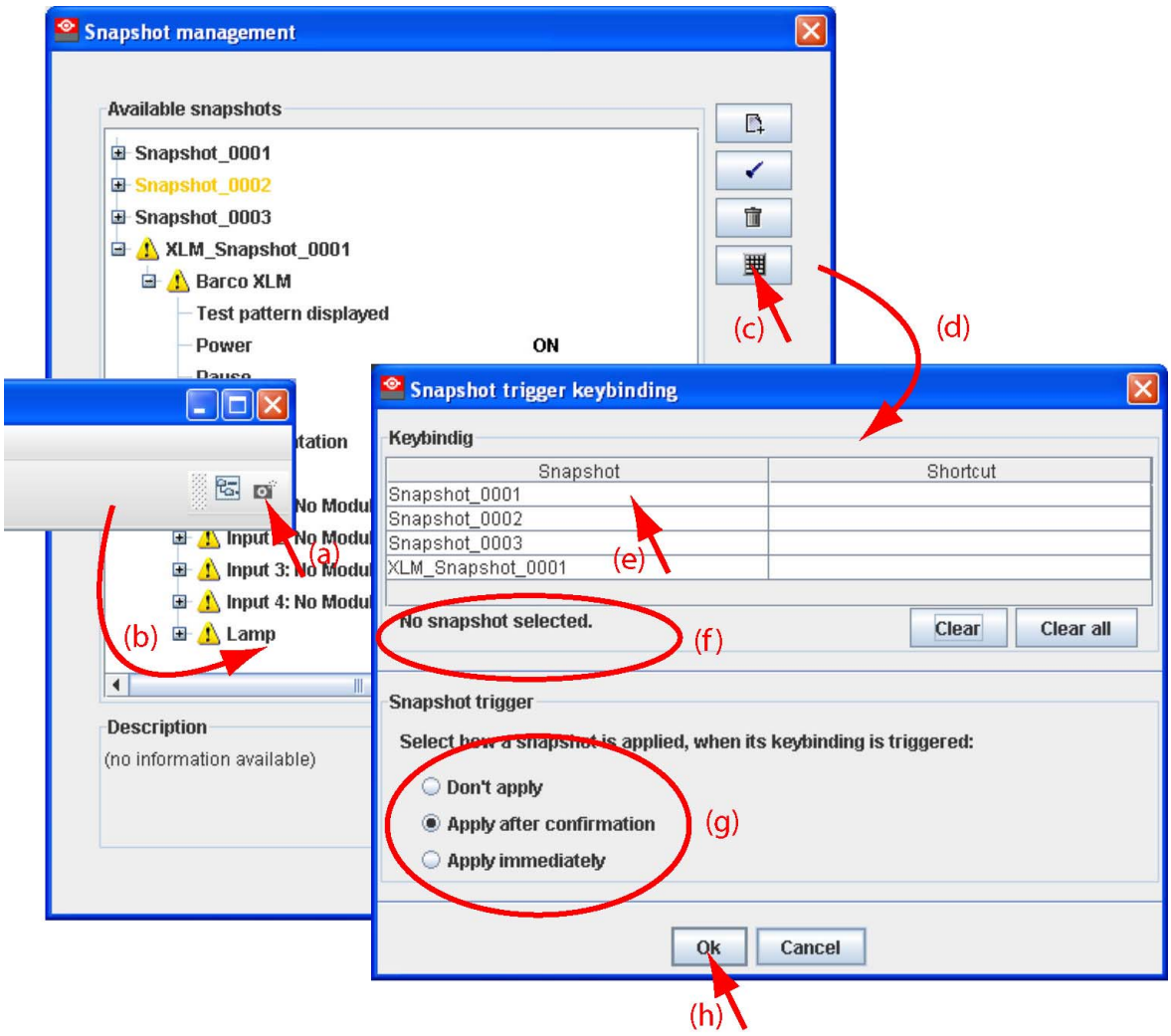


Image 3-14
Associate short cut to snapshot

The *Snapshot management* dialog box opens with all available snapshots (b).

2. Click on the key bindings icon (c).

   The *Snapshot trigger keybinding* dialog box opens (d).

3. Select the snapshot to add a keybinding (e).
4. Enter a keystroke (f).

   No combination of keys is possible. Only single key can be used.

5. Select the snapshot trigger by clicking on the radio button (g).
   - *Don't apply*: not happens when activating the key.
   - *Apply after confirmation*: once the key is pressed, a confirmation message is displayed.
   - *Apply immediately*: once the key is pressed, the snapshot is applied without displaying any message.
6. Click **OK** to save the new short cut status (h).

3.8.7 Remove shot cut key association

How to remove a short cut

1. Click on the snapshot icon on the manage button bar (a)

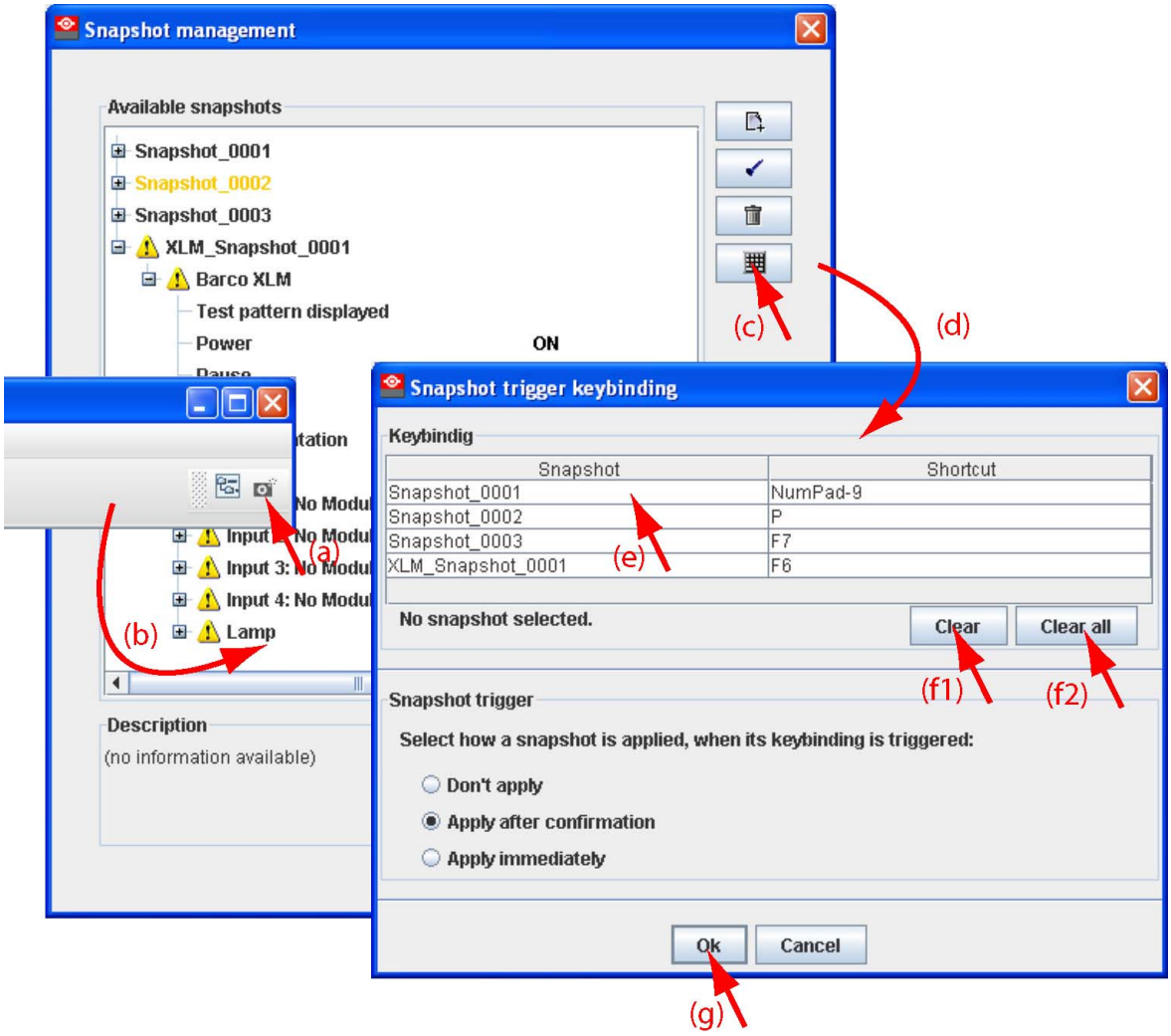


Image 3-15
Clear short cut on snapshot

The *Snapshot management* dialog box opens with all available snapshots (b).

2. Click on the key bindings icon (c).

   The *Snapshot trigger keybinding* dialog box opens (d).

3. To clear the key for a specific snapshot, select that snapshot (e) and click **Clear** (f1).
   To clear all short cut keys at once, click on **Clear all** (f2).

4. Click **OK** to save the new short cut status (g).

4. PREFERENCES

Overview

- Introduction
- Start up the preferences
- Access level
- Software Appearance
- Bug report setup
- Logging
- Settings
- Workspace selection

4.1 Introduction

Overview

Preferences determine the default behavior of the software. Some preferences can be generally set for the complete software, some others are only for the different plug-in modules.

4.2 Start up the preferences

How to start up ?

1. Click on *File* on the menu bar.

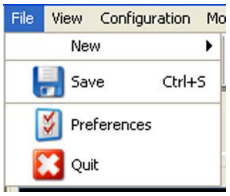


Image 4-1
Select Preferences

The file menu opens.

2. Select *Preferences...* .

The *Preference* dialog box opens.

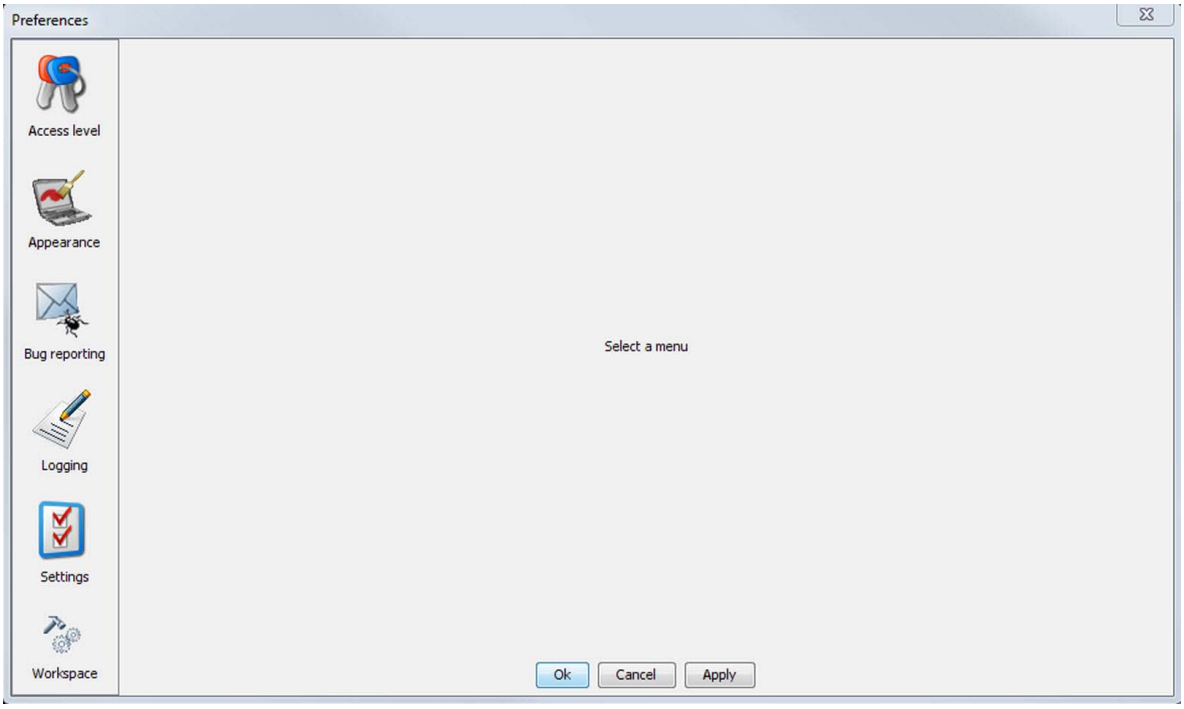


Image 4-2
Preference window

3. Use the **Show all** button to display all the preference items. This **Show all** buttons is available in all following sub preference windows.
4. Use **Apply** button to apply a preference change in one of the other module.
   Use **Cancel** to ignore the preference changes.
   Use **OK** to apply the preference changes and to close the window at the same time.

4.3 Access level

What can be done ?

Some actions and functions of the Projector Toolset are restricted to certain access levels. In this panel you can check the access level and read information from a dongle, if you have one.

A dongle is not required to use the normal functions in Projector Toolset.

When using Projector Toolset without dongle, or as operator, the maintenance function in the Service module has the same content as the maintenance button in the Configurator module, General tab.

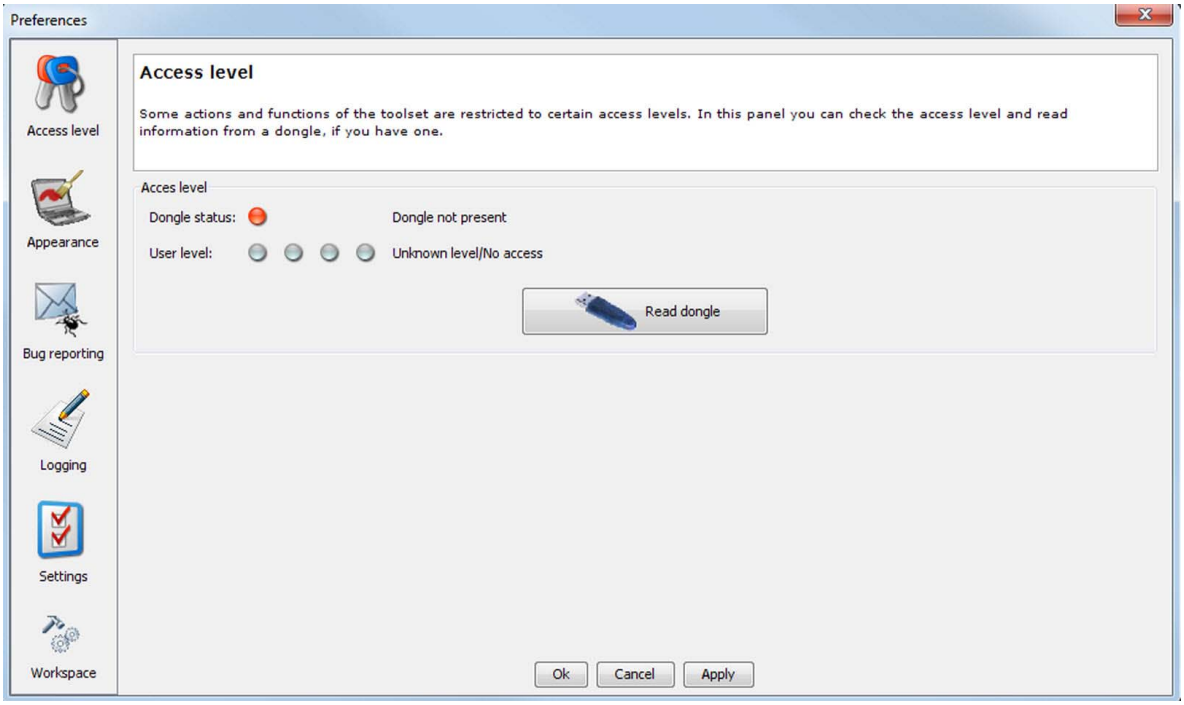


Image 4-3
Access levels

To read out the dongle settings, click on **Read dongle**. The current level of the inserted dongle is indicated next to *User level*.

4 different levels are defined:

- operator level
- service technician level
- theatre technician level
- Barco technician level

Each level can access specific functions in the service module. Only the operator level functions are described in this manual.

4.4 Software Appearance

What can be changed ?

The following items can be changed:

- Language of the software.
- Look and feel of the software.

Language selection

1. Click on **Appearance** (image 4-2).

   The appearance window opens.

2. Click on the combo box next to *Appearance of the application*.

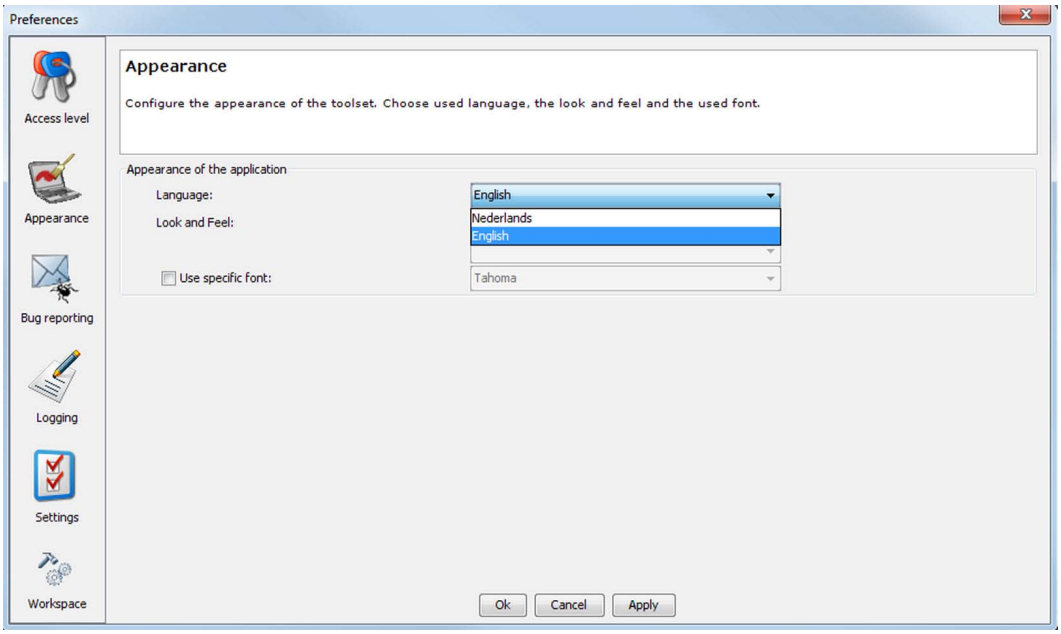


Image 4-4
Language selection

The possible languages will be displayed.

3. Select the desired language.
4. Click on **Apply** to confirm the selection.

   An info window will be displayed to announce that the language change will take place after restarting the software.

Look and feel of the software

1. Click on **Appearance** (image 4-2).

   The appearance window opens.

2. Click on the combo box next to *Look and Feel*.

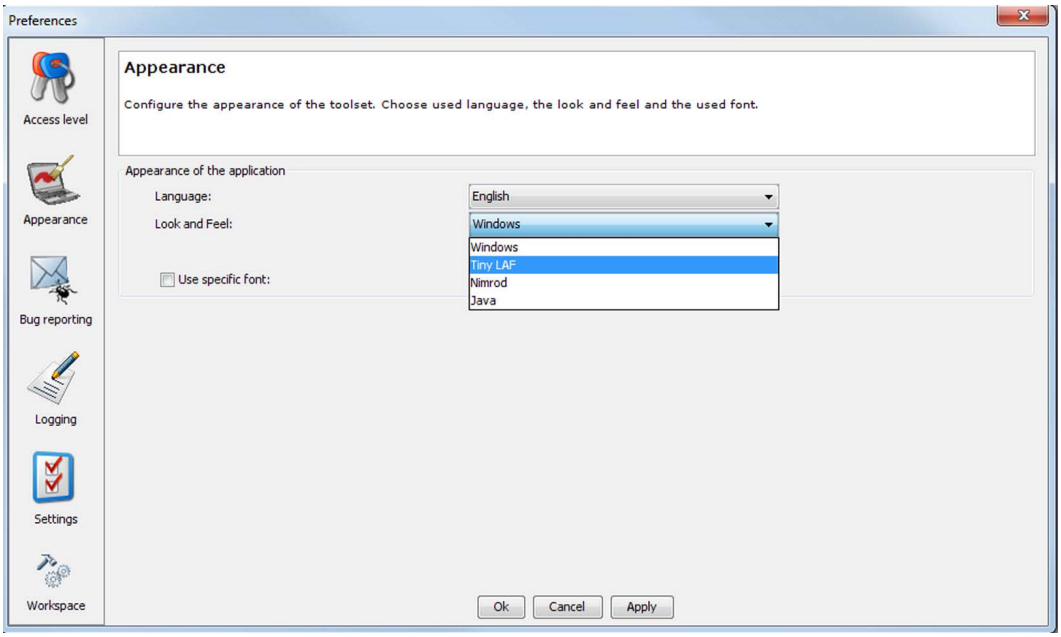


Image 4-5
Look and feel software

The possible look and feels will be displayed.
The following are possible:

- Windows
- Java
- Nimrod
- Tiny LAF

Nimrod and Tiny LAF are collections of look and feels. If one of both are selected, the second line becomes available to select a typical look and file out of the collection.

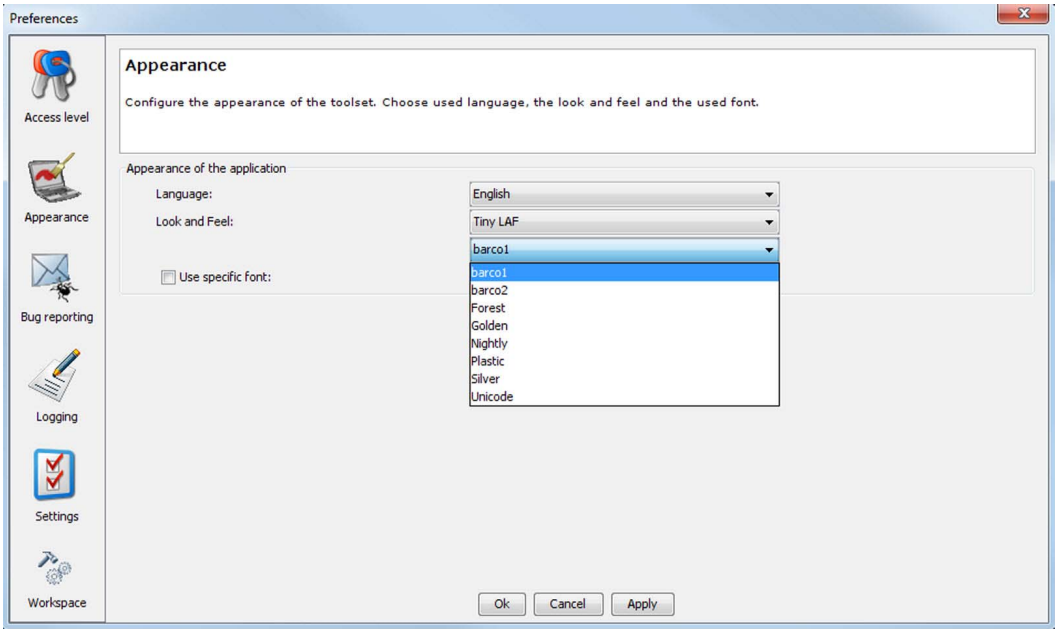


Image 4-6
Look and feel software for collection

An info window will be displayed to announce that the look and feel change will take place after restarting the software.

Screen shots in this manual are made for a Java look and feel.

Use of specific fond

1. Click on **Appearance** (image 4-2).

   The appearance window opens.

2. Check the check box in front of Use specific font.

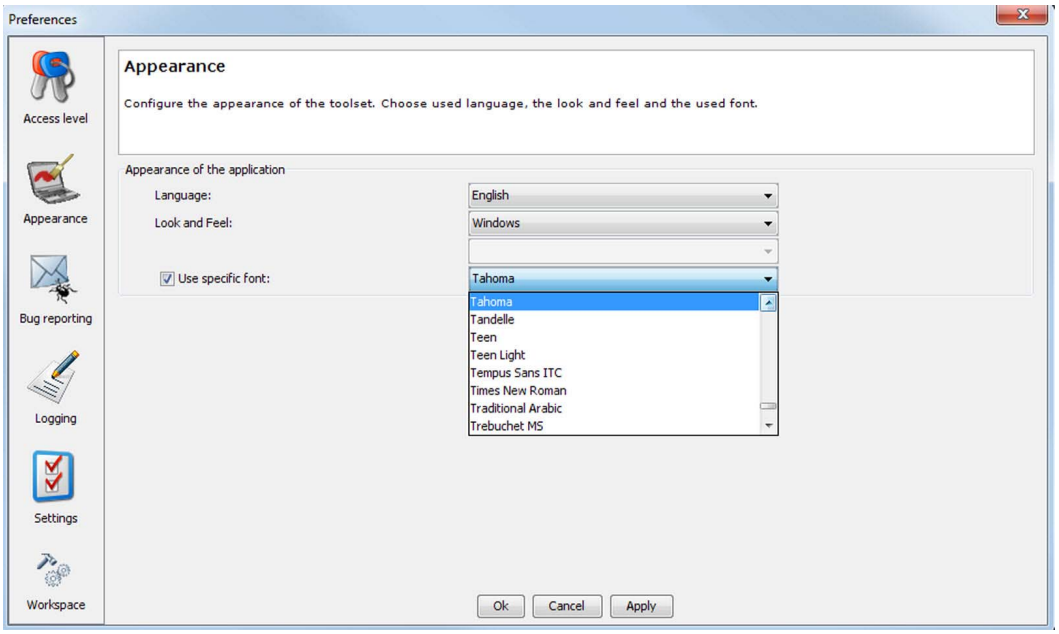


Image 4-7
Use of specific font

The drop down menu becomes available.

3. Click on the drop down box and select the desired font.
4. Click on **Apply** to confirm the selection.

   An info window will be displayed to announce that the look and feel change will take place after restarting the software.

4.5 Bug report setup

SMTP

SMTP (Simple Mail Transfer Protocol) is a TCP/IP protocol used in sending E-mail.

Setup bug report

1. Click on **Bug reporting**.

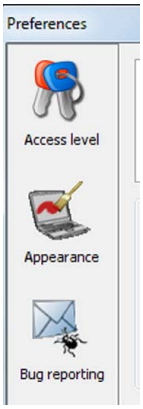


Image 4-8
Bug report selection

The bug report setup window appears.

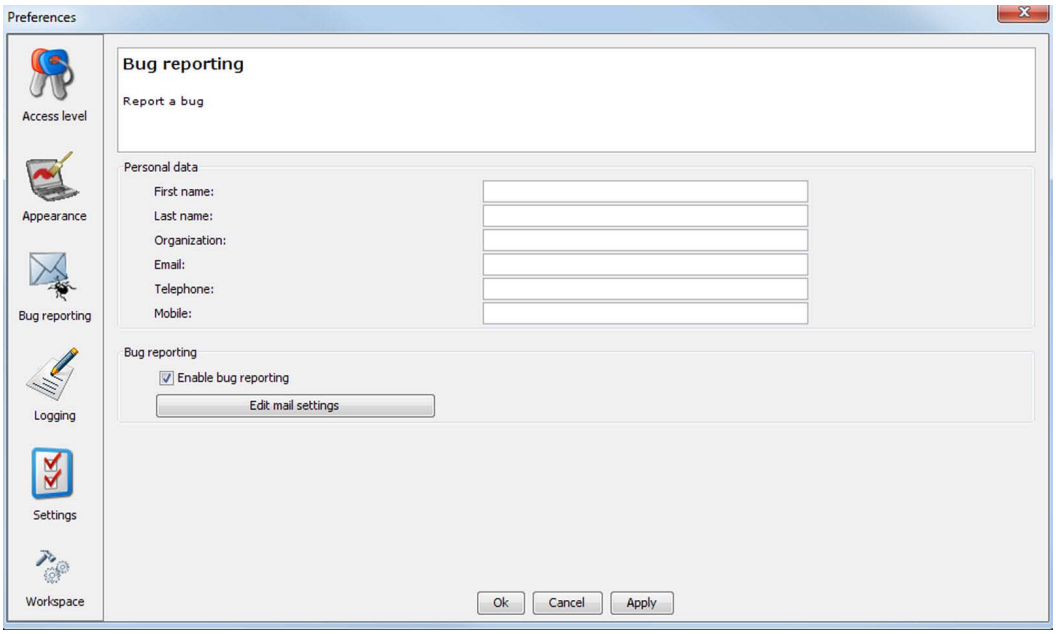


Image 4-9
Bug report setup window

Bug reporting is by default enabled.

2. Fill out the Personal data.

   This personal data will be incorporated in the bug report so that Barco can contact you.
   Personal data contains the following information :

   - First name
   - Last name
   - Organization
   - E-mail address
   - Telephone number
   - Mobile number

3. Click on **Edit mail settings**.

   The mail settings window opens.

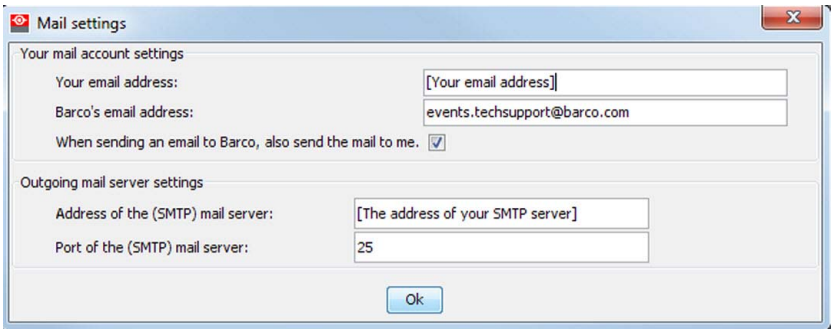


Image 4-10
Mail setup window

4. Fill out *Your mail account settings*.
   The following settings should be entered :

   - Your E-mail address
   - Organization
   - Barco's E-mail address, automatically filled out when installing the software.

5. If you want to receive a copy of the bug report E-mail to Barco, check this check box.
6. Fill out the address of the SMTP mail server.
   Tip: *Contact your system administrator in your organization to obtain the correct address.*
7. Fill out the port of the mail server. Your system administrator can help you. The port is default set on 25.
8. Click **OK**.

4.6 Logging

Start up

1. Click on **Logging**.

   The logging preferences window opens.

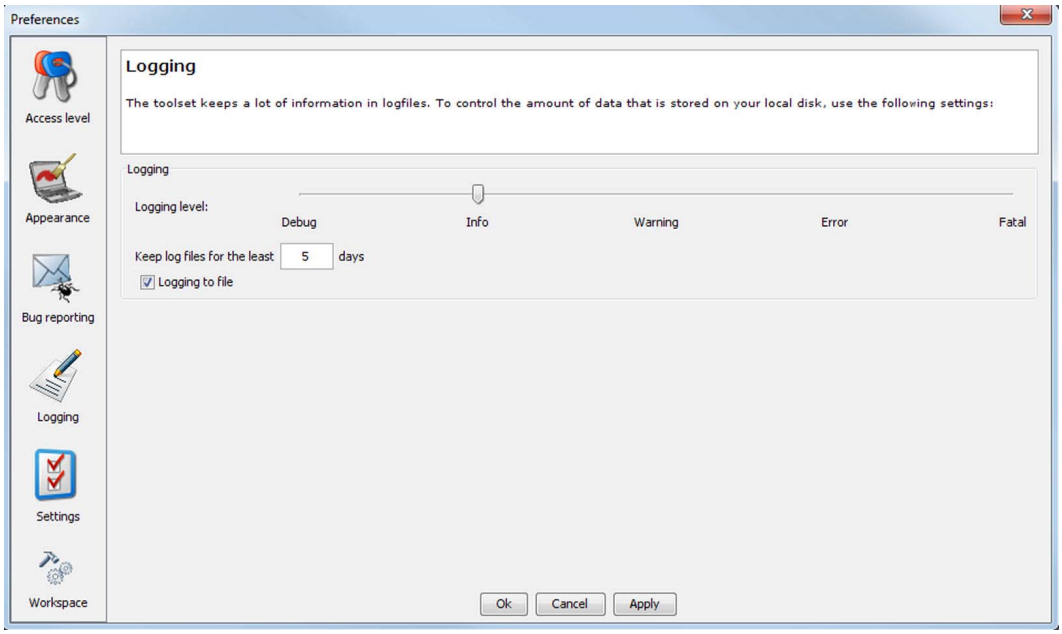


Image 4-11
Logging and debugging preferences

Logging level

Click on the slider bar to set the desired logging level.

The following levels are possible:

- Debug
- Info
- Error
- Warning
- Fatal

Message to log file

The logging about the behavior of the program can be logged in a file. Each time the program is started a new log file is created. The file is saved in a subdirectory *log* of the Projector Toolset install directory. The file name contains the date and the sequence of start up at that date.

The logging level can be set to limit the number of data. By default, *Info* level is setup. Other levels are *Debug*, *Warning*, *Error* and *Fatal*.

Check the check box in front of *Write log messages to file* if you want to activate the logging. This is a preferred setting.

The period a logging must be saved on disk can be set. Default set to 20 days. All logging older than 20 days will be removed.

When the period is set to “0”, only the last created logging will remain on the disk.

To clear the complete logging directory, click once on **Clear all**.

4.7 Settings

Start up

1. Click on **Settings**.

   The settings preferences window opens.

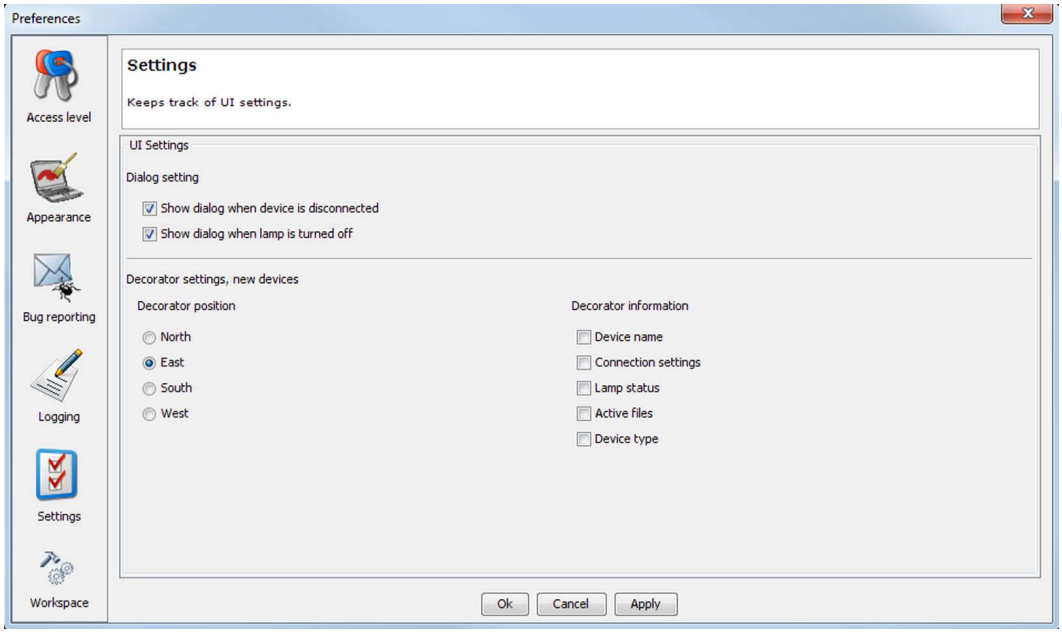


Image 4-12
Settings preferences

Dialog settings

To show dialogs when device is disconnected, check checkbox in front of *Show dialog wen device is disconnected*.

