

FREEMASTER TOOL



PETR FAJMON



EXTERNAL USE



SECURE CONNECTIONS
FOR A SMARTER WORLD

What is FreeMASTER?

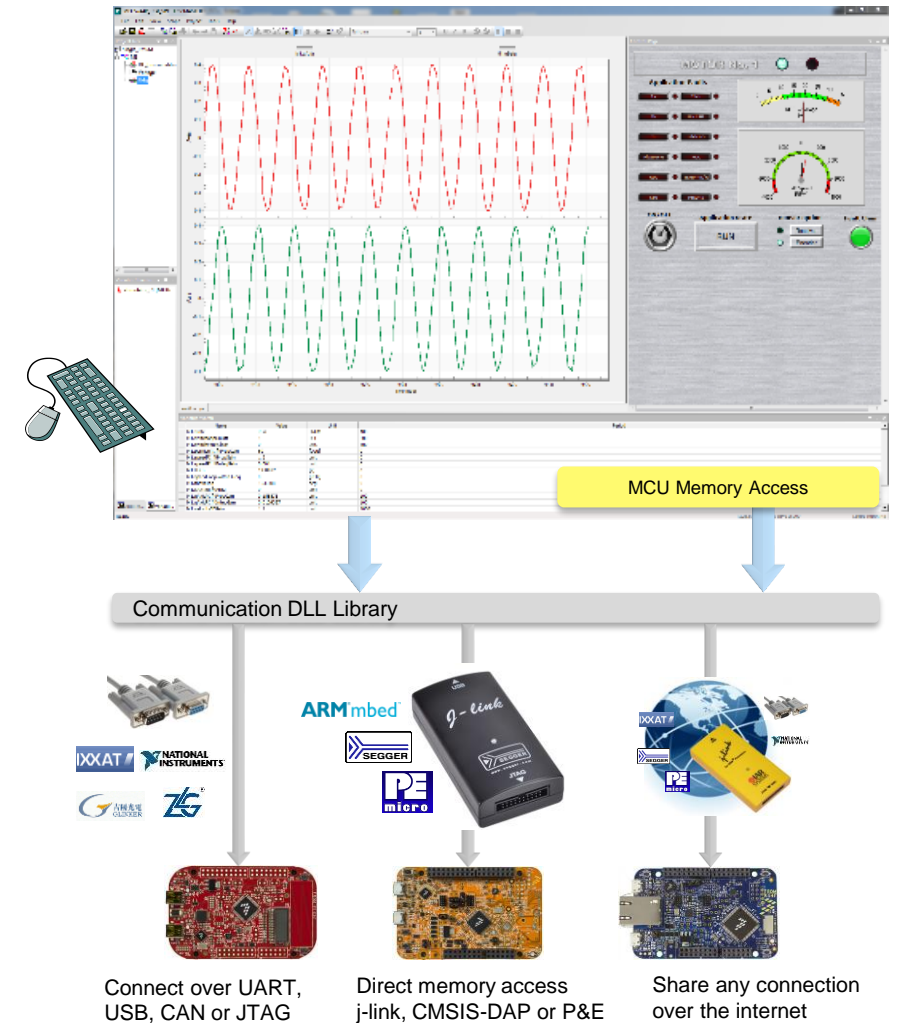


www.nxp.com/FreeMASTER

- Runtime configuration & tuning tool for embedded software applications
- Graphical Control Panel
- Data Capture tool, interface to custom processing in Matlab, Excel etc.

What do we do with FreeMASTER?

