Latest Features

This topic page lists the additions and changes in recent BEYOND releases. A complete and very detailed list can be found in the file called “ChangeLog.txt”, which is located in the same folder where the BEYOND program is located.

Please send any feature requests or bug reports to Pangolin.

Note that we offer full support on the latest version of BEYOND.
We can only provide very limited support on older versions.

Release 5.5

In testing and yet to be released, documentation in progress

- **MoboLaser Mobile App**: MOBOLASER is a mobile application that works on both Apple and Android devices. It supports phones as well as tablets. It is an official way to directly interface with functions of BEYOND on your mobile devices. This application has simple functionally for 5.5's release allowing for simple playback and live control, and zone alignment, however this application will evolve continuously.
- **Link** Support for the Link protocol from Ableton. Link is a technology developed by Ableton that keeps Link-enabled applications in time over a local network. Link synchronizes musical beat, tempo, and phase across multiple applications running on one or more devices.
- **Q-Shift**: A new, Quick and very light on performance way to do offset effects in BEYOND! Q-Shift allows you to utilize any of the “live effects” parameters and create oscillating effects that are delayed between lasers. These can be applied immediately to all lasers in your setup and simply controlled on a “Pad” style of interface.
- **3D Preview**: Now you can visualize your lasers in 3D! allowing you to build your rig more accurately and create your previews simpler. This adds a third option for previewing your lasers directly in BEYOND.
- **Timeline Quality of Life Additions and BIG Timecode** Additions within timeline for 5.5 include reaper marker imports, timeline track filter, and a new timecode preview window so you can finally full screen your timecode and look cool like the MA guys!
- **Projection Zones new Add list** As most users know, when they start a new show or project, they need to create a new zone file from scratch. To save some time we have created a new “add Zone” tool allowing for addition of multiple zones at once and automatic numbering and assignments.
- **Lock Screen**: Now you can simply lock BEYOND and require a password to unlock. Allowing a more secure way to leave a system running or idle while the operator steps away. You can create the password in the configuration window and enter the lock screen from the main menu.

- **Upgrades to Groups Operation**: You can now change the current output group live, allowing users to define the desired group of zones as they select content and not requiring them to be preset on the cue, or with a destination cue.
- **New Cue Types**: Newly added **“Node Image”**, **“Particle Image”**, and **“FIFO Image”**. Allowing users to utilize “Touch Designer” style cue creation, physics based particle systems, and live controlled abstracts and images from the mobo laser app, respectively.
- **QuickDMX DMX Command line**: For your convivence we have added a command line to Quick DMX allowing for the ability to set many channels at once, or gradients between channels.
- **Turbo Streaming**: 5.5 introduces a new communication model for large amounts of FB4 laser controllers.
- **Networking for Lasershows, BEYOND, and Entertainment**: Newly Added documentation about networks, pc systems, and more. Not specifically 5.5 related but an incredibly important piece of documentation.
- **Timeline marker import / export** : BEYOND now supports import and export of Timeline markers in the format designed by Reaper software. This is a CSV Format, and its expected other systems that use CSV formatted in a similar way will also be able to import like Cuepoints for example.
- Newly added and updated documentation: **Advanced Shape Editor**, **Menu Hotkeys**, **TV Mode**.

Release 5.2

BEYOND 5.2 is all about quality of life, usability improvements, and new functionality! Including a massive update to how we can control color, Custom DMX Profiles and a gamechanger when it comes to using mesh with zones. Plus, much much more!

