Martín Lightjockey

User definable fixtures guide

User Definable profiles

The user definable fixture profiles make it possible to define profiles for fixtures that are not already included in LightJockey or modify existing profiles. The profiles can be saved, reused an transferred to other installations. The profiles include all normal functions available in LightJockey including

position presets [139], movement macros [130] and palettes [177] for color, gobos and effects.

To use an already defined fixture profile, configure the fixture from the normal fixture configuration dialog [40]

Note that user defined fixtures will only show up in the Offline Visualizer [326] if they are linked to a suitable OV profile [294].

To define a profile a generic **user definable fixture** must be configured [40] and brought to the desktop.

See Defining the Generic Fixture 2 (max 32 channels, 16 bit pan/tilt) [267]
See Generic Scanner 1 (8 bit, max 8 channels, limited number of available effects) [257]
See Generic DMX Fixtures - Color Scroller, color palette and intensity control [264]

User Definable Fixtures - Scanner 1

[3] GSC 1

Scanner 1 Fixture Icon

Note: this profile is included for backwards compatibility only - the Generic fixture 2 profileScribble7300 should be used for writing new profiles.

Using this personality it is possible to control a fixture that runs entirely on 8 bit control and has no more than 8 DMX control channels.
The scanner 1 profile supports the following (optional) user definable features.

Intensity Control [146] - including shutter, strobe, Grand Master [151] and blackout [155].
8 bit Pan and Tilt control [134], including position presets and movement macros.
Color Palette [159] - max 16 colors.
Gobo Palette [156] - max 16 gobos.

Other features may be controlled via generic controls [167].

The profile may be saved to disk and re-used for other scanner 1 fixtures.

Configuring the scanner 1 fixture
To configure the fixture select **User Scanner 1** in the list of available fixtures (see Fixture Configuration [40]).
By default the scanner 1 takes up 8 DMX channels - it is possible when defining the fixture profile to reduce the number of channels used by the fixture. Note, that no matter how many channels the fixture actually uses, the auto address feature will always allocate 8 channels for the fixture.

Once the fixture has been configured and the Fixture Icon has been placed on the desktop, fixture profile including the optional features can then be defined, see Defining the Scanner 1 Profile [258]

Defining the Scanner 1 Profile

Note : The scanner 1 profile is provided for backwards compability only - new profiles should be created using the Generic Fixture 2 267 **profile.**

In order to use the fixture it is necessary to define the fixture's control channels, and optionally color and gobo palette values.

The scanner 1 profile dialog becomes available by right-clicking on the fixture icon on the desktop and selecting **Define Fixture Profile** from the pop-up menu.

Make sure to read the notes on each control before allocating control channels.

The File Menu
Save Profile - this will save the current profile to a named file. The profile can then be loaded into other fixtures. Note that the profiles are not dynamic, saving a profile will not automatically update other fixtures.

Load Profile - this will load a previously saved profile into the current fixture.

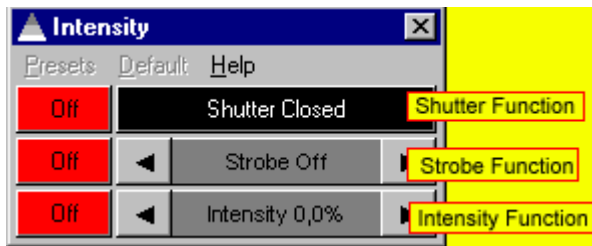Clear Profile - this will clear the current profile.

LightJockey defaults the profiles files to the following directory <LightJockey Installation dir>\User\UserFixtures\<filename.SS1>

Defining Scanner 1 Intensity Control
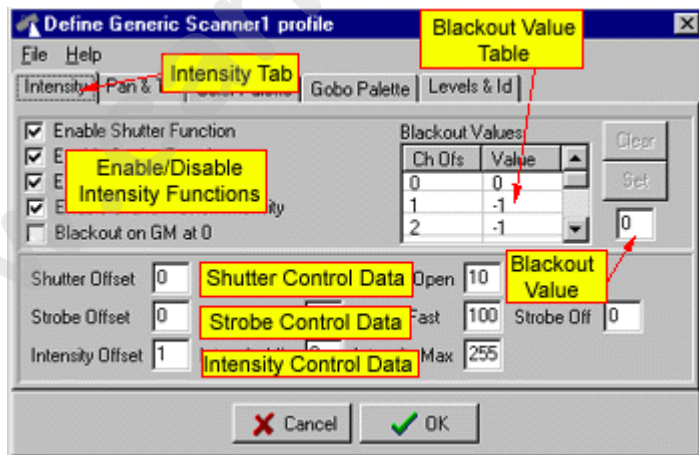
Scanner 1 Intensity Dialog.
Use this Dialog to set up the intensity control definitions for the Scanner 1 fixture.

Scanner 1 Intensity Control.

Only controls for the enabled functions will be visible - if no intensity control functions are enabled the, intensity control will not be available for the fixture.

Notes
Shutter control - the shutter control must be controlled on one DMX control channel.
Strobe control - the strobe control must be controlled on one DMX control channel - strobe and shutter control channel may be the same.
Intensity control - the intensity must be controlled by one channel, and the DMX value for minimum intensity must be lower than the value for maximum intensity. For the intensity control to be linked to the Grand Master controls [151] the DMX values for intensity must be valid within 0 to maximum intensity value.

Enable Shutter Function (Intensity Control Function)
To enable the shutter function for the fixture, check this option. Make sure to fill out the strobe data fields with appropriate data.

Enable Strobe Function (Intensity Control Function)
To enable the strobe function for the fixture, check this option. Make sure to fill out the strobe data fields with appropriate data.

Enable Intensity Function (Intensity Control Function)
To enable the Intensity function for the fixture, check this option. Make sure to fill out the intensity data fields with appropriate data.

Enable Grand Master/Intensity (Intensity Control Function)
Checking this option will link the Grand Master control [151] to the fixtures intensity control. When not checked the Grand Master does not affect the intensity level of the fixture. This option should only be selected if the fixture supports intensity control. Since the Grand Master works by scaling the DMX value sent to control the intensity, do not enable this option unless the DMX values for controlling the fixture's intensity are within the range of 0 to max-intensity (see later).

Blackout on GM at 0
If the fixture does not support intensity control, checking this option will cause the Grand Master controls [151] to instruct the fixture when the overall intensity level reaches 0.

Blackout Value Table
Use this table to setup the DMX values needed to blackout the fixture. The table contains values for the maximum 8 control channels allocated for the fixture (note that first channel is numbered 0). A value of -1 means that the specific channel is not affected by the blackout command. If the fixture supports shutter or intensity control use values that addresses these functions.
If no values are entered the fixture will not respond to blackout instructions.
To set a channel value, highlight the line in the table then type in the value in the blackout value field and click the set button. To reset the value to -1 highlight the line and click the clear button.

Shutter Data
Use these fields to set the DMX channel and values needed to control the shutter function.

The offset value represents the control channel used to control the shutter on the fixture - note that offset values starts at 0. The shutter close value represents the DMX value used to close the shutter (no lights), and the shutter open value represents the DMX value used to open the shutter.

Use these fields to set the DMX channel and values needed to control the strobe function.
The offset value represents the control channel used to control the strobe function on the fixture - note that offset values starts at 0. The strobe slow value represents the DMX value where the fixture strobes at the slowest rate, the strobe fast value represents the DMX value where the fixture strobes at the fastest rate.

Intensity Data
Use these fields to set the DMX channel and values needed to control the fixture's intensity function. The offset value represents the control channel used to control the intensity function on the fixture - note that offset values starts at 0. The intensity min value represents the DMX value where the fixture has minimum light output, the intensity max value represents the DMX value where the fixture has maximum light output. Note that the minimum value must be smaller than the maximum value for the intensity control to work.

See also Defining the Scanner 1 Profile 258

Defining Scanner 1 Pan & Tilt Control

Defining Scanner 1 Pan & Tilt Control
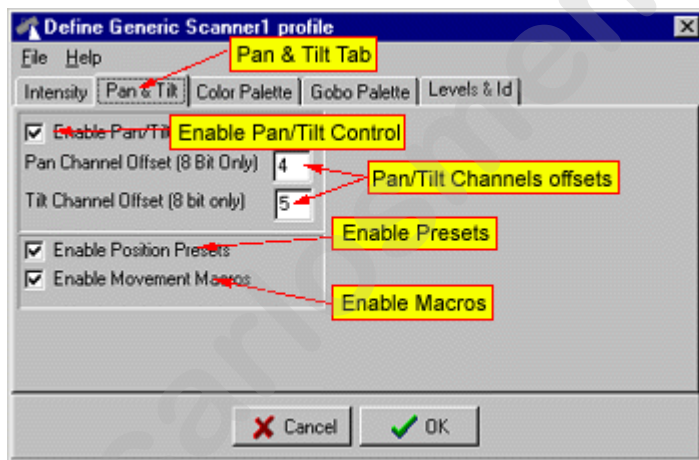
Scanner 1 Pan/Tilt Dialog.
Use this Dialog to set up the Pan and Tilt control definitions for the Scanner 1 fixture.
The scanner 1 only supports 8-bit Pan and Tilt control.

Notes
In order for the fixture to use the Pan/Tilt movement control, pan and tilt must be controllable on two individual 8-bit control channels. Further more the fixture must have valid pan/tilt DMX values from 0 to 255.

Enable Pan/Tilt Control
Checking this option allows the fixture to use the standard pan/tilt movement control 134 . This is the only movement control available for the scanner 1 fixture.

Pan/Tilt Channel offsets
Use these fields to set the DMX channels offsets needed to control the pan and tilt functions of the

fixture. Note that channel values starts at 0 for the fixture's first control channel.
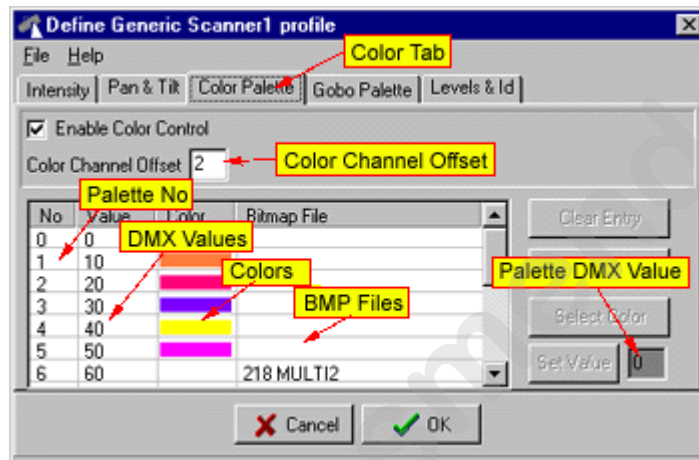
Enable position presets
Checking this option allows the fixture to use the LightJockey's position presets [139].

Enable Movement macros
Checking this option allows the fixture to use the movement macros [130] associated with the pan/tilt control.

