NEW!
Version 4.0.7
Supports Aligning & Resampling Data

DT Measure Foundry

OS: Windows 2000/XP

Test and Measurement Software

DT Measure Foundry® & DT Measure Foundry/RT-Streaming

Powerful Software for Test and Measurement, Control, and Analysis Applications

Standard Features

- **Create Measurement Solutions**
  Drag-and-drop to create powerful measurement solutions quickly.
- **Synchronize and Correlate Data**
  Combine data from multiple data sources that may have different sampling rates, buffer sizes, and so on.
- **Configure Hardware Automatically**
  Configure the analog I/O, digital I/O, and counter/timer operations of any DT-Open Layers-compliant PCI or USB device using wizard-style property pages.
- **Perform Control Loop Operations**
  Stream analog input data from any DT-Open Layer-compliant device, process the data, and stream analog output data back to the device.
- **Document Programs Automatically**
  Display all the connections in your application using the Inspector tool – great for design, debugging, and documentation.
- **Link Directly to Excel®**
  Send live signals directly to Microsoft Excel® for analysis.
- **Create Custom Formulas**
  Use the Melting Pot panel to create your own formulas to process and analyze input signals, generate output signals, and exchange data with The MathWorks™ MATLAB® analysis application.
- **Compile and Link Executables**
  Create true executable versions of your program easily and distribute them royalty free.
- **Get Started Quickly**
  Video tutorials help you get started, understand the examples, and learn how to distribute an executable version of your program. These tutorials, along with example programs, a Getting Started manual, and online help get you up and running quickly.

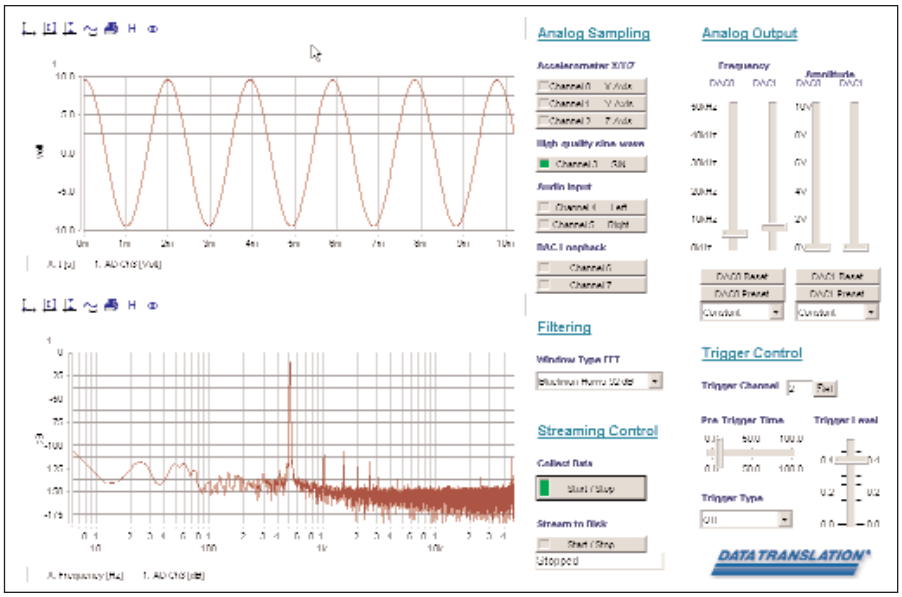


Figure 1. Create powerful measurement solutions in a fraction of the time that it takes with text-based programming. Simply drag-and-drop panels onto your worksheet, configure their property pages, and run.

RT-Streaming Features

- **Stream Real-Time Data**
  Stream data to and from DT9840 Series DSP modules in real time.
- **Perform Control Loop Operations**
  Stream analog input data from any DT9840 Series module, process the data, and stream analog output data back to the module.
- **Configure DSP Automatically**
  Configure the analog input, analog output, digital I/O, and counter/timer operations of DT9840 Series DSP modules through property pages on the host.
- **Save Time and Money**
  Eliminate the need for costly add-on programs like TI Code Composer Studio.
- **Generate Waveforms**
  Output any WAV or DCF file from up to 2 analog output channels on a DT9840 Series module using the updated RTS panel.
- **Measure Out of the Box**
  Use the DT Dynamic Signal Analyzer example, shown in Figure 3, to measure real-time signals immediately.

	DT Measure Foundry	DT Measure Foundry/RT-Streaming
Full Test and Measurement Capabilities	✓	✓
Create Royalty-Free Executables	✓	✓
Data Translation Hardware Support (DT-Open Layers)	✓	✓
Automatic DSP Configuration (DT9840 Series)	—	✓
DT Dynamic Signal Analyzer Application Example	—	✓

