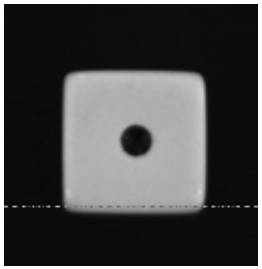
MICROSCAN

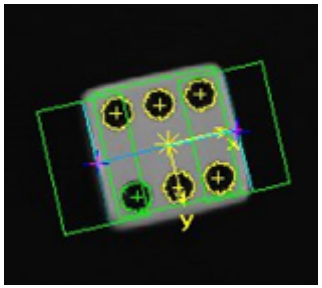
Precision Data Acquisition
and Control Solutions

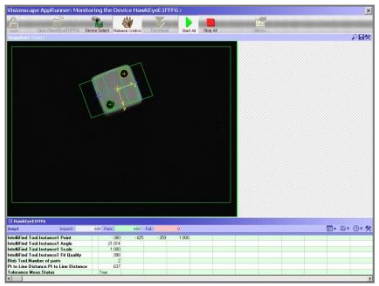
Visionscape®

Training and running a simple job using Visionscape software

Agenda





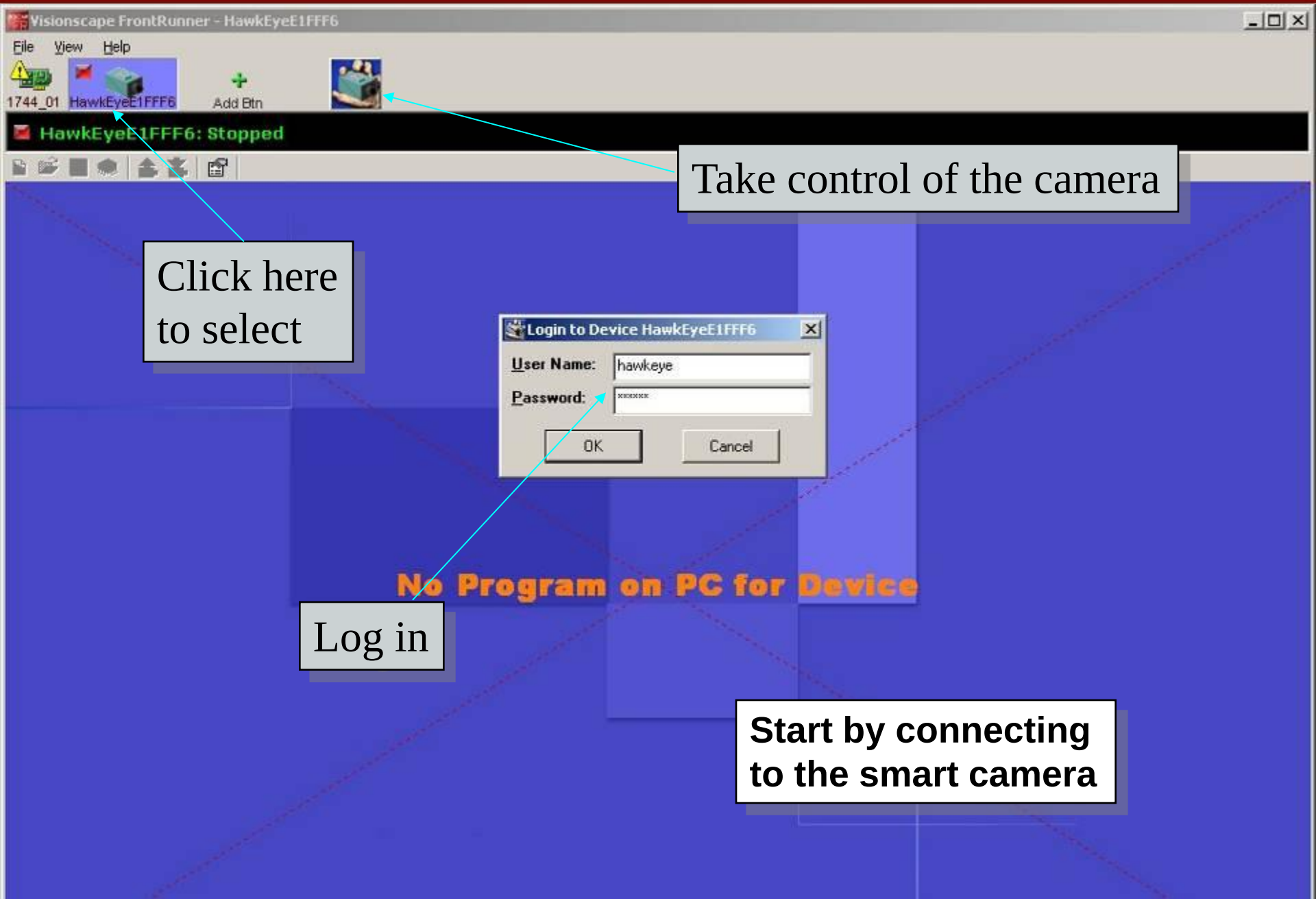


1. *Finding location & orientation of a simple part*
2. *Checking part by identifying certain features*
3. *Making a simple dimensional measurement*
4. *Accommodating movement and rotation of part*
5. *Triggering inspection via digital input*
6. *Indicating pass/fail through digital output*
7. *Communicating results through Ethernet network*
8. *Calibrating smart camera in real-world units*
9. *Deploying application with AppRunner*

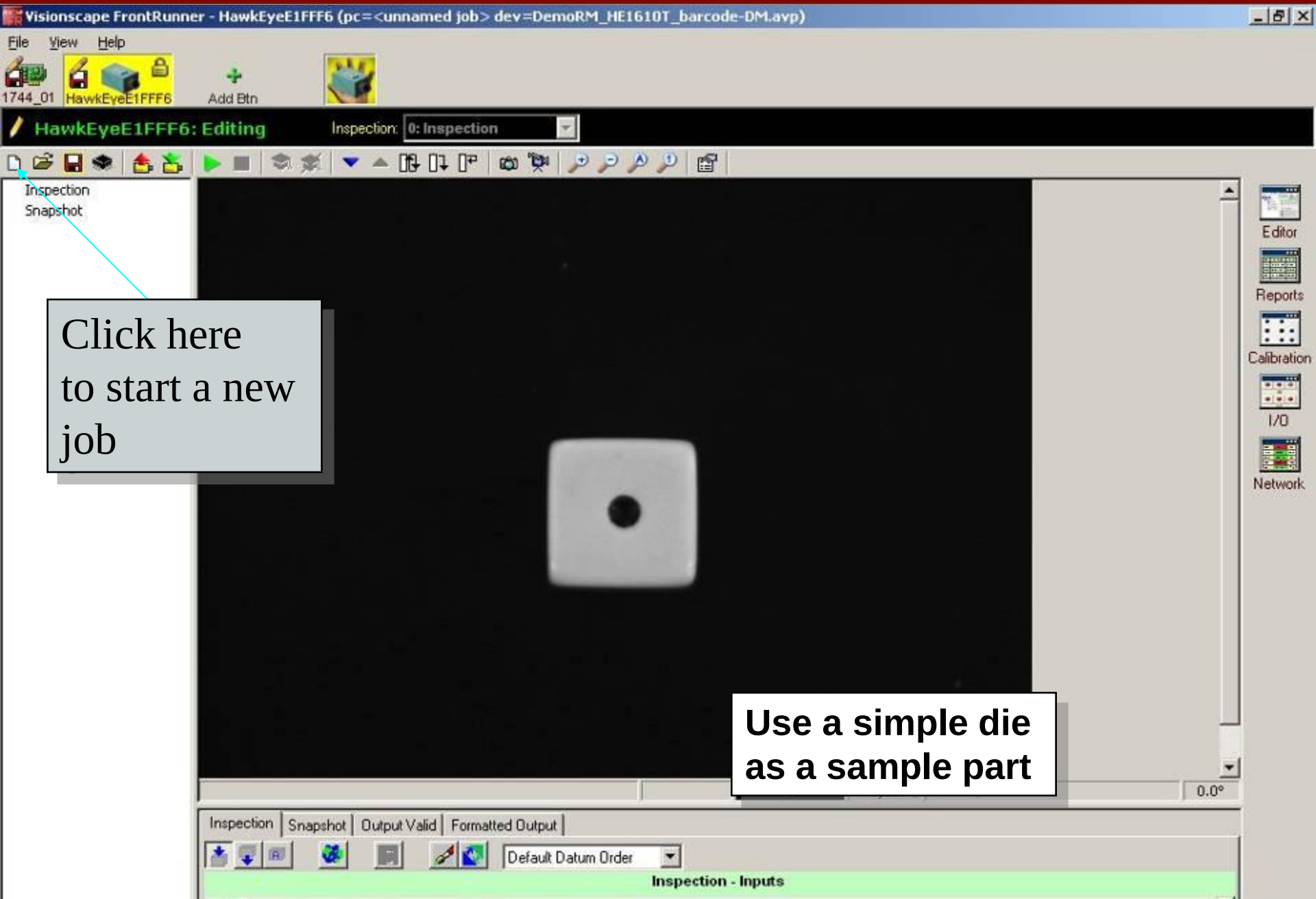
STEP 1: Finding location and orientation

