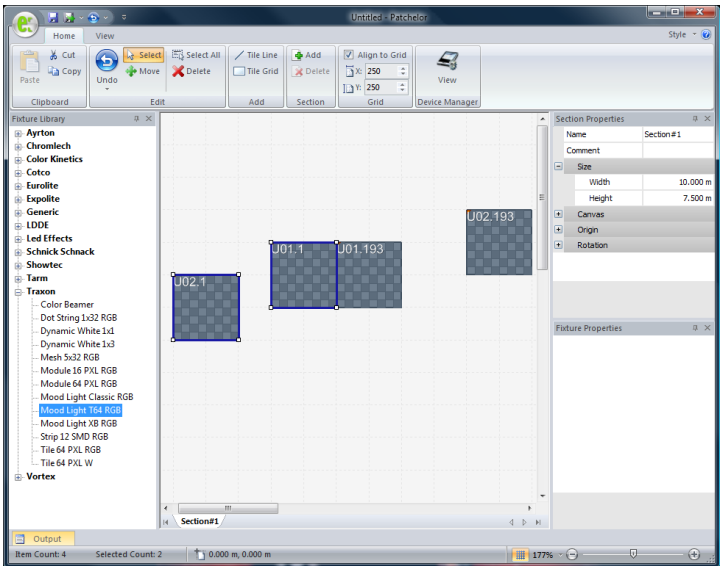
Patchelor 5.0
First Steps



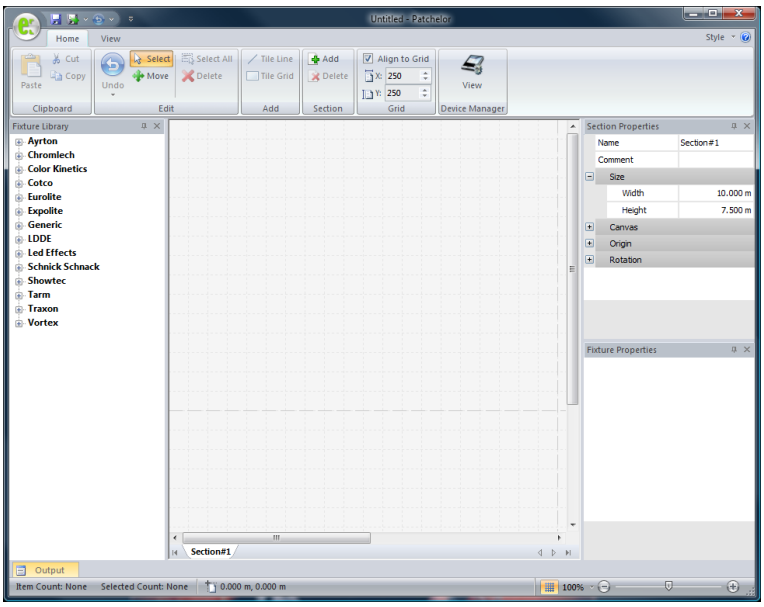
Introduction

The new Patchelor 5.0 is a software tool for patch creation, just like its predecessor, the Patchelor 3.8. For 5.0, the software has been completely rewritten and introduces a new intuitive user interface with greatly enhanced possibilities and a better usability. A new patch file format has also been developed which makes use of the new features the Patchelor 5.0 offers. The old 3.8 file format is also still supported. (There are some enhancements only later versions of Programmer 3.8 can utilize. Though, even earlier versions of Programmer 3.8 can still use these files.)
This document will guide you step by step through the patch creation process, beginning with an empty document. The basic project configuration will be shown, followed by fixture placement and fine adjustments and completed with document saving and patch export.

Initial Configuration

Overview

In the following picture, you can see how the Patchelor looks like when you start the application. On the left, you'll find the fixture library. This library is installed through the e:cue Library Editor 5.0 where you can also add the fixtures you need for your project just in case that they are missing inside the e:cue main library.