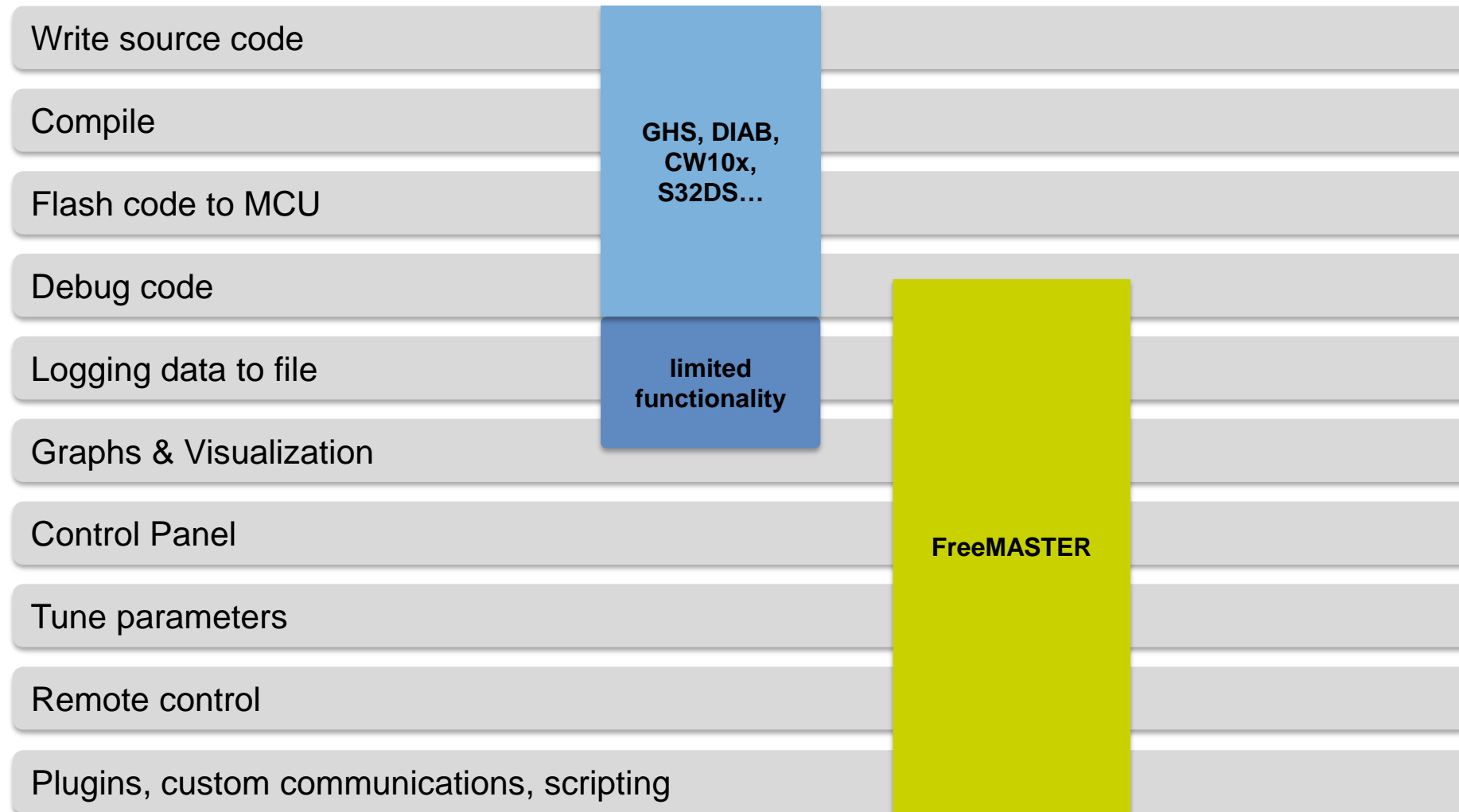
- **Connect:** to target MCU over UART, CAN, BDM, JTAG
- **Monitor:** read & show variables in run-time
- **Control:** set variables, send commands
- **Share:** enable Excel, Matlab or a script engine to add hardware to the control loop



