

1. Purpose

The purpose of this document is to demonstrate how to use dot calibration.

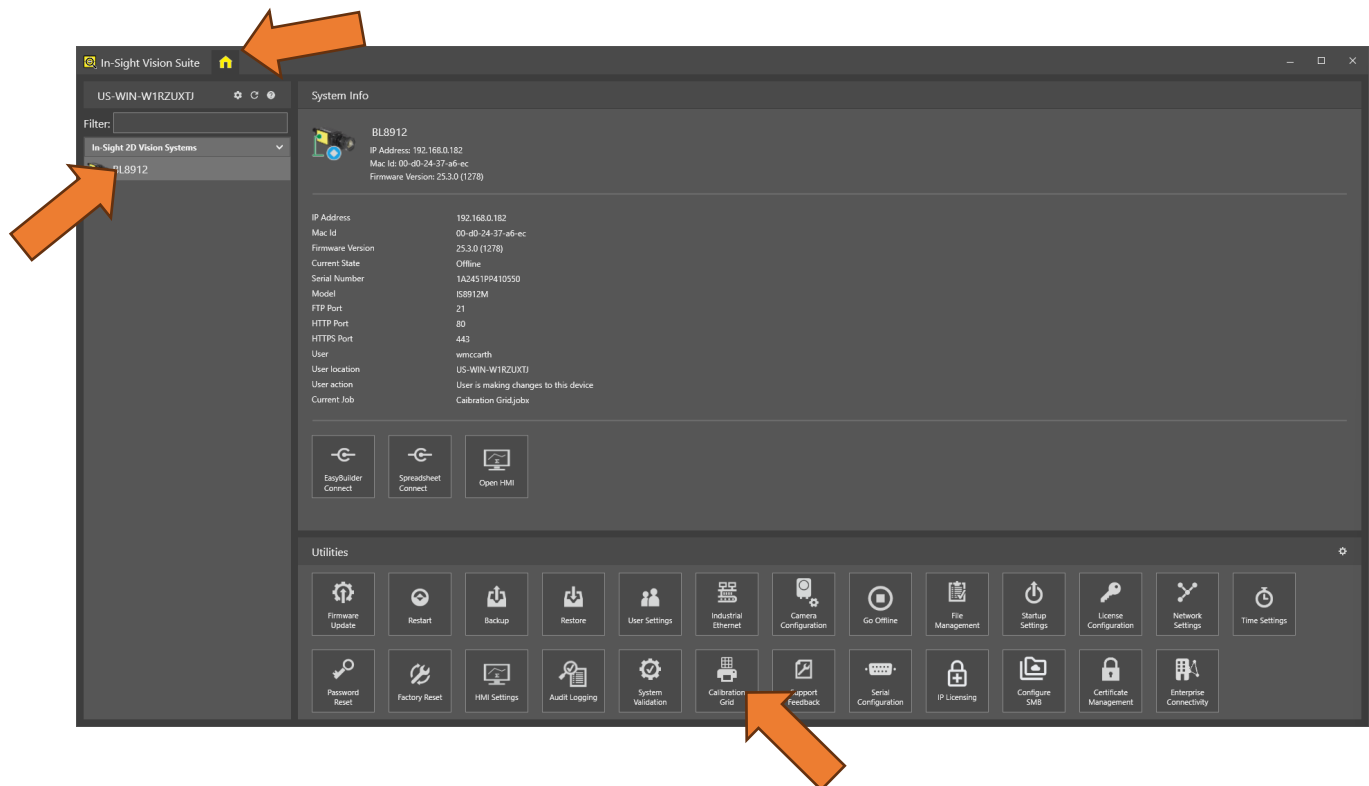
1.1 Getting Started

- Download [In-Sight Vision Suite Setup](#) package

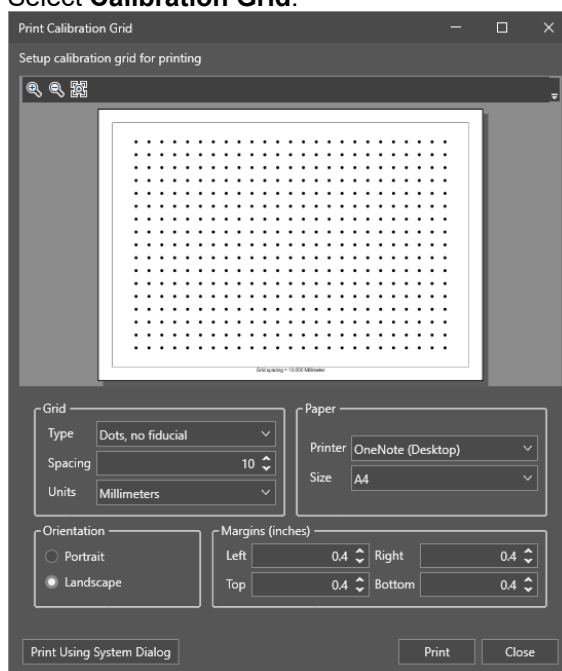
2. System Setup

Print Calibration Grid