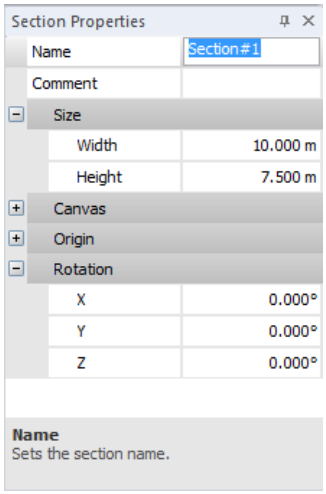


The main application window of the e:cue Patchelor 5.0

In the middle, you can find the main workspace, where you place the fixtures according to the real fixture installation. On the right you find a property window for the current section as well as one for the currently selected tile. You are directly ready-to-go, but you may want to configure some things first.

Section configuration

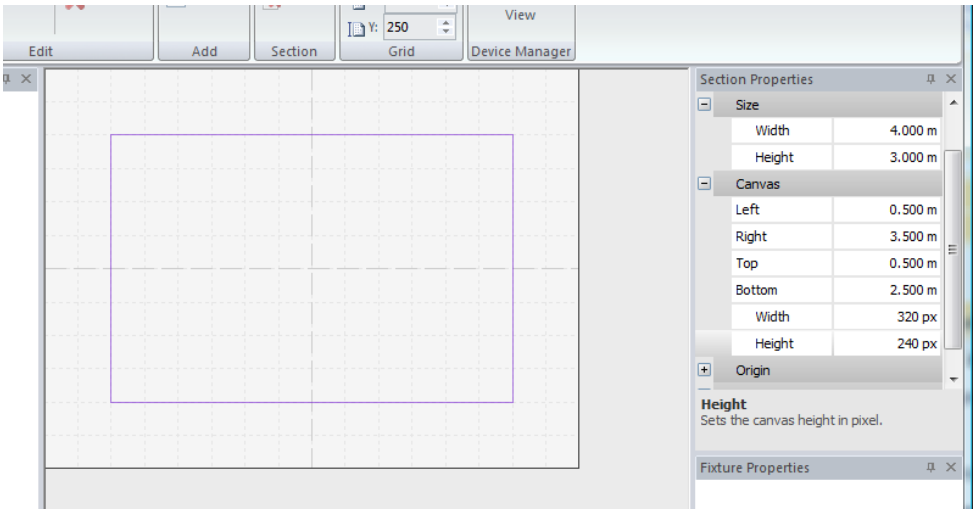
The first thing you'll want to do is the section configuration. You can give an appropriate name to the current section, add a comment and, most important, enter the correct size for the section. You should enter the approximate dimensions of your real installation, so that all fixtures fit on the workspace. You cannot place any fixtures beyond the section area!



The Section Properties Window

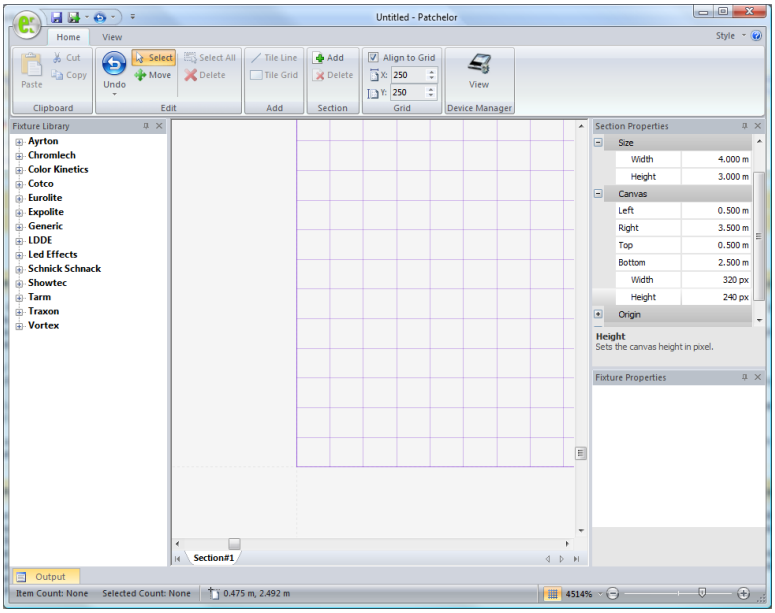
The second important step becomes relevant when you want to display videos or if you want to export to the old patch file format: The video canvas has to be configured correctly, that is you have to apply an adequate size and also an appropriate video resolution. In case that you export to the old patch format, the screen IDs will be calculated based on the video pixels. The video rectangle can also be partially outside the section area. This allows a very flexible video clipping. You can also adjust the global position of the particular section's origin (the lower left corner) and the rotation of the same. This will affect the fixtures' position inside the e:cue imagine 3D visualization software and does in most cases not have to be adjusted.

