Reference Manual

Contents

1 Introduction

This manual should serve as one of the primary tools for installation and operation of the Capture software. Capture Sweden's e-mail support and online web forum are available as important complements to this manual.

http://www.capturesweden.com

Please visit our website for regular software updates and important product information. Also make sure to notify us if your e-mail address is changed, since e-mail is our primary communication channel.

1.1 Microsoft Windows XP / Vista installation

Capture is easily installed from the MSI installation package available from our website. Prior to any installation it is recommended to make sure that you have the latest version of the installation package.

Once you have downloaded the MSI installation package, simply double click it to launch the installation. If you are given the option to install "For everyone" or "Just for me", we recommend using the "Just for me" option. Should you perform an administrative installation on a computer used by multiple users, you must use the "For everyone" option – however be careful to always use that since Microsoft's Installer system in Windows is known to get confused otherwise.

1.2 Mac OS X installation

Capture is distributed as an ".app" package available from our website.

Once downloaded, it can be run from any location. When run, the latest version of the library is automatically installed if necessary (hence it's possible to have multiple versions on a system, but they will all always use the latest version of the library).

Note: If Capture displays an error message regarding failure to create a log file or failure to install the key file or library, you need to make sure that you have read and write permissions to a "/Library/Capture Polar" folder on the harddisk (if it does not exist, you can either create it or give read and write permissions to the "/Library" folder).

1.3 The license key file

Capture licenses are offered on a personal basis, which means that it is possible to use the key-file on more than one computer. As a result of that, it is also necessary to unlock the key-file on each computer, so that we can keep track of your Capture installations.

If you have purchased a Capture license and received a key file, you will need to install it. This is done from inside Capture using the *Install key file* option in the *Tools* menu.

Once you have installed your license key-file you may start Capture again. Capture will now present you with the information required to unlock your installation. Please send this information to us by e-mail on unlock@capturesweden.com. We will then reply to you with your unlock code as promptly as possible.

1.4 Demo version limitations

The demo version of Capture comes with two (and no other) limitations:

- The Save function is disabled.
- The software will only run for 90 minutes.

There are no limitations in terms of console or media server connectivity or the number of universes available for visualization.

1.5 Library updates

Library updates are continuously available on our website, http://www.capturesweden.com. If you have requested library additions, this is where you will download an updated library package when we have notified you of completion of your request. Each release of Capture also contains the latest available library package.

1.6 Support

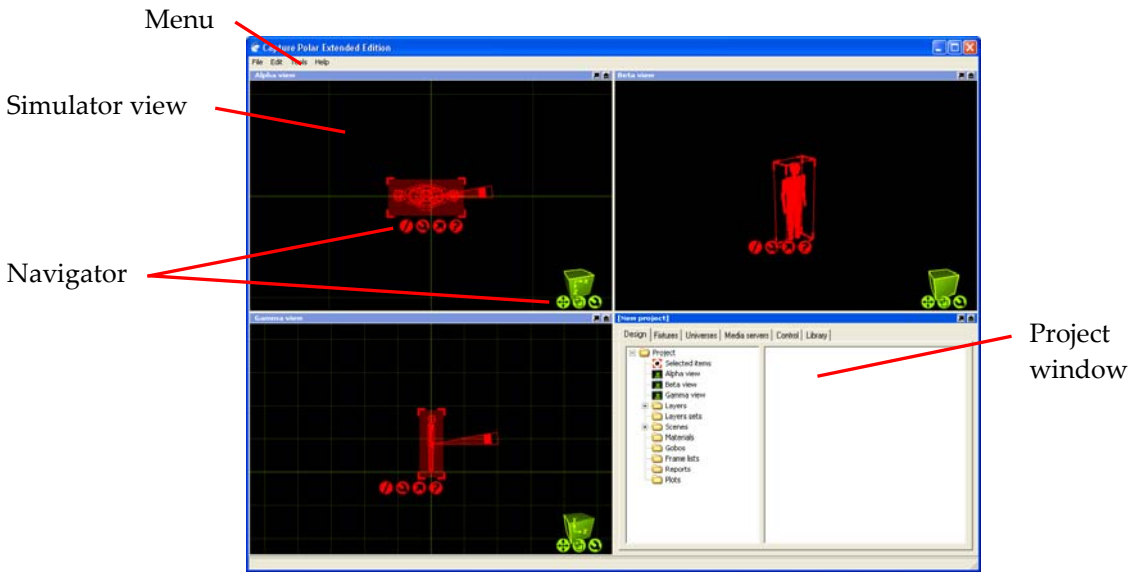
Support to our customers is offered through e-mail and our online web forum at http://www.capturesweden.com. Under extraordinary circumstances we may also communicate with you over telephone, Skype or MSN.

If you have any questions regarding functionality or operation, please e-mail us at support@capturesweden.com. If you have questions regarding the library or if you are missing fixtures, please e-mail us at library@capturesweden.com. For fastest possible assistance, please make sure to e-mail us at the appropriate e-mail address.

