

Using MATLAB for Data Acquisition Software

The MathWorks software environment is used by over 1,000,000 technical people world-wide in aerospace, defense, automotive, communications, electronics, and other industries to solve technical challenges and develop solutions. It is also used by over 3,500 universities for teaching and research.

MATLAB® is used as a single environment for data acquisition, analysis, and visualization. Using a single environment enables organizations to reduce development time, allows project teams to speak a common language and streamline their tool chain, and helps organizations save on maintenance and training costs.

Data Translation manufactures high-performance, high-accuracy, general purpose, and low-cost data acquisition hardware. They offer a wide range of both USB "plug-and-play" and PCI-based data acquisition modules, from low-cost to high-performance. Data Translation is a MathWorks product partner.

Organizations using MATLAB to Acquire and Analyze Data

Below are just a few of the organizations which are using MATLAB as a single environment for data acquisition and analysis to solve problems and develop solutions.

- **Argonne National Laboratory** – Develops sensors for chemical agent detection
- **Clarkson University** – Standardized on MathWorks tools in the laboratory and classroom. Saves more than \$10,000 in software costs per year
- **Ford Motor Company** – Develops and deploys sound-quality metrics
- **International Linear Collider** – Research engineers advance the design of the International Linear Collider
- **YarCom** – Improves radio reception for the U.S. Department of Defense

Read the testimonials and user stories for these and other organizations on The MathWorks [Web site](#).

Overview of MathWorks Products for Data Acquisition and Analysis

- [MATLAB](#) – Unified software environment and language for data acquisition, data analysis and visualization, and algorithm development
- [Data Acquisition Toolbox](#) – Control and acquire data from plug-in data acquisition hardware
- [Instrument Control Toolbox](#) – Control and acquire data from instruments such as oscilloscopes, signal analyzers, and [RS-232 serial devices](#)
- [Curve Fitting Toolbox](#) – Analysis tools for developing and comparing standard and custom models, fitting with standard and robust methods, and analyzing fits
- [Filter Design Toolbox](#) – Analysis tools for designing, simulating, and analyzing digital filters
- [Signal Processing Toolbox](#) – Analysis tools for performing analog and digital signal processing

Using Data Translation Hardware with MATLAB

Data Translation supports integration with MATLAB through its [DAQ Adaptor for MATLAB®](#) because its customers require high performance yet easy to use USB and PCI data acquisition solutions.

Free Recorded MathWorks Webinar

Learn why to select MathWorks as the single environment in product development. A new, one hour recorded webinar called "Acquiring Live Data into MATLAB for Analysis, Visualization, and Application Development" is now available at: www.mathworks.com/wbnr11882.

For More Information

To discuss using MATLAB to acquire, analyze, and visualize data in one environment, contact David Malenchini at (508) 647-7212 or dmalenchini@mathworks.com.

To discuss using Data Translation hardware to make low-cost to high-performance measurements, contact Data Translation at (800) 525-8528 or info@datx.com.