1. Open In-Sight Vision Suite.

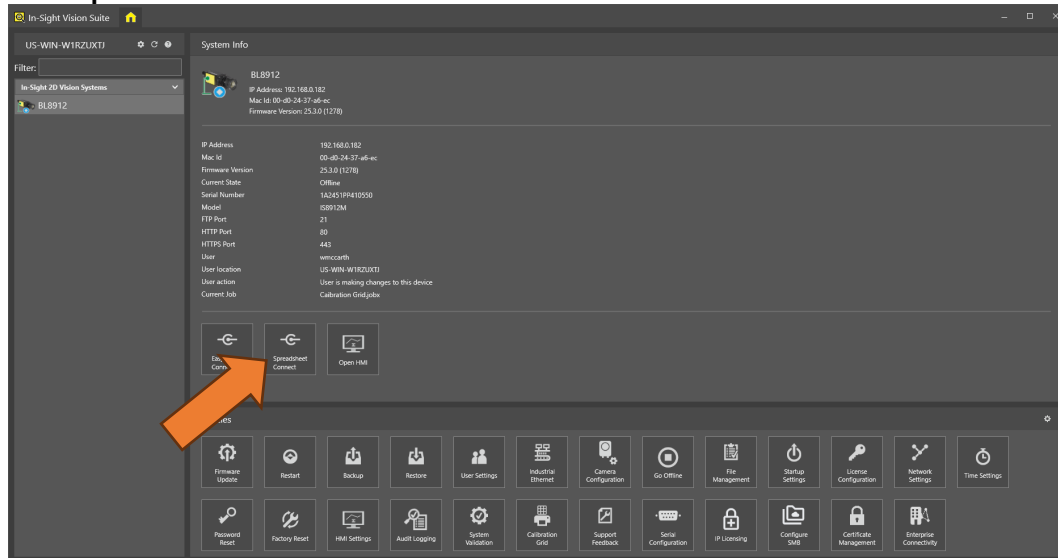


2. Click the **Home** icon.
3. Select the In-Sight device.
4. Select **Calibration Grid**.

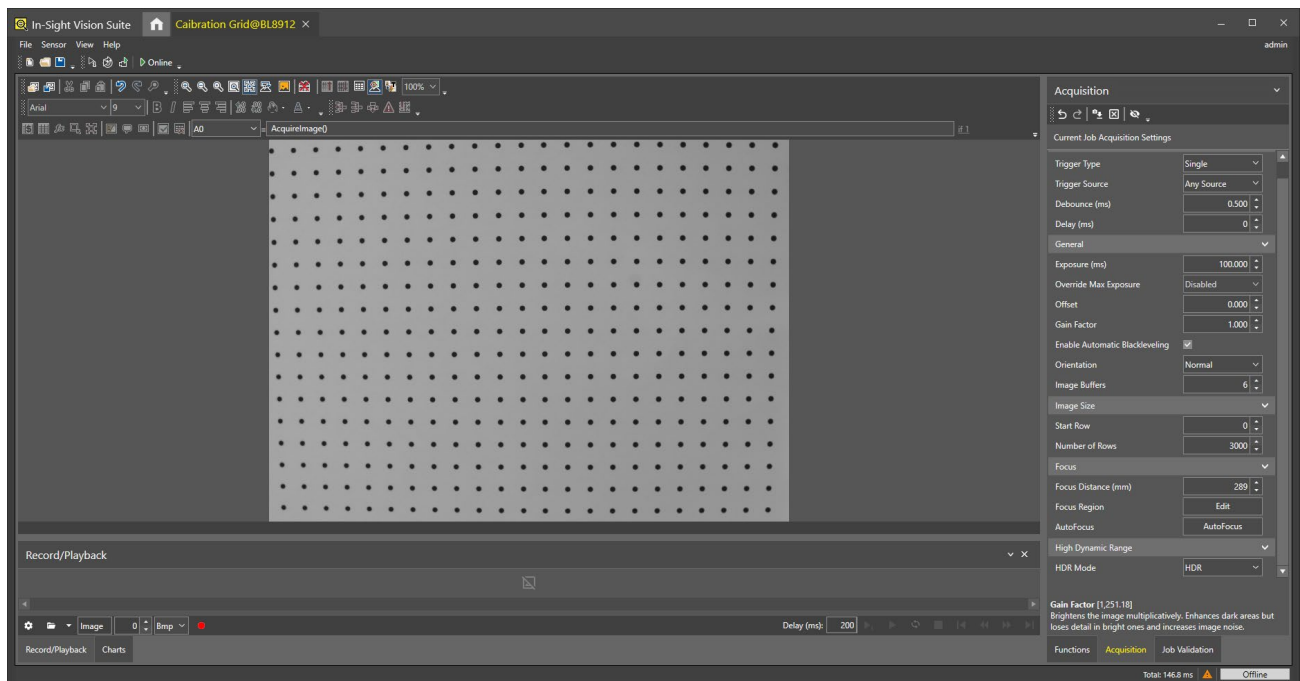


A dialog box will appear.

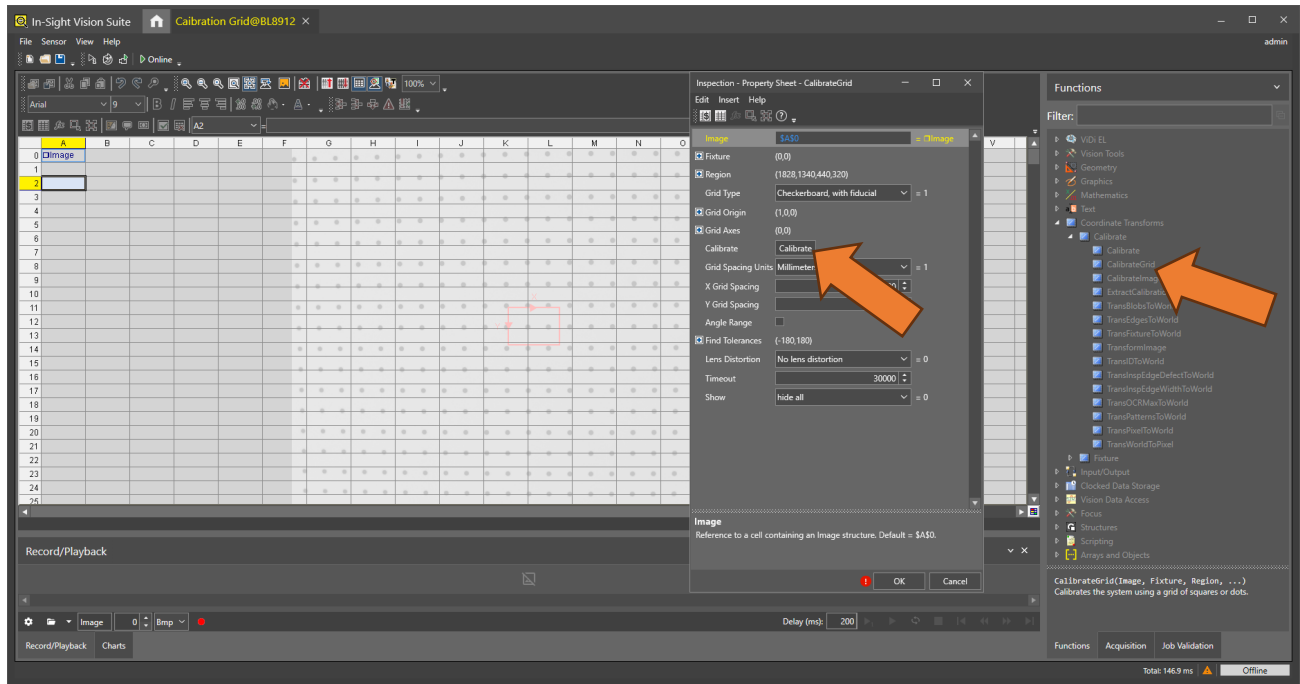
1. Configure **Grid** parameters per your camera resolution and Field of View requirements.
2. Configure **Orientation**, **Margins**, and **Paper** per your physical printing requirements.
3. Click **Print** for your calibration Grid.
Note: You can also Print from the Operating Systems Printer Dialog.
4. Click **Spreadsheet Connect**.