Here are some things we will always ask you to do before helping you out:

- If you are a Microsoft Windows user, make sure that you have all the latest applicable service packs and hotfixes from Windows Update. If you experience problems related to on-screen graphics, also make sure to defragment your hard disk since it appears to affect some drivers.
- Check that you have the latest drivers for your computer components and your graphics card in particular.
- Check that you have installed the latest version of Capture and the latest library update.

2 Software overview



2.1 Main menu

The main menu is available at the top of the main window. It has been kept minimal in order to avoid confusion.

In the **File** menu you will find the basic commands for opening, saving and closing Capture project files. Note the variety of different file types available in the *Open* and *Save* dialogs – they allow you to import and export DXF and DWG files, open older Capture 3.0 project files and creating project presentation executables.

The *Extract* feature is used to open up other project files in parallel and allows you to copy items from other projects into the project you are working with (which is done using the arrow navigator button).

The *Save as presentation* feature is a shortcut to the *Save* dialog, with the "Capture Presentation Files" file type preselected. (This creates an executable file that will launch your project, which is embedded in the executable file, and show the Alpha view. Presentations cannot be used to edit project files, they merely serve as a viewing and presentation tool.)

The *Export focus sheets* feature creates a set of images, one per fixture (or as configured in the configuration dialog presented), giving you a view out through the aperture of the fixture. It requires you to pick a folder into which the images are placed.

In the **Edit** menu you will find access to the unlimited *Undo* and *Redo* commands.

The **Tools** menu gives you access to the *Options* window and the *Translation* window.

Software version information and additional help resources are made available in the **Help** menu.

2.2 Main window contents

Once a project has been created or opened, the main window's content is divided into four sub windows – the three *Simulator views* (named *Alpha*, *Beta* and *Gamma*) and the *Project window*. Each of these four windows can be maximized by double clicking on their title bars or using the button. They can also be undocked using the button (which is useful in a multi-monitor setup).

The *Simulator views* provide navigation and manipulation functionality through the *Navigator*, which is divided into a red and a green part. Read more about it in its dedicated chapter.

2.3 Keyboard shortcuts

The following *globally applicable* keyboard shortcuts are available:

O	Open project
S	Save project
Z	Undo
Y	Redo

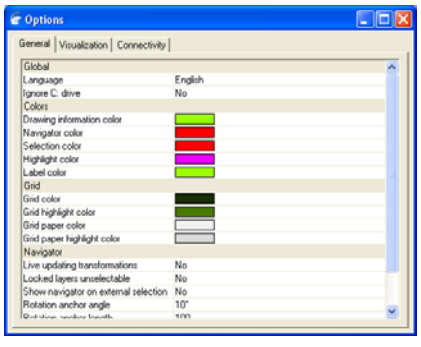
The following *simulator view specific* keyboard shortcuts are available:

1	Orthographic top
2	Orthographic front
3	Orthographic section
4	Perspective
5	Orthographic
Q	CAD
W	Live
E	Paper
F9	Level handle toggling
Return	Show the properties of selected objects
G	Group selected objects
B	Break groups in selected objects
T	Translate selected objects
C	Clone selected objects
Del	Delete selected objects

2.4 Software options

The software options are available through the *Tools / Options..* menu command and are split in three categories.

Under the **General** tab you can change the language of the user interface in Capture. By default it will follow the settings of your computer.



The *Ignore C: drive* options is important on Microsoft Windows machines that have their Windows installation located under another drive than C:\.

Turning on the *Live updating transformation* option causes all simulation views to update at once when moving or rotating objects.

Locking layers is a useful way of preventing accidental modification of fixed items such as the house of your venue. The *Locked layers unselectable* option takes it one step further and prevents you from even selecting such items.

The *Show navigator on external selection* is a feature from users with controllers than are capable of selecting fixtures. Unless this option is enabled, fixtures selected from a controller will only highlight as red and not display the navigator with the command buttons.

The size of the navigator's rotation anchor can be changed with the *Rotation anchor angle* and *Rotation anchor length* options. The snapping rotation angle can be set with the *Rotation snap angle* option.

The navigator's snap function is enabled with a small delay to prevent accidental snapping as well as giving the user an option whether to snap items together at all or not. This delay is set with the *Snap timeout* option.

Under the second **Visualization** tab you can manually revert the graphics used for lighting simulation to the style used in Capture 2005 using the *Use Polar graphics* option. If your computer is not capable of presenting the new graphics introduced in Capture Polar, this will be done automatically.

The *32-bit floating point buffers* is an option available to increase precision in the real-time lighting simulation. Most users will never find it necessary to activate this options as it will also degrade performance.

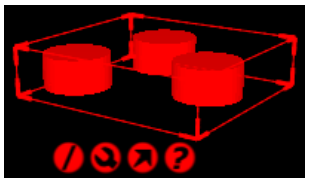
The **Connectivity** tab contains options for controller and media server connectivity. It can be important to set the *Preferred network address* on a machine with multiple network addresses, but unless you are connecting to older equipment it is not encouraged to enable the *Compatible CITP mode* as it may make it impossible to connect to newer equipment.

When working with a Flying Pig Wholehog 3 system, it is necessary to enable this manually using the *Enable Wholehog 3 / Hog 3PC support* option.