Double-click and open the Visionscape FrontRunner application

STEP 1: Finding location and orientation



STEP 1: Finding location and orientation



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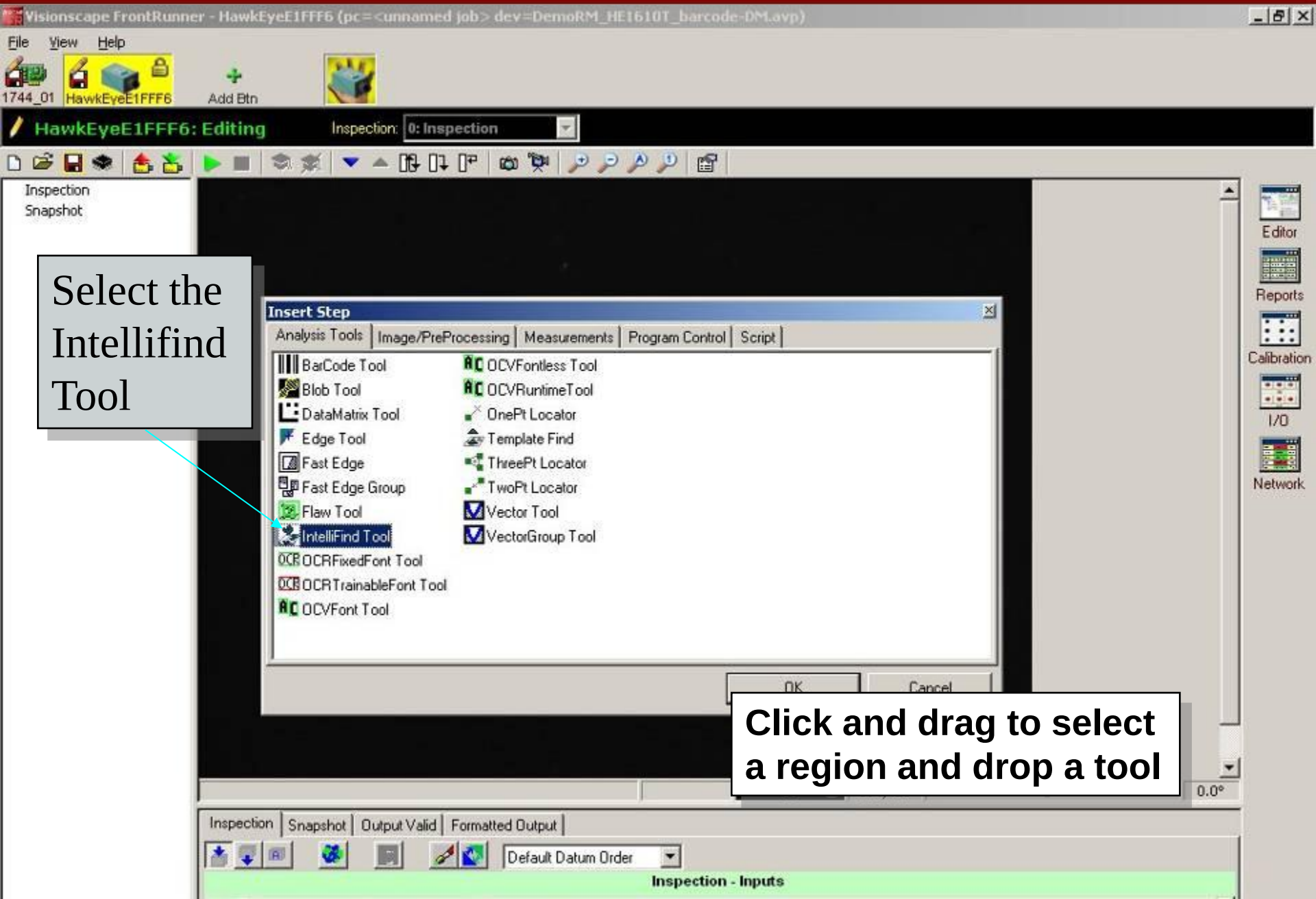
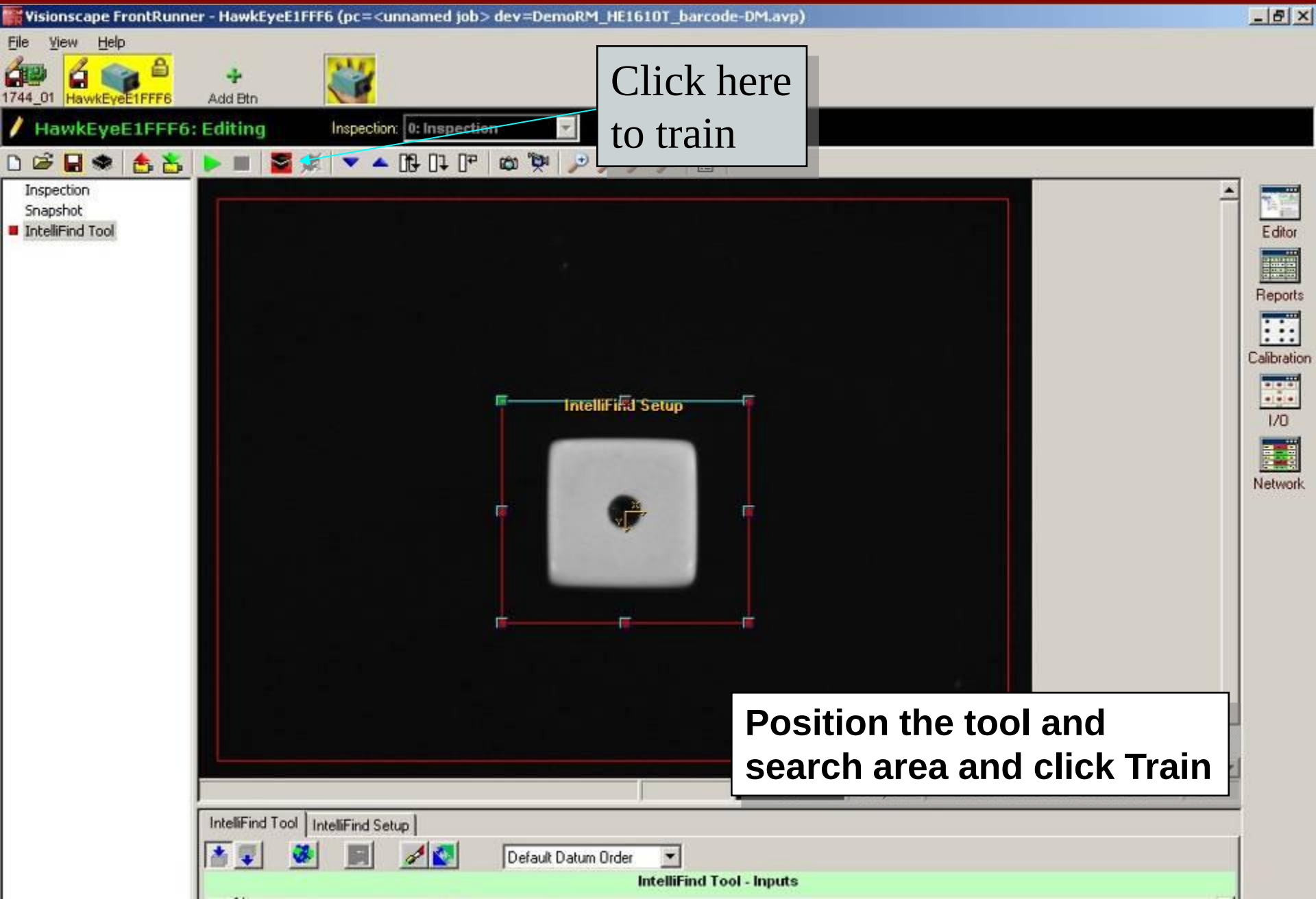
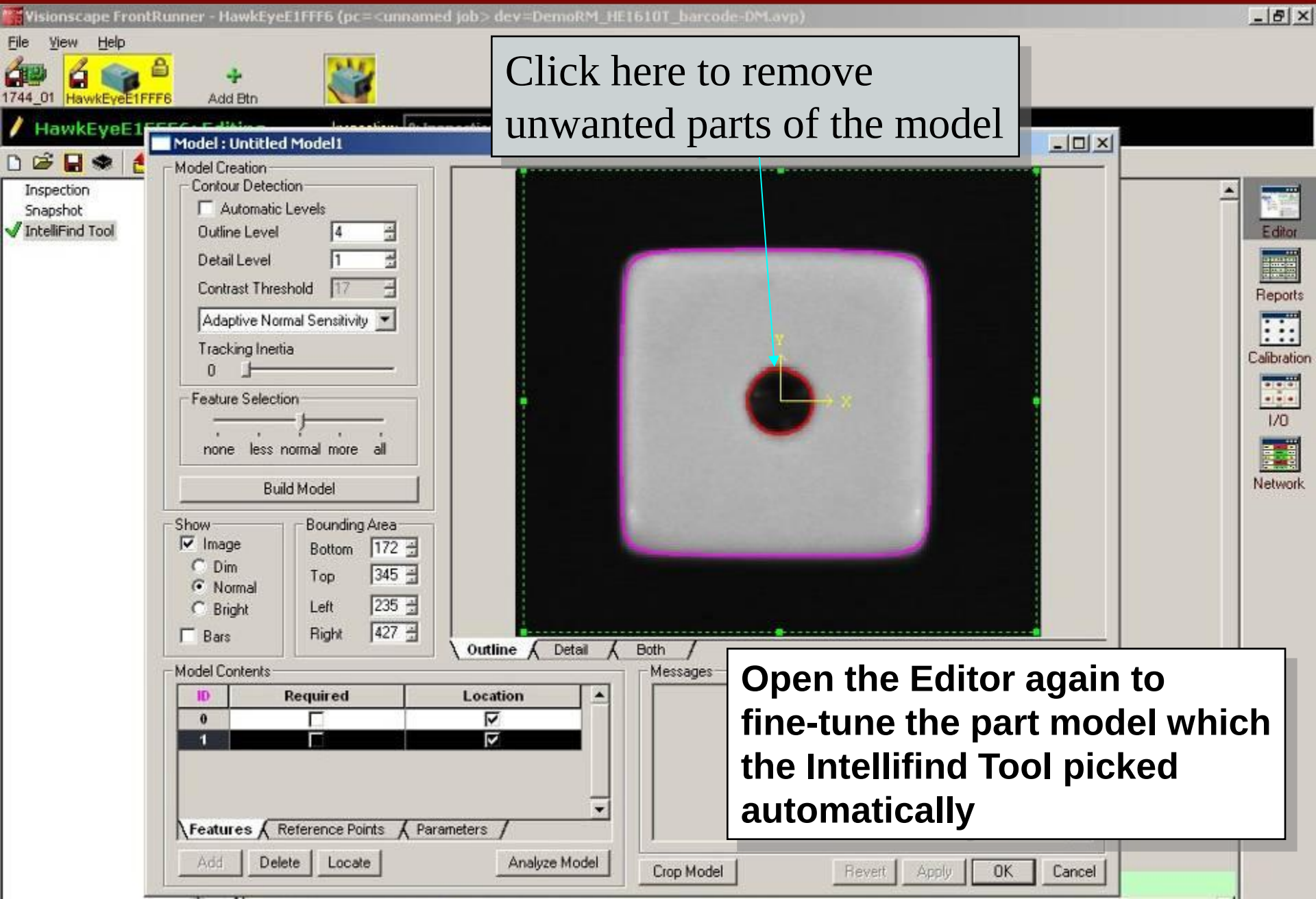
STEP 1: Finding location and orientation



