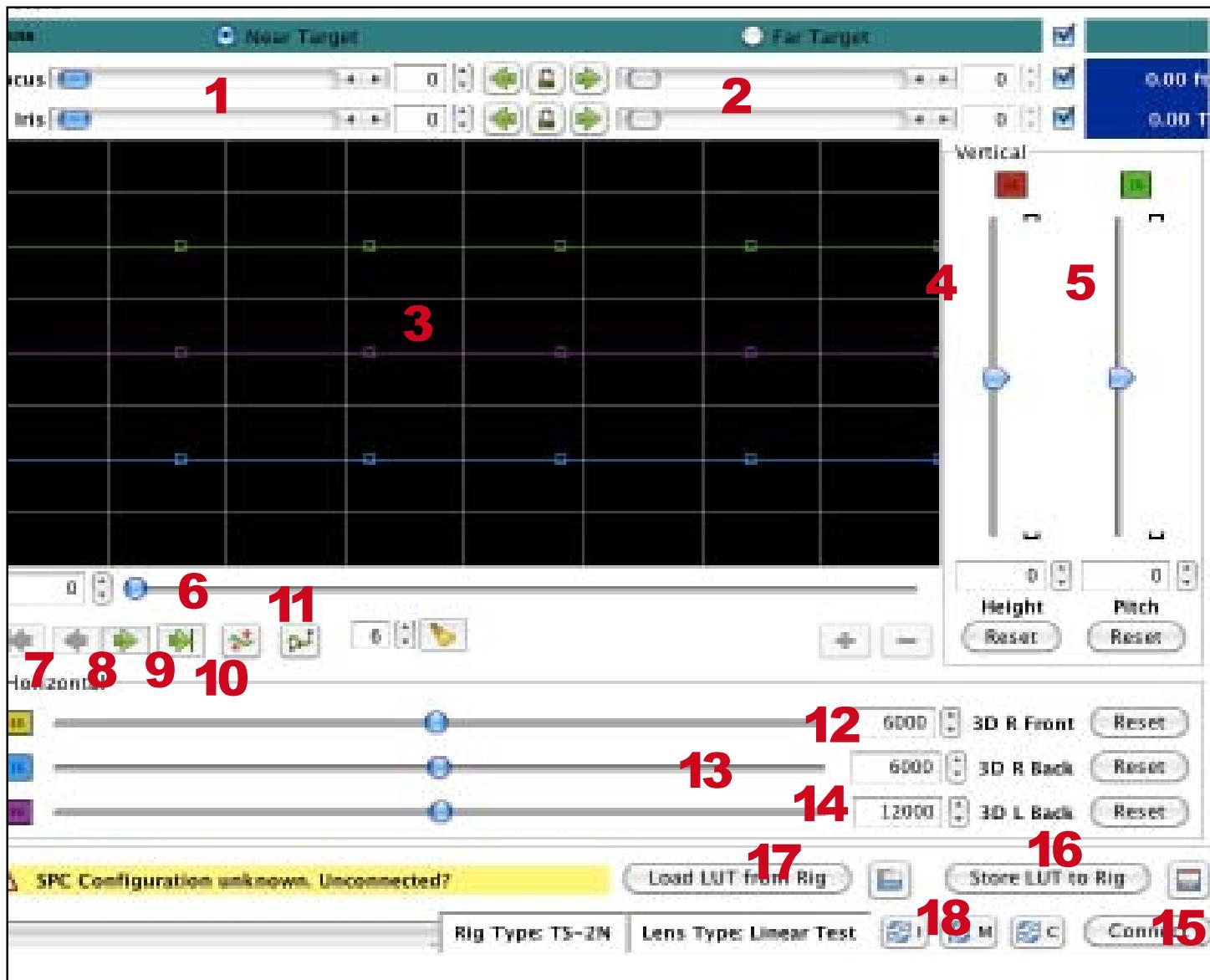


# The Tracking Window



1. Set focus and iris on NEAR target
2. Set focus and iris on FAR target
3. Main Tracking Window. Opens with 6 pre-loaded points.  
Each line represents one of the adjustment curves
4. Height Slider (To adjust near)
5. Pitch Slider (to adjust far)
6. Zoom Slider
7. Jump to first point
8. Jump to previous point
9. Jump to next point
10. Jump to last point
11. move entire curve up or down (toggle to turn on/off)
12. Right Front Rail (Near target)
13. Right Back Rail (Far target)
14. Left Back Rail
15. Save LUT to disk
16. Save lut to rig
17. Load lut from rig
18. Load lut from file

# TS-2S: Rig Setup Procedure

## Tracking Look Up Table

### Purpose

This look-up table essentially matches the unique telecincity characteristics of your lenses to ensure that at every point in your zoomtrack, your horizontal and vertical alignments remain synchronized and matching. By finding the nodal point of the exit pupil, we assure perfect convergence and alignment along the entire zoom.