3 The navigator

The navigator provides you with tools to navigate in the simulated three dimensional environment and means of manipulating its contents.

Green – navigation

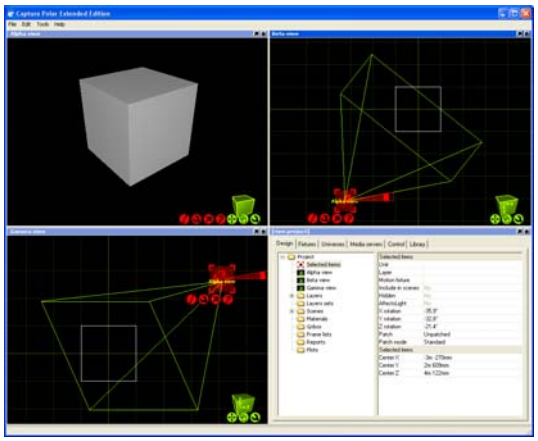


Red– manipulation

3.1 Navigation

Use the button to **panorate** a view. Combine it with the *Shift* and *Ctrl* keys for different styles of panoration in a three dimensional view - a help text will appear to guide you. If your mouse is equipped with a third button (often by pressing the scroll wheel down), that acts as a replacement for the panoration button. Notice how the view's camera's focus point affects rotation in a three dimensional view, and how that relates to the zoom as described below.

The button is used to zoom in a view. Again, use the *Shift* and *Ctrl* keys for different styles of zoom. The reason for different styles of zoom come from the ability to both move the view's camera and the view's camera's focus point. The camera's focus point interacts with three dimensional navigation in the view as well as the center of a two dimensional view.



The Alpha view's camera viewport visualized when selected, with its camera's focus near the center of the box

Finally, the button reveals a variety of different settings and options for its view.

3.1.1 View types and modes

The **type** of the view is set using the *Orthographic top*, *Orthographic front*, *Orthographic section*, *Perspective* and *Orthographic* options. Notice how the outlines of the green box changes to highlight the current type.

The **mode** of the view is set using the *CAD*, *Live* and *Paper* options. In *CAD* mode, everything resembles traditional CAD operation with layer colors and clear visibility. In *Live* mode, objects' real colors and illumination take effect. The *Paper* mode allows you to see what the results will be like in a plot, as well as make positional adjustments that only take effect on plots.

3.1.2 View settings

The **Reset camera** command is useful when you have lost your way around. It puts that camera back in its default position, near the center of the project.

The **Grid** option can be enabled when in a two dimensional type of view. The size of the grid can also be adjusted in the *Design tab* of the *Project window*.

Labels can be enabled to show object names. Object names are usually either built-in or taken from an object's *Unit* property. The additional *Handles* option can be used to produce a look more similar a lighting console's "channel view".

When enabling **Live information**, additional information is shown adjacent to lighting fixtures. It serves as a useful tool while programming a show and may allow a better overview of what is affecting the output of your fixtures.

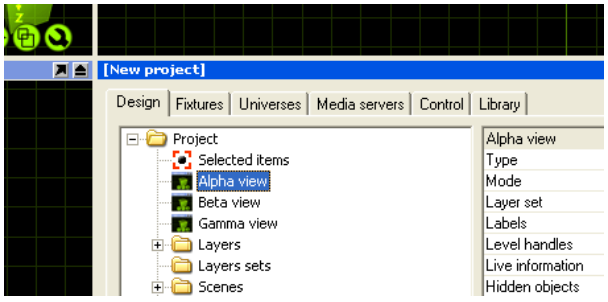
Cameras can be hidden or revealed using the **Cameras** option.

Although objects may be hidden, it is possible to show hidden objects using the **Hidden objects** option. This may be necessary when bringing objects back from a hidden state.

The **Save image..** command allows you to send a snapshot of the current contents of a view to an image file.

3.1.3 View settings not available in the navigator

Additional settings for each are available in the *Design tab* of the *Project window*. There is one item per view on the left hand side, and when selected, more properties appear on the right hand side.



Additional view settings in the Design tab

The **Layer set** property allows you to choose the layer set to use for filtering out layers in the view (when empty, no layer filtering is performed).

The **Level handles** property modifies the behavior of the labels when in *Handles* mode so that they show the current dimmer level rather than unit number for each fixture. The keyboard shortcut **F9** can be use to toggle this (when a view is focused).

The **Grid width** and **Grid height** properties determine the distance between grid lines.

The **Vertical field of view** property lets you control lens angle of the view's camera.

The **Aspect ratio** of a view can be set to follow 4:3 as well as 16:9.

The **Brightness**, **Exposure** and **Atmosphere** settings controls the look of the view when in *Live* mode.

It is possible to control a view using DMX. This is achieved by either manually assigning a **Patch** universe / channel, by dragging the view from the left hand side of the *Design tab* to a channel in a universe view, or by dragging the view's camera from a simulator view to a channel in a universe view. The **Patch mode** option can be used to select the number of channels used by the camera.