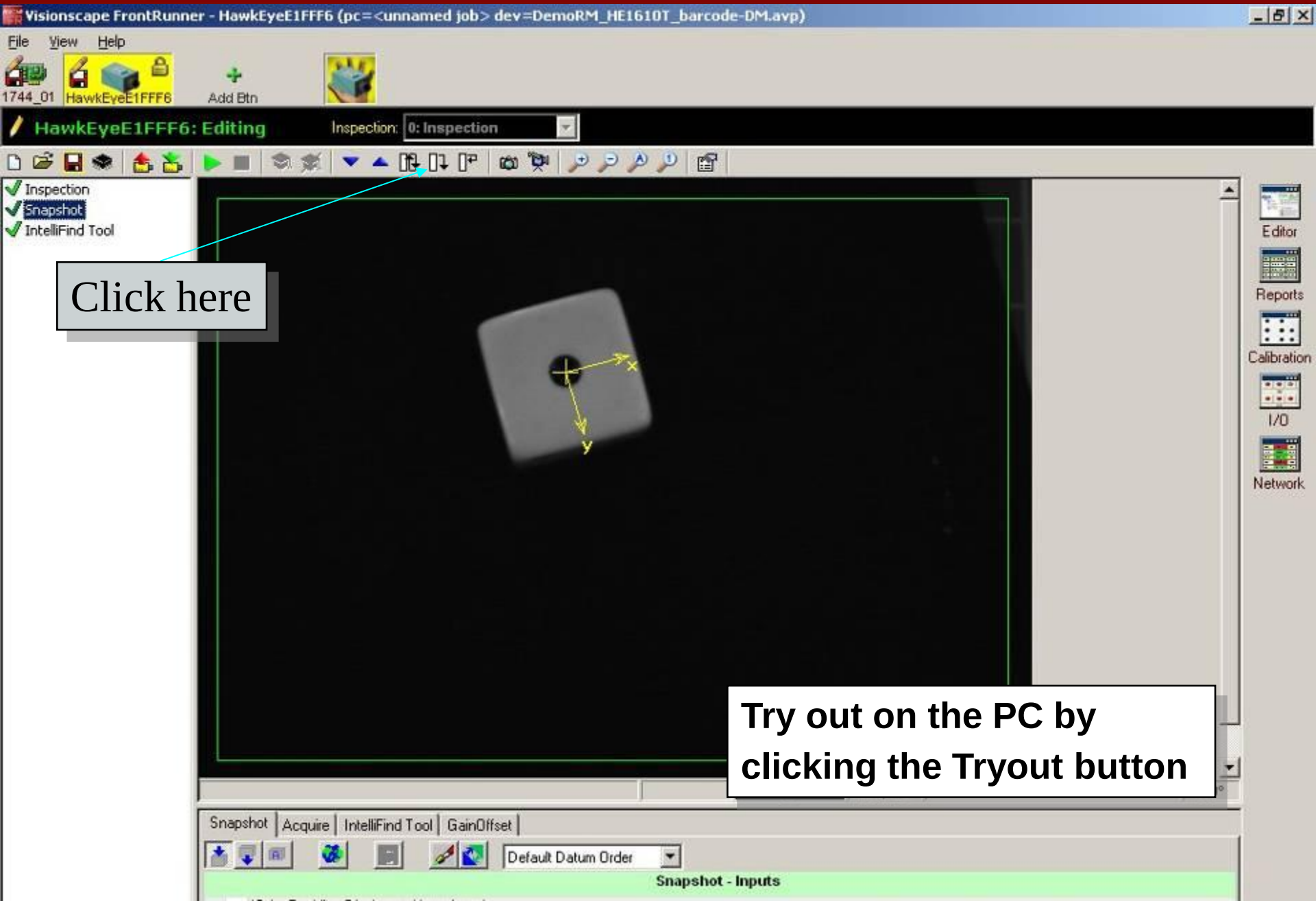
STEP 2: Identifying part features



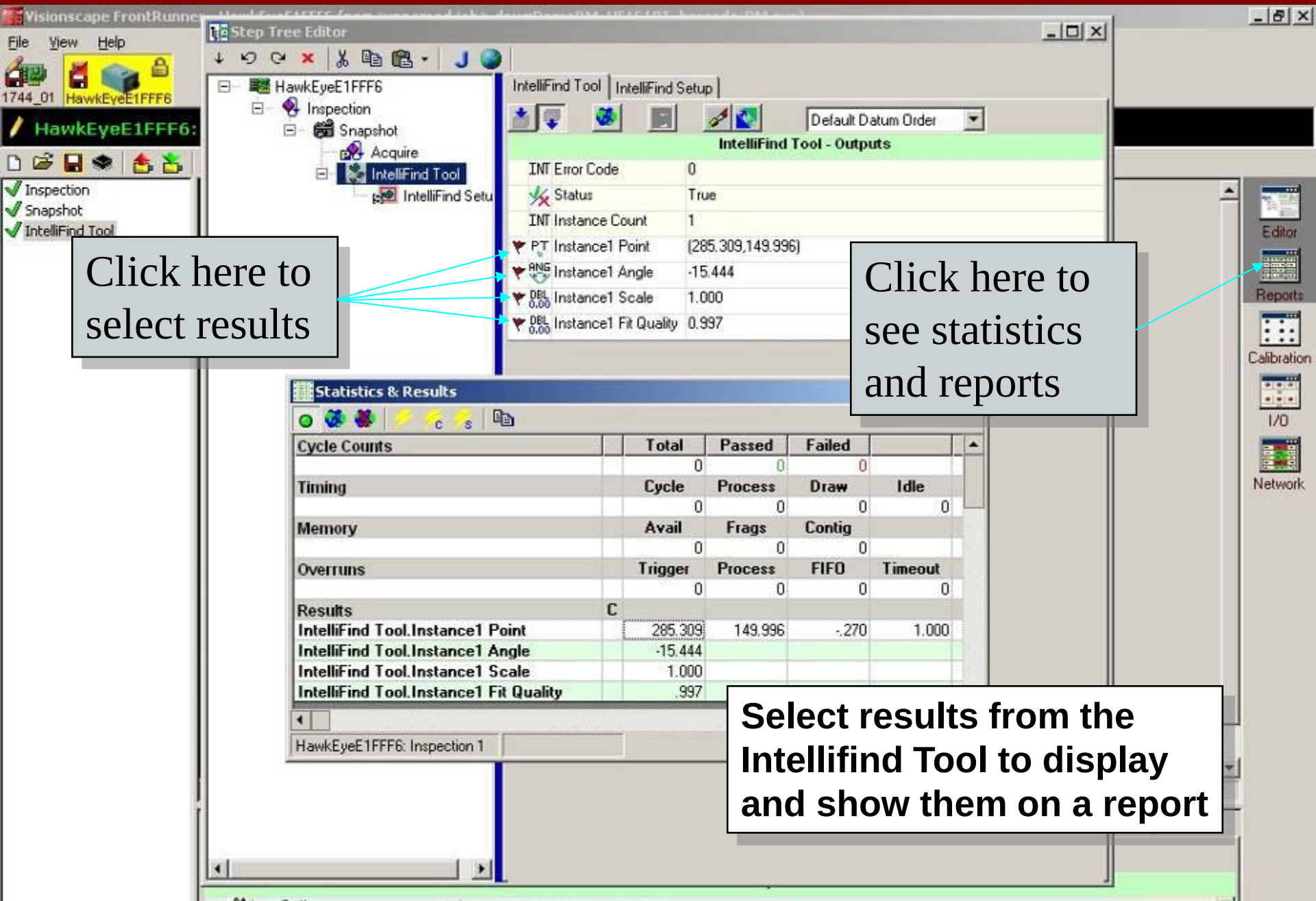
STEP 2: Identifying part features



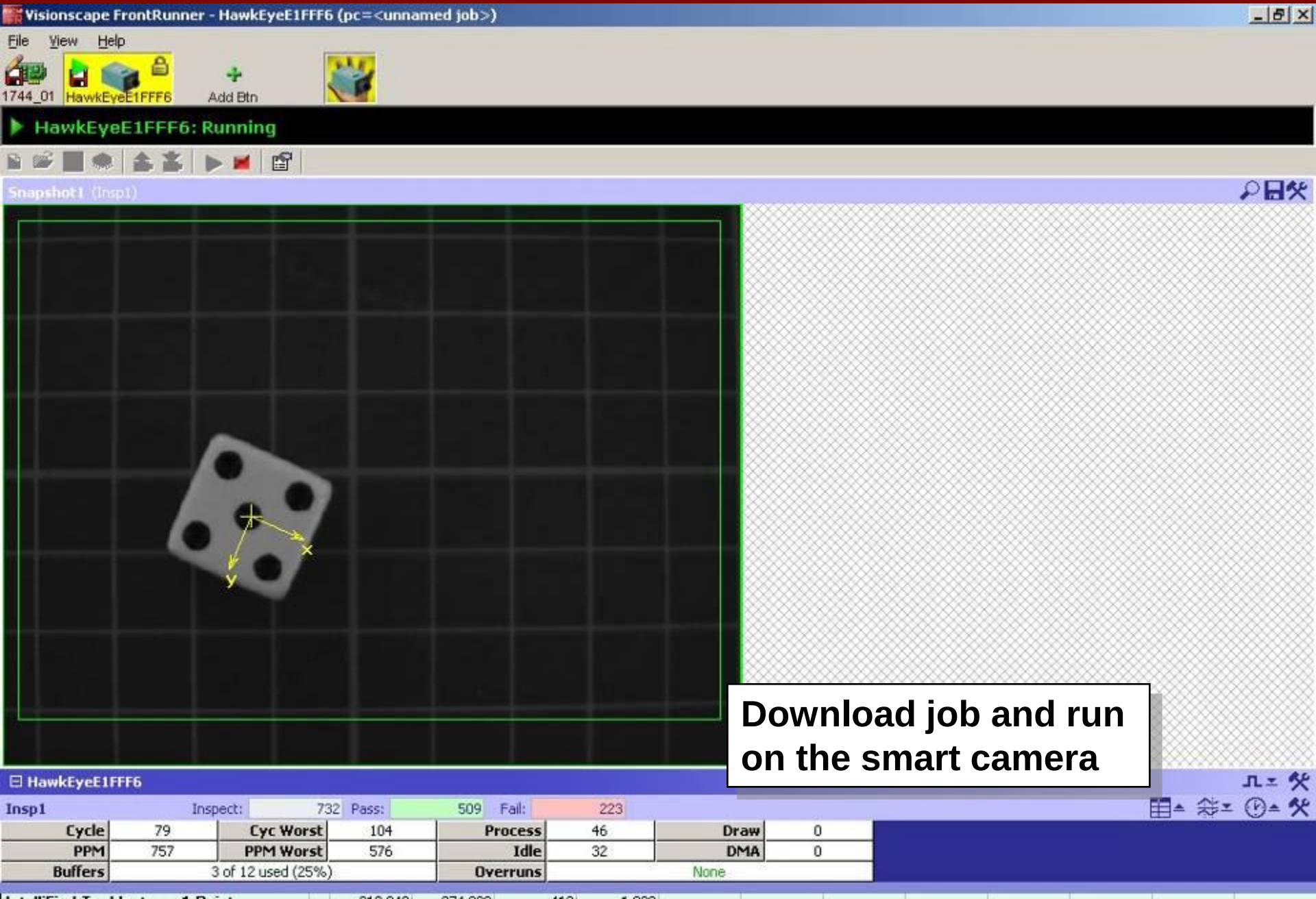
STEP 3: Making simple measurement



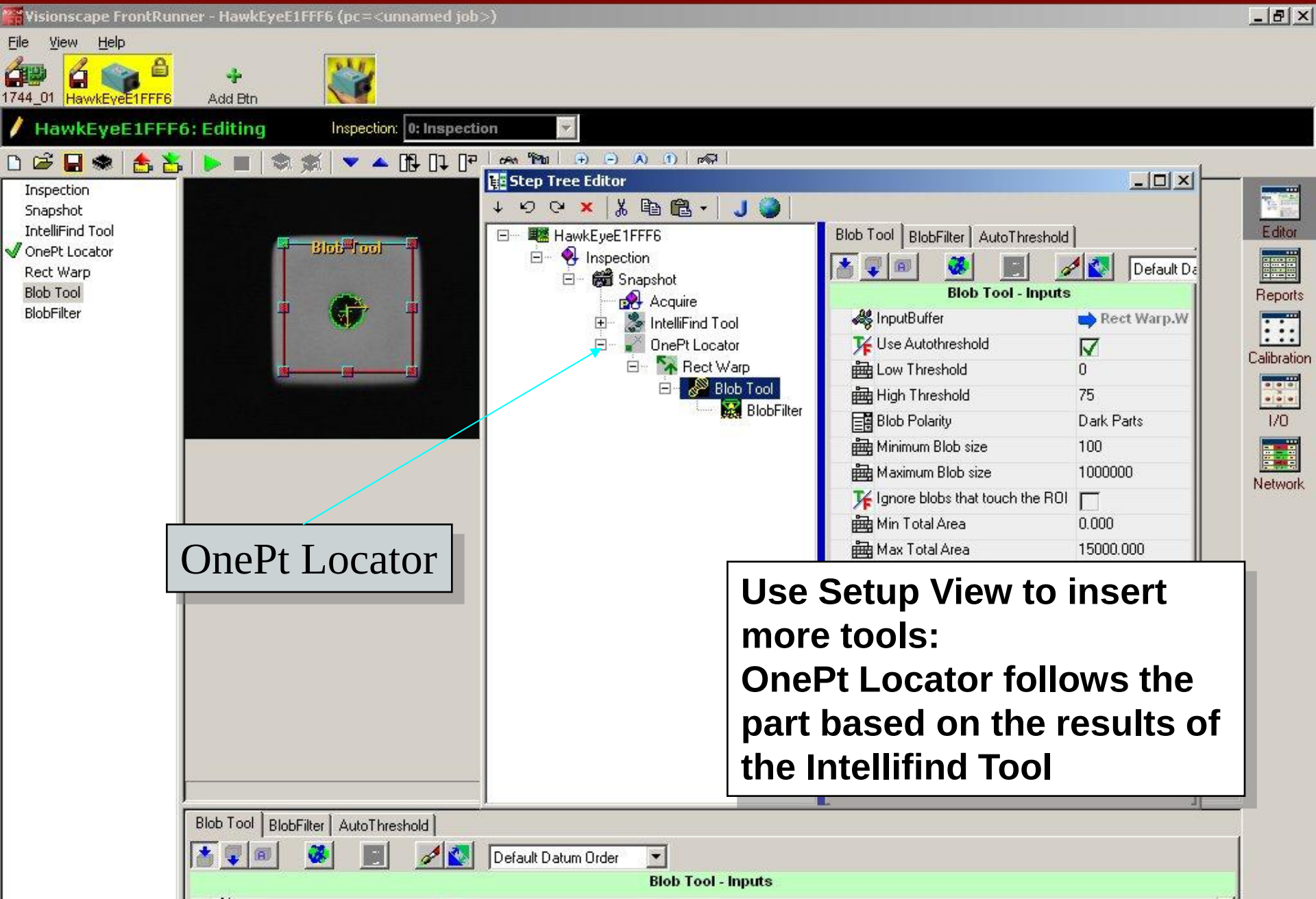
STEP 3: Making simple measurement



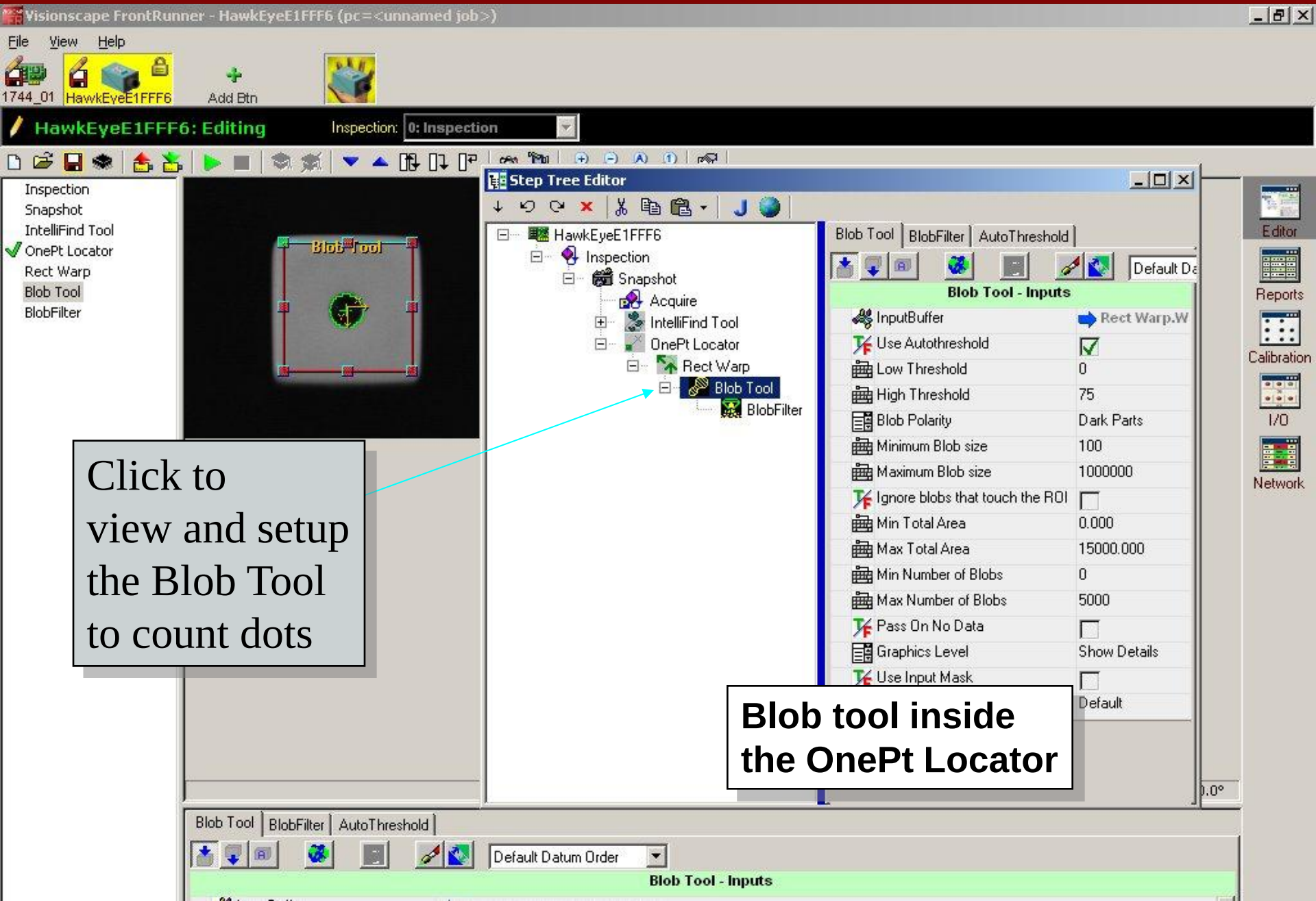
STEP 3: Making simple measurement



STEP 4: Performing inspection



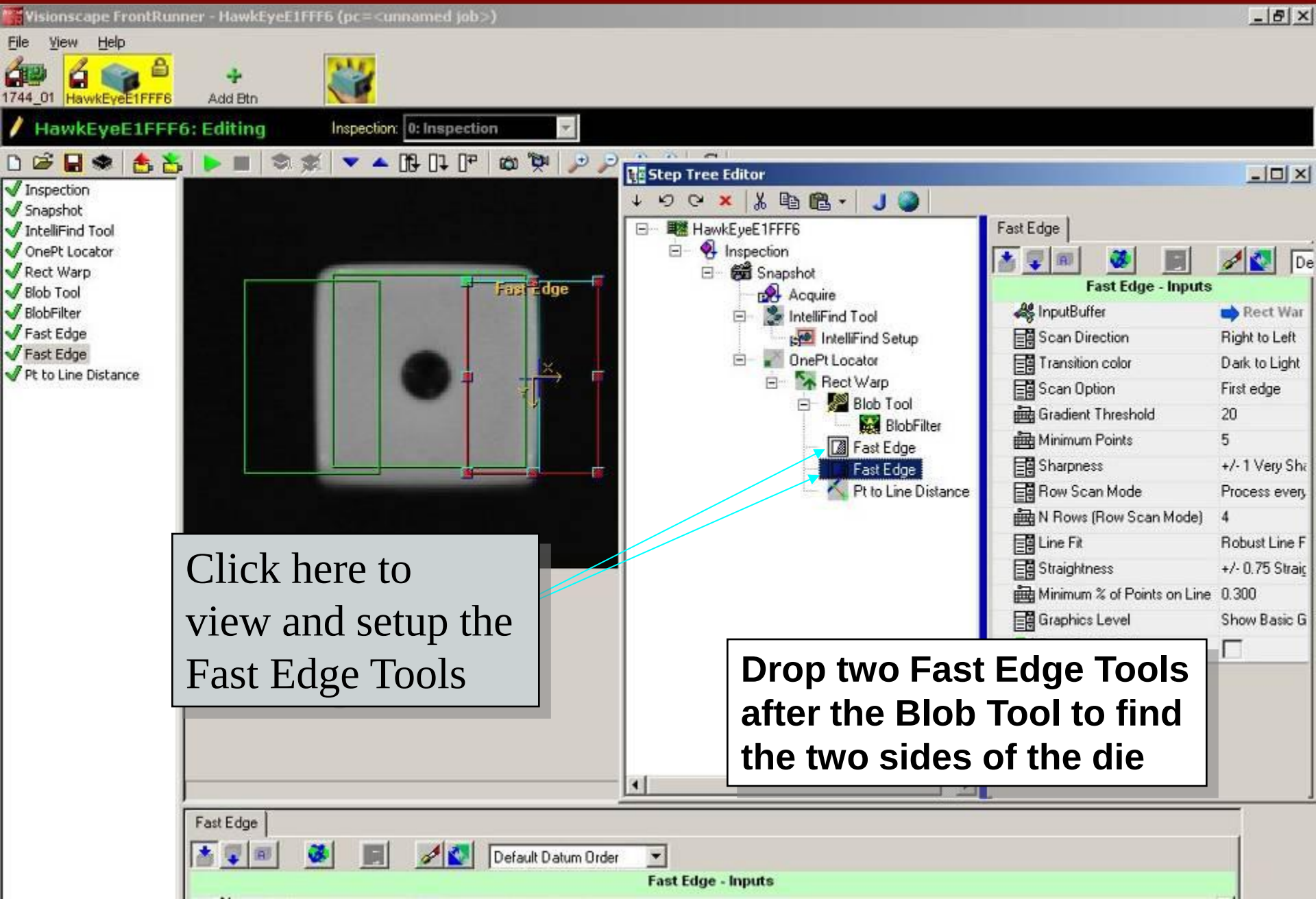
STEP 4: Performing inspection