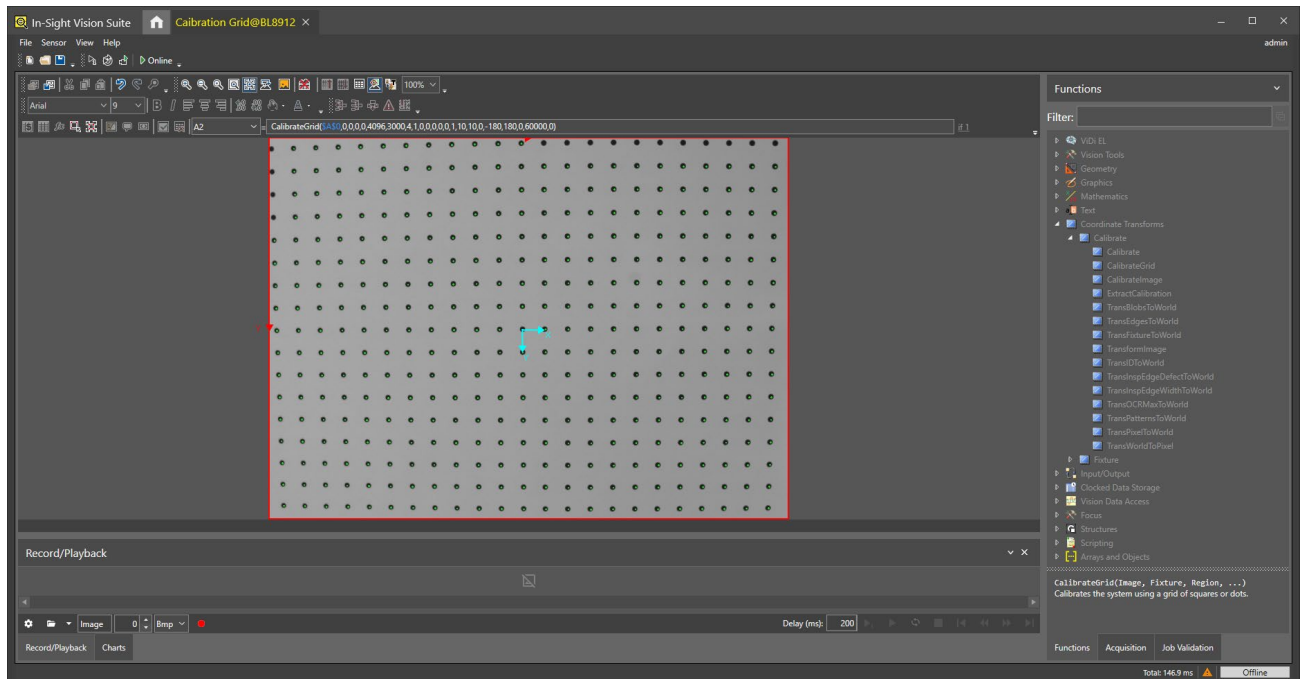
5. Target alignment:
 - Place target in FOV
 - Align target in FOV (Live Video may help along with toggling Show Grid)



