

SanjVIEW 7 for Infrared Camera (IR)

SanjVIEW 7 for Infrared Camera (IR)

(Source Section 11)

Opening the software and setting up a session:

1. Open SanjVIEW v7.0 from the desktop; center the sample in Project Manager and focus on the target device.
2. **System Status** — ensure all indicator lights are green.
3. **Select Camera to Use** — Infrared (IR), Visible - Thermoreflectance (TR), Near Infrared (NIR). Press **F1** to switch.
4. Click "Temp Control" tab; toggle ON/OFF and view readings for Stage, Thermal Coupler (TC), and ROI. Set the setpoint (example: 75), then click "Stage State" to turn on the stage.
5. Click the "Auto Focus" tab (Piezo system control); select objective magnification (example: 5X).
6. Click "Enable Motion" ON and "Center Stage" ON to center the Piezo controller. (Microscope may need refocusing after centering.)
7. Click the file browser icon; choose the save folder and click "Current Folder."
8. Select the desired imaging operation.

“ Note: Transient Thermoreflectance is not available with the Infrared camera.

Steady State

Select "Steady State" from Project Manager.

11.1.1 Hardware

1. Enter the desired Base Temp (°C) (example: 75) and click "SET."
2. Turn Stage State ON.
3. Set "Vo ON Voltage" to 7V.

11.1.2 Timing / Illumination

1. Set Device On Time to 10.
2. Set Image Averages (#cycle) to 10.

11.1.3 3D Alignment — Focus ROI: same procedure as 8.1.3.

11.1.4 3D Alignment — Capture Reference: same procedure as 8.1.4.

11.1.5 Start Measurement

1. Click "START Measurement."
2. Progress in System Status bar; "Turn OFF" after each cycle; "Loop Iterations" tracked (9-11 sufficient for TR).
3. Under Save Path, confirm directory/name.
4. Click "Save Every Cycle," then "Save Data" when ready. (*Save before stopping.*)
5. Click "STOP MEASUREMENT," then "Return to Project Manager" or File → Quit.

Calibration

Select "Calibration" from Project Manager.

11.2.1 Hardware

1. Set "Magnification" to match the objective (example: 5x).
2. Set "High Temp" to 120°C and "Base Temp" to 75°C.
3. Turn "Stage State" ON.
4. Click "Set Low Temp" to initialize chuck temperature.
5. Click "Use Chuck Sensor" for the embedded sensor, or leave off for an external thermal probe.

11.2.2 Timing/Illumination

1. Set Stage Heating Time to 40.
2. Set Image Averages to 50.

11.2.3 3D Alignment — Focus ROI: same procedure as 8.1.3.

11.2.4 3D Alignment — Capture Reference: same procedure as 8.1.4, with the Load Reference alternative.

11.2.5 Start Measurement

1. Click "START Measurement."
2. Progress shown in System Status; "Calibration Done" after each cycle; "Loop Iterations" tracked.
3. Select a region on Thermal Image View to view the live Calibration Factor ("Mean CTR").
4. Under Save Path, confirm directory/name (example: `C:\Data\Qualification\Training`).
5. Click "Save Every Cycle," then "Save Data." (*Save before stopping.*)
6. Click "STOP MEASUREMENT," then "Return to Project Manager" or File → Quit.

Failure Analysis (FA) Mode

11.3.1 Frame Rate Selection

1. In Project Manager, set "Cam Selection (F1)" to INFRARED.
2. Uncheck "INT Vo 20mA Range."
3. File → Options.
4. Software tab → set "FA Mode Pulse Width" to Long (15 Frames).
5. Return to Project Manager and click "FA Mode."

11.3.2 Process

Confirms the device is biased and conducting current before using Movie Mode.

1. Go to "Biasing" tab.
2. Change Vo(V) to 7.000.
3. Click "Update Values."
4. Confirm "Peak Voltage (V)" and "Peak Current (I)" read near 7V and 70 mA for device 2 (Center Diode).
 - *Note: If current is lower than expected, confirm "INT VO 20mA Range" is unchecked.*

11.3.3 Save Data

1. File → Save Data.
2. Choose the save folder via File Browser and click "Current Folder" (example: `C:\Data\Qualification\Training`).
3. Enter the file name (example: "FA-file").
4. Click "Save."
5. Click "Return" to close the pop-up.
 - *Note: Change the Microsanj Data Save Path before saving new data, to avoid overwriting.*

Movie Mode

Select "Movie Mode" from Project Manager.

11.4.1 Control Settings

1. Set "Voltage to Device (V)" to 7V.
2. Click "Update V."
3. Set "DUT Pulse (s)" (example: 1s). Click "Update Timing."
4. Confirm "Save Whole Series" is on (on by default).
5. Click "File Path" icon (or type the path) and select a name.
6. Click "Start Movie" on Movie Mode Acquisition.
7. Click "Save Image."
 - *Note: Movie Mode saves a series of a 105-file cycle when "Save Image" is clicked.*

SanjANALYZER

11.5.1 System Status

1. Confirm Camera is set to INFRARED.
2. Click SanjANALYZER to open the "SanjVIEW Image Analyzer" window.

11.5.2 Process Data — identical procedure to Section 8.5.2 (Calibration tab → Point to Point → Load CTR map → select analysis file → draw up to 5 ROI boxes → adjust scale/averaging → Settings tab to save the processed image → optional "Process Series" for a file series).

Revision #1

Created 2026-08-26 18:17:06 UTC by Accounts

Updated 2026-08-26 18:17:07 UTC by Accounts