Click to view and setup the Blob Tool to count dots

Blob tool inside the OnePt Locator

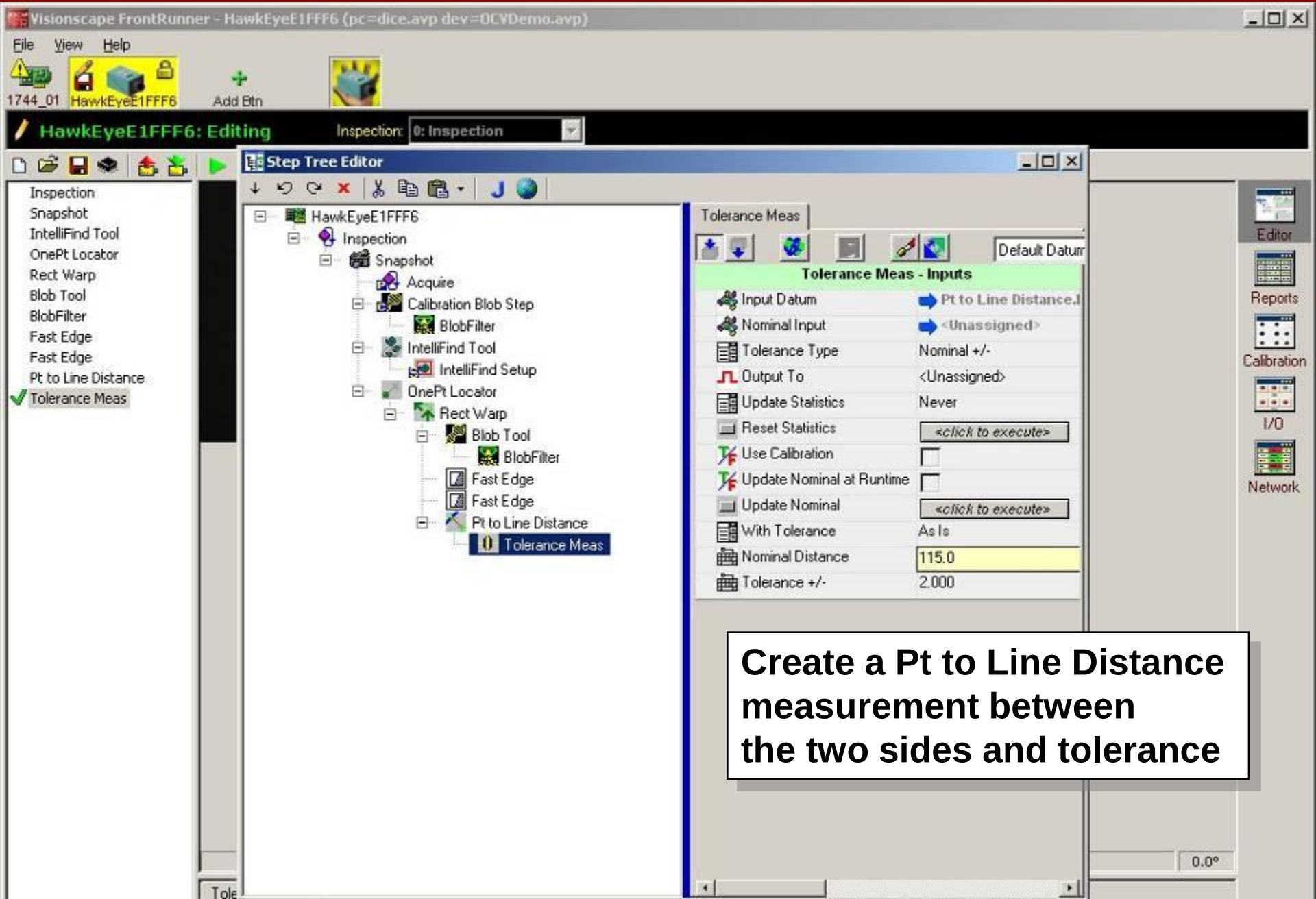
STEP 4: Performing inspection



Click here to view and setup the Fast Edge Tools

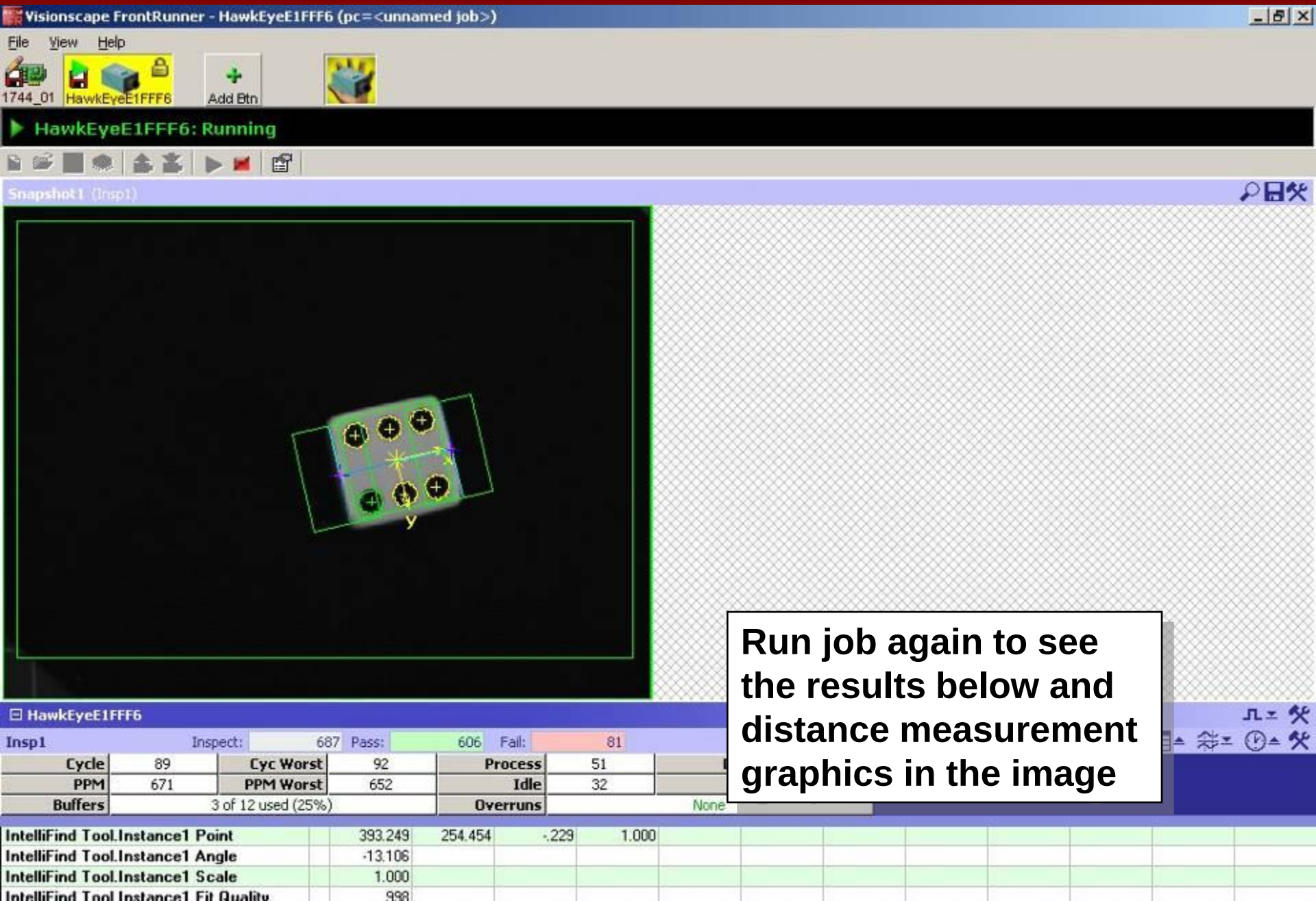
Drop two Fast Edge Tools after the Blob Tool to find the two sides of the die

STEP 4: Performing inspection



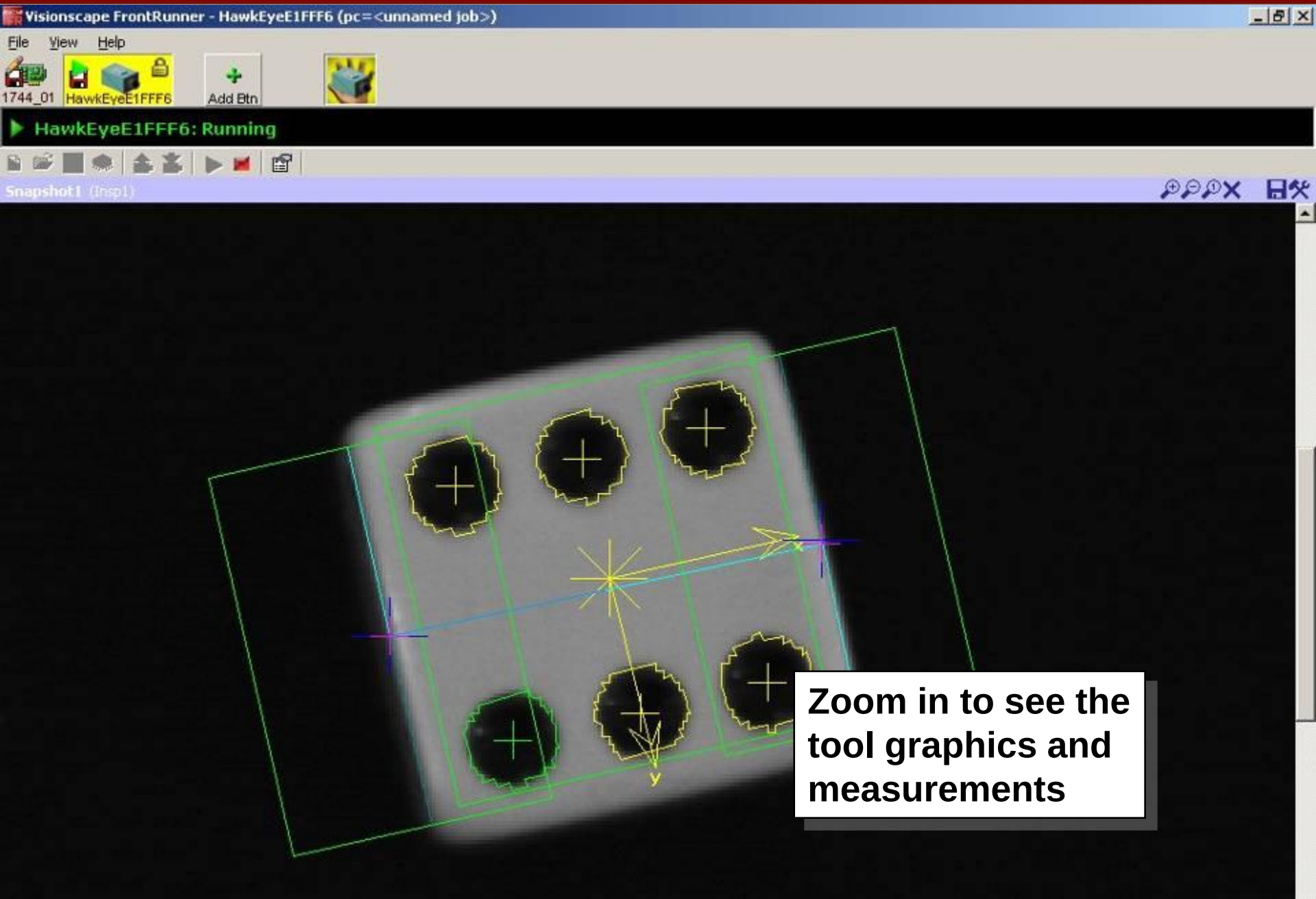
Create a Pt to Line Distance measurement between the two sides and tolerance