To show dialogs when lamp is turned off, check checkbox in front of *Show dialog when lamp is turned off*.

Decorator settings

When creating a new device, the default decorator settings can be set .

To set the corresponding decorator position, check the corresponding radio button.

To add extra decorator information, check the checkbox before the desired information.

4.8 Workspace selection

Start up

1. Click on **Workspace selection**.

Image 4-13
Select Workspace preferences

The workspace selection dialog box opens.

2. To change to another workspace, click on the drop down box and select the desired workspace.

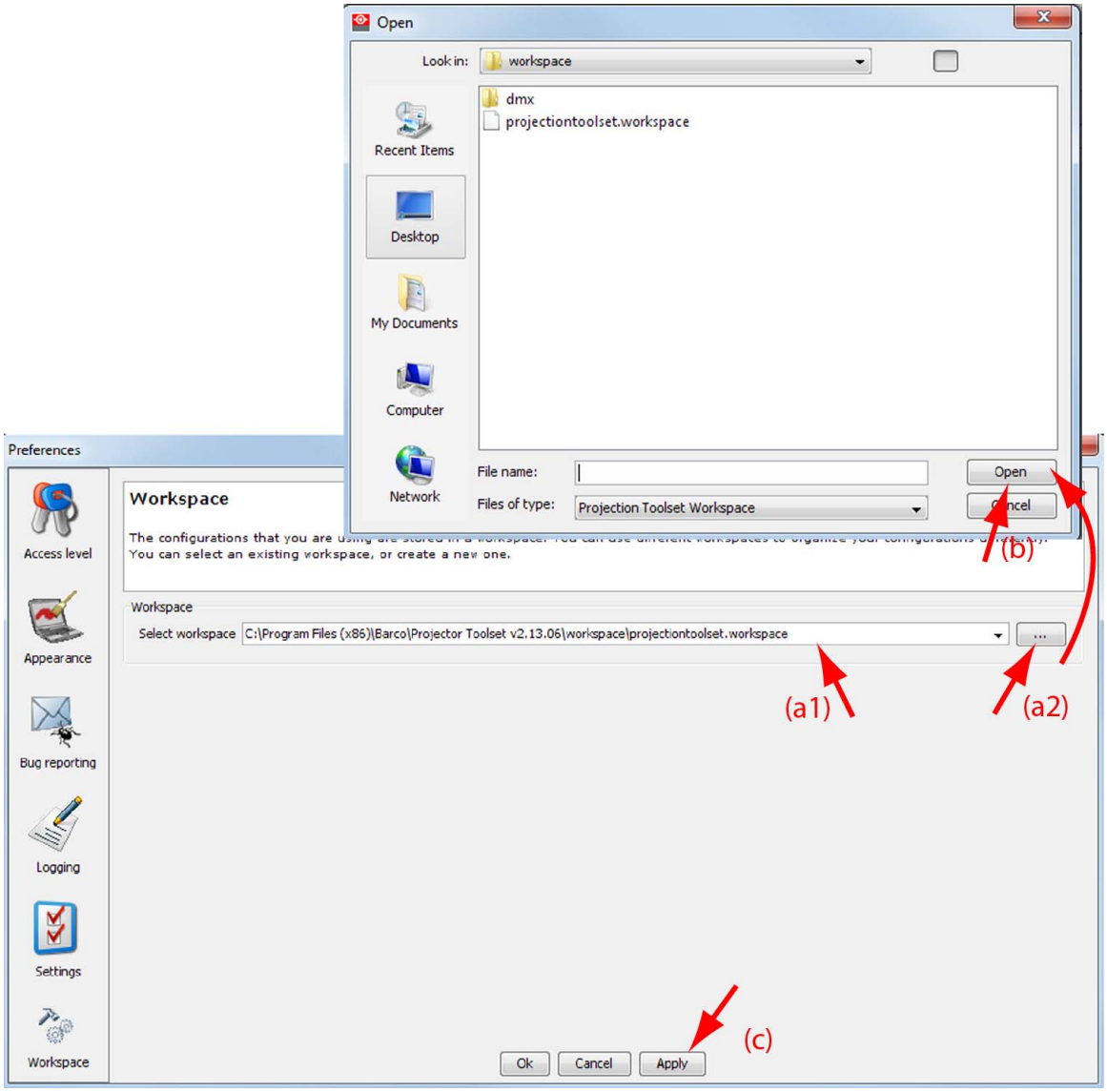


Image 4-14
Selecting a workspace

Or,
click on **...** to open an *Open* dialog box (a2).

3. Browse to a workspace or enter a new workspace in the *File name* field.
4. Click on **Open** (b).

   The current configurations will be closed.
5. Click on **Apply** to apply the new workspace (c).

5. CONFIGURATOR

Overview

- Introduction
- Configurator window
- Create a new configuration
- Add device to a configuration via scanning
- Add projector to a configuration
- Reconnect a projector
- Edit projector properties
- Configuration preview
- Configuration properties
- Preview layout properties

5.1 Introduction

Overview

The configurator makes it possible to create configurations and to change the settings of each device separately.

Start up

To start up the configurator, just click on the configurator icon ( ) on the navigation button bar or click on **Modules** and select *Configurator*.

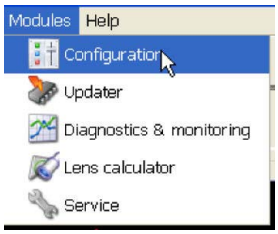


Image 5-1
Configurator start up

5.2 Configurator window

Overview

The configurator window allows to create new configurations and to manage the projectors inside a configuration.

5.3 Create a new configuration

How to create

1. Click Configuration on the menu and select Create configuration (a)

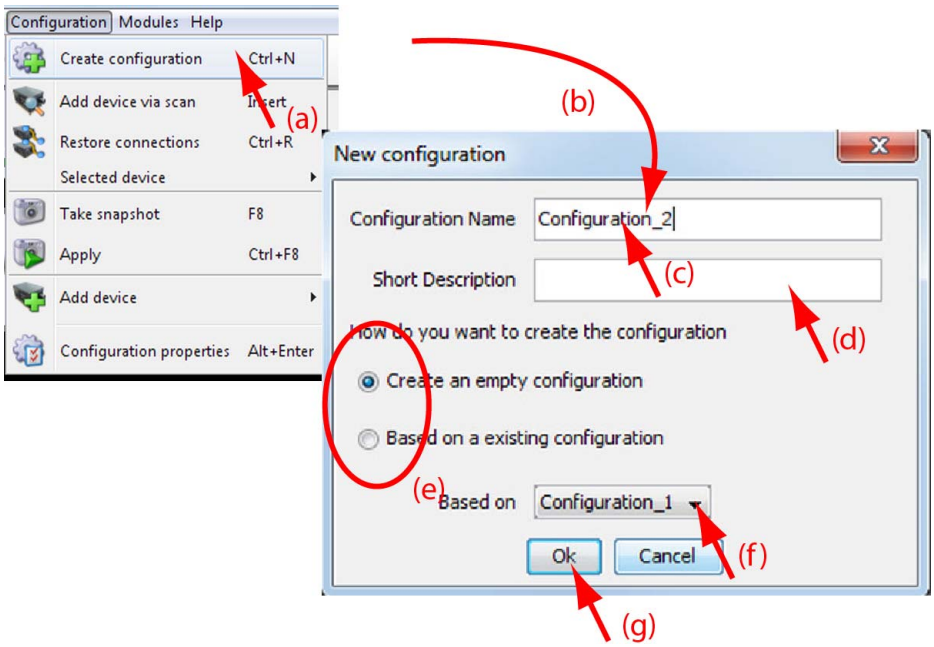


Image 5-2
Create configuration

Or,
Click **File** on the menu and select *New* → *New configuration* (a).

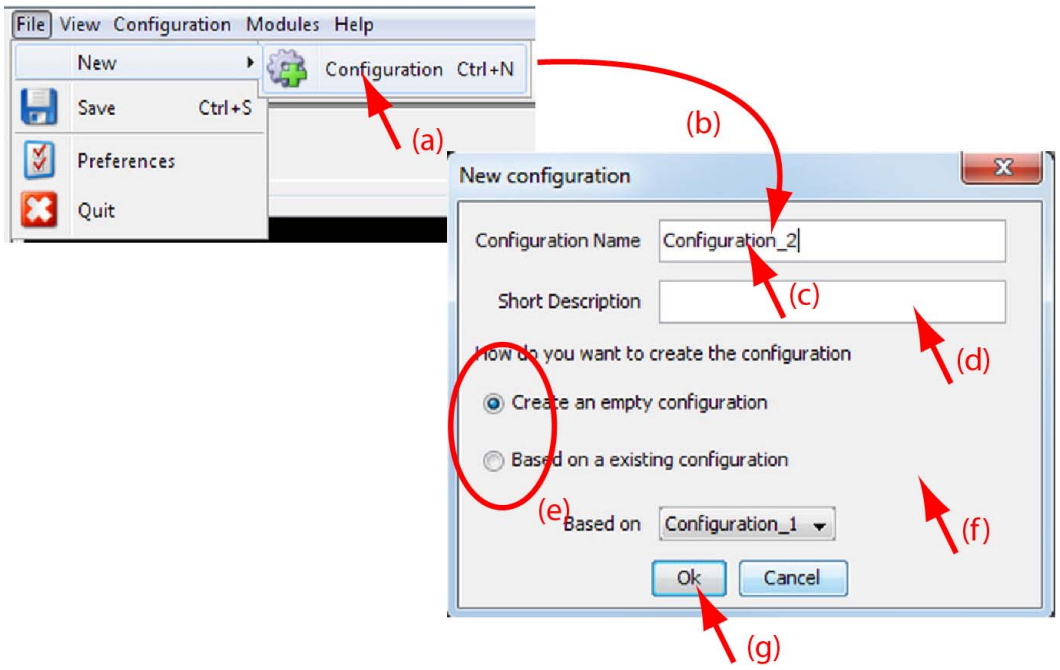


Image 5-3
Create new configuration

Or,
press **Ctrl** + **N**.

The *New configuration* dialog box opens (b).

2. Fill out a name for the new configuration next to *Configuration* name. The default name will be *Configuration_'digit'* (c).
   Note: *Only the characters a to z, A to Z, 1 to 9 and (,), _, -, @ or allowed in a name.*

When it is the first configuration for this workspace, only the option *Create by adding projectors* is available.

When there are already configuration available, the option *Based on available configuration* becomes available

3. Enter a short description (not mandatory) (d).
4. Check the radio button of your choice (e).
5. When *Based on available configuration* is checked, click on the combo box and select the configuration on which the new configuration must be based on (f).
6. Click **OK** to create the new configuration (g).

5.4 Add device to a configuration via scanning

What can be done ?

The network is scanned for possible devices which can be added to the configuration. The overview list shows all possible devices on the network and not only the devices with an installed plug-in. Even the devices which are already in the configuration are in the list.

Multiple devices can be added at the same time. It is not possible to add a device twice or to add a device for a non installed plug-in.

The overview window gives the following items:

- Device type
- Host name
- IP address
- MAC address
- Plug-in name

How to add

1. Click *Configuration* on the menu and select *Add device via scan...* (1a).

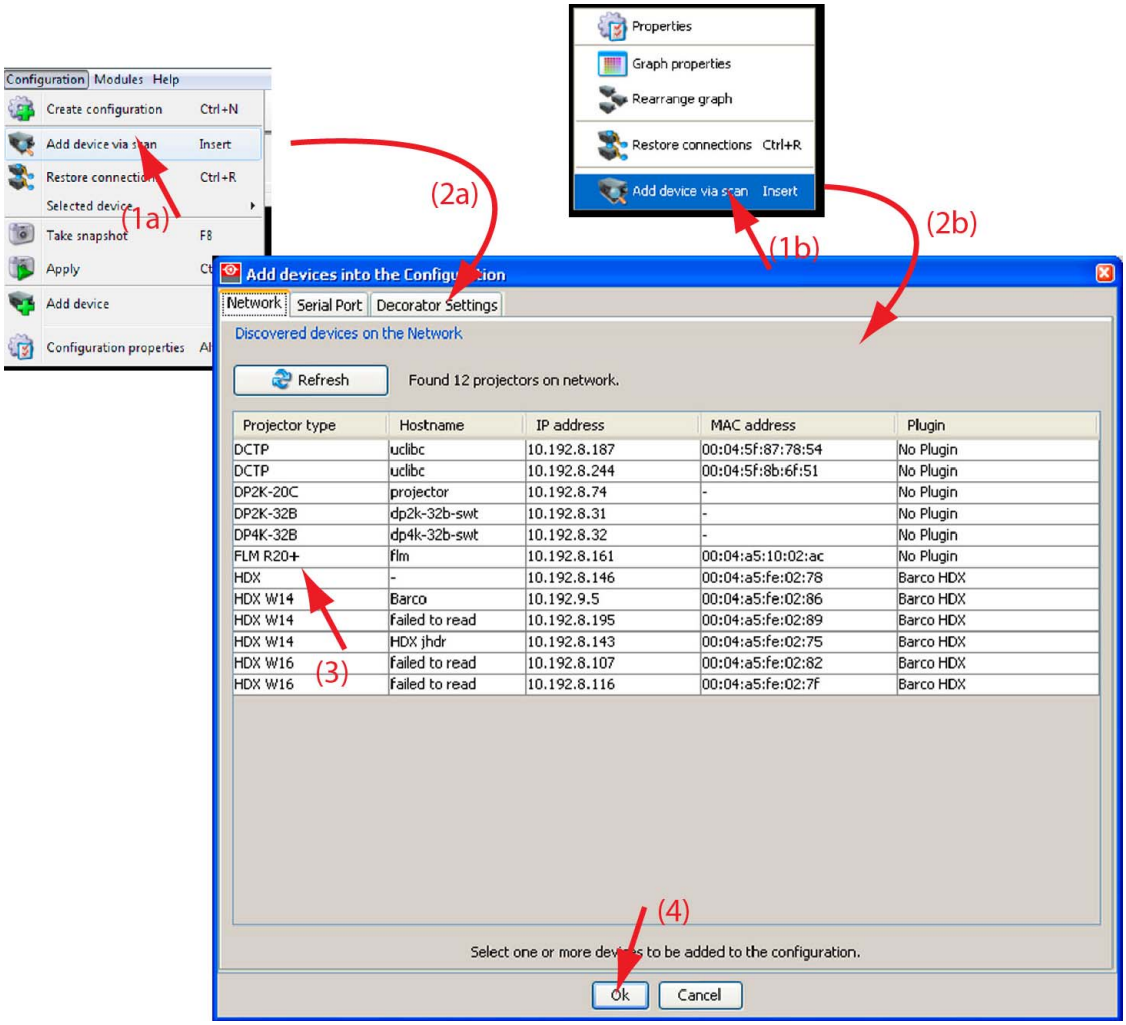


Image 5-4
Add devices via scan

Or,
right click on a not connected projector in the preview pane to open the content menu and select *Add device via scan..* .(1b)
Or,
press **Insert** key.

A network scan is started and a device overview window is displayed (2a, 2b).

2. To select a device, just click on that device (3).
   To select multiple devices, hold down the **Ctrl** button and click on the devices to add to the configuration.
3. Click **OK** to add the selected devices to the configuration (4).

   Only the devices with installed plug-ins and which are not yet in the configuration are added to the configuration.

Decorator

The selected device can be added immediately with the desired decorator.

To set the decorator, click on the tab **Decorator**.

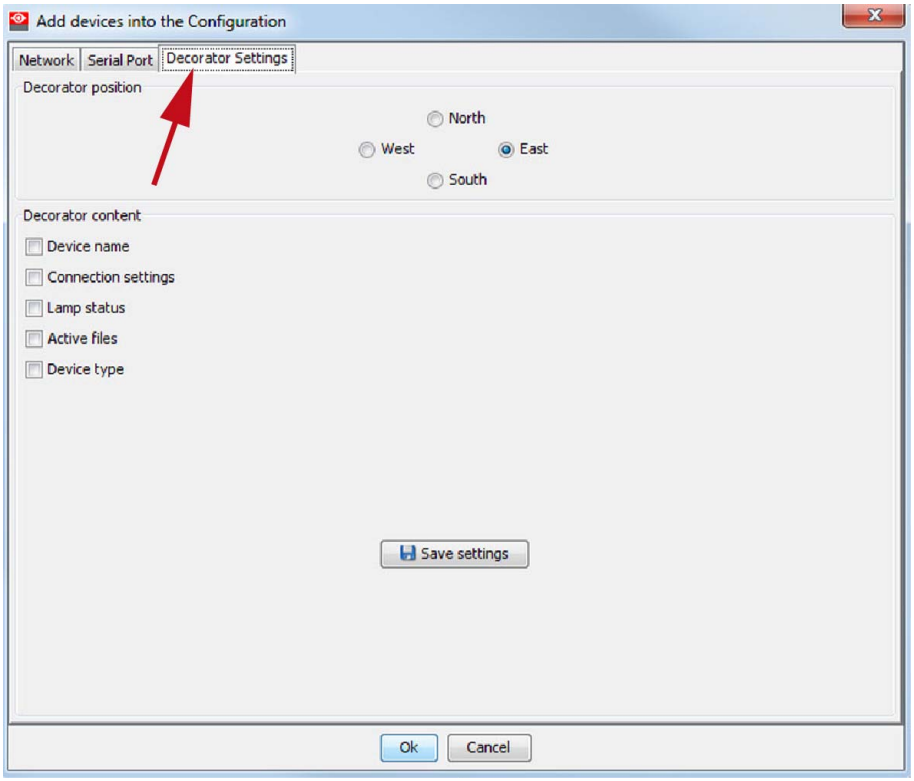


Image 5-5
Decorator setting while adding a device

To add the decorator position, click on the desired radio button in the *Decorator position* pane.

The following choices are possible:

- North
- West
- South
- East

To indicate which information must be shown, check the desired check boxes in front of a setting.

The following choices are possible:

- Device name
- Connection settings
- Lamp status
- Active files
- Device type

Click **Save settings** to save the current decorator settings.

5.5 Add projector to a configuration

Overview

- Add projector
- General properties
- Connection setup
- Decorator setup

5.5.1 Add projector

The possible projectors types depends on the installed plug-ins.

About adding a projector

To make it more easy to find back a projector while adding it to the software, the different projectors are grouped in categories.

The following categories are available for the moment (depending on the loaded plug-ins):

- Digital cinema: this category contains all supported digital cinema projectors and touch panels.
- Mid venue: this category contains all supported projectors from the CLM, RLM, SLM and HDX series.
- Large venue: this category contains all supported projectors from the FLM series, HDF series.
- XLarge venue: this category contains all supported projectors from the XLM series.

How to add

1. Click **Configuration** on the menu and select *Add device* (a).

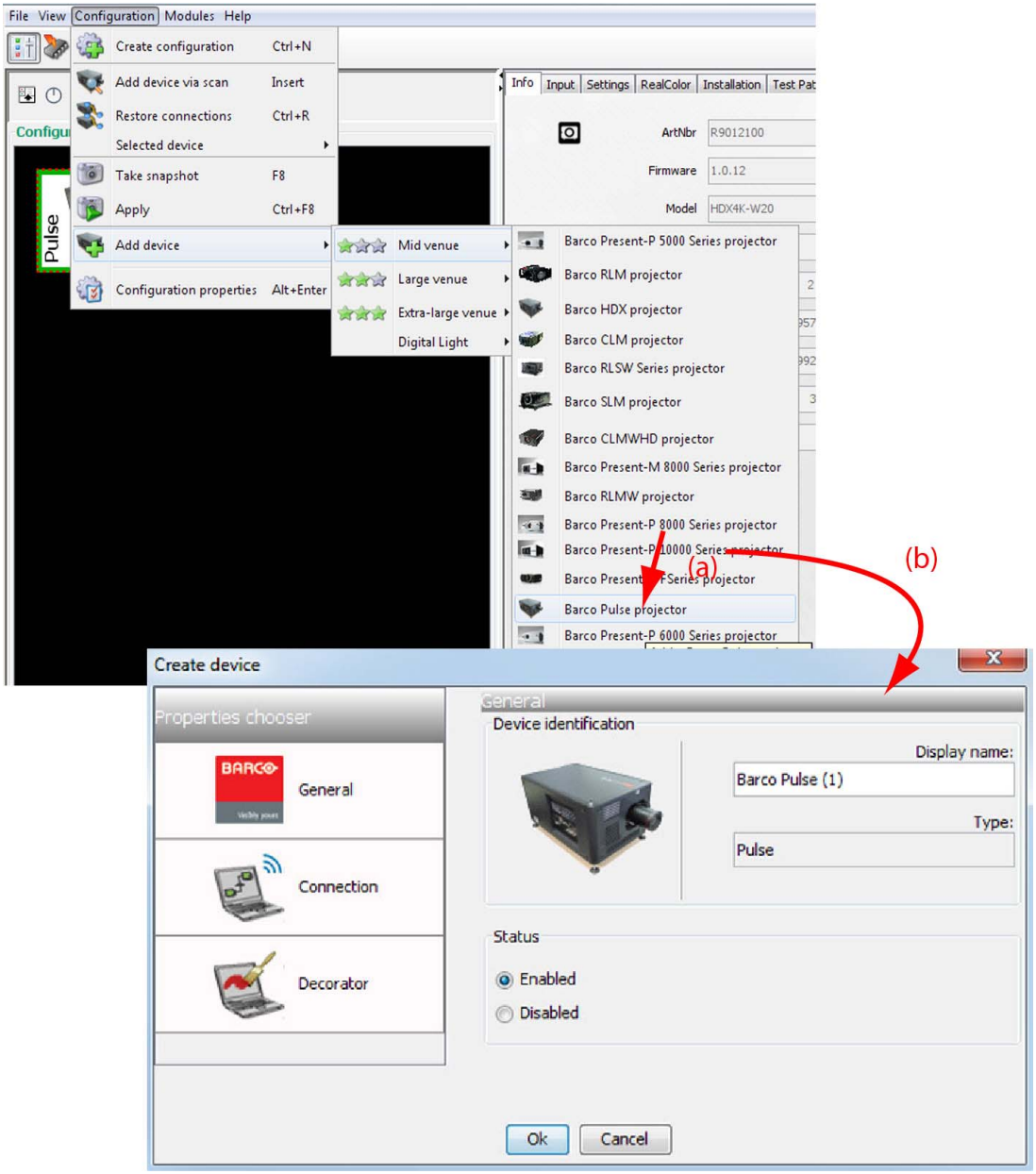


Image 5-6

2. Move the cursor to the right and select the desired category.

   The number of categories displayed on the menu depends on the number of installed plug-ins. The following are possible:

   - Mid venue
   - Large venue
   - XLarge venue

3. Within a category, move the cursor again to right and select the desired projector.

   The *Create projector* dialog box opens with the selected device type pictograph at the right side (b).

4. Enter the different device properties such as the projector identification, the connection parameters and projector decorator for the configuration preview.

When adding twice the same projector, once via a network connection and once via a serial connection, a message will be displayed to warn the user that there is already an instance with the same projector and that problems with the communication are possible. The projector will be added but Projector Toolset advises to uninstall one of the connections.

5.5.2 General properties

Overview

Click on the **General** tab to open the general properties if not yet open (a).

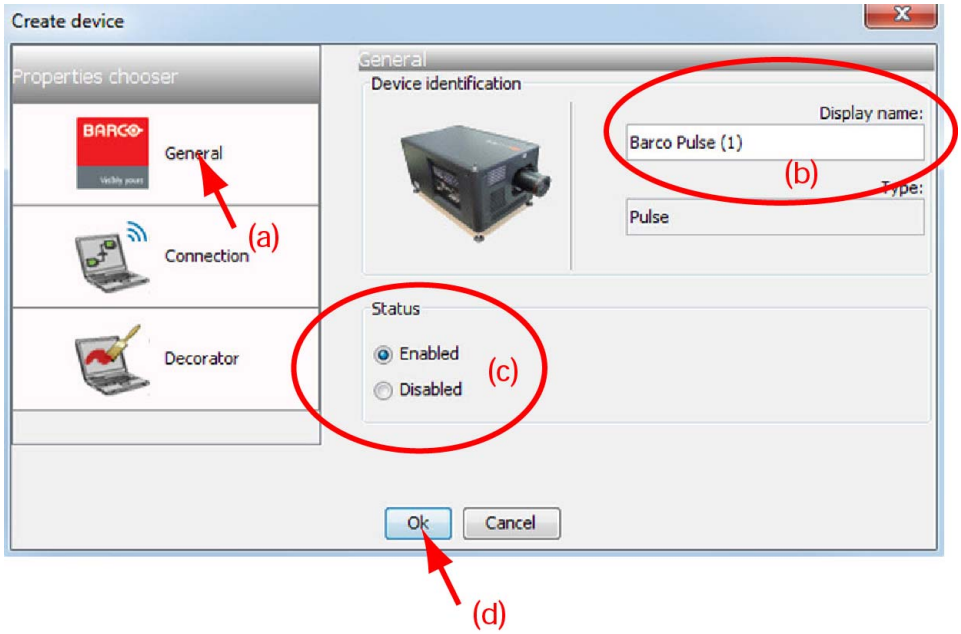


Image 5-7

Projector's identification

The default display name is Barco followed by the projector type.

This name can be changed to any other name. Click in the name field, select the current name and enter a new name (b).

Next to the display name, the device type is indicate with the name and a device icon.

Projector status

Indicates the communication status of the projector (c).

- enabled: communication with projector possible
- disabled: no communication with projector possible

5.5.3 Connection setup

Overview

- Set up a serial connection
- Set up an Ethernet connection

No serial connection possible when using Projector Toolset on MAC OS X or on a Linux system !

5.5.3.1 Set up a serial connection

Only possible when Projector Toolset runs on a Microsoft Windows platform.

Physical connection

Before a serial connection can be made, connect a serial cable from PC to the RS232IN connector of the projector.

RS232

An Electronic Industries Association (EIA) serial digital interface standard specifying the characteristics of the communication path between two devices using either D-SUB 9 pins or D-SUB 25 pins connectors. This standard is used for relatively short-range communications and does not specify balanced control lines. RS-232 is a serial control standard with a set number of conductors, data rate, word length and type of connector to be used. The standard specifies component connection standards with regard to computer interface. It is also called RS-232-C, which is the third version of the RS-232 standard, and is functionally identical to the CCITT V.24 standard. Logical '0' is > + 3V, Logical '1' is < - 3V. The range between -3V and +3V is the transition zone.

Necessary parts

Straight serial cable

Software connection

1. Select the *Connection* properties tab (a).

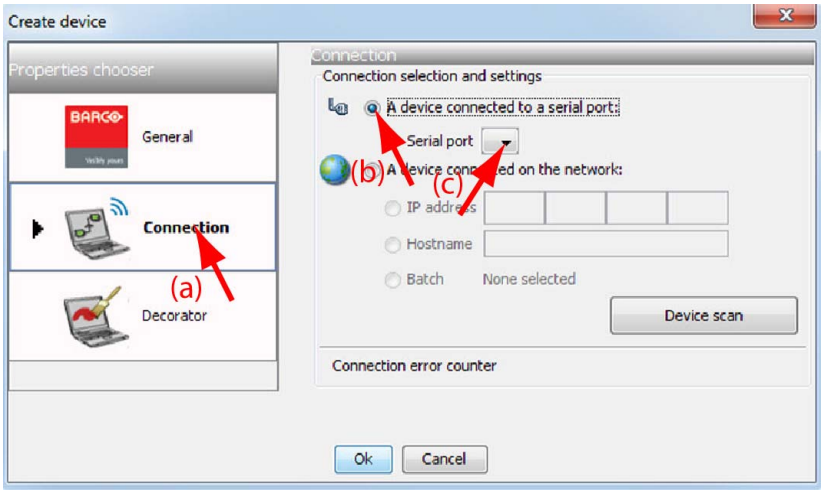


Image 5-8
Set up a serial connection

The right pane changes to the connection setup page.

2. Click on the radio button next to *A projector connected to a serial port* to select the serial connection (b).

3. Select the serial port of your PC connected with the projector. Click on the drop down box and select the corresponding port (c).
4. Click **OK** to make the connection.

5.5.3.2 Set up an Ethernet connection

Possibilities

To establish a Ethernet connection, the following ways are possible:

- Enter an IP address
- Enter a host name
- Scan the net work for the connected projectors

IP

Internet Protocol. The network layer of TCP/IP. Required for communication with the internet.

Host name

This is the name that will be returned, along with the IP address in response to the UDP broadcast query for projectors/touch panels.

DNS server

Computers, Projectors, Touch panels connected to a network are referenced by their IP address. The only problem is that remembering IP addresses is not easy. If you need to use hundreds of addresses then it will become impossible to remember them. This is why domain names are created. Internet names (domain and host names) are just aliases to these IP addresses. When you use an Internet address it is automatically translated to an IP address. In fact a program or device that translates those Internet names to IP addresses is called a DNS Server.

Via entering an IP address

1. Select the *Connection* properties tab (a).

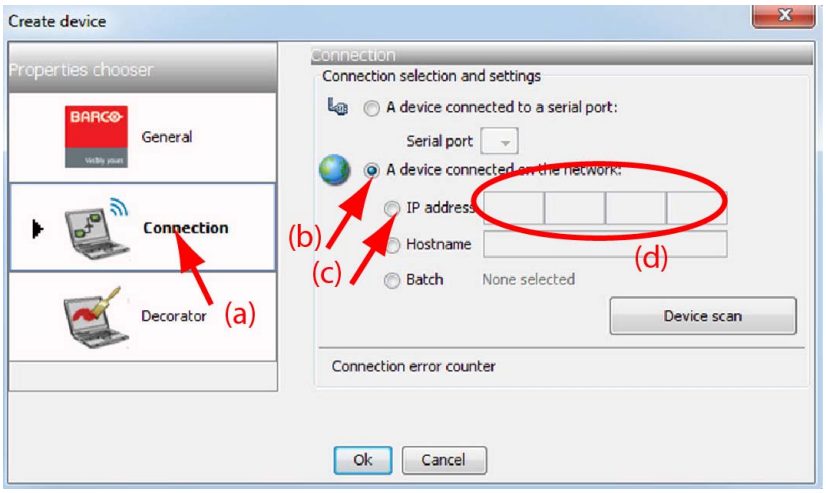


Image 5-9
Make connection via entering IP address

The right pane changes to the connection setup page.

2. Click on the radio button next to *A projector connected on the network* to select the Ethernet connection (b).
3. Click on the radio button in front of *IP address* (c).
4. Enter the IP address (d).
   Note: *An address contains 4 octets with a maximum value of 255.*
5. Click **OK** to make the connection.

Via entering a host name

1. Select the *Connection* properties tab (a).

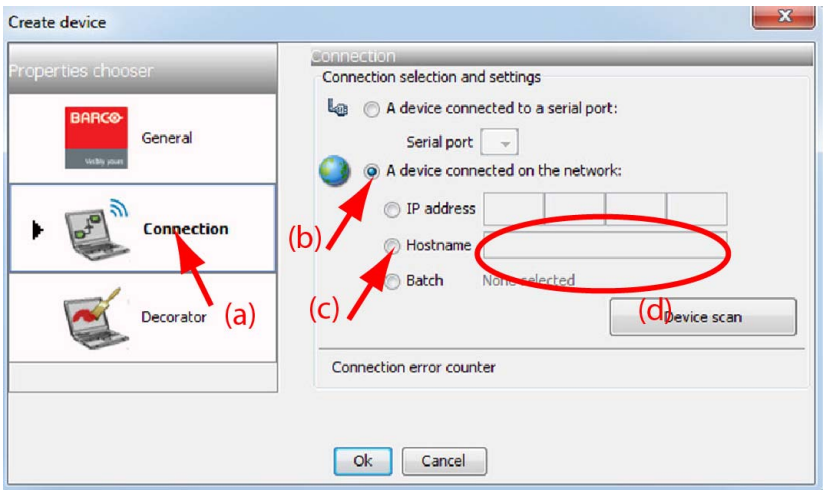


Image 5-10
Create connection via host name

   The right pane changes to the connection setup page.
2. Click on the radio button next to *A projector connected on the network* to select the Ethernet connection (b).
3. Click on the radio button in front of *Host name* (c).
4. Click in the input field and enter the host name (d).
5. Click **OK** to make the connection.

Making a connection via a host name is only possible when the host name is known by the network DNS server.

5.5.4 Decorator setup

What is a decorator

Decorator information is extra data about the projector which can be displayed in the configuration preview next to the projector pictograph.

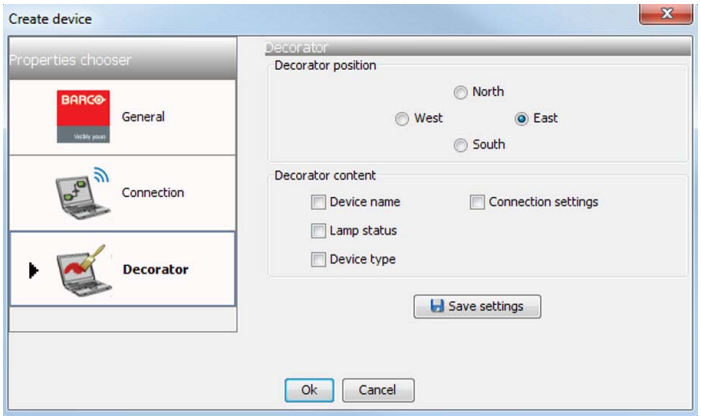


Image 5-11
Decorator properties

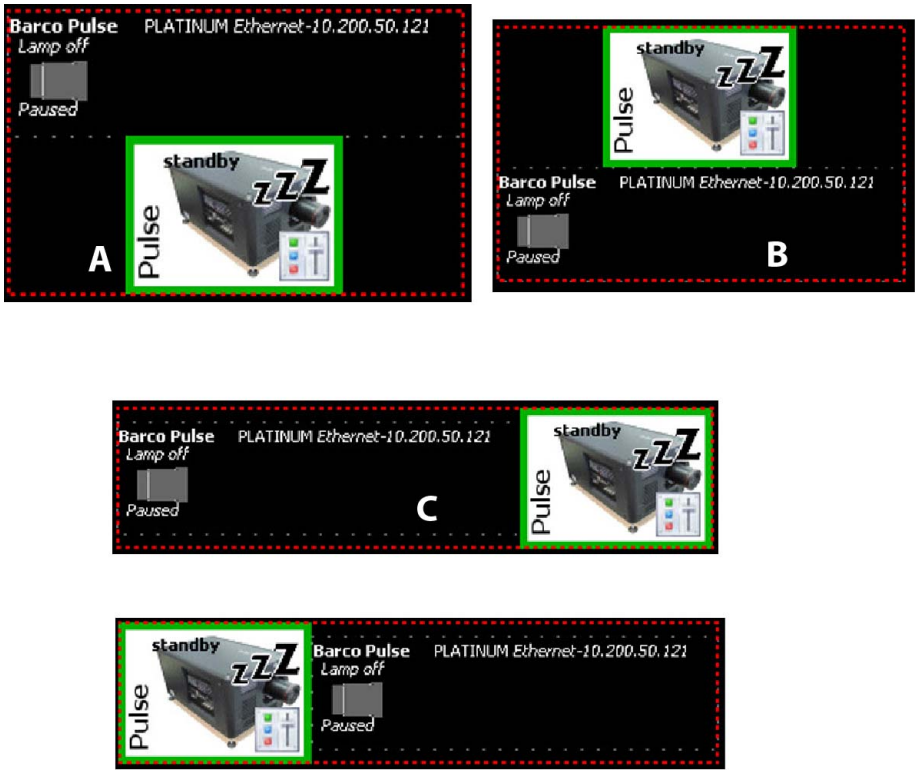


Image 5-12
Decorator position and content

A Decorator north of graph
B Decorator south of graph
C Decorator west of graph
D Decorator east of graph

Decorator position

The extra information can be place in the north, south, east or west of the projector pictograph.