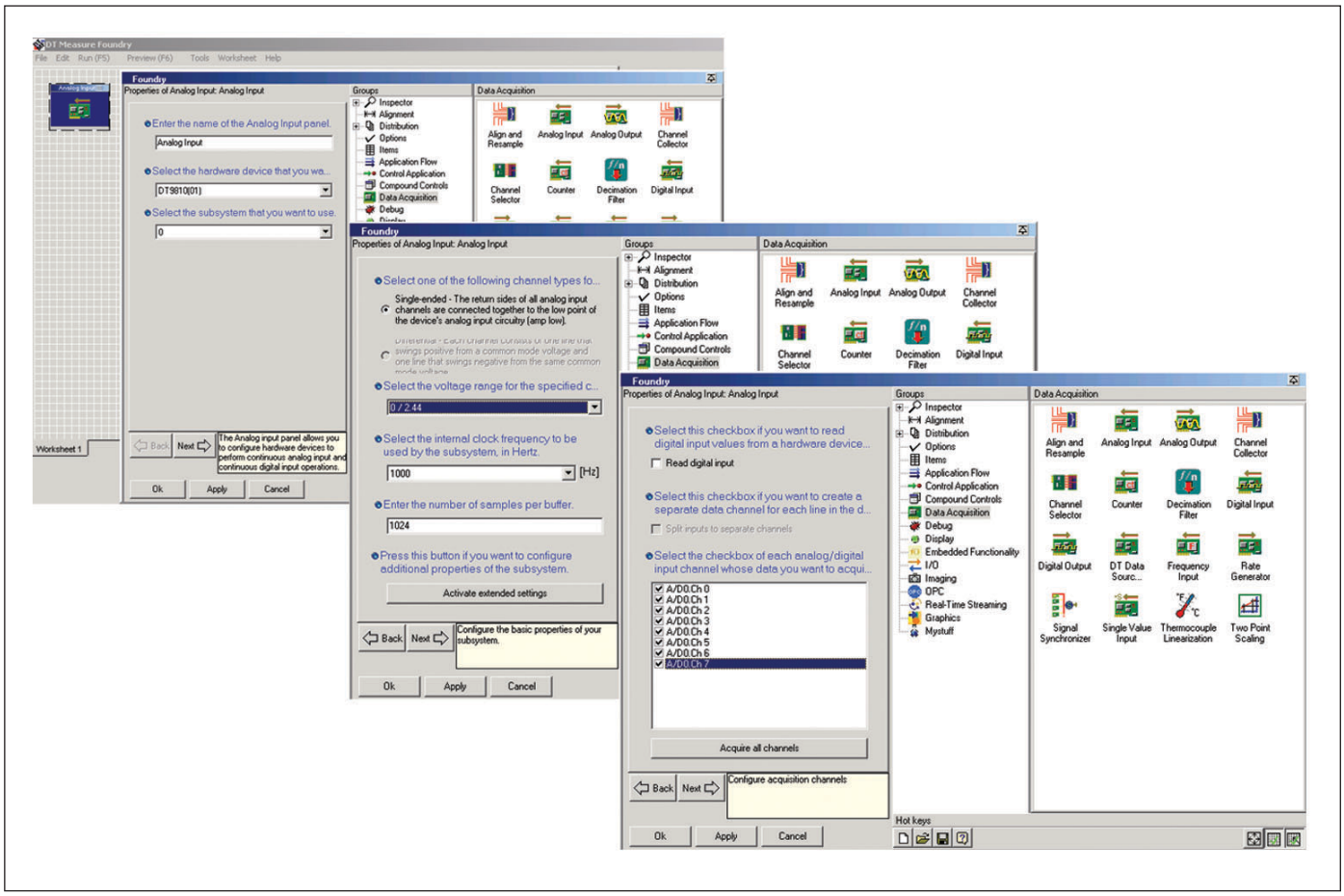


Figure 2. Use the property pages of DT Measure Foundry to step through the configuration of objects.

Develop Applications Quickly

DT Measure Foundry and DT Measure Foundry/RT-Streaming are powerful software programs for creating test and measurement, control, and analysis applications. By dragging and dropping instrument-like components, called panels, on to your worksheet and configuring their property pages, you can develop powerful applications quickly.

DT Measure Foundry/RT-Streaming includes all of the features of DT Measure Foundry. Plus, it provides the ability to stream real-time data between DT9840 Series modules and your PC. DT Measure Foundry/RT-Streaming eliminates the need for costly add-on programs like Texas Instruments Code Composer by automatically downloading the required DSP programs (COFF files) to the DT9840 Series modules in the background.

To help you get started, new video tutorials as well as many Ready-To-Measure applications and example programs are provided. DT Measure Foundry/RT-Streaming also includes the DT Dynamic Signal Analyzer application example. This application allows you to use a DT9840 Series module right out of the box to measure real-time signals. Since the source code is provided, you can also see how to create applications using DT Measure Foundry/RT-Streaming.

Distribute Your Applications Easily and Royalty Free

You can customize your application as you wish. For example, use the Picture Box panel to add your own logo, or use the Wave Player panel to play an audio or video file.

When you've completed your application, use the Distribute feature to compile and link your application in executable form and distribute it to as many end-users as you wish - royalty free. This feature is particularly important when you need to run the same program on multiple computers, as is often the case with applications on the factory floor. The Distribute feature provides a complete setup utility that automatically generates a complete installation. This feature is easy to use and ensures that your application includes all the necessary files for delivery to your end-users.

DT Measure Foundry

OS: Windows 2000/XP

Test and Measurement Software

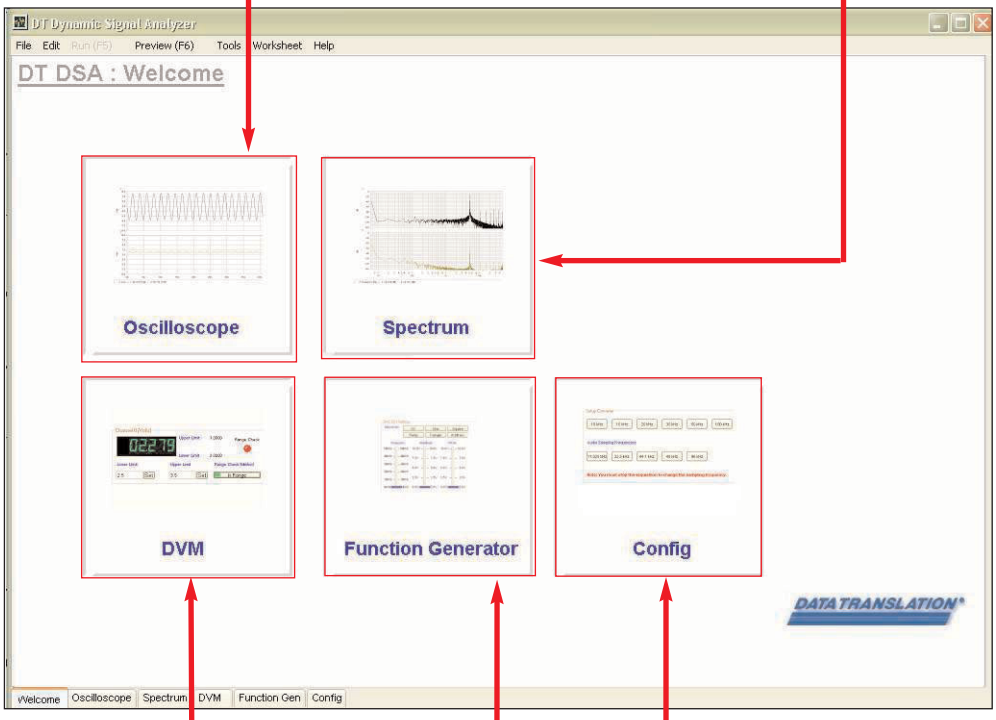
DT Dynamic Signal Analyzer Application Example

Oscilloscope Function:

- Stream and analyze signals on one or all 8 channels in real-time
- Set trigger level and position for positive or negative slope
- Select X-Scale from 1 ms to 200 ms
- Zoom/pan, autoscale, or freeze live signals
- Print live signals
- Save signals to disk
- Open and post-analyze saved signals from disk

Spectrum Function:

- Stream data in and perform up to a 128 k point FFT on one or all 8 channels
- FFT type: Spectrum analyzer, autocorrelation, power spectrum
- Window functions: Rectangle, Hann, Blackman, Blackman Harris 67 db, Blackman Harris 92 db Hamming, and Hanning
- Select linear, logarithmic, or dB view for Y-Axis scale
- Zoom/pan and freeze live signals
- Print live signals
- Save signals to disk
- Open and post-analyze signals from disk



Automatically configure DT9840 Series hardware, and set all Input/Output functions for real-time streaming to/from host PC without programming!

