Logicbus

MC
MEASUREMENT COMPUTING™

MC MEASUREMENT COMPUTING™

DATA ACQUISITION CATALOG

## Creating Modern DAQ for the Internet of Things

DAQ HATs Data Acquisition for Raspberry Pi®

MCC DAQ HATs (Hardware Attached on Top) are designed for use with Raspberry Pi, the most popular single-board computer on the market today. Bring professional quality measurement and I/O capability to this low-cost platform.

MODEL	MCC 118	MCC 152
Analog In	8	—
Analog Out	—	2
Sample Rate	100 kS/s	—
Resolution	12-Bit	12-Bit
Digital I/O	—	8

Perfect for:

- Embedded system design
- Industrial IoT
- End-of-line test
- Remote monitoring
- Edge Computing
- Validation/verification test
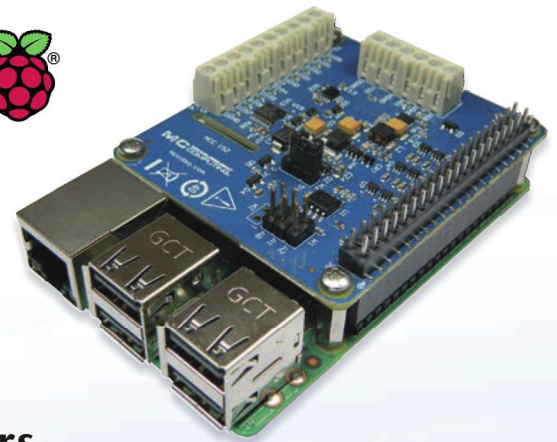
WebDAQ Internet Enabled Data Loggers

In an age of mobile applications and connected devices, the ability to access your data remotely is more important than ever. WebDAQ offers a new data logger architecture that allows configuration and access to the data from anywhere in the world.

MODEL	WebDAQ 316	WebDAQ 504
Inputs	16 Thermocouple	4 IEPE
Sample Rate	75 S/s Max	51 kS/s/Ch Max
Resolution	24-Bit	24-Bit
Digital I/O	4	4
Memory	Unlimited	Unlimited

OUR PRODUCT LINES

MC MEASUREMENT COMPUTING™

High quality Data Acquisition, and Data Loggers that are easy-to-use, easy-to-integrate and easy-to-support.

DATA TRANSLATION®

Advanced DAQ devices specializing in dynamic signal analyzers and isolated data acquisition.

Data Acquisition and Control

Measurement Computing provides data acquisition solutions for a wide range of applications and interfaces. MCC offers high-quality hardware, software, and drivers for a quick and customizable solution to your unique application.

16-BIT MULTIFUNCTION

USB-230 Series

Analog Inputs	8 SE/4 DIFF
Resolution	16-bit
Sample Rate	Up to 100 kS/s
Simultaneous	—
Isolated	—
Analog Outputs	2
Digital I/O	8
Counters	1 x 32-bit

• Software support for Windows

HIGH-PRECISION

USB-1808 Series

Analog Inputs	8 SE/8 DIFF
Resolution	18-bit
Sample Rate	Up to 200 kS/s/Ch
Simultaneous	✓
Isolated	—
Analog Outputs	2
Digital I/O	4
Counters	2 x 32-bit[†]

• Software support for Windows and Linux
[†] 2 quadrature encoder inputs

ETHERNET MULTIFUNCTION

E-1608

Analog Inputs	8 SE/4 DIFF
Resolution	16-bit
Sample Rate	250 kS/s
Simultaneous	—
Isolated	—
Analog Outputs	2
Digital I/O	8
Counters	1 x 32-bit

• Software support for Windows, Linux and Android

HIGH-SPEED SIMULTANEOUS

DT9832 Series

Analog Inputs	2 or 4 SE
Resolution	16-bit
Sample Rate	Up to 2 MS/s/Ch
Simultaneous	✓
Isolated	✓
Analog Outputs	Up to 2
Digital I/O	32
Counters	5 x 32-bit[†]