Click on the desired radio button to determine the decorator position.

Decorator content

The following information can be displayed in the configuration preview:

- Projector name
- Connection settings
- Lamp shutter status
- Active files
- Device type

Save settings

To save the current decorator settings as preferences for new devices, click on **Save settings**.

5.6 Reconnect a projector

Via the context menu

1. Right click on a not connected projector in the preview pane.

Image 5-13
Connect projector via context menu

A context menu opens.

2. Select *Connect*.

The projector tries to make a connection and to retrieve data. When it is successful the pictograph border becomes green, the properties are filled out. When it is not successful, the border stays gray and a *projector not responding* message is displayed.

Via the menu

1. Select a not connected projector in the preview pane.

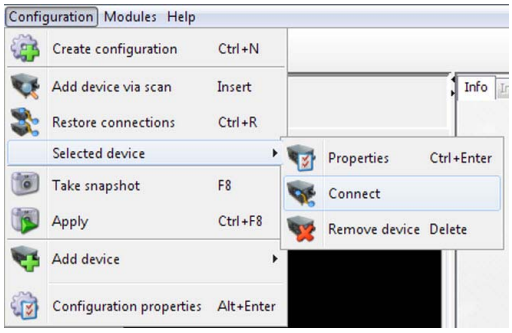


Image 5-14

2. Click **Configuration** on the menu and select *Selected device → Connect projector*.

The projector tries to make a connection and to retrieve data. When it is successful the pictograph border becomes green, the properties are filled out. When it is not successful, the border stays gray and a *projector not responding* message is displayed.

Via the projector properties

1. Select a not connected projector in the preview pane.

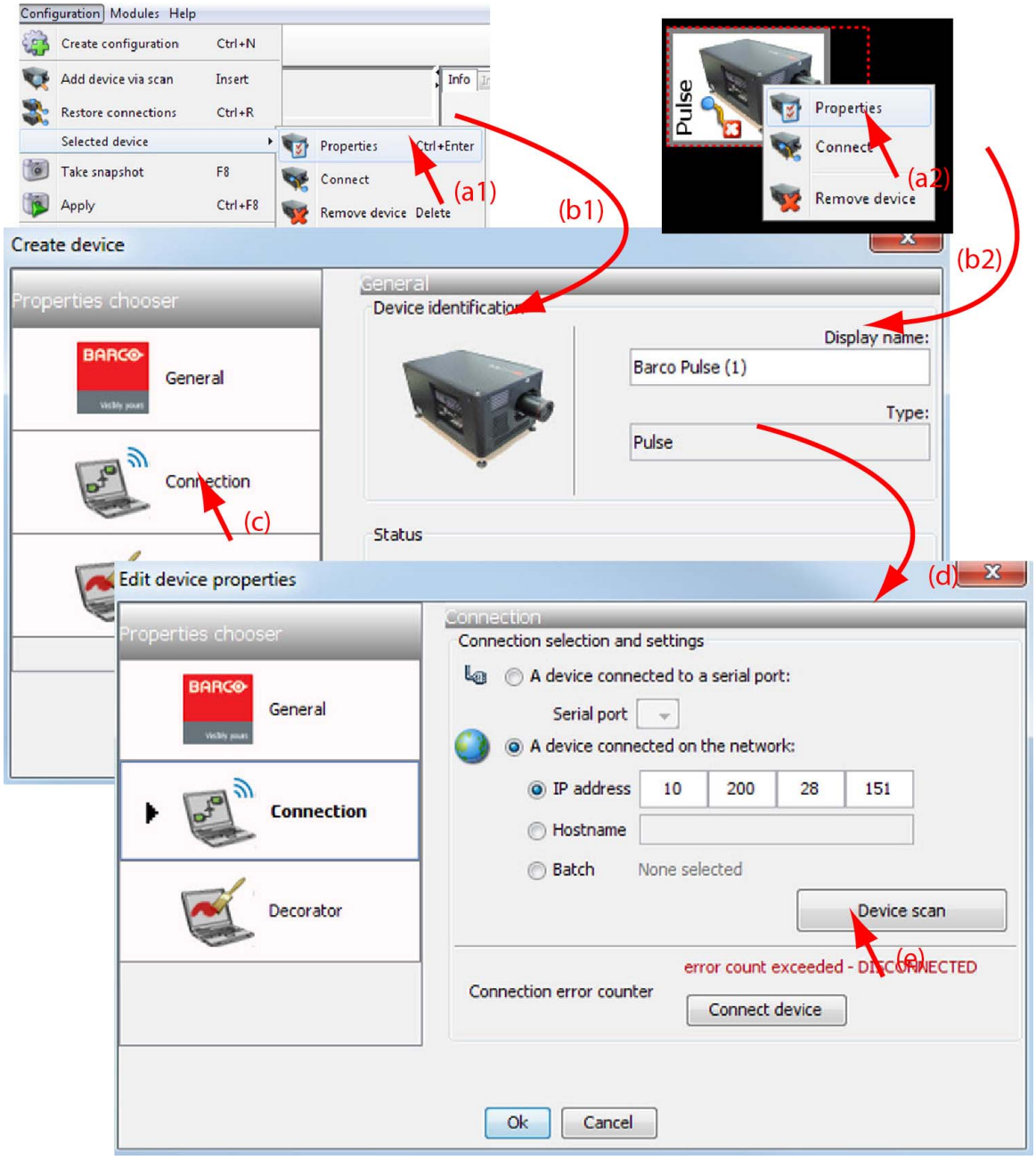


Image 5-15
Reconnect via the properties dialog box

2. Open the projector properties via right click and selecting *Properties*.
   Or,
   via click on **Configuration** on the menu and selecting *Selected device* → *Properties* (a).
   Or,
   by pressing **Ctrl** + **Enter**.

   The *Properties* dialog box opens (b).

3. Click on **Connection** (c).

   The *Connection* tab opens (d).

4. Click on **Connect projector** (e).

The projector tries to make a connection and to retrieve data (f). When it is successful the pictograph border becomes green, the properties are filled out. When it is not successful, the border stays gray and a *projector not responding* message is displayed.

5.7 Edit projector properties

Via the menu

1. Click on a projector to select (a).

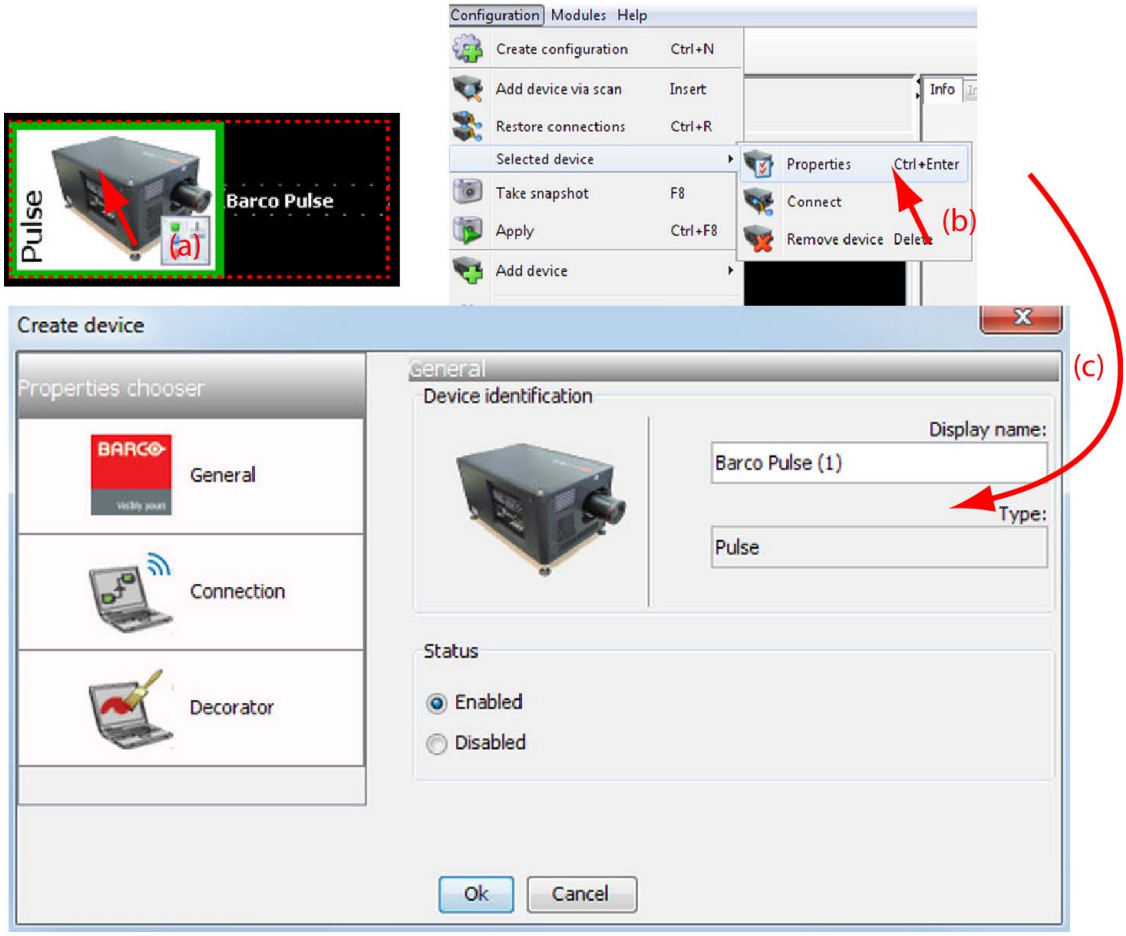


Image 5-16
Edit projector properties via menu

2. Click **Configuration** on the menu and select *Selected device* → *Properties* (b).
   Or,
   press **Ctrl** + **Enter**.

   The *Properties* dialog box opens (c).
   To edit the:
   - general properties.
   - connection properties.
   - decorator.

   see *Add projector to a configuration*.

Via the context menu

1. Right click on a projector graph in the configuration preview.

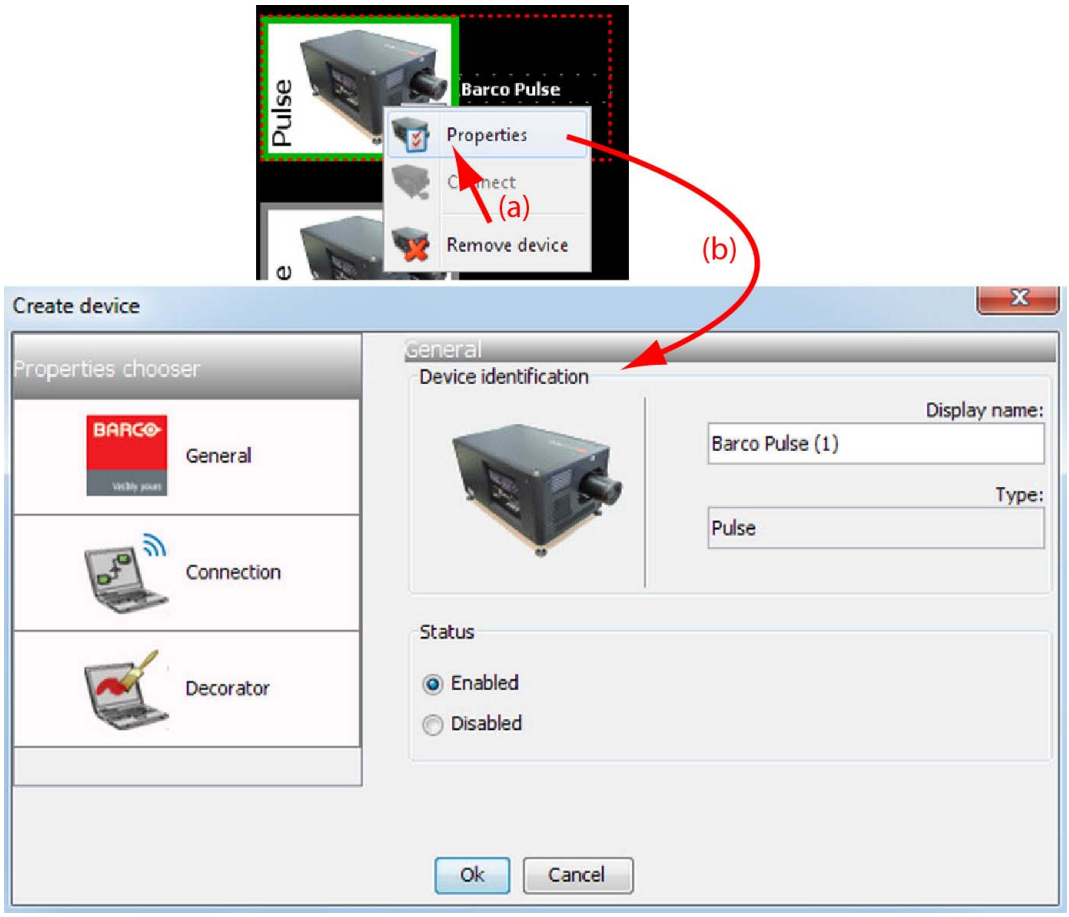


Image 5-17
Edit projector properties via right click

A context menu opens.

2. Select Properties.

The *Properties* dialog box opens.
To edit the:

- general properties.
- connection properties.
- decorator.

see *Add projector to configuration*.

5.8 Configuration preview

Projector status

The border color around the pictograph indicates the projector status.

Green: projector is online and there is communication with the projector.

Grey: projector is offline.

Red: projector is online but there are warnings about the use of the projector.

Shaded: projector is disabled.

5.9 Configuration properties

What is available?

The following properties are available:

- *author* name.
- *created on*: date and time when the configuration is created (read only).
- *path*: full path where the configuration is saved (read only).
- *description*: description which identifies the configuration.

How to change

1. Click **Configuration** → *Configuration Properties* (a1).
   Or,
   right click in the preview pane of the configuration preview, but not on a pictograph (a2).

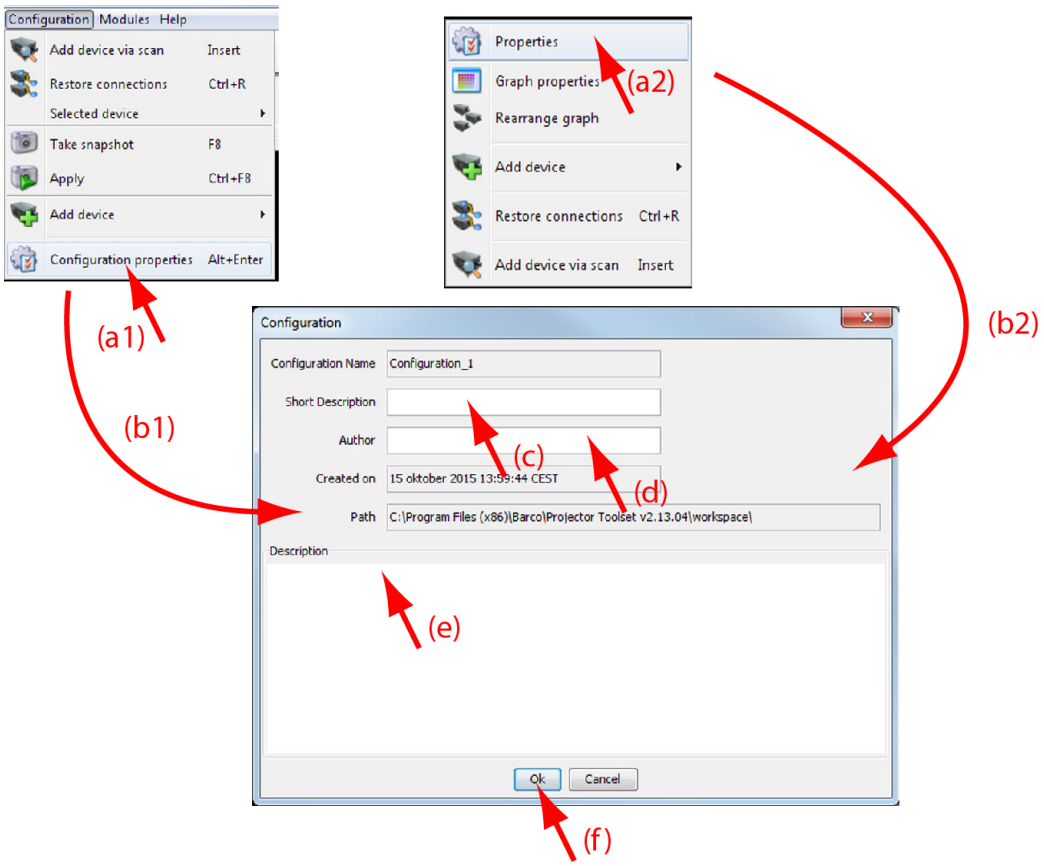


Image 5-18
Configuration properties

The *Configuration properties* dialog box opens (b1, b2).

2. Enter a Short Description for the configuration (c).
3. To enter an author, click in the input field next to *Author* and enter the name (d).
4. To add a description, click in the *Description* field and enter a description for the configuration (e).
5. Click **OK** to save and close the *Configuration properties* dialog box (f).

5.10 Preview layout properties

Overview

- Background color
- Background image
- Rearrange pictographs in preview pane

5.10.1 Background color

How to set background color

1. Right click in the preview pane but not on a pictograph (a).

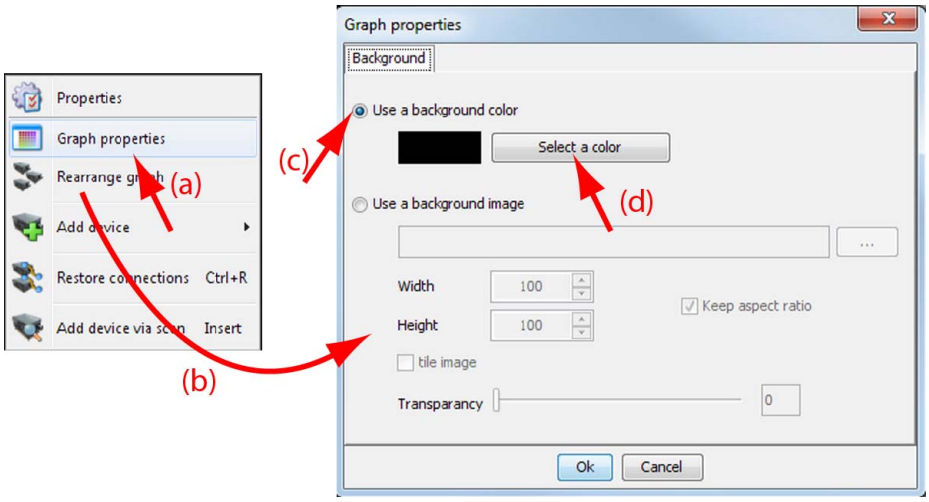


Image 5-19
Set background color

A context menu opens.

2. Select *Graph properties*.

   The *Graph properties* dialog box opens (b).

3. Check the check box next to *Use background color* (c).

4. Click on **Select a color**.

   The *Select color* dialog box opens.

5. 3 ways are now possible to select a color, represented by a tab in the *Select color* dialog box.

Tab swatches = way 1	Via the swatches color dialog, step 6.
Tab HSB = way 2	Via the HSB color dialog, step 7.
Tab RGB = way 3	Via the RGB color dialog, step 8.

6. Select the desired color (via swatches = predefined color samples).

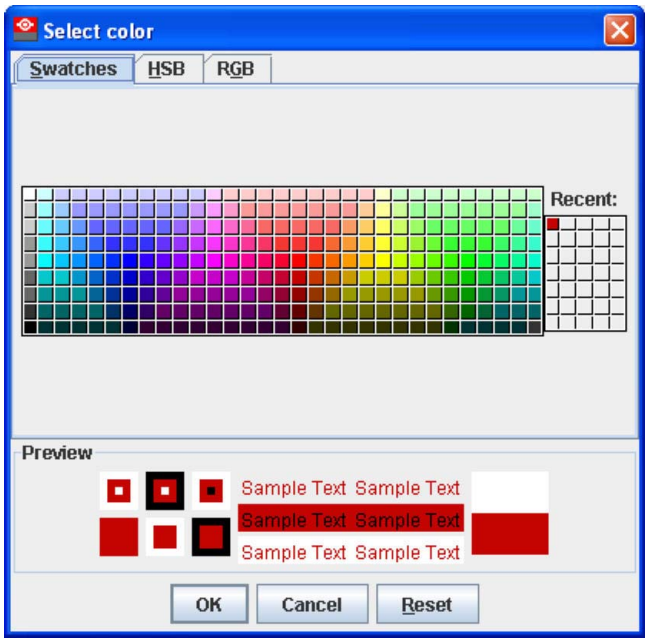


Image 5-20
Select color via swatches

The first selected color will be indicated in *Recent*. When others are selected for a preview, the color indication will also be added in the *Recent* list as first one. Finally, the color selection can be done from the *Recent* list or out of the color pallet.

Each time a color is clicked, a preview is given in the preview pane. Continue with step 9.

7. Click on the **HSB** tab to display the color pallet (HSB = Hue - Saturation - Brightness).

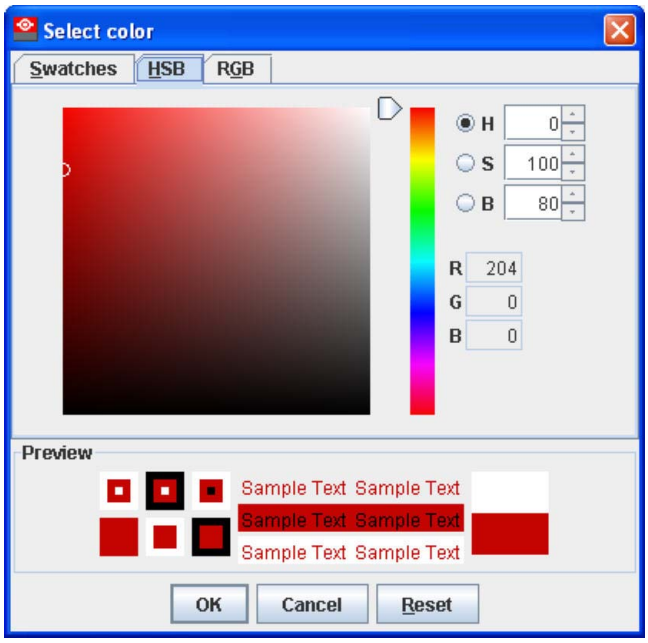


Image 5-21
Select color via HSB

A color can be selected in 2 ways:

- Slide the slider next to the color gamut until the wanted color in the color pick field is reached, or fill out the HSB value until the desired color is reached in the pick up field.
- Click in the color field to display the white circle. Drag that circle to the desired tint of the chosen color.

A preview is given in the preview pane. Continue with step 9.

8. Click on **RGB** tab to display the RGB selection sliders.

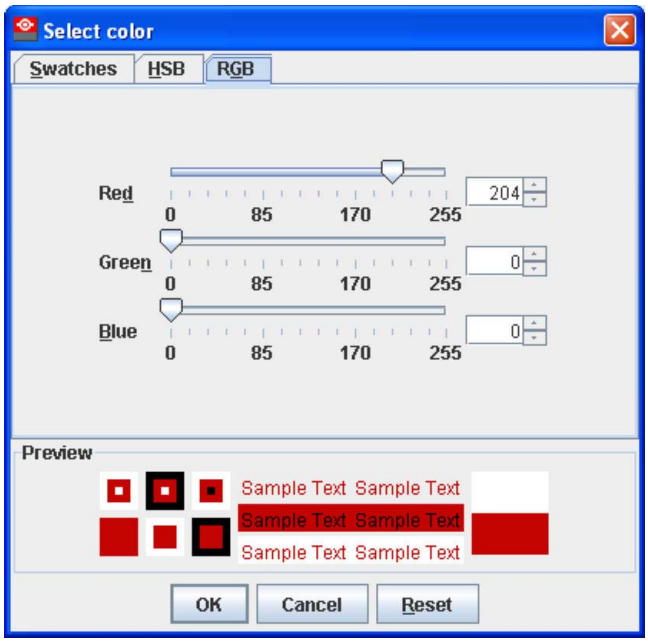


Image 5-22
Select color via RGB

Move the sliders until the desired color is reached, or fill out the RGB values in the input boxes.

A preview is given in the preview pane. Continue with step 9.

9. Click on **OK** to apply the selected color.

5.10.2 Background image

How to set background image

1. Right click in the preview pane but not on a pictograph (a).

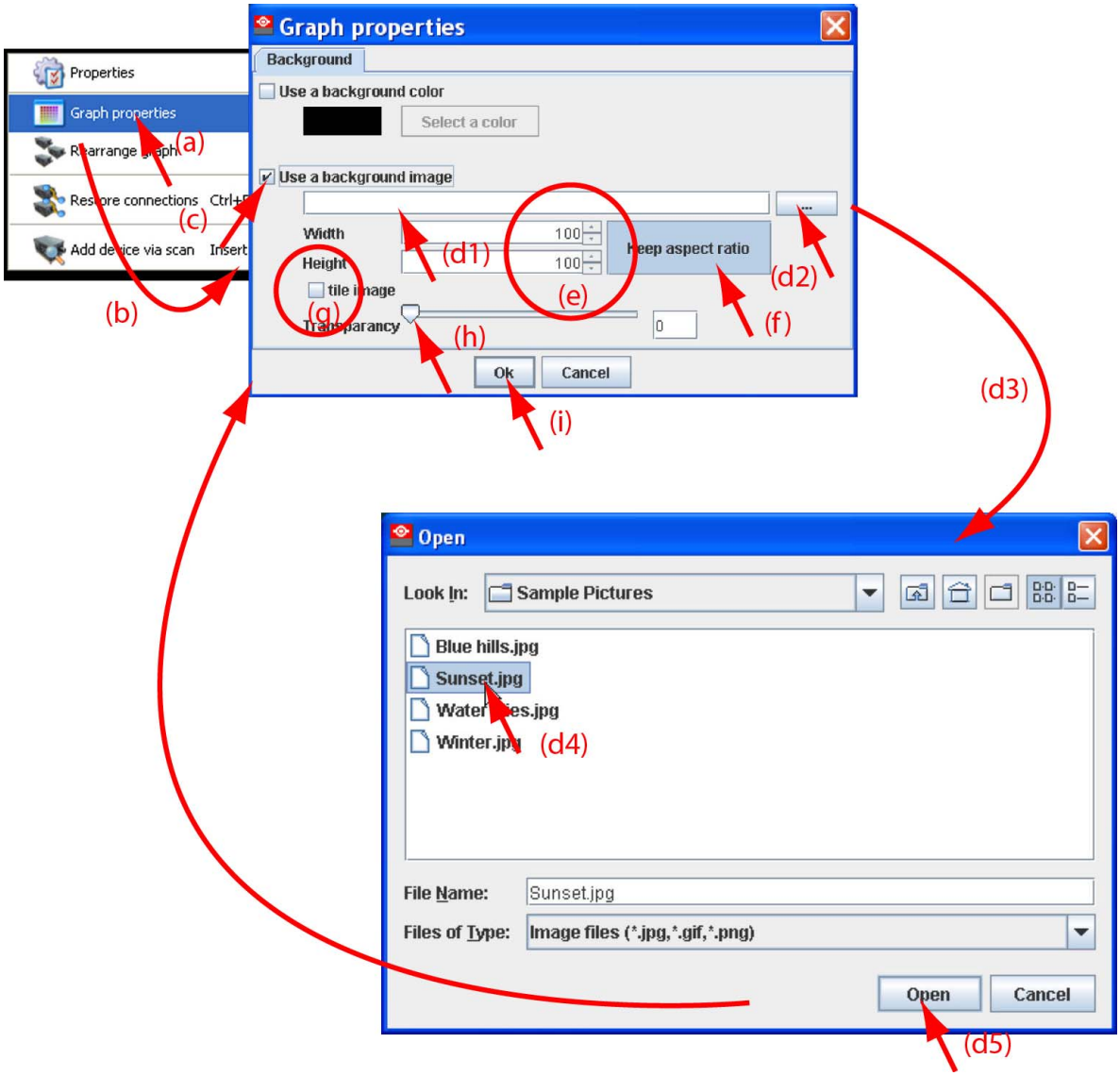


Image 5-23
Set background image

A context menu opens.

2. Select *Graph properties*.

   The *Graph properties* dialog box opens (b).

3. Check the check box next to *Use background image* (c).

4. Fill out the complete path to the image (d1) and continue to step 6
   Note: *Only jpg, gif and png file are allowed.*

   Or,
   click on **...** (d2)

   An *Open* dialog box opens (d3)

5. Browse to the desired image (d4) and click **Open** (d5).
   Or,
   double click on the desired image.

6. Width an height of the image can be changed by clicking on the up down control next to width and height (e). To keep the original aspect ratio of the image, activate button **Keep aspect ratio** (f).

7. To tile the image over the complete canvas, check the check box before *Tile image* (g).

8. Set transparency level by clicking on the slider and dragging to the desired location (h)
   Or,
   by clicking in the input field next to the slider and entering the desired value with the keyboard.

Image 5-24
Example background image

5.10.3 Rearrange pictographs in preview pane

How to rearrange

1. Right click in the preview pane but not on a pictograph.

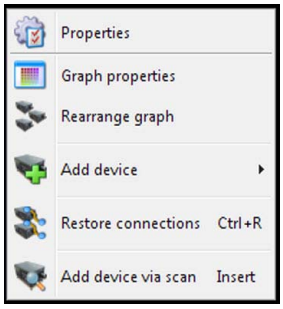


Image 5-25
Rearrange pictographs

   A context menu opens.

2. Select *Rearrange graphs*.

   The pictographs are rearranged in the preview pane.

6. CONFIGURATION, INFO

Overview

- Projector info
- OSD on - off
- Shutter open - close
- Power on - off
- Input-Output
- Image settings
- Smear Reduction
- Brilliant Color
- Installation
- Blending adjustment
- Test patterns
- RealColor
- Warp Commands
- Warp files
- IR control
- Network
- License
- Notifications
- Remote control

6.1 Projector info

About projector info

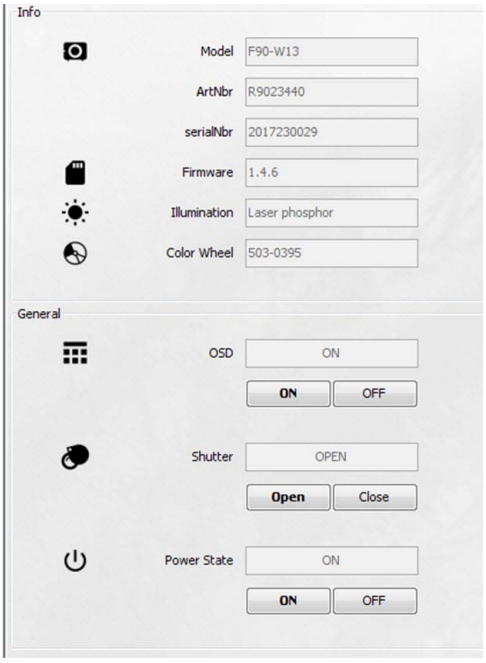


Image 6-1
Projector info, laser based projector

Depending on the projector type, more or less items are shown on the info page. The info is split up on real info and general settings.

The following information can be found on the information page:

Model	projector model
Article number	order number of the projector
Serial number	
Firmware	current installed firmware version
Illumination	type of illumination, laser phosphor or xenon
Color wheel	article number of the used color wheel

The following general toggle settings are available:

OSD	state of the OSD
Shutter	state of the shutter
Power state	state of the power

6.2 OSD on - off

What can be done?

The on screen display of the menus can be switched off and on. Switching off the OSD allows the use to make small adjustment on the image with Projector Toolset while a shown is running.

How to toggle the OSD

1. When the OSD is displayed on the screen, click on OFF the remove the OSD from the screen.

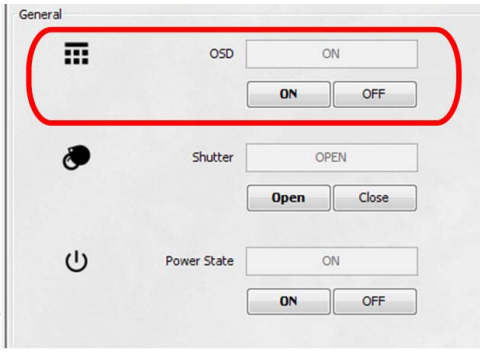


Image 6-2
OSD ON - OFF

2. When no OSD is displayed on the screen while making adjustment, click on ON to display the OSD.

The OSD of multiple projectors can be switched from ON to OFF or vice versa at the same time. First make a multiple selection of projectors before switching the shutter state.

6.3 Shutter open - close

What can be done

The image projection can be interrupted for a short time. The image disappears but full power is retained for immediate restarting. Shutter is closed.

How to toggle the shutter

1. When the projector is on, click on **Open** next to *Shutter* to open the shutter.

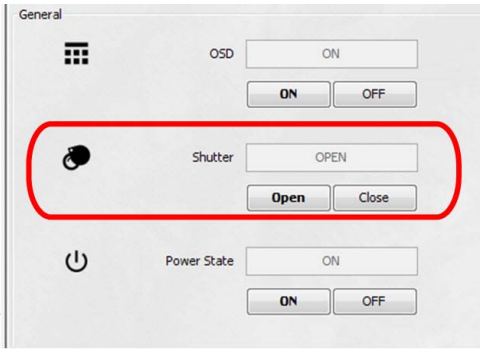


Image 6-3
Shutter open - close

With the shutter open, image projection is possible.

