Creating Fixture Files for Zero88 Desks

Fixture information files are created for all Zero 88 products using the Fixture Tools, which are available on the Zero 88 website for download. Fixture information files can be used with the following products:

- o Leap Frog 48 & 96
- o Frog 2
- o Jester ML
- o Original Frog series
- o Illusion 500
- o Diablo (use Diablo Fixture Manager software)
- o Sirius 250/500 (use File -> Export Sirius UFT).

Once installed, Fixture Tools creates a program group in your Start Menu:
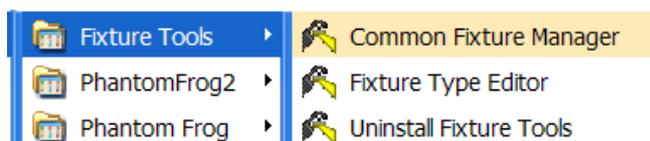
There are two applications which will be installed. The Fixture Type Editor is used for creating and editing fixture files. The Common Fixture Manager is used for defining which of these fixture files is stored internally on the Original Frog series of desks. This user guide concentrates on the Fixture Type Editor.

Creating a New Fixture

When you start the Fixture Type Editor, a window appears asking you to select from several options:
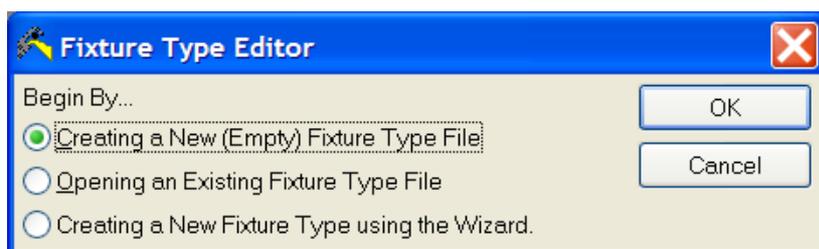
Select "Creating a New (Empty) Fixture Type File" and press OK. A blank fixture file is created (FixTyp1):
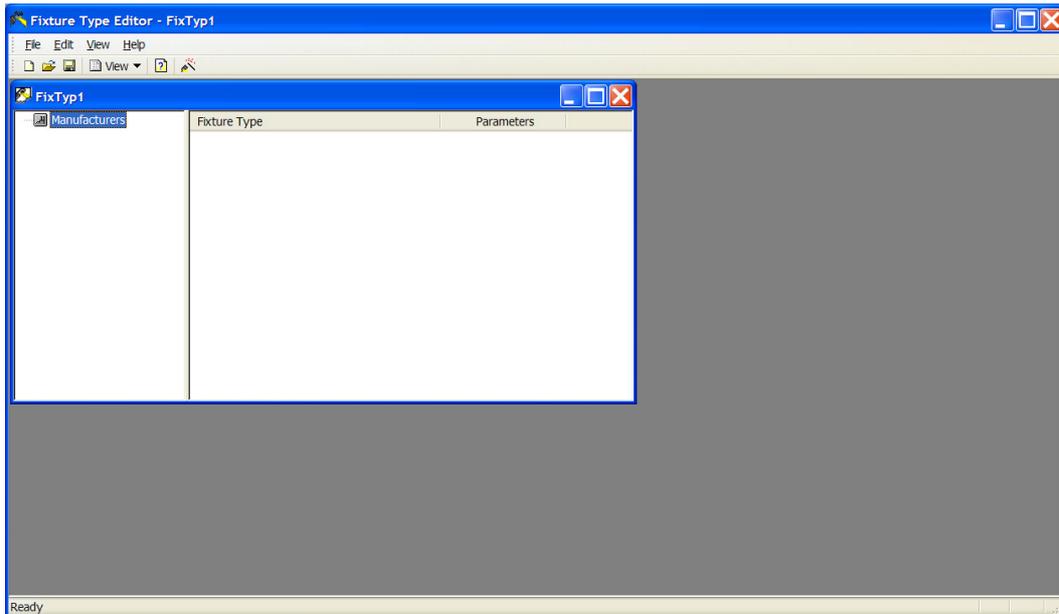
Each fixture is defined by its manufacturer name. Right click on the Manufacturers column and select Add Manufacturer. Enter the manufacturer name and press OK.
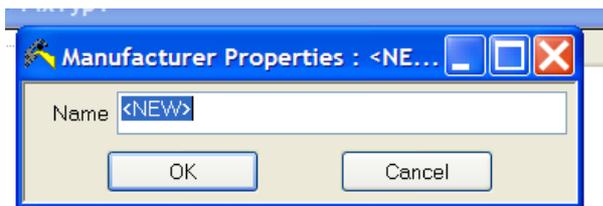