See also Defining the Scanner 1 Profile [258]

Defining Scanner 1 Color Control

Scanner 1 Color Dialog.
Use this Dialog to set up the Color control definitions for the Scanner 1 fixture.

See also Color Controls [159]

Scanner 1 Color Control.

Notes
The Scanner 1 color control supports one single 8-bit color control channel. It also supports a user definable color palette with a maximum of 16 colors, using standard Windows colors or bitmaps.

Enable Color Control
To enable the color control function for the fixture, check this option.

Color Channel offset
Use this field to set the DMX channels offset needed to control fixture's color function. Note that

channel values starts at 0 for the fixture's first control channel.

To define color palette entries first highlight the appropriate color palette line.
Then select the color or bitmap for the palette button by clicking either the **get color** or **get bitmap** button. Finally set the corresponding DMX value by entering the value in the Palette DMX value field and click **Set Value**. Clear palette entries by highlighting the lines and click **Clear Entry**. A DMX value of -1 indicates that the palette button is unused.
Note that when selecting a bitmap file for the palette button, the selected file must be present in the windows directory that is selected by default.
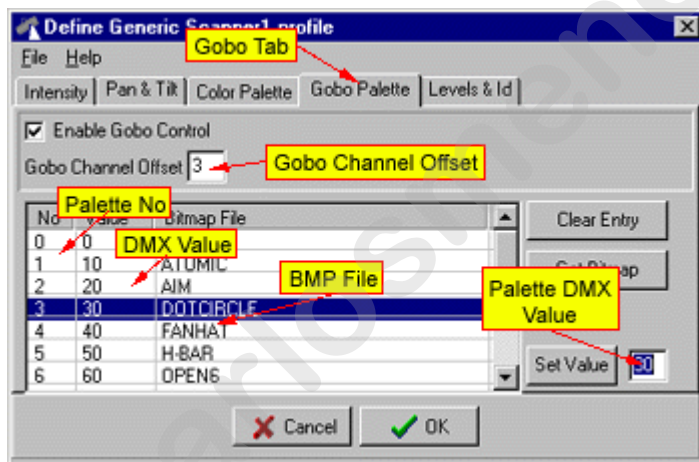
Only palette buttons with defined values will appear on the color control.

See also <u>Creating Custom bitmaps for palette controls</u> 295
See also <u>Defining the Scanner 1 Profile</u> 258

Defining Scanner 1 Gobo Control

Defining Scanner 1 Gobo Control

Scanner 1 Gobo Dialog.
Use this Dialog to set up the Gobo control definitions for the Scanner 1 fixture.

<u>See also Gobo Controls</u> 156

Scanner 1 Gobo Control.

Notes
The Scanner 1 Gobo control supports one single 8-bit Gobo control channel. It also supports a user definable Gobo palette with a maximum of 16 gobos, using standard Windows bitmaps.

To enable the Gobo control function for the fixture, check this option.

Use this field to set the DMX channels offset needed to control fixture's Gobo function. Note that channel values starts at 0 for the fixture's first control channel.

To define Gobo palette entries first highlight the appropriate Gobo palette line.
Then select the Gobo bitmap for the palette button by clicking **get bitmap** button. Finally set the corresponding DMX value by entering the value in the Palette DMX value field and click **Set Value**. Clear palette entries by highlighting the lines and click **Clear Entry**. A DMX value of -1 indicates that the palette button is unused.
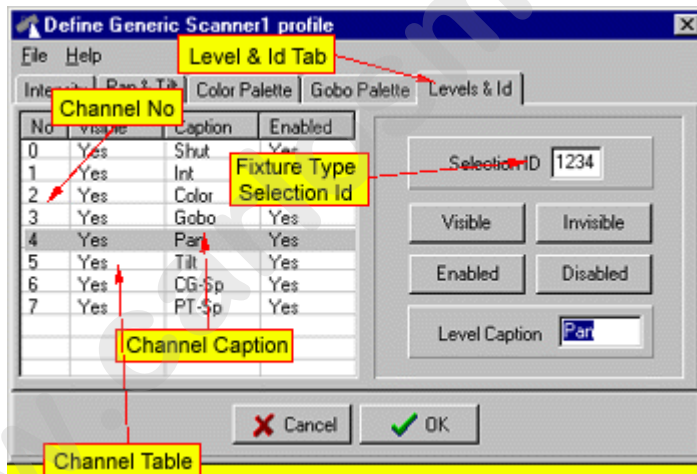Note that when selecting a bitmap file for the palette button, the selected file must be present in the Windows directory that is selected by default.

Only palette buttons with defined values will appear on the Gobo control.

See also Creating Custom bitmaps for palette controls 295
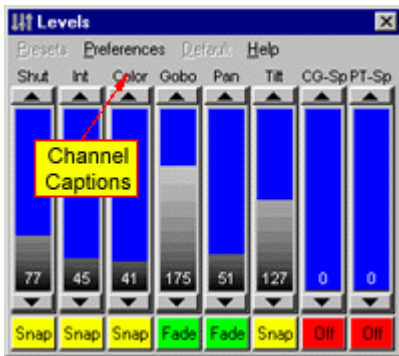See also Defining the Scanner 1 Profile 258

Defining Scanner 1 Level Control

Scanner 1 Level Dialog.
Use this dialog to set up the level control definitions for the Scanner 1 fixture.

Scanner 1 level Control.

Notes
The Scanner 1 Level Control supports up to 8 channels of 8-bit DMX. Channels may be allocated to Intensity, Pan/Tilt Movement, Color and Gobo Controls. Other fixture functions must be programmed via the level control.

Configuring the Channel Control

It is possible to label each of the levels with an individual Caption. Highlight the line(s) in the channel table and type the new caption in the level caption field.

Reducing the number of required DMX channels.
By default the Scanner 1 level control has all 8 DMX levels enabled and visible. If the actual fixture uses less than 8 control channels, disabling the unneeded channels will free them to be used by other fixtures. To disable the unused channels, highlight the channels in the channel table click the disable button, those channels will now be available for other fixtures. Note that channels that are marked as unused this way are not used by the auto-address feature in the <u>fixture configuration</u> 40 .

Selection Id
The selection Id is a small optional 'tag' that allows LightJockey to distinguish between different 'flavors' of user-defined profiles all using the scanner 1 profile - the tag is a 4-character user definable value. Use this tag to ensure that values are not sent to selected fixtures that are not compatible with the currently selected <u>master fixture</u> 120 .
Note that values programmed via the intensity or pan/tilt movement controls per definition are cross fixture compatible and will always work across fixture types.

User Definable Fixtures - Color Scroller 1

Color Scroller Fixture Icon

The color scroller profile is a special case of the generic DMX control that allows a light source with mounted color scroller to be programmed as one unit. It also has a palette feature that allows the user to setup a color palette that matches the colors mounted in the color scroller.

Often color scrollers are attachments to an individual light source (i.e. a par can that is driven from a dimmer pack). As a consequence of this the DMX address of the light source and the color scroller may not be contiguous, as is normally the case with multi parameter fixtures.

To configure a color scroller fixture, select **Color Scroller 1** in the list of available fixtures (see Fixture Configuration 40).
When setting the DMX address of the fixture, **the DMX address of the Intensity control channel must be given - NOT the address of the color scroller**.

Once the fixture color scroller icons are placed on the desktop, each fixture must be configured with a DMX address for the color scroller unit and (optionally) values for the color palette - see Defining the Color Scroller Profile 266.
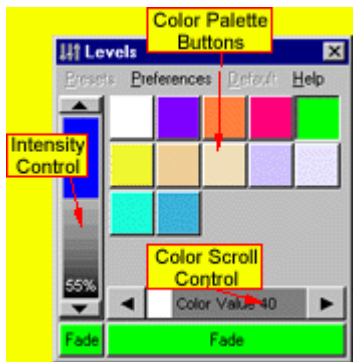

Color Scroller Control

Once the color scroller has been setup it can be programmed as any other fixture via the color scroller control. The control features a drag bar 176 for controlling the intensity, and another drag bar for controlling the position of the color scroller. If the fixture has been setup with values for the color palette, colors can also be selected by clicking on the color palette buttons.

See Also Off,Snap,Fade 128

Defining the Color Scroller Profile
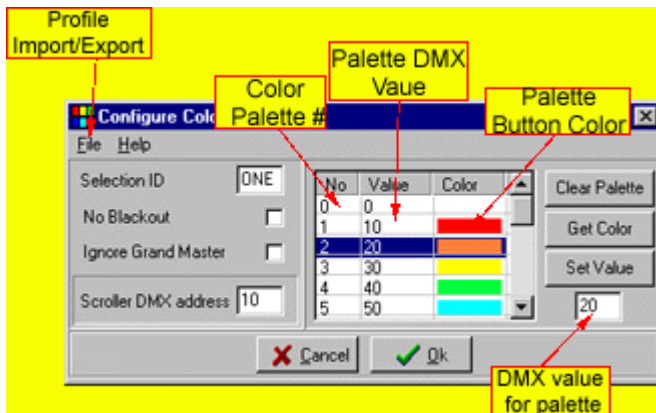
Color scroller setup dialog.

The color scroller profile dialog becomes available by right-clicking on the fixture icon on the desktop and selecting **Define Fixture Profile** from the pop-up menu.

No Blackout
By default the color scroller will perform a blackout [155] by reducing the level of the intensity control to 0. This feature can be disabled by checking this option.

Ignore Grand Master
By default the color scroller intensity is controlled by the Grand Master [151]. This feature can be disabled by checking this option.

Scroller DMX address
This is the DMX address of the color scroller unit. The address range is 1-2048 for the Club/PCMCIA versions, 1-512 for the ADP, DJ and USB versions . For the Club/PCMCIA version this address is calculated as *Scroller Address+((DMX Link No - 1) x 512)*, assuming that the color scroller addresses starts with 1.
Note that LightJockey does not check if the address given is already allocated to other fixtures - it is entirely up to the end user to make sure that the address is correct. The allocated address is also **not** taken into account when using the Auto Address feature in the Fixture Configuration [40] - this may cause other fixtures to overwrite the DMX output values of the Color Scroller if DMX addresses overlap.

Configuring the color palette
The color scroller profile supports up to 20 color palette buttons (numbered 0-19). To set the values (DMX value and color value) for the individual buttons, highlight the line with the button number. Select the color from the color dialog by clicking on **Get Color**. Set the corresponding DMX values by entering the value in the field in the lower right hand corner and click **Set Value**.
Palette entries may be cleared by highlighting the line(s) and click **Clear Palette**.

Selection Id
The selection Id is a small optional 'tag' that allows LightJockey to distinguish between different 'flavors' of color scrollers (i.e. scrollers with different gels) - the tag is a 4-character user definable value. Normally when setting the color with the color drag control [176] or palette buttons, the value will be programmed into all selected [120] color scroller fixtures. By setting the id to different values for different flavours of scrollers only color scrollers with the same ID value as the master fixture [120] will be programmed.

