METRICS™

ICS Interactive Characterization Software

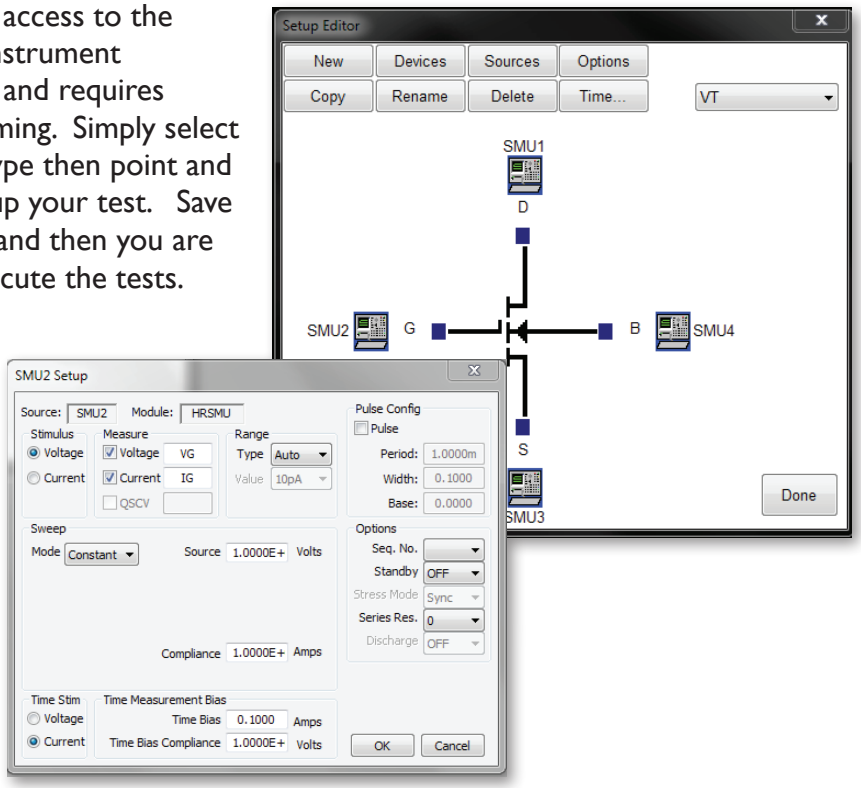
Point, Click, Measure.

It's as simple as that.

Metrics ICS software supports all aspects of device characterization, from basic measurements using a test fixture to perform receiving inspection of discrete parts to sequenced measurements using a manual prober to perform process development tasks or failure analysis on wafer.

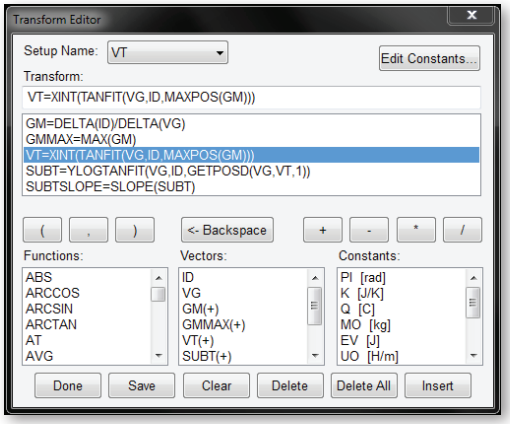
Graphical Test Generation

Built-in graphical test generation using the test setup editor provides full access to the supported instrument functionality and requires no programming. Simply select the device type then point and click to set up your test. Save the settings and then you are ready to execute the tests.



Numerical Transform Editor

Specify additional analysis functions using the built-in numerical transform editor to apply lists of equations to the measured data. Included are common numerical operators, line fitting, user-defined constants as well as other specialized functions specific to extracting parameters for semiconductor characteristics.