STEP 4: Performing inspection

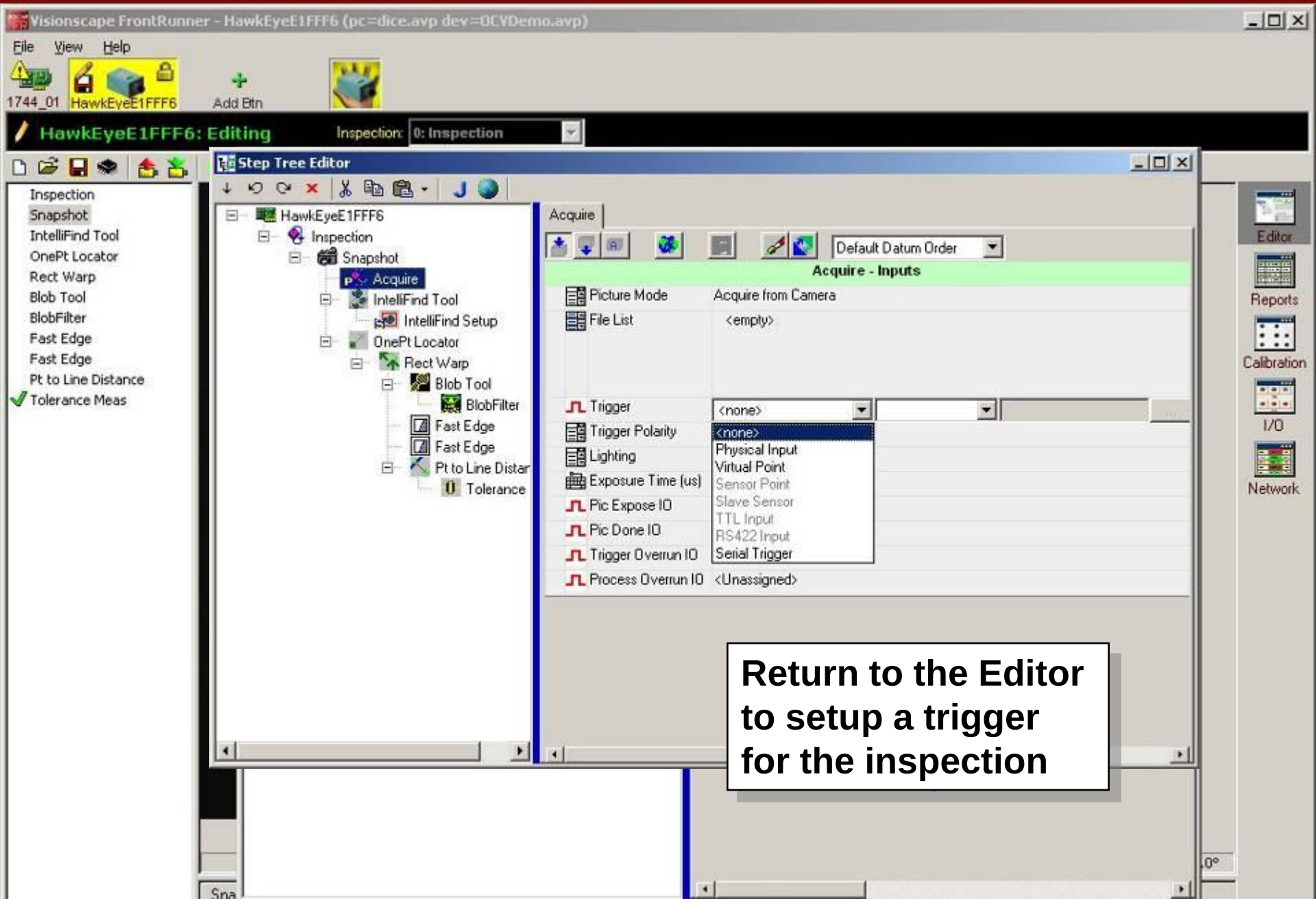


Run job again to see the results below and distance measurement graphics in the image

STEP 4: Performing inspection



STEP 5: Triggering inspection



Return to the Editor to setup a trigger for the inspection

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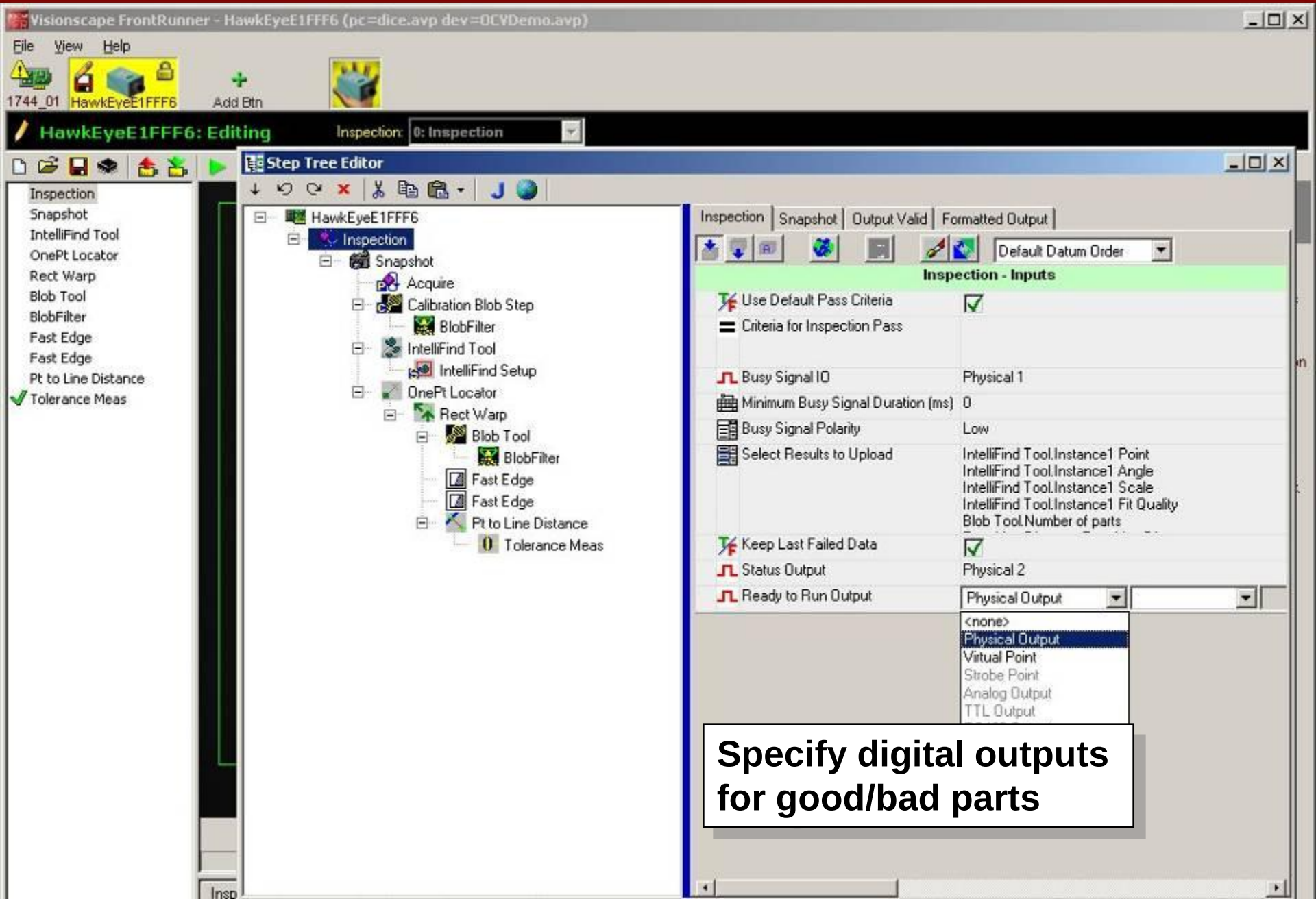
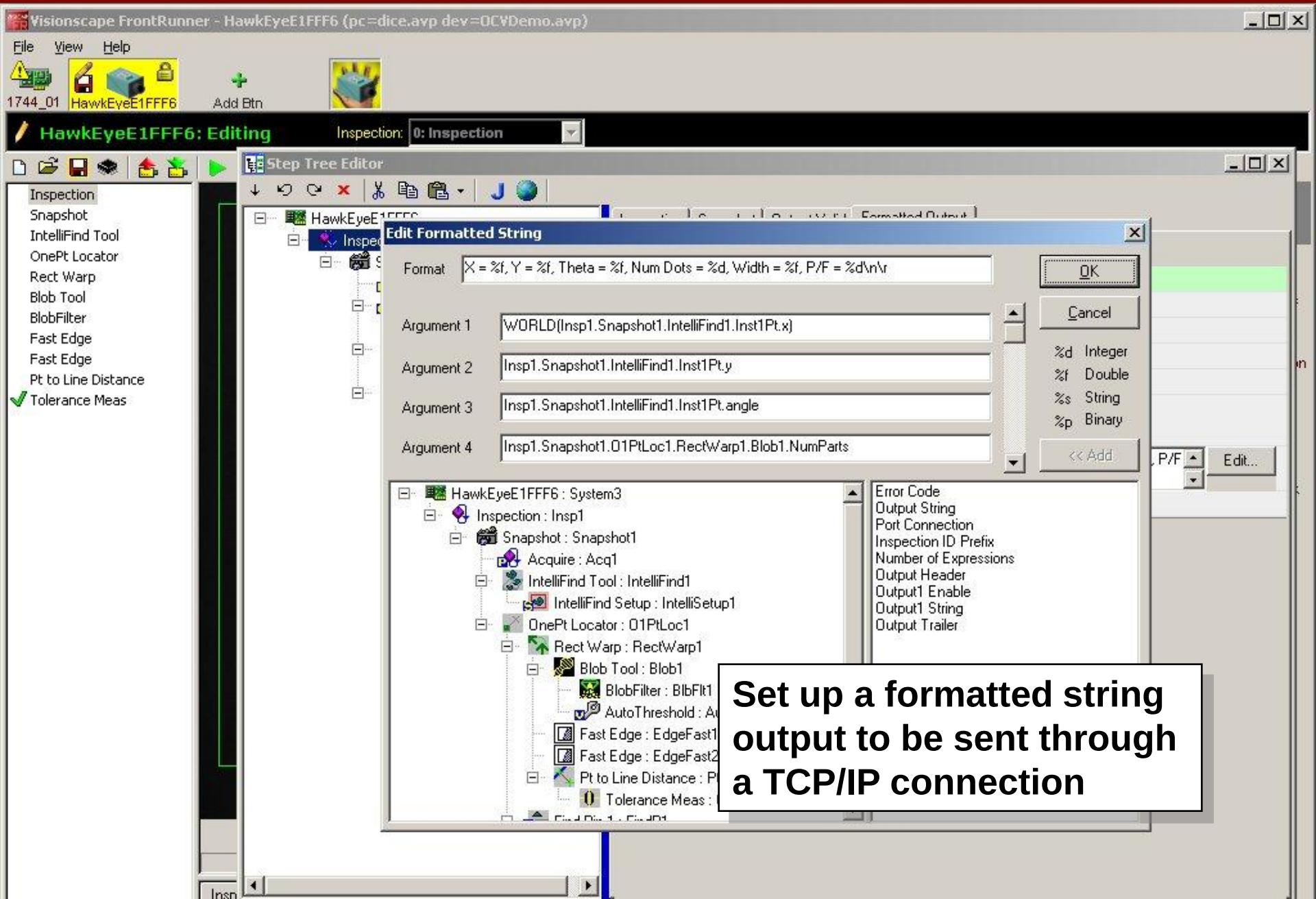
STEP 6: Indicating pass/fail



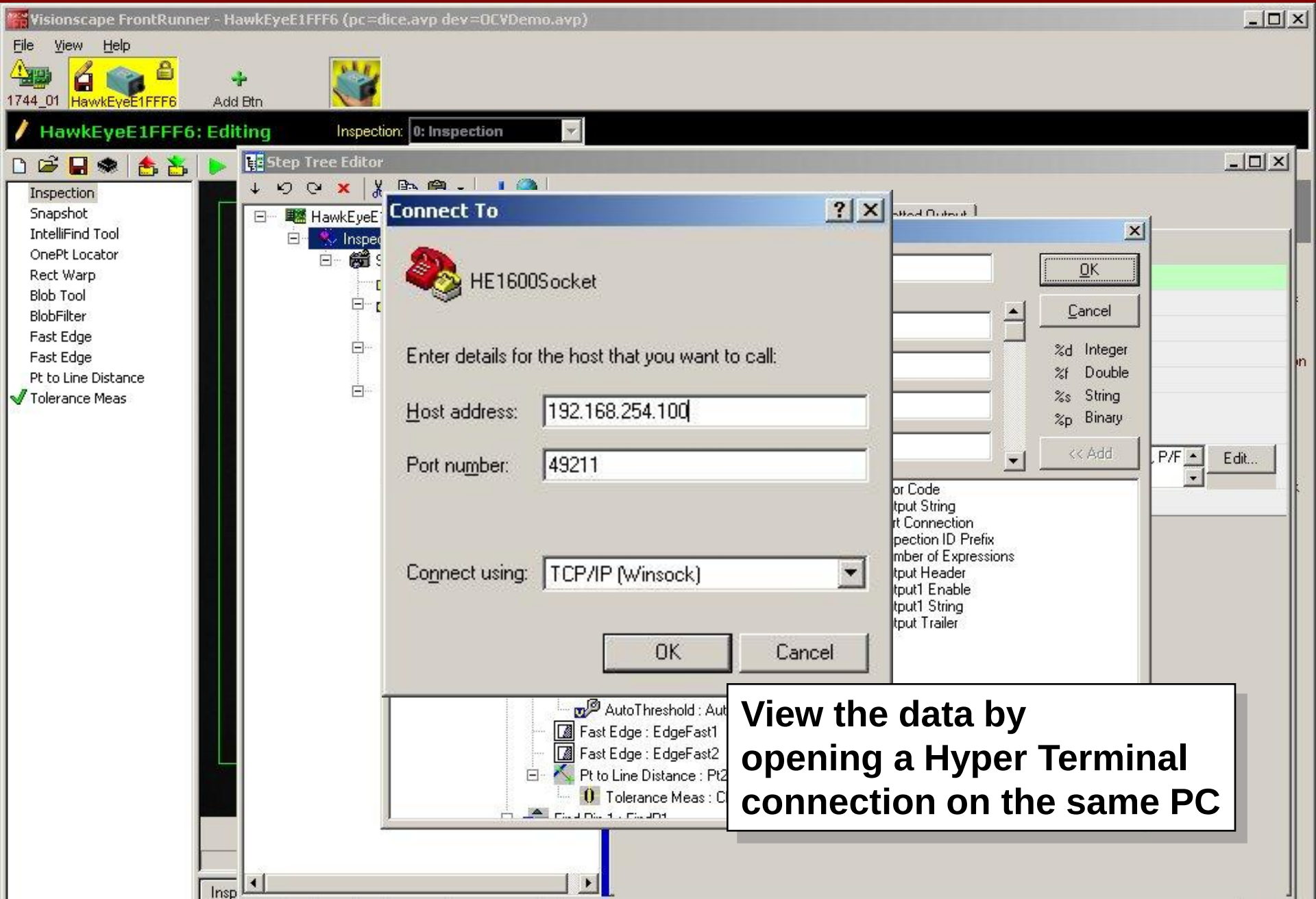
Specify digital outputs for good/bad parts