• Software support for Windows
[†] 3 quadrature encoder inputs

HIGH-SPEED MULTIFUNCTION

USB-1608G Series

Analog Inputs	16 SE/8 DIFF
Resolution	16-bit
Sample Rate	Up to 500 kS/s
Simultaneous	—
Isolated	—
Analog Outputs	Up to 2
Digital I/O	8
Counters	2 x 32-bit

• Software support for Windows, Linux and Android

ISOLATED SIMULTANEOUS

DT8824/DT9824 (Ethernet, USB)

Analog Inputs	4 DIFF[†]
Resolution	24-bit
Sample Rate	4800 S/s/Ch
Simultaneous	✓
Isolated	✓
Analog Outputs	—
Digital I/O	Up to 16
Counters	—

• Software support for Windows
[†] ±500 V Isolated channel-to-channel

BRIDGE-BASED SENSORS

DT9838

Analog Inputs	4 DIFF
Bridge Inputs	✓
Programmable Excitation	✓
Voltage Inputs	±250 mV
Resolution	24-bit
Sample Rate	52.7 kS/s/Ch
Simultaneous	✓
Digital I/O	1 Tachometer
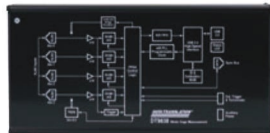
• Software support for Windows

MULTI SENSOR

DT9829-8

Analog Inputs	8 DIFF
Bridge Inputs	✓
Thermocouple, Resistance, Current	✓
Voltage Inputs	✓
Resolution	24-bit
Sample Rate	960 S/s
Simultaneous	—
Digital I/O	8

• Software support for Windows

Data Acquisition and Control

Measurement Computing provides data acquisition solutions for a wide range of applications and interfaces. MCC offers high-quality hardware, software, and drivers for a quick and customizable solution to your unique application.

DEVICE	Bus Type	Analog Inputs	Sample Rate	Resolution	Digital I/O	Counters	Analog Outputs
LOW COST							
USB-200 Series	USB	8 SE	500 kS/s	12-bit	8	1	Up to 2
USB-230 Series	USB	8 SE/4 DIFF	100 kS/s	16-bit	8	1	2
MCC 118	Rpi	8	100 kS/s	12-bit	—	—	—
MCC 152	Rpi	—	—	12-bit	8	—	2
BTH-1208LS	Bluetooth	8 SE/4 DIFF	1 kS/s	12-bit	8	1	2
USB-1208LS	USB	8 SE/4 DIFF	1.2 kS/s	12-bit	16	1	2
USB-1208FS-Plus	USB	8 SE/4 DIFF	50 kS/s	12-bit	16	1	2
E-1608	Ethernet	8 SE/4 DIFF	250 kS/s	16-bit	8	1	2
USB-1608G Series	USB	16 SE/8 DIFF	500 kS/s	16-bit	8	2	Up to 2
DT9812/13/14 Series	USB	Up to 24 SE	Up to 100 kS/s	12-bit	Up to 16	1	2
SIMULTANEOUS							
USB-1808	USB	8 SE/8 DIFF	50 kS/s/ch	18-bit	4	2*	2
USB-1808X	USB	8 SE/8 DIFF	200 kS/s/ch	18-bit	4	2*	2
USB-1608FS-Plus	USB	8 SE	100 kS/s/ch	16-bit	8	1	—
DT9816 Series	USB	6 SE	Up to 750 kS/s/ch	16-bit	16	1	—
DT9832 BNC Series	USB	2 or 4 SE	2 MS/s/ch	16-bit	32	5*	Up to 2
DT9836 BNC Series	USB	6 or 12 SE	225 kS/s/ch	16-bit	32	5*	Up to 4
DT9826	USB	16 SE	41.6 kS/s/ch	24-bit	16	2	—
HIGH SPEED							
USB-1208HS	USB	8 SE/4 DIFF	1 MS/s	13-bit	16	2	—
USB-2600 Series	USB	16 or 64 SE	1 MS/s	16-bit	24	4	Up to 4
USB-1616HS Series	USB	16 SE/8 DIFF	1 MS/s	16-bit	24	4	Up to 4
DT9834-16-4-16-BNC	USB	16 SE/8 DIFF	500 kS/s	16-bit	32	5	4
DT9862 Series	USB	2 SE	10 MS/s/ch	16-bit	32	5*	Up to 2
USB-2020	USB	2 SE	20 MS/s/ch	12-bit	8	—	—
HIGH PRECISION							
USB-2404 Series	USB	4 DIFF	Up to 50 kS/s/ch	24-bit	—	—	—
DT8824	Ethernet	4 DIFF	4.8 kS/s/ch	24-bit	4	—	—
DT9824	USB	4 DIFF	4.8 kS/s/ch	24-bit	16	—	—
DT9844	USB	32 SE/16 DIFF	1 MS/s	20-bit	32	5	—
DIGITAL I/O							
USB-1024LS	USB	—	—	—	24	1	—
USB-DIO32HS	USB	—	—	—	32**	—	—
USB-DIO96H Series	USB	—	—	—	96	1	—
E-DIO24	Ethernet	—	—	—	24	1	—
DT9810	USB	8 SE	25 kS/s	10-bit	20	1	—
COUNTER/TIMER							
USB-CTR Series	USB	—	—	—	8**	4 or 8**	—
ANALOG OUTPUT							
USB-3100 Series	USB	—	—	—	8	1	Up to 16
USB-3101FS	USB	—	—	—	—	—	4
MIXED/UNIVERSAL INPUT*							
USB-2404-UI	USB	4 DIFF	100 S/s/ch	24-bit	—	—	—
SC-1608-USB	USB	8 DIFF	250 kS/s	16-bit	8	2	—
SC-1608X-2AO-USB	USB	8 DIFF	500 kS/s	16-bit	8	2	2
SC-1608-2AO-ENET	Ethernet	8 DIFF	250 kS/s	16-bit	8	1	2
DT9829-8	USB	8 DIFF	960 S/s	24-bit	4	—	—
DT9838	USB	4 DIFF	52.7 kS/s/ch	24-bit	—	—	—