Now right click in the other column and select Add Fixture. Enter the name of the fixture and move to the Parameters tab.
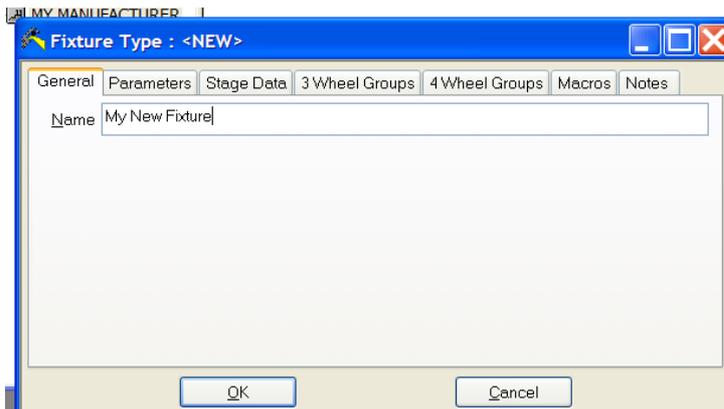
Now right click and select Add Parameter. Each parameter of a fixture has to be added in this manner.
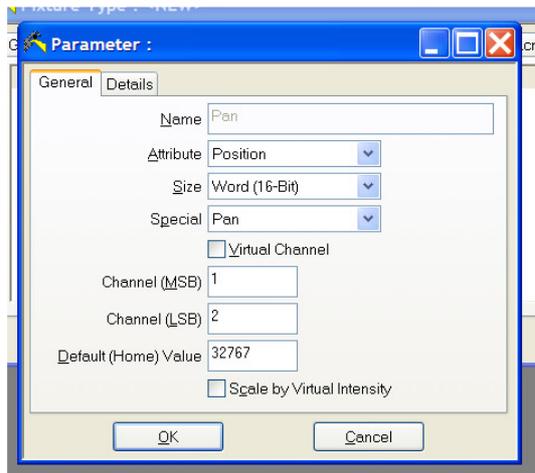
Enter the name of the parameter in the Name field (eg Dimmer, Cyan, Pan etc.). There is a list of standard parameter names at the end of this guide.

Next select which Attribute group you wish to contain the parameter in. Generally, Brightness is used only for Dimmer. Colour is used for any parameters which affect the colour of the beam (CMY, Colour wheels, etc). Position is used for Pan, Tilt and Pan/Tilt Speed (P/T Spd). All other parameters (Gobo, Prism, Iris, Focus, Shutter, Lamp, etc) are contained within the Beamshape attribute.

The Size field is used to select whether the parameter is 8-bit or 16-bit. 8 bit parameters use a single DMX channel. 16 bit parameters use two DMX channels. 16 bit resolution provides Coarse and Fine channels – these are entered below as MSB (Most Significant Byte) and LSB (Least Significant Byte) respectively.

The Special dropdown box is used for defining special parameters which enable the desks to apply things such as movement effects to the correct channels and colour matching and auto palettes on the Leap Frog 48 & 96 and Frog 2 desks.

When adding a Pan or Tilt parameter, select "Pan" or "Tilt" from the dropdown box.