FreeMASTER vs. IDE & Debugger



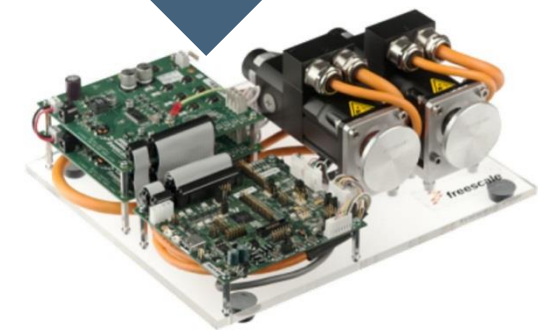
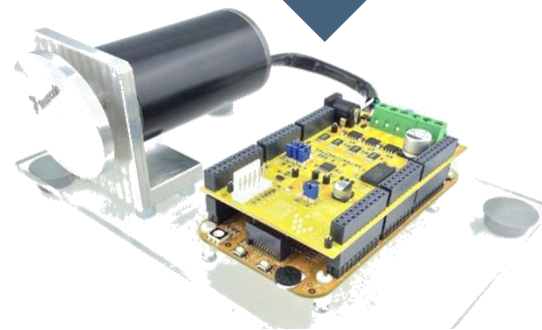
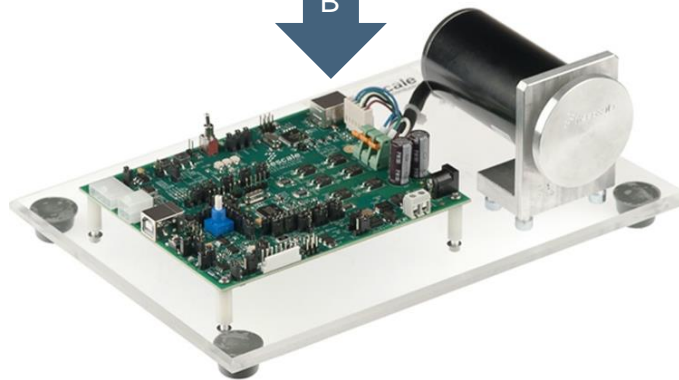
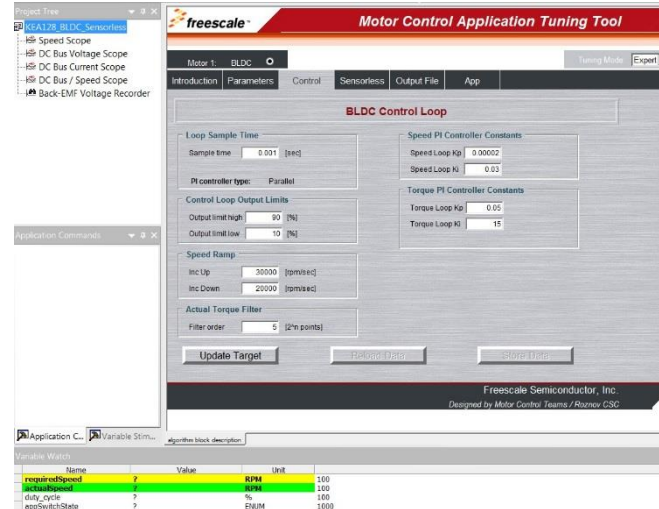
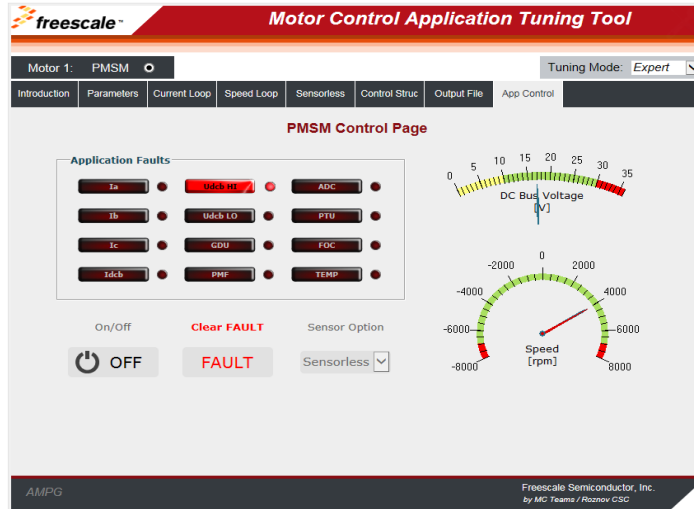
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FreeMASTER - Motor Control Development Kits



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FreeMASTER – Reference Designs and Demos



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b7	b6	b5	b4	b3	b2	b1	b0	bit
SOT	DCOT	BOT	IGN	WU	WS1	WS0	WDR	name
								value