- **Channels**: The new addition of Color channels will allow you to link colors from effects and tools to these channels which then can be controlled in many ways. Finally we have our version of a “color picker” except ours is way more versatile.
- **Using Effects in BEYOND**: There have been a number of additional effects for color effects, as well as cloning, and the implementation of color channels.
- **Lasershow Converter Blender**: The worlds most popular and completely free 3D animation software Blender has now received its own Lasershow Converter plugin! And the best part, the blender plugin is included in BEYOND essentials.
- **Projection Zones in BEYOND**: Two major additions surrounding projection zones, First the Automesh, this will be a 4 corner freeform mesh where it will automatically keystone, linearity and shape your zone. Meaning off angle projections will likely only require positioning just the 4 corners you need. Also added is substantial new options for BAM (Beam Attenuation Map), including new gradient directions, including symmetrical, and a center. Plus, you can now blend multiple bam fades together by choosing override, highest takes precedence and lowest takes precedence.
- **Custom DMX Profiles**: There are a lot of effects, and a lot of parameters in the BEYOND effects engine, so many in fact its very difficult to just pick a few to add to the DMX profiles for BEYOND

Server, so instead of us choosing for you, we decided to open up the entire effects engine, Channels and more to be mapped to DMX inputs.

- **Software Search**: Added to BEYOND is the ability to search for menu windows and configuration. Now on the top bar you will see a magnifying glass icon which if you click on it you can type to search menu window, and the configuration window. Give it a try, its impressively fast! Search has also been added for effects, either use the magnifying glass, or right click on the “add” button.
- **Additional Bug fixes**, **UI changes** and more, check the full in software change log for all minor changes.
- **Support for FB4XE**, From Build 5.2 1718, The FB4XE controller is supported.
- **Support for FB4SE**, From Build 5.2 1736, FB4SE controller with serial higher than 50000 are supported.
- **Updated Documentation**: These pages have been updated as well as the pages linked above. **Projector Settings Menus**, **Projection Zones in BEYOND**, **The Configuration Dialog Box**.

Release 5.0

Beyond 5.0 is all about maturity, as BEYOND turns 10 years old this summer we have been working on a very robust and mature build. You will find that there are not many huge changes in workflow for 5.0, but many quality-of-life changes instead. This is very much by design as we want to make this version solid for when we all get back to work doing shows and build onto a future 6.0 version which will be game changing!

- **License and Registration System**: The largest and most impactful change to the average user in 5.0 is the new licensing and registration system. This is a two-part system which departs us from the old school hardware to license file system we have used since beyond was introduced.
- **New License Options**: Licenses now will be automatically served by our servers when you purchase BEYOND in any way, when you purchase you will get an email with a code to use in BEYOND and you can get up and running immediately and you won’t necessarily have to wait for your hardware to come in!
  New Options include:
  - Hardware Licenses
  - Internet Licenses
  - PCID Licenses
  - Lifetime versions
  - Rental versions
- **Beam Brush Support and Tools**: It’s been a pipe dream of laser show professionals around the world since the 90s to have software control of the divergence of the laser in real time. Many attempts have been made, countless hours and late nights spent testing and theorizing about how to do it, not just from pangolin but from laserists all over the world. Each time wishing for “just a better mirror” or “if only this scanner was stronger” or “if only it could be smaller”. Well, the time has come, a small, fast, and reasonably priced solution is here, and it’s called BeamBrush. All the tools you need to control and create with this new BeamBrush technology has been added for

version 5.0 of BEYOND.

- **Updated Content Workspace**: BEYOND 5.0 comes with an expanded default workspace! This now includes more graphic content, abstracts, beams as well as a bunch of new content designed for Beam Brush, all with graphics, abstracts, and beams as well! All and all its more than 1000 new cues for your lasers to chew on!
- **Improved Core Processing**: Changes were made to how BEYOND's processing core communicates with windows and we have improved calculation performance and CPU usage for beyond. We have also updated the communication protocol between BEYOND and FB4's from TCP/IP to UDP.
- **LC4D, LCMax, BEYOND 3D Improvements**: We have added some great additions to our BEYOND 3D program, and our 3D plugins for Cinema 4D and Autodesk 3DS Max. This includes adding soft line endings for corner vectors and end points and Beam Brush/ Depth Cue features to change BeamBrush size based on Z axis, as well as brightness. Also added in the 3D rendering, we have added the ability to export z Coordinates of the frame to BEYOND so you can do "post processing" on 3d scenes like z axis color effects, or really any effect in beyond that can use the z axis!
- **Simplification, Optimization, Bug Fixes**: If you didn't notice, it worked! Lots of background fixes, and optimization since the last release.
- **Wide Angle Compensation**: Wide angle compensation is a new check box in your scan speed tab of projector settings which will automatically slow scan speeds down when projecting at large scan angles. This has the benefit of lowering the heat inside the scanners, correcting "bent" corners in projection, and extending the life of your scanners.