Fast and Easy Test Sequencing

Metrics ICS provides a simple way to perform test sequencing without programming. Using the built-in sequence editor you can select existing test setups and then re-arrange the order of defined tests. Once you have saved your project then simply select the sequence measure tool from the measure toolbar to run all the selected tests.

The Metrics Technology Advantage

CONTINUITY IN THE LAB

Metrics software allows you to implement a common software interface throughout the lab across multiple vendor's instruments. Your learning curve is greatly reduced because all instruments are presented in a unified and similar manner so you can begin making productive parametric measurements immediately with the latest or legacy equipment and instruments. The use of one software platform to cover a diverse equipment set improves communication and training time is reduced.

EASE OF USE

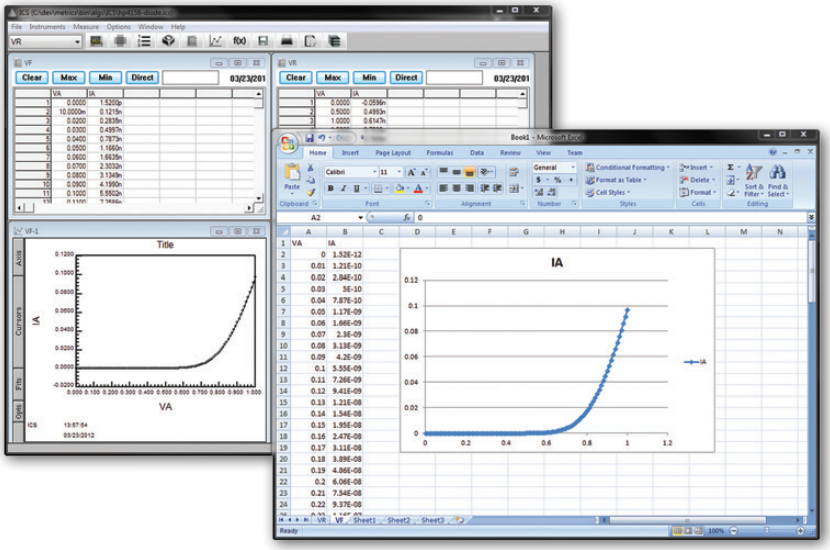
Metrics software provides easy setup for complex instrumentation through an interactive graphical user interface, and requires no programming by the end user. It has a full suite of data analysis tools and provides quick transfer of data to popular software packages. All this capability allows the engineer to focus on testing, not on writing and maintaining custom code.

DEDICATION

Metrics Technology's products have been created "by engineers for engineers". Our knowledge and products are specific to the semiconductor engineering laboratory. This is why our instrument drivers are more capable and flexible than our competitors. We understand the tests you are performing and the equipment you use. We work to address end-user challenges to create a better software platform. Our business is software and only software. Our products have been an industry standard for more than 20 years and have often been copied, but never duplicated.

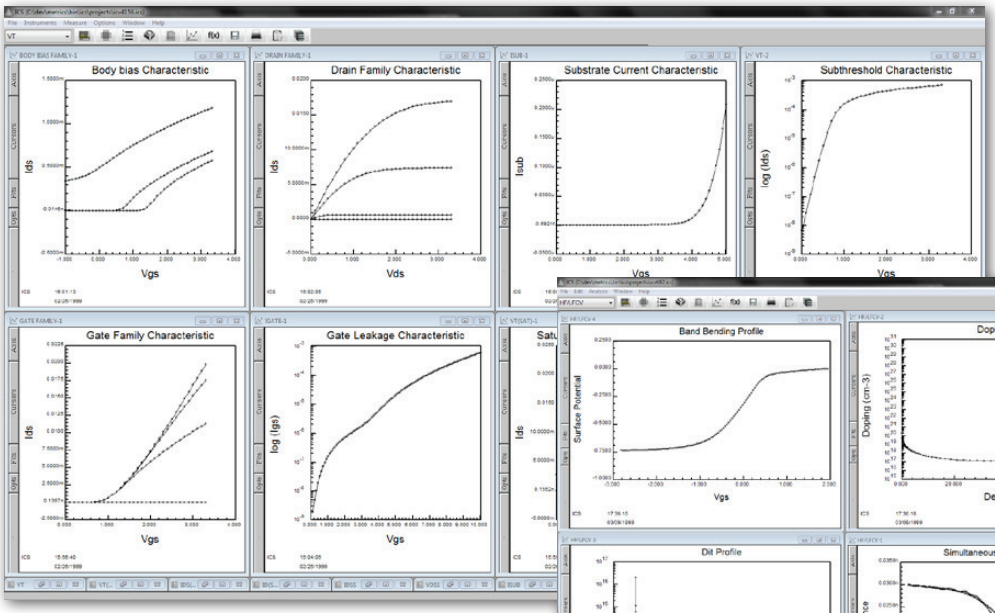
Automatic Data Collection and Report Generation