* Capable of measuring quadrature encoders
** High-speed scanning up to 8 MS/s
*** Most devices capable of measuring strain, pressure, temperature, current, resistance, and voltage.
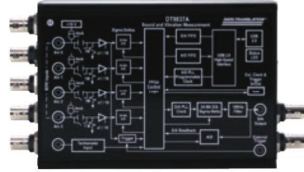
Sound and Vibration

Directly measure IEPE-type accelerometers or voltage inputs with no added signal conditioning using USB and Ethernet data acquisition (DAQ) devices.

PORTABLE USB

DT9837 Series — DT

Analog Inputs	4 SE†
Resolution	24-bit
Sample Rate	Up to 105.4 kS/s/Ch
Simultaneous	✓
Isolated	—
Analog Outputs	Up to 1
Digital I/O	—
Tachometer	Up to 1

† Direct IEPE inputs, sync port for channel expansion

STAND ALONE

WebDAQ 504

Analog Inputs	4†
Resolution	24-bit
Sample Rate	51 kS/s/Ch
Simultaneous	✓
Isolated	—
Analog Outputs	—
Digital I/O	4
Tachometer	—

† Direct IEPE inputs

MEDIUM-CHANNEL COUNT USB

DT9857E Series — DT

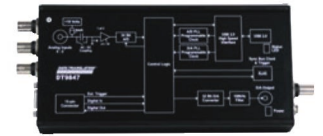| Analog Inputs	8 or 16 SE†
Resolution	24-bit
Sample Rate	105.4 kS/s/Ch
Simultaneous	✓
Isolated	—
Analog Outputs	2
Digital I/O	16
Tachometer	1

† Direct IEPE inputs, sync port for channel expansion

WIDE BANDWIDTH USB

DT9847 Series — DT

Analog Inputs	Up to 3 SE†
Resolution	24-bit
Sample Rate	216 kS/s/Ch
Simultaneous	✓
Isolated	—
Analog Outputs	Up to 2
Digital I/O	8
Tachometer	—