Colour attributes also have special parameters. Cyan+, Magenta+ and Yellow+ are used when the parameter uses 0 as white and 255 as full colour. Cyan-, Magenta- and Yellow– are used when 255 is white and 0 is full colour. This enables the colour copying system and auto palette generation in the Leap Frog 48 & 96 and Frog 2 desks to function correctly. If you are unsure of which to use, select +.

The Default (Home) value for a parameter is the value that is output when you press Home. For example, Pan and Tilt should be set to 127 (or 32767 fro 16 bit) to default the fixture position to 50%. On Leap Frog 48 & 96 and Frog 2, this value is also used for Highlight, and the Default value. For a 16-bit parameter, this value can be specified up to 65535.

Once all the parameters are added, the fixture type will look something like this:

Fixture Type : <NEW>

Name	Attribute	Para...	Channel	Spe...	Defa...	Deta...
Dimmer	Brightness	1	5		255	No
Color 1	Colour	2	6		0	No
Gobo1<>	Beamshape	3	7		0	No
G1 <<>>	Beamshape	4	8		127	No
Shutter	Beamshape	5	9		14	No
Pan	Position	6	1, 2	Pan	32767	No
Tilt	Position	7	3, 4	Tilt	32767	No
P/T Spd	Position	8	10		0	No

Tabs: General | Parameters | Stage Data | 3 Wheel Groups | 4 Wheel Groups | Macros | Notes

[OK] [Cancel]
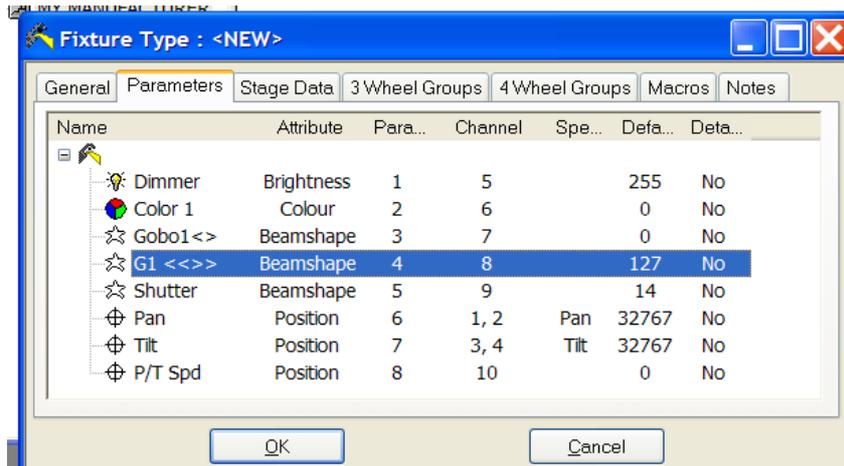
The Stage Data, Wheel Groups and Macros functionality are for creating advanced fixtures. These are detailed below. There is no need to enter the advanced fixture data if the software in your desk does not use it.

If you do not require any of this functionality, you can simply press OK and save the file. This file can then be loaded into any of the Zero 88 desks. For the Sirius 250/500, you will need to use the Export Sirius UFT option in the File menu. For the Diablo, you will need to use the Diablo Fixture Manager software to transfer the information to the desk.

Note: Deleting parameters

When you add parameters to a fixture, the Fixture Type Editor will automatically increase the **DMX Allocate** setting (see below). If you delete parameters, check that the **DMX Allocate** setting has the correct number, otherwise you will find the desk allocating too many DMX channels for your fixture.

