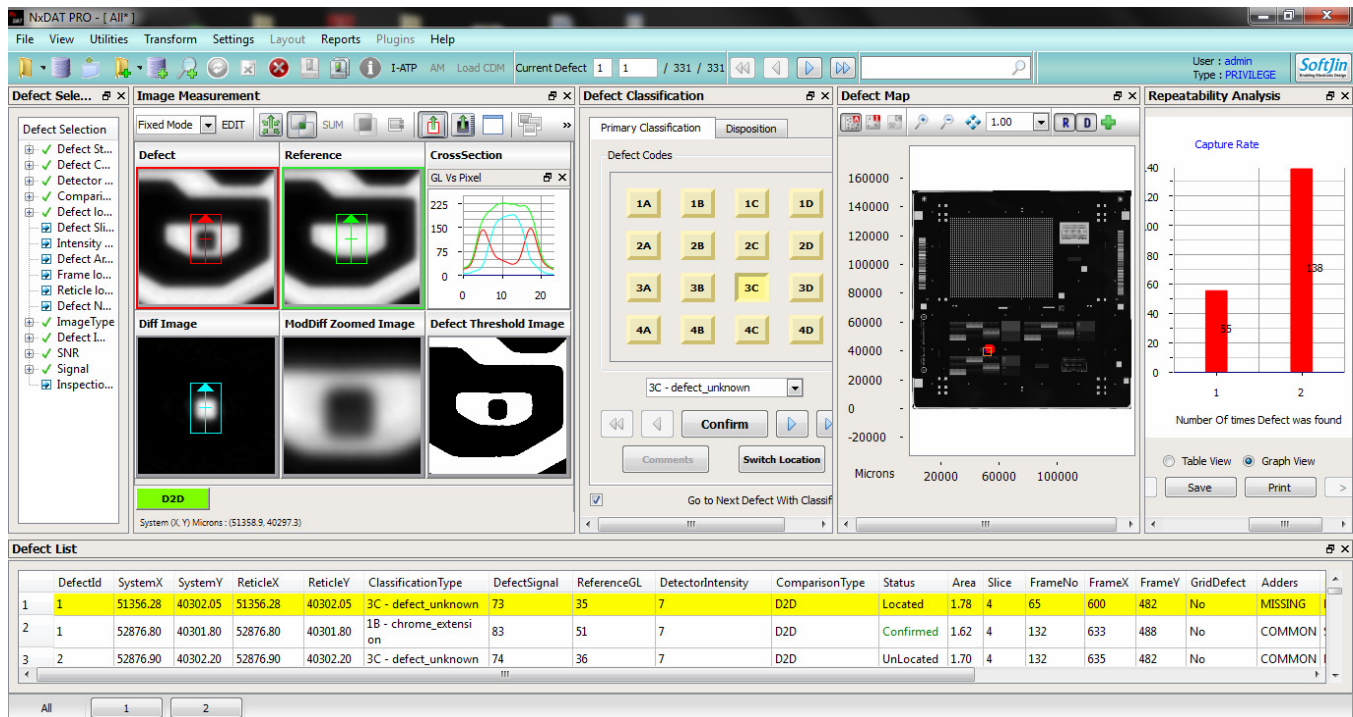


NxDAT – Defect Analysis Tool



NxDAT is software for efficient Analysis, Classification and Trend Analysis of Defects identified by Mask Inspection Systems. NxDAT is easily extensible for Wafer Inspection Systems and Metrology tools.

NxDAT software includes features for easy and fast defect navigation, visual display, defect classification, clustering and sophisticated CD analysis. NxDAT also includes features for Repeatability and Trend analysis over multiple Inspections. Useful for defect analysis in both in-line and off-line mode, NxDAT significantly improves the productivity of the inspection operators, increases Inspection system's utilization and reduces unnecessary mask repairs and re-runs.

NxDAT's unique "open architecture" makes it easily extensible to support multiple tools from different vendors. A unique Plug-In interface to NxDAT enables Users to add their own proprietary defect analysis and image processing algorithms as well. Based on SoftJin's Nirmaan Post Layout Software Development Platform, NxDAT combines Inspection and Design worlds by supporting correlation of defect data on reticles with CAD data in several major industry standard Layout and Mask Data formats.