Add the Calibrate Grid Tool

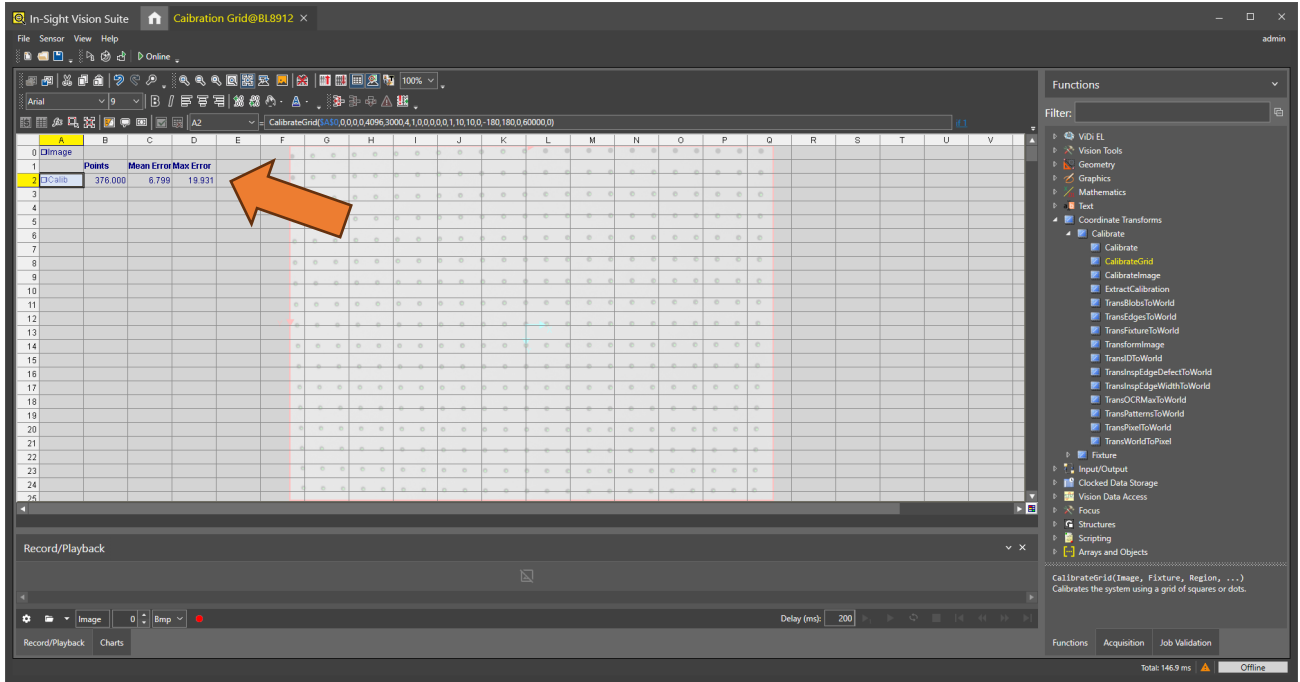


1. Configure Calibrate Grid Tool.
2. Set region for entire image.
3. Select **Grid Type**.
4. Configure your X and Y Grid spacing to what you printed.
Note: You may have to increase Time-Out depending on Resolution.
5. Click **Calibrate**.



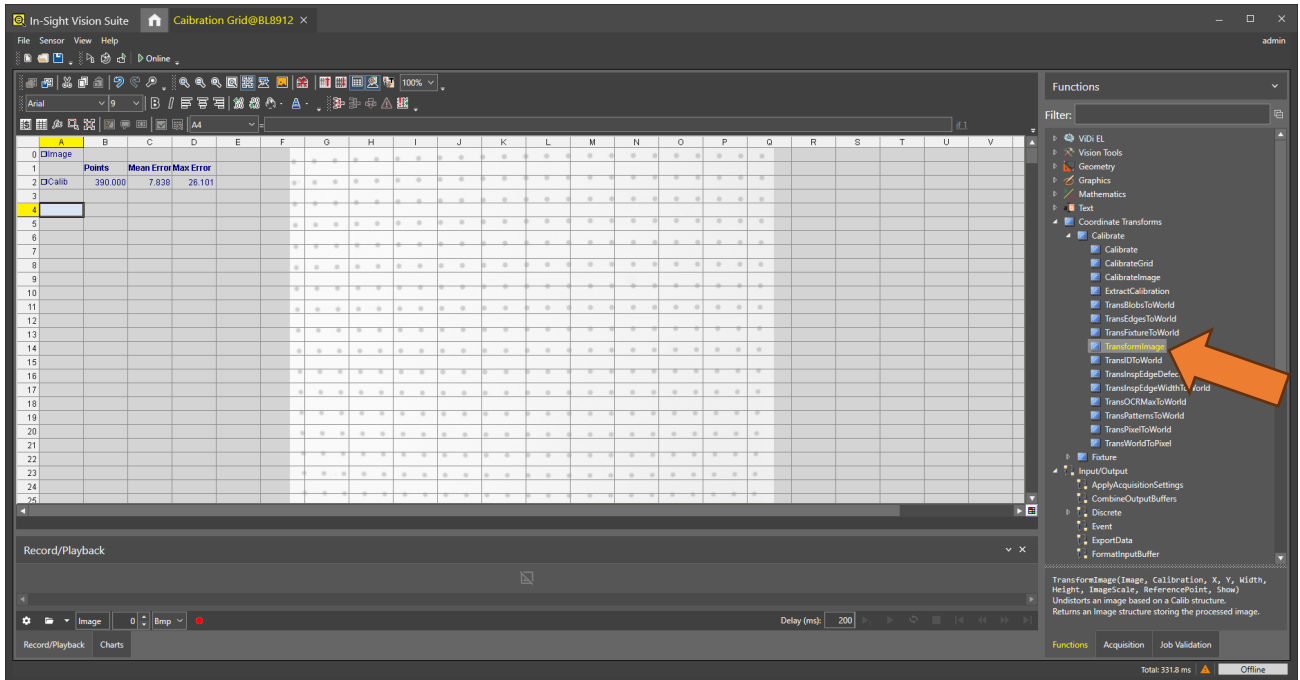
Green Calibration Dots should appear for each dot found.