Channel	*Function*	*Channel*	*Function*
1	X, coarse	10	Tilt, fine
2	X, fine	11	Pitch, coarse
3	Y, coarse	12	Pitch, fine
4	Y, fine	13	Zoom
5	Z, coarse	14	Ambient
6	Z, fine	15	Lighting
7	Pan, coarse	16	Atmosphere
8	Pan, fine	17	Layer set *
9	Tilt, coarse	18	Scene *

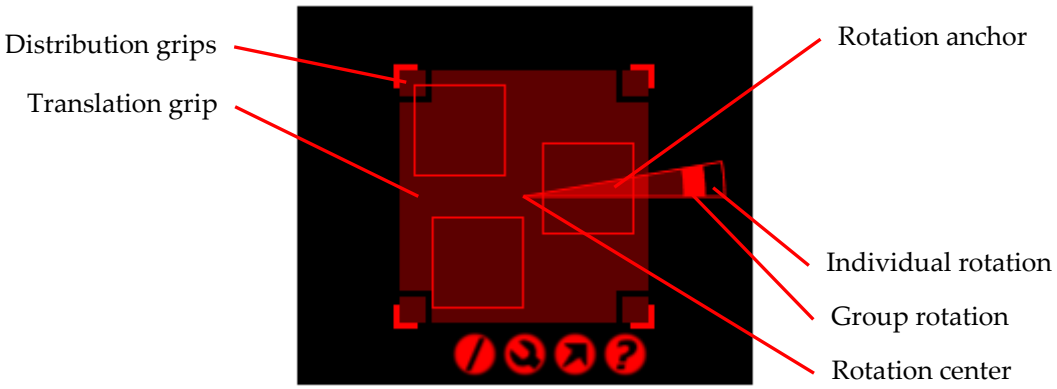
* *0-3 = Slot 1 4-7 = Slot 2 .. 252-255 = Slot 64*

(Layer set and scene control needs to be additionally configured with their *Control slot* properties. It is possible to choose between at most 64 layer sets and 64 scenes.)

3.2 Manipulation

Objects can be selected by clicking on them with the mouse. Use the *Shift* key to add objects to the selection and the *Ctrl* key to toggle individual object selection on and off.

By click-dragging the mouse over a group of objects, you can select them all at a time. If you drag from the left to the right, the objects must lie completely within the region, but if you drag from the right to the left, it is enough for the objects to be partially inside the region in order to become selected.



Use the button to **deselect** all selected objects.

The button reveals all **operations** that can be performed on the selected objects.

The button is used for **patching** and **extracting** drag and drop.

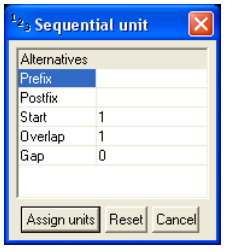
Finally, the button will display a **quick summary** window.

Clicking and moving the mouse anywhere inside the *Translation grip* allows you to move objects around. This area is intentionally large so that it is easy to move items. While moving items, you can enable the *ortho* mode by pressing *Shift* key. *Snapping* in the sense of bringing items to a minimal distance is built in and activated during any translation, but is not triggered until after a short delay. When *snapping* is activate, the result of the snapping is illustrated with an alternate colour.

Clicking and moving the mouse inside a *Distribution grip* will allow you to spread out or bring together the selected objects over the given area in a proportional manner. The *ortho* mode is available here by using the *Shift* key as well.

The *Rotation anchor* is used to rotate objects. It can be moved around to define the center of rotation and allows for both *Individual rotation* and *Group rotation*. Pressing the *Shift* key enables *snapped* rotation.

3.2.1 Sequential unit



This command allows you to set the *Unit* property of the selected objects in a consecutive manner. You may specify a *Prefix* as well as a *Postfix* to the numbering.

The *Start* property defines the first number of the range.

The *Overlap* property allows you to create series such as 1, 1, 2, 2, 3, 3 and the *Gap* property allows you to create series such as 1, 3, 5, 7.

Notice that if you select objects manually one by one, this defines the order for the numbering. However, if you select them by dragging the mouse over the objects, the order of the objects undefined.

3.2.2 Sequential channel

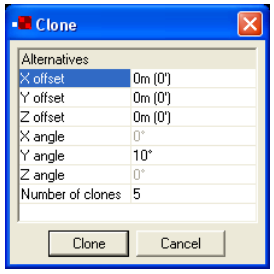
Sequential channel essentially works just like sequential uniting – except that you assign fixture numbers to the *Channel* property of fixtures. Since it is a number and not text, you are not allowed to specify a prefix or postfix.

3.2.3 Transform

This command allows you to move or rotate by an exact distance or amount of degrees. Use the green navigator cube to guide you with the X, Y and Z directions in the current view.

Note that the rotation angle takes the placement of the rotation anchor into account and always performs a *Group rotation*.