Advanced Fixture Data

Parameter Details

Each fixture parameter can contain information about its function at any given DMX value. This is entered using the Details column in the parameter entry window. Double click a parameter to view the parameter window again. Switch to the Details tab to enter the details about a fixture.
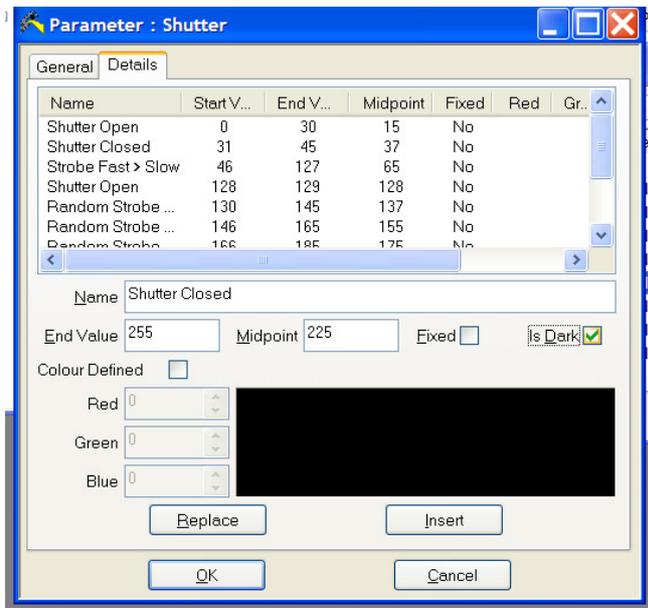
Each detail can then be entered, with the relevant fields completed. Starting at a DMX value of 0, add the parameter details and midpoints sequentially.

The "Is Dark" box is used for defining a parameter which blacks out the beam. This is used by the Leap Frog 48 & 96 and Frog 2 for the Auto Move Whilst Dark functionality.

If defining Colour parameters, you can enter the colour using RGB data. This data is then used by the Leap Frog 48 & 96 and Frog 2 for creating automatic colour palettes.

Once all parameter details are entered, press OK to close the Parameter window.

Virtual Intensity

Each fixture can have a Virtual Intensity channel. This channel is not assigned to a DMX address, but can be used to *scale* the output of other channels, creating an effective dimmer for colour mixing fixtures which do not have a separate dimmer.

An example of the use of a virtual intensity parameter would be an LED colour mixing fixture which has just 3 channels – Red, Green and Blue. By scaling these channels on a virtual master, you can dim a mixed colour.

First create the Virtual Intensity channel as a normal parameter, but tick the "Virtual Channel" box. Then select "Scale By Virtual Intensity" on the relevant fixture parameters.

Please note: Virtual Intensities are not available on the Illusion 500 console.

Stage Data

The library also has the capacity to store stage-sizing information for all fixtures. Move to the "Stage Data" tab and select the type of fixture you are creating. You can then enter the Pan and Tilt limits in degrees within the Movement field, and the DMX values used to create this range (normally either 127 and 255, or 32767 and 65535) in the DMX high and home fields.
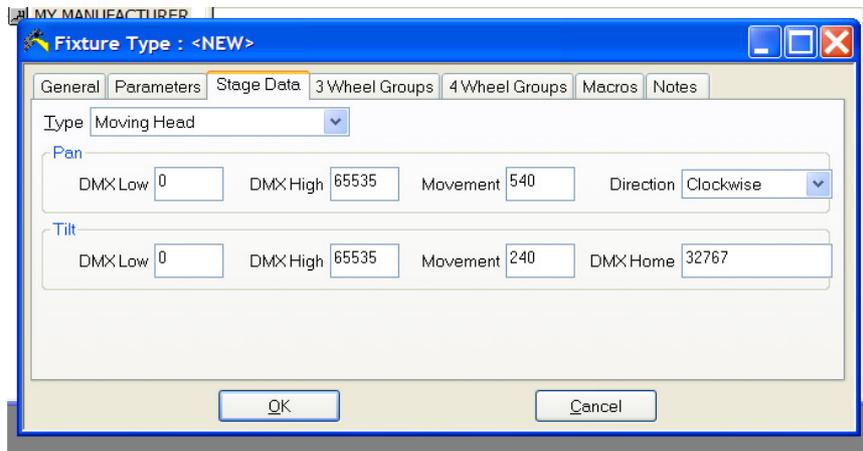
Stage Data is currently only used by the Sirius 250/500 desks.