You can directly view the effects of your configuration inside the workspace. The section size will visibly change (the brighter part of your workspace) and the video rectangle (the purple rectangle on the workspace) will also change size and position.



Section and video canvas edited to new sizes

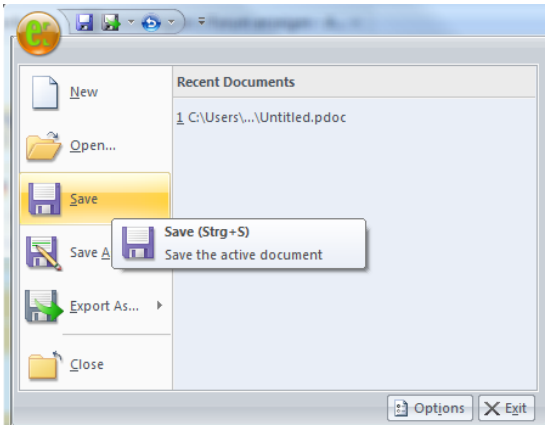
If you zoom in, you can also see changes in the video pixel resolution: At an appropriate zoom level, a grid will appear that visualizes the video pixels.



The workspace zoomed in to a corner of the video canvas, showing the video pixels

Saving the document

As you are done now with section configuration, you may want to save your creation for the first time. Unlike the old Patchelor 3.8, the new version differs between a native Patchelor document and a patch file. So if you export your work to a patch file, you will not be able to open the exported file into the Patchelor again.
To save a Patchelor document, just hit the application button at the top left corner and select "Save" from the upcoming menu. You can also directly press the "Save" button on the quick access toolbar, which resides to the right of the application button.



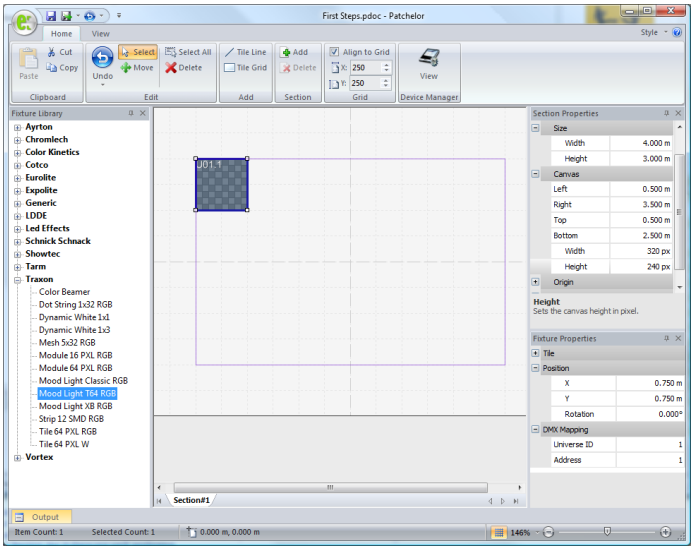
Application menu and quick access toolbar

Adding fixtures to the workspace

Adding single fixtures

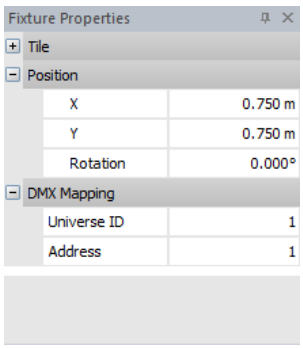
Now that the section configuration is complete, you will definitely want to add fixtures to your project. This is a simple job:

- Search for the fixture type that you want to add inside the library tree on the left. If a particular fixture type is not present, you will have to add it into the fixture library using the Library Editor 5.0. To refresh the fixture library inside the Patchelor, a restart of the application is needed.



