

# 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 5.0

Beyond 5.0 is all about maturity, as BEYOOND 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:** long! 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.

## 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 "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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