2. When the projector is on, click on **Close** next to *Shutter* to close the shutter.

With the shutter closed, image projection is interrupted but the projector remains full powered so that an immediate restart is possible.

The shutter of multiple projectors can be switched from open to close or vice versa at the same time. First make a multiple selection of projectors before switching the shutter state.

6.4 Power on - off

To power on

1. When the projector is in standby, click on the ON button to start up the projector.

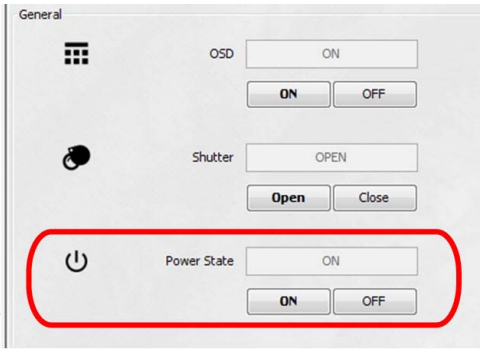


Image 6-4
Powering on - off

To projector goes from standby to operational mode. The **Power on/off** button on the projector will blink until the projector is ready. Once the projector is ready, the Power button will be lit BLUE.

To power off

1. When the projector is up an running, click on the OFF button.

   The projector goes from operational mode into standby. The after-cooling cycle will start (up to 300 seconds). During this period the Power on/off button on the projector will blink. Once the after-cooling cycle has ended, the projector will be in standby mode and the Power on/off button on the projector will be lit WHITE.

Multiple projectors can be switched on or off at the same time. First make a multiple selection of projectors before switching on or off.

6.5 Input-Output

6.5.1 Source selection

What can be done?

The active source is displayed.

Next, a new source can be selected. Depending on the installed input boards and the projector type, the following sources are possible:

- DisplayPort 1, 2 or A, B, C, D
- DisplayPort dual, dual head, quad, columns, sequential
- HDBaseT
- HDMI
- Quad SDI
- SDI A, B, C, D
- DVI, dual, columns, sequential

How to select

1. Click on the drop down box next to *Source* (1) and make your selection (2).

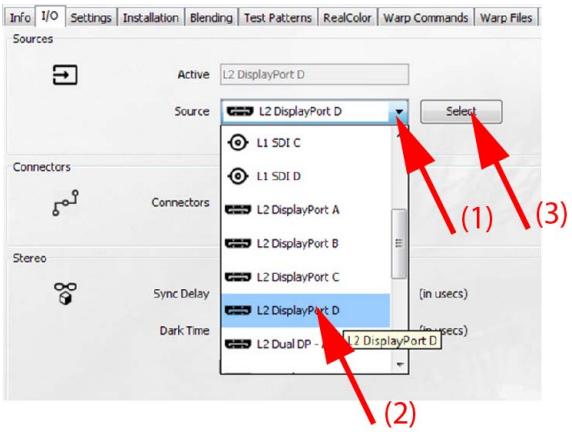


Image 6-5
Source selection

2. Click **Select** to activate the choice (3).

   The source name will be displayed next to *Active*.

6.5.2 Connector configuration

What can be done?

The connector pane allows to change the settings for each input connector to the projector.

By default all options for every connector are set to automatic, together with the native Extended Display Identification Data (EDID).

When entering the menu for each input connector, the following changes can be made:

- Color Space
- Signal Range
- EDID

How to configure

1. While in the *I/O* tab, go to the *Connectors* pane and click on the drop down list next to *Connectors* and select the desired connector (1).

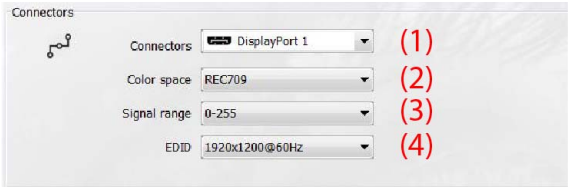


Image 6-6
Connector configuration

The current settings are filled out.

2. Set the desired *Color space* (2). Click on the drop down box and select the desired value.
3. Select the desired *Signal range (3)*. Click on the drop down box an select the desired value.
4. Set the video timing when others than the native for the connector. Click on the drop down box next to *EDID* and select the desired value (4).
   Note: *You cannot change the EDID for SDI connectors.*

6.5.3 Stereo

What can be done?

The Stereo setup allows to configure the output image to the specifications of your glasses and emitter.

The following can be configured:

- Swap eye: to invert the stereo sync.
- Dark time: to setup the amount of dark time the projected image will have between frames.
- Sync delay: to setup the sync delay.

How to configure

1. While in the *I/O* tab, go to the *Stereo* pane.
2. To setup the sync delay, click on the drop down box and select the desired delay (1).

Image 6-7
Stereo emitter configuration

The sync delay be set between -10000 µs and +10000 µs. The step between two values is 100 µs.

3. To setup the dark time, click on the drop down box and select the desired delay (2).

   The dark time can be set between 1000 µs and 2500 µs.

4. To invert the stereo sync, check or uncheck the check box next to *Swap eyes* (3).

6.5.4 Output setup

Output setup can only be done on models with an actuator included. For all others, the default output resolution is displayed and the selection is disabled.

How to set

1. While in the *I/O* tab, go to the *Output* pane.

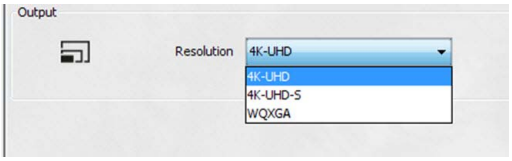


Image 6-8

2. Click on the drop down control and select the desired output resolution.
   The possible depends on the projector types. E.g.:
   - 4K UHD: 4k images, using the actuator at normal frequency.
   - 4K UHD S: 4k extra sharp images, using the actuator at a higher frequency
   - WQXGA: 2k images. In this mode, the actuator is disabled.

6.6 Image settings

About the settings

Brightness: Change the brightness of the complete output signal (main and PiP window together) of the projected image. The brightness function is used to adjust the black level in the input picture. It adds or subtracts an offset, or bias in to the red, green and blue signals. Value between -1.00 and 1.00 with a default of 0.00 .

Contrast: Change the contrast of the complete output signal (main and PiP window together) of the projected image. Used to adjust the contrast ratio of the displayed image by applying gain to the red, green and blue signals. Value between 0.00 and 2.00 with a default of 1.00 .

Saturation: Change the saturation of the complete output signal (main and PiP window together) of the projected image. Saturation levels impact on the white levels and the intensity of the color display; the higher the value, the more vivid the color display will be. Value between -1.00 and 2.00 with a default of 1.00 .

Sharpness: adjustment amplifies the high frequency components in the picture, meaning that by increase the sharpness, the picture will be perceived as sharper, and if decreased, the picture will be perceived as more blurry. Increasing the sharpness will have the best effect in high contrast images, eg a table with text and borders. In a natural picture, high sharpness can be perceived as noise, as all details in the picture will be amplified. Value between -2 and 8 with a default of 0.

Gamma: image quality enhancement that offers a richer image by brightening the already darker portions of the image without altering the brightness of the brighter portions. Value between 1.0 and 2.8 with a default of 2.2 .

How to access

1. While in the Configuration module, click on the Settings tab.

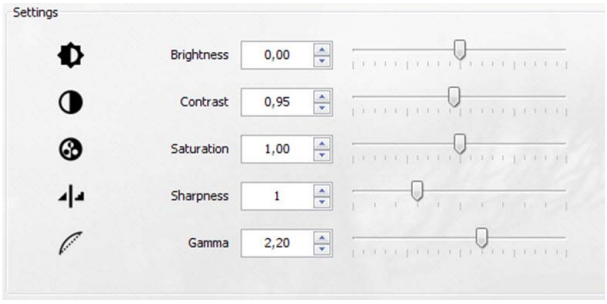


Image 6-9
Settings

Adjusting via dragging

1. Click on the slider bar of a specific adjustment and hold down the mouse button.
2. Move the slider left or right until the desired value for that specific adjustment is reached.

   The value before the adjustment will change accordingly.

Adjusting via the up down controls

1. Click on the up down control of the spin box of a specific adjustment until the desired value is reached.

   The value in the input field change accordingly.

Adjusting via the input field

1. Click inside the input field of the spin box of a specific adjustment.
2. Select the actual value and enter a new value with the keyboard.

6.7 Smear Reduction

About smear reduction

Smear is a phenomenon that typically occur when objects in the picture moves in high speed over the screen. It appears like there is a “tail” behind the object, or a lag in the moving parts of the picture.

In order to avoid this, there has been developed some smear reduction functions (SRP), that reduces this perceived rendering. Select the option that give the best result.

How to select

1. While in the *I/O* tab, go to the *Smear Reduction* pane.

Image 6-10
Smear reduction

2. Click on the drop down box and select the desired option.

6.8 Brilliant Color

About brilliant color

This function changes the color spectrum. This has the effect of increasing the saturation of colors, without adding white. The balance of colors displayed will be more true to the original.

How to change

1. While in the *I/O* tab, go to the *Brilliant Color* pane.

Image 6-11
Brilliant color

2. Click on the drop down box and select the desired option.

6.9 Installation

6.9.1 Lens adjustment

What can be done?

Once a lens is installed in the projector, the zoom and focus should be adjusted. But before starting any adjustment, the zoom and focus should be calibrated.

As all the lenses are motorized, the adjustment can be done via the Projector Toolset.

There a two ways to use the motorized adjustment:

- using steps. These are split up in a *Normal*, *Fine* and *Coarse* adjustment. This adjustment is indicated with one arrow on the buttons
- Continues adjustment. This way of adjustment is indicated with two arrows on the buttons.

When using steps, start with the coarse or normal adjustment and fine tune with the fine adjustment.

Or, make a combination of continues adjustment and fine adjustment.

Image 6-12
Lens adjustment

Zoom and focus adjustment

1. To calibrate the zoom, click on **Calibrate Zoom**.

   A calibration action is time consuming. When finished, the zoom will be set in its nominal position.

2. To calibrate the focus, click on **Calibrate Focus**.

   A calibration action is time consuming. When finished, the focus will be set in its nominal position.

For continues adjustment

1. Click on the left or right two arrow button and hold your mouse button pressed until the desired adjustment position is reached.

   The lens motor runs continues until the mouse button is released.

For step adjustment

1. First select the adjustment mode by checking the check box next to the desired adjustment mode next to one arrow buttons.

Choice between *Fine*, *Normal* or *Coarse*.

2. Click on the left or right one arrow to adjust the setting.

   Depending on the selected mode, the adjustment steps are small, medium or large.

3. If necessary change the adjustment mode and continue until the adjustment is finished.

6.9.2 Shift adjustment

What can be done?

The image can be shifted horizontally and vertically. Lens shift is only possible when lens shift is calibrated.

Image 6-13
Installation, shift

There a two ways to use the motorized adjustment:

- using steps. These are split up in a *Normal*, *Fine* and *Coarse* adjustment. This adjustment is indicated with one arrow on the buttons
- Continues adjustment. This way of adjustment is indicated with two arrows on the buttons.

When using steps, start with the coarse or normal adjustment and fine tune with the fine adjustment.

Or, make a combination of continues adjustment and fine adjustment.

Lens shift calibration

1. Click on **Calibrate H** to calibrate the horizontal lens shift.

   This can take a while. When finished, the lens shift will be set in its nominal position.

2. Click on **Calibrate V** to calibrate the vertical lens shift.

   This can take a while. When finished, the lens shift will be set in its nominal position.

Shifting via continuous adjustment

1. For horizontal and/or vertical shift adjustment, click on the left or right two arrow button and hold your mouse button pressed until the desired adjustment position is reached.

   The lens motor runs continues until the mouse button is released.

Shifting via step adjustment

1. First select the adjustment mode by checking the check box next to the desired adjustment mode next to the one arrow buttons.

   Choice between *Fine*, *Normal* or *Coarse*.

2. Click on the left or right one arrow button for horizontal shift or left or right one arrow button to shift the image vertically.

   The speed of moving the image depends on the selected adjustment mode. Coarse will move the image with big steps, fine will move the image with small steps.

   Start with the coarse or normal adjustment and fine tune with the fine adjustment.

   Or, make a combination of continues adjustment and fine adjustment.

6.9.3 Presets fro zoom - focus - shift

What can be done?

Zoom, shift and focus values for a certain position of the projector can be stored in a preset. Up to 5 preset can be created.

One of these preset can be activated when necessary. The projector lens goes then automatically to the stored settings. This functionality is very useful when using multiple screen position during a show. Before the show starts you can align the zoom, focus and shift for each screen position and stored in the different presets. During the show, when changing from screen, you just have to call the correct preset and the projector is automatically adjusted for the new screen position.

How to store setting

1. Adjust the zoom, focus and shift of the projector.
2. While in the *Installation* tab, go to the *Presets* pane and select a preset by clicking on the corresponding radio button.

Image 6-14
Save as preset

3. Enter a name for the preset.
4. Click **Save**.

To activate a preset

1. While in the *Installation* tab, go to the *Presets* pane and select a preset by clicking on the corresponding radio button.

Image 6-15
Activate preset

   The name of the preset is displayed.

2. Click **Recall** to activate the settings stored in the preset.

6.9.4 Image orientation

The different configurations

The following installation are possible:

- desktop front
- desktop rear
- ceiling front
- ceiling rear

Image 6-16
A desktop front
B desktop rear
C ceiling front
D ceiling rear

Font : projector is installed in table or ceiling mount configuration at the same side of the screen as the audience.

Rear: projector is installed in table or ceiling mount configuration at the other side of the screen opposite the audience.

How to change

1. Click on the drop down arrow of the combo box next to *Orientation* (1).

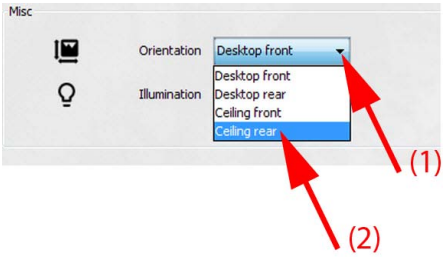


Image 6-17

A list with the possible selection opens.

2. Select the correct orientation from the list (2).

The projected image will change accordingly.

6.9.5 Illumination

What can be done?

Within a certain power mode, the light output of the lamp can be reduced by reducing the lamp power.

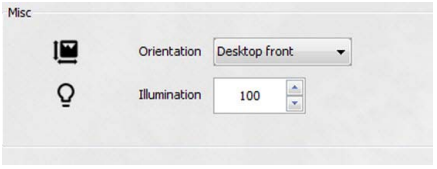


Image 6-18
Installation, miscellaneous

How to reduce the power

1. Click on the up down control of the spin box next to Illumination until the desired lamp output power is reached.
   Or,
   click in the input field, select the current value and enter a new value with the keyboard.

6.9.6 Statistics

Overview

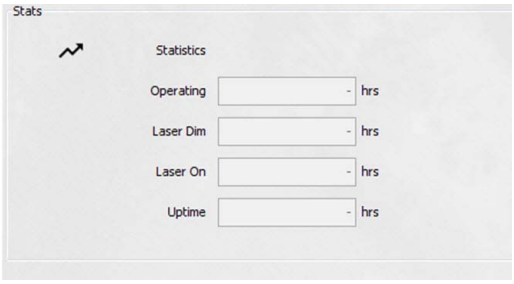


Image 6-19
Installation, statistics

Depending on the projector type the following statistics are given:

Operating	run time of the system since first start up
Lamp strikes	number of strikes since first start up
Lamp runtime	run time of the lamp since first start up of the current lamp
System Time	run time since first startup of the projector
Laser Dim	indicates the used source power in %
Laser On	time laser is on since start up
Up time	run time since last lamp strike

6.10 Blending adjustment

6.10.1 Activating the Blending adjustment

About Blending

Blending is used in multi channel installation to have a seamless transition between the channels. Image blending gives the appearance of a single view, thus achieving realistic immersion for the majority of wide screen applications.

From the start (offset) position, you can blend zone size per edge (left, top, right, bottom). For each edge there will be a drop-off curve for the blend zone.

About offset and blending width or height

Offset is used to clip the image. The larger the offset value, the more the image is masked (by black bar) at the corresponding side. E.g. Top offset of 100 will blank the top 100 lines.

Height or width is used to create a blending zone with a smooth brightness drop off. This is used to compensate for the double brightness in overlap areas. The value is the size of the blended area in pixels.

How to activate

1. Check the check box in front of *Enable blending*.

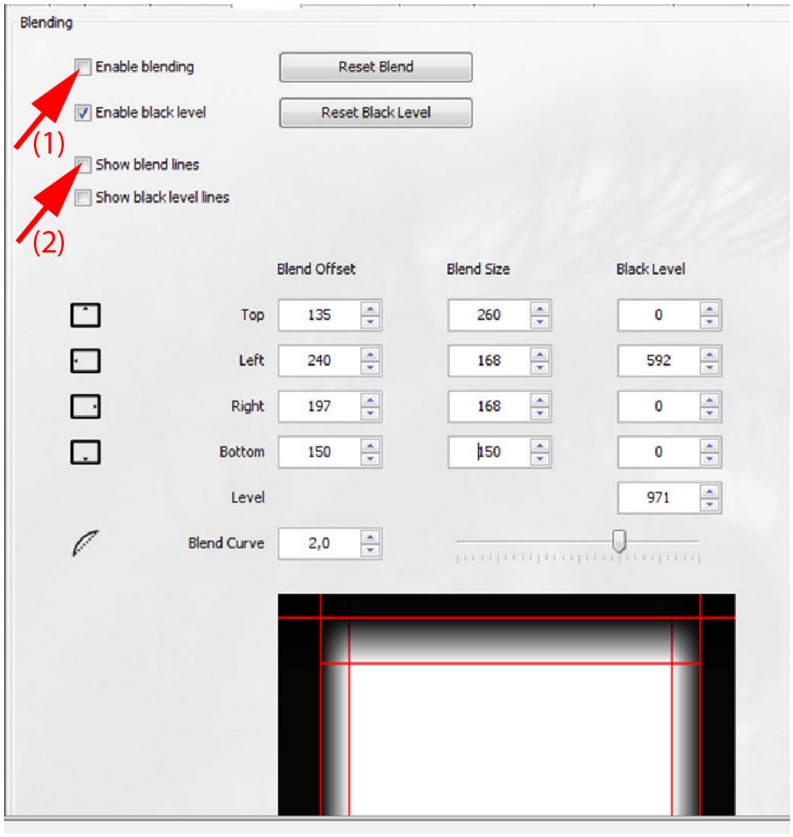


Image 6-20
Blending, enable - disable

Showing the blend line on the screen

1. Check the check box in front of *Show blend lines*.

   The offset and size lines are displayed on the screen to make the adjustment more easy for the user.

6.10.2 Edge blending

Blend zones adjustment via drag and drop

1. Hoover with your mouse over an offset line until the cursor becomes a 2 arrow cursor.

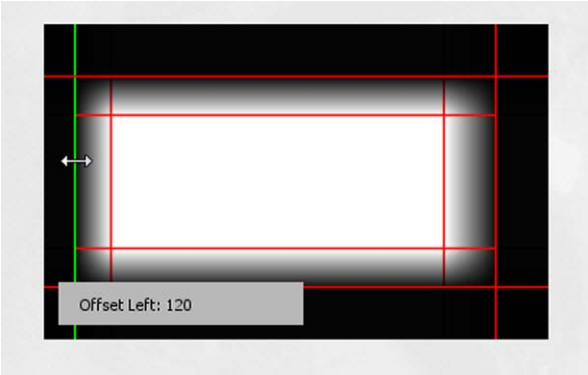


Image 6-21

   The current offset value is indicated in the tool tip.

2. Click and drag the line to the desired position.
3. Hoover with your mouse over a width line until the cursor becomes a 2 arrow cursor.

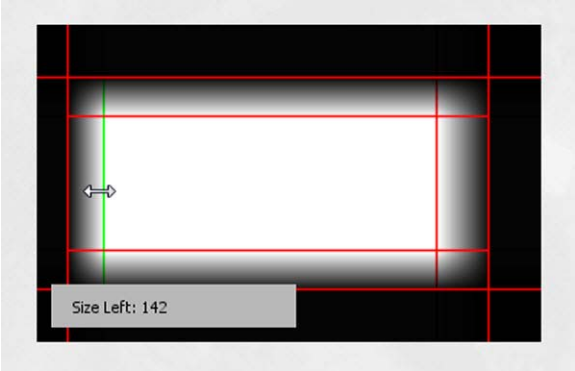


Image 6-22

The current value is indicated in the tool tip.

4. Click and drag the line until the desired width is obtained.
5. Repeat in the same way for the other edges.

Blend zones adjustment via value changing

1. Click on the up down control of the spin box of an Offset until the desired value is reached
   Or,
   click in the input field, select the current value and enter a new value with the numeric keys.
2. Click on the up down control of the spin box of a Size until the desired value is reached
   Or,
   click in the input field, select the current value and enter a new value with the numeric keys.
3. Repeat in the same way for the other edges.

Do not forget to disable the Show Blend lines.

6.10.3 Gamma adjustment

About Gamma

Gamma is an image quality enhancement function that offers a richer image by brightening the already darker portions of the image without altering the brightness of the brighter portions (contrast feeling enhanced).

How to adjust

1. Click on the up down control until the desired gamma value is reached. The value can be changed between 1.0 and 3.1

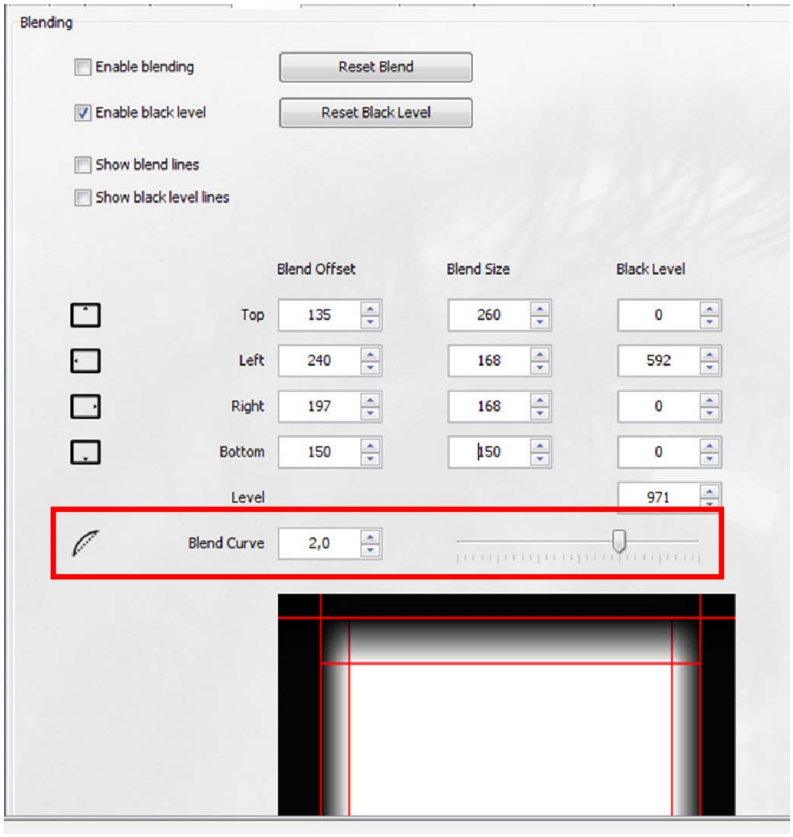


Image 6-23
Gamma adjustment

Or,
click in the input field, select the current value and enter a new value between 1.0 and 3.1
Or,
click and drag the slider until the desired gamma is reached.

6.10.4 Black level adjustment

About adjusting the black level

The purpose of the black level adjustment is to align the black levels in the overlapped regions with the black levels in the other regions.

This is needed because the black levels will be brighter in the blend zones, since multiple projectors will project on the same screen area.

The size of the black level area is calculated automatically from the blend zones. This is done by using the start position and size of each edge of the blend and adding an additional size of 8 pixels to reduce the effect known as "sea of mirrors".

You can also specify the offsets manually by turning off the automatic calculation. The black level value is adjusted in a 8 bit resolution from 0 to 255.

The following figure shows how this occurs in a side by side configuration without any correction of the black level.

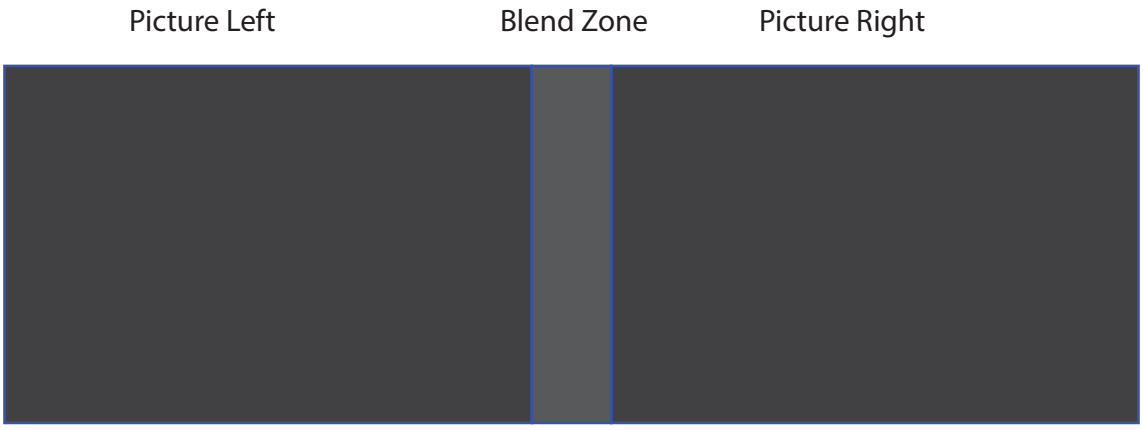


Image 6-24

Enable black level

1. Check the check box in front of *Enable black level* (1).

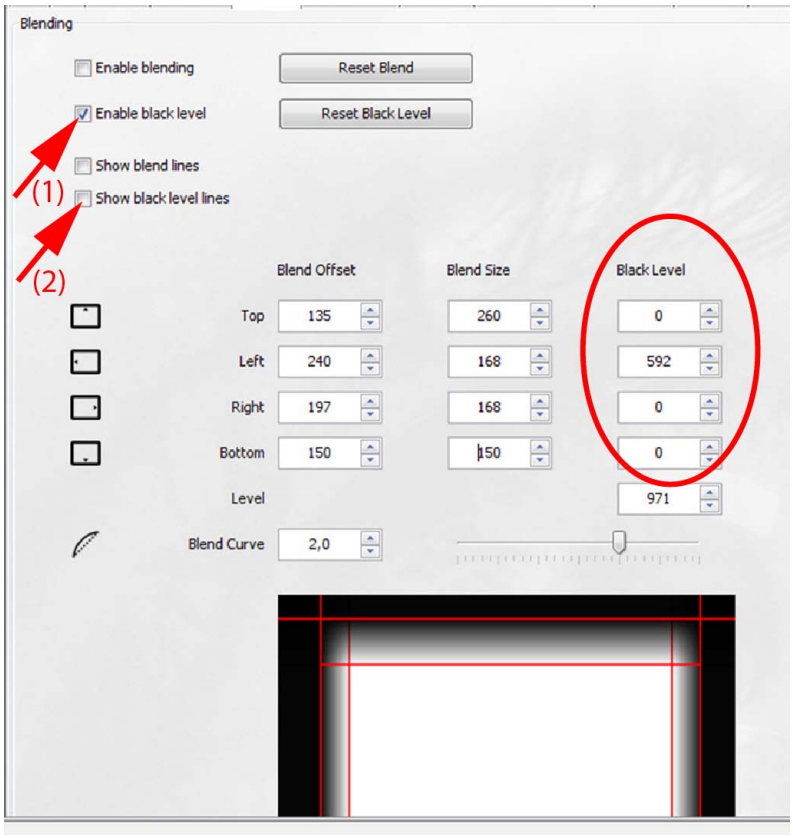


Image 6-25

The black level settings are applied to the projected image.

Show black level lines

1. Check the check box in front of *Show black level lines* (2).

The black level lines are shown on the screen to make it more easy to adjust.

Adjust black level

1. Select the side where the overlap occurs (left/right/top/bottom).
2. Click on the corresponding up down control until the desired level is reached.

Or,
click in the input field, select the current value and enter a new value with your keyboard.

3. Repeat this procedure for other overlap areas.

Do not forget to disable the Show black level lines.

6.11 Test patterns

About test patterns

The current selected test pattern is displayed next to *Current*.

A list of possible test patterns is available.

How to select

1. To select a test pattern. Click on a test pattern name in the list (1).

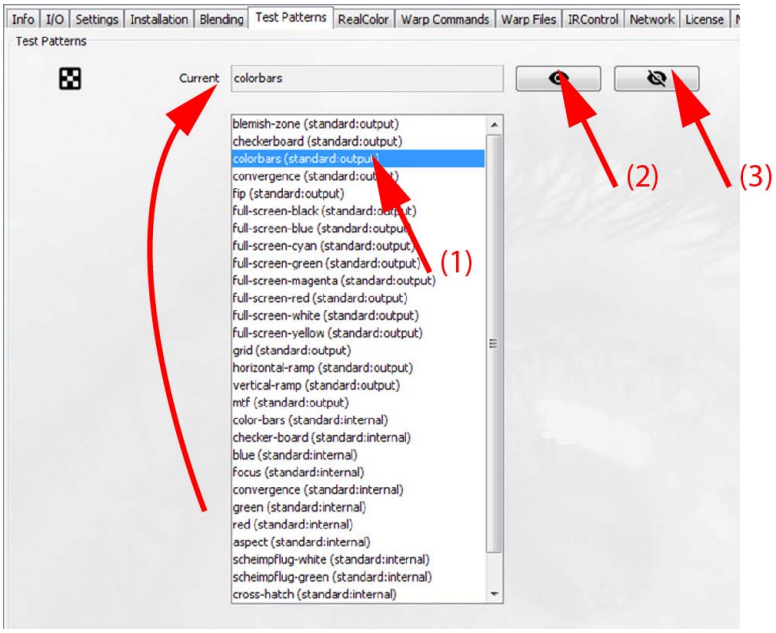


Image 6-26

The selected test pattern name is displayed in the current field.

2. To display a selected pattern, click on the display icon (2).
3. To remove a displayed pattern, click on the remove display icon (3).

6.12 RealColor

Purpose

When blending images from multiple projectors, the measured color coordination values of each projector can be altered to a desired common level. This so that the projected colors are identical over all projectors used.

Native color values

The native color values are the color coordinates measured during the assembly of the projector. These values determine the maximum color triangle which can be displayed with this projector.

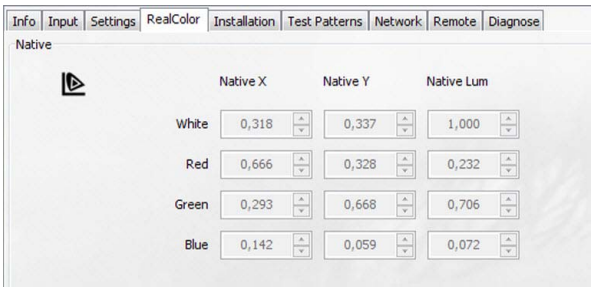


Image 6-27
Native color coordinates

How to make an adjustment to a coordinate or temperature

1. To enter a value for specific coordinate or temperature, click on the up down control of the spin box until the desired value is reached
   Or,
   click inside the input field, select the current value and enter a new value.

To measure the coordinates of a color, use the test patterns of that specific color.

How to set the desired values

1. Select the desired *Mode*. Click on the drop down box and select the mode.

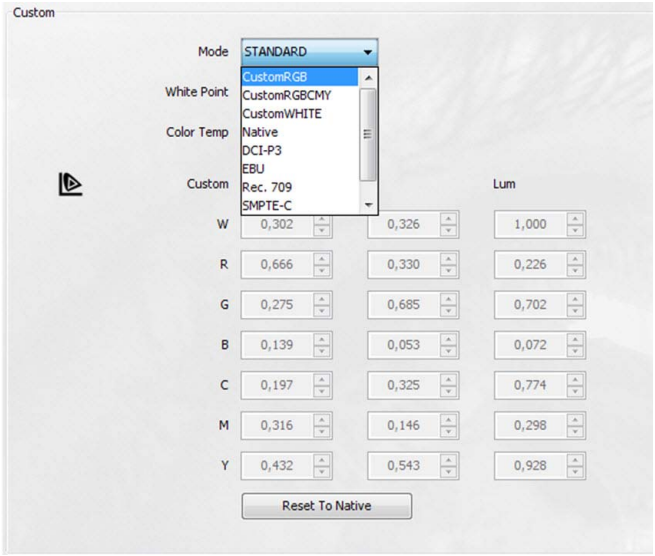


Image 6-28
RealColor, mode selection

The following modes are possible:

- **Custom RGB**: 3-point color configuration. In RGB mode, the C, M and Y coordinates will be calculated automatically based on the R, G and B coordinates.
- **Custom RGBCMY**: 6-point color configuration (both RGB and CMY). In RGBCMY mode, each color can be given a specific coordinate within the measured color triangle.
- **Custom White**: Configure only the White point.
- **Native** : Projector native color settings. All input fields are disabled.
- **Standard**: A color specific for the projector.
- **DCI-P3**: Color standard for Cinema.
- **SMPTE-C**: American color standard for broadcasting
- **EBU**: European color standard for broadcasting.
- **Rec. 709**: Color standard for high-definition television (HDTV)

2. Configure the white point. Make your selection between *Coordinates* or *Temperature*. Click on the drop down box and select the desired setting.

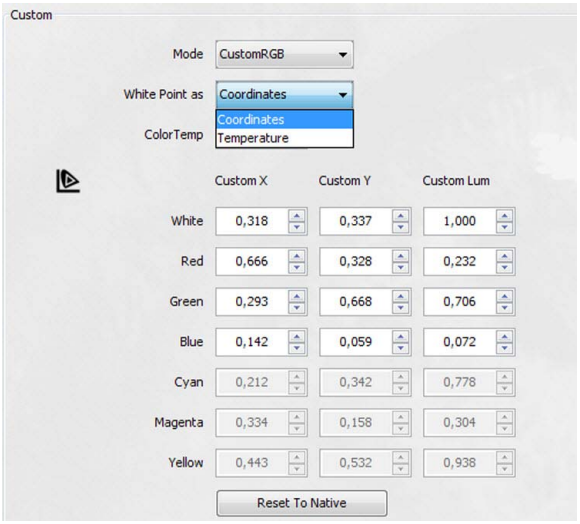


Image 6-29
RealColor, white point

If coordinates is selected, the color temp field is blanked out and the coordinates for white are available for changing.

