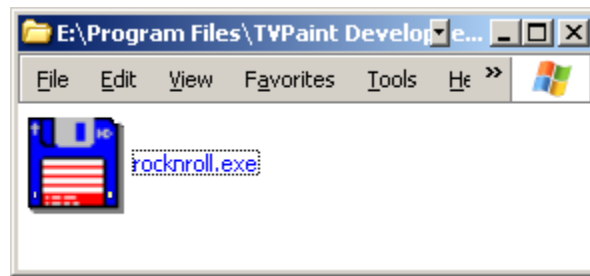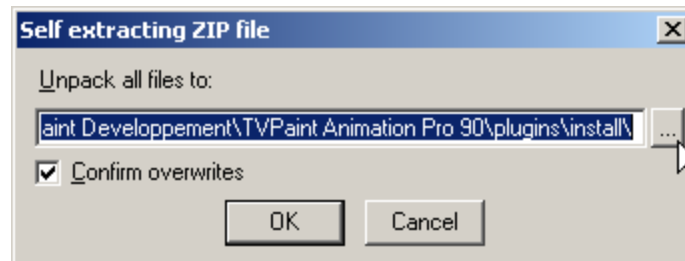# RockNRoll 1.65 User's Guide

Installation:

***NEW*** As of June 18th, 2008, I have begun distributing my plugins as a self-extracting ZIP archive. Simply Double-click the archive to begin.


The following window will appear. DON'T just hit OK... instead, hit the little button marked with the "..." on the right side to browse for the installation directory.

Find the directory where you installed TVPaint. There should be a "plugins" directory in there. Make sure you highlight that "plugins" directory before you hit OK.
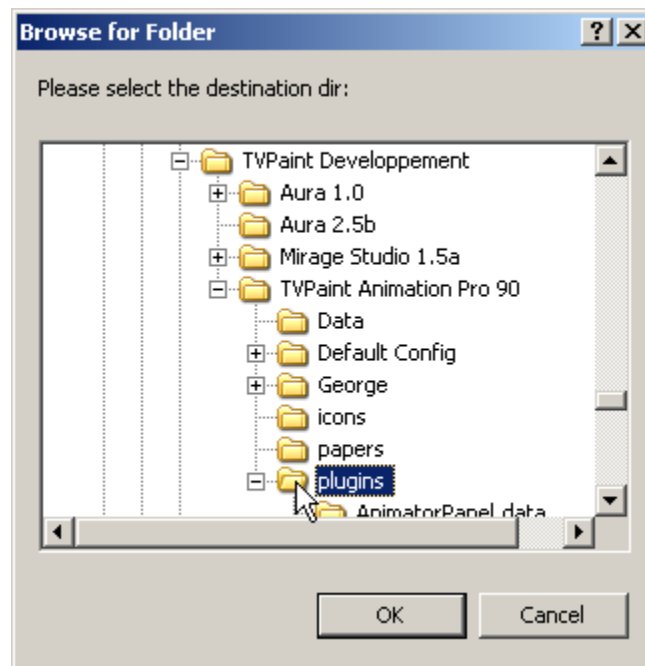
All right. Now you can hit ENTER(on your keyboard) or the OK button on this browser window to accept the installation directory. Hit the OK button on the installation program to begin.
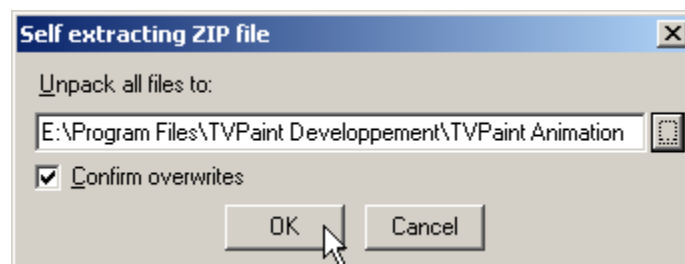
Start TVPaint, or if TVPaint is running, restart it.