† Direct IEPE inputs, sync port for channel expansion

4-CHANNEL ETHERNET

DT8837 — DT

Analog Inputs	4 IEPE
Resolution	24-bit
Sample Rate	52.7 kS/s/Ch
Simultaneous	✓
Analog Outputs	1
Digital I/O	4
Tachometer	1

HIGH-CHANNEL COUNT USB

VIBbox — DT

Analog Inputs	Up to 64†
Resolution	24-bit
Sample Rate	105.4 kS/s/Ch
Simultaneous	✓
Isolated	—
Analog Outputs	Up to 8
Digital I/O	Up to 64
Tachometer	Up to 4

† Direct IEPE inputs, sync port for channel expansion

QUICKDAQ VIBRATION SOFTWARE
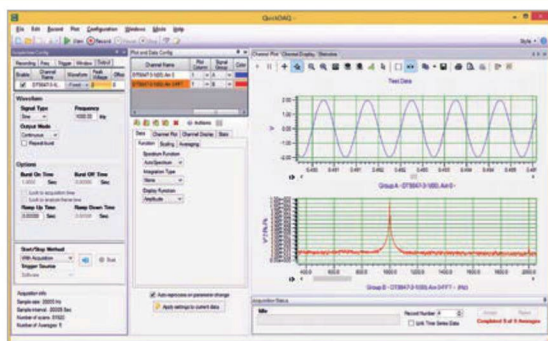
- Two extensions add FFT analysis capabilities to the free base package

- QuickDAQ FFT Analysis Options allow serious sound & vibration analysis supporting modal analysis and ODS analysis methods

- Single-Channel and Dual-Channel (frequency response) FFT operations

- Switch between the Data Logger time-based interface and the FFT Analyzer block/average-based interface

Temperature Measurement

Measurement Computing offers a wide selection of temperature measurement DAQ products. Low-cost solutions such as the USB-TEMP offer thermocouple, RTD and thermistor inputs in one module.

LOW-COST USB

USB-TEMP and TC Series

Channels	8
Thermocouples	✓
RTD	✓
Voltage Inputs	—
Sample Rate	2 S/s/Ch
Isolated	—
Analog Outputs	—
Digital I/O	8

- Software support for Windows, Linux, Android, and macOS

STAND ALONE

WebDAQ 316

Channels	16
Thermocouples	✓
RTD	—
Voltage Inputs	—
Sample Rate	75 S/s
Isolated	—
Analog Outputs	—
Digital I/O	4

HIGH-CHANNEL COUNT

TC-32 (Ethernet, USB)

Channels	Up to 64
Thermocouples	✓
RTD	—
Voltage Inputs	—
Sample Rate	3 S/s/Ch
Isolated	✓
Analog Outputs	—
Digital I/O	Up to 80

- Software support for Windows, Linux and Android

HIGH-ACCURACY

MEASURpoint (Ethernet, USB)

Channels	Up to 48[†]
Thermocouples	✓
RTD	✓
Voltage Inputs	Up to ±60 V
Sample Rate	10 S/s/Ch
Isolated	✓
Analog Outputs	—
Digital I/O	16