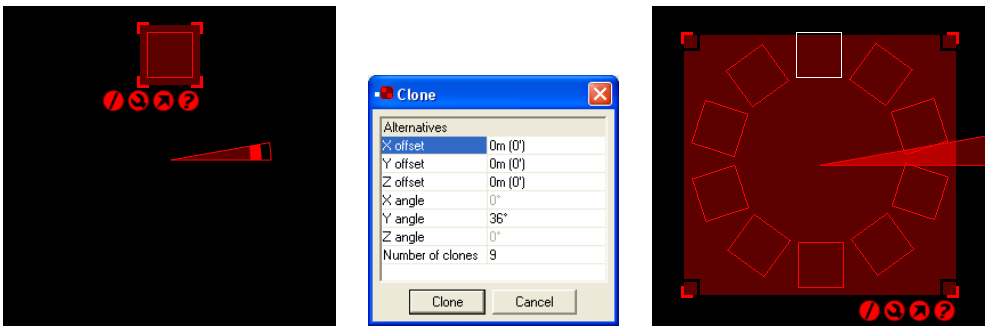
3.2.4 Clone



This command allows you to create one or more copies of the object or group of objects you have selected. Use the green navigator cube to guide you with the X, Y and Z directions in the current view.

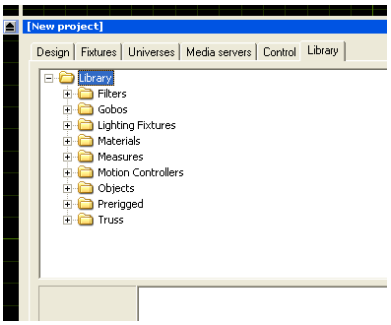
The offset values are applied incrementally which means that if you specify two copies with an offset of 2m, the first copy will be created 2m away from the original and the second copy will be created 4m away from the original.

Note that the rotation angle takes the placement of the rotation anchor into account. For instance you can create a circle of ten boxes by selecting a box, moving the rotation anchor of the circle, choosing the *Clone* command, entering an angle of 36 degrees (a full circle of 360 degrees split in ten objects) and 9 copies (since one box already exists, the result will be 10 boxes).



Creating a circle of ten boxes

4 Working with projects



A Capture project may consist of a large number of different types of objects. Nearly all objects are physical, but some are conceptual, such as *Measures* and *Motion controllers*. Objects are inserted into a project by means of drag and drop from the *Library* tab of the *Project window*.

Some objects offer a preview and additional information in the lower part of the *Library* tab.

4.1 Objects

The Capture library offers a selection of basic shapes as well as more complex objects which have been constructed from the basic shapes. The basic shapes are located under *Library* / *Objects* / *Forms*.

When an object has been dragged and dropped into a project, its properties can be inspected in the *Design tab*, by selecting the *Selected items* option on the left hand side. The object's properties are then revealed on the right hand side of the *Design tab*.

All objects in Capture have a **Unit** property which is a text field for free use. The unit may be shown on screen, on plots and in fixture reports. An object may also belong to a **Layer** – a way of logically grouping objects with colour encoding.

The **Include in scenes** property is only useful when working with scenes, while the **Hidden** property is most useful when working in scenes, it can also be used without them. Scenes are described later on.

The **Affects light** is an important property. When turned off, an object does not cast shadows, which may also increase performance during visualization.

4.2 Materials

Some object allow materials to be applied. The library contains a selection of materials which can be applied to objects by dragging and dropping them from the library on to the object. To apply the same material to many objects, you can select the objects first and then drag and drop the material.

The image and colour of the material is combined with the colour of the object that the material is applied to. Hence, if the object's colour is set to black, the material will appear black.

You can create your own materials in the *Design tab* of the *Project window* by right clicking on the *Materials* branch. You can then apply either an image from a file or a streaming video source from a connected media server. To apply your own materials to objects, drag and drop them from the *Materials* branch rather than the *Library* tab.

The **Self illuminated** property allows you to create materials that simulate light emitting surfaces such as flat screens or LED panels.

Use the **Width** and **Height** properties to define the physical real-world dimensions of the image or streaming video applied. These dimensions define the size of the image regardless of the object it is applied to.

4.3 Fixtures

Lighting fixtures can be added to your project much like any other type of object. The difference of course is a set of new properties and the fact that it may illuminate its surroundings.

The fixture properties include the **Channel** property which is intended to be used as the number by which the lighting console references the fixture. This number plays an important role when working with lighting consoles that are capable of bidirectional fixture selection communication. The **Note** property is available for free use.

To **patch** a fixture, drag and drop it on a channel in a *Universe view*. The **Mode** property can be used to choose between DMX operation modes. Fixtures can be dragged either from a simulator view using the  button, or from the *Fixtures* tab.

The **Plot symbol** property defines the look of the fixture in simulator views in *Paper* mode as well as on plots. Use the **Plot symbol focus** property to define the text in front of the fixture on plots – this is useful for various kinds of annotations, not just the focus of the fixture.

Conventional fixtures have a **Slot frames** property which shows all filters and gobos that have been inserted into the fixture.

To **focus** a fixture, select it and use the right mouse button in a three dimensional view to define it's focal point. If the fixture is a conventional, it will be physically oriented, while if it's an intelligent light, its pan and tilt will be directed to achieve the same result. To orient moving lights (i.e. the display / cable), rotate the fixture using the rotation anchor of the navigator.

Fixtures with filter/gobo wheels and gel scrolls have a property for each of these. To work with its contents, double click on the property. This will create a custom project *Framelist* which is described later.