Once TVPaint is loaded, RockNRoll's Custom Panel should appear:

Shows the RockNRoll Window (See Pg. X) →

Activates the Gesture Tool (See Pg. X) →

Full Screen Cross Hair (See Pg. X) →

PaperTrail (See Pg. X) →

Freeze PaperTrail (See Pg. X) →

Image Nudging (See Pg. X) →

Transport Controls (See Pg. X) →

Protractor's File Functions (See Pg. X) →

lemec/RocknRoll	▼ 🗗 ✕
🖊 RocknRoll	
🏃 Gesture	
▼ Guides	
╫ˣ Toggle Crosshair	
⸝ Toggle PaperTrail	
∫ Freeze PaperTrail	
▼ Nudge Image	
⊞ Nudge Image North 1px	
⊞ Nudge Image North 10px	
⊞ Nudge Image South 1px	
⊞ Nudge Image South 10px	
⊞ Nudge Image East 1px	
⊞ Nudge Image East 10px	
⊞ Nudge Image West 1px	
⊞ Nudge Image West 10px	
▼ Transport Controls	
⏮ Previous Bookmark	
➚ Return to Current Frame	
⏭ Next Bookmark	
◀❚❚ Step Back	
❚❚▶ Step Forward	
▼ Protractor	
💾 Protractor_Save	
📁 Protractor_Load	

Having this Custom Panel loaded allows you to assign keystrokes to many of RockNRoll's functions.
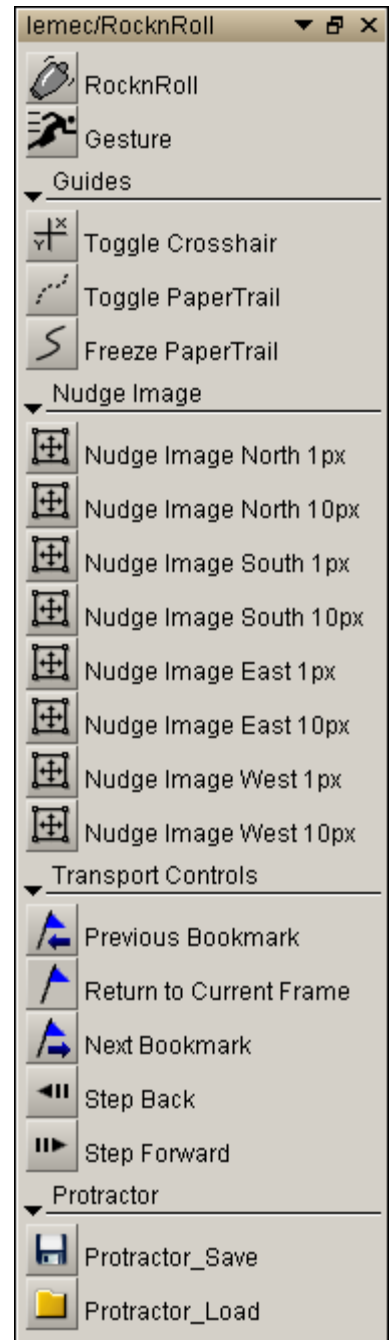
**Showing RocknRoll**

The RockNRoll Window MUST be visible for the **Gesture, Crosshair, Paper Trail** and **Roll Return** functions to work.

You can show the RocknRoll Palette by clicking its Custom Panel Icon...

...or you can go through the menu system to find it. You might have to do this if you don't have a handy custom panel button for that.

You could also just copy RockNRoll's button from the custom panel into a custom panel of your own!
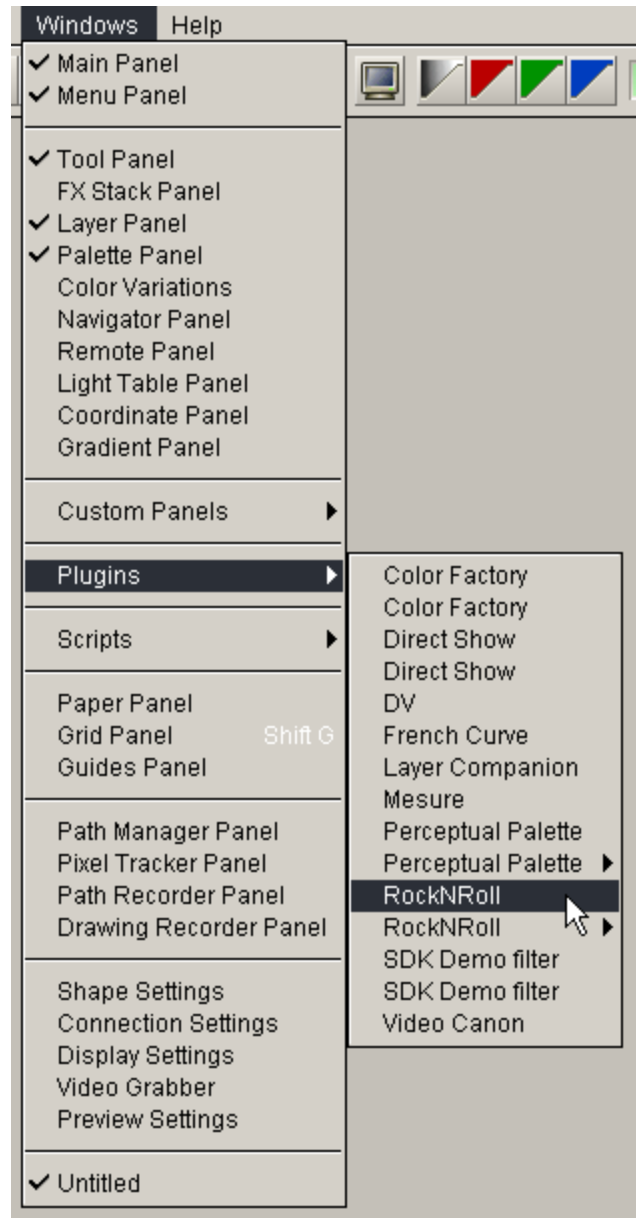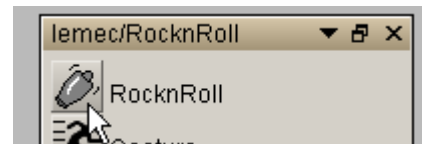
The theory of RockNRoll