Rapid Sensors Evaluation Tool

Drone Demo

Airbag Reference Design

eTPU Engine Control

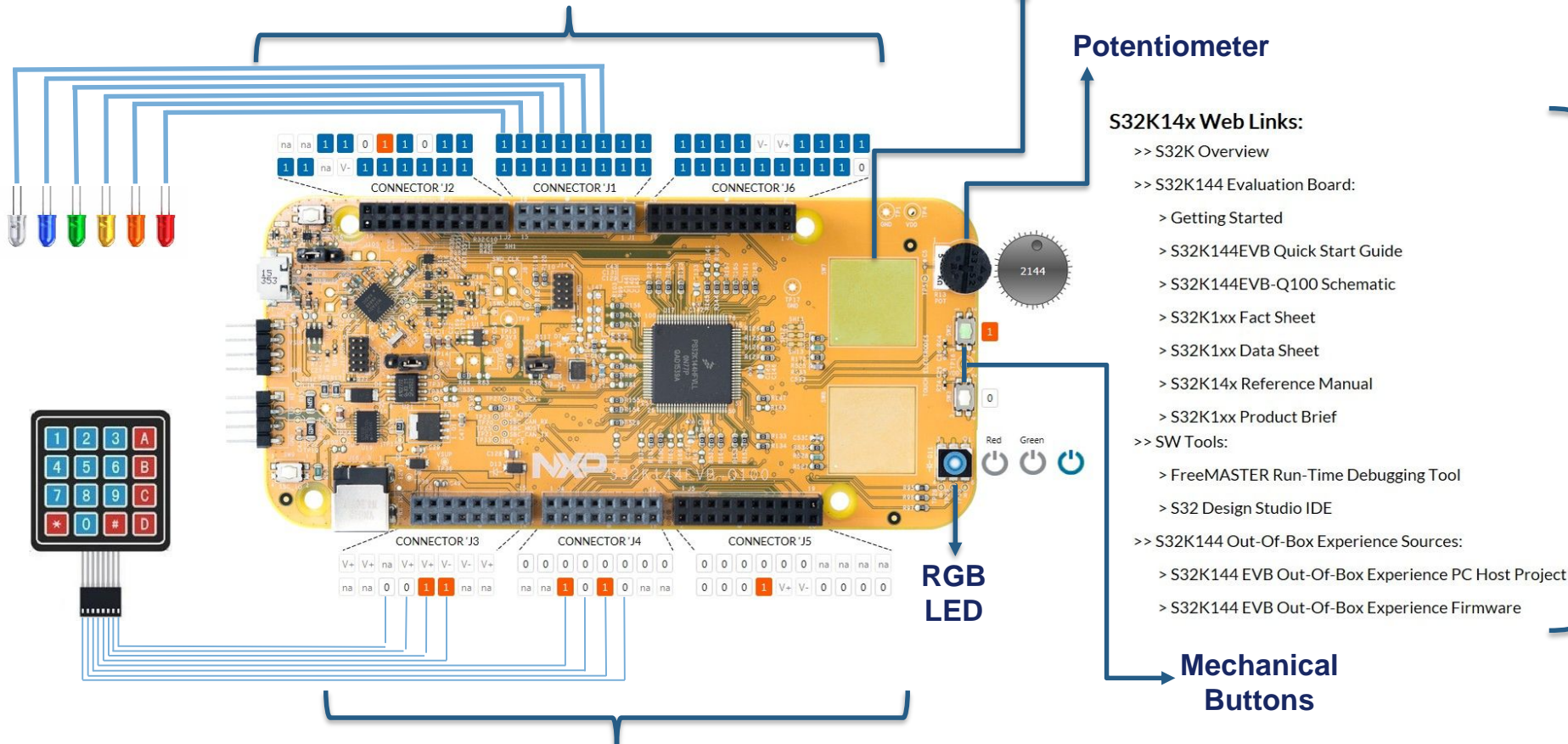


The FreeMASTER S32K144 Out-Of-Box-Experience



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Pins of the J2, J1 and J6 connectors are configured as outputs. By single click on each pin you can change their logical level to log0 or log1. User can connect e.g. LED diodes to these output pins.



Pins of the J3, J4 and J5 connectors are configured as inputs. Logical level (log0/log1) is visualised for all connector pins. User can connect e.g. push-button keyboard to these input pins.

- S32K14x Web Links:**
- >> S32K Overview
 - >> S32K144 Evaluation Board:
 - > Getting Started
 - > S32K144EVB Quick Start Guide
 - > S32K144EVB-Q100 Schematic
 - > S32K1xx Fact Sheet
 - > S32K1xx Data Sheet
 - > S32K14x Reference Manual
 - > S32K1xx Product Brief
 - >> SW Tools:
 - > FreeMASTER Run-Time Debugging Tool
 - > S32 Design Studio IDE
 - >> S32K144 Out-Of-Box Experience Sources:
 - > S32K144 EVB Out-Of-Box Experience PC Host Project
 - > S32K144 EVB Out-Of-Box Experience Firmware

- Links to S32K14x docs:**
- Fact Sheet
 - Data Sheet
 - Reference Manual
 - Product Brief
 - S32K144EVB schematic
 - S32K144EVB Quick Start Guide
 - Tools:
 - FreeMASTER
 - S32 Design Studio IDE
 - S32K144EVB OOB source files





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