Easy navigation to any panel from the Welcome Panel or Tab selection along bottom of application.

DVM Function:

- 24-bit resolution provides 6.5-digit DVM for all 8 channels
- Selectable upper- and lower-limit range
- Warning LED indicator for values in or out of limit range

Configuration Function:

- Automatically configures DT9840 Series
- Selectable input sampling frequency from 10 kHz to 100 kHz
- Selectable input audio sampling frequencies from 11.025 kHz to 96 kHz

Function Generator Function:

- Generate DC, Sine Wave, Square Wave, Ramp, Triangle, and Arbitrary Waveforms
- Set frequency, amplitude, offset, duty cycle, sweep rate, and sweep width
- Load and play standard waveform signals from file (supports all .WAV, .DCF or ASCII files)

Figure 3. The DT Dynamic Signal Analyzer example, shipped with DT Measure Foundry/RT-Streaming, allows you to use a DT9840 Series module right out of the box to measure real-time signals. This example also shows you how to create applications using DT Measure Foundry/RT-Streaming.

Acquire and Control Signals from PCI or USB Devices

Access the power of Data Translation's USB and PCI data acquisition hardware within DT Measure Foundry or DT Measure Foundry/RT-Streaming. Unlike other Windows-based applications, DT Measure Foundry's patent-pending design uses multiple threads to minimize Windows latencies that can affect time-sensitive measurements.

Data acquisition devices are regarded as data sources within DT Measure Foundry. To set up a data source, simply drag-and-drop one or more data acquisition panels on to your worksheet and configure the property pages. Table 1 summarizes the panels used to configure a data source.

When you configure the property pages of a data acquisition panel, you set up the parameters of your I/O operation, such as the number of channels you want to acquire and the number of values to save in each data buffer. All data acquisition input panels use virtual time-stamping, which allows you to correlate your measurements.

Table 1. Panels for Configuring a Data Source

Icon	Panel Name	Description
New!	Align & Resample	Resamples data from multiple data sources that may have different sampling rates, buffer sizes, channel counts, and/or starting times, and aligns the data.
Enhanced!	Analog Input	Sets up a continuous analog input operation on a DT-Open Layers-compliant PCI or USB device. New in version 4.0.7, many new control channels have been added for greater flexibility.
Enhanced!	Analog Output	Sets up a DT-Open Layers-compliant PCI or USB device to perform analog output operations. You can output a single analog output value, output a previously created waveform, or generate a new waveform. With version 4.0.7, you can stream data to the Analog Output panel, and specify a phase shift in degrees for the analog output channels.
New!	Channel Collector	Combines data from several data sources, including buffered and single value data sources, but does not synchronize the data. You can then display or write all the data.
New!	Channel Selector	Selects one or more channels from a data source that has multiple channels. This panel is particularly useful when mapping data sources that have high channel counts.
Enhanced!	Counter	Sets up a DT-Open Layers-compliant PCI or USB device to perform an event counting or up/down counting operation on a counter/timer channel.
	Decimation Filter	Reduces the amount of data in your data buffer while retaining the form of your input signal by combining a low-pass filter with downsampling.
	Digital Input	Sets up a DT-Open Layers-compliant PCI or USB device to perform digital input operations. It is typically used with the Synchronizer panel.
	Digital Output	Sets up a DT-Open Layers-compliant PCI or USB device to perform digital output operations.
	Frequency Input	Sets up a DT-Open Layers-compliant PCI or USB device to perform a frequency measurement operation on a counter/timer channel.
New!	Period Measurement	Sets up a counter/timer subsystem for a period or pulse width operation. This panel measures the period or pulse width of a signal connected to the clock input or gate input of the counter/timer based on a specified starting edge and stopping edge.
	Rate Generator	Sets up a DT-Open Layers-compliant PCI or USB device for a continuous pulse output operation on a counter/timer channel.
Enhanced!	Real-Time Streaming	Configures an DT9840 Series module for analog input, analog output, digital I/O, and counter/timer operations. A DSP program (COFF file) is automatically downloaded to the module. New in version 4.0.7, you can stream data to up to 2 analog output channels, specify a phase shift in degrees for the analog output channels, and monitor many new events.
	Signal Synchronizer	Combines and synchronizes the data from several Analog Input panels. You can then display/write the data from several Analog Input panels in a Chart Recorder or File Writer panel.
	Single Value Input	Sets up a single-value analog input operation on a DT-Open Layers-compliant PCI or USB device.
	Thermocouple	Measures thermocouples directly from a DT-Open Layers-compliant PCI or USB device, applying the appropriate linearization algorithms, as needed.
	Two-Point Scaling	Converts raw data from a data source into physical data with engineering units.

Acquire and Control Signals from DT9840 Series Devices

You can access the power of Data Translation DT9840 Series modules using DT Measure Foundry/RT-Streaming.

Simply place the RTS panel on your worksheet and use its property pages to configure the analog input, analog output, digital I/O, and counter/timer operations of the DSP on a DT9840 module. New for version 4.0.7, you can specify a phase shift of 0 to 360 degrees for each analog output channel. Once you've configured the module, DT Measure Foundry/RT-Streaming automatically downloads the appropriate DSP program (COFF file) to the module and starts the DSP program.

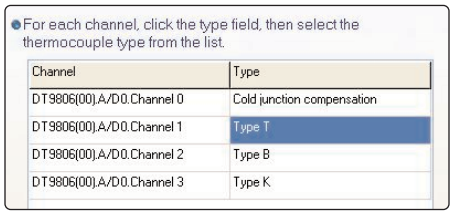


Figure 4. The Thermocouple Linearization panel, used here, shows how to use property pages to configure your operation.