RockNRoll was originally created to facilitate the old-fashioned way of animating with several pages of paper laced between the fingers of one hand so the animator could "roll" or "flip" the animation as a way to preview the motion of the subject, and let the mind sense where the next image should go.

RockNRoll is intended to be used with a gamepad, although it will work fine with the arrow keys on the keyboard. Here's a quick example of how RockNRoll might be used, with a keyboard:

Go to Frame 1. Draw the "Starting Extreme"	Go to Frame 3. Draw the "Ending Extreme"	Go to Frame 2. This is where you put your In-Between. But don't just guess and throw it in! Instead, Hold the PGUP arrow key. The previous keyframe is shown...	Release the PGUP arrow key. RockNRoll snaps back to Frame 2. It's blank...
Hold the PGDN arrow key. RockNRoll jumps forward to the next keyframe.	Release the PGDN arrow key. RockNRoll snaps back to Frame 2. It's blank...	If you press PGUP and PGDN over and over again, you'll see an afterimage of where the previous and next key are. Now you can draw in the in-between.	

So in short, you hold the PGUP key to see the "past". You hold the PGDN key to see the future. When you animate, you define the start and end of a transition of motion. If you want to animate a baseball player striking a ball with a bat, you'll need to know where the bat begins its motion, where the bat makes contact with the baseball, and where the bat winds up during its follow-through.

RockNRoll makes it easy to figure out where to draw your in-betweens because you can flip back and forth between the start and end of a motion transition, creating the illusion of movement, and helping you to see how that baseball bat gets from point A to B. To fully make the best use of RockNRoll, you'll have to understand how to be a good in-betweener, and that is something that is not under the purview of this manual.

Why not just use the light-table?

A light-table is good when you have a very simple object or motion transition like a bouncing ball. However, when you apply a light-table to many keyframes (like when you begin animating on "ones") or you have to draw a baseball player swinging a bat, the result is a huge, confusing mess of lines, and you lose the illusion of movement. Flipping your animation is the best way to preserve that illusion of movement.

Setting up GlovePIE

At present, I have no way of making TVPaint detect when you let go of a button or hotkey without help from an external program. The program that I use is called "GlovePIE", a third-party program created by Carl Kenner, available for free online.

GlovePIE can detect when keys on the keyboard or buttons on a gamepad are pressed by the user, and will fool TVPaint into thinking that specific keys on the keyboard are being hit. GlovePIE can also tell when those keys are released, and send additional keys for TVPaint to detect. The reason I did not integrate this function directly into PPalette was because I didn't want to waste time fiddling with DirectInput libraries, and GlovePIE does a fairly good job of things already. Actually, it does a lot of things very well, and it would have taken me a ridiculous amount of time to get something as nice. I'm not a computer programmer for the love of it. I program out of sheer necessity and I will be as lazy as possible when it comes to programming. At the end of the day, I'm an artist.

So you'll need to download GlovePIE and store it into a folder somewhere, like:

C:\Program Files\GlovePIE\

Start it up and load the RockNRoll.PIE file that comes with it, then hit RUN. GlovePIE will then run the script you just loaded.