STEP 7: Communicating results

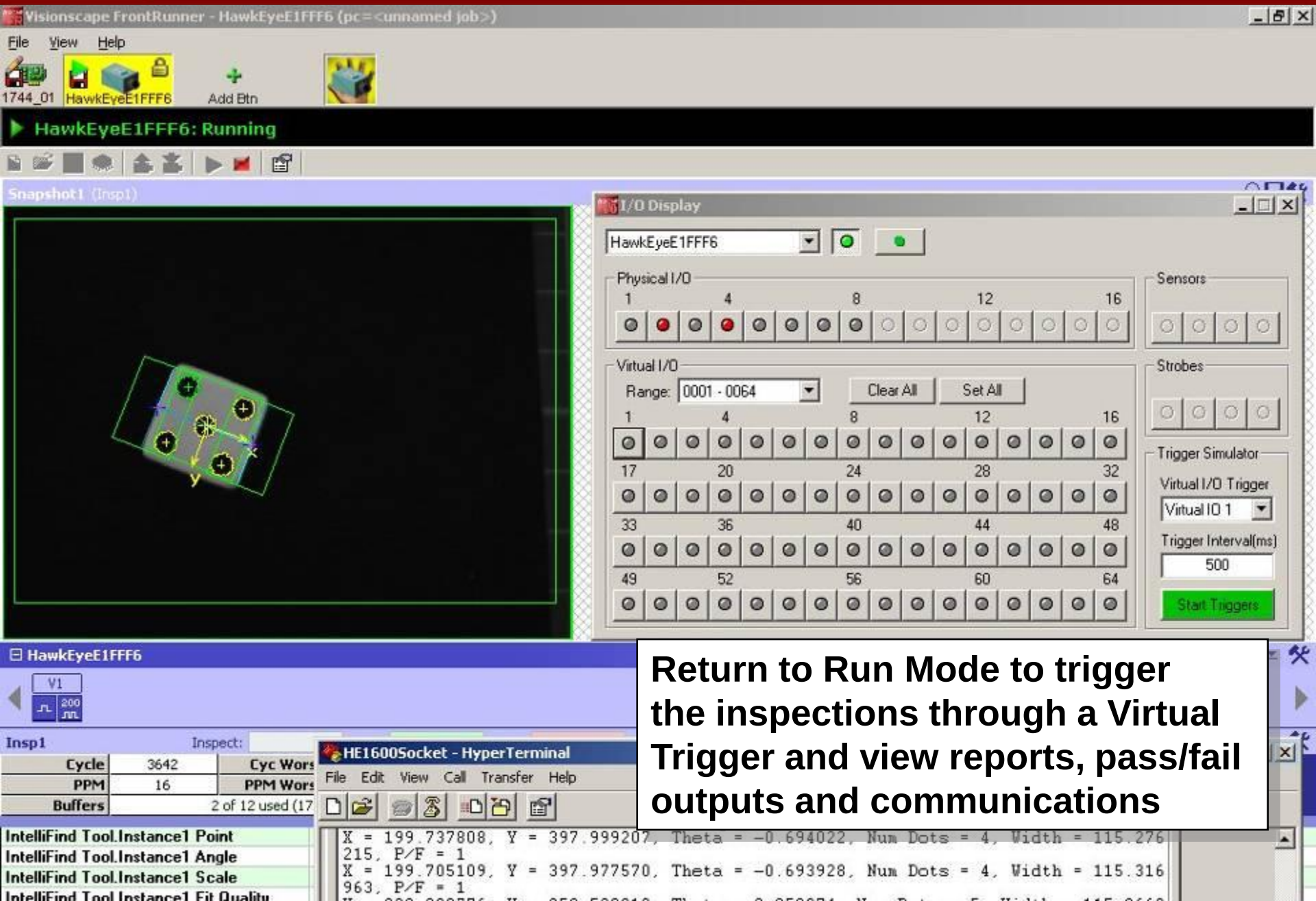


Set up a formatted string output to be sent through a TCP/IP connection

STEP 7: Communicating results

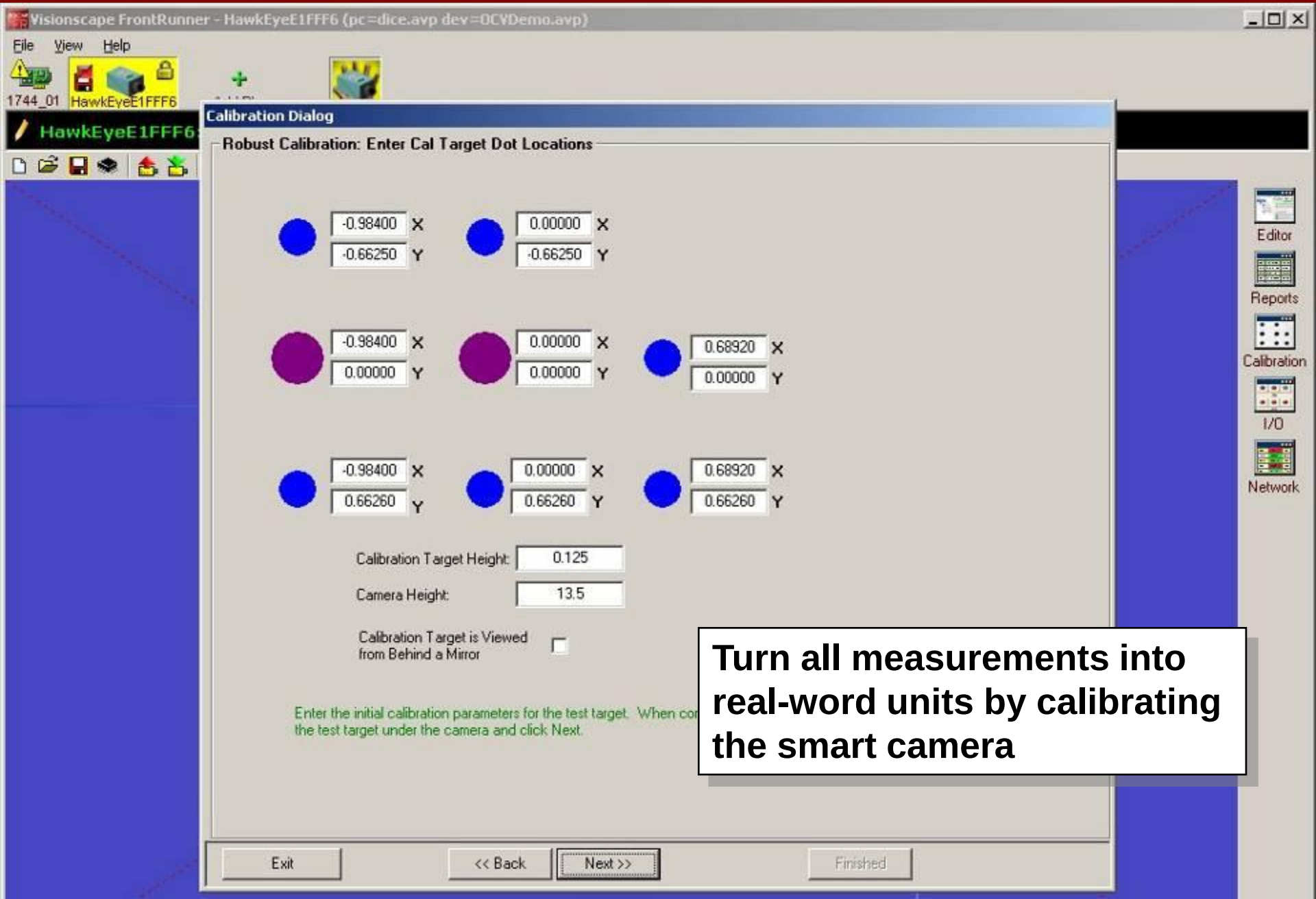


STEP 7: Communicating results



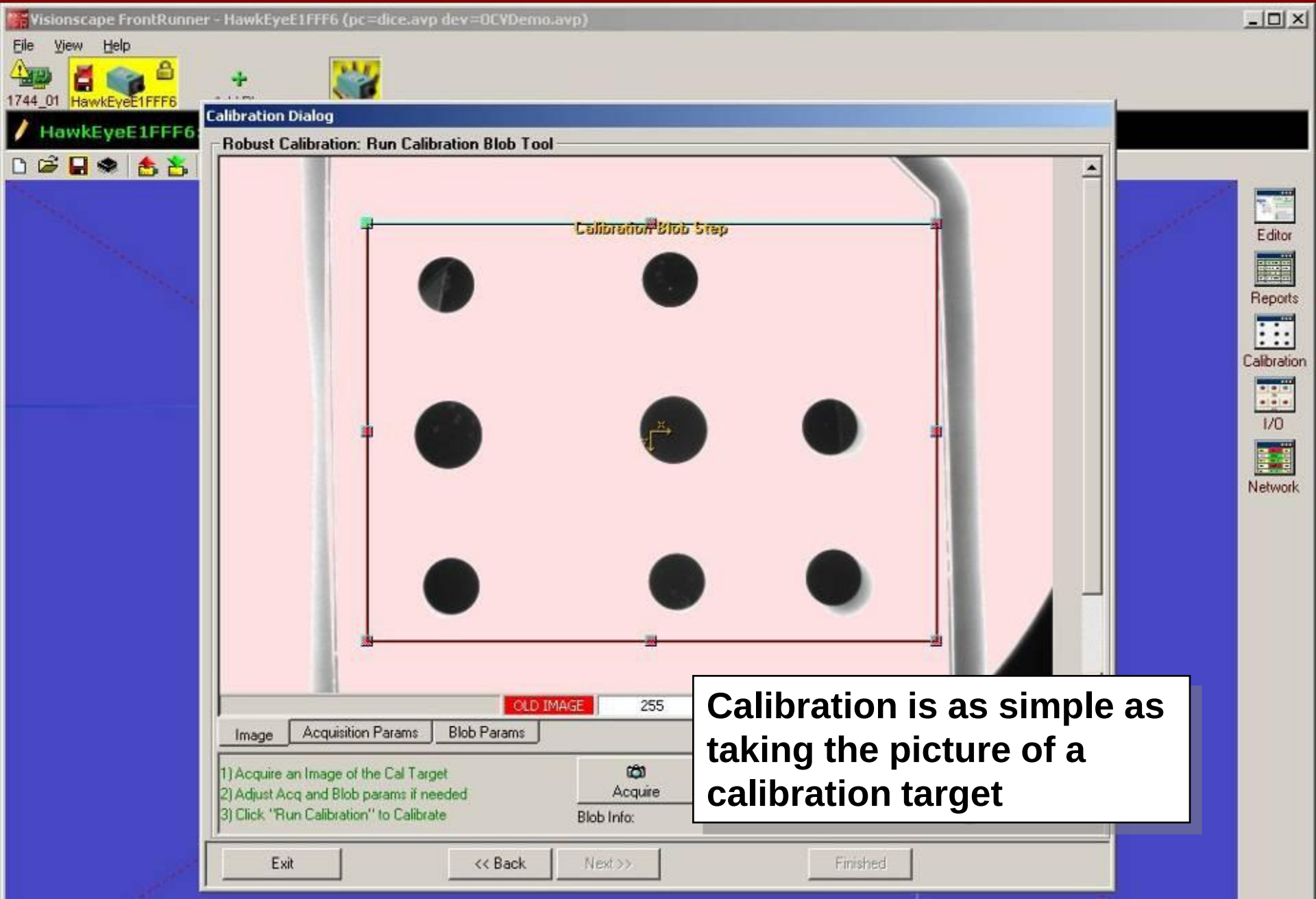
Return to Run Mode to trigger the inspections through a Virtual Trigger and view reports, pass/fail outputs and communications