Save Profile - this will save the current profile to a named file. The profile can then be loaded into other color scroller fixtures.

Load Profile - this will load a previously saved profile into the current color scroller fixture. Loading a profile does not change the scroller DMX address.

Clear Profile - this will clear the current profile.

LightJockey defaults the profiles files to the following directory <LightJockey Installation dir>\User\UserFixtures\<filename.SC1>

Defining the Generic Fixture 2

See also

In order to use a user-definable fixture profile for programming it is necessary first to define the fixtures control channels, functions, and optionally palette values.
Defining a profile, unless it is a very simple fixture - usually requires a detailed knowledge of the fixture's DMX Protocol 49.
Please make sure to read the notes on the individual tabs before defining the profile.

The user-definable fixture profile is limited to a maximum of 32 contiguous DMX channels and supports 16 bit control on pan and tilt.
By default, a new profile will only have the generic level control 167 enabled, enabling 8 bit control of all 32 channels. Further functionality must be defined using the profile dialog.

To define a new profile or edit an existing profile, configure a **generic fixture 2** in the fixture configuration 40. Set a valid DMX address for the generic fixture. If a DMX fixture is already connected to LightJockey, set the DMX address of the generic fixture to the fixtures DMX address (eventually refer to fixture manual).
Make sure that the address does not overlap with other fixtures already configured in LightJockey and leave enough free addresses for all of the fixtures control channels. Defining a profile without giving the generic fixture a valid DMX address does not work properly.

Once the new fixture icon is placed on the desktop, open the fixture profile dialog by right-clicking on the fixture icon and select **Define Fixture Profile** from the pop-up menu.
The fixture icon will automatically be selected as master 120 fixture.
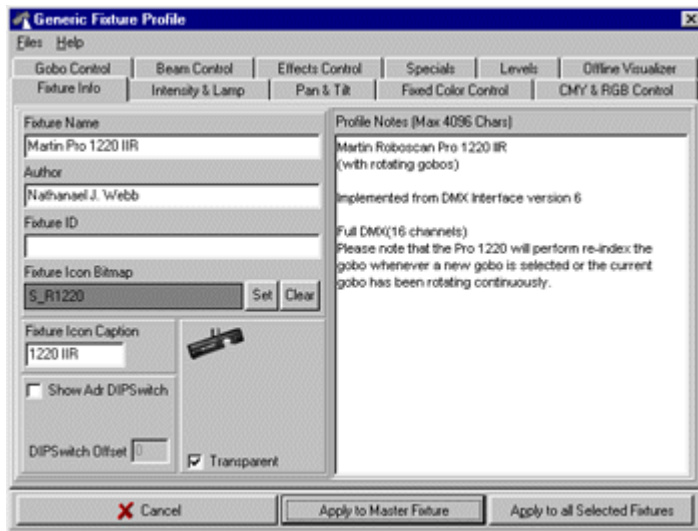
Define Fixture Profile Dialog

The dialog consists pages located on a number of different tabs, each containing groups of specific fixture related functions.

Any changes in the fixture profile dialog must be applied (click any of the **Apply** buttons) to the fixture before taking effect.

The **Apply to Master Fixture** button will apply the new profile to the master |120| fixture only, where as the **Apply to all Selected Fixtures** button brings up a new dialog |275| to apply the new profile to all or some of the selected fixtures.

Applying a profile to a fixture will dynamically change the available controls and functions for that fixture - so it is actually possible to 'program' the fixture while still defining the profile. This feature is very useful for testing the profile with a fixture connected.

NOTE
If another fixture icon on the desktop is selected while the profile dialog is open, the contents of the dialog will change to the new fixture, and any non-applied changes to the profile are lost.

Clicking the [Apply] will apply the actual profile to the fixture.

Clicking the [✔ OK] will apply the profile and close the dialog.

Clicking the [✗ Cancel] will cancel changes and close the dialog.Fixture profile will remain unchanged.

The File Menu

Load Profile - this will load a previously saved profile data.

Saving profiles
Saving profile data will apply and save the current profile to a named file. The profile data may be loaded into other fixtures or the fixture may then be configured from the normal fixture configuration dialog |40|. Note: updating and re-saving a profile will not automatically update other fixtures using the same profile.

Save Profile - This option will only be available of the profile data has been loaded from an already saved file (either loaded manually or configured via the fixture configuration). The file name suggested in the save file dialog is the same as the profile data was originally loaded or configured, making it simpler to modify and re-save a profile without hunting for the original filename.
Save profile as - Opens the save dialog without suggesting the filename.

WARNING! - when using an already existing profile as basis for a new fixture, be careful NOT to overwrite the original profile by using the filename suggested by the save option.

Clear Profile - this will clear the current profile data.

LightJockey saves the data-files containing the profile to the following folder <LightJockey Installation dir>\User\UserFixtures\<filename.GS2>.

See also <u>Exporting user defined fixture profiles</u> 276

Control types.

The generic profiles basically uses two types of controls :
The <u>dynamic</u> 269 control type allows the user to select between different values (usually via some kind of <u>drag control</u> 176 or palette on the final fixture control).
Some dynamic function may have an associated <u>palette</u> 271 .
The <u>static</u> 271 of control type contains static values for one or more fixture control channels and is usually used to select more specialized functions such as fixture reset or lamp on or off commands.

<u>The Fixture Info Tab</u> 279
<u>The Intensity & Lamp Tab</u> 280
<u>The Pan & Tilt Tab</u> 291
<u>The Fixed Color Tab</u> 283
<u>The Gobo Tab</u> 284
<u>The Beam Tab</u> 285
<u>The Effects Tab</u> 285
<u>The Special Tab</u> 286
<u>The Levels Tab</u> 288
<u>The Offline Visualizer Tab</u> 294

See also <u>Dynamic functions</u> 269
See also <u>Static functions</u> 271
See also <u>User definable palettes</u> 271
See also <u>Customizing Palettes for built-in fixture profiles</u> 125 .

User-definable Dynamic Functions

Dynamic function definition (example, color controls)

The dynamic fixture functions usually work on one fixture DMX channel using 8-bit values from 0 to 255. Usually, defining dynamic functions result in a corresponding drag control 176 on the final fixture control 151 .
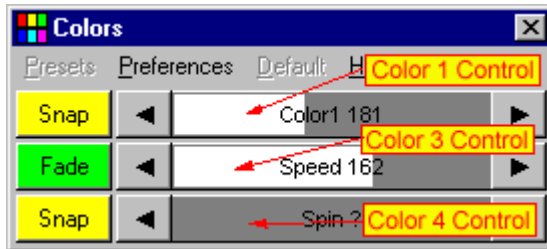
Corresponding drag controls.

An exception is that the Pan/Tilt function 291 may work on 2 channels for pan and tilt respectively for 16 bit pan/tilt control.

Most of the dynamic functions are named functions, for example Intensity, Focus or Iris. A majority of these named functions are cross fixture-type compatible 124 - this means that they will work across different types of fixtures.
Other functions are of a more generic nature, i.e. Beam 1 or Effects 2, but as the names implies, drag controls for these functions will show up on the corresponding fixture control 151 .

To define a function, check the relevant enable box and enter the fixtures DMX address offset and minimum and maximum values.
If no special minimum or maximum values are required, enter 0 for minimum and 255 for maximum.
IMPORTANT : Address offset values start at 0 not at 1 - this means that the first fixture control channel must be entered as 0.

Entering minimum and maximum values do not impose a minimum or maximum constraint on the DMX output value (see global patch 312), it just limits the 'active' area on the control inside to given interval. This means that two or more functions may 'share' the same fixture control channel using different value intervals. The functions may even be allocated on different tabs (i.e. an iris function can share fixture control channel with a gobo function). It is not uncommon that fixtures have multiple functions like this allocated to the same control channel.

On the fixture control, normally the drag control will show the current output value, either as decimal or percentage value.
If the current output value is outside the legal range of the function, the drag bar control will use a '?' as value indicator.

Some functions uses limits other than min/max. For example the strobe function has entries for 'slow' and 'fast'. This is used for certain cross fixture-type compatible 124 functions, when several different types of fixtures are selected, to allocate the same 'amount' of effect to all selected fixtures. For example setting the strobe at 25% will instruct all selected fixtures to strobe at 25% speed (note that in real life a 25% setting may not necessarily result of 25% 'effect' - this depends entirely on how the fixture interprets the DMX values).

Some of the functions have a name field - this may be used to enter a more specific name for the function of the control, i.e. 'Speed' to indicate that this drag bar controls a speed parameter, or 'ColParm' to indicate that the dragbar controls a color parameter.

See also User definable Palettes 177 .

User-definable Static Functions
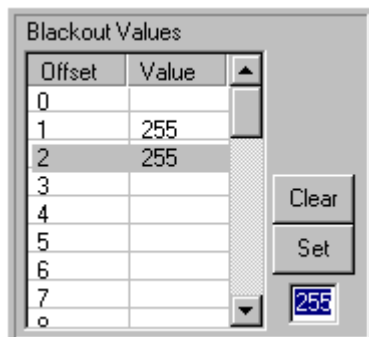
A static function (example blackout)

The static functions are used to define functionality that require pre-defined values to be sent to one or more fixture control channels.
For example, a fixture command such as lamp off (for discharge lamps) may require a specific value on the last fixture control channel, while all other channels are set to 0.
The static control allows different values to be defined for one or more of the fixtures possible 32 channels.
To define values for the static function, simply highlight the line(s) corresponding to the DMX offset (note first offset is 0, not 1) and enter the value in the field to the bottom right and click the **Set** button.
To clear the offset so that no value is sent when the function is selected, highlight the line(s) and click the clear button. When activating a particular function (i.e. lamp on) from a fixture control, the values entered for each offset will be sent to the relevant control channels - if no value has been defined nothing will be sent. Note that some named functions needs to be enabled before values can be entered.

User-definable palettes

The use of palettes allows the fixture controls for user defined fixture profiles to show individual buttons for specific control values (e.g. button for a specific gobos, colors or functions).

Gobo control with palette buttons for gobo selection

Palettes may be created for color, gobo and effect controls. The palettes are created by editing the palette definitions located on their respective tabs on the

dialog.

Each control may contain up to two palettes, each palette is activated by checking the corresponding control - i.e. checking *Enable Gobo Control 1 (Palette)* on the gobo control tab, will activate the first palette on the gobo control.

Each palette is limited to 20 entries (0-19). Two palettes may be combined to control features on the same control channel by setting identical offset values.

Palette definition list

Defining the palette entries
Each palette button can be assigned a specific color or bitmap visualizing the effect of clicking the button. Also each button can be assigned up to 5 different values.

Selecting the palette functions
Note: if the fixture does not have multiple functions it is not necessary to define the functions. See below.

Some of the more advanced fixtures may map different functions for the same effect (i.e. the same gobo) onto one DMX control channel.
An example would be a fixture with rotating gobo where the 'function' (static, rotation, index etc..) of each individual gobo is selected via different DMX values on the same control channel.

