

Panini-Pro beta test release notes

12 June 2011 – first test build for win32

13 June 2011 – first test build for Mac OS X

The User Guide lacks many details and even main sections. Please read it, but try to learn more from the GUI (in the end that is what most users will do anyhow). Experiment freely.

OpenGL buffer management is still primitive, with these consequences:

- cannot load images >~ 30 Mpix flat or 100 Mpix cubic, likely to crash on bigger.
- renders saved views at source resolution, but only up to about 30 Mpix.

Does not yet have 'sector' flattening tools, which will be more flexible than 'spot' ones.

Has no splash screen or About box with version/build information (coming soon).

Cannot save viewing parameters (project files coming soon).

Crashes in the 'camera' (source projection) tool with some images. Also some images look black at some settings of the projection controls, and some are not corrected correctly. But the 'generic camera' projection should let you straighten most photos pretty well.

There are no data in the camera and lens data base. And if there were, they would not affect image correction, because lens calibration is disabled pending more study. But please do play with the database editing dialogs, see if it makes any sense to you as a way to store info on your own cameras and lenses.

24 June 2011 – second test build

The official name is now “Panini-Pro”.

The big change is the addition of “sector” multi-perspective tools, that can fit rectangular subjects such as rooms and buildings better than the circular 'spot' tools. They have a “split” mode designed for corners where two flat planes meet, such as peaked roofs and outside corners of buildings.

The view controls have been re-packaged – still in 3 windows – into more convenient groups:





'basic view controls' – yaw, pitch, zoom, compression



'projection tools' - vertical scale, cone angle, cylinder heights



'view camera motions' – shifts, roll, swing, tilt

There are 4 spot tools  and 4 sector tools . The powers now have a continuous 'fade' control instead of the 'alt' switch. The sector tool's fade control doubles as the right-side power control in split mode. There is a new 'hide' switch that lets you keep the tool outline visible even when its control window is not visible. The tool button's background color shows its state:



tool is not defined;



tool is defined (even if 'off').

Numerous small bugs have been fixed. However several others are still to be addressed, including several associated with the source projection controls.

There are new tool buttons for pop-up help and file menus, but the help is minimal.

It is still not possible to use preset lens calibrations, or to save a view as a re-loadable 'project'.

7 August 2011 – third test build

Handling of large images is greatly improved. Panini-Pro now loads flat images (including equirectangular panoramas) at much higher resolution than before, up to 70% of the pixel count of the largest feasible cubic image, and saves views at approximately the same pixel resolution as the internal image. It displays both the original and loaded sizes (in megapixels) of source images and the sizes of saved views. Reduction from original to loaded size (when necessary) is done on the GPU and is much faster than before.

Since the maximum feasible image size depends on system resources, Panini-Pro now has persistent settings for the width of the largest cube face it will try to load, and for the relative size of the largest flat image it will attempt (a percentage of the pixel count of the largest cube). There is a dialog, in the help menu, for tuning these values. The initial defaults are low (though maybe too high for some systems). Use the tuning dialog to find out what is possible on your system.

It is not unusual for large image loads, or rendering of large views, to fail when the tuning limits are set high; but in most cases Panini-Pro will be able to continue normally. Sometimes loading a small image will make it possible to load a large image that failed before.



The Source Projection Dialog is now really useable. The Quick Start Guide has a new section on this dialog. It fails if given really impossible parameters (and on some possible ones as well) and the slit camera projections are not yet working. But it generally recovers from those failures.

- Starts with a reasonable projection
- Shows file name and dimensions
- Lens correction with Universal Lens Model working nicely
- Locked or independent FOVs for pano and slit cam projections
- Saved settings are working.



There is now a help menu, reached by clicking this button. It has only one entry at present, that brings up the dialog for tuning image size limits.



There is also a new File menu, with just one entry that starts the save view dialog.

14 August 2011 – 4th test build

The beta4 release adds several new helpful features:

- an About box (help menu) identifies the build & gives license terms
- Mouse usage help (help menu)
- Keyboard usage help (help menu)
- File menu includes load picture
- A grid of reference lines can be overlaid on the view (G key)
- The source image can be displayed, if not cubic (I key)
- You can reset all view controls with Cmd+Alt+Home

The reference grid feature has been requested twice – and is very useful. You can change the spacing and color of the lines – see the keyboard help box.

The keyboard and mouse help boxes explain lots of other handy features designed to make things easier for an expert user; check them out. There have been some changes since the first release, but I expect the present assignments to be final, unless I get severe objections.

Among the notable bug fixes and adjustments:

- no more “pixmap is a null pixmap” messages on Mac (however, strange 'twinkling windowlets' still appear at startup on Windows)
- turning on the lat/lon grid no longer makes effect outlines vanish (hands up, everyone who noticed that one :)
- the default position for the tool bar is now vertical at left, since screen height seems to be in short supply nowadays. Of course you can move or float the tool bar.
- wireframe display of the panosurface mesh is working again (Cmd+W).

The Quick Start Guide has more details about the new features (and some old ones too).

12 October 2011 – 5th test build

Beta5 is a bugfix/cleanup release with no new features.

The most important fix is that equirectangular images no longer have visible interpolation errors at nadir and zenith.

The source projection parameters now work pretty much as expected. Effective focal length replaces FOV for the generic camera projection ($EFL = \text{marked FL} * \text{crop factor}$). For the pano projections, FOV locking has been simplified (just square or unlocked pixel aspect).. Tilt of the cylinder-type projections now works without altering FOV limits.

Some features that are not yet working have been hidden: slit camera projections; camera and lens database.

This will be the last P-P release without any registration/licensing requirement.