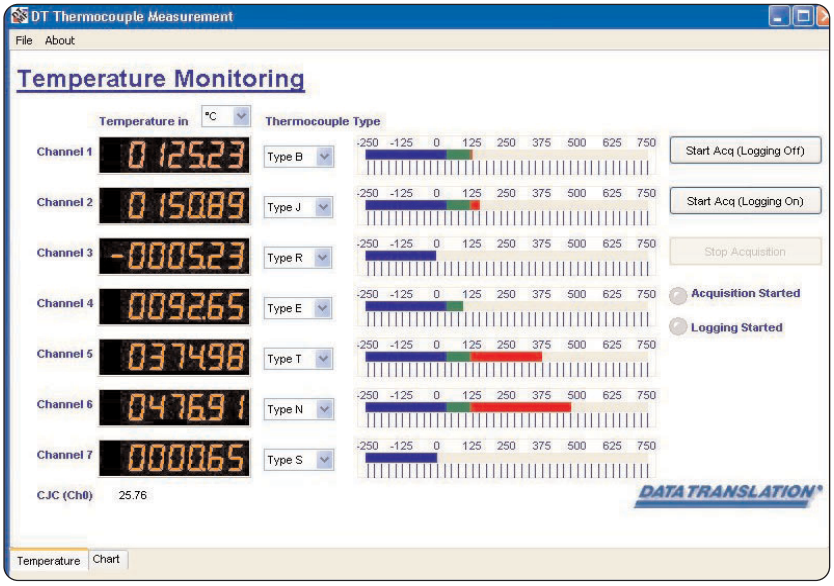


Figure 6. Use control panels to control the flow of data in your application. For example, control panels are used above to change the thermocouple type or start and stop your acquisition.

Measurement data then streams to your DT Measure Foundry/RT-Streaming application or to the DT9840 Series module in real-time. No Code Composer software is required!

Control Your Application

Built-in controlling panels and events control the properties and actions of your application based on real-world conditions and set alarms, if limits are exceeded. By connecting a controlling panel to the property or action of another panel, you can change the behavior of your application during runtime. For example, you can connect a Control Button panel to the Start and Stop action of an Analog Input panel to start and stop an analog input operation during runtime.

To handle events, use the Event Trap panel. You can specify the event that you want to react to, and the property that you want to change or the action that you want to perform whenever the event occurs. For example, you can use an Event Trap panel to write data to disk whenever an Analog Input panel starts sampling.

DT Measure Foundry and DT Measure Foundry/RT-Streaming provide other panels, such as the Action Counter, Comparator, and Data Counter panels, that you can use for more sophisticated control of your application. Table 2 summarizes the panels that are available for controlling your application and application flow.

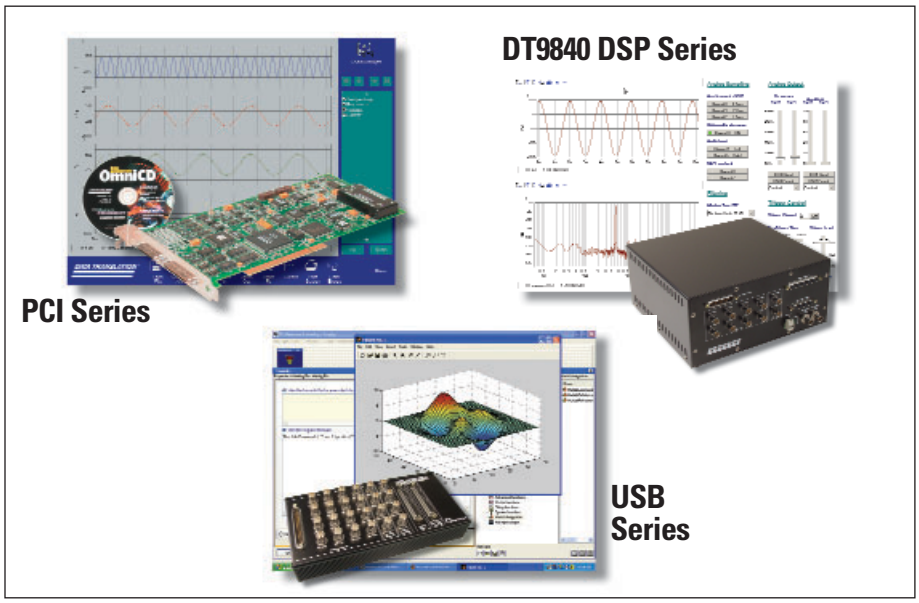


Figure 5. Choose a DT Measure Foundry/hardware bundle to save 25% on your purchase. DT Measure Foundry/RT-Streaming supports all PCI, USB, and DT9840 Series DSP data acquisition hardware. The standard version of DT Measure Foundry supports all PCI and USB data acquisition hardware.

Table 2. Panels for Controlling your Application and Application Flow

Icon	Panel Name	Description
	**Action Counter**	Reacts to actions from other controlling panels, such as the Comparator panel or the Control Button panel, to increment or decrement a counter. The counter can also used in cycle or triangle mode.
	**Comparator**	Compares the measurements from two channels or compares the measurement from a single channel and a known limit. You can use the result to trigger a set of actions or to change the properties of multiple panels at the same time.
	**Control Button**	Controls multiple properties and multiple actions of other panels used in your project.
	**Control Chart Recorder**	Controls the properties and actions of a Chart Recorder panel. (Also known as a Control Strip Chart Recorder panel or Control Line Recorder panel.)
	**Control Combo**	Controls text-based properties of panels in your project. This allows the user of your application to change the setting of a property by selecting one of several text items from a drop-down list.
	**Control DAQ**	Controls an Analog Input panel. You can start the acquisition of data, stop the acquisition of data, specify the buffer size, and select the clock frequency.
	**Control Dial**	Controls properties of other panels in your project. You can change the labeling and style of the dial to best suit the needs of your project.
	**Control Edit Field**	Controls properties of other panels in your project. The user of your application can specify a new value for a property in a text box, and the value of the property is changed immediately.
	**Control HotKeys**	Assigns hot keys to control most of a panel's properties and actions. You can also assign a hot key that allows you to switch between worksheets.
	**Control Oscilloscope**	Controls the properties and actions of an Oscilloscope panel.
	**Control Properties**	Controls the properties of other panels. This panel can change its style depending on the type of property you want to control.
	**Control Slider**	Controls properties of other panels in your project. You can change the labeling and style of the slider to best suit the needs of your project.
	**Control Spectrum**	Controls the properties and actions of a Spectrum Analyzer panel.
	**Data Counter**	Counts data events. The counter can also used in cycle mode.
	**Delay Flow**	Specifies a delay time and an action that you want to trigger when the delay time has elapsed.
	**Event Trap**	Reacts to events that occur while your project is running, such as the clicking of a Control Button or a buffer overrun of the Analog Input panel.
	**Exit**	Specifies what you want to happen whenever a project is closed. This ensures that your system is left in a defined state each time a project is closed.
	**File Open Dialog**	Specifies the path of a file to open.
	**File Save Dialog**	Specifies the path of a file to save.
	**Hub**	Sends the value of one control channel to other control channels.
	**Initialize**	Specifies what you want to happen whenever your final application is started by the end-user. This ensures that your system starts in a defined state.
New! 	**Load/Save Settings**	Loads or saves the control channels settings of an application to a file.

