

**Preliminary Brochure** 

# RAppID ToolBox

# (Enabling the "rapid" in Rapid Prototyping)

#### **REDUCE DEVELOPMENT TIME!**

**RAppID** ToolBox is an add-on library, for Matlab/Simulink, of configurable low level drivers for the MPC55XX peripherals. The ToolBox enables you to *quickly* take your control algorithm models directly onto your MPC55XX target board.

**Enhance** the performance of your control algorithms by using the **target optimized** code blocks for DSP functions like IIR,FIR, FFT.

Measure performance of your algorithms by utilizing the *profiler* block function.

The blocksets are seamlessly integrated into automatic code generators like Real Time Workshop, Embedded Coder And TargetLink.



The **RAppID** initialization tool is also seamlessly integrated into the Matlab/Simulink environment.

### **Product Highlights:**

- Configurable Blocks for peripheral low level drivers:
  - Queued Analog to Digital Conversion Block with Trigger Function -Single & continuous scan modes.
  - eMIOS Block, one per Channel with mode based driver functions and trigger functions.
  - Serial Peripheral Interface Block
  - eTPU Interface blocks for registered eTPU API functions.
  - CAN Interface block along with CAN packing and unpacking blocks
    - Full Buffer Initialization Support Transmit at Thread rate,
    - Receive using IRQ function
    - XCP Protocol Support for interfacing with Calibration Tools
  - Interface for digital I/O with pin conflict checks.

The Peripheral Blocks seamlessly leverage the Interrupt and DMA capabilities of the processor.

- Target optimized blocks that leverage SIMD
  - Fast Fourier Transform (FFT) Block
  - Infinite Impulse Response (IIR) Filter Block
  - Finite Impulse Response (FIR) Filter Block

These blocks are Simulatable and you chose - C code or assembly!

- Embedded Targets
  - Support for DIAB, GHS & Freescale compilers.
  - Generic Scheduler Target with multi-rate, synch./asynch. Task support.
  - OSEK Target: Freescale OSEK Turbo
  - Built-in consistency checks between target & model
- On Target Profiling Support:
  - Function profiling
  - Task Profiling
  - Profiling Data communicated back over SCI

# SYSTEM REQUIREMENTS

Microsoft Windows NT, 2000 and XP 512 MB RAM recommended Minimum 1 GHz processor recommended Standard screen resolutions supported

## Compatible with

Matlab Version R14sp1, R14sp2, R14sp3, and R2006a. TargetLink Version 2.1 RAppID Version 1.1.1

Target Rapid Prototyping Is Just a Click Away....
Envision, Configure, Build



Filter Order

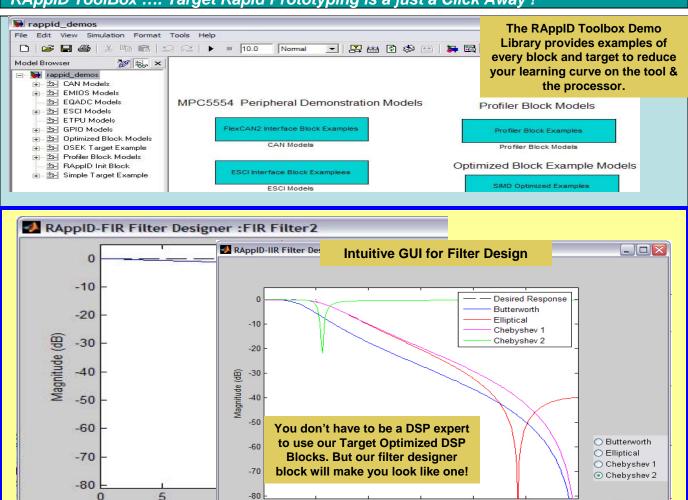
128

Samp Freq

100



# RAppID ToolBox .... Target Rapid Prototyping is a just a Click Away!

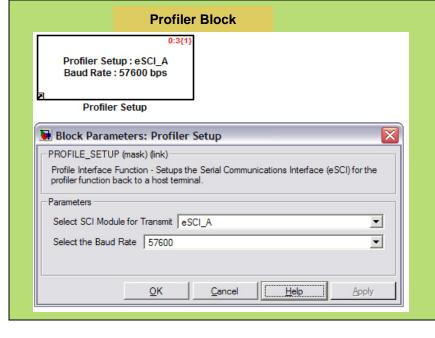


Frequency (kHz)

0.2

40

1.5



12

0.8

What our Customers are saying about the RAppID ToolBox:

64

1024

Apply

Cancel

Ok

"The RAppID toolbox is helping us to achieve our goal of moving concepts from research to production intent – and bridging some of the gaps in the tool chain."

-A Major Industrial Company Engineer

## **Ordering and Contact Information**

Part Number: VG-ToolBox5554-SW

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