The first fixture has been added to the workspace

- Drag the fixture to the desired position on the workspace. Then, select the fixture by performing a mouse click on it. An active selection is indicated through a blue frame around the fixture. Inside the fixture properties window, configuration options for the selected fixture will appear.



The fixture properties in detail

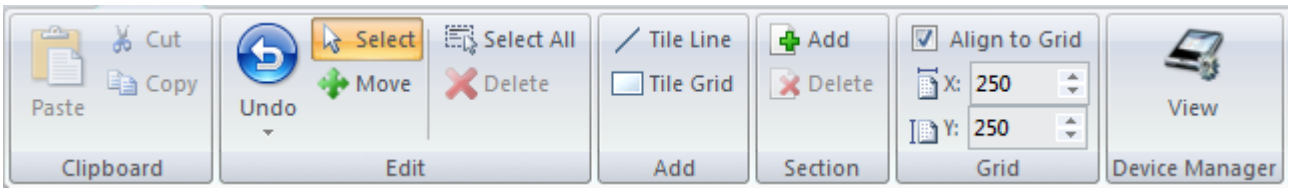
- Inside the fixture properties, you can fine-adjust the position and change the rotation. The Patchelor does perform auto-addressing to every fixture upon creation, but if you are not satisfied with that, you can also change universe ID and DMX address.

You can change the fixture rotation roughly by selecting the tile and then dragging one of the four rotation anchors which locate at the fixture's edges.

By performing this process for every fixture that appears in your installation, you can quickly complete patching for smaller installations. If you have to work on larger installations, the Patchelor 5.0 can help you with several features. One of these is the possibility to copy and paste fixtures that are already existent. To copy one or more fixtures, you have to first select them. You can select multiple fixtures by Alt-clicking on them (pressing the left mouse button while holding the Alt-key on the keyboard) or by using the selection frame (click and hold the left mouse button while pointing at a free spot on the workspace). Once you have the desired fixtures selected, right click on one of the selected tiles and select 'Copy' from the upcoming context menu or use the keyboard shortcut 'Ctrl-C'. To paste the fixtures, perform a right click anywhere on the workspace and select 'Paste' or use the shortcut 'Ctrl-V'. The fixtures will automatically be placed on the workspace with a little offset from the original fixtures. The new fixtures will be automatically addressed with free addresses.
Another possibility to quickly create a large amount of fixtures will be introduced below.

Adding fixture lines and grids

In many cases a lighting installation will (at least partially) consist of large lines or a large wall of e.g. LED tiles, with some kind of address regularity. It would be a very tedious work to patch the tiles one by one; even when using copy & paste, patching all tiles would be a time-consuming process. For these kinds of situations the Patchelor features two helping tools: The tile line tool and the tile grid tool. Both are located in the ribbon bar; under 'Add'.

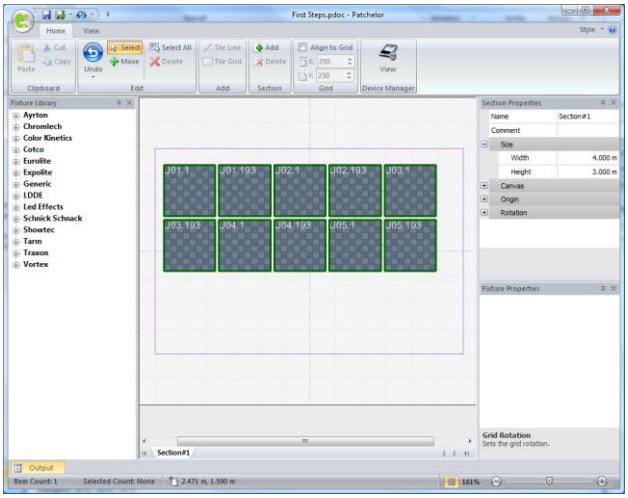


The ribbon bar; with line and grid tool right in the middle

The use of these tools is a little different from standard fixture adding. Below, the necessary steps are described:

- First, select the correct fixture type from the library window. Do *not* drag the fixture to the workspace this time as this would just create a single fixture.
- Next, click on the appropriate tool for the object you want to create.
- The next step somewhat depends on which tool you selected:
  - Tile line: Press and hold the left mouse button while pointing to the point of the workspace where the line is to start. Then drag to the point where the line is to end and release the left mouse button. The line will appear.
  - Tile grid: Press and hold the left mouse button while pointing to the point of the workspace where one of the grid's corners is to be. Then drag to the point where the opposite corner is to be and release the left mouse button. The grid will appear.