For example :

DMX Values for :	Static	Rotating CW	Rotation CCW	Indexed	GoboShake
Open gobo	0				110
Gobo 1	10	115	120	125	130
Gobo 2	20	135	140	145	150
Gobo 3	30	155	160	165	170
etc..					

In order to be able to select the different functions for the gobos, LightJockey allows up to 5 different functions for each palette.
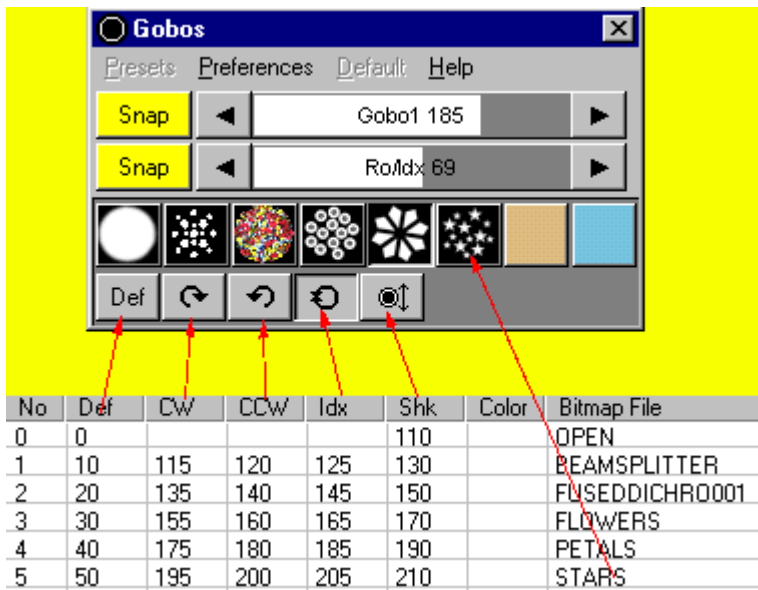
By default all 5 possible palette functions are defined as Def (for default). To select new functions or edit the current functions for the current palette, click the **Palette Functions** button in the lower right-hand corner of the dialog.

No	Def	CW	CCW	Idx	Shk	Color	Bitmap File
0	0				110		OPEN
1	10	115	120	125	130		BEAMSPLITTER
2	20	135	140	145	150		FUSEDDICHRO001
3	30	155	160	165	170		FLOWERS
4	40	175	180	185	190		PETALS
5	50	195	200	205	210		STARS
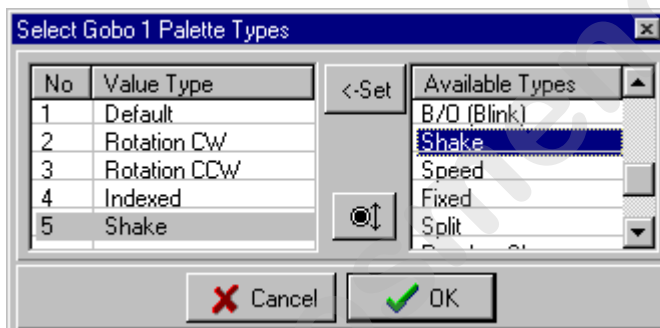
Assign a function by high-lighting the function number (1-5) in the left hand list, then high-light the function in the available functions list on the right side and click the **<-Set** button. Alternatively, drag the function to the function list. Note that the available functions are pre-defined and that it is not possible to define new functions.

Defining simple palettes
If the fixture does not have multiple functions it is not necessary to define the different palette value types. Enter the DMX values in the leftmost Def column using the first value field. If all DMX values are kept in the same column the different value type buttons will not show up on the fixture control at all.

Selecting button color
Each palette button may have a color or a bitmap assigned (if no color or bitmap is assigned, the palette button will be black). It is not possible to assign both a color and a bitmap to the same button.
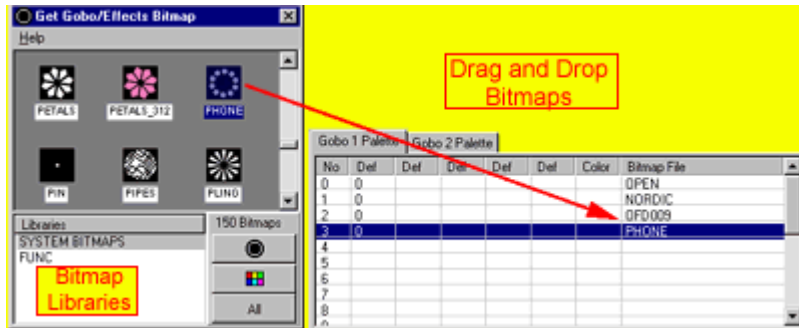
To select a color, highlight the relevant line in the palette list, and then click the **Color** button on the right hand side of the dialog. Use the standard Windows Color dialog to select a suitable color.
To save system resources it is advisable to assign colors to buttons that represent color functions, rather than bitmaps.

Selecting button bitmap
To select a bitmap click the **Bitmaps** button on the right hand side of the dialog button to open the

Select Bitmap dialog.

To assign a bitmap to a palette entry, just drag and drop the bitmap from the bitmap dialog to the palette entry. Alternatively high-light the palette entry and double-click the bitmap. Note that it is not possible to assign color bitmaps to gobo/effect palettes, or gobo bitmaps to color palettes.

Click the gobo and color buttons to change the view between gobo/effect and color bitmaps.

LightJockey comes with a number of bitmaps for colors, gobos and effects - it is however likely that when defining profiles for non-Martin fixtures, the correct bitmaps will not be present. In this case, it is possible to create custom bitmaps to use with the palette buttons - see Creating Custom Bitmaps for Palette Controls 295 .
Note that the bitmaps available for the color palettes and gobo/effects palettes are not the same - in order to use color bitmaps for gobos or visa versa, the bitmap file must be copied into the correct directory - see Creating Custom Bitmaps 295 .

Editing palette DMX control values
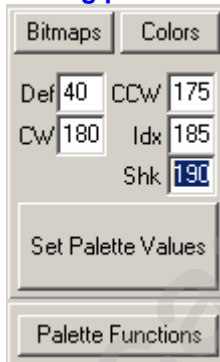
To set DMX control values for each palette button, highlight the entry in the palette definition list and enter the values in the value fields to the right of the palette list. Note that the labels describing each values corresponds to the value types defined for the palette and change dynamically with the value types selected. If a particular button does not have the same or all the functions of other buttons, i.e. the open gobo does not have values for rotation or index just leave the field blank; then, when selecting open gobo on the fixture control the functions will not be available. When the values have been entered, click the **Set Palette Values** button. Right-click the palette list to access the palette right-click popup menu.
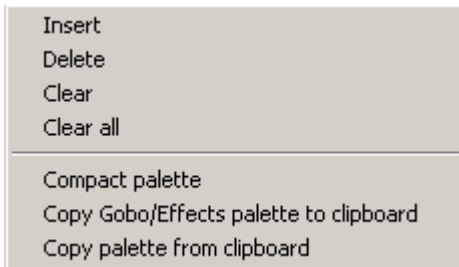
Palette right click popup menu

Insert - inserts empty line (disabled if last palette entry is already used)
Delete - deletes the highlighted palette entries
Clear - clears the selected palette entries
**Clear all** - clears all palette entries
Compact palette - removes (deletes) 'empty' palette entries and compacts palette
Copy palette to clipboard - copies palette to clipboard
Copy palette from clipboard - copies the contents of a palette that has previously been copied to the clipboard.

Note : color palettes can only be copied from other color palettes - while gobo and effect palettes may be copied from each other.

Applying User Profiles to Multiple fixtures
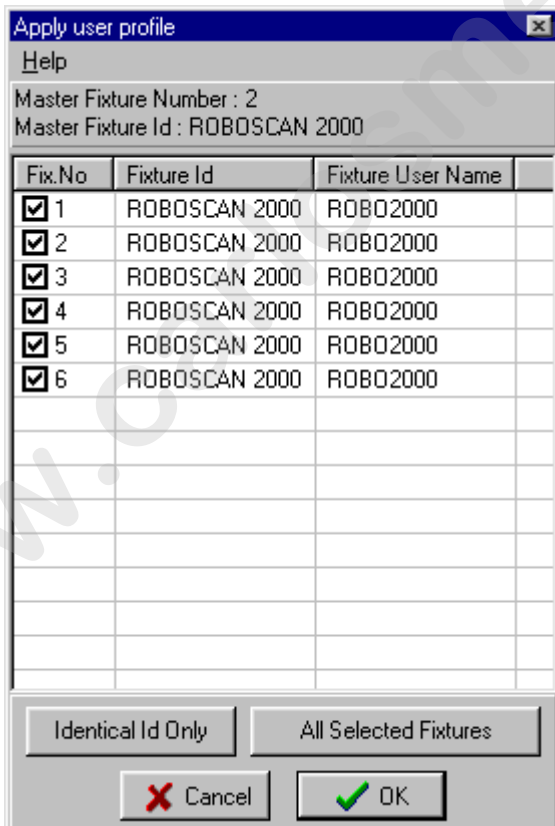
Use this dialog to apply the user defined profile to one or more of the <u>selected</u> 120 fixtures.

Click the fixture lines to check or uncheck fixtures.

Click the **Identical Id Only** button to uncheck fixtures with a <u>Fixture Id</u> 279 different from the current Master fixture.
Click the **All Selected Fixtures** button to check all selected fixtures.

Click the **OK** button to apply the profile to all checked fixtures.
Click the **Cancel** button to return without applying the profile to any fixtures.

Exporting user defined fixture profiles

See Also <u>Importing User Definable Fixture Profiles</u> 277

Use the export function to create a <u>single</u> file containing the fixture profile and bitmaps used, including any custom bitmaps created for the profile as well as Offline Visualizer support files. Once an export file has been created and saved it can be later be imported to another LightJockey Installation.

To export a profile, first make sure to save the profile using the save function in the <u>profile definition dialog</u> 267 file menu.
Once the profile has been saved, open the <u>Fixture Configuration dialog</u> 40 and find the profile amongst available fixture profiles.