4.4 Universes

In order to work with lighting fixtures and DMX, you need to set up *universes*, patch the fixtures and sometimes also patch the universes themselves.

Universes are managed in the *Universes* tab of the *Project window*. The left hand side shows the universes of your project and the right hand side shows universes available from lighting controllers. Capture attempts to automatically connect these, but if you are working with multiple controllers you may wish to override this automatic setup. To do this, select a project universe and then double click on the right hand side on an external universe to pair it with. By doing this, you will also set the **Block automatic connection** property of the project universe.

Project universes are by default set up as independent 1-512 channel universes. The *Usage* column illustrates how fixtures patched to each universe will illustrate their patch. In a theatrical environment it may be more convenient to work with a

consecutive range of channel numbers (for instance 1 – 2048). This can be achieved by setting the **Patch base** property of the universes to match your console setup.

4.5 Filters

Filters can be added to fixtures by dragging them from the *Library tab* in the *Project window* and dropping them on a fixture in a simulator view. To add the same filter to many fixtures, first select the fixtures and then drag and drop the filter.

Filters can also be added to *framelists* by dragging and dropping them in a framelist editor window.

4.6 Gobos

Gobos work similarly to filters, but with the additional possibility of creating your own in a project. This can be done in the *Gobos* branch of the *Design tab* and also requires you to choose an image for the gobo. For optimal performance, use images 128 by 128 pixels large.

4.7 Framelists

Framelists represent the contents of filter/gobo wheels in intelligent fixtures and gel scrolls in scrollers.

To customize the framelist of a fixture, select it (or many at a time) and locate its property in the *Design tab* by choosing *Selected items* on the left hand side and double click on it. This will copy the built-in library framelist into you project so that you can edit it and also replace the built-in library framelist of the selected fixtures with the one newly created. Capture keeps track of each framelist's library original, which allows you to drag and drop your own new framelist onto another fixture of the same type, automatically replacing the correct framelist.

It is not possible to change the number of frames in a framelist. For scrollers, the framelist contains the maximum number of supported frames – if you only intend to use half, leave the rest empty and choose the appropriate DMX mode of the scroller for the intended amount of frames.

4.8 Truss

Capture truss objects are automatically generated from their type and dimension information. This means that they do *not* feature exact placement of tubes and braces. On the other hand you can easily change a truss's dimensions.

Truss items snap together at their assembly endpoints and fixtures snap to the tubes of trusses.

4.9 Motion controllers

The *XYZ Mover* motion controller can be used in many different ways – it allows DMX controlled scenery position control in one, two or all of the X, Y and Z axis.

When patched it uses 6 DMX channels, two each for X, Y and Z, regardless of whether they are used or not. The **X Range**, **Y Range** and **Z Range** properties define the controlled travelling distance in each direction, which is also illustrated by the appearance of the motion controller. It is also a good idea to give each motion controller a name in the **Unit** property to be able to tell them apart.

To allow objects to be positioned by a motion controller, select the objects to be controlled and use the **Motion fixture** property to select the appropriate motion controller.

The result of the applied motion controller can only be views in a simulator view in *Live* mode.

4.10 Layers and layer sets

Both layers and layer sets are managed in the *Design tab* of the *Project window*. They are created by right clicking on their corresponding branch on the left hand side.

Objects in a layer with the **Locked** property set cannot be modified. When the **Include in reports** property is unchecked, objects in that layer will not appear on reports. **Live information** and **Fixture simulation** can also be turned on and off on a per-layer basis in the same fashion.

Layer sets are used to define sets of layers to be visible in simulator views and plots. They serve as layer filters and it is useful to note that you may work with different layer set in different views if you wish.

When a simulator view is patched to a universe it is possible to choose the simulator view's layer set via DMX. However, this requires setting up the **DMX control slot** property of each layer that you wish to be able to choose. There are 64 slots available and they are identified with the numbers 1 through 64. A value of 0 means that it is not possible to select via DMX.

4.11 Scenes

Working with scenes allows you to modify the position and visibility of objects in different parts of a performance. If you wish to do this, it is important to set the **Include in scenes** property of the objects that wish to have dynamic positioning/visibility (this is important because many items such as the rig, truss and house will usually not be part of what can be moved during a show and keeping them out of scenes prevents you from making serious mistakes).

Scenes are not stored or recalled – you are always working in one scene at a time and you can safely switch back and forth between scenes without risking loss of any position information.

4.12 Media servers

Capture supports connecting to media servers using the CITP communication protocol. This makes it possible to receive streaming video from a media server and apply it to objects like a material. You can view all connected media server in the *Media servers* tab in the *Project window*.

To apply a streaming video to an object, you must first create a material, select the proper video source, set up the dimensions of the material and then apply the material to the objects.

5 Integration options

Capture supports a variety of Ethernet protocols and hardware devices. The table below describes with which platforms and Capture Editions they are available.