STEP 8: Calibrating smart camera



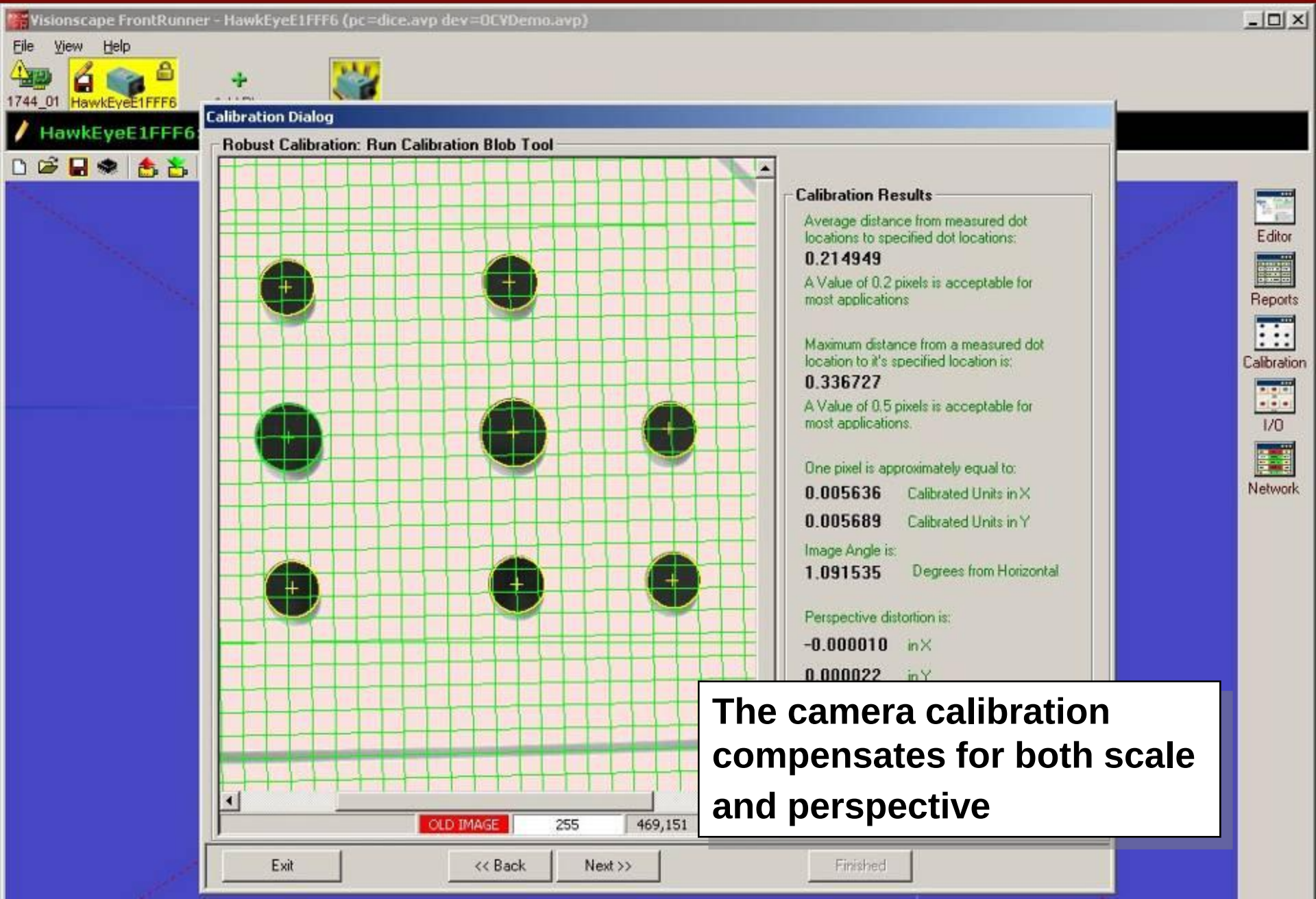
Turn all measurements into real-word units by calibrating the smart camera

STEP 8: Calibrating smart camera



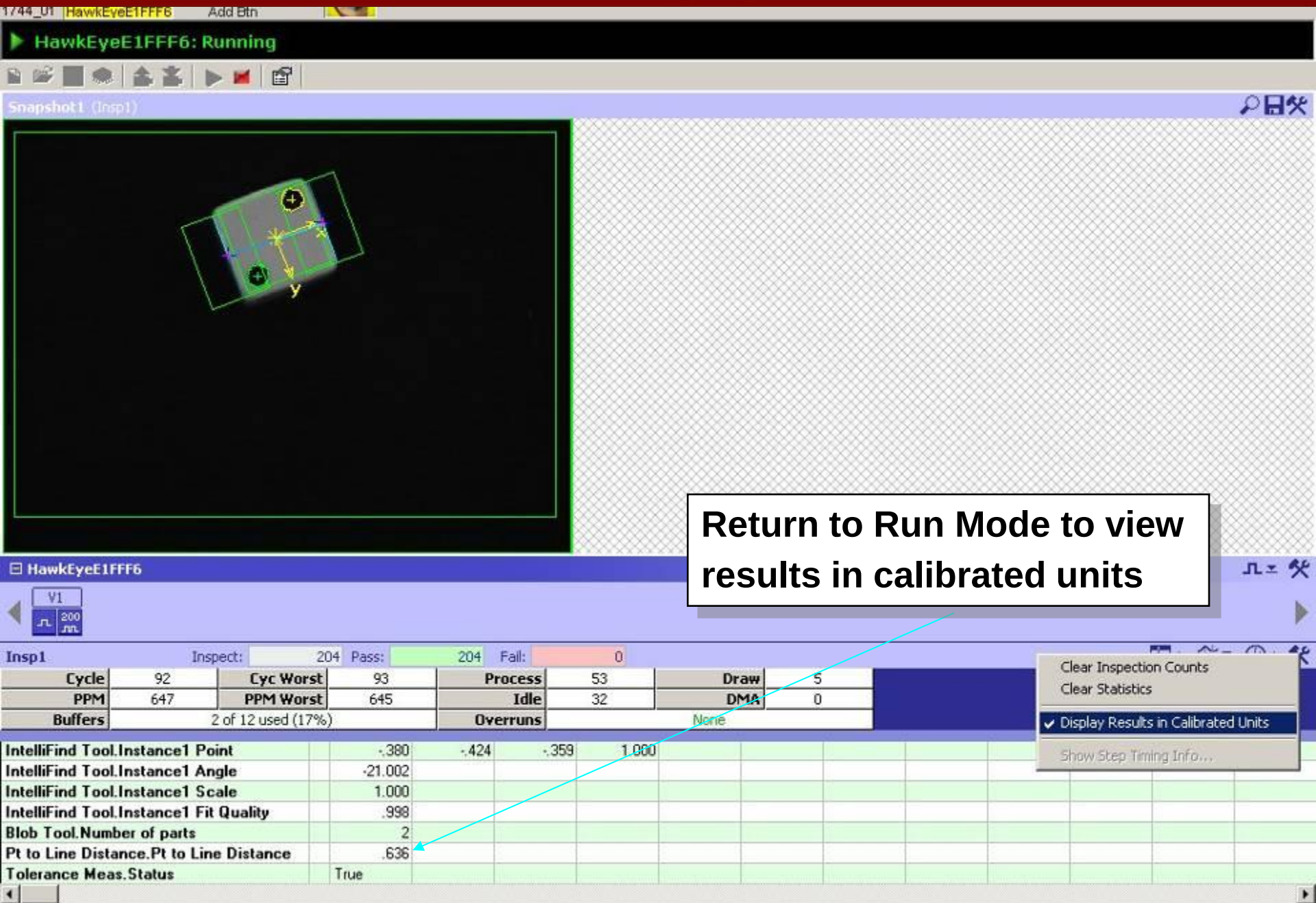
Calibration is as simple as taking the picture of a calibration target

STEP 8: Calibrating smart camera

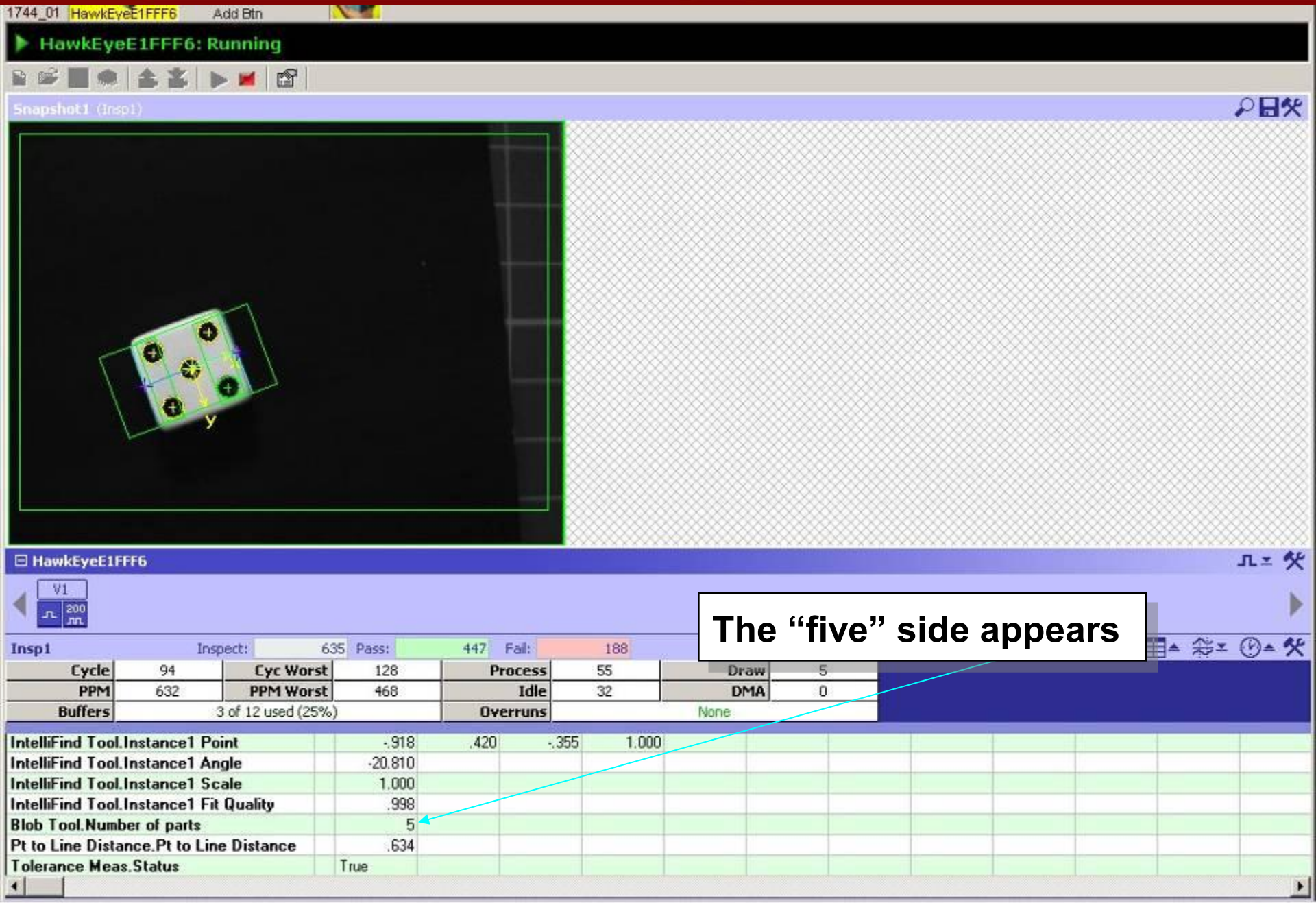


The camera calibration compensates for both scale and perspective

STEP 8: Calibrating smart camera



STEP 8: Calibrating smart camera



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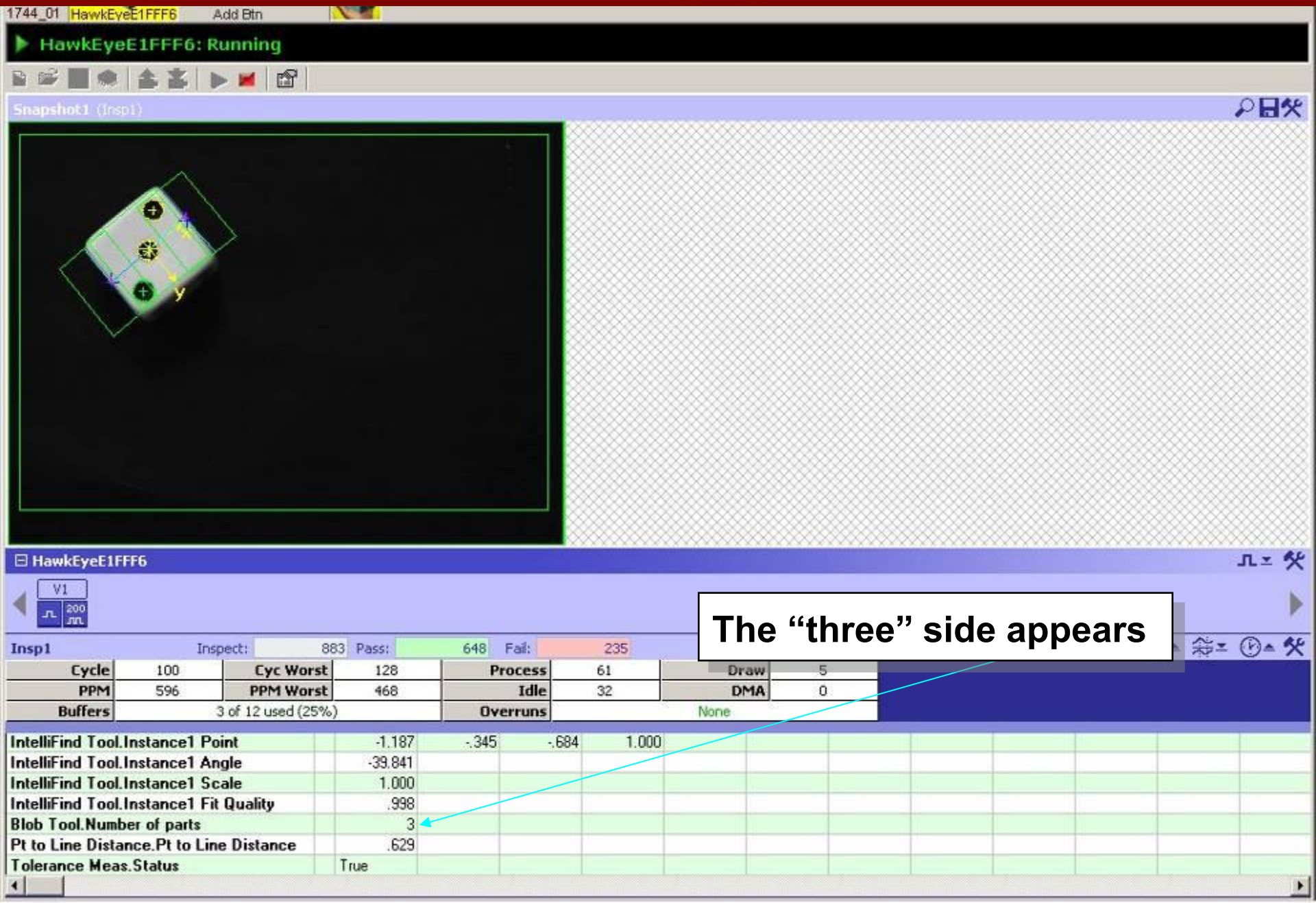