Metrics ICS has the ability to automatically synchronize data in real-time with Microsoft Excel. Create user-defined macros in Excel to create automated reports. You can also export comma or tab-delimited ASCII data to be used in other popular software packages such as spreadsheets, word processors, and databases. You can save data to any drive connected to the PC including shared volumes on the local area network.

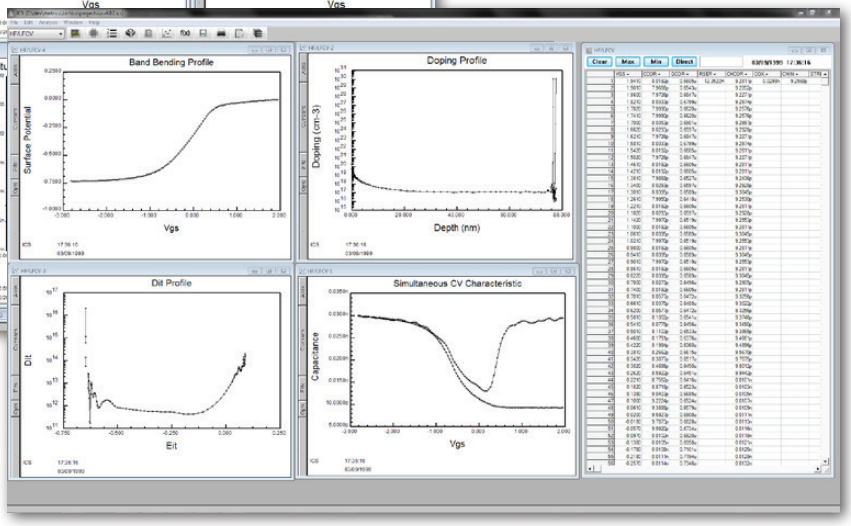


Perform IV and CV Testing

You can perform both IV and CV testing with Metrics ICS. Several supported CV instruments have special compensation algorithms to provide support for standard cable length and phase shift compensation. Open, short and load calibration routines are also provided for achieving maximum accuracy.



NMOS IV Characteristics



Simultaneous CV Analysis - (using supported equipment)

ICS Instrument Support

The following is a list of all of the instruments supported by Metrics ICS.
Please visit our website for detailed information and application notes.