Since version 2.6 build 5 LightJockey can include Offline Visualizer data files in the profile export file.
Note - when including offline data files the profile is saved in a different format (*.udo files) and cannot be imported into LightJockey installations lower than version 2.6 build 5.
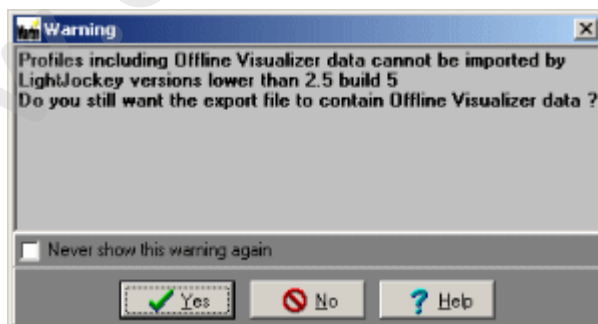
Exporting without Offline Visualizer data
Locate and right-click the profile in the available profiles list and select *Create Export File without Offline Visualizer data*

Exporting with Offline Visualizer data
**This option is only available if the profile is linked to an existing Offline Visualizer profile and the Offline Visualizer is running**.
Locate and right-click the profile in the available profiles list and select *Create Export File including Offline Visualizer data*

A confirmation dialog will appear (if not disabled) prompting to verify that the profile should be created including Offline Visualizer data.
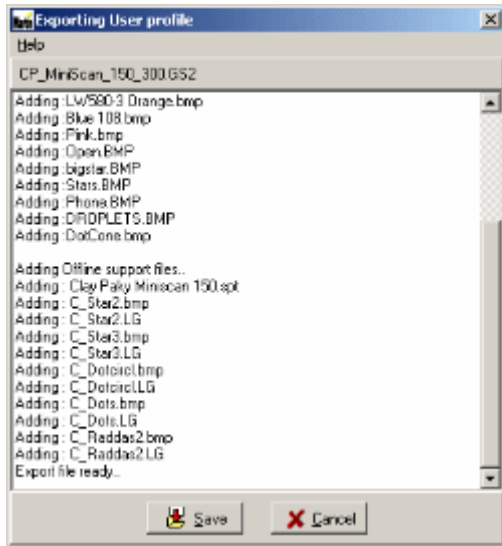
Export File List

The contents of the profile export is now shown in a list - to save the final export file click the **Save** button and save the file using the standard Windows file dialog. LightJockey defaults the directory to "<LJ installation>\Exports\". Export files that contain Offline Visualizer support data files are saved as .udo files - expots without Offline Visualizer support files are saved as .udf files.

The saved file may now be moved or copied to another LightJockey installation and imported via the Import profile 277 function.

Importing user defined fixture profiles

Importing user defined fixture profiles

See also Exporting user defined fixture profiles 276

Use the Import profile to import user definable profiles that has previously been created on and exported from another installation.
The profile export file is usually a collection of several files - much like a ZIP file. It contains the fixture profile definition plus any bitmaps used by the profile. From version 2.5 build 5 the export file may also contain support files for the fixture used by the Offline Visualizer.

To import a profile, open the fixture configuration 40 and select *Import/Import Profile* from the main menu. Use the standard Windows file dialog to select which file to import.

Note:
Export files exists in two formats.
.udo files - this format includes Offline Visualizer support files as well as the LightJockey profile. This type can only be imported in LightJockey version 2.6 build 5 or higher.
.udf files - this format includes the LightJockey profile only.

Use the file dialog filter to list either or or one of the two formats. Offline Visualizer support files will not

be imported if the Offline Visualizer is not installed with LightJockey.
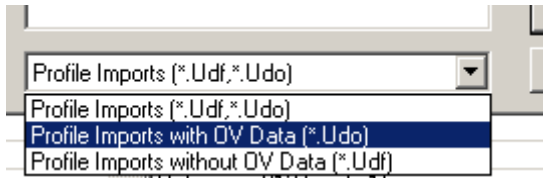
Filtering for filetypes

Select a file and click Open to start the profile import.

The Import File List

Before copying any files to the installation, LightJockey checks all files contained in the import file to see if the individual file already exists in the installation or if a file with the same file name but a different contents (i.e. a bitmap file with a different picture of a gobo) is already present in an installation. All files contained in the export file will be listed in the File Import List.

If the export file contains Offline Visualizer support files, import of these files may be disabled by unchecking the *Import Offline Visualizer support files* option below the list.
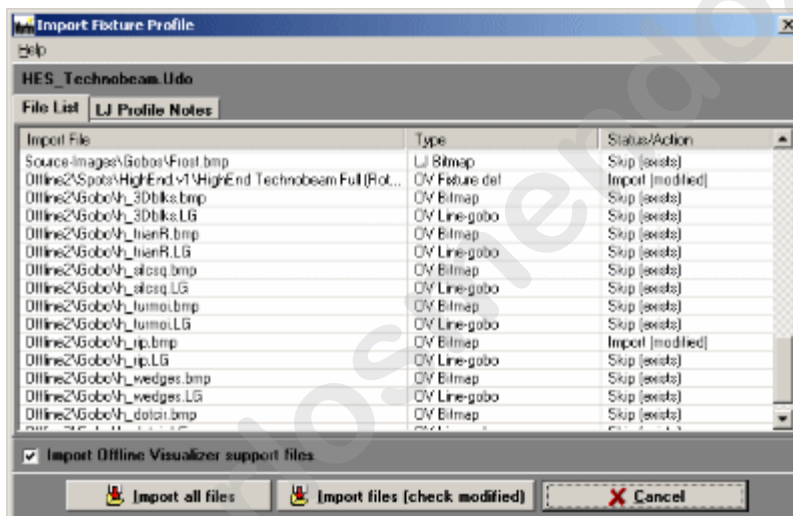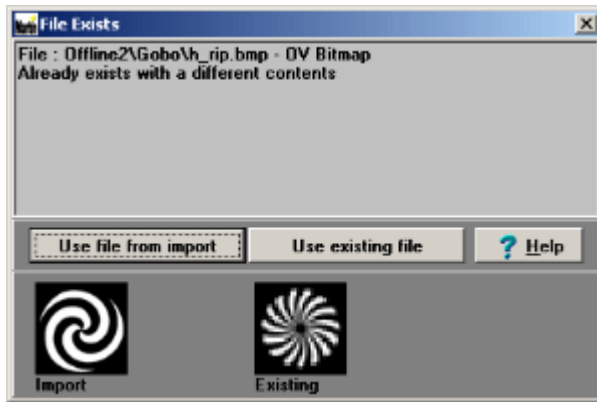

Import File List

- If the file is new it will always be imported - Import(new).
- If the file already exists and has the same contents it will not be imported - Skip (exists)
- If a file with the same name already exists but has a different contents, a new dialog will appear to decide what action to take - Import (modified)
.

Import All Files

Selecting this option will import all new and modified files from the profile export file.

Import Files (check modified)

Selecting this option will import all new files and prompt for an action for each file that already exists but with a different contents. The filename is shown together with a small description of the purpose of the file. In case of bitmap files (.bmp) the dialog displays both bitmap versions, both from the import and the already existing bitmap file - note that the bitmaps may not be displayed in their 'natural' size.

File Exists Dialog

Use file from import - This option will overwrite the existing file with the new file from the import. For profile definition files (.gs2,spt files), this means that the existing profile (LightJockey and/or Offline Visualizer profiles) will be overwritten by the new one. For bitmap files, any fixture already using the old bitmap (i.e. a gobo bitmap) will now use the new bitmap since the file is being replaced.

Use existing file - This option will keep the existing file and skip the new one. If the skipped file is a profile definition file, the new profile will not be imported. If the file is a bitmap the new profile will automatically use the existing bitmap in place of the one contained in the import file.

The Fixture Info Tab

See also [Defining the Generic Fixture 2](#) |267|
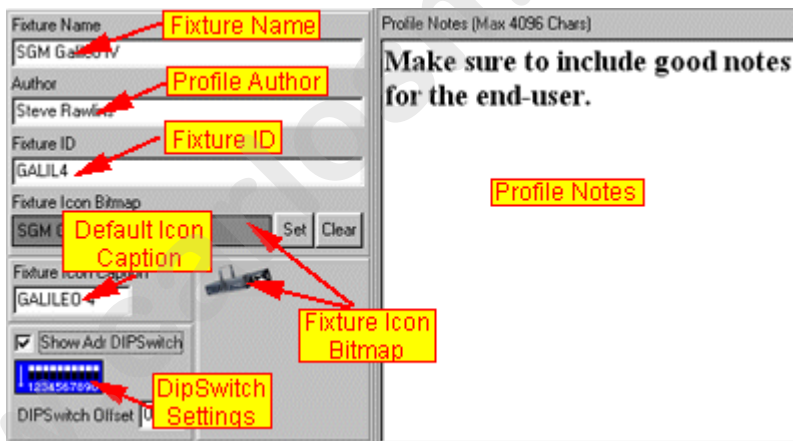
The first tab displays general profile information, including the fixture name, profile author (feel free to promote yourself:) and notes about the profile.

Hint: Cutting and pasting the notes from a word processor like Microsoft Word, enables use of different text attributes, such as different colors and various text attributes such as **bold**. Note that formatted text, because of the embedded attribute commands, normally takes up a lot more 'character' space than just the 'visible' characters.

It is also possible to select a default bitmap for the fixture icon, to select a bitmap click the **Set** button and select the bitmap from the file dialog. If no bitmap is specified, a generic scanner bitmap will be

used for the fixture button.

In the quite likely event that a suitable bitmap is not supplied with LightJockey, it is possible to create custom bitmaps - see Creating Custom Bitmaps for Fixture Icons 295. Check the transparent flag to make the bitmap background color transparent.

Use the Icon caption field to specify the default caption on the fixture icon. Note that the caption may be still be changed by changing the fixtures user name in the fixture configuration 40.

Fixture ID (IMPORTANT)

Since all fixtures configured as Generic Fixture 2 256 are considered identical by LightJockey regardless of the actual profile, the fixture ID has been implemented to distinguish between different 'flavors' of profiles. While the cross fixture compatibility 124 is designed to let certain effects be compatible across fixture types, specific DMX values for effects such as color and gobo does normally not make sense when applied to different types of fixtures.

When applying values to non-compatible effects, LightJockey uses the Fixture ID to distinguish between the different flavors of user profiles - values for i.e. colors will only be applied to selected fixtures if the master and slave 120 fixtures have identical fixture IDs.

When applying the ID it is usually a good idea to select a name that uniquely identifies the fixture type, i.e. "Roboscan 2000".

Addressing DIP Switch

If the fixture uses a fairly simple Dipswitch addressing scheme, enable the Adr-DIPSwitch to show the address setting in the fixture configuration. The fixture should use a simple addressing scheme with a 1-1 connection between DMX start address and fixture Dipswitch setting. It is possible to add a constant to the dipswitch setting to offset the dipswitch by a constant value, i.e. -1 to set DMX address 1 = all dips off, or 512 to always set dipswitch 10 on.
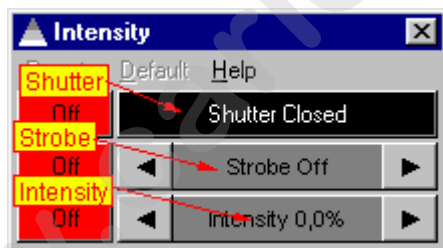
The Intensity & Lamp Tab

See also Defining the Generic Fixture 2 267
See also Dynamic Functions 269
See also Static functions 271

This tab defines the fixtures intensity and (discharge) lamp functions.

Fixture Intensity control

Shutter function (semi dynamic function)

Enabling the shutter function results in a shutter button on the intensity control. The function requires two values. One for shutter closed and one for shutter open.