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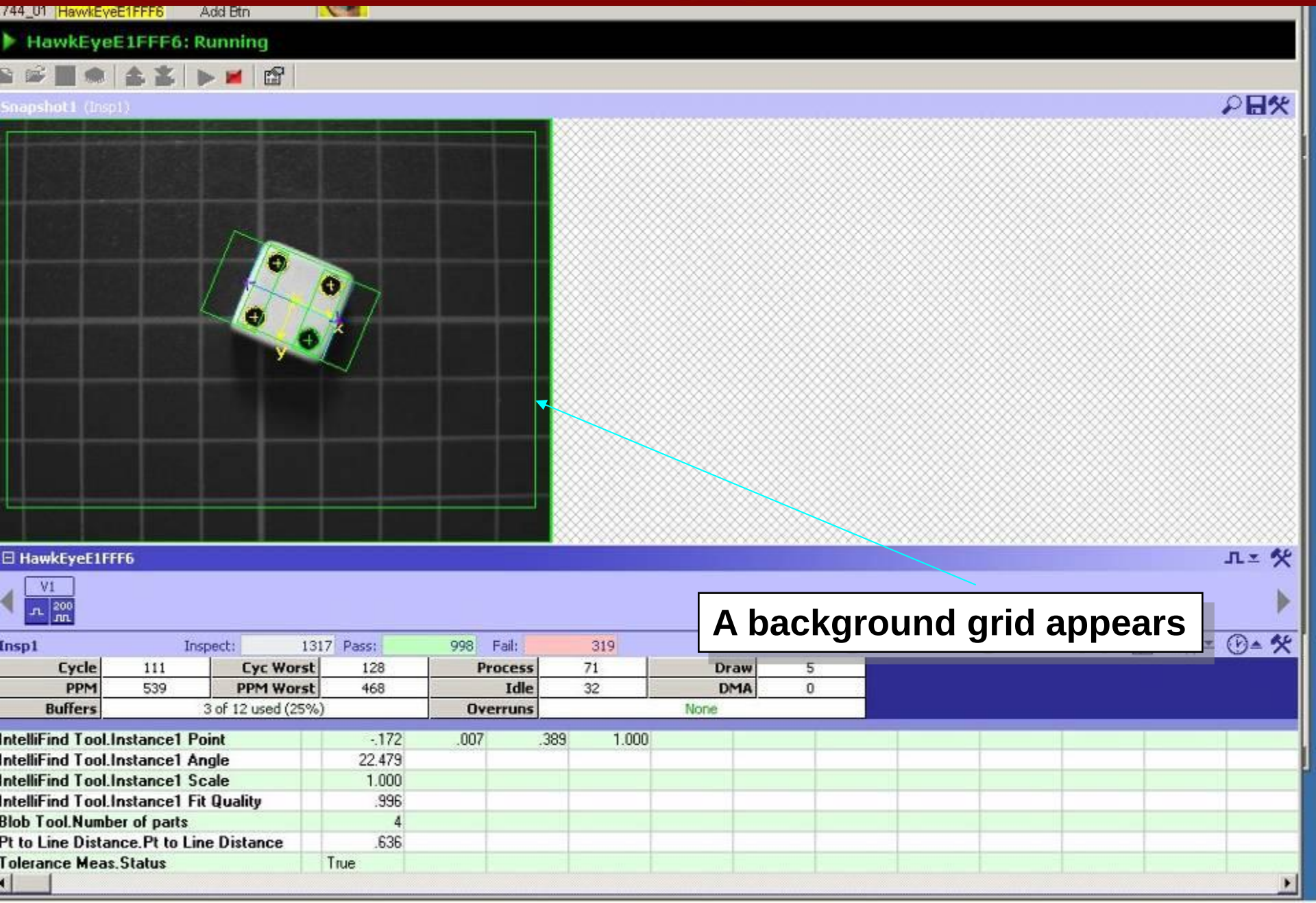
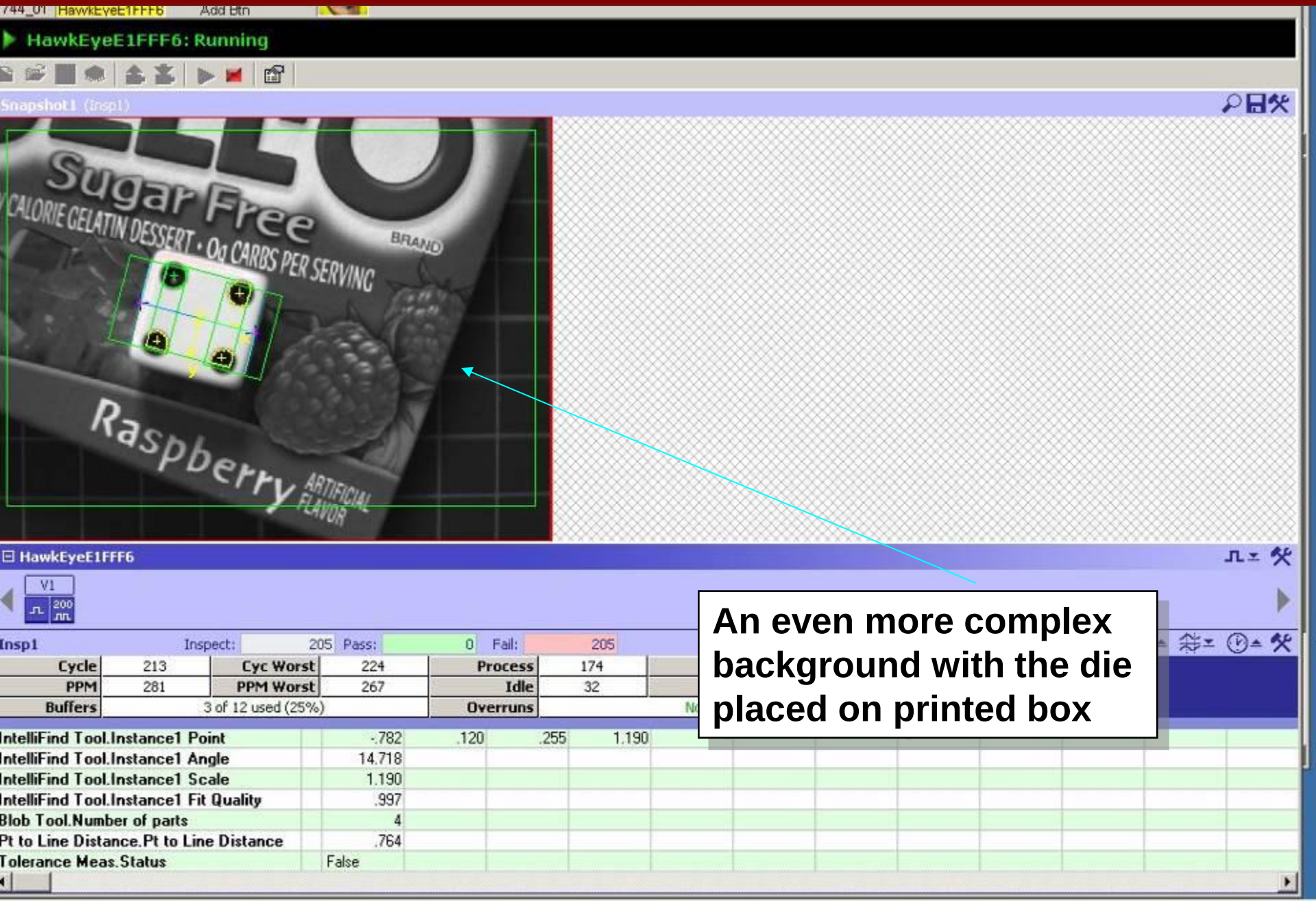
STEP 8: Calibrating smart camera



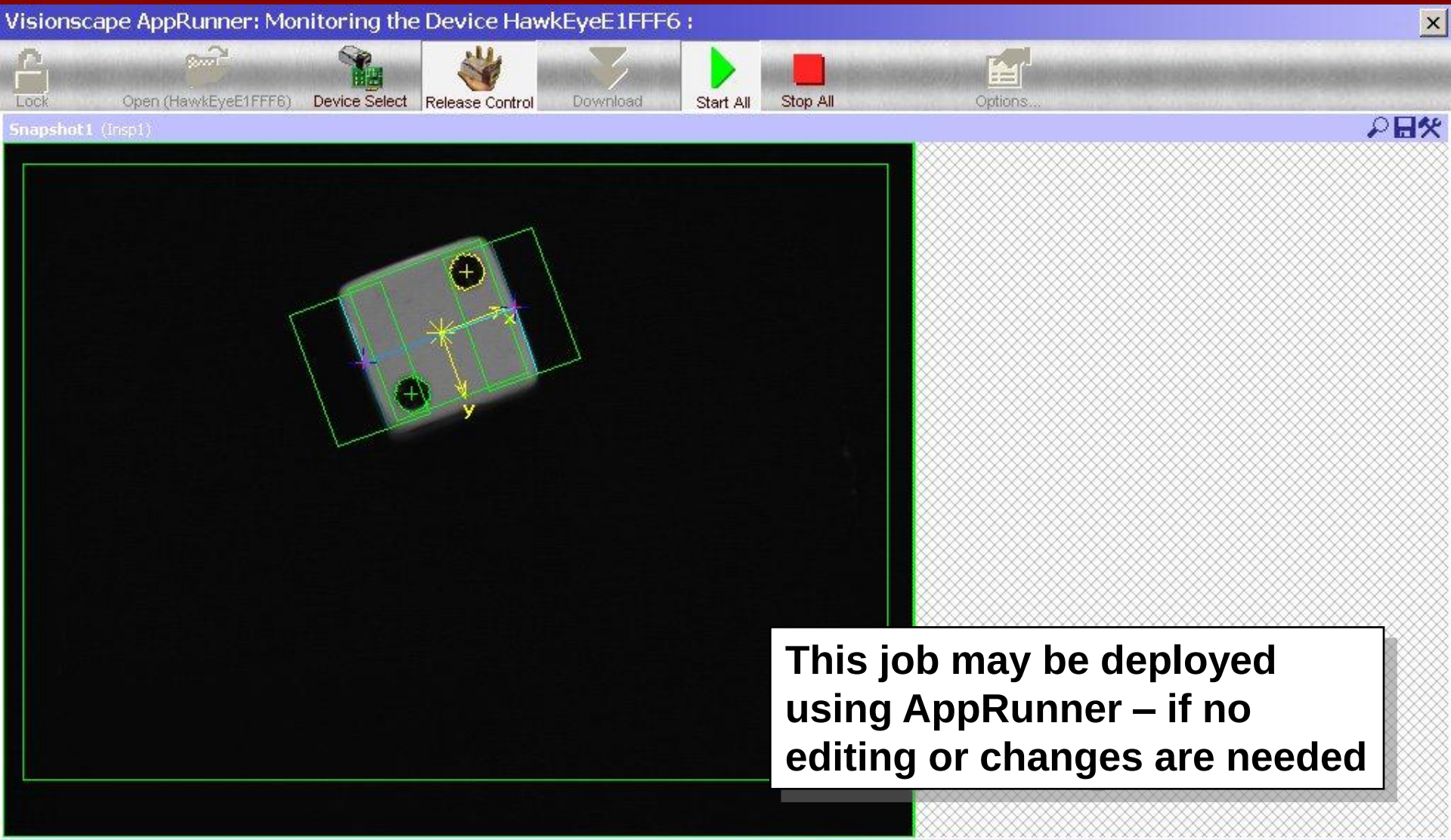
A background grid appears

STEP 8: Calibrating smart camera



An even more complex background with the die placed on printed box

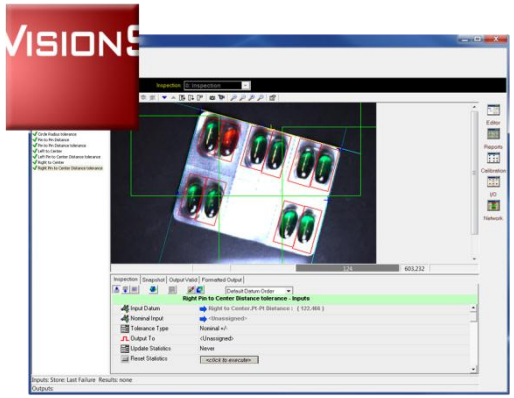
STEP 9: Deploying with AppRunner



This job may be deployed using AppRunner – if no editing or changes are needed

Visionscape Summary

- Visionscape software provides all the elements needed for developing and deploying complete machine vision applications (not just prototyping vision processing steps)
- Features a configuration environment that can be tailored to different users for maximum productivity
- Powerful and easy to use point-and-click environment
- Extensive collection of proven image processing tools:



- FrontRunner Interface: “Engineering” GUI
- AppRunner Interface: “Monitoring” GUI
- Intellifind: Geometric pattern match tool
- Complete set of ActiveX components

Thank You.

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