

## Solving for CameraTracker Optical Center

### 1. Finding Optical Center at the Camera

Ask the camera operator to find a high contrast sharp 90° corner across from their position in the stadium. As a default, they can use the point on the far side wall where the blue line on the wall meets the yellow line along the bottom of the wall.



To set optical center, have the camera operator zoom all the way in to the chosen point and place it in the general center of the screen. Using the camera viewfinder's cursor/box, set the corner of the box or the crosshair over the physical corner.



Lock pan and tilt locks at the panhead. Keep them locked throughout this whole procedure.

The operator should then zoom out and compare the placement of the cursor to the real corner all the way wide vs all the way zoomed in. The operator should make “half the distance” compensation movements to get the cursor to match by adjusting the cursor itself ONLY when all the way wide, and by physically adjusting the camera (nudging it with the locks on) when all the way tight.

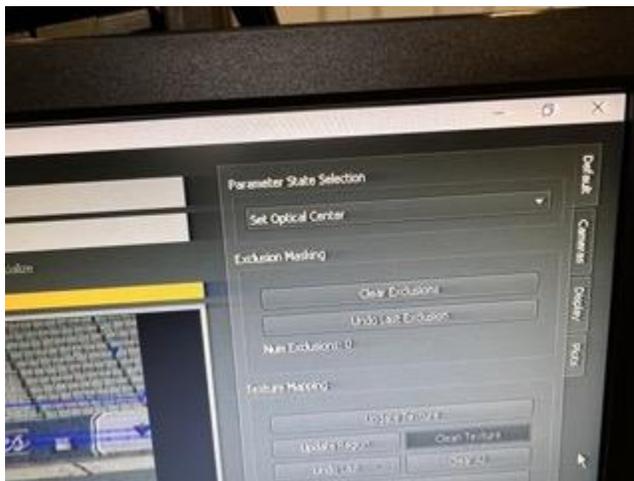
(See Video)

Once the camera operator is satisfied that the cursor matches the corner, both wide and tight after a few zooms, then the camera operator has established Optical Center at the camera. Do not unlock the pan and tilt locks at the camera.

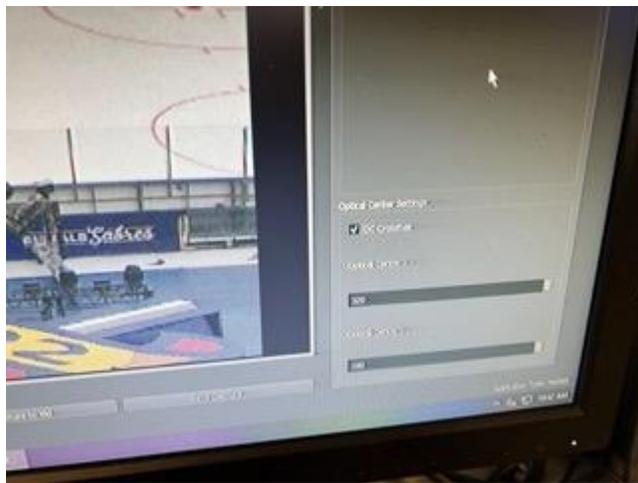
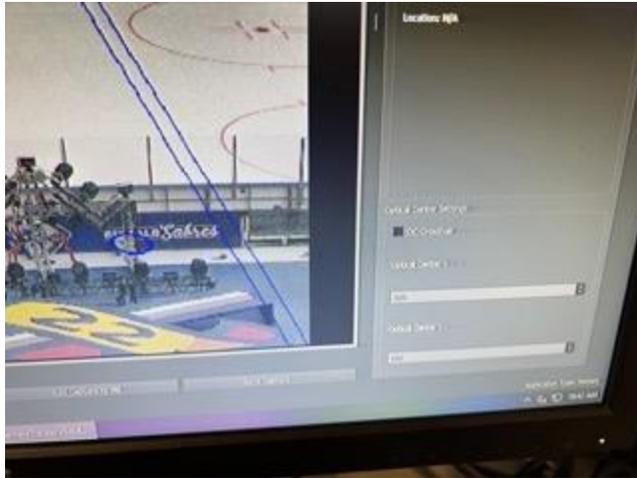
## 2. Calculating OC in CameraTracker - **Has to happen first before “Determining Camera Position”**

Now it is time to set the Optical Center to match in CameraTracker.

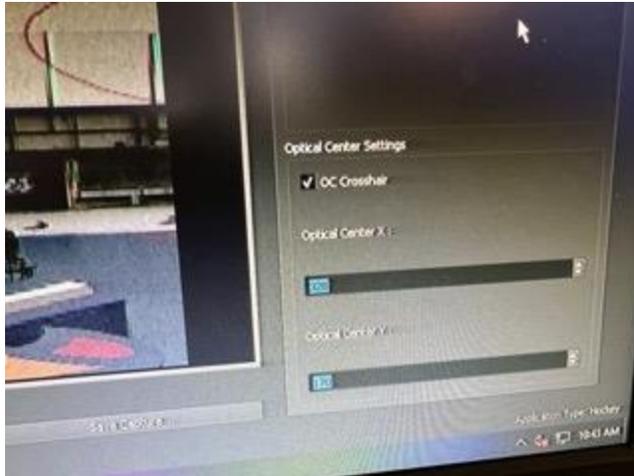
Select “Set Optical Center” under the Parameter State Selection dropdown menu.



Go to the Cameras tab. Select the box for OC Crosshair to show a red crosshair in the UI.



With the camera fully zoomed out, use the Optical Center X and Y boxes to adjust the crosshair so it's aligned on the corner that was chosen to zoom in on at the camera.



Once that is set, have the camera operator zoom all the way in. The crosshair should still be on the same corner.

Once the crosshair is on this location, the optical center has been set. Uncheck the OC Crosshair box to remove the graphic and stop the OC from changing any further.

You can then proceed with CameraTracker calibration as normal.