Note that he shutter button will only reflect the shutter open state if the current output value has exactly the same value as the shutter open command (most fixtures actually opens the shutter on a large interval of the control channel).

This function may also be used to switch the lamp on and off for fixtures equipped with a halogen lamp.

Strobe function (dynamic function)

The strobe function requires a value for slowest strobe, a value for fastest strobe and a value for strobe off. The **strobe off** value is sent when the strobe control is dragged all the way to 0%.

Intensity function (dynamic function)
Enables the fixtures intensity/dimmer function. That the values required are the minimum/maximum DMX values for intensity control interval (not DMX values relating to minimum/maximum lightoutput).

Enable Grand Master/Intensity
The intensity function may be linked to the Grand Master or sub-masters by checking the **Enable Grand Master/Intensity** box.

Blackout when Grand Master at 0
If the fixture does not have intensity control it is possible by checking **Blackout when Grand Master at 0** to have the fixture blackout when the Grand Master reaches 0 (assuming blackout values are entered into the blackout values list - see below).

It is not possible to link both intensity and Blackout to the Grand Master at the same time.

Invert entire Intensity Channel
If the fixture implements max intensity at DMX value 0 and minimum intensity at DMX value 255 check this option to invert the DMX values for the contol channel before transmitting. Output valuesare calculated as 255-value before transmitting. This function affects the entire control channel intensity control channel. This function is mainly for backwards compatibility.

Invert Intensity value range (*)
This function inverts the DMX values as soon as the value is within the range sepcified in intensity min/max values. Use this switch when the fixture implements maximum intensity at lowest DMX value and minimum intensity at maximum DMX value. Note, this function inverts the DMX value as soon as it is within the intensity control range regardless of actual source of the value. This includes sources such as default DMX values 288 - to set a default DMX value to intensity off for a fixture with inverted intensity, type the DMX value for maximum intensity into the default DMX values list (the value is automatically inverted to minumum intensity before being transmitted). Note with this option AND grandmaster control both enabled make sure to check *Limit GM to intensity range* as well, otherwise the Grand Master may produce unwanted results.

Limit Grand Master (GM) to intensity range (*)
This option limits the Grand Master (and submasters) 'working range' - they will only take effect when the DMX value is within the given intensity interval. Use this function to stop the GM affecting other functions on the intensity channel (such as shutter or strobe commands). If the action of the GM is not limited it will affect the whole Intensity control channel.

(*) Note - these options are new to version 2.5 build 6 - they will be ignored if the profile is used on an earlier LightJockey version.

Examples:
Single function Intensity channels

Example 1 (single function command channel)
DMX 0-255 : Intensity 0-100%.
Set Intensity Min/Max to 0 and 255 respectively and enable *GM/Intensity control*.

Example 2 (single function command channel)
DMX 0-127 : Intensity 0-100%.
DMX 128-255 : no function
Set Intensity Min/Max to 0 and 127 respectively and enable *GM/Intensity control*.

Example 3 (single function command channel, inverted)

DMX 0-255 : Intensity 100%-0%
Set Intensity Min/Max to 0 and 255 respectively. Enable *GM/Intensity control* and check *Invert Intensity value range* (or entire intensity channel for backwards compatibility)

Example 4 (single function command channel, inverted)
DMX 0-127 : Intensity 100%-0%
DMX 128-255 : N/A
Set Intensity Min/Max to 0 and 128 respectively. *Enable GM/Intensity control* and check *Limit GM to intensity range*

Examples:
Multi function Intensity channels

Example 5 (Multi function command channel)
DMX 0-127 : Intensity 0-100%.
DMX 127-255 : strobe (or whatever)
Set Intensity Min/Max to 0 and 127 respectively and enable GM. Also check Limit GM to intensity range (unless the GM should affect the whole channel).

Example 6 (Multi function command channel, Intensity inverted)
DMX 0-99 : strobe (or whatever)
DMX 100-200 : Intensity 100%-0%.
DMX 201-255 : strobe (or whatever)
Set Intensity Min/Max to 100 and 200 respectively and enable *GM/Intensity control*. Also check *Invert Intensity Value Range* as well as *Limit GM to intensity* range.

Blackout values (static function)
Fill out this static function 271 to enable LightJockey to blackout the fixture.
The values are sent when Blackout 155 is enabled directly or via the Blackout when Grand Master at 0 function.
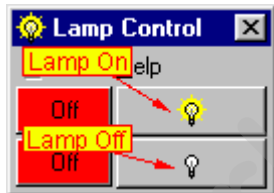
Fixture Lamp Control.

Lamp On Values (static function)
Enable the lamp on function and fill out the static values to enable LightJockey to send a lamp on command to the fixture. Note that the auto lamp on 112 does not work with the user definable fixtures.

Auto LampOn Time
Some fixtures may require a lamp on command to be held for a minimum time. To ensure that the auto lamp on 112 function holds the command for the required duration, enter the required minimum time in this field (in milliseconds).

Lamp Off Values (static function)
Enable the lamp off function and fill out the static values to enable LightJockey to send a lamp off command to the fixture.

Both lamp on and lamp off commands are available from the fixtures lamp control. Note that these commands are intended to be used with fixtures that are equipped with discharge lamps that requires a certain cool down time before the lamp can be re-struck. Fixtures equipped with halogen types of lamps should use the normal intensity/shutter commands to control the lamp.
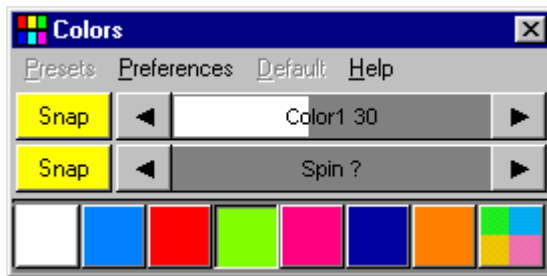
The Fixed Color Tab

See also
See also
See also

The functions on this tab define the fixtures fixed color controls (i.e. colors mounted on a color wheel) available on the fixture Color control.
CMY and RGB functions must be defined via the .

Fixture Color Control

Color 1 and Color 2 (dynamic functions)
The color 1 and 2 function is intended to be used with selection of colors. Both have the possibility of having an associated palette 271 .

Color 3 & 4 (dynamic functions)
The primary purpose of the color 3 and color 4 functions are to control color related functions other than direct color selection. The functions do have an associated palettes.

Some fixtures have combined functions on one control channel, i.e. fixed color selection and continuos color rotation on one channel. In this case it is possible to 'share' the same control channel between 2 controls.
For example :

Fixture has color control channel offset at 4.
Color selection is from DMX value 0 to 200 and values over 200 sets continuos color wheel rotation.
Enable the color 1 control and set the DMX offset to 4 and set min and max values to 0 and 200 respectively (and create the palette).
Also assign color control 3 to offset 4 and set min and max values to 201 and 255 respectively.
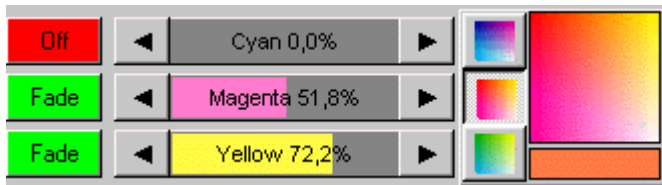The two controls now shares the same control channel, but color control 3 is limited to the higher interval it will be much easier to select the right value for color wheel rotation.

The CMY & RGB Tab

See also
See also

The functions on this tab define the fixtures CMY and RGB Color functions. To define other color functions use the .

Fixture CMY Control (part of color control)

CMY and RGB (dynamic functions)

The profile implements functions specifically for CMY and RGB controls. Besides the drag controls 176
for each individual color, the CMY function implements a CMY color picker 159. The CMY color picker
is only available if each CMY control channel uses the full 0-255 value range.

For fixtures that inverts the CMY or RBG values (full saturation at 0 value, no color at 255) use the
Invert CMY/RGB values option to reverse the controls (especially when using the CMY color picker).
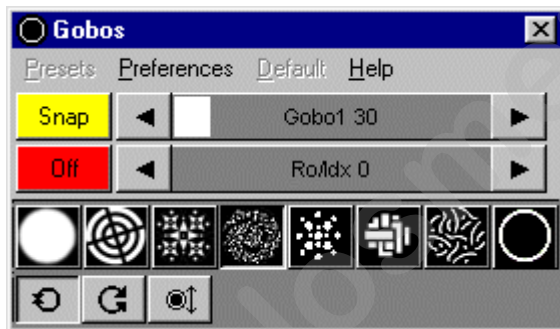
The Gobo Tab

See also Defining the Generic Fixture 2 267
See also Dynamic Functions 269
See also User definable palettes 271

The controls available on this tab define the fixtures gobo functions.

Fixture Gobo Control

Gobo 1 and Gobo 2 (dynamic functions)

The gobo 1 and 2 function is intended to be used with selection of gobos. Both have the possibility of
having an associated palette 271.

Gobo 3 & 4 (dynamic functions)

The primary purpose of the gobo 3 and 4 functions are to control gobo related functions other than
direct gobo selection, such as gobo rotation and indexing. The functions do not have associated
palettes.

Some fixtures have combined functions on one control channel, i.e. gobo selection and continuos gobo
wheel rotation on one channel. In this case it is possible to 'share' the same control channel between 2
controls.
For example :

Fixture has gobo control channel offset at 4.
Gobo selection is from DMX value 0 to 200 and values over 200 sets continuos gobo wheel rotation.
Enable the gobo 1 control and set the DMX offset to 4 and set min and max values to 0 and 200

respectively (and create the palette).
Also assign gobo control 3 to offset 4 and set min and max values to 201 and 255 respectively.
The two controls now shares the same control channel, but color control 3 is limited to the higher interval it will be much easier to select the right value for gobo wheel rotation.

The Beam Tab

See also <u>Defining the Generic Fixture 2</u> 267
See also <u>Dynamic Functions</u> 269
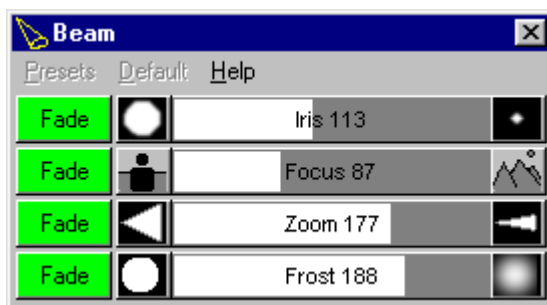
Fixture beam Control

The profile supports 4 named dynamic 'beam' functions, namely Iris, Focus, Zoom and (variable) frost or wash.
These functions are all <u>cross fixture type compatible</u> 124. In order for the cross fixture compatibility to work properly make sure to fill in the correct values in the appropriate fields.

