

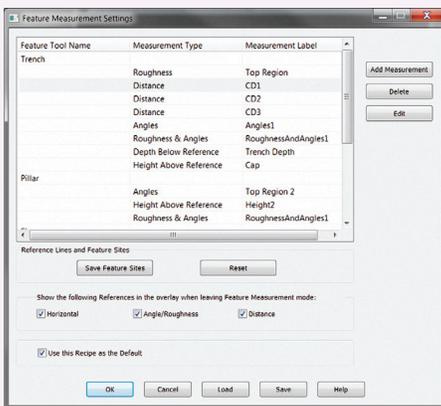
## AUTOMATED MEASUREMENT FOR SEMICONDUCTOR FEATURES JUST CLICK... AND THAT'S IT

### 3 Levels of 'Single Click' Automation:

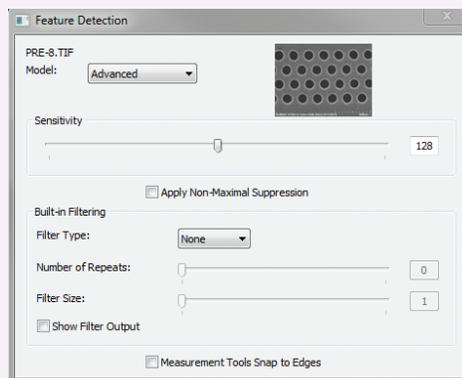
1 Fully Characterize a Feature with a Single Click

2 Characterize a Multiple Feature Image with a Single Click Using PCI-AM 'Magic Wand' Tool

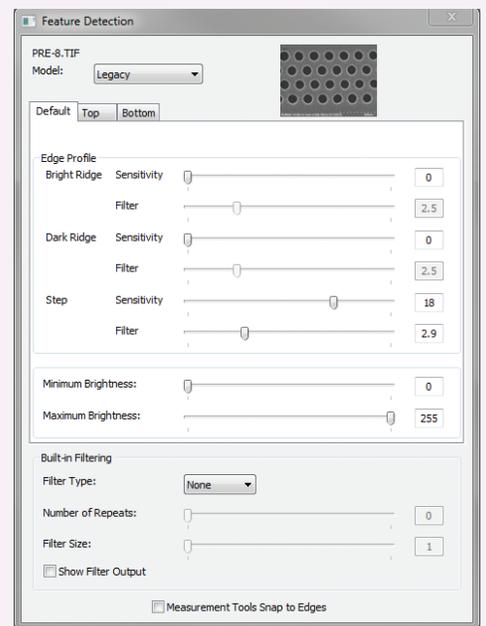
3 Use PCI-AM Batch Automation to Process and Measure an Entire Folder of Similar Images



Create and Save Recipes for Measurement Types, Locations and Labels. Load the Recipe for Similar Images.



Our new Advanced Edge Detection model and our 3 Legacy Techniques allow you to work with more types of images and more types of features.



### PCI-AM Benefits:

- ▲ Save Time
- ▲ Increase Measurement Consistency
- ▲ Generate Reports Easily with Images and Data
- ▲ Increase Measurement Accuracy
- ▲ Export Data Easily into CSV File



**QUARTZ IMAGING CORPORATION**  
FOR A FASTER, SMARTER LAB

6190 Agronomy Rd, Suite 406, Vancouver, BC Canada V6T 1Z3  
Phone: +1 (604) 488-3911 • Fax: +1 (604) 488-3922  
inform2@quartzimaging.com • www.quartzimaging.com  
Quartz Imaging Corporation is a member of Quartz Innovation Group.