[†] 500 V isolated channel-to-channel

DEVICE	Channels	Thermocouple Inputs	RTD, Thermistor, Semiconductor, Temperature Inputs	Voltage Inputs	Sample Rate
USB					
USB-TC	8	√	—	—	2 S/s/ch
USB-TEMP	8	√	√	—	2 S/s/ch
USB-2408	8	√	—	√	1 kS/s
USB-2416	16*	√	—	√	1 kS/s
USB-2001-TC	1	√	—	—	4 S/s
USB-2404-UI	4	√	√	√	100 S/s/ch
DT9874 MEASURpoint	8 to 48	√	RTD	√	10 S/s/ch
DT9828	8	√	—	—	600 S/s
DT9829-8	8	√	√	√	960 S/s
WIRELESS					
WiFi-501	1††	—	—	—	10 sec to 12 hrs
WiFi-502	2†	—	—	—	10 sec to 12 hrs
ETHERNET					
E-TC	8	√	—	—	4 S/s/ch
TC-32	32**	√	—	—	3 S/s/ch
DT8874 MEASURpoint	8 to 48	√	RTD	√	10 S/s/ch
LOGGERS					
USB-501	1††	—	—	—	10 sec to 12 hrs
USB-502	2†	—	—	—	10 sec to 12 hrs
USB-601	1††	—	—	—	10 sec to 2 hrs
USB-602	2†	—	—	—	10 sec to 2 hrs
USB-603	2	√	—	—	2 sec to 2 hrs
USB-5104	4	√	—	—	1 sec to 18 hrs
USB-5106	4	—	Temperature, Current, Voltage	√	1 sec to 18 hrs
WebDAQ 316	16	√	—	—	75 S/s

* Expandable to 32 SE/16 DIFF   †   Measures temperature and humidity
** Expandable to 64   †† Measure temperature directly

Data Loggers

Record and monitor temperature, voltage, current, humidity and more using portable, stand-alone data loggers.

LOW-COST

USB-500 Series

Channels	1 or 2
Measurement	Temperature, Humidity, Voltage, Current
Sample Rate	1 sec to 12 hrs
Digital I/O	—
Memory	Up to 32 K Readings
Features	LCD Display

• Included software for USB-500/600 Series

MULTI-CHANNEL

USB-5100 Series

Channels	4
Measurement	Thermocouple, Current, Voltage
Sample Rate	1 sec to 18 hrs
Digital I/O	—
Memory	Up to 1.9 Million Readings
Features	LCD Display

• Includes easy-to-use software

INTERNET ENABLED

WebDAQ Series

Channels	Up to 16
Measurement	Thermocouple, IEPE
Sample Rate	Up to 51 kS/s/Ch
Digital I/O	4
Memory	Unlimited
Features	Embedded Web Server

HIGH-SPEED INDUSTRIAL

LGR-5320 Series

Channels	16 SE/8 DIFF
Measurement	Up to ±30 V
Sample Rate	Up to 200 kS/s†
Digital I/O	16
Memory	Up to 32 GB
Features	Quadrature Encoder

• Included DAQLog software to get you up and running
† Correlated analog and digital signals

DEVICE	Channels	Measurement Type	Sample Rate	Memory	Features
LOW SPEED					
USB-501	1	Temperature	10 sec to 12 hrs	16 K Readings	Status LEDs
USB-501-LCD	1	Temperature	1 sec to 12 hrs	16 K Readings	LCD Display
USB-501-LT	1	Temperature	15 min up to 2 hrs	4 K Readings	Ultra Compact
USB-501-PRO	1	Temperature	1 sec to 12 hrs	32 K Readings	Extended Temperature Range
USB-501-TC-LCD	1	Thermocouple	1 sec to 12 hrs	32 K Readings	LCD Display
USB-502	2	Temperature, Humidity	10 sec to 12 hrs	16 K Readings	Status LEDs
USB-502-LCD	2	Temperature, Humidity	10 sec to 12 hrs	16 K Readings	LCD Display
USB-503	1	0 up to 30 VDC	1 sec to 12 hrs	32 K Readings	—
USB-504	1	4 up to 20 mA	1 sec to 12 hrs	32 K Readings	—
USB-601	1	Temperature	10 sec to 2 hrs	250 K Readings	LCD Display
USB-602	2	Temperature, Humidity	10 sec to 2 hrs	250 K Readings	LCD Display
USB-603	2	Thermocouple	2 sec to 2 hrs	250 K Readings	LCD Display
USB-5104	4	Thermocouple	1 sec to 18 hrs	1.6 Million Readings	LCD Display
USB-5106	4	Temperature, Current, Voltage	1 sec to 18 hrs	1.9 Million Readings	LCD Display
HIGH SPEED					
LGR-5325	16	±10 V	Up to 100 kS/s	4 GB (Up to 32 GB)	4 Counters
LGR-5329	16	±30 V	Up to 200 kS/s	4 GB (Up to 32 GB)	4 Quadrature Inputs, Isolated Digital Inputs
WEB ENABLED					
WebDAQ 316	16	Thermocouple	75 S/s	Unlimited	Web Server
WebDAQ 504	4	IEPE	51 kS/s/Ch	Unlimited	Web Server
WIRELESS					
WiFi-501	1	Temperature	10 sec to 12 hrs	> 250 K Readings	LCD Display
WiFi-502	2	Temperature, Humidity	10 sec to 12 hrs	> 250 K Readings	LCD Display

