HOW TO MAKE A CALIBRATION STRUCTURE FOR STATIC DLT CALIBRATION

The Static Calibration Frame for DLT calibration needs to have at least 6 markers (8 or more recommended) at known positions. These markers should cover up at least 50% of the measurement volume in 3D space. For instance, if you have a volume of 1x1x1m the structure should be at least 0.5x0.5x0.5m. A cube with 8 markers is fairly easy to make.

The 3D positions of the markers must be measured as accurately as possible. For best results, it should be measured with a high accuracy device such as CMM, laser or an optical 3D motion capture system. These 3D coordinates are entered in the software.

When performing a DLT calibration, you need to digitize at least 5-10 frames. For best results, you should use markers and then use auto tracking but you can also manually digitize a cube without markers using the point zoom feature with good results.