Release 4.0

BEYOND version 4.0 has been in development for more than 18 months, and has been in BETA testing for more than six months. Below you will find a list of the most important new features in BEYOND, but there are many others. Be sure to explore the HELP menu, as we have new help documents as well as new help tutorial videos.

- **Distributed Scanning**: A technology used to split the projection of graphics over multiple projectors. The Technology is contained in the FB4 hardware architecture and therefore is unfortunately only available to FB4 users, as it requires the newer FB4 hardware to operate. It allows for decreased flickering and an increase in brightness and
- **Groups**: A new mode for Live Performance inside of the Grid. With Groups, the Cues within the -Workspace can be organized into Groups of Cues, and each of the Groups can not only be used to Group cues together, but also to define collectively both the life cycle (and thus duration), and the Output Parameters eg Zoning etc. of the Cues within the Group. It is a completely new way to organize your Workspace playback and to apply a uniform set of properties en masse, to a collection of Cues to create a Group of Cues all with the same Properties and Output characteristics.
- **Multi Zone Effects**: These are Effects that unite together multiple Effects and allow those Effects

to be applied as one to a specific Projection Zone(s). They can consist of one time-shifted Effect, or several independent Effects. They are designed specifically to be applied to Groups.

- **Video/Audio Mixdown**: - This is a new feature that allows for the mixing down (creation of multimedia files or audio tracks) from video tracks, audio tracks, or for the creation of “laser over video” videos, from the Timeline in Beyond. The created multimedia file (MP4), can then be played back and watched in most media players, such as Windows Media Player, VLC, and QuickTime, and as such can be shared or used to preview, demonstrate or promote pre-programmed content.
- **Advanced Frame Editor** (back to the roots): The Advanced Frame Editor recently took a major step back towards the Tool Interface model used by the classic LD2000 frame editor, which is still used by numerous professionals all around the world. The new Advanced Editor offers duplicated and extended tools from the LD2000 software to provide a much more comprehensive, easy to use and familiar toolbox.
- **Scanner Simulation**: A Lasers Projector's Scanners have an impact on projection quality, and act to modify the trajectory of the beam which may as a result, differ from the path drawn by the Software, thus producing an output that differs in some way from exactly what the User as Cue designer was expecting.. BEYOND software offers a few places where the designer can preview the expected influence of the Scanners on the Beam to provide a simulated preview of what the audience will actually see. This simulation allows the designer to adjust his designs so as to ensure the actual output will closely match the what he was expecting / intending. The simulated preview is now embodied into the Advanced Frame Editor, Enhanced Reality Preview (ERP), and EmuLaser features.
- **FB4 Export**: Updates include a redesigned UI, and new features. There is a whole new interface for the preparation of content for FB4 hardware. This dedicated user interface design is now used for all modes including Autoplay/Scheduler, DMX and Test Frames. BEYOND also offers a FB4 file viewer for previewing and checking exported animation files.
- **FB4 Settings**: There is now a remote interface for adjusting the settings of FB4 hardware from within BEYOND, - a new specialized window for setting the IP address, adjusting the master settings, changing the FB4 modes (Streaming, DMX, ArtNet, etc). Note: the adjustments are universal and the FB4 Settings operate on every FB4 detected in the network, independently of mode.
- **FB4 Browser**: Browsing an SD card contained in an FB4 is easy now. There is a dedicated window for file download, and uploading, is now a feature of the FB4 oriented tools.
- **Parametric Image**: Welcome a new member to the Image family. The Parametric Image currently offers over 20 simple forms that can be used in the same manner as the Shapes currently found in the content creation editors. The parameters of Parametric Images can be changed in real time by the input from an external source, such as audio, MIDI, DMX and so on. As time passes, the number of Parametric Image Forms in Beyond will be increased.
- **New Key Effects**: We continue to add more and more Effects into BEYOND. The most interesting of the recently added Key Effects is the transformation used to influence the Geometric correction of the Projection Zone. It provides an indirect way to extend Geometric correction.
- **64 bit versions**: Using the very latest development tools we have been able to now create a 64-bit version of BEYOND. With over 1 million lines of code in the application (just for the BEYOND