### Method

Using the **Tracking** tab in the 3Flex control center, a near and far target with strong horizontal and vertical elements, you will use your Right Front and Back Rails to align your verticals, and the Height and Pitch sliders to align the horizontals of your foreground and background.

### Prerequisites

A working knowledge of the 3Flex Control Center Software.

A basic understanding of the Tracking Window



### Before you start

1. Make sure you have completed your focus/backfocus, rotation correction, and you have built your bidirectional zoom look up table.
2. Clear all adjusted values from your SPC.
3. Zoom lenses should be at zero; lens ranges without limits.
4. Place a target (such as the one to the right, or the target in the back of the manual) in the center of your camera, as close as possible to the mirror.
5. Choose or place a target with strong horizontal and vertical characteristics in the center of your camera, as far away as possible.
6. Make sure both are visible at both your wide and telephoto settings.
7. Set your monitor view to LUMA (Settings > Output > Mix1 > Luma)
8. Turn off Auto Pitch correction.
9. Connect to the Rig. (your iris will close).
10. Select Your near Target (A) – Move your zoom guide (6) all the way to the left
  - Set Focus and Iris
11. Select your far target (B) – Move your zoom guide (6) all the way to the right
  - set focus and iris
12. You only set your right eye so you won't be moving the 3DL Back Rail.
13. Check on your ISO monitor that your **Confidence** value is high (above 80%).



# Aligning your Cameras

## Process

1. To begin the alignment process, open the Tracking tab of your 3Flex software.
2. Set your Monitor to the Luma View.
3. Connect to your rig, which sets your inter axial at zero, and your convergence at infinity (parallel).
4. Looking through the FRONT of your rig (you'll need a friend for this) and using the Right Front Rail, bring the two lenses together optically until the sides look overlapped (they will be vertically misaligned) (your friend can go now).
5. Once overlapped, use your luma view and move your Right Back Rail to overlap the images as best as possible.
6. To get the best possible view, you may need to use your height and pitch controls to align your verticals.
7. Beginning with this step speeds the alignment process considerably.

## Adjusting verticals

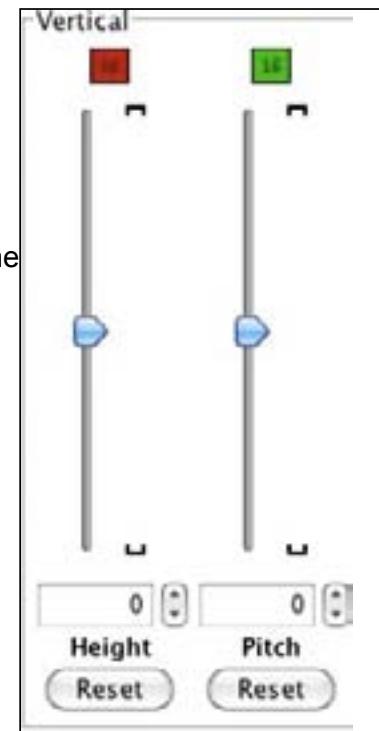
**Pitch:** to adjust our distant vertical alignment

**Height:** to adjust our verticals at the near end of the zoom.

**Why?** Rather like standing on your toes, where you don't have a lot of range for height, neither do the cameras, so we handle the height adjustment for our near values.

Once we are on our toes, however, we can still tilt our heads to see further over the fence. In that way, we use Pitch for our distant corrections.

1. Set your view to Far Target (B)
2. Adjust Pitch slider until verticals of far objects overlay
3. Toggle view to Near Target (A)
4. Adjust Height slider until verticals of near targets overlay
5. Toggle back to Far Target and check Pitch.
6. move on to your horizontal alignment when height and pitch are aligned.



## Finding the Nodal Point

**Right Back Rail:** Use this to adjust your **far** target.

**Right Front Rail:** Use this to adjust your **near** target.

**Why?** This is a process of switching between the near and far views; and the front and back rails of the right camera. Overlay your left and right images at the far setting, and overshoot your left and right views at your near setting, alternating between near and far. Once aligned at both near and far, move to your next point and repeat the process.

1. Set view to Far Target (B)
2. Select Back Rail; overlap images
3. Set view to Near Target (A)
4. Select Front Rail; bring front and back images together.
5. Continue moving front rail until you are approx 2x beyond the initial overlap.
6. Repeat this sequence until your targets are aligned at both near and far settings.
7. Move to next point, and repeat from the top.

**TIP:** You'll notice that the curve begins to have a pattern. you can skip a lot of the adjusting by moving your next point to the vicinity of the point you just corrected.