If temperature is selected, the color temp field is activated and can be changed. The color coordinates for white are blanked.

Reset to Native

To reset the current settings to the native settings, click on **Reset To Native**.

6.13 Warp Commands

6.13.1 About warping

Overview

Image warping is the process of digitally manipulating an image to compensate for the distortion of the screen. Consequently, it can also be used to generate an image with irregular shape.

While an image can be transformed in various ways, pure warping doesn't affect the colors.

6.13.2 Enable-disable the functions

About enabling/disabling a function

By checking the check box the functions can be enabled or disabled.

There is a certain level structure available. Only when warp is enable, it possible to adjust 4Corner or Bow in real time depending on their selection. Symmetrical bow is only possible when bow is enabled.

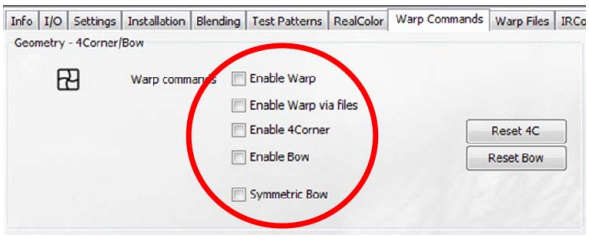


Image 6-30
Enabling warp functions

How to

1. Check the check box in front of a function to enable that function.

   The following functions can be enabled:

   - *Enable Warp*: enables or disables the warp functionality. The settings will be applied to the real image.
   - *Enable Warp via files*: enable or disable the warp functionality by using warp files. This function should be disabled when using 4Corners and Bow.
   - *Enable 4Corners*: enables or disables the 4corner adjustment.
   - *Enable Bow*: enables or disables the bow adjustment.
   - *Symmetric Bow*: allow to adjust the bow in a symmetrical way.

Reset 4 corners

To reset the 4 corner adjustments, click on **Reset 4C**.

Reset bow

To reset the bow adjustments, click on **Reset Bow**.

6.13.3 Grid on screen

About enabling/disabling grid

A grid or grid lines can be displayed on the screen to make the adjustment more easy. The density of the grid can be set.

The following grid or grid lines can be selected:

- warp grid
- warp grid lines
- 4corner grid
- 4corner grid lines

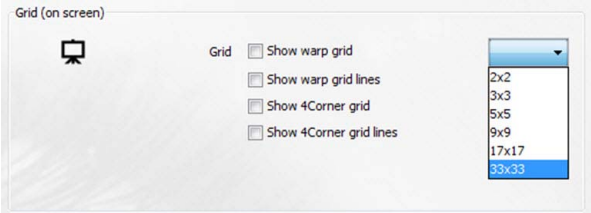


Image 6-31
Grid setup

How to select

1. Check the check box in front of a grid function to enable that grid.

Grid density

1. Click on the drop down box and select the desired density.
   The following selection is possible:
   - 2x2
   - 3x3
   - 5x5
   - 9x9
   - 17x17
   - 33x33

   Start with a low density and increase the density to fine tune the adjustment

6.13.4 Corner adjustment

About 4 Corners adjustment

4 corner adjustment is typically used when the mechanical installation of the projector prevents it from pointing perpendicularly at the screen. For example, you can overshoot the screen and use 4 corner adjustment to pull your projected image corners back into the screen.

Some examples:

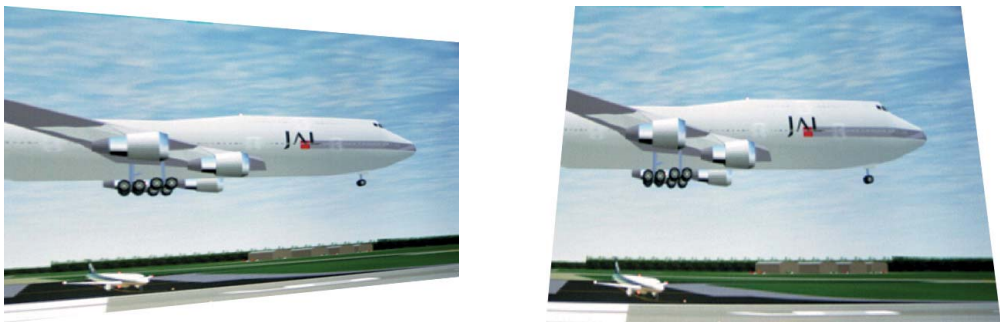


Image 6-32
4 corner adjustment

How to adjust the 4 corners using the coordinates

1. Select the corner to adjust (1) . Click on the radio button in front of the corner to adjust.

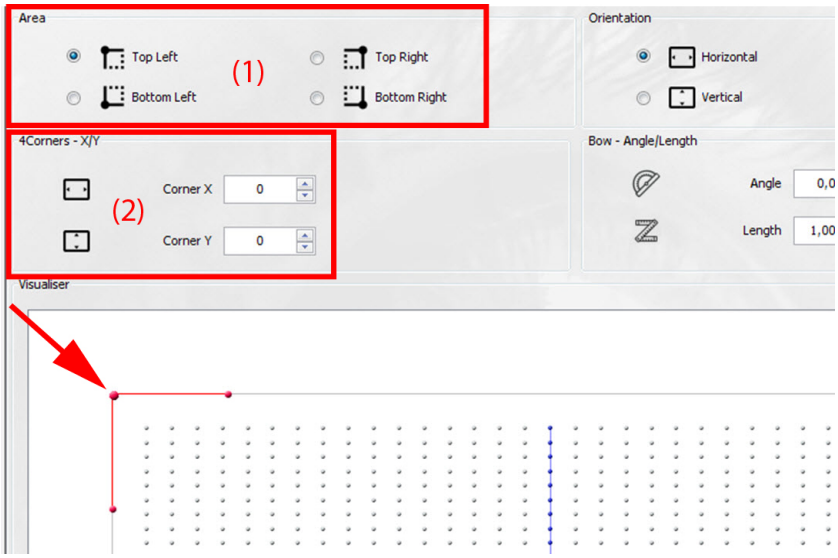


Image 6-33
Corner adjustment

The following selections are possible:

- Top left
- Bottom left
- Top right
- Bottom right

2. Go to *4Corners X/Y* pane and enter the desired value for *Corner X* and *Corner Y* (2).
   Or,
   click on the up down control until the corner is on the desired position.

   X direction means moving the corner in a horizontal way.

   Y direction means moving the corner in a vertical way.

   The result of this movement will be visible in the *Visualiser* pane.

How to adjust the corners using the Visualiser

1. Click on a corner and drag it to the desired position.

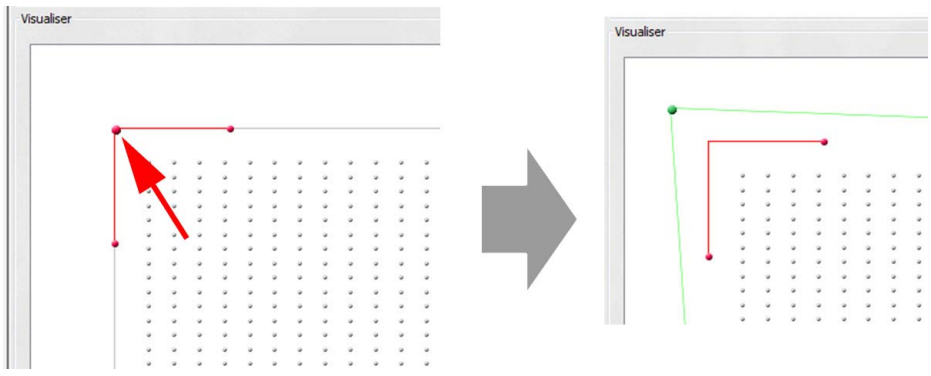


Image 6-34

The warp screen will change to the new position. A green outline of the warp screen will be seen in the visualiser.

The new coordinates will be indicated in the *4Corners - X/Y* pane. The radio button of the adjusted corner in the *Area* pane will be selected.

6.13.5 Bow adjustment

About bow adjustment

A bow distortion can be adjusted so that a normal image is displayed. Positive adjustments introduce more outside bow distortion. Negative adjustments introduce more inside bow distortion.

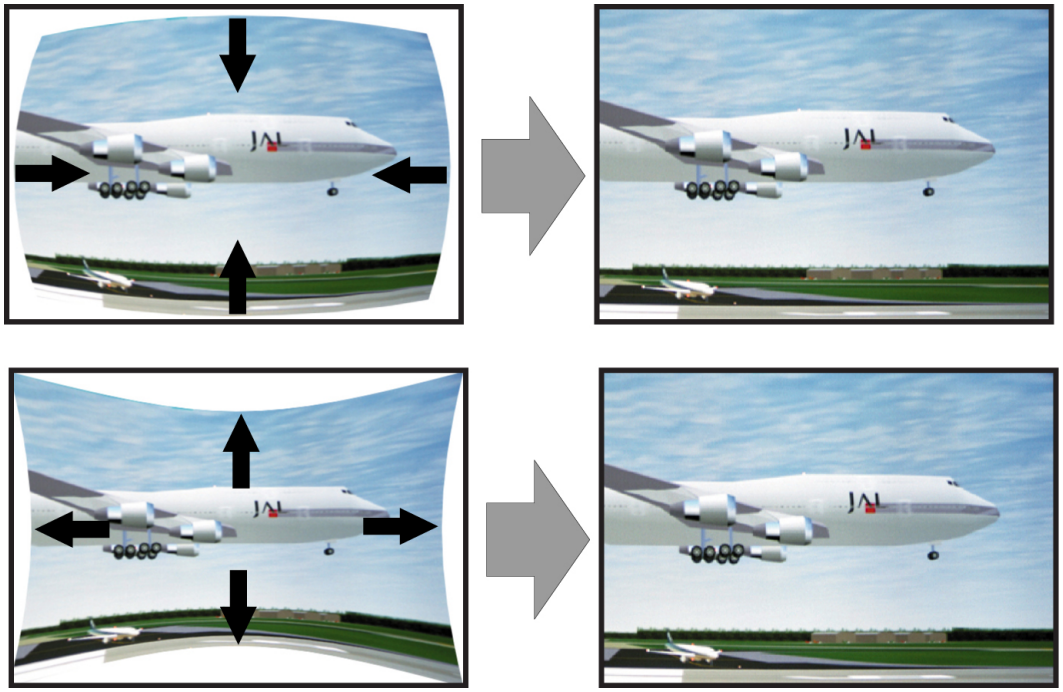


Image 6-35
Bow distortion

How to adjust bow using the coordinates

1. In the *Area* pane, select a corner (1). Click on the radio button of your choice.

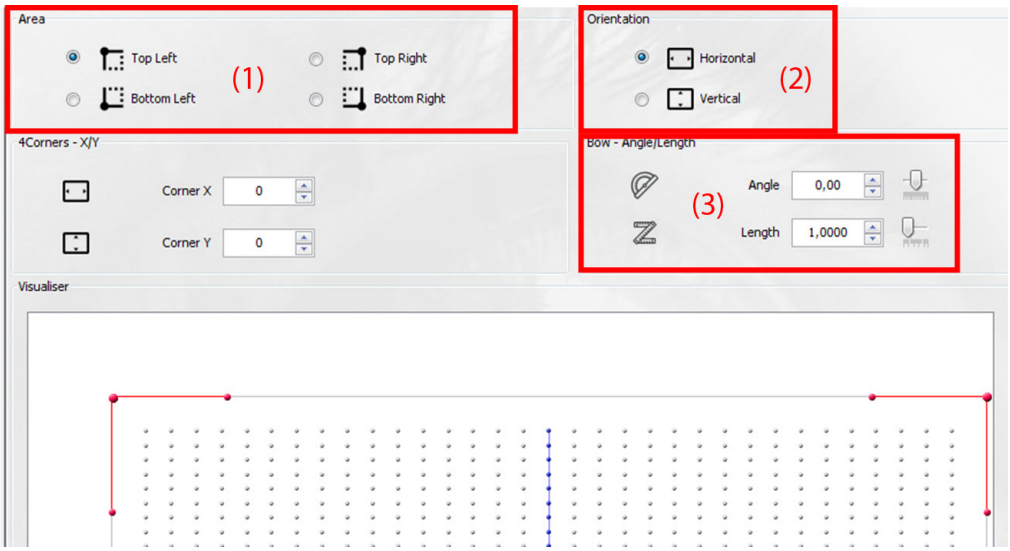


Image 6-36
Bow adjustment

2. In the *Orientation* pane, select the desired orientation (2). Click on the radio button of your choice.
3. In the *Bow - Angle/Length* pane (3):

- Change the angle of the bow adjustment. This will determine the curve of the bow.
- Change the length (position of the handle compared to the corner point). By changing the length, the lowest point in the bow will move further or closer to the corner point.

4. Repeat for the other orientation and corners until the warping is finished.

How to adjust the corners using the Visualiser

1. Click on a handle and move it up down, left and right until the created bow matches almost with the screen.

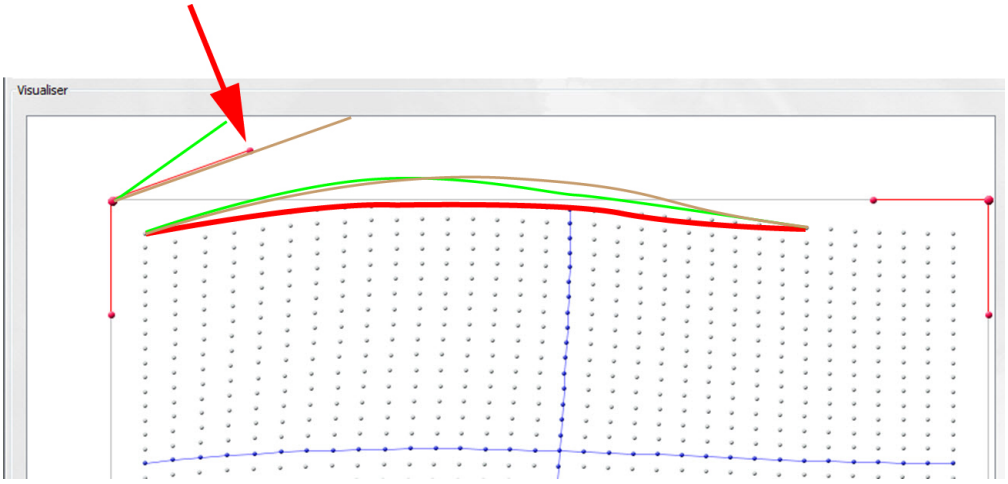


Image 6-37
Bow adjustment via visualiser

The new angle and length will be indicated in the *Bow - Angle/Length* pane.

2. Repeat for all other handles if necessary.

6.14 Warp files

6.14.1 Enable-disable the functions

About enabling/disabling a function

By checking the check box the functions can be enabled or disabled.

There is a certain level structure available. Only when warp is enable, it possible to adjust 4Corner or Bow in real time depending on their selection. Symmetrical bow is only possible when bow is enabled.

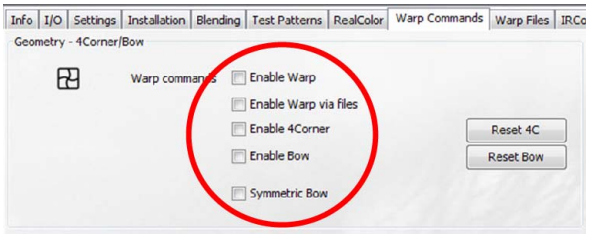


Image 6-38
Enabling warp functions

How to

1. Check the check box in front of a function to enable that function.

The following functions can be enabled:

- Enable Warp: enables or disables the warp functionality. The settings will be applied to the real image.
- Enable Warp via files: enable or disable the warp functionality by using warp files.

6.14.2 Warp adjustment principle

Description

Warping adjustment enables the **relocation of pixel groups** in an image in order to introduce spacial distortion. To make the procedure comprehensible, there are some rules and features.

The use of warping adjustment leads to image quality loss! The more geometry adjustment is applied, the more quality loss.

Moving an anchor point causes pixels in the same region to be moved gradually with this one pixel, depending on their distance to it. The size of the region of impact depends on the anchor point: some anchor pixels have impact on the full image, while others have impact on a small area only. The full image is divided in **33 x 33 regions**. The smallest region of impact is one of these 1089 regions.

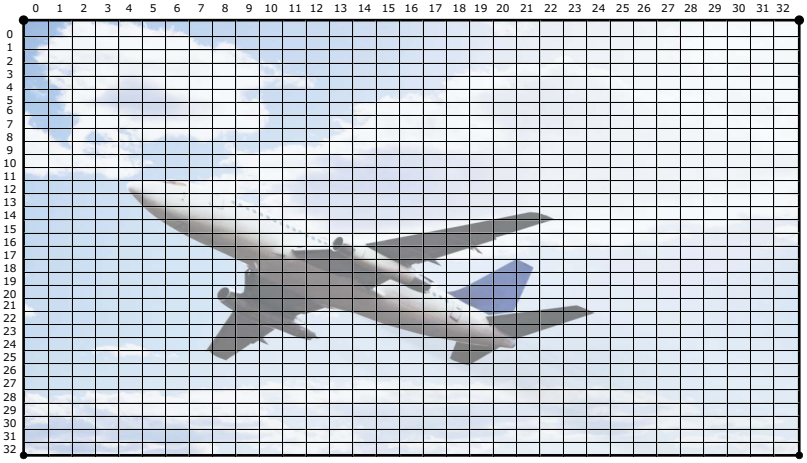


Image 6-39
33 x 33 regions in an image

Warp adjustment is divided in **six modes**:

- 2 x 2 (highest mode);
- 3 x 3;
- 5 x 5;
- 9 x 9;
- 17 x 17;
- 33 x 33 (lowest mode).

The six modes represent **21 levels**, each level representing its own group of **anchor points**.

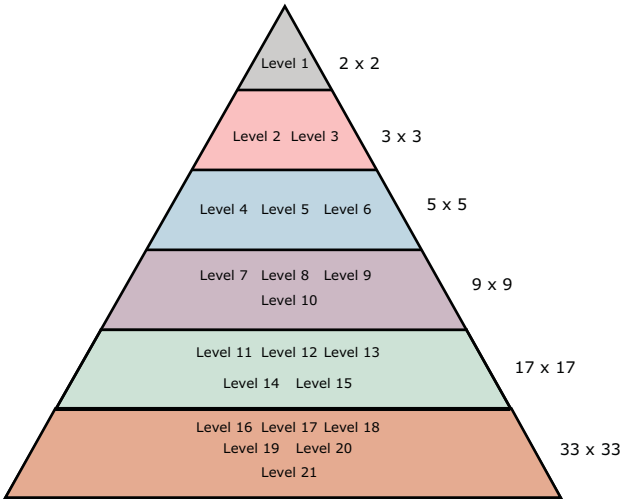


Image 6-40
Level hierarchy

The **hierarchy** of these levels is very important: each level interacts with all lower levels. Adjusting a point on a certain level affects the points in all or some of the lower levels. The impact depends on the level itself. Therefore it is important to adjust the geometry starting from level one and going down to lower levels as required. In practice it will not be needed to adjust the anchor points of levels 7 and lower.

In 2 x 2 mode, we only have one level, including all four (2 x 2) anchor points, being the image corners. This mode is especially used to correct horizontal and vertical keystone.

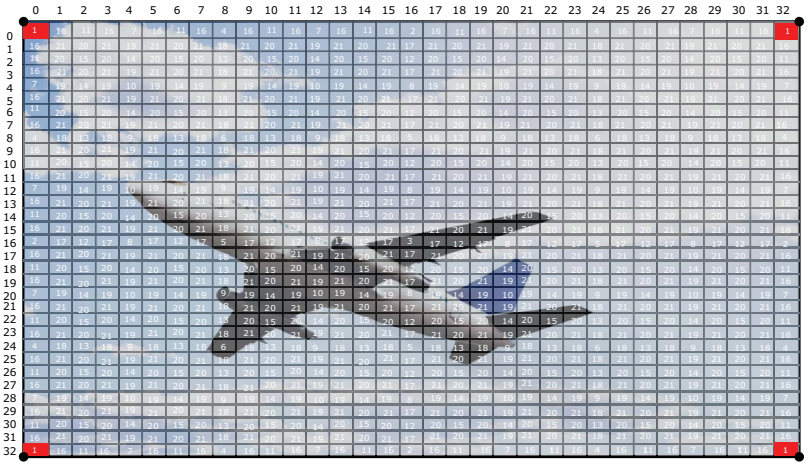


Image 6-41
Warp adjustment: 2 x 2 mode

In 3 x 3 mode, the image side centers represent the level two anchor points, whereas the image center represents the level three anchor point. Together with the higher level anchor points (level 1, four anchor points), we come to a total of nine (3 x 3) anchor points in this geometry mode. This mode can be used to fine tune the overlap area in multiple channel display systems and to make corrections to meet curved and double curved screens.

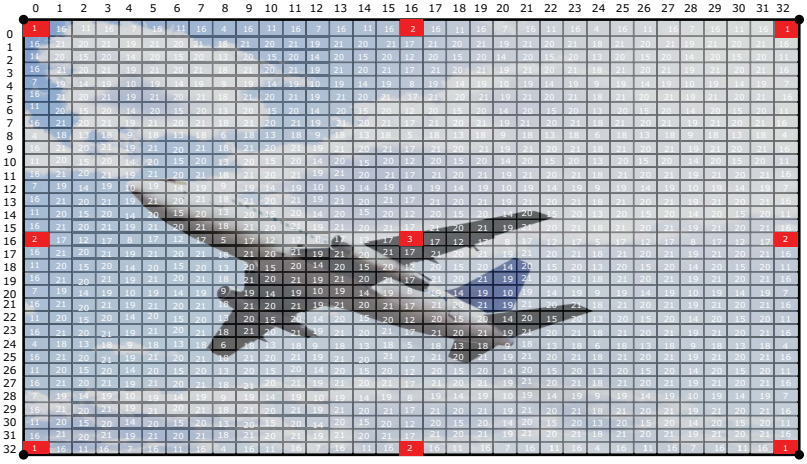


Image 6-42
Warp adjustment: 3 x 3 mode

In 5 x 5 mode, we add three more levels, being level four (eight anchor points), level five (four anchor points) and level six (four anchor points). So this mode includes 25 (5 x 5) anchor points in total. See the image below.

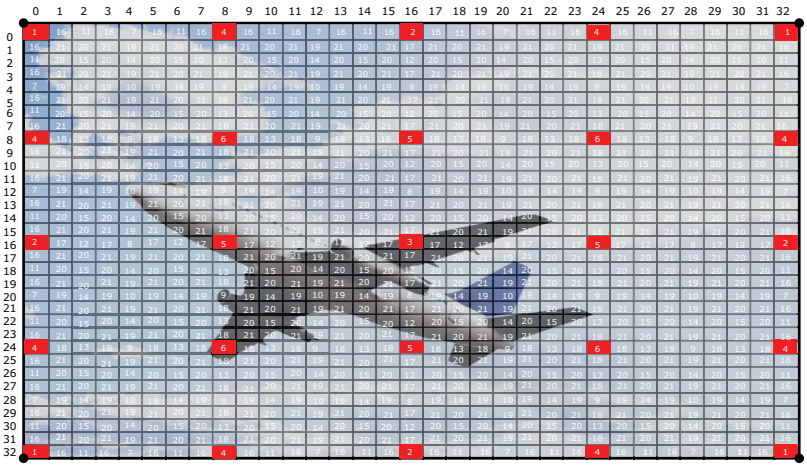


Image 6-43
Geometry adjustment: 5 x 5 mode

This logic can be extrapolated for the lower modes and levels, being level seven to level 21, however in practice these modes and levels are rarely used.

6.14.3 Launch the Warp UI

How to launch

1. While **Warp Files** is selected, press **Launch Warp UI** (1).

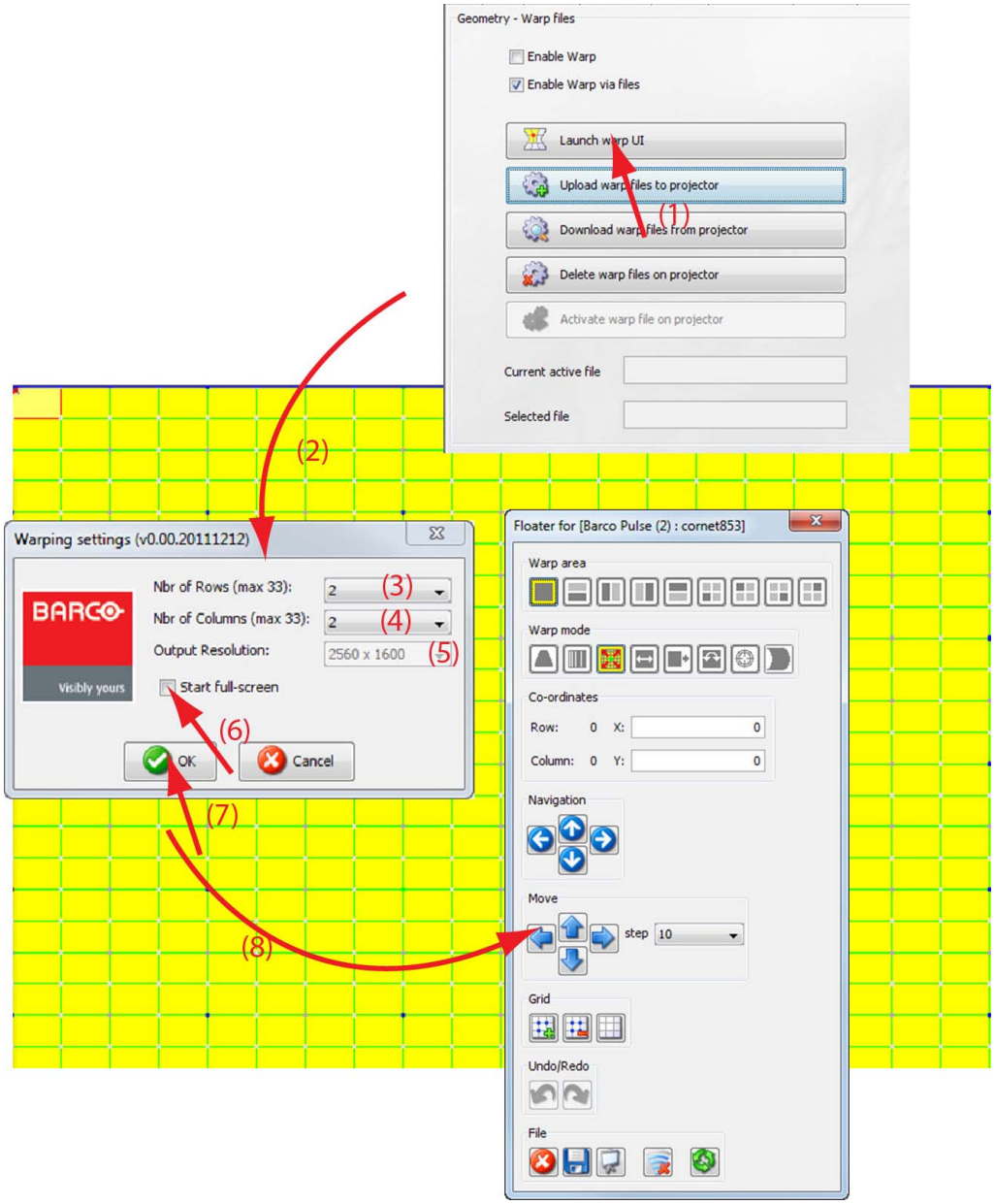


Image 6-44
Launch warp UI

The *Warping settings* window opens (2).

A warping grid contains maximum 33 rows and 33 columns. Each row and each column contain active nodes. Active nodes are nodes which can be moved inside the grid.

2. Enter the number of active nodes per rows by clicking on the up down control of the spin box next to *Nbr of Rows (max 33)* (3).
3. Enter the number of active nodes per column by clicking on the up down control of the spin box next to *Nbr of Columns (max 33)* (4).
4. To change the output resolution of the grid, click on the drop down box next to *Output Resolution* and select the desired resolution (5).
5. If you want to start the warping grid in full screen, check the check box in front of *Start full screen* (6).
6. Click **OK** (7).

   The warping grid and the associated menu starts up.

6.14.4 About the Warp UI

Overview

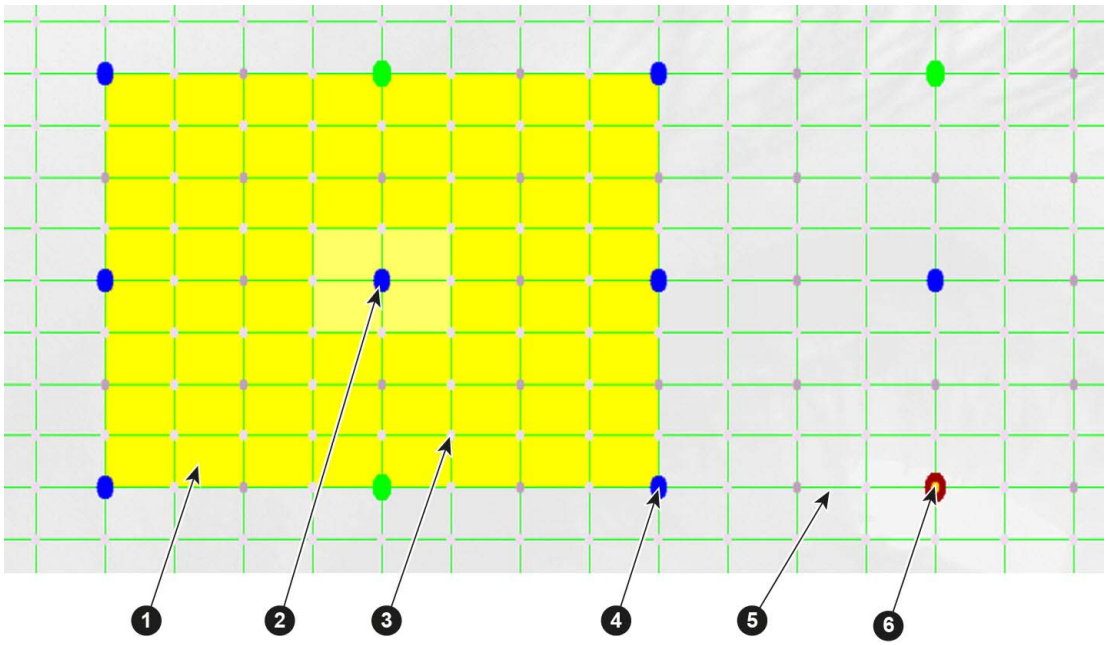


Image 6-45
Example for a 9x9

1	Active field
2	Selected active node
3	Interpolation node
4	Active node (color depends on the level selection)
5	Interpolation node intersection
6	Corner or center node (highest level)

Nodes

Each dot in the grid indicates a node. The small dots are not active nodes and cannot be moved. The bigger dots are active nodes and can be moved during the warping setup.

Depending on the mode setup the active dots get a different color. The color of the active nodes goes from red (for the highest level) to green, blue etc.

When moving an active node:

- Red: will influence all nodes between the adjacent red nodes.
- Green: will influence all nodes between the adjacent red nodes.
- Blue: will influence all nodes between 2 adjacent nodes of the same or higher level.
- Etc. for other low level colors.

Node selection

To select a node, click on an active node in the grid. The active area around the node becomes yellow. The active area is determined by one node left and right and one node up and down.

To move the active area, use the arrow keys on your keyboard or click on another node to make it the active node.

About the context menu

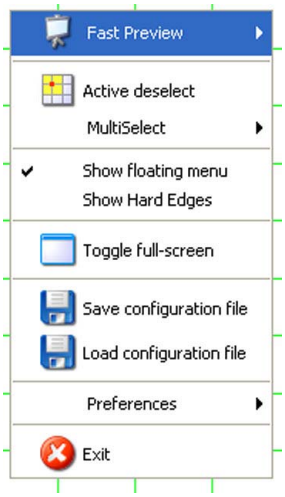


Image 6-46
Context menu

The following items are accessible:

Fast preview	Fast preview
	Recover from warp board crash: to restart the warp board when no activity takes place due to a crash
Active deselect	To deselect the active areas
Multi select	Multi deselect
	Multi select row
	Multi select column
Show floating menu	To display or hide the floating menu
Show hard edges	To display or hide the hard edges.
Toggle full screen	Toggle the adjustment window between full screen and limited screen.
Save configuration file	Save current configuration to file
Load configuration file	Load a warp file as configuration file on the projector
Preferences	Background warp screen
	Active Point intersection
	Interpolation Point intersection
	Hardedges
Exit	To close the warp application

6.14.5 Preferences

6.14.5.1 Background warp screen

What can be done?

The projected image behind the warping raster can be the current image, a white image, a black image or a custom color.

How to change the background

1. Right click on the raster window.

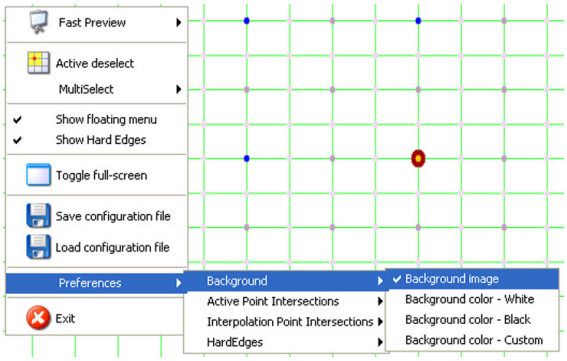


Image 6-47
Background selection

2. Select *Preferences* → *Background* and move the cursor to open the background list.
3. Select the desired background.
4. When *Background color* is selected, a color selection window opens.
   Click on the desired color and click **OK** to activate that color.

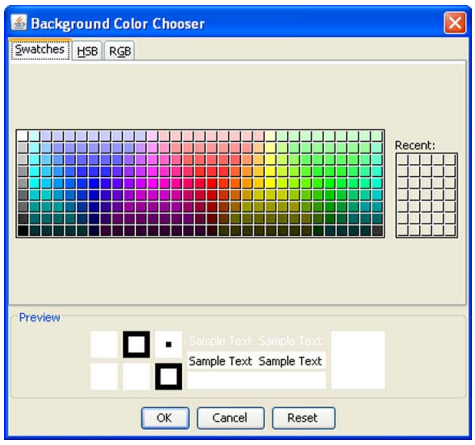


Image 6-48
Background color selection

6.14.5.2 Active point intersection

What can be done?

An intersection cross can be activated through the active point. The cross can be displayed in the default color, blue or in a custom color.