OEM and Embedded Solutions

Board-only solutions with easy to integrate connectors. As a leading supplier of OEM DAQ solutions, MCC provides volume pricing and free technical support.

MULTIFUNCTION USB

USB-201-OEM

Analog Inputs	8 SE
Resolution	12-bit
Sample Rate	100 kS/s
Simultaneous	—
Analog Outputs	—
Digital I/O	8
Interface	USB

- Software support for Windows, Linux and Android

MULTIFUNCTION ETHERNET

E-1608-OEM

Analog Inputs	8 SE/4 DIFF
Resolution	16-bit
Sample Rate	250 kS/s
Simultaneous	—
Analog Outputs	2
Digital I/O	8
Interface	Ethernet

- Software support for Windows, Linux and Android

HIGH SPEED

USB-2637

Analog Inputs	64 SE
Resolution	16-bit
Sample Rate	1 MS/s
Simultaneous	—
Analog Outputs	4
Digital I/O	24
Interface	USB

- Software support for Windows, Linux and Android

HIGH-PERFORMANCE ARM

DT7816

Analog Inputs	8 SE
Resolution	16-bit
Sample Rate	400 kS/s/Ch
Simultaneous	✓
Analog Outputs	2
Digital I/O	16
Interface	Ethernet, USB, microSD

- Embedded ARM processor and Linux on-board

DEVICE	Bus Type	Analog Inputs	Sample Rate	Resolution	Digital I/O	Counters	Analog Outputs
LOW COST							
USB-200-OEM Series	USB	8 SE	Up to 500 kS/s	12-bit	8	1	Up to 2
USB-230-OEM Series	USB	8 SE/4 DIFF	Up to 100 kS/s	16-bit	8	1	2
MCC 118	Rpi	8	100 kS/s	12-bit	—	—	—
MCC 152	Rpi	—	—	12-bit	8	—	2
BTH-1208LS-OEM	Bluetooth	8 SE/4 DIFF	1 kS/s	12-bit	8	1	2
USB-1208FS-Plus-OEM	USB	8 SE/4 DIFF	50 kS/s	12-bit	16	1	2
E-1608-OEM	Ethernet	8 SE/4 DIFF	250 kS/s	16-bit	8	1	2
USB-1608G-OEM Series	USB	16 SE/8 DIFF	Up to 500 kS/s	16-bit	8	2	Up to 2
SIMULTANEOUS							
USB-1808 Series	USB	8 SE/8 DIFF	Up to 200 kS/s/ch	18-bit	4	2*	2
USB-1608FS-Plus-OEM	USB	8 SE	100 kS/s/ch	16-bit	8	1	—
DT9832/36-OEM Series	USB	2, 4, 6 or 12 SE	Up to 2 MS/s/ch	16-bit	32	5*	Up to 4
DT9837-OEM Series	USB	4 SE with IEPE	Up to 105.4 kS/s/ch	24-bit	—	1	Up to 1
HIGH SPEED							
USB-2600 Series	USB	16 or 64 SE	1 MS/s	16-bit	24	4	Up to 4
DT9834-OEM Series	USB	16 SE/8 DIFF	500 kS/s	16-bit	32	5	Up to 4
DT9844-32-OEM	USB	32 SE/16 DIFF	1 MS/s	20-bit	32	5	—
USB-2020	USB	2 SE	20 MS/s/ch	12-bit	8	—	—
DIGITAL I/O							
USB-DIO24 Series	USB	—	—	—	24	1	—
USB-DIO32HS-OEM	USB	—	—	—	32**	—	—
USB-DIO96H/50	USB	—	—	—	96	1	—
E-DIO24-OEM	Ethernet	—	—	—	24	1	—
COUNTER/TIMER							
USB-CTR-OEM Series	USB	—	—	—	8**	4 or 8**	—