It is possible to define 2 other beam controls for other beam related functions. These functions are not compatible across fixture types.
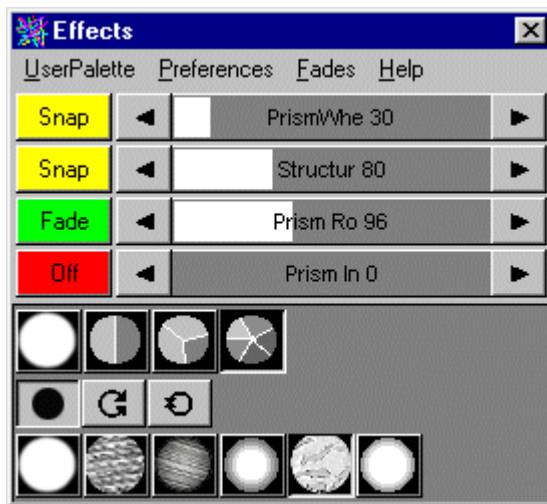
The Effects Tab

See also <u>Defining the Generic Fixture 2</u> 267
See also <u>Dynamic Functions</u> 269
See also <u>User definable palettes</u> 271

The controls available on this tab define the fixture's effect functions.

Fixture Effects Control

Effects 1 and 2 (dynamic functions)

The effects 1 function is intended to be used with selection of effects (i.e. prism effect). Each of the effects controls may use an associated palette 271.

Effects 3 & 4 (dynamic functions)

The primary purpose of the effects 3 and 4 functions are to control effect related functions other than direct selection via the palette, such as rotation, indexing or speed selection. The functions do not have an associated palette.

The Special Tab

See also Defining the Generic Fixture 2 267
See also Static functions 271

Fixture Reset

The special control tab contains an entry for the fixture reset command 166 - the reset command is sent

to selected fixtures when clicking the ⚙ icon on the Fixture toolbar 106. Note that the reset command is only sent for a very short time, and cannot be used for fixtures that requires the reset command being sent for a certain period.

Minumum Reset Time

Some fixtures may require the reset command to be held for a minimum amount of time.
To ensure that the reset command is held for the required duration, enter the required minimum time in this field (in milliseconds).

Special Functions
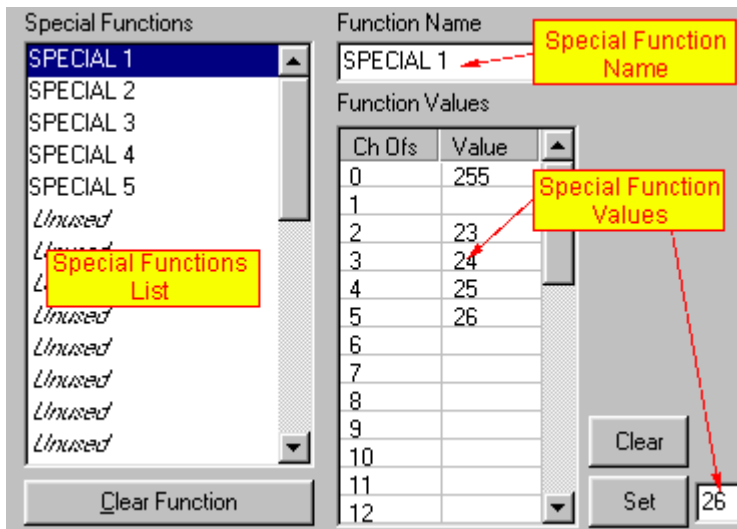
The profile also contains the option to define up to 32 individual static functions that are not already pre-defined in LightJockey (i.e. reset or lamp on).

Since the special functions are not defined, LightJockey does not indicate that a special function has been selected, other than showing the values in the fixture controls if the control channels used accidentally coincides with the channels used for the special command. As a consequence of this, there is also no way of removing a special command, short of clearing the scene or defining another special command that counters the first command.

Also note that the special commands are not presets - changing the contents of a special command does not alter already programmed scenes.

All parameters contained in a special command are snapped by default unless another control already fades the channel.

Defining special functions
To define or edit a special function highlight the line in the special functions list (*unused* denotes a currently undefined function) and enter the special function values DMX values. Finally, give the function a name in the 'Function name' field.
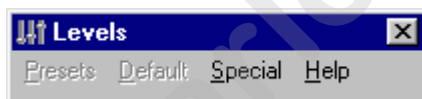
Once a special function is defined it available in a list from the Special Control menu. To get the

Special/Level control click the ![icon] icon on the Fixture toolbar 106 .
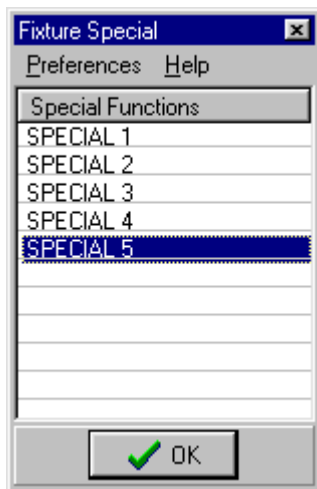
Selecting a fixture special function from the special functions list.

Apply the special command by selecting it from the list and click OK, or double-click the line in the list.

Default DMX Values

Normally LightJockey assumes 0 as default DMX output values for newly configured fixtures. However some fixtures may exhibit unwanted side effects when receiving value 0 on a control channel (such as shutting off a discharge lamp). In this case make sure to specify a suitable default DMX value for the critical control channels. The specified values are applied to the current default DMX output values 113 when the profile data is applied and stored with the profile definition when saved.

The Levels Tab

See also Defining the Generic Fixture 2 267
See also Dynamic Functions 269
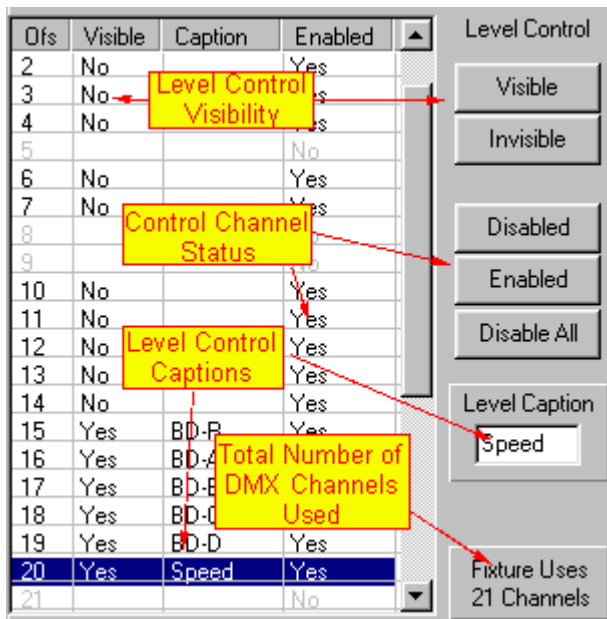
The levels tab on the fixture profile dialog implements up to 32 generic 8 bit level controls[167]. These may be used to define any dynamic functions that is cannot be defined defined in the profile or takes up too many control channels to fit inside the profile (i.e. barn-doors or extra color or gobo functions).

The Level control

Enabled and visible status
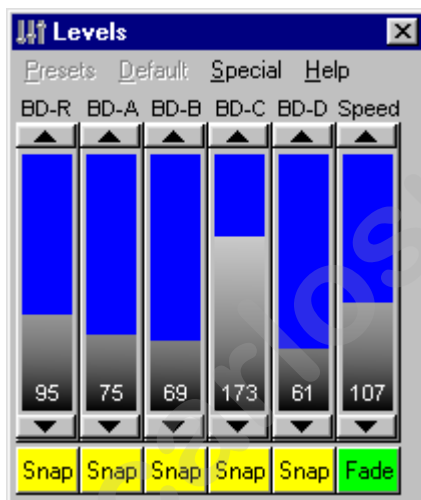
By default, the generic fixture has all 32 DMX control channels enabled and visible in the level control. LightJockey uses the status of each of the channels to determine if the fixture has a valid control for that particular offset, so by default all 32 channels are available for control from the level control. If a control channel is disabled, LightJockey will not send any values to that offset. The 'visible' status of each offset determines if that particular control channel has a corresponding 'fader' in the generic level control. When applying a profile to a fixture, LightJockey will automatically evaluate all dynamic[269] and static[271] functions and enable channel control for the offsets used in the various functions. To avoid having control channels allocated to named functions(i.e. Intensity) show up in level control,

LightJockey also sets the visible status to off.
To change the visibility of the individual offsets in the fixtures level control, high-light the line(s) and click the **Visible** or **Invisible** button.

To assign one or more generic level controls, high-light the offset line(s) and click the **Enable** button, or the **Visible** button if the offset is already enabled. Also remember to add a caption to each offset line that identifies the function of the individual level controls.

Normally the actual fixture profile will use much less than 32 DMX channels. To disable the unused channels high-light the line(s) and click the **Disable** button, or click the **Disable All** button and then apply the profile (which will re-enable all channels used in the rest of the profile).

When finishing the profile it is usually a good idea to verify that the total number of offsets enabled matches the total DMX channels used by the fixtures DMX protocol.

Fixture ID (IMPORTANT)
Since all fixtures configured as Generic Fixture 2 |256| are considered identical by LightJockey regardless of the actual profile, the fixture ID has been implemented to allow LightJockey to distinguish between different 'flavors' of profiles. While the cross fixture compatibility |124| is designed to let certain effects be compatible across fixture types, specific DMX values for effects such as color and gobo does normally not make sense when applied to different types of fixtures.
When applying values to non-compatible effects, LightJockey uses the Fixture ID to distinguish between the different flavors of profiles - values for i.e. colors will only be applied to selected fixtures if the master and slave |120| fixtures have identical fixture IDs.
When applying the ID it is usually a good idea to select a name that identifies the fixture type, i.e. "Roboscan 2000" .

Bitmap

Fixture icon using the Generic Scanner bitmap.

This entry specifies a different bitmap to use for the fixture icon button. If no bitmap is specified, or if the bitmap is not found, The generic scanner bitmap is used for the fixture icon.

To select a different bitmap for the fixture icon click the **set** button. Use the dialog to select the new bitmap for the Icon. Note that the bitmap MUST reside in the initially selected directory, and the filename of the bitmap file must not exceed 25 characters in total.
All fixture bitmaps supplied with LightJockey with are named with an 'S_' pre-fix.

To clear a bitmap selection click the **Clear** button. To change the caption of the fixture Icon, use the username entry in the fixture configuration |40| .

See also Creating Custom Bitmaps for Fixture Icons |295| .

Notes
The note field lets the author of the profile include notes about the profile.