How to activate or deactivate

1. Right click on the raster window to open the context menu.

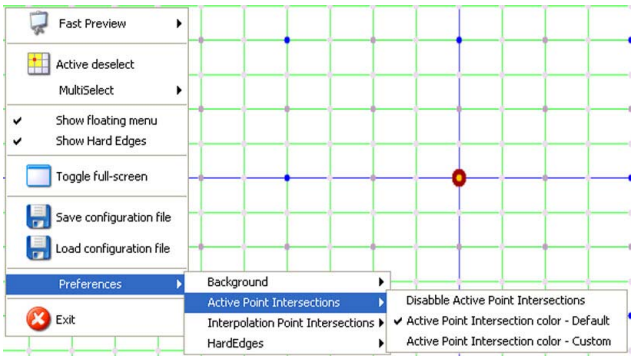


Image 6-49

2. Select *Preferences → Active Point Intersection* and move the cursor to the intersection options.
3. Select the desired intersection option.
4. When Active Point Intersection color, custom is selected, a color selection menu opens.
   Select the desired color and click **OK** to activate that color.

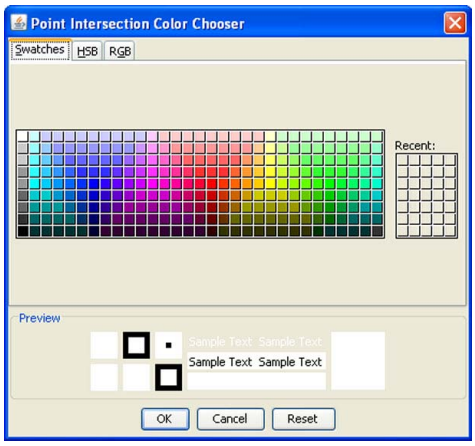


Image 6-50
Point intersection color selection

6.14.5.3 Interpolation point intersection

What can be done?

The cross lines through all intersection points can be disabled or enabled with the default color which is green or a custom color.

How to activate or deactivate

1. Right click on the raster window to open the context menu.

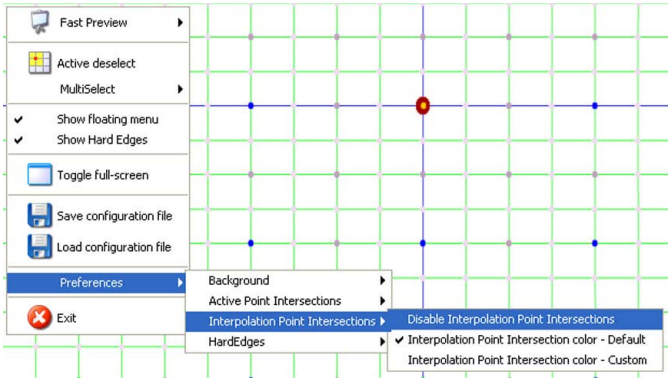


Image 6-51
Intersection points raster

2. Select *Preferences* → *Interpolation Point Intersection* and move the cursor to the intersection options.
3. Select the desired intersection option.
4. When Intersection Point Intersections color, custom is selected, a color selection menu opens. Select the desired color and click **OK** to activate that color.

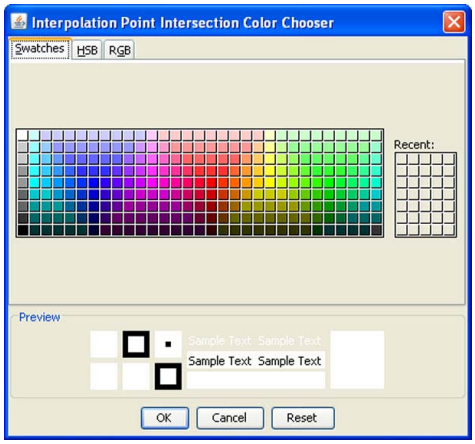


Image 6-52
Intersection Point intersection color selection

6.14.6 About the Floater menu

Overview

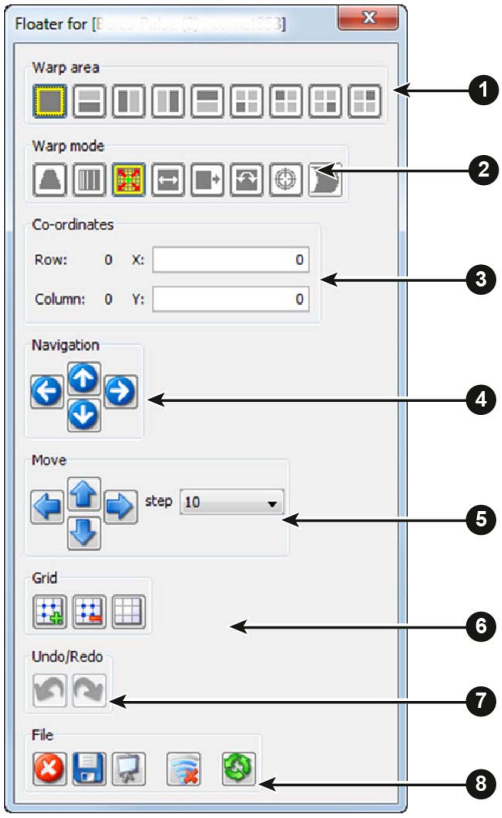


Image 6-53

1	Warp area
2	Warp mode
3	Coordinates
4	Navigator
5	Move and step control
6	Grid selection (level selection)
7	Undo/Redo last action
8	File, view control and reset

About Warp area

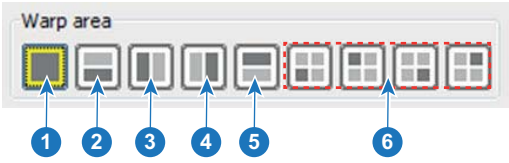


Image 6-54

1	Full screen
2	Bottom side
3	Left side

4	Right side
5	Top side
6	4 quadrants

About Warp mode

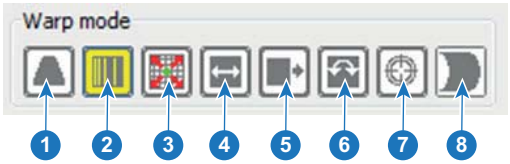


Image 6-55

1	Keystone
2	Linearity
3	Points
4	Scale
5	Shift
6	Rotation
7	Axis position mode
8	Bow HV mode

6.14.7 Increasing - decreasing the number of nodes

What can be done?

More or less node points can be added to the grid. The more node points, the higher the adjustment level, the more accurate the adjustment.

Start with as less node points as possible and increase the number of points to fine tune the adjustment.

How to manipulate the number of points?

1. With the *Floating* menu open, click on the + grid icon (left icon) to increase the number of nodes (1).

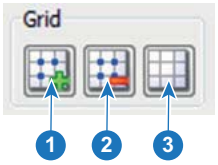


Image 6-56

2. To decrease the number of nodes, click on the - grid icon (2).

3. To reset the adjustments, click on the reset grid icon (3).

6.14.8 Warp adaptation steps

Moving the cursor

Each click on one of the move icons corresponds with one step. The value for a step can be set.

When a big movement must be realized, first start with high value for the step. Adjust until you are in the neighbor and then reduce the value to continue adjusting until the goal is reached.

How to change the step value

1. Click on the drop down box next to step and select the desired value (2).

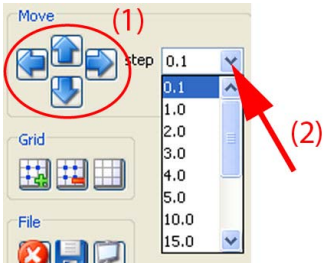


Image 6-57

The following values are possible: 0.1, 1, 2, 3, 4, 5, 10, 15, 20, 25, 50, 100, 200.

2. To make an adjustment, click on the up, down, left or right arrow key below *Move* (1).

6.14.9 Make node selection

How to select

1. Click on a node point in the grid.

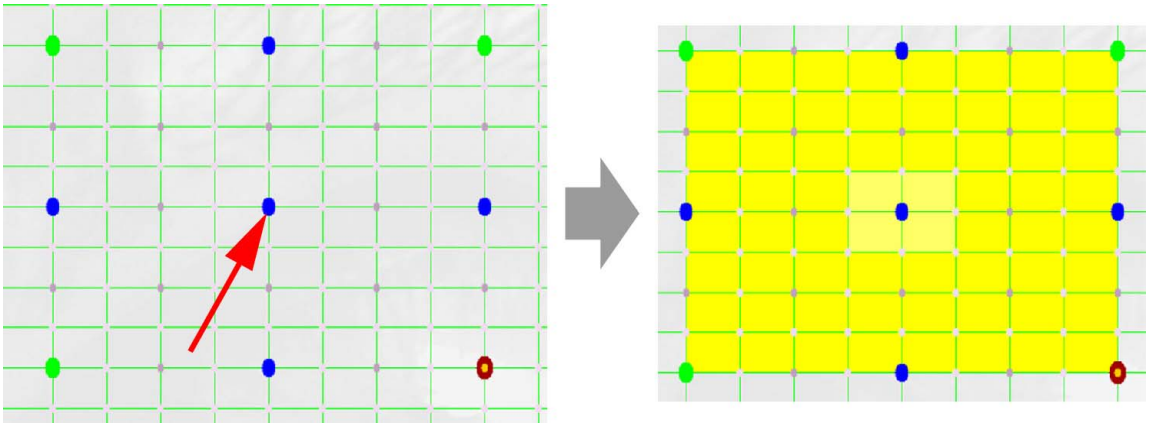


Image 6-58
Node selection

An active area is created around that node point. This active area is created by connecting the adjacent active nodes with each other.

Moving the active area

1. Click on the *Navigation* buttons of the *Floater* menu to move the active area up, down, right or left.

Image 6-59

Or,
just click on another node and the active area will be moved around the new selected node.
Or,
use the arrow keys on your keyboard.

6.14.10 Making an adjustment

Via drag and drop

1. Click on a node to select.

The warp area becomes yellow. The selected node dot is enlarged.

2. Click on the node and drag the node point to the desired position.

Depending on the warp selection, adjacent points will move in the same way.

Via the Move pane of the Floater menu

1. Click on a node to select (1).

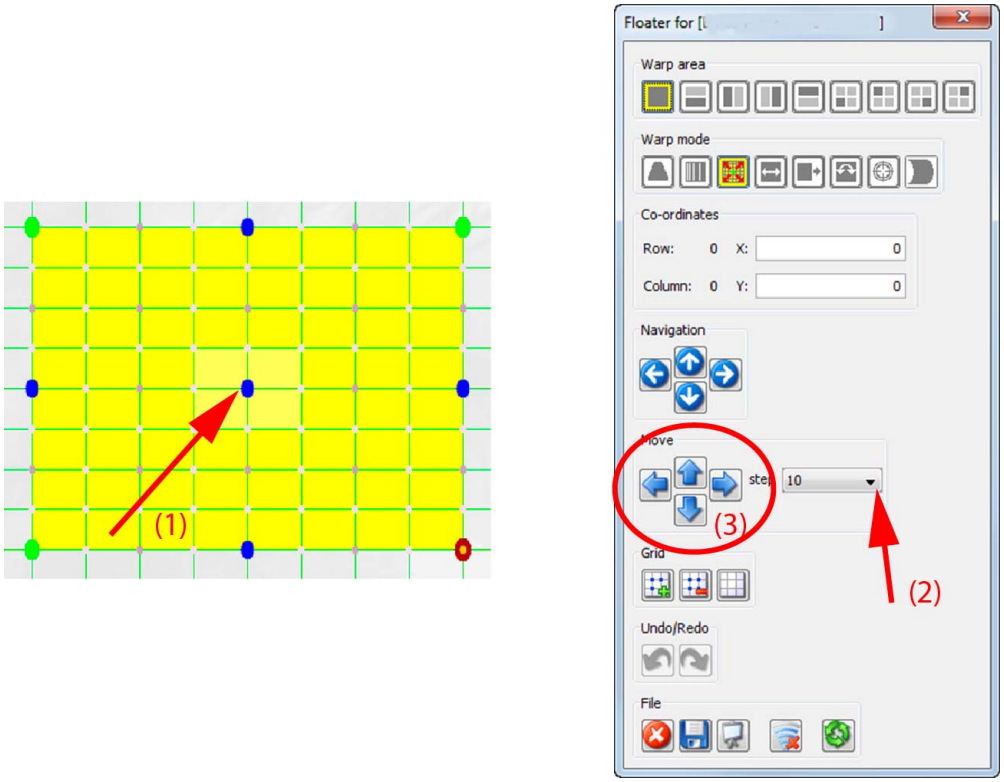


Image 6-60
Warp adjustment via move pane

The warp area becomes yellow. The selected node dot is enlarged.

2. Setup the steps for each click by clicking on the drop down box next to steps and selecting one of the possibilities (2).
3. Click on the arrow keys in the *Move* pane of the *Floater* menu to move the selected node horizontally or vertically (3).

Via the Co-ordinates pane of the Floater menu

1. Click on a node to select (1).

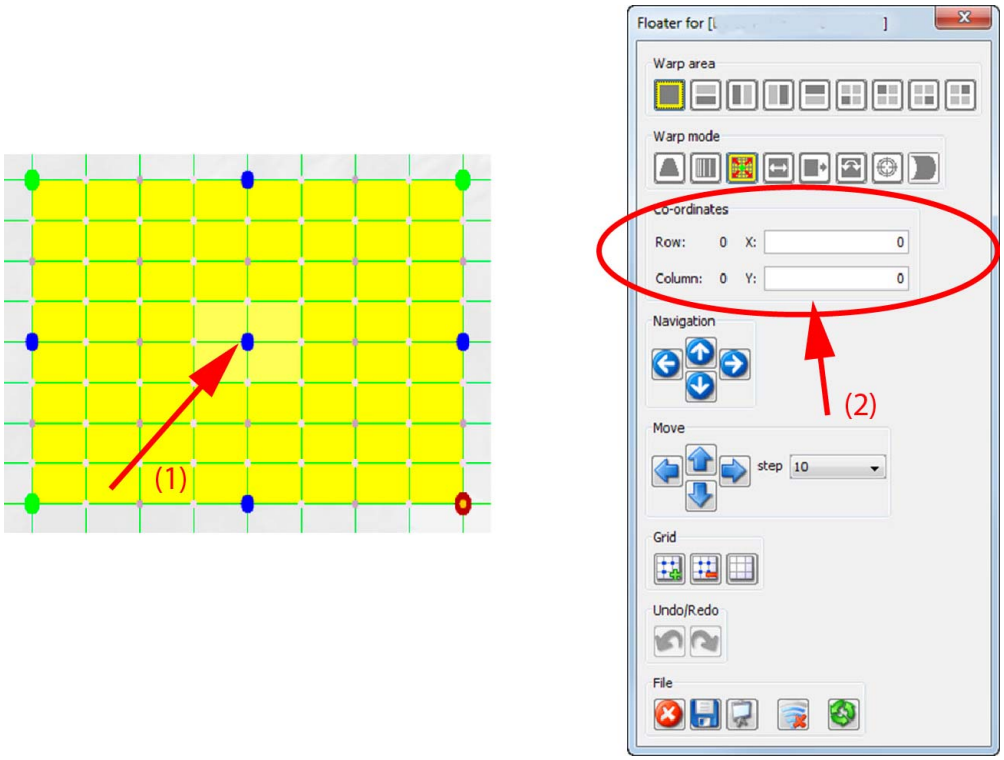


Image 6-61
Warp adjustment via coordinates

The warp area becomes yellow. The selected node dot is enlarged.

2. In the *Co-ordinates* pane of the *Floater* menu, enter the movement for the X and Y direction (2)

   The value can be positive or negative and can be entered as a decimal value, e.g. -20.5

6.14.11 Keystone mode

Adjusting vertical and horizontal keystone

1. Select with the grid buttons of the *Floater* menu until only the corner nodes are selectable.

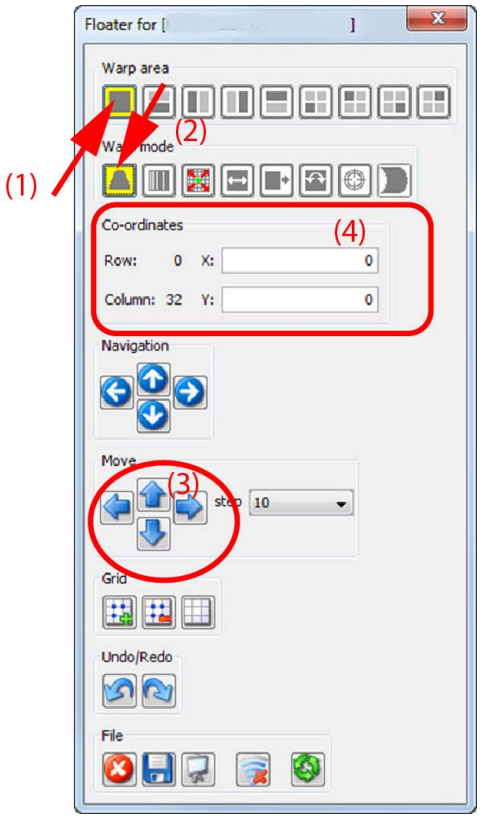


Image 6-62
Keystone

2. Select the desired warp area

   Depending on the selected area only the points in that area will be adjusted.

3. Select as warp mode **Keystone**.

4. Click on the node and drag to the desired position
   Or,
   select the node and click on the move buttons to move the node horizontal or vertical.

Or,
enter the new position via the *Co-ordinates* pane.

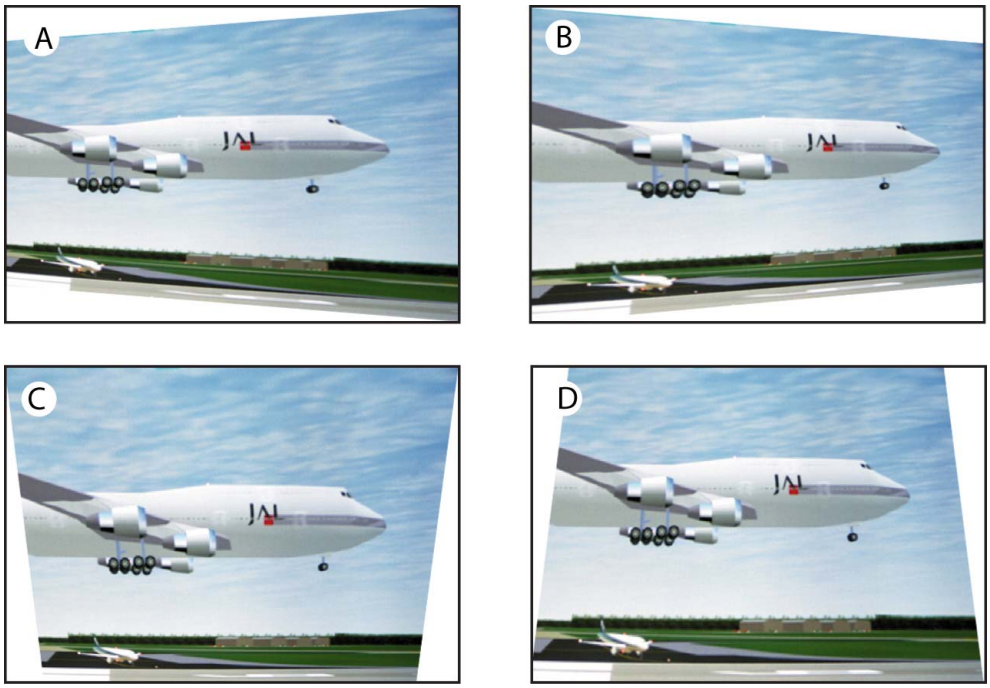


Image 6-63
Keystone adjustment

Note: *To move the selected point to a specific position, enter the move value in horizontal and vertical direction in the Co-ordinates pane of the Floater menu. A value can be negative or positive.*

6.14.12 Linearity mode

About linearity

Linearity makes it possible to equalize the space between vertical lines. Only the points inside a selected area will move while adjusting the linearity. The points at the outside of the image move gradually more that those at the inside.

Adjusting vertical and horizontal linearity

1. Select with the grid buttons of the *Floater* menu until only the corner nodes are selectable (1).

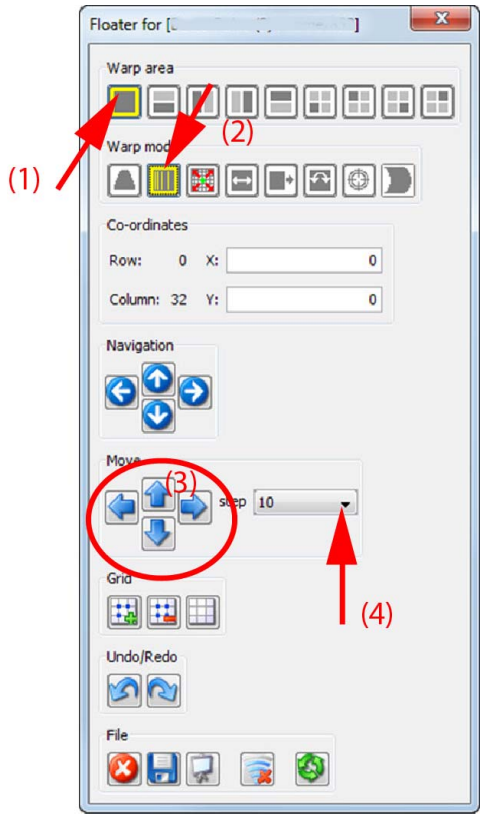


Image 6-64
Linearity

2. Select the desired warp area

   Depending on the selected area only the points in that area will be adjusted.

3. Select as warp mode **Linearity** (2).

4. Click on the node and drag to the desired position
   Or,
   select the node and click on the move buttons to move the node horizontal or vertical (3).

   To fine tune this adjustment, select a specific area and add extra anchor points by changing the warp level (4).

6.14.13 Shift mode

About shifting

It is possible to shift the whole image. This is considered as an equal movement of the 4 corner points in 2 x 2 mode. After shifting the image parts of the image might not be visible anymore.

How to shift

1. Select full image as Warp area (1).

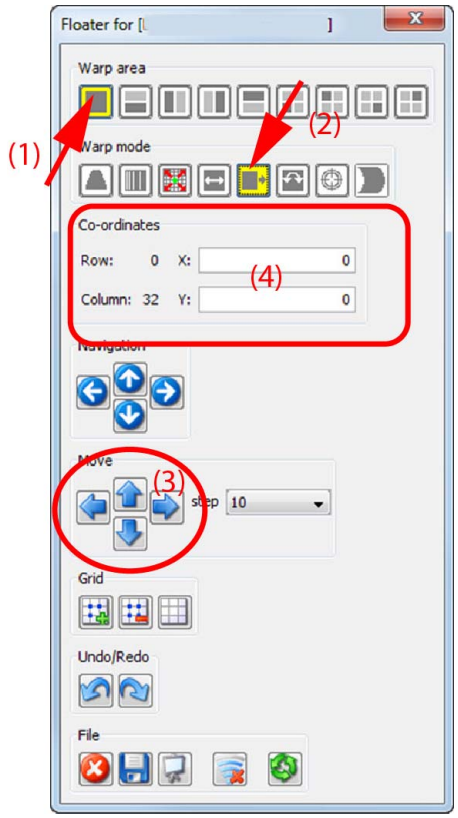


Image 6-65
Shift

2. Select as warp mode **Shift** (2).

   The 4 corner nodes are selected.

3. Click on a corner node and drag to the desired position
   Or,
   click in the *Move* pane on the left ore right arrow key until the image is on the desired horizontal position and on the up or down key for the vertical position (3).

   To fine tune this adjustment, select a specific area and add extra anchor points by changing the warp level.
   Or,
   enter in the *co-ordinates* pane the X and Y movement of the image (4).

6.14.14 Rotation mode

About rotating

The image can be rotated around a predefined axis point. This is considered as an equal rotation of the 4 corner points in 2 x 2 mode and with the full area selected. The default rotation point is the center of the image.

Image 6-66
Rotation

How to rotate

1. Select full image as Warp area (1).

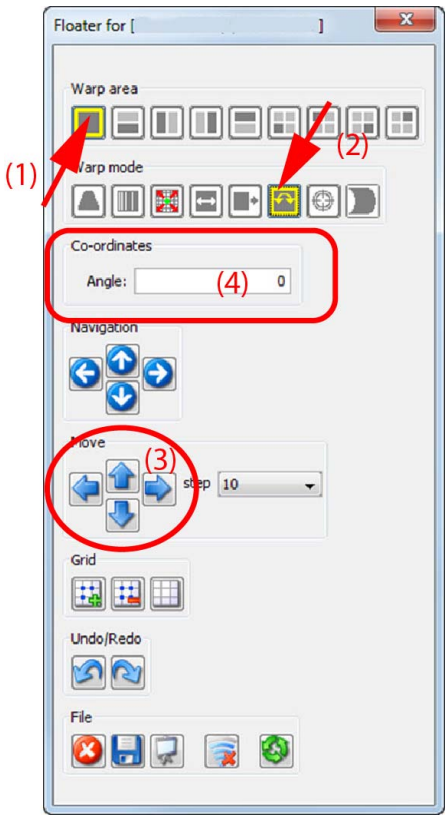


Image 6-67
Rotation

2. Select as warp mode **Rotation** (2).

   The 4 corner nodes are selected.

3. Click on a corner node and rotate while dragging it to the desired position
   Or,
   click in the *Move* pane on the left (down) ore right (up) arrow key until the desired rotation of the image is obtained (3).

   To fine tune this adjustment, reduce the step.
   Or,
   enter in the *co-ordinates* pane the rotation angle with a decimal value (4).

6.14.15 Axis position mode

About axis position

The axis used to rotate an image can be moved to any position on the screen. The axis position is indicated with a yellow dot.

How to move

1. Select full image as Warp area (1).

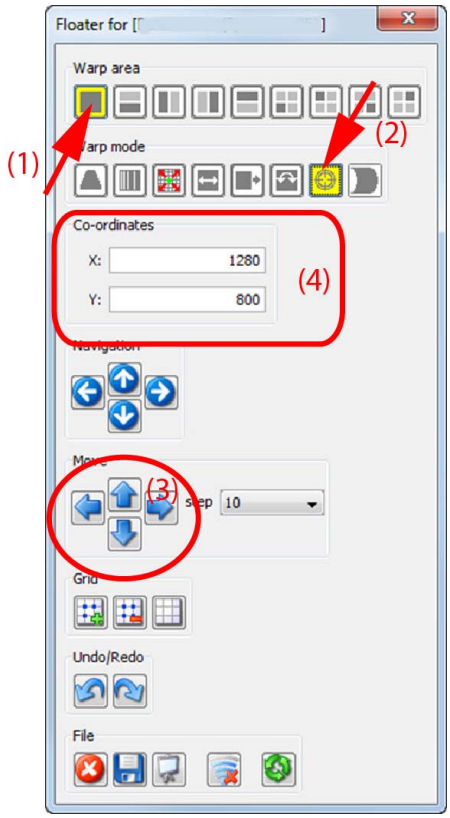


Image 6-68
Axis position

2. Select as warp mode **Axis position** (2).
3. Click on the current axis point position (normally the center node) and move the axis point to the desired position.
   Or,
   click in the Move pane on the arrows until the desired position is obtained.

   To fine tune this adjustment, reduce the step.
   Or,
   enter in the *co-ordinates* pane the X and Y movement of the axis point (4).

6.14.16 Hierarchic point mode

About hierarchic point mode

A corner point can be moved to a new location. All other points will move in the same direction with respect to the distance between each other. These remains the same.

How to move

1. Select full image as Warp area (1).

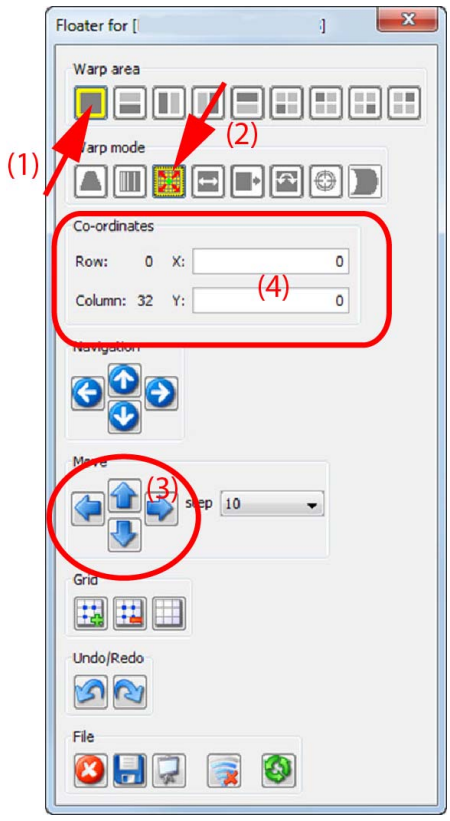


Image 6-69
Hierarchic point

2. Select as warp mode **Hierarchic point** (2).

   The upper left corner point is selected.

3. Click on a corner node and move while dragging it to the desired position
   Or,
   click in the *Move* pane on the arrow keys until the desired position of the corner point is reached (3).

   To fine tune this adjustment, reduce the step.
   Or,
   enter in the *co-ordinates* pane the coordinates of the desired position (4).

6.14.17 Scale mode

About scaling

It is possible to scale the whole image. This is considered as an equal scale of the 4 corner points in 2 x 2 mode.

How to scale

1. Select full image as Warp area (1).

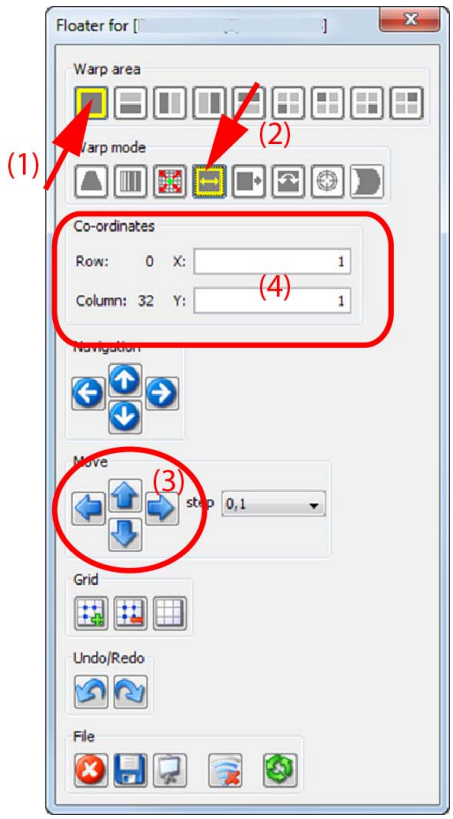


Image 6-70
Scale

2. Select as warp mode **Scale** (2).
3. Click on a node and move while dragging it to the desired position

   The image will be scaled accordingly.
   Or,
   click in the *Move* pane on the arrow keys until the desired position of the selected point is reached (3).

   To fine tune this adjustment, reduce the step.
   Or,
   enter in the *co-ordinates* pane the coordinates of the desired position (4).

6.14.18 Save configuration to file

About saving your settings

The current warp configuration can be saved to file for reuse or as backup.

How to save via Floater menu

1. In the *Floater* menu, click on the **Save** icon (1).

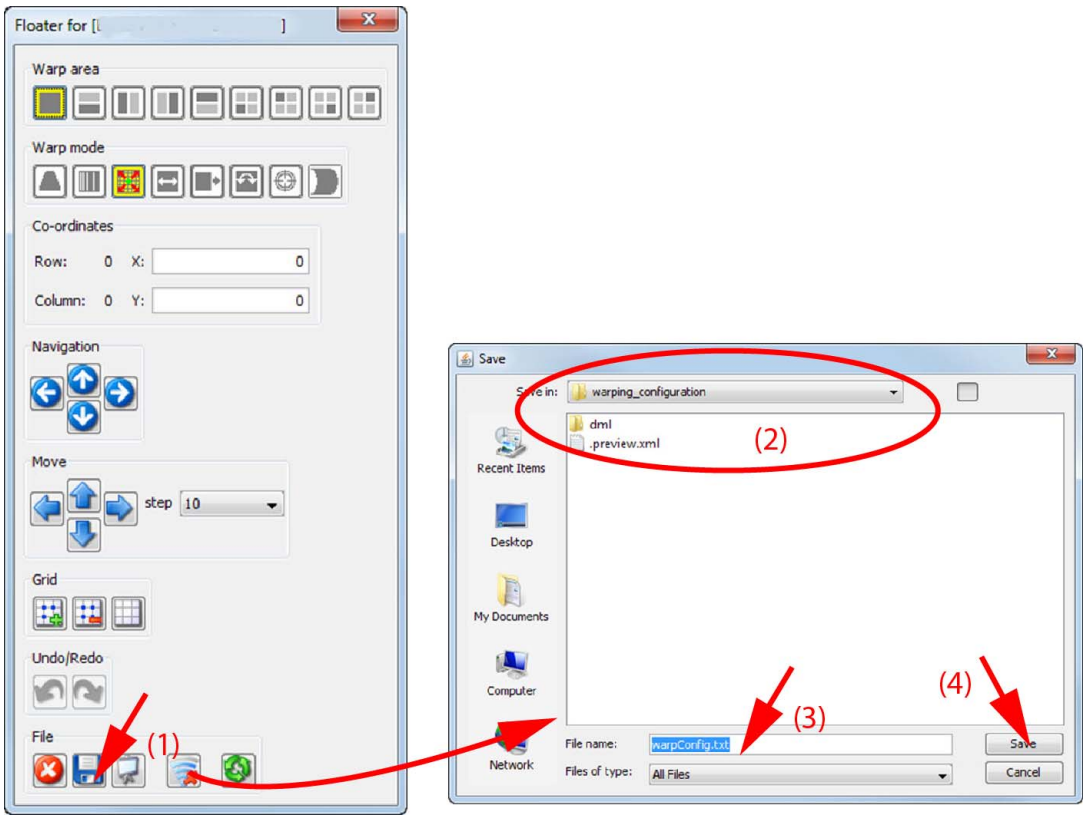


Image 6-71
Save to file

A browse window opens. The default location is *warping_configuration* within the install directory of Projector Toolset

2. If necessary browse to the desired location (2).

3. If necessary, change the filename (3) and click **Save** (4).

How to save via the content menu

1. Right click on the raster window to open the context menu.

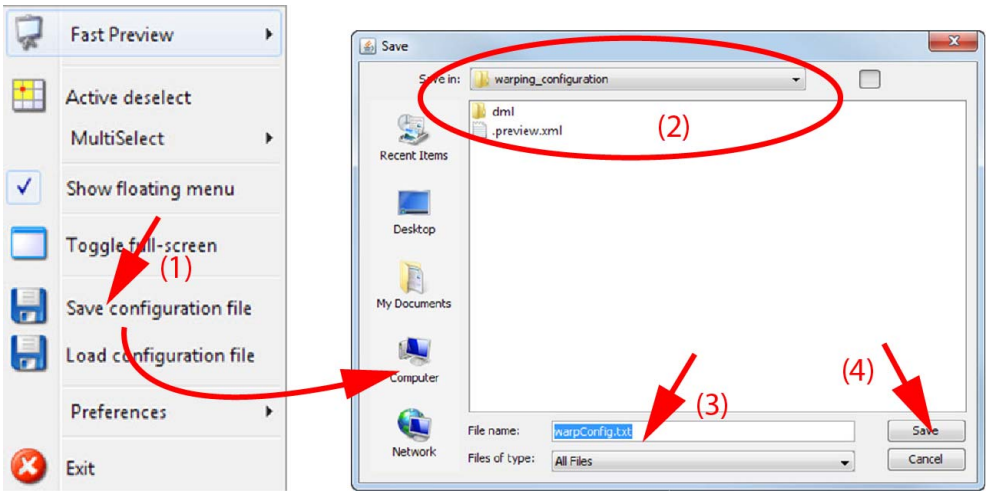


Image 6-72
Save to file via content menu

2. Select *Save Configuration File*.

A browse window opens. The default location is *warping_configuration* within the install directory of Projector Toolset

3. If necessary browse to the desired location (2).
4. If necessary, change the filename (3) and click **Save** (4).

6.14.19 Disable - enable auto preview

What can be done?