Table 2. Panels for Controlling your Application and Application Flow (continued)

Icon	Panel Name	Description
	Menu Editor	Creates menus for a user application. You can create one menu for each instance of the Menu Editor panel that is open.
	Oscillator	Emulates an oscillator, which is an electronic device used to generate a signal that regenerates and sustains itself. You can use the Oscillator panel in Timer, Oscillator, or Complex oscillator mode.
	Quit	Allows your end-user to exit your distributed application (.EXE file) by using a controlling panel or a menu that you create.
	Sequencer	Allows you to set up a sequence of steps to perform at some point in your application.
	Synchronizer	Combines and synchronizes the data from several single-value data source panels.
	Variable Pipe	Converts an incoming data channel into a control source. For example, you can use the converted data value as a reference value in the Comparator panel.

Display Your Data

Display panels, such as the Oscilloscope, Bar Graph, Gauge, Chart Recorder, Digital Display, Label, and LED panels are provided to display the results of your measurements. In addition to panning and zooming, many of these panels also provide the ability to adjust the range and scale of the y-axis, print the displayed results, freeze the current display, and save the results to a file, if you wish.

Simply link the display panel to the data source whose results you want to see (using the property pages), then start the operation to see the results of your measurement!

To help structure your application, DT Measure Foundry and DT Measure Foundry/RT-Streaming also provide graphics panels, such as Arrow Down and Group Box panels, that you can add to your worksheet.

Table 3 summarizes the panels used to display your data, as well as customize the look of your application.

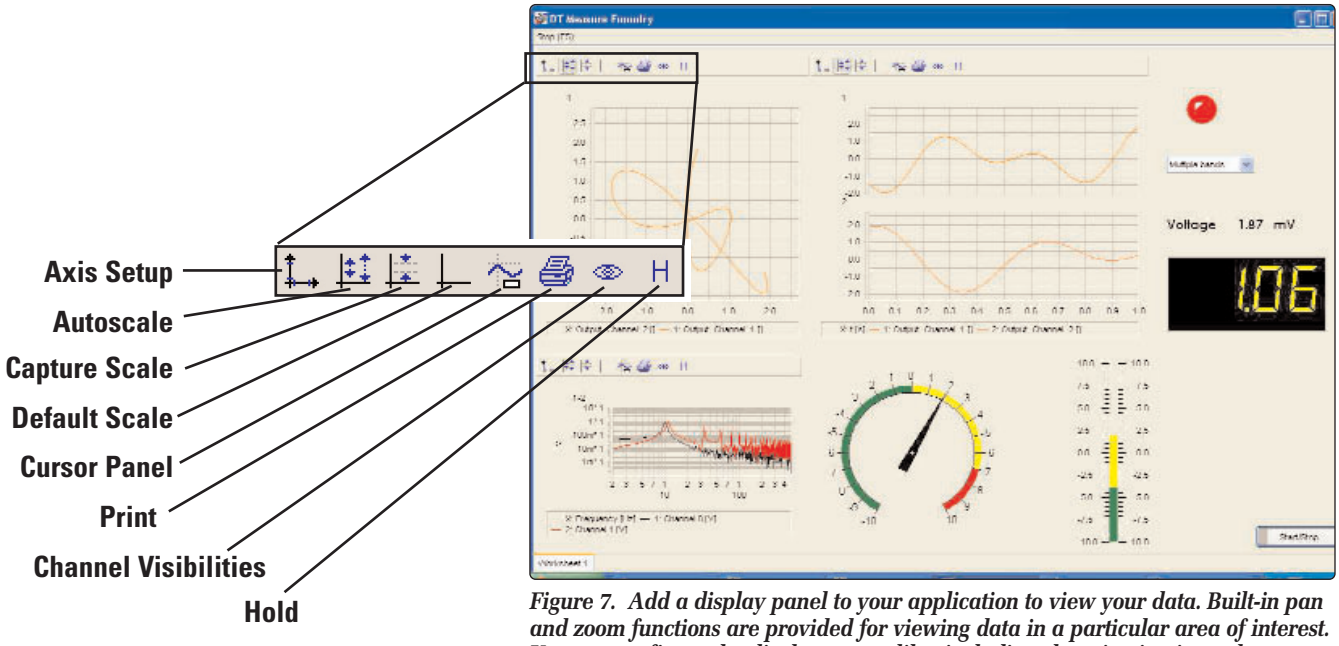


Figure 7. Add a display panel to your application to view your data. Built-in pan and zoom functions are provided for viewing data in a particular area of interest. You can configure the display as you like, including changing its size, color, and font.

Table 3. Panels for Displaying and Customizing the Look of your Application

Icon	Panel Name	Description
	**Arrow Down**	Adds a down-pointing arrow to your application.
	**Arrow Left**	Adds a left-pointing arrow to your application.
	**Arrow Left/Right**	Adds a bi-directional horizontal arrow to your application.
	**Arrow Right**	Adds a right-pointing arrow to your application.
	**Arrow Up**	Adds an up-pointing arrow to your application.
	**Arrow Up/Down**	Adds a bi-directional vertical arrow to your application.
	**Bar Graph**	Displays the values of your measurement in a bar graph.
	**Chart Recorder**	Records incoming data from one or more channels to a data file. You can see all incoming data while recording, and you can stop recording at any time. (Also known as a Strip Chart Recorder or a Line Recorder panel.)
	**Digital Display**	Displays a single data value in a 7-segment digital display. You can define the displaying digits, the position of the decimal point, the background color, and the color of the digits.
	**Ellipsis**	Adds an ellipsis to your application.
	**Gauge**	Displays a single data value in an analog display. You can modify the style of the panel to best suit the needs of your project.
	**Group Box**	Allows you to group DT Measure Foundry panels in a box.
	**Horizontal Line**	Adds a horizontal line (with a caption) to your application.
	**Label**	Adds descriptive text to your project.
	**LED**	Simulates a light-emitting diode that you can use as an indicator for the end-user.
	**Oscilloscope**	Displays and saves input data from one or more channels. Provides a software trigger, reference cursors, one band or multi-band visualization, and a linear or logarithmic y-axis display. You can zoom in on and pan the data in an Oscilloscope panel.
	**Panel**	Combines a group of graphic elements and/or panels together on the desktop. You can copy the panel that you want to use, then paste it onto the Panel panel.
	**Picture Box**	Places an image in the background of the Picture Box panel to reproduce the front panel of a real hardware device. You can also use multiple images to create animation or to display a change of state.
	**Rectangle**	Adds a rectangle to your application.
	**Rounded Rectangle**	Adds a rectangle with rounded corners to your application.
	**Single Value Label**	Displays a single data value.
	**Spectrum Analyzer**	Displays and analyzes the frequency spectrum of an input signal by performing either a Fast Fourier Transformation (FFT), an auto-correlation, or a power spectrum of an input signal. You can zoom in on and pan the data in a Spectrum Analyzer panel.