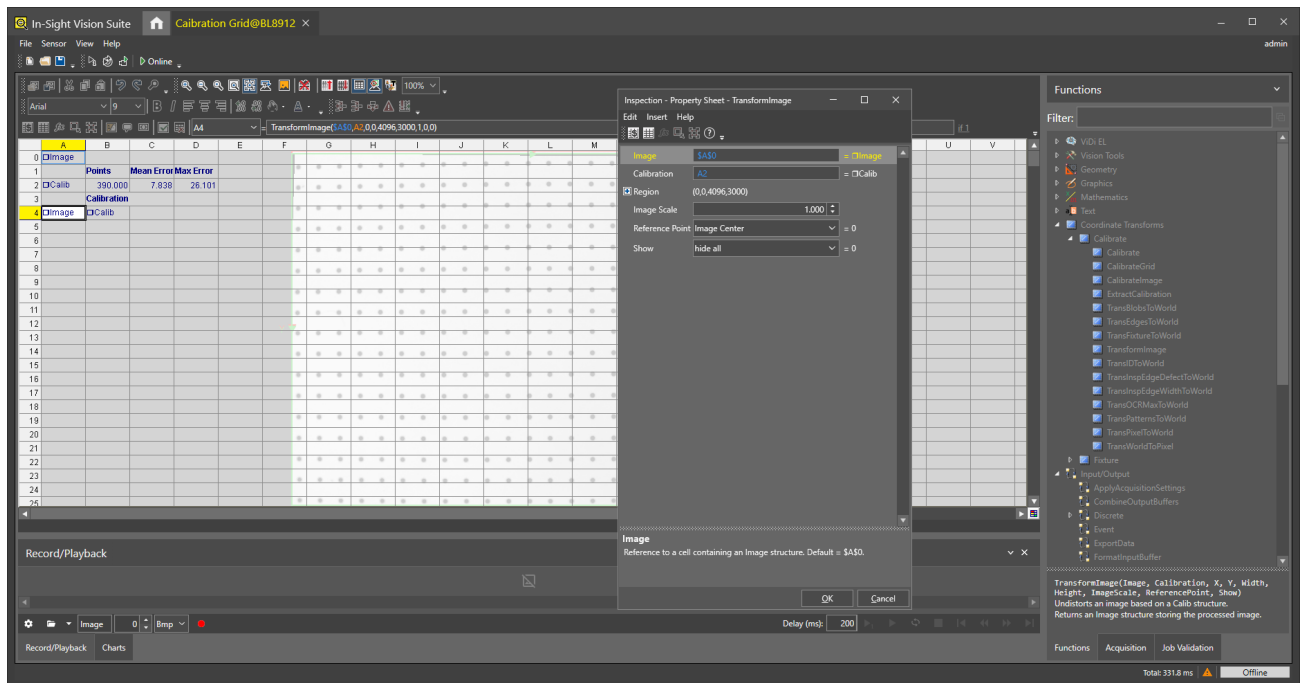
Note: Depending on resolution, you may have to zoom in.



