

Dear Valued Customer,

Welcome to **VisualDSP++[®] release 4.0**, the latest generation CROSSCORE[®] development tools from Analog Devices, Inc. This software release brings a new level of functionality and robustness to Analog Devices' Blackfin[®], SHARC[®], and TigerSHARC[®] Processors. For the convenience of customers supporting multiple generations of designs, this release marks the merging of what in the past were separate fixed-point and floating-point product releases. Though merged into a single product, your existing license(s) will continue to work. VisualDSP++ release 4.0 is a free upgrade to all registered users of VisualDSP++.

This release includes a host of new features and incremental improvements, most of them derived from customer feedback and emerging requirements. These enhancements are designed to get you up and running with VisualDSP++ more quickly, building high-performance applications in less time with less need to know the complexities of the underlying hardware. A sampling of the new capabilities offered by VisualDSP++ release 4.0:

- ? Quickly building Blackfin applications has never been easier or better supported. A new **start-up code wizard** allows you to quickly customize the processor's settings in which your application will run. Frequently used cache, processor voltage, and similar settings can be controlled graphically, creating a tuned application environment without delving into the small details of the architecture.
- ? Out-of-the-box application support has also been improved to help you get a working system established more quickly. The LwIP **Ethernet stack** and supporting device drivers have been ported to Blackfin. A new Ethernet project type allows you to create a skeleton "ping-able" application for the ADSP-BF537 EZ-KIT Lite[®] in seconds. Further high-speed communication options are available for the Blackfin with **plug-and-play certified USB 2.0 drivers** and accompanying host drivers and applications.
- ? The **System Service Library (SSL)** provides a convenient and easy C-language API that encapsulates the Blackfin Processor's extensive direct memory access (DMA), power management, and interrupt capabilities. It also provides a device driver framework for connecting to popular devices from Analog Devices and other vendors.
- ? Build more future-proof applications with **enhanced silicon revision support**. Change your application to target a specific revision of silicon through a single project setting. Or use the "any" processor revision to help you build future-proof software by instructing the tools to generate software that accommodates any silicon revision that may be encountered by your fielded application.

Seasoned VisualDSP++ developers will find the **VisualDSP++ Product Release Bulletin** essential reading for quickly coming up to speed on all of VisualDSP++'s new features, as well as a small number of functional changes from previous releases that developers will want to be aware of. Furthermore, the VisualDSP++ Help System now includes the hardware references for most of Analog Devices' processors and an index of the code examples available within VisualDSP++. The Help System should be one's first stop when seeking out information concerning your processor or programming tools.

Note that this software release includes full support for Analog Devices' emulation and EZ-KIT Lite products, including the new ADSP-BF537 EZ-KIT Lite. No separate product installation is required to use these devices with VisualDSP++ release 4.0. Release 4.0 installs discretely from previous releases of VisualDSP++, so you can install without impacting any on-going development or maintenance that relies on older revisions of the tools.

Analog Devices and our third parties are committed to providing best-in-class development tools and technical support. Dedicated CROSSCORE tools technical support is available from within the VisualDSP++ environment at Help->About->Support, or at dsptools.support@analog.com. An up-to-date list of tools errata is available on-line at:

<http://www.analog.com/processors/cda/epTASearch/>

Future Updates to this release will be available for download at:

<http://www.analog.com/technology/dsp/developmentTools/fixes.html>

Happy coding.

Regards,
KENNETH ATWELL
DSP Tools Product Line Manager

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