Table 3. Panels for Displaying and Customizing the Look of your Application (continued)

Icon	Panel Name	Description
	Text	Adds multiple lines of comments or descriptions to your project.
	Vertical Line	Adds a vertical line to your application.
	Worksheet Style	Uses control sources to change the visible worksheet during your application.
	XY Oscilloscope	Displays input data from one or more channels and saves the data to either an ASCII data file or a .DCF file. One data channel is assigned as the x-axis data.

Analyze Your Data

DT Measure Foundry and DT Measure Foundry/RT-Streaming provide several ways for you to analyze your data. For simple applications, you can use the Spectrum Analyzer panel to perform an FFT operation on your data before displaying it.

For more advanced applications, use the Melting Pot panel for maximum flexibility and performance. The Melting Pot panel offers hundreds of math operations and functions that you can use to create your own formulas for processing and analyzing input signals, generating output signals, controlling program flow, and controlling your process. New in version 4.0.7, the Melting Pot can now generate vectors, making it possible to stream processed results to up to four analog output channels at the same time.

If you are more familiar with analyzing your data using The MathWorks MATLAB software, you can use the MATLAB integration functions and test bed capabilities provided in the Melting Pot panel to access all the functions of MATLAB, including its numerical computation, scientific graphics, and signal processing capabilities, on live data.

If you are a Microsoft Excel user, you can send data directly to an Excel spreadsheet as it is being acquired, using the Excel Live Link panel. This panel allows you to quickly and easily log, graph, and save data in a standard Excel spreadsheet. Since this link is dynamic, you can watch your Excel spreadsheet update as new values are acquired!

Table 4 summarizes the panels available for analyzing your data.

Table 4. Panels for Analyzing Data

Icon	Panel Name	Description
	Excel Live Link	Allows you to control Microsoft Excel using DT Measure Foundry. You can control single cells using control channels or entire ranges of cells using a data source connection in DT Measure Foundry. You can also execute macros that are contained in a template file.
Enhanced!	Melting Pot	Allows you to combine information from data and control channels and perform mathematical functions. The Melting Pot contains a library of more than 200 mathematical functions. You can also access the mathematical functions of MATLAB, the mathematical analysis package from The MathWorks. Essentially its own language within DT Measure Foundry, the Melting Pot allows you to create formulas that perform simple mathematical operations as well as formulas that perform complicated analysis of signals. New in version 4.0.7, the Melting Pot can generate vectors, making it possible to stream the processed results to up to 4 analog output channels at the same time.
	Spectrum Analyzer	Displays and analyzes the frequency spectrum of an input signal by performing either a Fast Fourier Transformation (FFT), an auto-correlation, or a power spectrum of an input signal. You can zoom in on and pan the data in a Spectrum Analyzer panel.

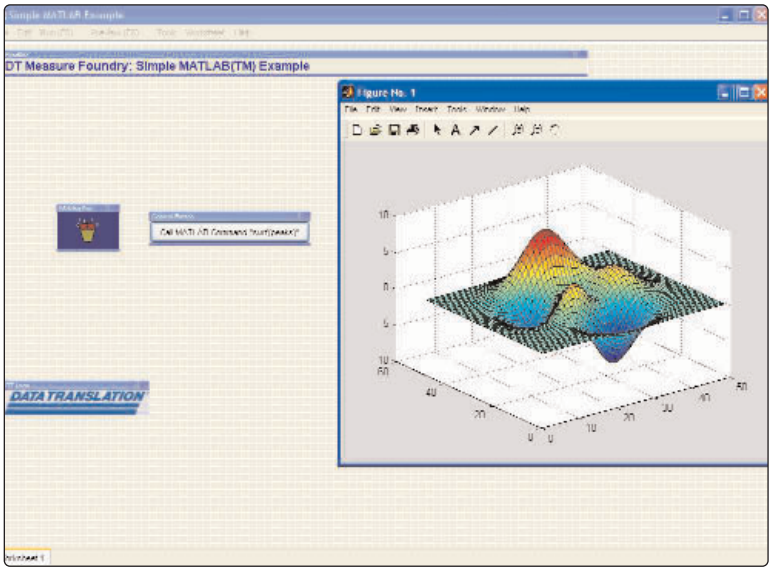


Figure 8. Use MATLAB with DT Measure Foundry to analyze your data. You can perform any MATLAB command or operation within DT Measure Foundry using the Melting Pot panel to exchange data with a MATLAB application.

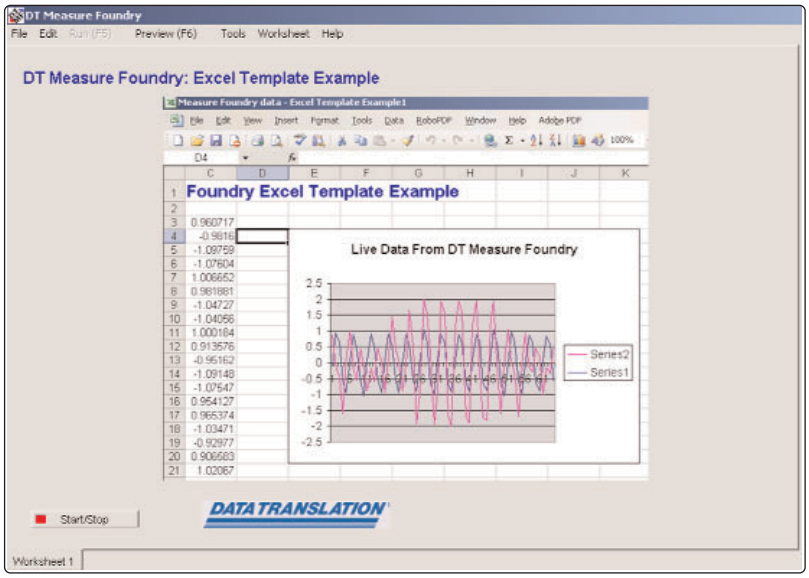


Figure 9. Send data directly from DT Measure Foundry to Excel with the Excel Live Link panel. See your Excel spreadsheet change as values are acquired in DT Measure Foundry.

Exchange Data with Other Devices

Using DTiX servers, you can import data from scientific imaging applications created using GLOBAL Lab Image/2® and from machine vision applications created using DT Vision Foundry®.