A preview of the adjustment can be displayed or not while adjusting the warping.

How to enable - disable

1. In the *Floater* menu, click on the **Preview** icon (1).

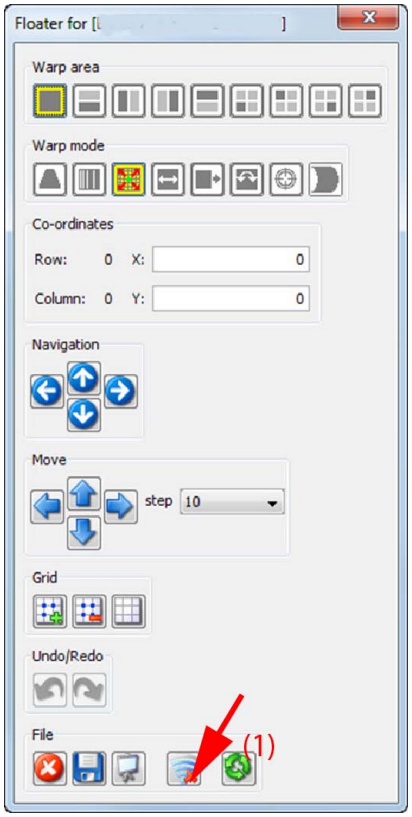


Image 6-73
Preview, enable - disable

When clicking on the preview icon with a green check v, then the preview will be displayed.

When clicking on the preview icon with a red cross, then the preview is not displayed.

6.14.20 Recover from warp board crash

How to recover

1. In the *Floater* menu, click on the **Recover** icon (1).

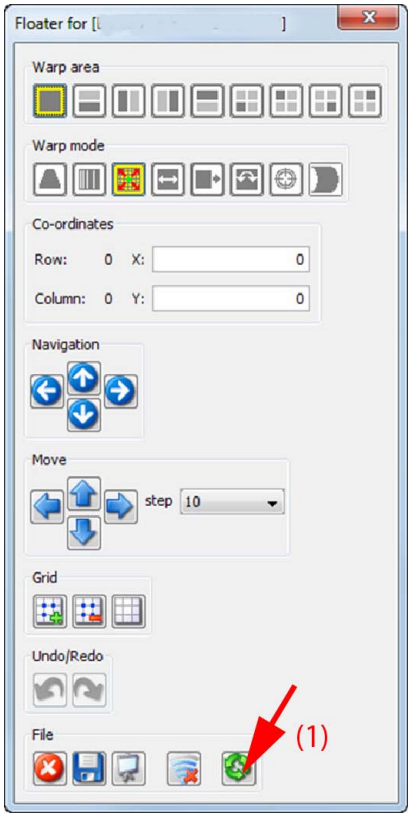


Image 6-74
Recover warp board

The warp board will be reset. The actual values remain present.

6.14.21 Upload a configuration file to the projector

What can be done?

Before a created warp file can be loaded in the warp board, it should be transferred (uploaded) from Projector Toolset to the projector.

How to upload via Floater menu

1. While Warp is enabled, click on **Upload Warp files to projector** (1).

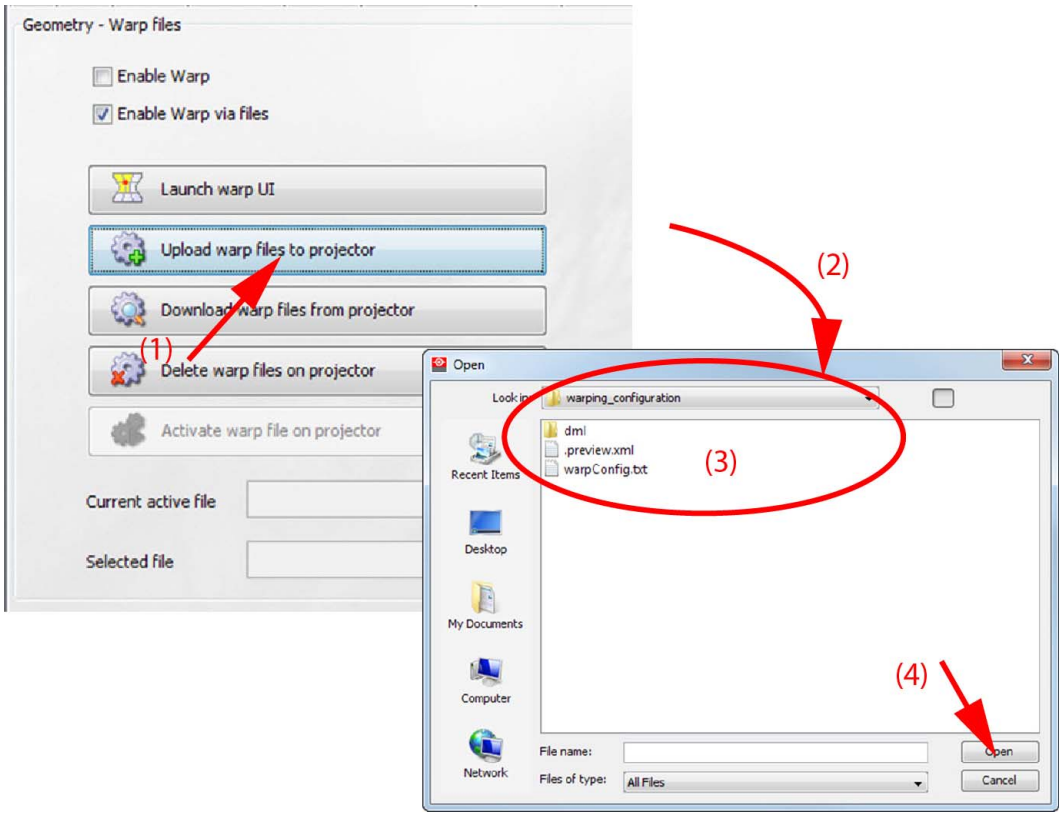


Image 6-75
Upload warp file

A browser window opens (2).

2. Browse to the desired file and click on it to select (3).
3. Click **Open** to upload the selected file (4).

How to upload via context menu

1. Right click on the raster window to open the context menu (1).

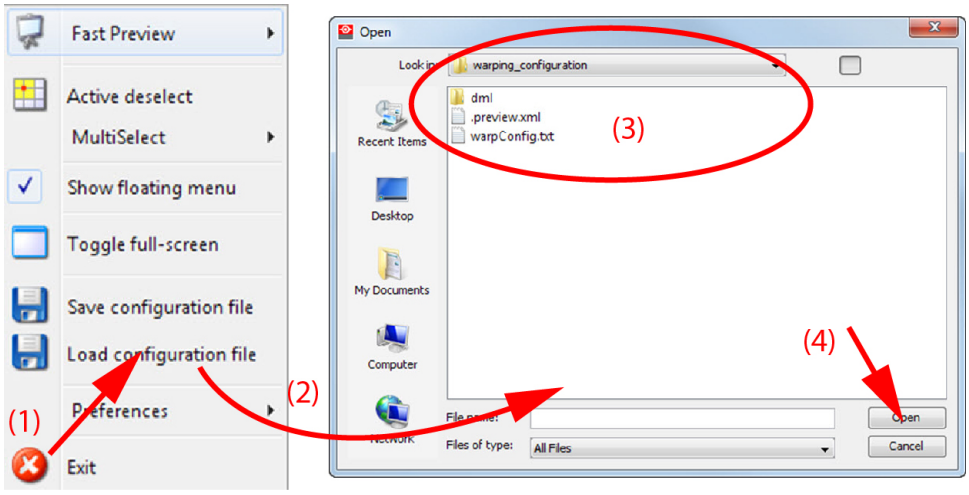


Image 6-76

2. Select *Load Configuration File*.

A browser window opens (2).

3. Browse to the desired file and click on it to select (3).
4. Click **Open** to upload the selected file (4).

6.14.22 Download warp file from projector

What can be done?

Warp files stored on the projector can be download to your computer.

How to download

1. While Warp is enabled, click on **Download Warp files from projector** (1).

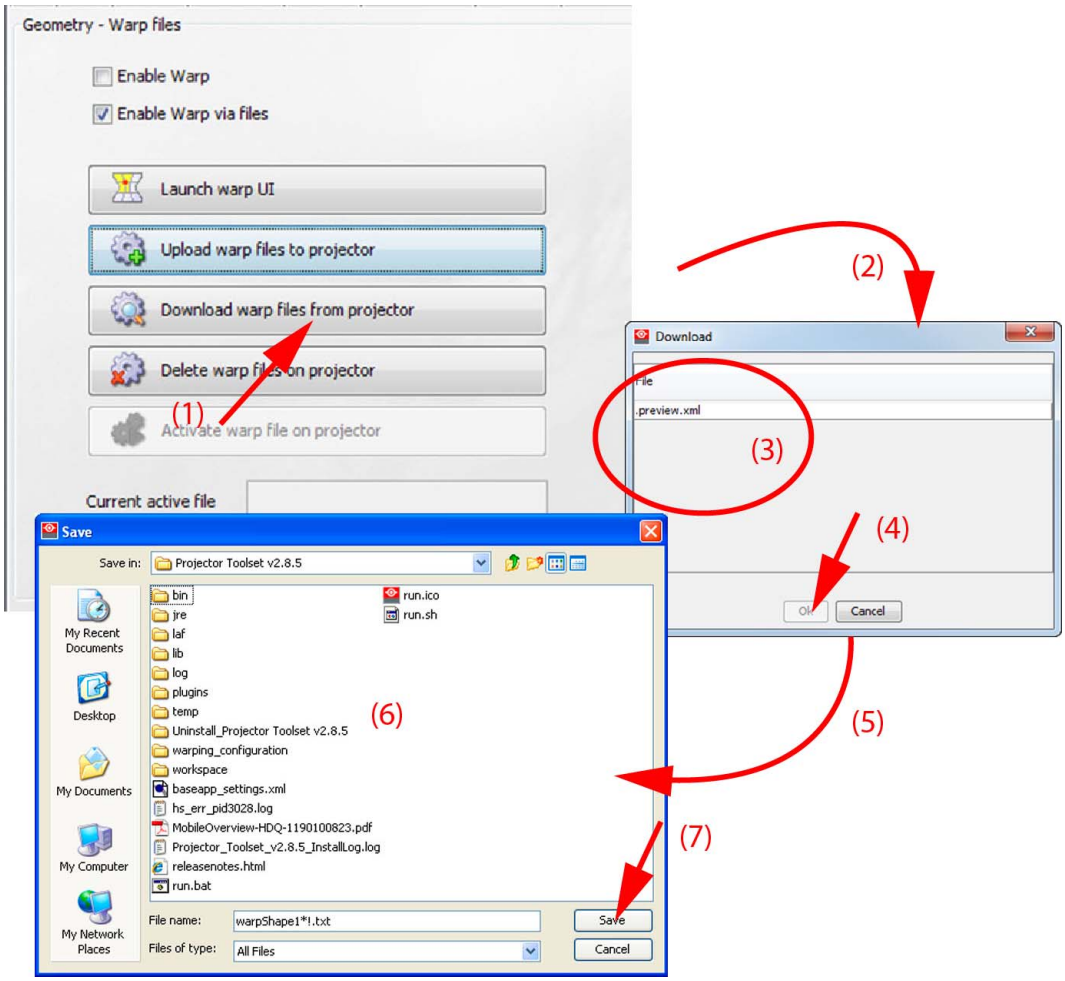


Image 6-77
Download warp files

A download window opens (2).

2. Select the file (3) and click **Download** (4).

   A *Save* window opens (5).

3. Browse to the desired location and if necessary, change the file name (6).
4. Click **OK** (7).

6.14.23 Delete warp files on projector

What can be done?

Warp files on the projector can be deleted.

How to delete

1. While Warp is enabled, click on **Delete Warp files on projector** (1).

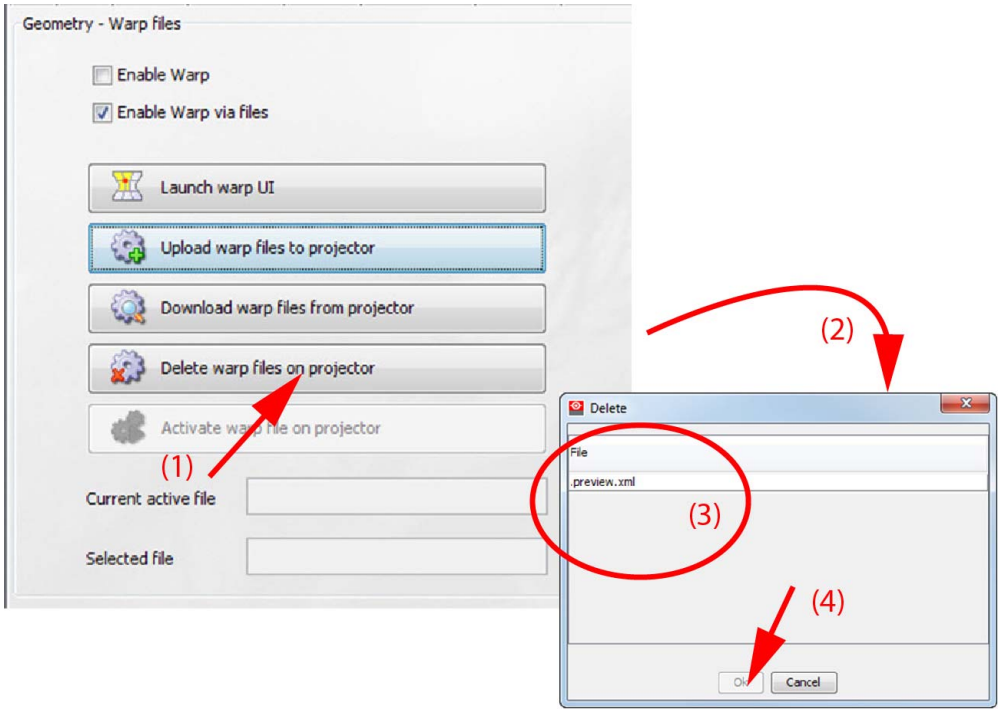


Image 6-78
Delete file

A file overview window is displayed (2).

2. Select the file (3) to delete and click **OK** (4).

6.14.24 Activate warp file on projector

What can be done?

A warp file stored on the projector can be activate to become the active file.

How to activate

1. While Warp is enabled, click on **Activate Warp files on projector** (1).

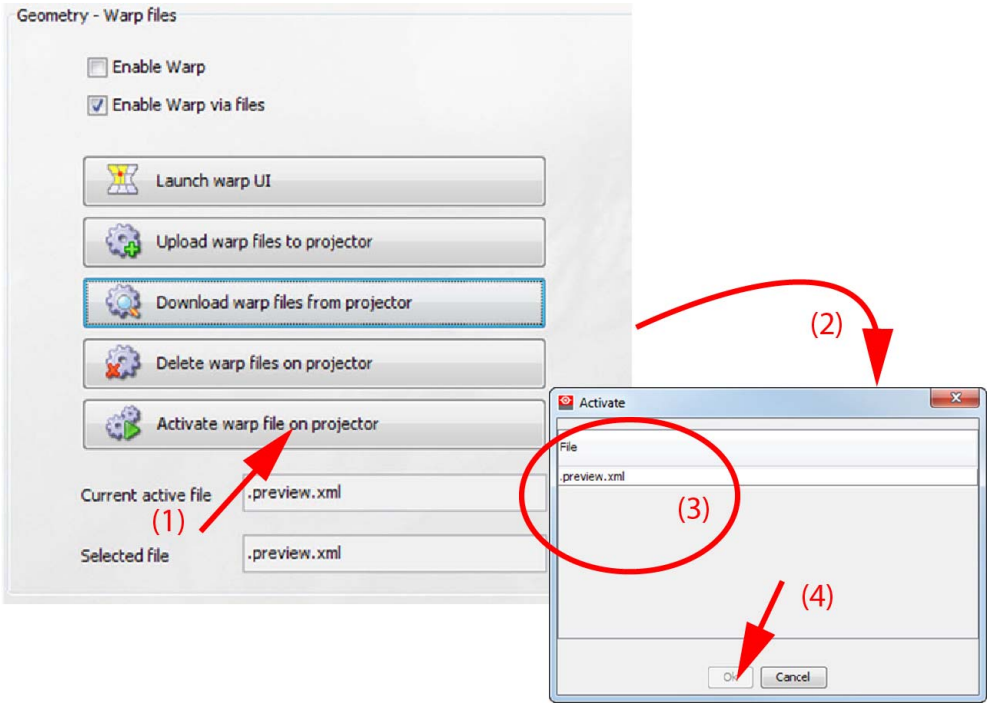


Image 6-79
Activate warp file

An overview list of the current available warp files is displayed.

2. Select the desired file and click **OK**.

6.15 IR control

6.15.1 Projector address

About individual projector address

Before a projector, and only this projector, can be controlled via a remote control, an individual address must be entered in the projector.

This individual projector address can then be used to control the projector via remote control.

Next to an individual projector address, each projector has also a broadcast address for group control.

When controlling the projector via a remote control, only addresses between 0 and 31 are allowed.

How to change

1. While the IR Control tab is selected, click on the up down control until the desired projector address is obtained

Or,
click in the input field, select the current address and enter a new address with your keyboard.

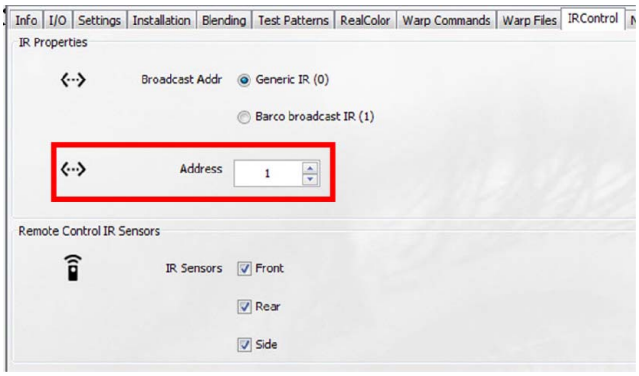


Image 6-80
Projector address

6.15.2 Broadcast address

About broadcast address

Broadcast address is a common address that can be set on the projector. That can be “0” or “1”.

Any command coming from a remote control programmed with that common address will be executed.

How to change

1. While the IR Control tab is selected, check the radio button of the desired broadcast address.

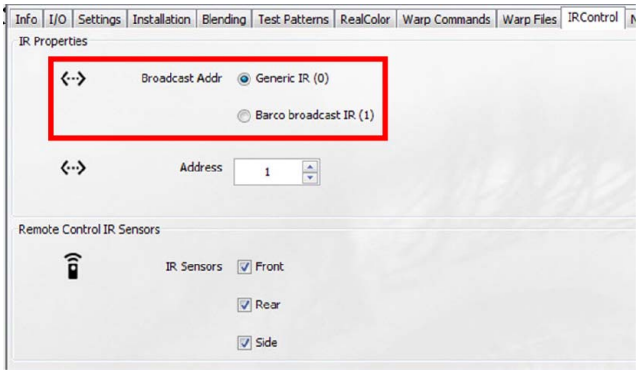


Image 6-81
Broadcast address

6.15.3 IR sensors

What can be done?

Each IR sensor can be individually disabled or enabled.

When all sensors are turned off, the projector will no longer respond to signals from the remote control. Projector toolset can enable the desired sensors.

How to enable-disable

1. While the IR Control tab is selected, check or uncheck the check box in front of an IR receiver position.

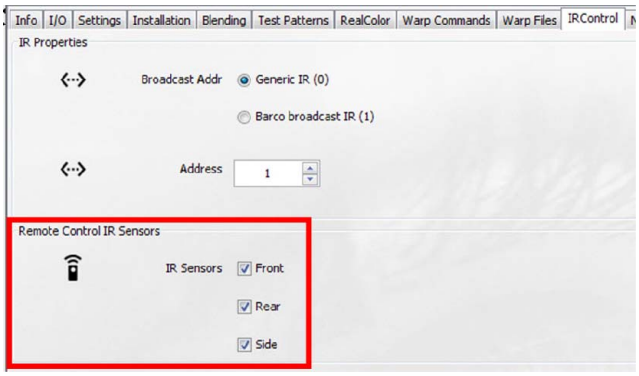


Image 6-82
IR sensors

Checked: IR receiver is active.

Not checked: IR receiver is inactive.

6.16 Network

6.16.1 Network, info

About network

The information on the network tab is only given for information. Except the hostname

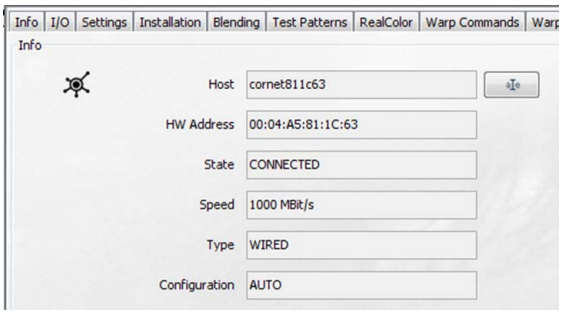


Image 6-83
Network settings

The following info is displayed:

- IP4 name (hostname)
- HW Address (MAC address)
- State
- Connection speed
- Connection type, wired or wireless
- Configuration, auto or manual

The hostname can be changed. Click in the input field, select the current host name and enter a new host name;

1. First click on the icon next to the host name. This icon will change into save icon and the host name field becomes editable.
2. Click in that input field, select the current host name and enter a new host name.
3. Click on the save icon to store the new host name.

6.16.2 Mode selection

How to select

1. Click on the radio button of your choice.

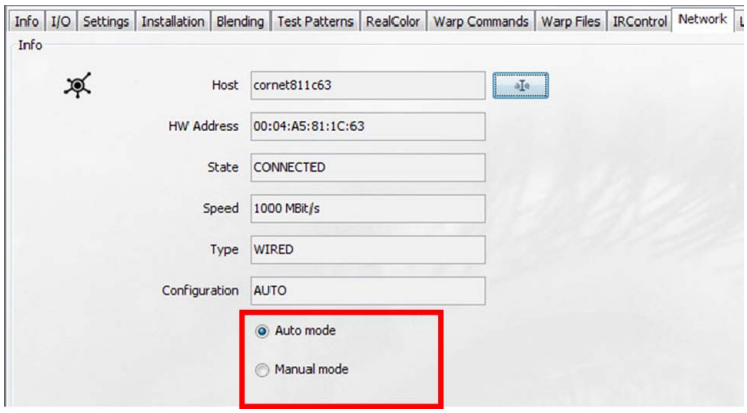


Image 6-84
Communication mode

The lower pane will change accordingly.

When *Auto mode* is selected, the DHCP obtained address will be filled out together with the Mask and Gateway.

When Manual mode is selected, the current manual entered address is displayed. The Address, Mask and Gateway address can be changed.

6.16.3 Manual IP address setup

How to setup

1. Click in the input field next to Address, select the actual address and enter a new address with your keyboard.

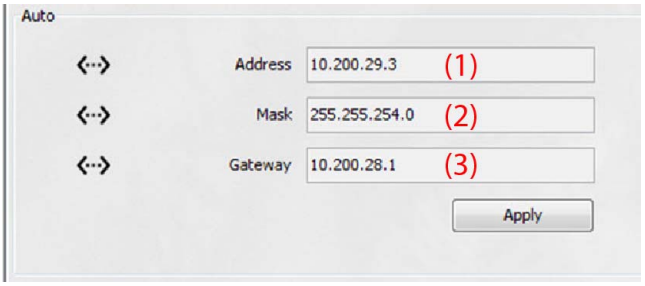


Image 6-85

Note: *An address contains 4 octets with a maximum value of 255.*

Enter the 4 octets. This must NOT be 0.0.0.0 .

2. Click in the Mask input field and fill out the 4 octets as appropriate for the local subnet.
3. Click in the Gateway input field and fill out the 4 octets. Set the Default Gateway to the IP-Address of the router (MUST be on the local subnet!)
   Note: *If there is no router on the projector's local subnet then just set this field to any IP-Address on the subnet.*
4. Click **Apply** to activate.

The PC's IP Address MUST be within the same subnet as the projector's IP Address in order for communication to be possible. This requires checking the PC's and projector's Subnet-Mask settings.

IP address examples

First example

- PC IP Address : 192.168.100.5
- PC Subnet Mask : 255.255.255.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.255.0

Result : Communication possible. PC address is in the subnet range of the projector's IP address.

Second example

- PC IP Address : 10.16.236.100
- PC Subnet Mask : 255.255.255.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.255.0

Result : No communication possible. PC address is not in the subnet range of the projector's IP address.

Third example

- PC IP Address : 192.168.200.1
- PC Subnet Mask : 255.255.255.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.255.0

Result : No communication possible. PC address is not in the subnet range of the projector's IP address. The third group in the PC IP address and Projector IP address must be the same.

Fourth example

- PC IP Address : 192.168.200.1
- PC Subnet Mask : 255.255.0.0
- Projector IP Address : 192.168.100.3
- Projector Subnet Mask: 255.255.0.0

Remark : Communication possible. PC address is in the subnet range of the projector's IP address. The third group in the IP¨ addresses can be any value as the third group in the subnet mask is 0.

6.17 License

About licenses

Some more advanced features can be ordered. The features are enabled by uploading a license file on the projector.

6.17.1 GSM module activation

Only possible when a GSM module with SIM card is installed in the projector.

What can be done ?

To configure the projector software with the installed SIM card, a correct PIN code (4digits) must be entered.

When there was already a SIM card installed, the current configured PIN code is indicated in the GSM PIN area. If the code is still the same, it is not necessary to enter the PIN code again. If the PIN code is changed, continue with the activation procedure.

When your SIM card is blocked, you have to remove the SIM card from the GSM module and to insert the SIM card in a mobile phone so that you can enter the PUK code to unblock the SIM card.

How to activate

1. While the License tab is selected, enter the PIN code in the input field and click **Apply**.

   When your PIN code is correct. The message next to **Apply** shows *Accepted* and the entered code becomes visible.

   When the PIN code is not correct. The message next to **Apply** shows *Unkown*.

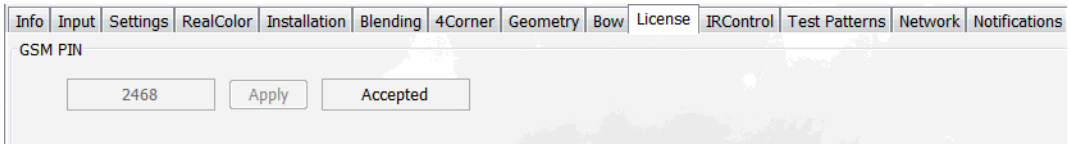


Image 6-86
PIN code accepted

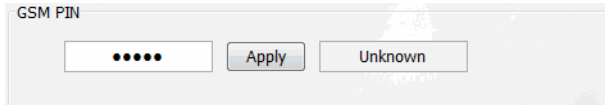


Image 6-87
PIN code not correct

6.17.2 Upload License

About upload license

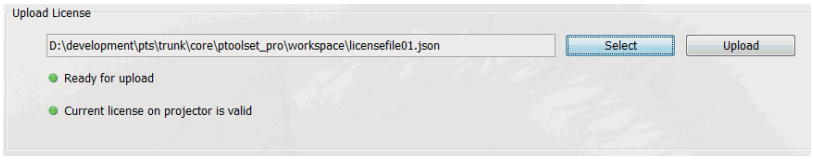
Within the upload license pane, it is indicated if the projector contains a valid license file or not (1), (2).

A license file can be uploaded or can be overwritten with a new one. When overwriting a valid license file with a new one, the old one remains active until the new file is validated and installed.

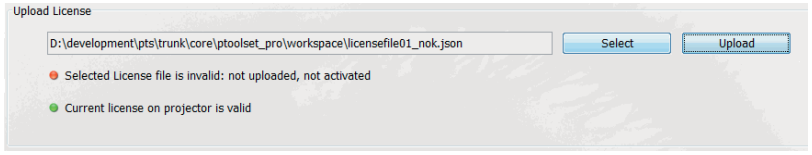
(1)

(2)

(3)



(4)



(5)

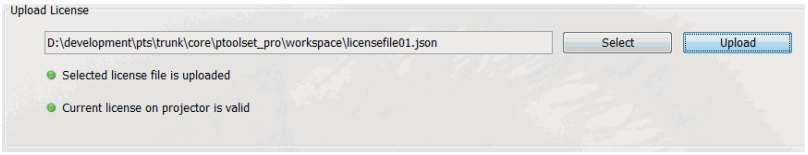


Image 6-88

How to upload

1. Within the *License* tab, click on **Select** in the *Upload License* pain (1).

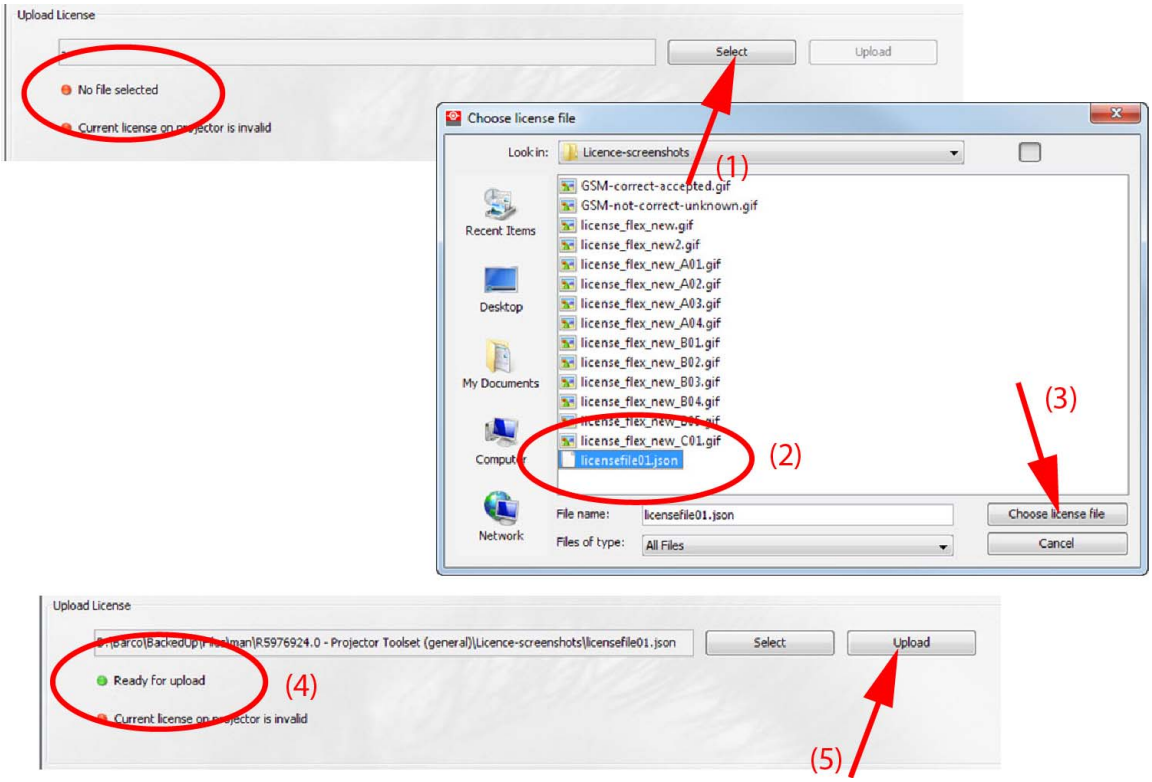


Image 6-89

A bowser window opens.

2. Browse to and select the desired license file (2) (json format) and click **Choose license file** (3).

   The selected file will be displayed in the input field.

   Ready for upload will be displayed when the selected file has the correct format (4).

3. Click **Upload** to upload the file (5).

   The file will be validated.
   The following indications will be shown:

   - When the file is invalid: "*Selected License file is invalid: not uploaded, not activated*" (reference 4 on image 6-88)
   - When the is valid: "*Selected license file is uploaded*" (reference 5 on image 6-88)

6.17.3 Flex selection

About flex selection

With the FLEX technology the projector owners can lock the light output to different levels. The locking can be done via 3 different ways:

- Via Projector Toolset when connected via an Ethernet connection with the projector
- Via the OSD menu of the projector itself
- Via an SMS message send to a projector equipped with an optional GSM board.

To lock to a specific value a 4 digit code is necessary. These codes can be created by the projector owner using Projector Toolset.

This flex functionality is only possible when a valid license file is uploaded on the projector.

How to lock to specific value

1. With correct license file uploaded, click on the drop down box in the *Flex Selection* pane and select the desired value (1).

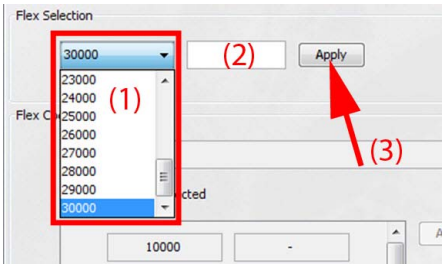


Image 6-90
Flex selection

2. Enter the 4 digit PIN code (2) for this value and click **Apply** (3).

   When the code is correct, the selected light output is unlocked. A message "*Code applied*" is displayed.

   When the code is wrong, you can retry 2 times. When the code is still wrong the background of the PIN code field becomes red and the message "*Maximum attempts reached, reboot projector is displayed*".

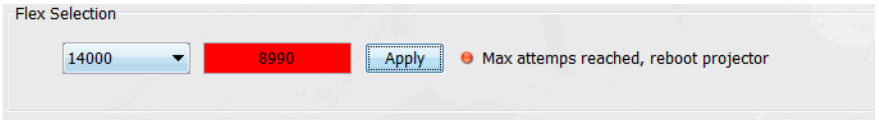


Image 6-91
When wrong PIN code

   The projector should be rebooted before you can continue projecting.