As one might notice, a tile line is just a special kind of a tile grid (one with height or width = 1). Therefore from now this document will no more differ between the two.



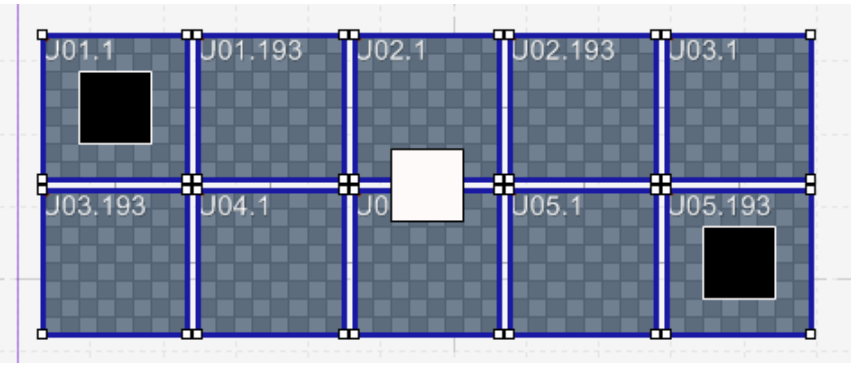
A successfully created tile grid

Grids are treated as single entities, consisting of fixtures linked together. This has several consequences:

- You cannot select only a single fixture from the grid. You will always automatically select the whole grid.
- Inside the fixture properties window, several additional properties will appear (These will be described below).
- Spacing between the single tiles will be automatically calculated based upon the size of the grid and the fixture count in height and width.
- DMX addressing is not adjustable fixture by fixture, but through some of the additional properties that configure the addressing order inside the grid.

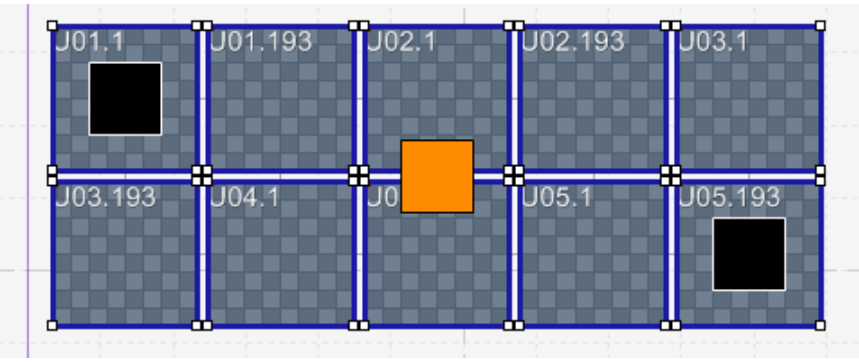
Configuring fixture grids

As mentioned before, a fixture grid differs from a standard fixture as it is a single entity consisting of several fixtures of the same type. Hence, the handling with grids on the workspace also differs from single fixtures.



