

Real-time debug monitor and data visualization tool

FreeMASTER

FreeMASTER is a user-friendly real-time debug monitor and data visualization tool for application development and information management, ideal for automotive, industrial or consumer applications.

OVERVIEW

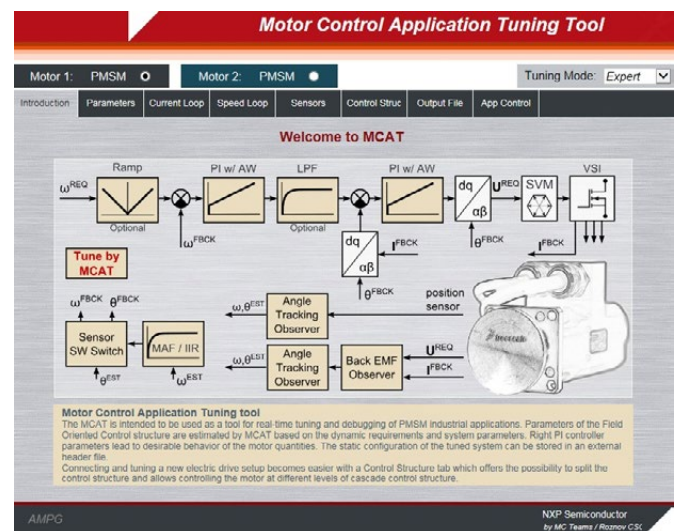
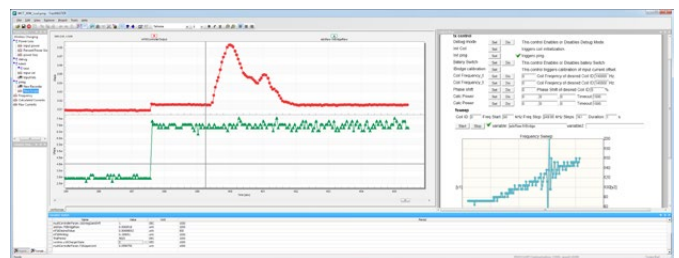
FreeMASTER is a user-friendly real-time debug monitor and data visualization tool for application development and information management. This tool supports non-intrusive variable monitoring on a running system. Allows the data from multiple variables to be viewed in an oscilloscope-like display or in a common text format.

The HTML-based data visualization area is extensible. The user can provide an arbitrary collection of ActiveX-based instrumentation gauges, dials, knobs and sliders to create custom visual dashboards as complex or elegant as desired.

FreeMASTER is ideal for automotive, industrial or consumer applications.

CAPABILITIES

- ▶ **Real-time monitoring**—Watch multiple variables at individual sampling rates and chart up to eight in the oscilloscope view. Use the high-speed recorder (on target) for rapid processing.
- ▶ **Real-time control**—Modify variables real-time. Send commands to the hardware, along with start and stop.
- ▶ **Data visualization**—Enables the use of third-party instrumentation components inserted into the HTML code as embedded ActiveX objects. Allows the creation of user-friendly displays of complex real-time data dashboards.
- ▶ **Information management**—The HTML-based visualization area supports any HTML-based content. Use it with the Project Tree navigation pane to present demos, product information, collateral or any project-related data.



PLATFORM AND CONNECTION SUPPORT

MCU Families	No Driver		Target Driver Required					
	BDM	Packet-Driven BDM	Serial	CAN	LIN	USB	MQX I/O	JTAG
S12 MagniV [®] mixed-signal, S12 and S12X MCUs	X	X	X	X	X			
S32 MCUs based on ARM [®] Cortex [®] -M cores	X	X	X	X				
MPC56xx MCUs based on Power Architecture [®] technology	X	X	X	X				
MPC57xx MCUs based on Power Architecture [®] technology	X	X	X	X				
Kinetis [®] MCUs based on Cortex-M cores	X	X	X	X		X		
S08 MCUs	X	X	X	X		X		
DSC			X	X				X
ColdFire MCUs	X	X	X	X		X	X	

APPLICATIONS

- ▶ FreeMASTER is extremely useful for software development that requires real-time data access
- ▶ Motor control software
- ▶ Sensor applications
- ▶ Real-time data visualization of any system output
- ▶ Visualizing complex data (user-friendly interface design)
- ▶ Wireless charging control and configuring GUI
- ▶ Touch-sensing applications
- ▶ Various demo applications

FEATURES

- ▶ Graphical environment
- ▶ Easy-to-understand navigation
- ▶ Simple RS232 native connection and other options possible on selected platforms (BDM, JTAG, CAN, LIN, USB, ...)
- ▶ Real-time access to embedded-side C variables
- ▶ Visualization of real-time data in the scope window
- ▶ Acquisition of fast data changes using the on-target recorder
- ▶ Built-in support for standard variable data types (integer, floating point, bit fields)
- ▶ Value interpretation using custom defined text messages
- ▶ Several built-in transformations for real type variables
- ▶ Automatic C-application variable extraction from compiler output files (ELF/DWARF1/2/4, Text-based map files, ...)
- ▶ Demo mode with password protection support
- ▶ HTML-based description or navigation pages, Support for HTML5 controls and rich graphical content
- ▶ Active content stored in target flash memory
- ▶ ActiveX interface to enable VBScript or JScript control over embedded applications
- ▶ Remote communication server enabling a connection to target board over a network, including the Internet
- ▶ Communication diagnostics and logging
- ▶ Pipes = loss-less streaming protocol for character or binary I/O

www.nxp.com/FreeMASTER

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