6.17.4 Manual flex codes setup

What can be done ?

For each possible light output an PIN code can be entered. Once used, the PIN codes can be changes for a next use.

This can only be done when the correct license file is uploaded and available to start up the process.

How to add or change the codes

1. Click **Select** (1) and browse to the same license file as uploaded on the projector (2).

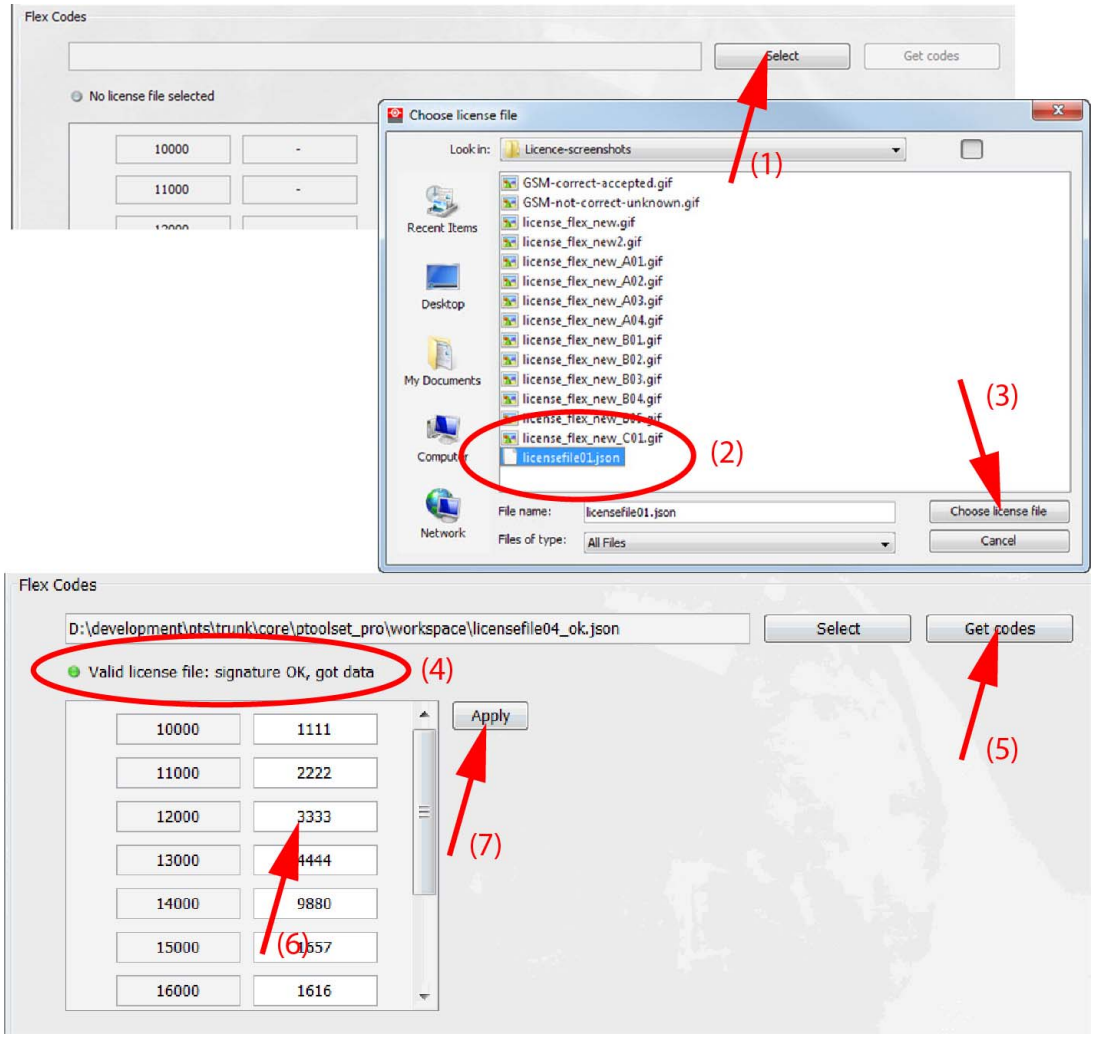


Image 6-92
Flex codes

2. Select the correct file and click **Choose license file** (3).

   When the uploaded license file is correct, the following message is displayed: “Valid license file: signature OK, got data” (4).

3. Click **Get codes** to upload the current code (5).

   When previous codes were activated, these codes will be visible next the light output values.

4. To change or enter a code, click in the input field and select the current value (6).
5. Enter a new 4 digit PIN code.
6. Repeat from step 4for all the other light output values.
7. When ready, click on **Apply** (7).

   The new codes are now active.

6.18 Notifications

About notifications

Notifications can be given for different classifications:

- Info
- Warning
- Error
- Critical

The notifications given in the list are only since the last start up of the projector.

For more in-depth logging, go to the Service module and select notifications log.

How to display notifications

1. Click on **Notifications** tab.

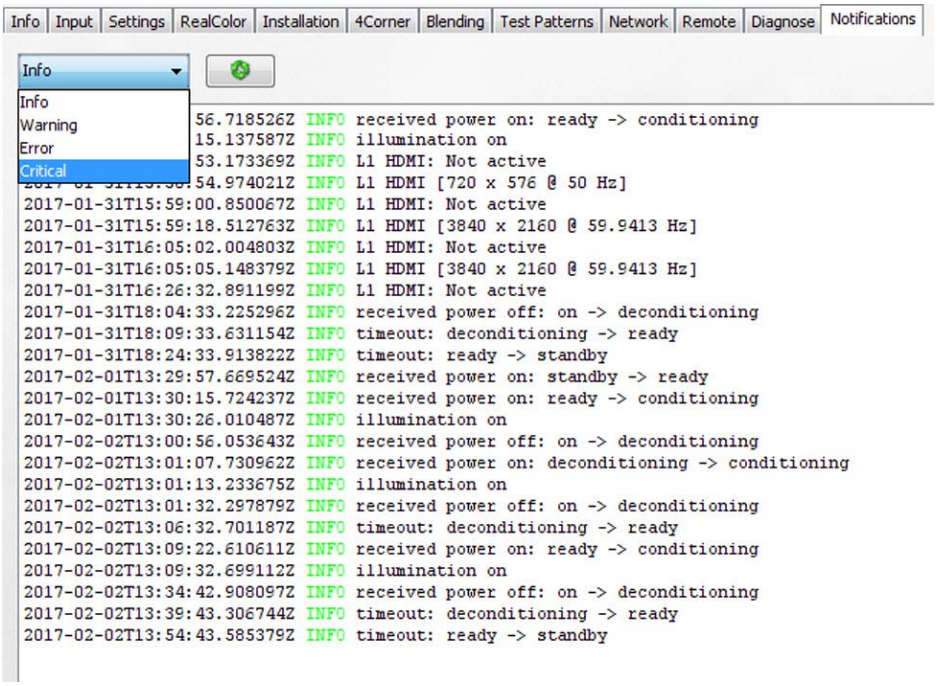


Image 6-93
Notifications

The current info notifications are displayed.

2. To select another classification, click on drop down list next to *Info* and select the desired classification.

   The notifications for the selected classification are retrieved and displayed.

3. To refresh the current list, click on the refresh icon next to the classification name.

6.19 Remote control

Overview

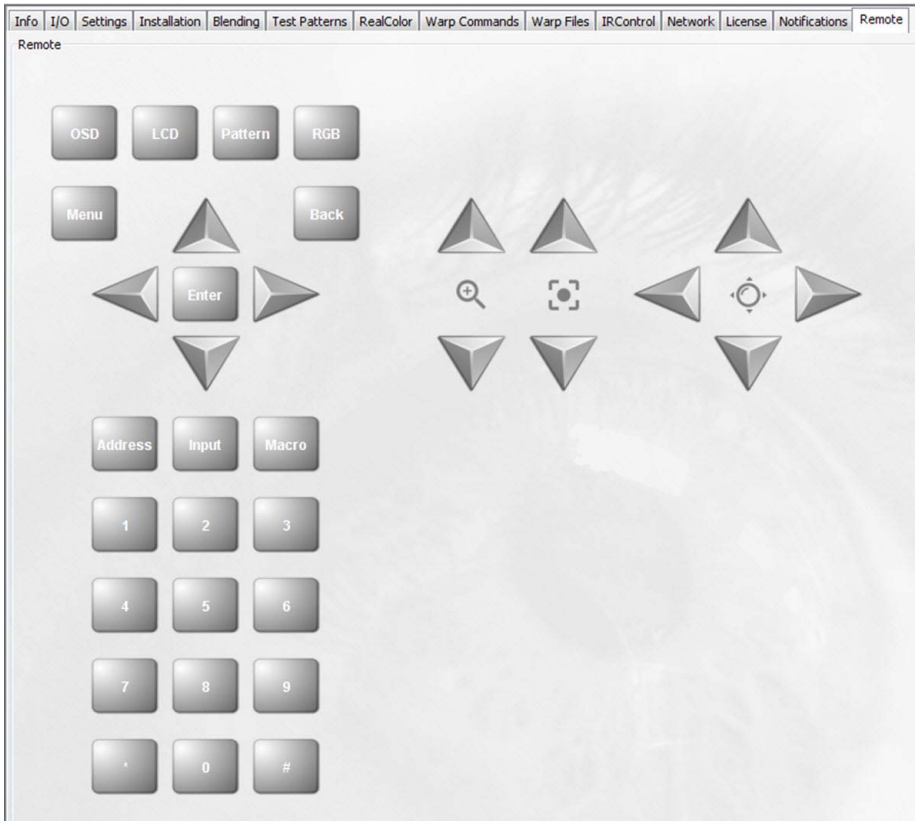


Image 6-94
Remote control simulation

The simulated remote control has the full functionality as the normal remote control.

7. UPDATE MODULE

7.1 Introduction

Overview

The firmware of the projector/device can be updated with Projector Toolset.

Free downloadable packages can be found on Barco's website, (URL: www.barco.com). Go to MyBarco and login. Registration is necessary.

If you are not yet registered, follow the link to register and follow the instructions. With the created login and password, it is possible to enter the Partnerzone where you can download the desired software upgrades.

Updating of multiple projectors at the same time is possible. When the update is started on one projector/device and running, it is possible to start up an update on second projector/device.

Preparations

The downloaded file is a zip file. Unzip this file before continuing.

Start up

To start up the Updater, just click on the Update icon () on the navigation button bar or click on **Modules** and select *Updater*.

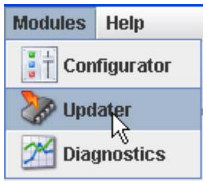


Image 7-1
Start Updater module

7.2 Updating the projector

The install package as downloaded from the Barco site should be used 'as is'. Unzip the install package.

A projector update must be done via an Ethernet connection.

How to update

1. Select the projector in the preview pane.
2. Select tab **Update settings**.
3. Fill out the path to the update file (1)

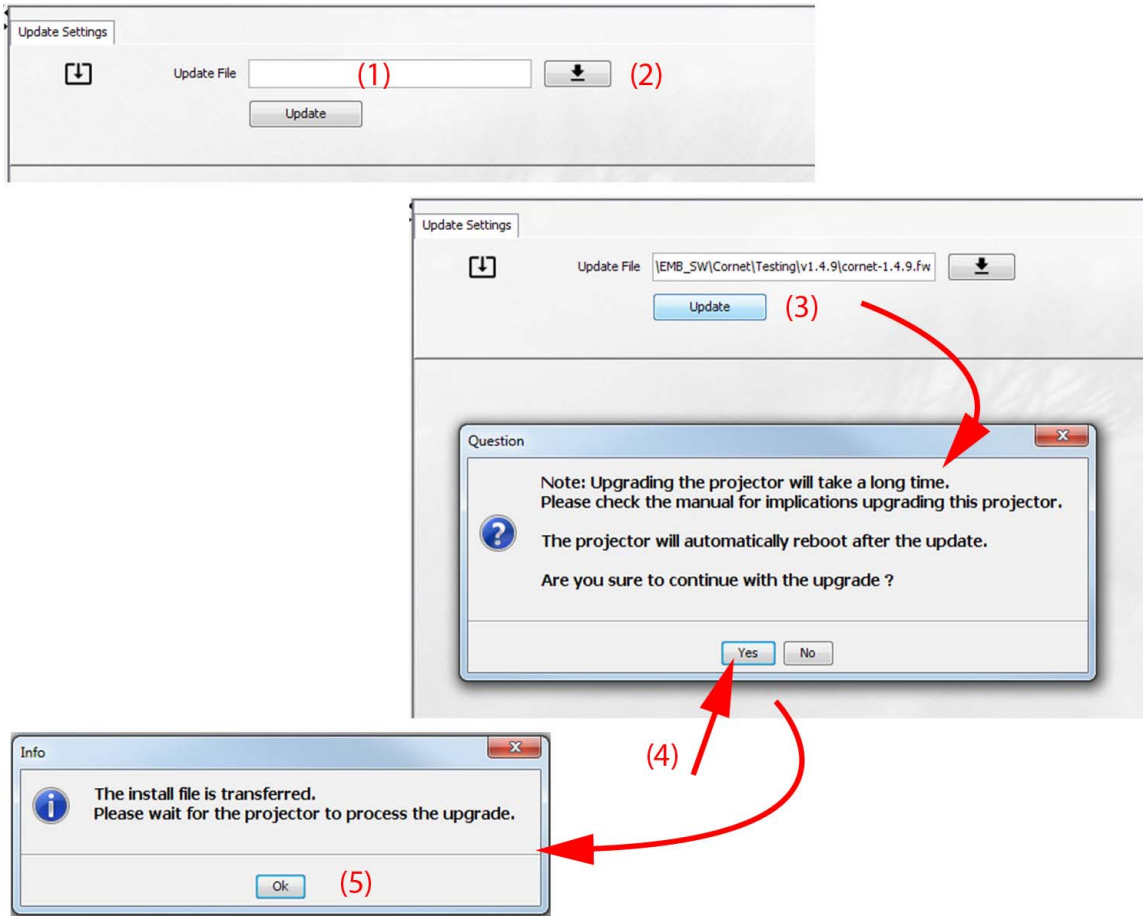


Image 7-2
Update Pulse projector

Or,
click on the path selection icon (2) to open a browser window.

4. Browse to the desired update package (format .fw) and click **Select Update Package**.

   The path will be filled out in the input field next to *Update File*.

5. Click **Update** (3).

   The update starts. This action can take a long time. A message is displayed.

6. Click **Yes** to continue (4).

   The update file will be transferred to the projector and installed. The projector will reboot.

   A message is displayed. Click Ok to clear the message.

8. LENS CALCULATOR

Overview

- Introduction
- Launching the lens calculator

8.1 Introduction

Overview

For a typical projector and lens, the distance between the projector and the screen in relation with the screen width can be calculated.

While launching the lens calculator, the complete Barco lens calculator starts up.

Start up

To start up the Lens calculator module, just click on the lens calculator icon () on the navigation button bar or click on **Modules** and select *Lens calculator*.

8.2 Launching the lens calculator

How to launch

Copy the URL (http://www.barco.com/en/media_entertainment/lenscalculator/) into your browser to open the lens calculator window. Then, follow the instructions given on that web page.

The lens calculator can be opened on this web page or downloaded on your computer for offline use.

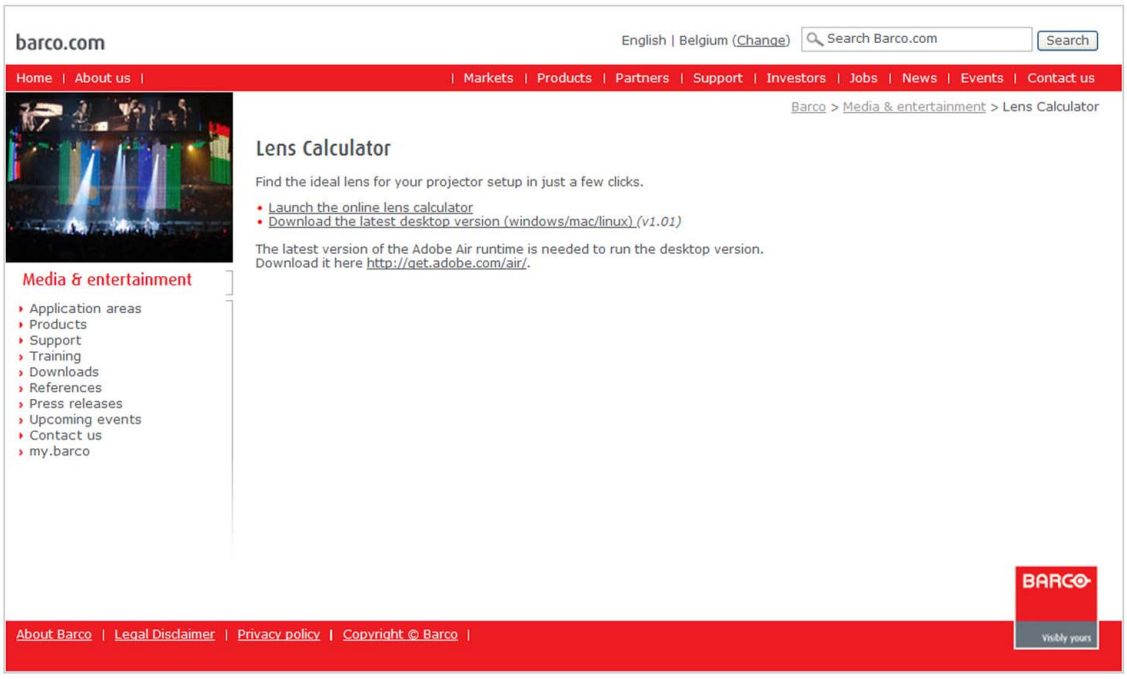


Image 8-1
Lens calculator web page

9. SERVICE MODULE

9.1 Introduction

Overview

The content of the service module depends on the access level. The access level is defined by the type of dongle connected to an USB port of your computer.

The window contains at least for an operator the maintenance button.

Only the operator level is described in this manual.

Start up

Before the service module becomes available, first a device must be selected. To start up then the Service module, just click on the service module icon ( on the navigation button bar or click on **Modules** and select *Service*.

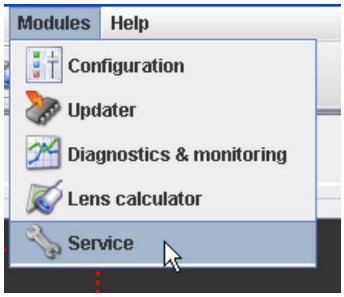


Image 9-1

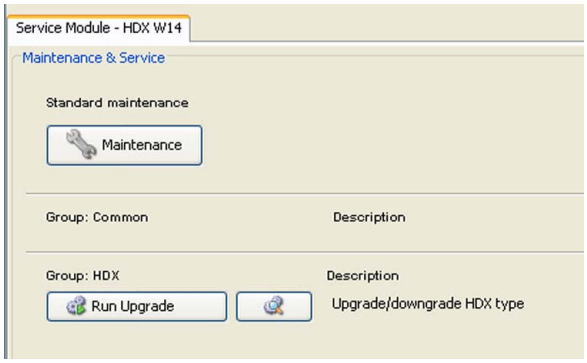


Image 9-2
Service start page, can be different per projector type

9.2 Maintenance, reset to factory defaults

What can be done?

A selected number of settings can be reset to the original factory settings. The number of settings available in the list depends on the projector type.

How to reset

1. Click on **Maintenance** (1).

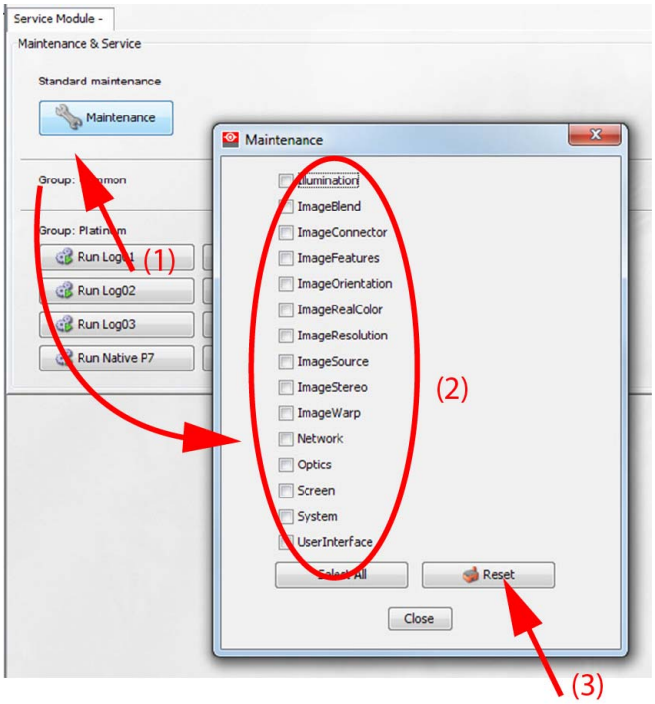


Image 9-3
Reset to factory defaults

The *Maintenance* dialog box is displayed.

2. Check the items which may be reset during the reset operation (2)
3. Click on the button **Reset**.
4. Click **Close**.

9.3 Log functionality

Logging types

The service module contains 3 different logging:

- Standard log functionality: This logging gives a logging overview of the last 5 days the projector was used (not necessary the last 5 calender days).
- Full log functionality: a big log only for Barco service technicians.
- Notification log functionality: a maximum of 10 most recent log files smaller than 1 MB. All files have the name notification0, notification1, etc.

About Standard log

This logging gives a logging overview of the last 5 days the projector was used (not necessary the last 5 calender days). This logging file can be zipped and downloaded on your computer.

Or, the logging can be view in a logging screen.

Standard log

1. To download the log file, click on **Run Log01** (1).

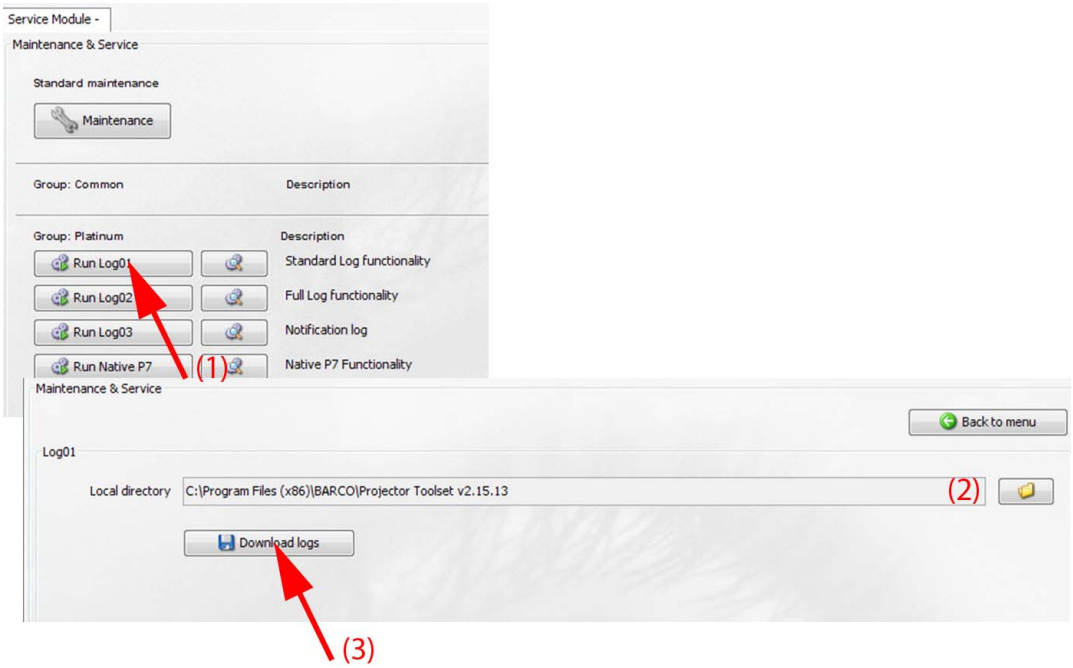


Image 9-4
Standard log download

A storage location is proposed.

2. When necessary to change the storage location, click on the browse icon and select a new location (2).
3. Click on **Download logs** (3).

   The log file is zipped and stored on your PC.

Full log

A full log is available for Barco service technician using a validation code.

Notification log

Notification logging is done in files of maximum 1MB. Only the 10 latest files are available for downloading.

When all 10 files are occupied, the oldest one (notification.0) will be removed and the others will be re-name. Notification1 becomes Notification0, etc. The most recent file will always be notification.9.

View notification logging

1. Click on **Run Log03** (1).

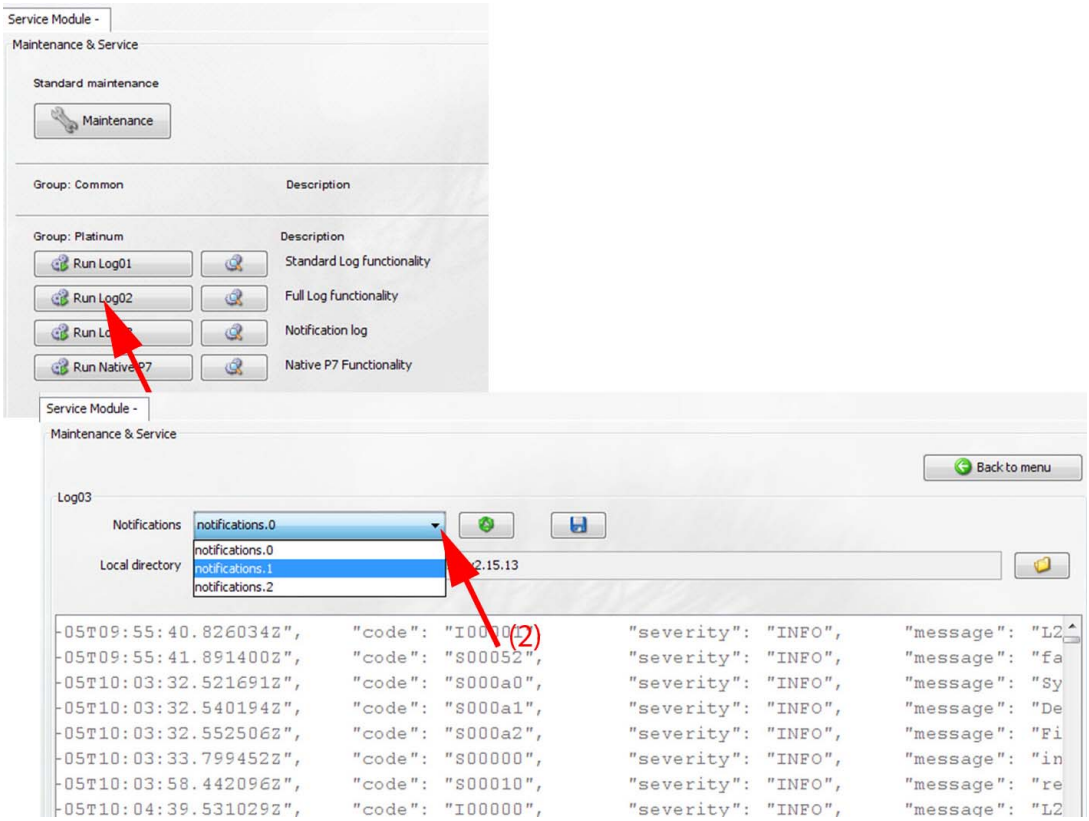


Image 9-5
View notification log

2. Click on the drop down box (2) and select the desired log file (notification.0 is the oldest one, notification.9 is the most recent one).

Save notification logging

1. Click on **Run Log03** (1).

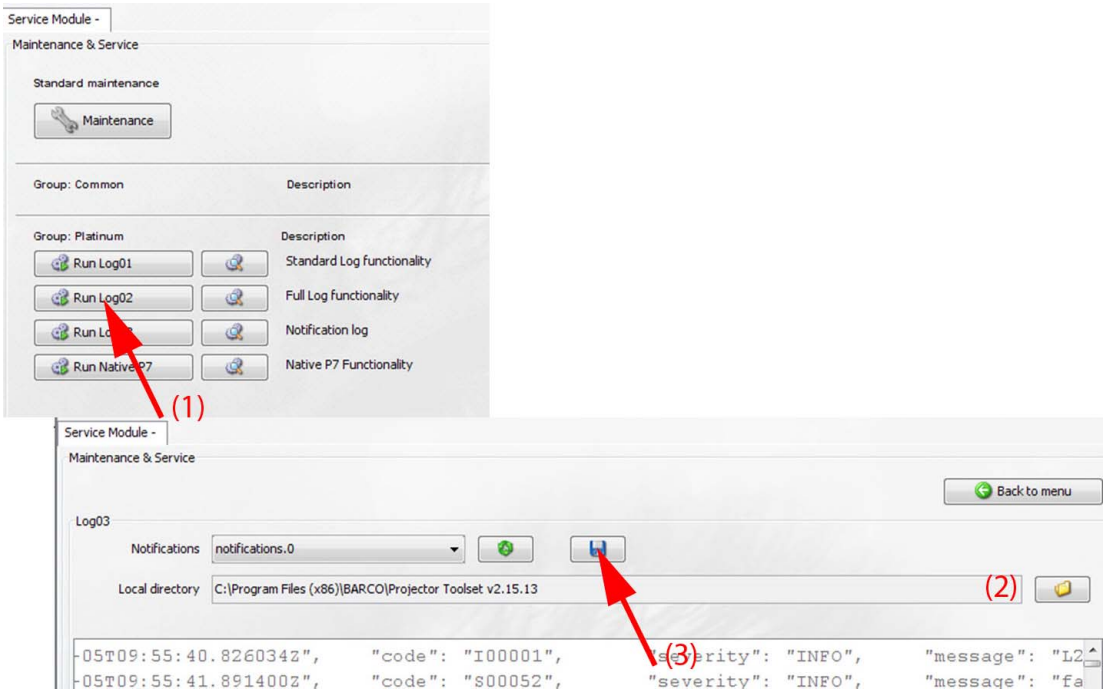


Image 9-6
Save notification log

2. When the proposed storage location is not the desired one, click on browse icon and browse to desired location (2).
3. Click on the save icon (3).

   The current files are stored together with device information.

9.4 Native P7 functionality

About Native P7

The native P7 coordinates of a projector are factory measured and stored in the projector. When due to a service action, maybe some parts in the full light path are changed, than it is possible that the native coordinates are not correct anymore with result that the real color functionality will not work correctly.

A service technician can unlock the current set of native coordinates and re-measure these coordinates one by one using a chromameter.

Necessary tools

Chromameter

How update

1. Click on **Run Native P7** (1).

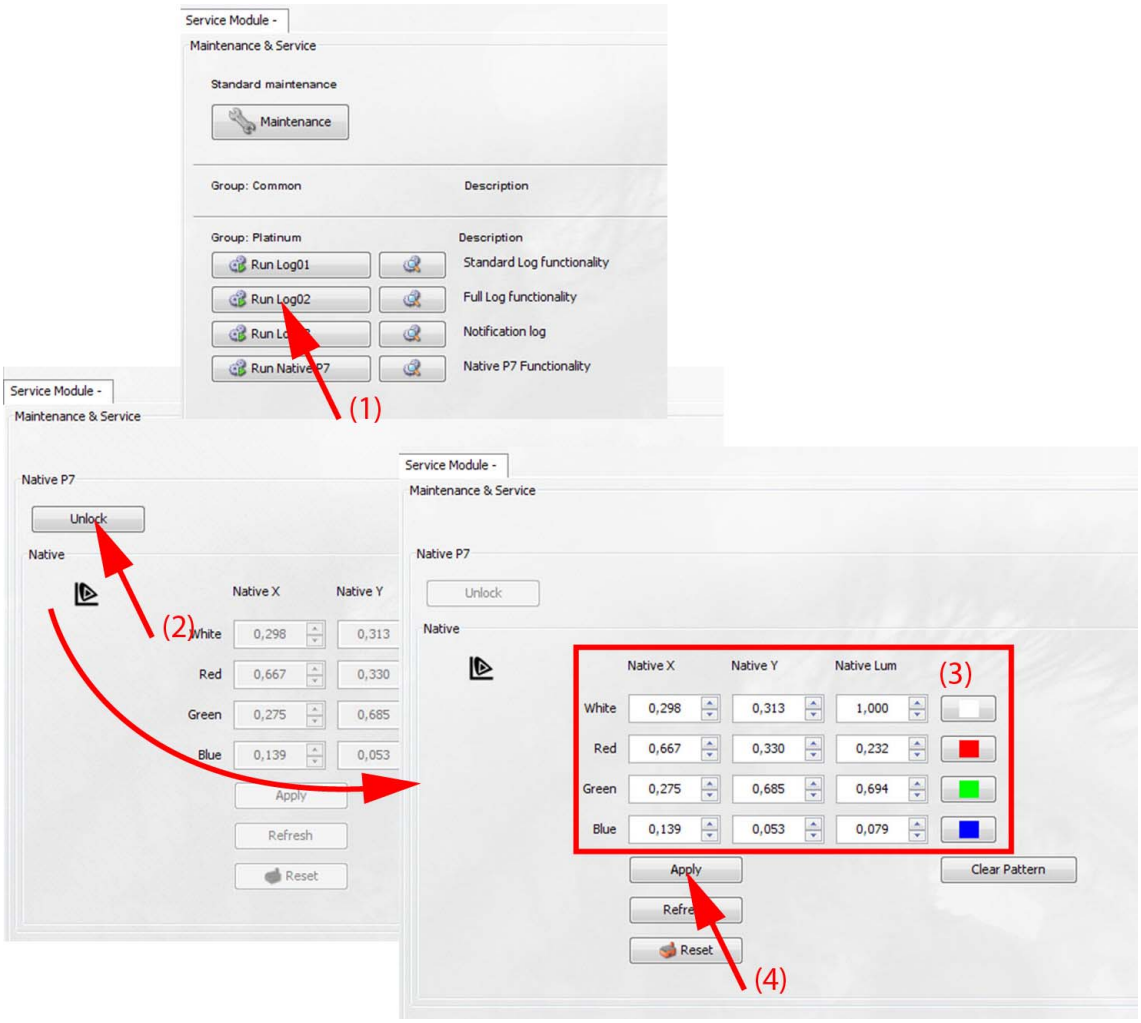


Image 9-7

The P7 menu is displayed.

2. Click Unlock to unlock the current stored coordinates.
3. Switch on a white test pattern and measure the color coordinates. Enter the measured value in the matrix.
4. Continue with red, green and blue.
5. Clear the test pattern.
6. Click **Apply**.
   Note: *To return to the factory measured coordinates, click on Reset before clicking apply.*

   The new measured coordinates are stored in the projector and will be used as the native color coordinates of this projector.

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