Use the VF Remote Control panel to start GLOBAL Lab Image/2 or DT Vision Foundry and to access scripts from within DT Measure Foundry or DT Measure Foundry/RT-Streaming. Use the VF Images panel to access images provided by GLOBAL Lab Image/2 or DT Vision Foundry. Use the VF Variables panel to access variables provided by GLOBAL Lab Image/2 or DT Vision Foundry. These panels provide the ability to combine your data acquisition measurements with your imaging and machine vision measurements.

For applications that use OPC (OLE for Process Control), a standard for process automation and control applications, the OPC Input and OPC Output panels are provided. These panels allow you to connect to any OPC data server on a local or remote computer and use measurements from an OPC device, such as a programmable logic controller or distributed control system.

To monitor or control RS-232 instruments, you can use the serial I/O variables and functions in the Melting Pot panel. The Melting Pot panel also provides file I/O functions that allow you to send data to or receive data from files and file systems.

To use your data with other applications, you can use the Execute panel to start a specific application from within DT Measure Foundry or DT Measure Foundry/RT-Streaming.

Table 5 summarizes the panels that used to exchange data with other devices.

Table 5. Panels for Exchanging Data with other Devices

Icon	Panel Name	Description
Enhanced!	**Melting Pot**	Allows you to combine information from data and control channels and perform mathematical functions. The Melting Pot contains a library of more than 200 mathematical functions. You can also access the mathematical functions of MATLAB, the mathematical analysis package from The MathWorks. Essentially its own language within DT Measure Foundry, the Melting Pot allows you to create formulas that perform simple mathematical operations as well as formulas that perform complicated analysis of signals. New in version 4.0.7, the Melting Pot can generate vectors making it possible to stream the processed results to up to 4 analog output channels at the same time.
OPC MF	**OPC Input**	Allows you to connect DT Measure Foundry to any OPC server on a local or remote computer. The OPC Input panel is compatible with OPC 1.0a and OPC 2.0 standards.
OPC MF	**OPC Output**	Allows you to connect DT Measure Foundry to any OPC server on a local or remote computer. The OPC Output panel is compatible with OPC 1.0a and OPC 2.0 standards.
	VF Images	Allows you to access and visualize images being analyzed in and exported from DT Vision Foundry or GLOBAL LAB Image/2. The images are stored on the DTiX Image Server. This is useful if you want to combine measurement with image processing.
	VF Remote Control	Allows you to start DT Vision Foundry or GLOBAL LAB Image/2 from DT Measure Foundry, then access scripts created by DT Vision Foundry or GLOBAL LAB Image/2. This is useful if you want to combine measurement with image processing.
	VF Variables	Allows you to access and visualize variables being exported from DT Vision Foundry or GLOBAL LAB Image/2 or to export variables from DT Measure Foundry to DT Vision Foundry or GLOBAL LAB Image/2. The variables are stored on the DTiX Variable Server. This is useful if you want to combine measurement with image processing.

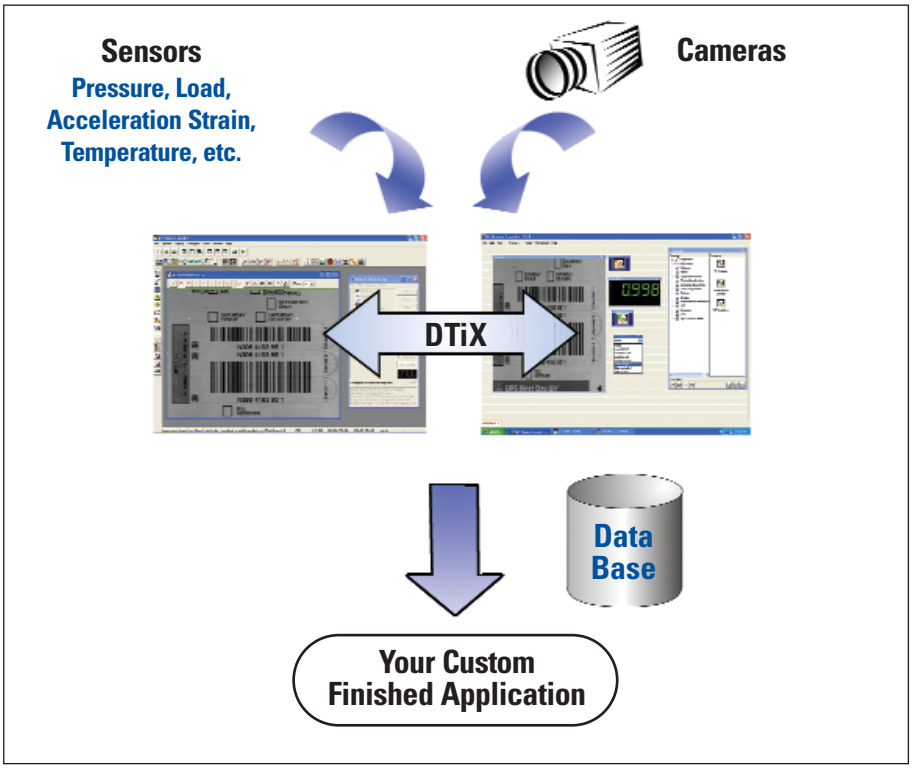


Figure 10. Correlate imaging data from GLOBAL LAB Image/2 or DT Vision Foundry with your data acquisition data using the VF panels. The VF panels use DTiX technology.

Save and Print Your Data

I/O panels, such as the File Writer and Print panels, allow you to save data to a file, print all the worksheets and panels used in your application during runtime, and use other media from within DT Measure Foundry. New in version 4.0.7 of the Foundry, you can also export control channel settings from one application and import them into another application. Table 6 summarizes the I/O panels that are available.

Table 6. Panels for Saving and Printing your Data and Using Other Media

Icon	Panel Name	Description
	Execute	Starts (executes) any Windows application from within DT Measure Foundry. You can open an .EXE file or any other file that is associated with an application.
	File Writer	Records data and saves it to a file on your hard disk. Because the data is not visible while recording, this panel is useful for logging data that you want to use at a later time.
	Print	Prints entire worksheets. You can access the print functionality using the Print panel's control sources.
	Wave Player	Plays any media file that is supported by the Windows Media Player (such as wave (*.WAV) files). The media file plays once and then stops.

Troubleshoot Your Application

Once you have configured all of the panels in your application, you can display, print, and save the relationships, contingencies, and dependencies among the panels using the Inspector tool. This function is convenient if you want to map your program for future maintenance, user documentation, and corporate or regulatory requirements. The Inspector tool is located inside the Foundry, a repository for all the panels and tools within DT Measure Foundry or DT Measure Foundry/RT-Streaming.