This particular script will take control of the PageUp and PageDown keys on your keyboard in order for RockNRoll to function properly.

Once the script is running, start up TVPaint if it isn't already running, and bring up the Hotkey Config window (CTRL+K).

You'll need to configure 5 hotkeys:

The GlovePIE script will make the Page Up and Page Down keys behave as they normally would, but whenever you release those keys, GlovePIE will send a (Shift+Home) keystroke to TVPaint, which is the key to tell RockNRoll to return to the inbetween frame you were working on. That hotkey is labeled as: "**lemec/RocknRoll:Return to Current Frame**".

"**lemec/RocknRoll:Next Bookmark**" and "**lemec/RocknRoll:Previous Bookmark**" are used to jump to the next and previous bookmarks. When the **Roll Return** option is active, RockNRoll will flip between the bookmarks and your "Current Frame".

The "**lemec/RocknRoll:Step Back**" and "**lemec/RocknRoll:Step Forward**" keys are just like the regular Layer:Next Image and Layer:Previous Image except that when you reach the end of a layer or the start of a layer, it will loop back to the other end of the layer.

RockNRoll's Popup Menu:

If you drag on the big button in the middle of RockNRoll window with the left-mouse button, you can access all of RockNRoll's options.
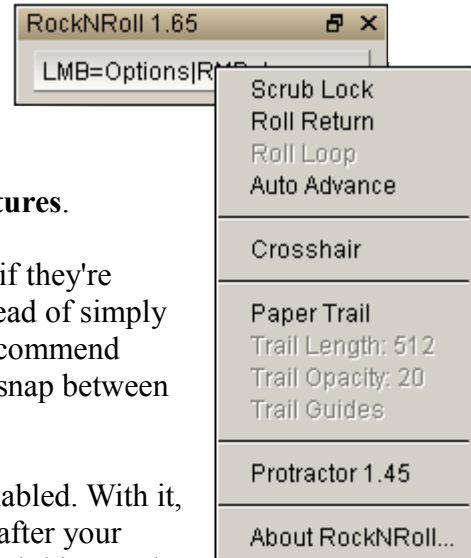
Scrub Lock: This is used in conjunction with RocknRoll's **Gestures**.

Roll Return: When you press PageUp or PageDown keys (and if they're properly configured with GlovePIE), RockNRoll will FLIP instead of simply snapping between bookmarks and the current frame. I highly recommend having this on, although there are occasions where you want to snap between bookmarks instead of rolling smoothly between them.

Roll Loop: This option is only available when Roll Return is enabled. With it, when you reach the end of a layer (and there are no bookmarks after your current frame) the playhead will loop around and continue going it hits another bookmark or hits the current time. This is highly recommended for working with cyclic actions like walking or running.

Auto Advance: Goofy little thing that automatically steps forward each time a change is applied to the image. You might want this if you want an "auto-draw effect". Most of the time, it should be left off. Chaos can ensue.

Crosshair: A full-screen crosshair. Works well with the Dot pointer.

Paper Trail: Draws a ghostly trail behind your cursor whenever your stylus is not touching the tablet. Works best with active digitizers rather than touchscreens (which some TabletPCs use). Its effect is not permanent, so it's good for practice strokes and temporary "hover-sketches". It's an alternative to the "non-photo-blue" pencil way of working.

Trail Length: The number of steps that Paper Trail will track before auto-erasing itself.

Trail Opacity: Self explanatory!

Trail Guides: Shows a line that indicates the trajectory of the stylus. Possibly useful for "making ends meet". It is especially useful as a sort of radial guideline when used in conjunction with the **"Freeze PaperTrail" hotkey.**

Yes, there's a custom panel button called "Freeze PaperTrail". Assign a hotkey to it if you want to stop the trail from auto-erasing itself.

Protractor – OH MY GOD IT'S AN AMAZING HIDDEN PLUGIN WITHIN A PLUGIN!!!

This will need a whole other section. But first, **Gestures**.

Gestures:

There's another Custom Panel button called "Gesture". This was originally a separate plugin called "Different Strokes" which was later subsumed into RockNRoll. I suggest hooking up a hotkey (like CTRL+G) to it. Calling up the **Gesture** Tool will allow you to execute hotkeys simply by dragging in various directions on the screen. For instance, you could configure RocknRoll to minimize TVPaint by dragging a little rectangle (right, down, left, up).

To configure a Gesture, right-click the big RockNRoll button.

Choose a function you want to assign a Gesture to.