	Basic / Extended Edition on Windows	Basic / Extended Edition on Mac OS X	SmartSoft Edition on any platform
ArtNet	Yes	Yes	
Avab IPX	Yes		
Avolites "ACDI"	Yes		
BSR E1.31 / "Streaming ACN"	Yes	Yes	
Capture DMX Box (discontinued)	Yes		
CITP http://www.citp-protocol.org	Yes	Yes	Yes †
Compulite VC	Yes	Yes	
EntTec DMX USB Pro	Yes	Yes	
ETC Net2	Yes	Yes	
Hog 2 PC	Yes		
Hog 3	Yes		
Hydra IPX	Yes		
LanBox controllers	Yes	Yes	
LSC consoles	Yes	Yes	
SandNet	Yes		

† Will only connect with ETC SmartSoft

6 Troubleshooting

Should you run into any problems, do not hesitate to contact us at support@capturesweden.com.

6.1 Graphics and video driver related problems

Capture is a professional visualization software and has high demands on video cards and their drivers.

In case of problems, the following may help:

- Updating the video driver
- Trying different screen configurations (primary screen, number of screens and maybe even screen resolutions)
- Updating your operating system
- Upgrading your graphics card if it is low grade

6.2 IP networking problems

If your computer is set up with multiple IP addresses, Capture will ask you to select one of them as the primary. This is important for many protocols and the option required to set is available in the *Options* dialog from the *Tools* menu.

6.3 Windows networkless problems

If your computer is not connected to a network at all but you wish to work with software based controllers on the same computer it may be necessary to install the *Microsoft Loopback adapter*. The process is simple and described at http://support.microsoft.com/kb/839013.

7 Acknowledgements

7.1 Beta testing

During the development of Capture Polar we have had the chance to work with the following excellent beta testers:

Jussi Kaatrasalo
Oskar Krogell
Osvaldo Perrenoud, ozperrenoud@desenhosdeluz.com.br
Nick Ho
Justin Poh

7.2 Translations

The following persons and companies have contributed with translations of Capture Polar in various languages:

Dutch	Luc Buytaert - Audio Visual Lighting, info@avl.be
Portuguese	Osvaldo Perrenoud, capture@desenhosdeluz.com.br
Russian	Roman Stolyarov & Ivan Rumyantsev
Spanish	LT-Light, www.lt-light.com
Swedish	Lars Wernlund, lars@capturesweden.com

8 Revision history

The first released version of Capture Polar was 2.0.13.

8.1 Changes in Capture Polar 2.0.14

[BUG] Some (primarily LED based) lighting fixtures were not controllable.
[BUG] Some (primarily multi-cell) lighting fixtures were simulated with an incorrect beam look.
[BUG] Installation and previous version migration for the BlueLite, LightFactory, LSC and LT-Light editions did not work.
[BUG] The license key file installer did not work.

8.2 Changes in Capture Polar 2.0.15

[BUG] Installation file type registrations and BlueLite, LightFactory, LSC and LT-Light edition installations could malfunction.

8.3 Changes in Capture Polar 2.0.16

[BUG] License handling in BlueLite, LightFactory, LSC and LT-Light editions malfunctioned.

8.4 Changes in Capture Polar 2.0.21

[BUG] CITP MSEX video streaming did not work.
[BUG] Manually assigning object XYZ coordinates did not work.
[BUG] After moving objects, the XYZ coordinates in the Design tab were not updated.
[BUG] Printing plots in high resolutions or on large papers produced misalignment issues.
[BUG] Transparent objects disappeared in CAD and Paper modes. (But still do in Live mode).
[BUG] Light spill and other odd phenomenons could be observed at narrow beam angles.
[BUG] Light spill could sometimes be observed behind fixtures.
[BUG] EntTec DMX USB Pro would not operate on certain machines.

[FEAT] Support for ArtNet, Avab IPX and BSR E1.31 external DMX sources in CITP.
[FEAT] Support of CITP devices over VCP (USB based COM-ports).

8.5 Changes in Capture Polar 2.0.24

[BUG] Color wheels and scrollers failed to simulate when using 2005 graphics.
[BUG] Labels could disappear in a view if any transparent object was present.
[BUG] Editing materials and gobos lead to focus issues in the design tab.
[BUG] Contents in the right half of the design tab were not sorted when Layers, Layer sets or Layer set layers were selected.

8.6 Changes in Capture Polar 2.0.34

[BUG] Capture would not start up on machines with some Intel GPUs.
[BUG] CITP packets larger than 2048 were truncated.

[FEAT] Maximum number of CITP universes (per connection) increased from 20 to 100.
[FEAT] Replaced VCP driver usage with D2XX driver usage (for the EntTec DMX USB Pro and CITP over USB, such as LSC consoles).
[FEAT] Removed hard dependency of GL_ARB_texture_rectangle to support more graphics cards.

8.7 Changes in Capture Polar 2.1.0

(Mac OS X release only)

[FEAT] Key files are installed from within Capture.
[FEAT] Library updates are performed from within Capture.
[FEAT] Support for CITP with LT-Light consoles.