Wheel Groups

Wheel Groups can be used to define the order the fixture parameters appear on the control wheels. Right click on an attribute (eg Colour) and choose Add Wheel Group.

Each parameter can then be selected and defined to a particular wheel using the dropdown boxes.

Most Zero 88 desks use 3 wheel group data. The 4 wheel group data is only used on the Sirius 250/500 desks.
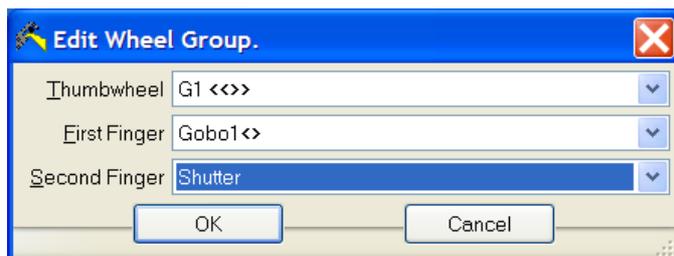
Macros

It is possible to define the Macro routines for fixture restart, lamp on/off and other functions. This is done using the Macro tab on the editor window.
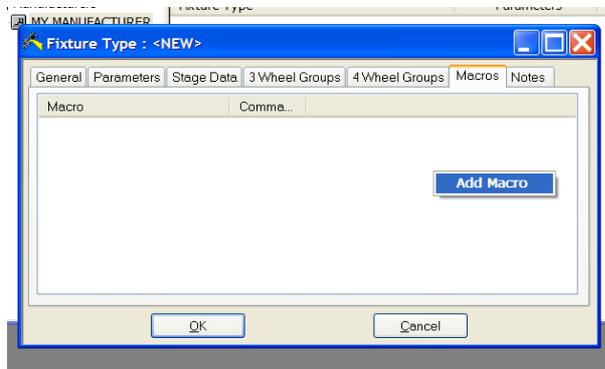
Right click and select Add Macro. Each step can then be added by right clicking and using Add Step. Select the required functions and define the values. At the end of the sequence, the parameters will all be released, so it is important to place a 'wait' at the end of the sequence to ensure the fixtures receive the programmed values for long enough to perform the function.
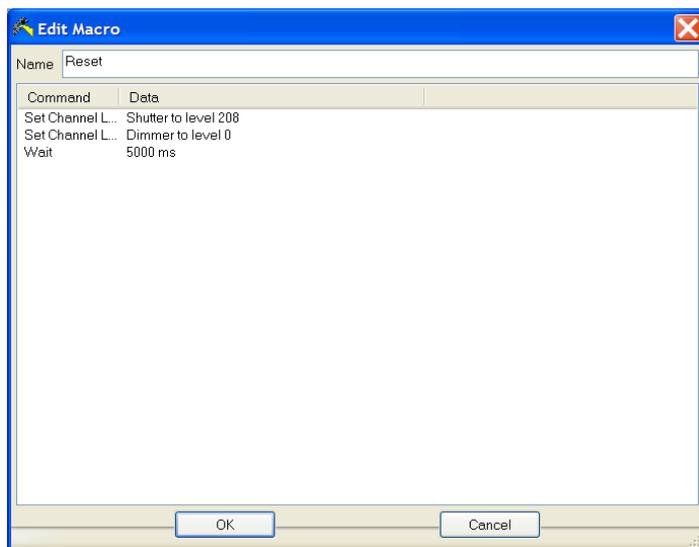
Macro data is currently only used by the Leap Frog 48 & 96 and Frog 2 desks.

Notes

The Notes tab allows you to enter notes about the fixture type. This data is only visible in the library editor, not on the desks.

Sub Fixtures

The library tool is capable of producing a fixture with separate DMX start addresses for different parameters. This enables you to separate out the lamp (dimmer) of a fixture from the main body of the fixture, for example when using a Vari-Lite VL1000 Tungsten, or a lantern with a scroller attached. This is done by adding a Sub Fixture when creating the parameters.