Drag on the canvas. Use vertical or horizontal movements only. You could use a single stroke (like UP or RIGHT). You could combine multiple strokes (like DOWN-LEFT). Your shortcut sequence can consist of as many as 8 different directions, which will allow for as many as 8748 distinct combinations. TVPaint doesn't even have that many functions, but considering that people are constantly adding to that number through their custom panels, it may still serve some useful purpose.

Once you've finished defining your gesture, tap once on the canvas to commit the change.

You can also drag with the stylus sideswitch, if it's configured to send a right-mouse click.

If you want to "unlearn" a Gesture... then just "Ctrl-Tap" on the canvas.

PROTRACTOR:

This is an overly technical, curvilinear perspective crutch for background layout design, etc. It will undoubtedly earn a lot of contempt from grumpy old men but I made this tool to piss them off, so use it as much as you possibly can.
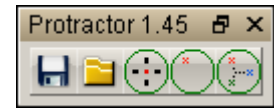
The Theory of Protractor

In the ideal utopia that I imagine, a human eyeball sees the world in a 180° hemispherical field-of-vision. I came to this incredibly scientific and technical and amazing postulation by staring straight ahead and wiggling my fingers at the edge of my vision and found that I could sense motion pretty much directly off to the side of my field of view. Now I don't possess enough optical receptors in the periphery of my retina to read text or recognize faces, but I can roughly sense really big things and how close they are to me. The primary purpose of peripheral vision is for orientation and collision avoidance, and most conventional photography crops all that out, taking only a small rectangular portion in the center of that big hemisphere.

FOV Tool: Protractor's third button is the tool that sets that hemisphere. You can think of it as a hemispherical fish-eye peephole lens that people have on the front door, the one that makes puppies and kittens look incredibly cute and can reveal just how many girl guides are standing off to the side of the door to conceal their numbers, ready to attack from all sides.
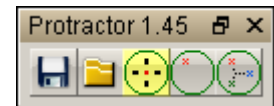
Use the FOV tool to set the size of your "lens". Consider also that the canvas is there to crop off all that unimportant peripheral view, so you will probably need to set the lens rather large. If you need to do a large panoramic background, then you'll need a smaller lens. Mind you, when you start to draw things close to the edge of that lens, they get awfully distorted because the surface of the lens becomes perpendicular to your canvas surface!

- Left-Dragging the **canvas** will set the position and size of the "lens".
- "Left-Tapping" the **canvas** will place the center of the lens on the position you tapped.
- You can Right-Click the **FOV tool button** to center the lens.
- "Right-Tapping" the **canvas** will set the size of the lens based on the distance between the center of the lens and the cursor.
- "Right-Dragging" the **canvas** will set the size of the lens based on the distance of the drag.
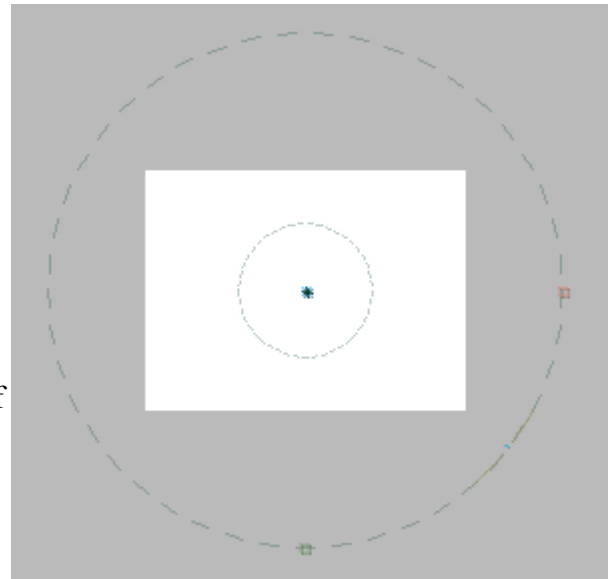
Camera Angle Tool:

When you look straight ahead, parallel to the surface of the ground, the horizon will appear as a horizontal line. But it's important to understand that the horizon is a ring that surrounds you. If you were to look up straight in the air, the horizon would drop away and become a ring that encircled your vision.

Straight parallel lines will eventually meet as they extend off into the distance. This point where they intersect is known as the **Vanishing Point**. Protractor is meant for handling layouts consisting of surfaces angled at 90° to one another – for layouts of boxes, really. In a boxy environment, like in the glass-and-steel jungle that is my hometown, there are 6 major vanishing points. One in front, one behind, two off to the sides, one in the air and one in the ground. Protractor handles all six of these, it's just up to you to place the one in front and adjust the "Dutch Tilt".