Model	Description
Agilent(HP) 4140B	pA Meter/DC Voltage Source
Agilent(HP) 4142B	Modular DC Source/Monitor
Agilent(HP) 4145A/B	Semiconductor Parameter Analyzer
Agilent(HP) 4155A/B/C	Semiconductor Parameter Analyzer
Agilent(HP) 4156A/B/C	Semiconductor Parameter Analyzer
Agilent E5270B	8-slot Precision Measurement Mainframe
E5280B	High Power Source/Monitor Unit (HPSMU)
E5281B	Medium Power Source/Monitor Unit (MPSMU)
E5286A	High Resolution Source/Monitor Unit (HRSMU)
E5287A	Atto Level High Resolution Source/Monitor Unit
E5288A	Atto Sense and Switch Unit
Agilent 5272A	2-slot High Speed Source Monitor Unit
Agilent 5273A	2-slot High Speed Source Monitor Unit
Agilent E5260A	8-slot High Speed Measurement Mainframe
E5290A	High Power Source/Monitor Unit (HPSMU)
E5291A	Medium Power Source/Monitor Unit (MPSMU)
Agilent 5262A	2-slot High Speed Source Monitor Unit
Agilent 5263A	2-slot High Speed Source Monitor Unit
Agilent B1500A	Semiconductor Device Analyzer
B1510A	High Power Source/Monitor Unit (HPSMU)
B1511A	Medium Power Source/Monitor Unit (MPSMU)
B1517A	High Resolution Source/Monitor Unit (HRSMU)
Agilent B1505A	Power Device Analyzer/Curve Tracer
B1512A	High Current Source/Monitor (HCSMU, DHCSMU)
B1513A	High Voltage Source/Monitor Unit (HVSMU)
N1258A	Module selector
Agilent B2900A	Precision Source/Measure Unit
B2901A	100 fA Single Channel Precision Source/Measure Unit
B2902A	100 fA Dual Channel Precision Source/Measure Unit
B2911A	10 fA Single Channel Precision Source/Measure Unit
B2912A	10 fA Dual Channel Precision Source/Measure Unit

Model	Description	
Agilent(HP) 4275A	10 Hz-10 MHz	Multi-frequency LCR Meter
Agilent(HP) 4280A	1 MHz	C-Meter/CV Plotter
Agilent(HP) 4284A	20 Hz-1 MHz	Precision LCR Meter
Agilent(HP) 4285A	75 Hz-30 MHz	Precision LCR Meter
Agilent(HP) 4192A	5 Hz-13 MHz	Low Frequency Impedance Anaylzer
Agilent E4980A	20 Hz-2 MHz	Precision LCR Meter

*When using more than one of these instruments together, you will need the 2361 TCU and all connectors

Keithley Model 236*	Source Measure Unit
Keithley Model 237*	High Voltage Source Measure Unit
Keithley Model 238*	High Current Source Measure Unit
Keithley 2400 Series*	Digital Source Meter
2410*	Digital High Voltage Source Meter
2420*	Digital High Current Source Meter
2430*	Digital High Power Source Meter
Keithley 6430*	Sub-fA Source Meter
Keithley 2600A Series	Digital Source Meter
2601A	20W Single Channel Source Meter
2602A	20W Dual Channel Source Meter
2611A	200V Single Channel Source Meter
2612A	200V Dual Channel Source Meter
2635A	1 fA 20W Single Channel Source Meter
2636A	1 fA 20W Dual Channel Source Meter
Keithley 4200-SCS	Semiconductor Characterization System
Keithley Model 82	C-V Characterization System
Keithley Model 90	I-V Semiconductor Test System
Keithley Model 590	C-V Analyzer
Keithley Model 595	C-V Quasi-static CV Meter
QualiTau DSPT9012	Desktop Semiconductor Parametric Tester
Tektronix 370A/B	Curve Tracer
Tektronix 371A/B	High Power Curve Tracer

MINIMUM SYSTEM REQUIREMENTS

3 GHz Pentium 4-class Processor (or equivalent)
1 Gbyte RAM
XP Professional (Service Pack 3) – Windows 7 Professional, 32-bit or 64-bit
500 Mbyte available for product installation, plus additional capacity for test data
USB port
SXGA Monitor (1280 x 1024) minimum resolution
Ethernet – LXI (TCP/IP) interface support

One of the following GPIB cards and the listed software:
NI GPIB-PCI NI-488.2 Software version 2.8
NI GPIB-USB-B/HS NI-488.2 Software version 2.8

Agilent 82350 A/B Agilent SICL I/O Libraries version 16.0
Agilent 82357 A/B Agilent SICL I/O Libraries version 16.0