8.8 Changes in Capture Polar 2.1.3

[BUG] On Mac, degrees symbol displayed as strange characters in the Fixture control tab.
[BUG] On Mac, saved images (from views and focus sheets) came out upside down and BGR instead of RGB.
[BUG] On Mac, layer locked state and layer set inclusion checkboxes did no show.
[BUG] On Mac, when editing text and number properties, the input field could have strange sizes.
[BUG] On Mac, the simulator views could not be focused by clicking in them.
[BUG] On Mac, fixtures did not appear in plot mode or in plots.
[BUG] On Mac, there was no indication of default layer or current scene.
[BUG] Measures did neither print nor show correctly.

[FEAT] On Mac, a Session.log file is now written under "/Library/Capture Polar", containing more detailed program execution information.
[FEAT] On Mac, mouse wheel zooming now works in simulator views.
[FEAT] On Mac, keyboard shortcuts now work.

8.9 Changes in Capture Polar 2.1.4

[BUG] When selecting fixtures in paper mode, that have a channel number set, the rotation anchor would assume huge proportions.
[BUG] Truss spacing couplers rendered incorrectly (with braces).
[BUG] On Mac, it appeared to be possible to save presentations.

[FEAT] On Mac, it is now possible to import and export DXF and DWG files.

8.10 Changes in Capture Polar 2.1.6

[BUG] On Windows (since 2.1.3), UDP based Ethernet protocols (ArtNet, BSR E1.31, ETCNet2, Compulite VC, CITP) failed to receive data.

8.11 Changes in Capture Polar 2.1.7

[BUG] On Windows, EntTec DMX USB Pro connectivity did not work on some systems.

8.12 Changes in Capture Polar 2.1.8

[BUG] In the LightFactory Edition, the library did not always install properly.
[BUG] In the LSC Edition, DMX from non-licensed consoles was not accepted.

8.13 Changes in Capture Polar 2.1.9

[BUG] On Windows, Hog3 PC connectivity was lost in version 2.1.3.
[BUG] On Mac, menu keyboard shortcuts could interfere with text editing.
[BUG] When changing the drawing unit of imported objects, the navigator did not update accordingly.
[BUG] On Mac, crashed could occur when selecting and modifying objects.
[BUG] Crashes could occur when closing Capture.

8.14 Changes in Capture Polar 2.1.10

[BUG] CITP did not initialize in a network-less environment which caused problems with the LSC Edition.
[BUG] The information window (opened using the red ? navigator button) was not limited in size and could become very large.
[BUG] Plot text boxes did not render text.

8.15 Changes in Capture Polar 2.1.11

[BUG] Deleting multiple objects could take very long time.
[BUG] Property list text line wrapped if columns were too narrow.
[BUG] On Mac, an incorrect warning was shown on each save.
[BUG] On Mac, the contents of the fixture tab did not sort properly.
[BUG] On Mac, when performing multiple selections in the fixture tab, the resulting order was incorrect.
[BUG] On Mac, property lists had horizontal scrolling issues.
[BUG] On Mac, Shift / Ctrl did not work when panning perspective and parallel views in plots.
[BUG] On Mac, multiline texts in plots were not editable.

8.16 Changes in Capture Polar 2.1.14

[BUG] On Mac, using File / Exit in the menu would lead to a crash.
[BUG] On Mac, many items in the design tab tree would automatically start inline editing when clicking on them. Performing certain actions while doing so lead to a crash.
[BUG] On Mac, after editing property values in lists or tables, focus was lost.
[BUG] On Mac, plot printouts would come out blank unless a printer was installed, chosen and online.
[BUG] When printing plots or exporting focus sheets, colors came out wrong.
[BUG] Texts in plot symbols were misaligned.

8.17 Changes in Capture Polar 2.2.5

[BUG] Changing multiple properties at a time could lead to a hang.
[BUG] On occasion, DMX over CITP would appear scrambled.
[BUG] On Mac, when editing certain properties, the editing field would spill over, outside the property list.
[BUG] When modifying plots or reports selected in the Design tab, they would be deselected.
[BUG] On Mac, maximizing and restoring any of the four views could misbehave.
[BUG] On Mac, the Universes tab did not update when finding external universes after opening/creating a project.
[BUG] On Mac, the Media Servers tab did not update when finding media servers after opening/creating a project.
[BUG] On occasional startups, some texts would not display properly in CAD mode.
[BUG] Fixture beam look when viewed from inside the beam has been improved.
[BUG] Opening grayscale PNG files would either crash or result in incorrect images.
[BUG] On Mac, graphics issues with ATI were resolved, partially by a slow workaround.
[BUG] Working with scrollers could lead to crashes.

[FEAT] New fixture controller pane in *Live* mode.
[FEAT] On Mac, the EntTec DMX USB Pro and LSC consoles are now supported.
[FEAT] Properties in the design tab are now grouped in categories.
[FEAT] Fixtures updated from the library now keep customized framelists.
[FEAT] Labels of circular trusses are now located at the beginning instead.
[FEAT] All dialog default sizes have been revised.
[FEAT] All dialogs now automatically resize to fit all buttons, independent of language.
[FEAT] The framelist editing window has been modified to scroll vertically rather than horizontally.
[FEAT] The layout of the plot and report editors has revised.
[FEAT] On Mac, saved files can now be opened with Capture by double click or drag to dock icon.