- Left-Drag on the canvas to set the primary vanishing point.
- Right-drag on the canvas to set the "Dutch Tilt".
- Ctrl-Right-Drag on the canvas to adjust the horizon.
- Ctrl-Left-Drag on the canvas to adjust the vertical er, verizon?

Anyways, click the **Camera Angle Tool** button once more to exit the tool.
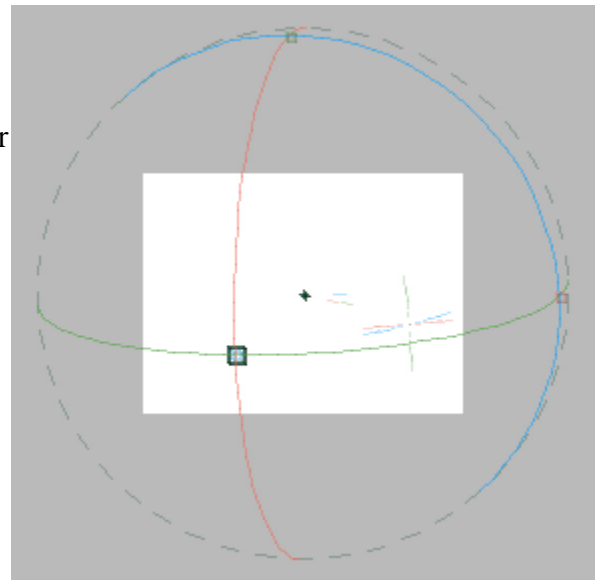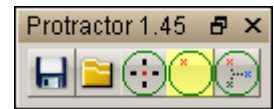
Auto-Point Mode:

Left-Click it to turn it on and off. You can Ctrl-Click it to increase the maximum number of points from the paltry default 3 to as many as 64 (and then things get insane).

Right-Clicking it will clear all the points.

RocknRoll will draw guidelines that are parallel with the 3 axes whenever your cursor is aligned with a point.

Points are dropped whenever your stylus touches the surface of the screen or lifts up. It also tries to eliminate recent points if you want to sketch a long line in multiple strokes.
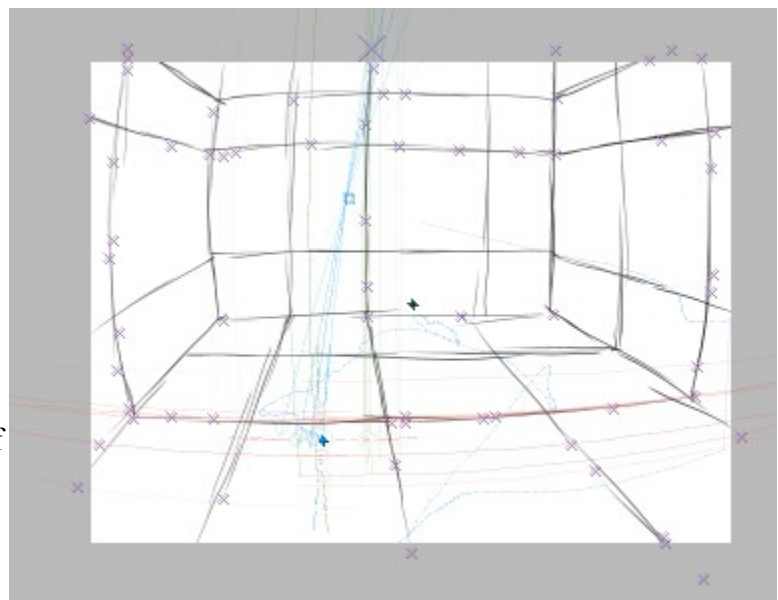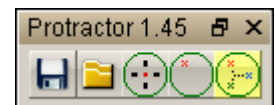
Save & Load Buttons:

These will allow you to save or load the lens settings (size and angle). First, you must save your project before you can use them. When you click them, it will load or save a CFG file named after your project, sitting in the same directory where your project is saved. So if you're working on "C:\My Documents\BallBounce.TVP", then it will load and save to: "C:\My Documents\BallBounce.CFG". This is particularly useful because sometimes Protractor crashes and I've been too lazy to fix it and I don't use Protractor enough to find the error myself. I'm too busy writing documentation.

That's the end of the manual!