## **thermo**scientific

DATASHEET

# **NEXS Software**

# CAD navigation and design debug solutions

NEXS Software goes far beyond a CAD viewer and stage driver by facilitating fault isolation, failure analysis, sample preparation and circuit edit.

Thermo Scientific™ NEXS Software enables diverse workflows by providing CAD connectivity with Thermo Scientific analytical equipment.

NEXS Software directly reads/displays the mask data and drives the system stage accurately to fault or edit locations.

#### **Technical specifications**

- Windows® 10-Runs on Thermo Scientific Support PC (SPC)
- 64-bit Linux OS-Can run on Linux server farm, network or local server
- RAM and hard drive requirements vary with CAD database sizes

#### **Database file formats supported**

- GDS2
- Gnuzip compressed GDS2 (.gz) for Linux only
- OASIS

#### Thermo Scientific equipment supported

- PFA: Helios, Scios, Apreo, Prisma, Verios, Quattro
- EFA: Meridian, WaferScan, ELITE, nProber
- Circuit Edit: Centrios, Taipan, OptiFIB IV, V400 ACE

#### **NEXS Workstation (optional, sold separately)**

- 64-bit x86 PC
- CentOS 7
- 32 GB RAM
- 2 TB hard drive

#### **Key benefits**

Reads/displays GDS2 and OASIS mask data

Creates cache database for faster re-load, rendering and tracing (GDS only)

**Connects** to most Thermo Scientific tools used for EFA, PFA and Circuit Edit space

Supports overlaying CAD on microscope image

**Auto-syncs** position/magnification between NEXS and Circuit Edit system for a more seamless user experience

**Annotates** layout, navigates by text location point, and receives marked hotspot locations

Reads popular box, text and net trace formats (.vl, .dl, .hl)

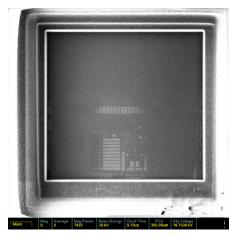
Traces/highlights nets and cells

**Reads** software diagnostic callouts and scan chains from various formats (.vl, .sigps.txt, query.txt)

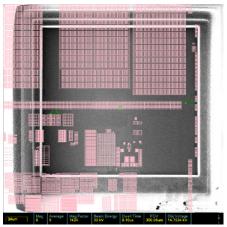




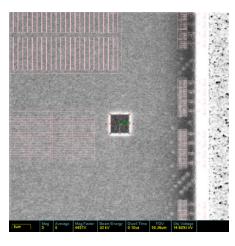
### **NEXS Workflow - CAD overlay for Circuit Edit**



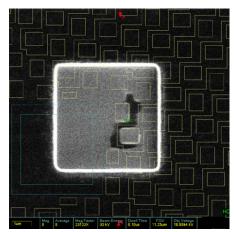
(a) N-well exposure posttrenching operation



(b) N-well FIB image overlayed with CAD image to identify ROI for edit

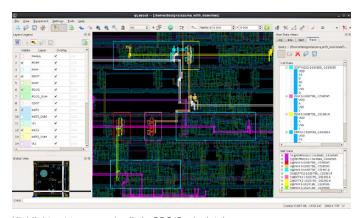


(c) Mill box precisely positioned using CAD overlay

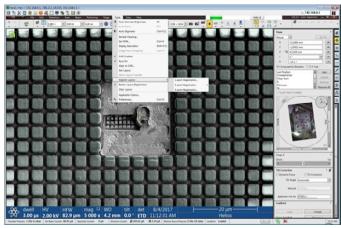


(d) Final exposed ROI based on CAD assisted positioning of mill box

## **Additional features for EFA applications**



Highlight net traces and cells in GDS/Oasis databases



Overlay CAD with live image