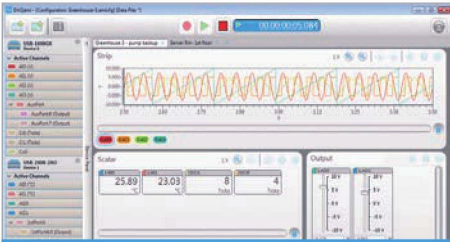* Capable of measuring quadrature encoders   ** High-speed scanning up to 8 MS/s
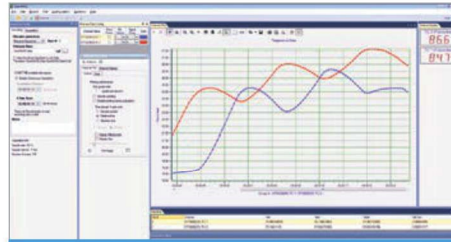
Data Acquisition Software

Software support includes easy-to-use data viewing and logging software, drivers for the most popular applications and languages, and support for various operating systems including Windows®, Linux®, Android™, and macOS®.
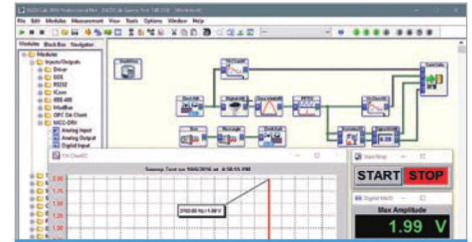
QUICK AND EASY

DAQami™

Companion software for acquiring data and generating signals with most MCC devices.
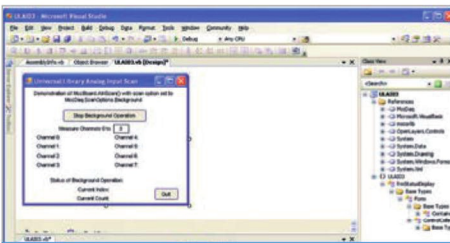
QuickDAQ

Acquire and display from most Data Translation USB and Ethernet DAQ devices.
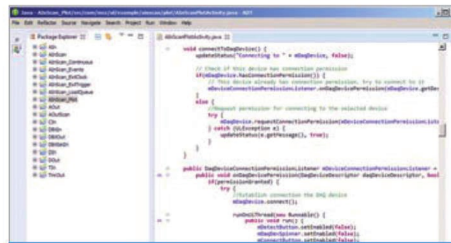
DASYLab™

Real-time analysis, control, and custom GUI's without programming.
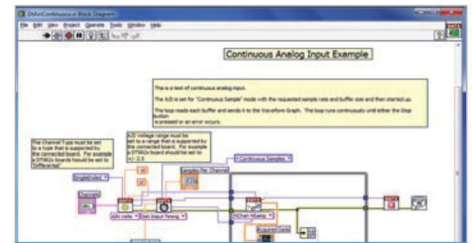
PROGRAMMING SUPPORT

Windows®

Programming API for C®, C++®, C#®, Visual Basic®, Visual Basic® .NET™., and Python™.

Linux® and Android™

Professional drivers are available for most MCC devices.

NI LabVIEW™ and MATLAB®

Comprehensive library of VIs and example programs.

FREE SUPPORT
Free technical support, for the life of your product, is available from qualified application engineers.

30-DAY MONEY-BACK GUARANTEE
If you aren't happy, simply return the product for a full refund (U.S. customers only).

1 YEAR WARRANTY
All products are backed with a one year warranty. Buy with confidence.

FREE SHIPPING
MCC offers free shipping on all orders placed on-line. Shipping charges apply to all other orders.

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