# TYPES OF AUTOMATED MEASUREMENTS

## 01. Trenches (Spaces) and Pillars (Lines)

- ▲ CD Width
- ▲ Angles – Sidewall and Center
- ▲ Multiple Regions in Feature
- ▲ Line Edge Roughness
- ▲ Line Width Roughness
- ▲ Distances Below and Above Reference Line
- ▲ Averages of the Above Measurements

## 02. Macro Cell

- ▲ Multiple Measurements in Complex Features with a Single Click

## 03. Shapes

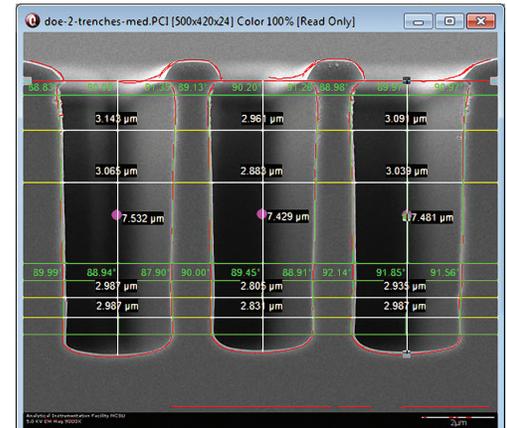
- ▲ Area and Perimeter
- ▲ Aspect Ratio
- ▲ Major and Minor Axes
- ▲ Collinearity
- ▲ Ideal Shape Deviation
- ▲ Tilt

## 04. Other Valuable PCI-AM Features

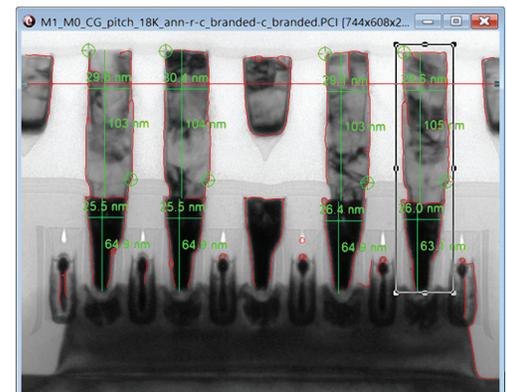
- ▲ “Point and Shoot” Horizontal and Vertical Measurement Tools Utilize Edges
- ▲ Regular PCI Measurement Tools will “Snap” to the Edges in PCI-AM
- ▲ Predetermine the number and exact location of CD measurements relative to the reference line
- ▲ Advanced Edge Detection model (Ver. 6)

## 05. NEW in Version 8 NEW

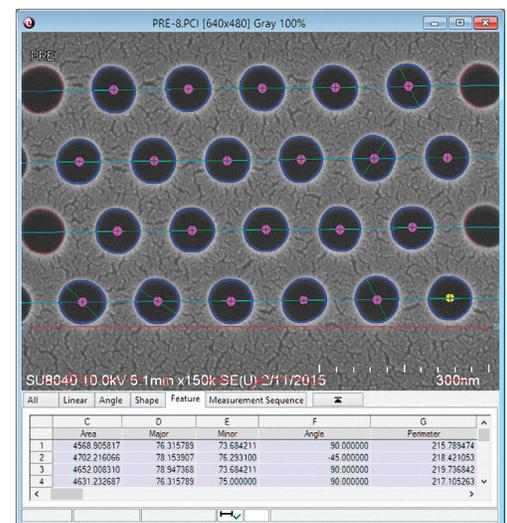
- ▲ Improved Edge Detection – better edge detection, particularly for TEM images
- ▲ Image Auto Rotation – automatically orient features horizontally and vertically for ease of measurement
- ▲ Add Measurement Tolerance Specifications
  - ▲ To determine if any measurements are out of specification
  - ▲ Can set minimum and/or maximum values for all measurements
  - ▲ Can flag or ignore missing measurements
- ▲ Auto Layer Detection and Measurement – if needed these lines can be moved
- ▲ Add Additional Reference Lines – assist in making desired measurements



01. Trench Measurements



02. Macro Cell



03. Shape Measurements

We Can Custom Develop Any Specific Measurements *YOU* Require.