

Dear Valued Customer,

Welcome to **VisualDSP++™ release 3.5 for 16-bit Processors**, the latest generation CROSSCORE™ development tools from Analog Devices, Inc. This software release brings a new level of functionality and robustness to Analog Devices' 16-bit, fixed point signal processors, the Blackfin® Processors, ADSP-218x, ADSP-219x, and ADSP-2199x families. For the convenience of customers supporting multiple generations of designs, this release marks the merging of what in the past were the Blackfin Processor and ADSP-21xx product releases. Though merged into a single product, existing license policies are unchanged and your existing license(s) will continue to work with. VisualDSP++ release 3.5 is a free upgrade to all registered users of VisualDSP++.

This release features a host of new features and incremental improvements, most of them derived from customer feedback and emerging requirements. These enhancements are designed to make VisualDSP++ streamline your engineering methodology and productivity, not just during software development but throughout the entire life cycle of your product. A sampling of the new capabilities offered by VisualDSP++ release 3.5:

- **Profile-Guided Optimization**, or **PGO**, brings a new level of intelligence to the Blackfin Processor compiler's optimizer. With PGO, run-time metrics are accumulated from a running program through the compiled simulator. These metrics are then fed back to the compiler for a second-pass compilation for improved performance. PGO makes decisions at the basic block level, offering locally-tailored optimizations simply not possible with competing technologies available from other DSP suppliers.
- VisualDSP++'s functionality is fully exposed through an **Automation API**. Your work within VisualDSP++ can be scripted to a degree never before possible, and in the language of your choosing. VBScript, Jscript, C++, Python, PERL... the choice is yours, as VisualDSP++ is language neutral.
- This release of VisualDSP++, and all future releases, will **install discretely** from other releases of VisualDSP++. This will allow users to more effectively, on the same host PC, maintain existing products (on prior releases of VisualDSP++) while developing new products with the latest release of VisualDSP++.

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 continues receive expanded content, now including the Blackfin processor hardware references and instruction set manual. 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' 16-bit emulation and EZ-KIT Lite™ products, including the exciting new High-Performance USB 2.0 emulator. If you do not wish to install these hardware components, simply deselect them from within the installation wizard.

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](mailto:dsptools.support@analog.com). An up-to-date list of tools errata is available on-line at:

[http://www.analog.com/technology/dsp/EZAnswers/anomalies/tools\\_anomalies.html](http://www.analog.com/technology/dsp/EZAnswers/anomalies/tools_anomalies.html)

Should any updates become available for this release, they 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