Each sub-fixture must have a separate name defined. This name will be displayed on the desk when patching.
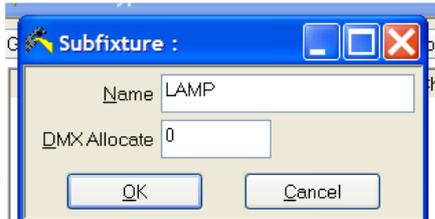
Once the subfixture is created, parameters can be added to it in the normal method.

DMX Allocate

It is possible to assign a fixture to require more DMX channels than the defined parameters use. This is sometimes useful if a fixture has 'reserved' parameters, not yet defined. To change the DMX allocation for a fixture, double click on the fixture icon in the parameter list. This will load the subfixture window. Now alter the DMX Allocate field to the required value and press OK.

Importing an Existing Fixture

You can import a fixture type into the fixture file by using the File, Import Fixture Type option. Navigate to the location of the existing fixture file and double click it. The fixture tool then displays a list of the fixtures within the file and you can select which ones you wish to import. Click OK and the files will be imported, ready for editing.
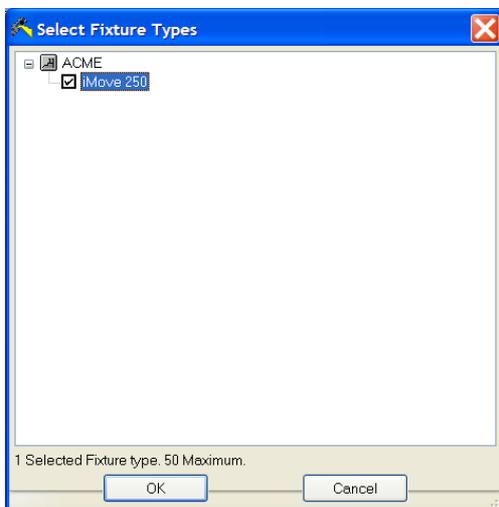
Conclusion

The Fixture Tools are used for all the Zero 88 control desks. This user guide has summarised the use of the tools to add your own fixture profile to the desk.

Once you have created the fixture profile, it is possible to upload it to the Zero 88 Support Forum for other users. Once the file has been checked it will be added to the Zero 88 Fixture Library.

To do this, navigate to http://support.Zero 88.com and click on Forum, Fixtures and Fixture Editor.

Standard Parameter Names

Parameter Name	Default Value (16-bit)	Notes
Dimmer	255 (65535)	
Pan	127 (32767)	
Tilt	127 (32767)	
Gobo1	0 (0)	Default to 'Open'. Use when the Gobo wheel CANNOT be rotated
Gobo1<>	0 (0)	Default to 'Open'. Use when the Gobo wheel CAN be rotated.
G1 <<>>	127 (32767)	Gobo Rotation. Default to No Rotation
Color 1	0 (0)	Fixed Color Wheel. Default to 'White'
Shutter	Fixture Dependant	Default to 'Shutter Open'. NB: This channel may include Reset and Lamp On functions. Also use for Strobe channel, where appropriate.
Lmp/Res	Fixture Dependant	Used for Lamp/Reset options.
Prism	0 (0)	Default to 'No Prism'
Prism<>	127 (32767)	Default to 'No Rotation'
P/T Spd	0 (0)	Also use this name for "MSpeed". Default to 'Tracking'
FX1	Fixture Dependant	Generic name for an effect channel. Default to the effect disabled.
FX1 <>	Fixture Dependant	Generic name for a rotatable effect channel. Default to the effect disabled.
FX1<<>>	Fixture Dependant	Generic name for the rotation parameter of an effect channel. Default to no rotation.
Iris	Fixture Dependant	Default to 'Full Open'
Cyan	0 (0) or 255 (65535)	Special Parameter. + means 255 is full colour, - means 255 is open white
Magenta	0 (0) or 255 (65535)	
Yellow	0 (0) or 255 (65535)	