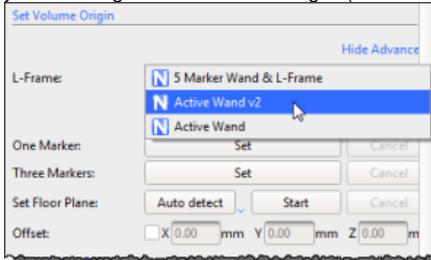# Set the volume origin

Setting the volume origin (global coordinate system) tells the Vicon system where the center of your capture volume is and what its orientation is (x, y, and z axes), so that subjects are displayed the right way up in the Nexus view pane and so that you can change the way data is visualized. You normally set the volume origin immediately after the previous step Calibrate Vicon cameras.

To set the volume origin, you need a calibration device, normally an Active Wand, which is supplied with your Vicon system.

To set the global coordinate system:

1. Remove from the capture volume all markers and the sources of any unwanted reflections that have not been accounted for by camera masks previously created in a **Camera** view (see Mask unwanted reflections).
2. In the **Resources** pane, ensure Nexus is in Live mode.
3. Display a **3D Perspective** view.
4. In the **System Preparation** tools pane, expand the **Set Volume Origin** section and from the **L-Frame** list, select the type of calibration device you are using to set the volume origin. (This is normally the calibration device that was supplied with your Vicon system.)

   If it is impractical to place the wand in the required position, you can instead use the **One Marker** or **Three Markers** options to set the origin. (The **Three Markers** option creates two vectors that determine the orientation of the volume.) To use these options, position the marker(s) in the volume and then click **Set** next to the chosen option. You can then select the required marker(s) in the **3D Perspective** view. If you selected **Three Markers**, you are prompted to select an origin marker, a primary (X-axis) marker, and secondary (Z-axis) marker.
5. In the capture volume, place the calibration object flat on the floor in the position and orientation that you would like to be the origin of the global coordinates system (often a force plate corner or another clearly marked area of the volume).
6. In the **Set Volume Origin** section, click **Start**.
   The calibration object tracking process starts, Nexus identifies the calibration object in the capture volume, displays a 3D representation of it in the **3D Perspective** view, and changes the **Start** button to **Set Origin**.
7. Click **Set Origin** to complete the calibration object tracking process. Nexus sets the global origin and axes to correspond to the position and orientation of the calibration object in the capture volume. In the **3D Perspective** view, the floor grid is aligned with the capture volume floor and the cameras are distributed in the position and orientation in which the physical cameras are located. When the global coordinate system has been successfully set, it is automatically saved to an .xcp file. The latest calibration (.xcp) file is saved to the default location. This file is automatically copied to every subsequent trial captured.
8. Verify that the global coordinate system was successfully set by checking that the system tracks the calibration object.
   If it does not, check that you selected the correct calibration object from the **L-Frame** drop-down list at the top of the Tools pane. If not, repeat this procedure from step 4, ensuring that you select the correct entry for your calibration device. After you have set the global coordinate system, you can display the volume axes marker in the bottom corner of the **3D Perspective** view.
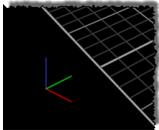
9. Turn the display of the volume axes on or off in the **Options** dialog box (F7) by selecting or deselecting **Volume Axes** under **General View Options**.