A selected tile grid in sizing mode

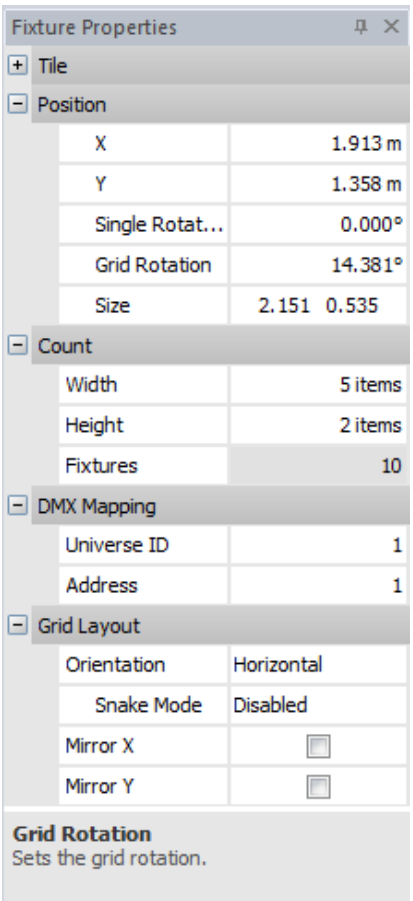
As you might notice on the picture above, there are additional anchors visible on the selected grid. In the middle of the grid there is a switch that toggles between sizing and rotation mode: Just click the button and it will switch to the other mode. The color of the switch indicates what mode is currently active. White stands for sizing mode, while orange indicates that rotation mode is active.



A selected tile grid in rotation mode

To resize/rotate the grid, just switch to the desired mode and then drag the anchors on the upper left or lower right corner of the grid until you are satisfied with the result.

The fixture properties window holds additional properties if the selected item is a grid.



Fixture properties of a tile grid

On the physical side, the rotation for the whole grid is adjustable as well as the grid's size. The size is always counted from the tiles' centres.

Additionally, you can edit the fixture count in both vertical and horizontal direction.

A fixture grid with fixture count = 1 in horizontal or vertical direction will automatically set the corresponding size to zero.

The next important property section is the Grid layout. Here, the addressing regularity of the grid will be configured. This will affect the start addresses of the several fixtures inside the grid. The addressing can either take place horizontal or vertical. Then, it is possible to add a 'snake mode'. This will let the addressing direction change every 2nd row or column (this depends on the addressing direction). If the snake mode is also 'turned', then the fixtures of every 2nd row or column will be rotated by 180°, what affects the addressing of the single pixels. Besides, you can mirror the addressing along the x- and the y-axis.

Grid separation

Obviously, a fixture grid comes in handy when you have to handle large amounts of fixtures with fixed offsets and an ordered addressing. But the trade-off you have to suffer is limited flexibility: E.g. you have a big LED matrix with a large amount of fixtures, but the fixture installation company made some mistake – very few of the tiles have been mounted in a wrong way like with a different rotation. If you use a tile grid you now have a problem because you cannot rotate a single tile, just all tiles of the grid simultaneously. You might now be scared that you need to recreate the patch tile by tile. But this is not necessary! To solve these kinds of problems, the Patchelor 5.0 is able to separate the grid into the corresponding number of single fixtures.

Due to the limitations of grids, the process of grid separation cannot be revoked (except for using the undo command, which will take back the last changes that have been made to the project).

To separate a grid into single fixtures, follow the steps that are described below:

- Select the grid that you want to separate.
- Press the right mouse button to open the context menu
- Then press "Separate grid" and the grid will be broken up into single fixtures.

Addressing and rotation of the single tiles – including the rotation caused by the turned snake mode – will be adapted so that the tiles reflect the grid's former configuration.

Patch export

As soon as you have placed and configured all the fixtures you need in your installation, the only remaining step is to create a patch file. This works quite similar to saving a Patchelor document. You only need to mind that there are two different patch formats available:

- The “old” 3.8 patch file format (with the extension .patch) is currently supported by Programmer 3.8 and 5.0, Emotion and UFGM Player 3.8.
- The “new” 5.0 patch file format (with the extension .patx) will be supported in the near future by Programmer 5.0 and Emotion. You may need to update your application to the latest build to be able to import the new patch format. Software updates are available at www.ecue.de for free.

Both file formats have an Imagine 3D visualization script embedded. To export a patch file, you can open the application menu, press “Export as...” or directly press the “Export Patch” button on the quick access toolbar. In either case you have then to select the desired file format. Subsequently, a dialog will appear where you can pick a location and save your patch file. After you have finished the patch export, you are ready to make use of your newly created patch inside the e:cue application of your choice!