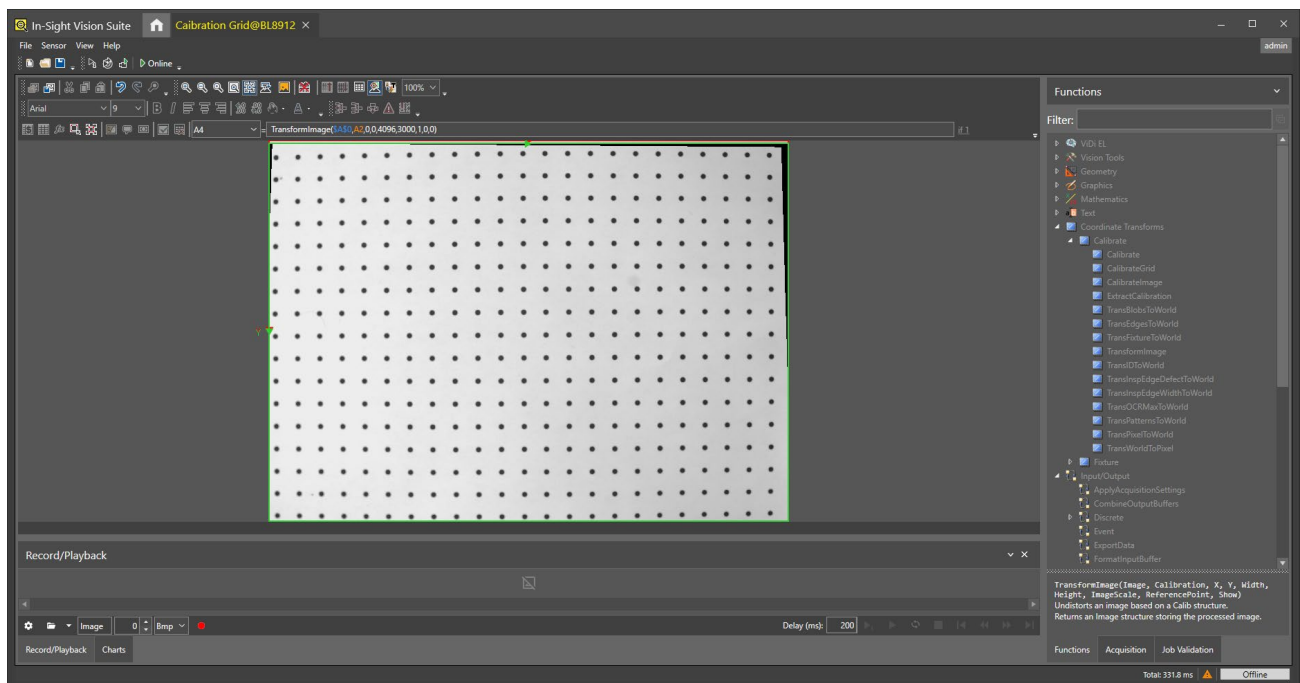
The tool displays the number of points found, Mean Error and Max Error.

Add the TransformImage Tool





1. Reference the Image (\$A\$0).
2. Reference the Calibration Tool.

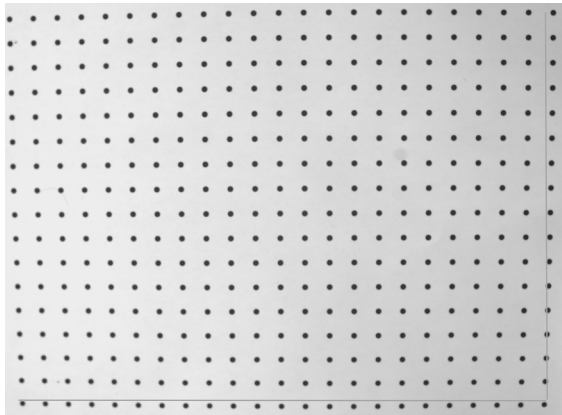


The displayed image (without Grid) is Calibrated.

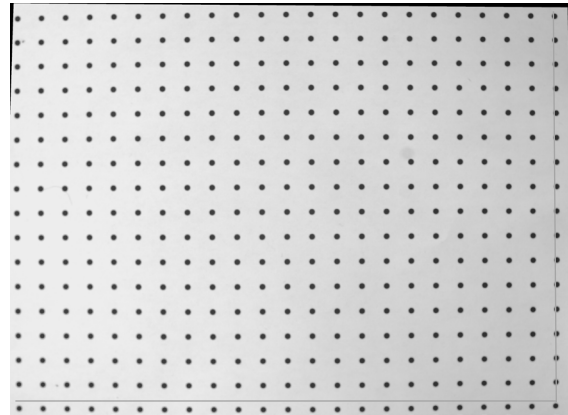
Calibration Confirmation

Save both the Raw and calibrated Images (A0 and A4) to your local file system.

Note: Use the new **File Server** method.



Raw



Calibrated

Notice the green lines in the X and Y axis and how the dots align more vertically and horizontally in the calibrated image from the removed perspective distortion.