Hint: Cutting and pasting the notes from a word processor like Microsoft Word, enables use of different text attributes, such as different colors and various text attributes such as **bold**. Note that such a text ,because of the embedded attribute commands, normally takes up a lot more 'character' space than just the 'visible' characters and it is pretty easy to exceed the size limit of 4096 characters.
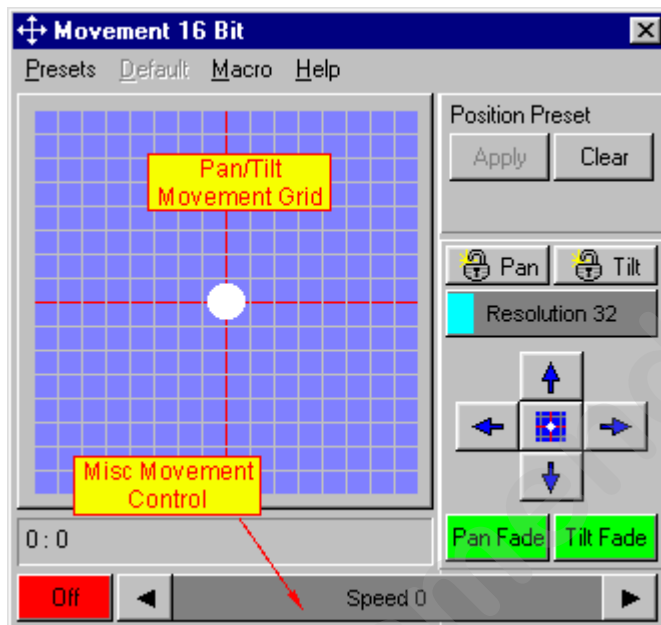
The Pan & Tilt Tab

See also <u>Defining the Generic Fixture 2</u> |267|
See also <u>Dynamic Functions</u> |269|
See also <u>Movement Control</u> |134|

Fixture Pan/Tilt Movement Control

The profile supports Pan and Tilt Controls in 8 or 16 bit resolutions in any combination of control channels.

Defining 8-bit Pan/Tilt (dynamic function)
Defining pan and tilt controls with 8 bit resolution is pretty straight forward. Check the **Enable Pan/Tilt Control 8-bit** box and enter the relevant offsets in the **pan and tilt offset fields** respectively.

Defining 16-bit Pan/Tilt (dynamic function)
To enable 16 bit Pan/tilt control, check the **Enable Pan/Tilt Control 16-bit** box. If the fixture uses MSB/LSB on adjacent channels simply enter the enter the relevant offsets in the **pan and tilt offset fields**. Otherwise please read through the see *Pan/Tilt Patching* section below.

Misc Movement Control (dynamic function)
Check this box to enable a <u>drag bar</u>|176| control below the main Pan/Tilt Movement Grid. This control can for example be used to control a speed attribute linked to the fixtures movement.

Enable Position Presets
Check this option to enable <u>Position Presets</u>|139|.

Enable Movement Macros
Check this option to enable <u>Movement Macros</u>|134|.

Enable Follow Spot Function
Check this option to enable the fixture's Followspot function 344 .

Patching the 16 bit Pan and Tilt channels
This option is only available when 16 bit pan/tilt control has been selected.
In order to perform the internal calculations (i.e. fades or Movement Macros) LightJockey requires the
Pan and Tilt values respectively to be present in an **adjacent MSB/LSB format** (the pan and tilt
control channels do not have to be adjacent). MSB and LSB is also often referred to as coarse and fine
respectively. However not all fixtures follows this format in their DMX Protocol. To control these fixtures
it is necessary to patch the pan and tilt values to the correct control channels after the relevant
calculations have been performed.
While a similar patching is possible via the Global Patch 312

, using the profile ensures that the patching is correctly performed regardless of the fixtures DMX address.

Note that in the examples below pan and tilt could be swapped.

Example 1.
Fixture control channels offsets (offset at 0):
Pan MSB(coarse)   10
Pan LSB(fine)   11
Tilt MSB(coarse)   15
Tilt LSB (fine)   16

Since the fixture has adjacent MSB/LSB control channels no patching is necessary.

Example 2.
Fixture control channels offsets (offset at 0)
Pan LSB(fine)   10
Pan MSB(coarse)   11
Tilt LSB (fine)   15
Tilt MSB(coarse)   16

The fixture has adjacent pan/tilt MSB/LSB control channels, but the MSB/LSB format is reversed (LSB is first) - so in this case it is necessary to patch the Pan and Tilt values.
Pan patch MSB to   11
Pan Patch LSB to   10
Tilt Patch MSB to   16
Tilt Patch LSB to   15

Example 3.
Fixture control channels offsets (offset at 0)
Pan MSB(coarse)   4
Tilt MSB(coarse)   5
Pan LSB(fine)   13
Tilt LSB (fine)   14

The fixture has non adjacent pan and tilt control channels, but since it has two control channels in adjacent pairs it is still possible to use the control channels to perform the calculations and then patch them afterwards, i.e. :

Pan DMX Offset   4
Tilt DMX Offset   13

Pan patch MSB to   4
Pan Patch LSB to   13
Tilt Patch MSB to   5
Tilt Patch LSB to   14

Example 4.
Pan MSB(coarse)   4
Tilt MSB(coarse)   7
Pan LSB(fine)   13
Tilt LSB (fine)   16

In this case there are no two adjacent channels to that LightJockey needs to perform the calculations so it is necessary to perform the calculations in channels that are not used for other purposes. This means reserving 4 extra control channels, effectively using 4 channels extra pr fixture and limits the profile to a total of 28 DMX channels. So for example, if the fixtures last used offset is 20 enter the following values:

Pan DMX Offset	21
Tilt DMX Offset	23

Pan patch MSB to	4
Pan Patch LSB to	13
Tilt Patch MSB to	7
Tilt Patch LSB to	16

The Offline Visualizer Tab

Note : Using userfined fixtures in the Offline Visualizer [326] is only possible when using OV version 4.3+. If a lower version is used the assignment is ignored.

In order to make a fixture appear in the Offline Visualizer an O/V profile for the particular fixture must be linked to the user defined LightJockey fixture profile (LightJockey and Offline Visualizer profiles are two different things)
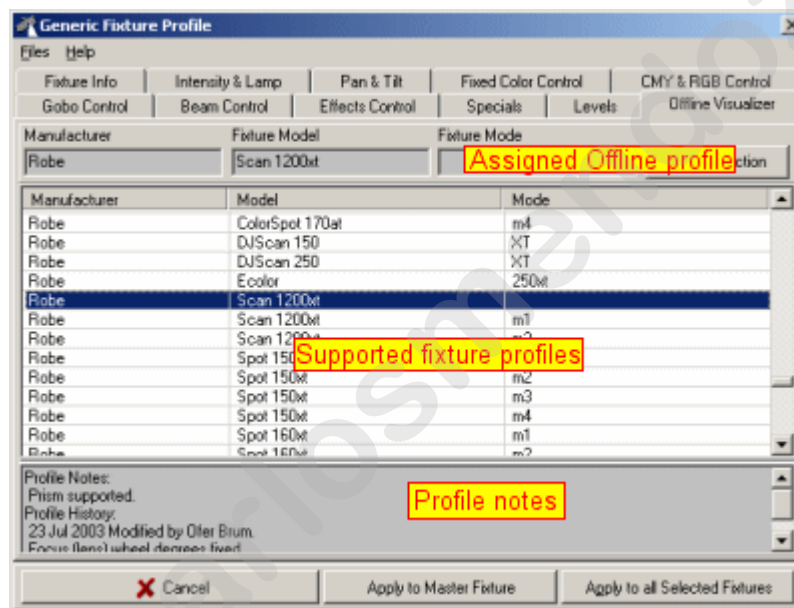
The Offline Visualizer Tab

Assigning an MSD/offline profile to the Profile
To assign a MSD/offline profile to a user defined LightJockey profile, first make sure that
Offline version 4.3+ is running [326].
Then go to the Offline Visualizer Tab.
LightJockey now requests a list of fixtures that are supported by the Offline Visualizer from the OV application. The entire list of supported fixtures are shown in the list. Select the profile to link to the LightJockey profile from the list. If a suitable profile does not appear in the list, the Offline Visualizer does not support the fixture.

Profile Notes
Offline version 4.6 implements a function to extract notes embedded in the Offline Visualizer profiles - notes and profile history is shown below the list. Not all profiles include notes and history.

Updating Offline profiles

The complete LightJockey installation package and some update versions ship with a number of Offline Visualizer . New and updated profiles may be found at the Martin Website at `User Defined Fixture Profiles.`

The latest official library with offline visualizer profiles may be downloaded directly from the manufactureres of the Offline Visualizer at `www.lighthouse.nl,` download area. Follow on-site instructions on how to update the Offline Visualizer fixture library.

Creating Custom bitmaps for palette controls

To create custom bitmaps for the color, gobo and effect palette buttons of various fixture-controls, the ing procedure must be followed:

The bitmap files must be standard Windows BMP files, and must not be RLE encoded. The size of the bitmap should be 31x30 pixels and the color depth should be either monochrome(black/white) or 256 colors. The filename of the bitmap file must not exceed 30 characters in length excluding the .BMP extension and library name (see later). Note that the scanner1 profile only allow 15 characters in total .

It is possible to use one of the already existing bitmaps as model when creating new custom bitmaps - however be sure to leave the original bitmap intact when saving the new modified bitmap.

The bitmap files for color palette buttons are located in the following directory structure: <installationdirectory>\Source-Images\Colors\<library>

The bitmap files for gobo and effects palette buttons are located in the following directory structure: <installationdirectory>\Source-Images\Gobos\<library>

User-defined bitmaps must be placed into the same corresponding directories - take care not to overwrite the original bitmaps.

Bitmap Libraries

To organize the bitmaps it is possible to create libraries containing the individual bitmaps. The libraries are created simple sub-directories under either the \Colors or \Gobos directory. For example <installationdirectory>\Source-Images\Colors\MyColors will enable the library MyColors. See user-definable palettes 271.

Since updated versions of LightJockey is likely to contain new bitmaps for gobos and colors, it is advisable to use filenames that are unlikely to be used by LightJockey in the future - i.e.: Peters_Cone.Bmp.

Creating Custom Bitmaps for Fixture Icons

To create custom bitmaps for the fixture Icons the following procedure must be followed:

The bitmap files must be standard Windows BMP files, and must not be RLE encoded. The height of the bitmap should not exceed 50 pixels to fit the fixed size Icon size.
The filename of the bitmap file must not exceed 25 characters in length exclusive the .BMP extension.

It is possible to use one of the already existing bitmaps as model when creating new custom bitmaps - however be sure to leave the original bitmap intact when saving the new bitmap.

The bitmap files for fixture icons are located in the following directory structure:
<installationdirectory>\Source-Images\fixtures\

User-defined bitmaps must be placed into the same directory - take care not to overwrite the original bitmaps.

Transparent background bitmaps
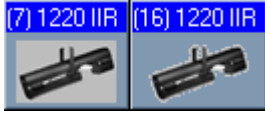
No-Transparent/Transparent fixture bitmap

For user defined profiles check **Transparent** on the Fixture Info tab in order to make the bitmap background color transparent (assume the color of the 'surface' the bitmap is imposed on). Note that for bitmaps the background color is _defined_ as the color of the pixel in the lower left hand corner. When using transparent background bitmaps the bit map should be saved in 24 bit BMP - otherwise it may not show up correctly on different PCs.