To check the performance of a running program, the Status Display panel is provided. You can use this panel to track events, such as changes in properties and actions, events that are generated by event-generating panels, such as the Analog Input panel, events that are received and accepted by an Event Trap panel, and events that occur whenever data is sent. You can start and stop the Status Display panel, shown in Figure 11, at any time and save the result of your analysis to a file, if you wish.

Table 7 summarizes the panels and tools used to troubleshoot your application.

Table 6. Panels and Tools for Troubleshooting your Application

Icon	Panel Name/Tool Name	Description
	**Event Trap**	Reacts to events that occur while your project is running, such as the clicking of a Control Button or a buffer overrun of the Analog Input panel.
	Inspector	Displays, prints, and saves the relationships, contingencies, and dependencies among the panels.
	**Status Display**	Allows you to analyze a running DT Measure Foundry program.

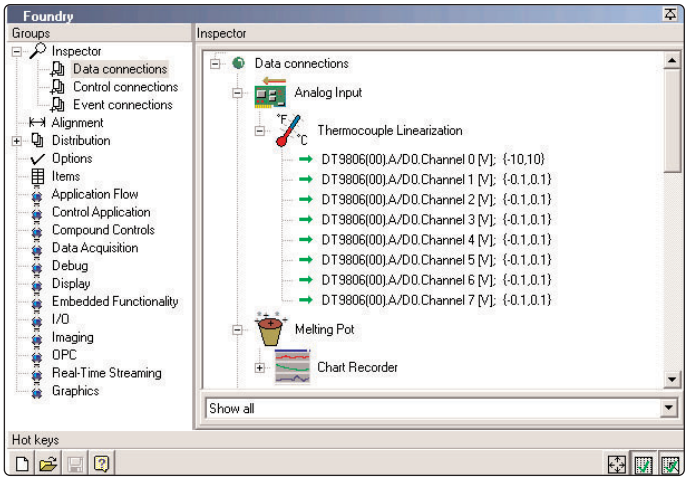


Figure 11. Use the Inspector tool to view the data connections of an application.

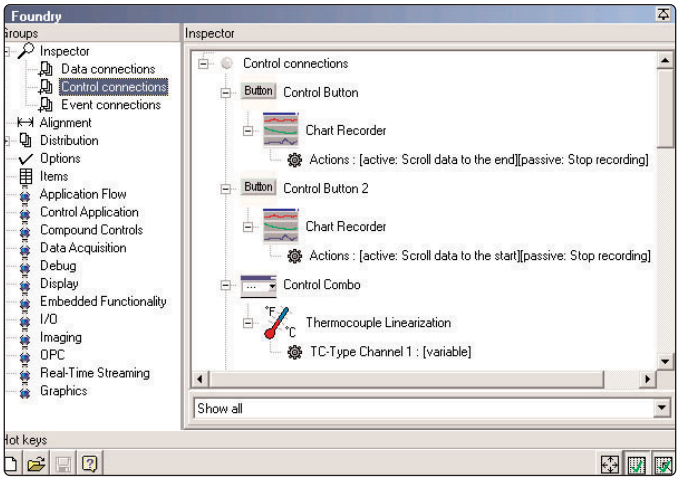


Figure 12. Use the Inspector tool to view the control connections of an application.

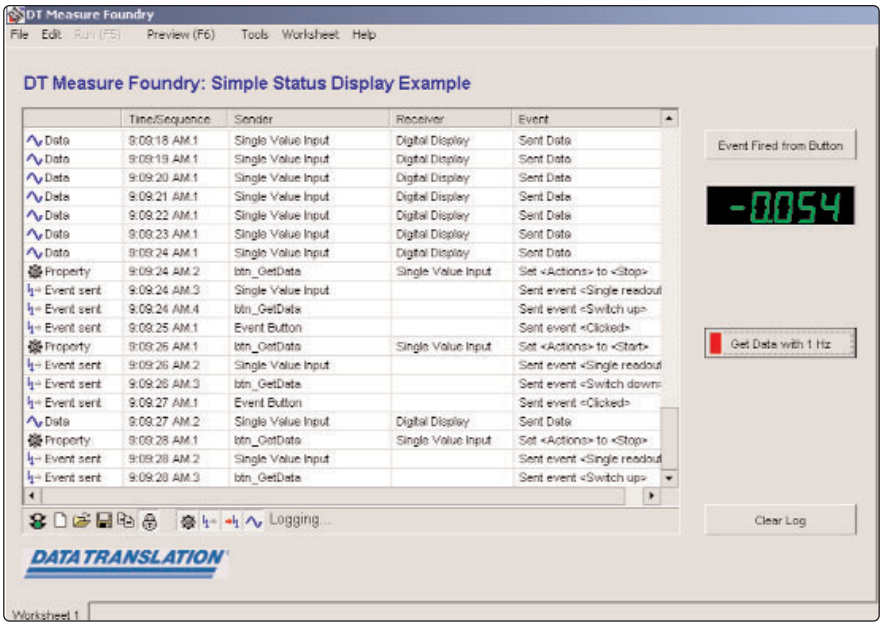


Figure 13. Analyze a running program using the Status Display panel.

Technical Support

As you develop your application, technical support is available when you need it. Extensive information is available 24 hours a day on our web site at www.datatranslation.com, including drivers, examples, a searchable Knowledgebase, and much more.

Support is also available from your point of purchase. Telephone support is free for the first 90 days; you can also request complimentary support via e-mail or fax at any time.

System Requirements

- Microsoft Windows 2000 (Service Pack 4) or XP (Service Pack 1)
- At least 1 GB of free hard disk space
- Screen resolution of at least 1024 x 768 in the development environment
- Appropriate Data Translation hardware and device drivers
- Microsoft Excel 2000 or higher (optional)
- MATLAB 6.5 Release 14 or higher (optional)
- OPC 2.0 Proxy (optional)
- Internet Explorer 5.5 or later (6.0 recommended)

Supported Hardware for DT Measure Foundry

- Data Translation PCI boards or USB modules
- DATAX Signal Conditioning System

Supported Hardware for DT Measure Foundry/RT-Streaming

- Data Translation DT9840 Series DSP modules
- Data Translation PCI boards or USB modules
- DATAX Signal Conditioning System

Ordering Summary

For pricing information, see the current price list, visit our web site, or contact your local reseller.

- SP1300-CD
  DT Measure Foundry 4.0.7, single license
- SP1300-PD
  Academic version of DT Measure Foundry 4.0.7, annual license
- SP1303-CD
  DT Measure Foundry/RT-Streaming 4.0.7, single license