code alone), it took a while to finish it. However, the results were worth the efforts. Multi-threading construction will now keep all CPU cores busy and 64-bit architecture will allow the use of all available memory. The result should be a faster and smoother running Beyond.

- **BEYOND 3D Improvements**: Updated the FBX Importer and also added the ability to import OBJ, PLY and STL 3D formats, as well as SVG 2D format.

Release 3.0

To help commemorate Pangolin's 30th anniversary in business, 3.0 represents a major new version of BEYOND, with the following benefits:

- Introducing the Pangolin Cloud – a new feature that allows you to do everything you would with PangolinShows.com, but built into the software.
- A brand new plug-in for the popular DJ software called Virtual DJ. Our plugin allows QuickShow users to perform laser shows that are automatically perfectly synchronized with music and other content produced by Virtual DJ. Pangolin produces other plugins for Virtual DJ as well. All of these plugins are available for free, and can be found in the Effects section of the Virtual DJ web site.
- A new Lasershow Converter 4D plug-in for BEYOND, which allows rendering and conversion for content created in Cinema 4D.
- Additional PangoScript commands related to the grid, timeline, play list, and universe.
- Much work in the area of MIDI support including additional PangoScript commands.

Numerous other fixes and enhancements.

Release 2.1

Release 2.1 represents the first time where we have split BEYOND into three separate versions: Essentials, Advanced and Ultimate. Please see the help topic in BEYOND to see a table that shows the features available in each version.

- Release 2.1 also works with Pangolin's new FB4 network hardware.
- We have also improved the workspace and certain text effects, to improve the appearance when used with projectors having scanners with poor performance.
- We also improved method of storing the frame data what save up to %50 of size in file and memory.

Many other changes have been made between version 2.0 and 2.1.

Release 2.0

AKA “Special Launch Edition”

A lot of development has taken place over the past few years, in preparation for the launch of version 2.0. In all, there have been thousands of changes – far too many to be listed here.

However, one of the most visible differences between this version and previous versions is the inclusion of many help documents and access to help videos, all found on the help menu.

The help menu provides access to not only this “master” help file, but also to more than 50 separate documents that address specific topics. We recommend you look at the other help documents that are available.

The help menu also provides access to more than 35 tutorial videos, starting with the original QuickShow tutorials, and going through additional topics on BEYOND 3D, use with DMX and MIDI, etc.

Release 1.8

Release 1.8 includes two separate templates for the APC40 and highly integrated multimedia timeline.

In the near future, this help file will be greatly improved, and the tutorial videos will be completed.

Release 1.0

This is the first public release of Lasershow Designer BEYOND.

BEYOND is intended to be a professional-level laser show platform. BEYOND is built on the user interface philosophies of QuickShow, which has proven to be a favorite, not only for beginners, but also for our professional users.

In addition to the quick and easy ability to create and perform shows, BEYOND offers features not found in any other program, such as several 3D frame editors, an advanced timeline with the capability of working on multiple shows at once, unlimited projection zones, visual scripting, ability to trigger cues from two separate workspaces simultaneously, and more.

Since this is the first public release, you can expect many changes and improvements in the near future. We also welcome your comments and suggestions.

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