Key Benefits

High throughput, User Friendly Defect Analysis Tool

- Defect navigation, filtering, selection, classification and measurement
- Sophisticated Image Analysis with cross-section and CD analysis
- Supports Multiple Inspections, Repeatability Analysis
- Handles tens of thousands of defects with fast analysis and navigation

Applicable for both mask shops and wafer fabs

- Supported Defect Analysis Types – D2D, D2DB, Contamination

Unique Open architecture

- Single Defect Analysis Software for multiple equipments
- User can add proprietary plug-ins customized to their needs

Combines Inspection and Design worlds

- Supports correlation of defect data with major industry standard Layout/Mask data formats

Measurable Return on Investment

- Improves Operator Productivity
- Increases Inspection Machine Utilization
- Reduces Mask repairs and re-runs

Key Product Features

- **Visual Display and selection of Defects through Defect Map**
 - Intuitive rubber band selection of group of defects
 - Optional overlay of Reticle image, Die-cycle
- **Detailed Defect List Display with one-to-one correspondence with Defect Map and Image Measurement Unit**
 - Displays all properties related to every defect
- **Easy Navigation through the Defects through multiple intuitive ways**
 - Fast navigation – display refresh less than 1 sec
- **Automatic identification of cluster of defects**
 - Allows user to deal with clusters in Defect Map and Defect List
- **Selection / Filtering of Defects based upon multiple criteria including user definable criteria**
- **Convenient Classification features**
 - User definable Classification coding
 - Multi-tier Classification (eg. on defect type and defect disposition)
 - One click classification of a group of defects
- **Sophisticated Image Measurement and Analysis Unit**
 - Multiple modes of Display of Defect, Reference and Functional images
 - Cross-section analysis, CD Measurement, CD Variability analysis
 - Contact Measurement analysis
 - Display and analysis of ADR images
 - Importing and attaching of external images with defects
 - Automatic registration of images enabling the user to analyze the correctly aligned images
- **Feature rich Repeatability Analysis**
 - Capture rate, Defect count, Adders analysis and Defect Trend Analysis across multiple Inspections
- **Automatic grid detection and detection line identification in test masks**
- **Open Architecture to support multiple tools in the Mask Shops and Wafer Fabs**
 - Open Architecture Interface designed to easily support multiple Mask Inspection, Wafer Inspection and Metrology Tools
 - Correlates/ overlays the defects detected by Mask Inspection and Wafer Inspection Tools
 - Easily extensible to support other tools such as Metrology, CD-SEM, repair tools etc.
- **Unique Plug-in Interface allows Users to perform automated defect analysis based on proprietary methods**
- **Correlation of Defects with Pre-OPC, Post-OPC, CAD Data**
 - Generates image clips of layout data pattern and correlates with defect and reference images
 - Supports both binary and PSM masks
 - Design data formats – GDSII, OASIS
 - Mask data formats – MEBES, OASIS.MASK, MEBES.JOBDECK
 - Defect Data can be viewed along with the CAD Layout Data in Hotscope Layout Viewer
- **Versatile Reports generation including printing of charts, tables, graphs, paretos**
- **Allows Incremental Analysis of defect files**
- **Intuitive and User Friendly GUI**
 - Dockable widgets for each major function
 - Customizable configuration of window widgets
 - Tool-tip based information for most features
 - Property based file opening feature to select defect files based on reticle name, inspection name etc
 - Regression plots between various attributes of defect data
- **Command-Line Interface**
 - Actions through GUI can be recorded and re-played without opening GUI
- **Backed by SoftJin's proven customized software development and integration services to meet specific needs and customizations for OEMs and end-customer**

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About SoftJin

SoftJin Technologies develops Innovative and Customized Automation software for Electronic Design and Manufacturing. SoftJin offers several Software Products that address the challenges associated with IC Manufacturing at advanced process nodes including Post Layout Analysis, Optimizations and Mask Data Preparation. SoftJin's software products also serve as embedded components, Analysis and productivity enhancement tools for Lithography and Inspection equipments. See more details at www.softjin.com