

Future Filter Technology Is Available Now

A digital filtering technology that could ultimately replace many conventional FIR and IIR digital filters is available to Texas Instruments Third Party Network members. The technology yields designs having a low-pass, high-pass, band-pass, band-stop, notch, or multiband-pass response. Based on the Gibbs phenomenon and described in the February 2001 IEEE Transactions on Signal Processing, the resulting all-purpose multifunction filters are

precise; simple; easy to use; and have no filter taps, thus they need no convolution or recursion. Frequency selection is made directly in the frequency domain, eliminating pass-band and stop-band tolerance factors. Moreover, the same filtering process can amplify some spectral components while attenuating others. For more information, contact Cheh Pan, Pan Filter Technology (Saratoga, Calif.; www.panfilter.com) at info@panfilter.com.

High-Density VoIP Code

Adaptive Digital Technologies, Inc., (Conshohocken, Penna.; www.adaptivedigital.com) has been tapped to develop high-density voice-over-IP (VoIP) software for TelcoBridges, Inc. (Boucherville, Qc., Canada; www.telcobridges.com). The code is slated to run on TelcoBridges' TMS320C6415 DSP-based TB640 platform. The platform, a single-slot, 16- to 64-trunk, E1/T1/J1 cPCI adapter, combines multiple DSPs to handle up to 2,000 VoIP channels. The software will push each 600-MHz DSP to process 512 channels of VoIP, as well as perform functions like conferencing and tone detection and generation.

Flow-Control Spec to Cut Data Plane Congestion

Capping an 18-month effort, the RapidIO Trade Association, (Austin, Texas; www.rapidio.org) has released its Flow Control Extensions Specification to control congestion in medium-rate data plane applications



that use the RapidIO interconnect architecture.

These end-to-end extensions complement existing link-based technology and hold the promise of increasingly cost-effective media gateways, radio network controllers, and routers for mobile networks. The extensions are ready for use now and can be downloaded from the association's Web site.

JTAG Emulators

A comparative review of competitive JTAG emulators for Texas Instruments DSPs examines their compatibility with different DSPs, operating systems, speed, low-voltage operation, XDS510, multiple processors, and RTDX, as well as the availability of helpful documentation. The review is available on request from Kane Computing Ltd., (Northwich, U.K.; www.kanecomputing.com), which manufactures the Predator PCMCIA emulator. Contact sales@kanecomputing.com.



DSP Selection Made Simple

How many times have you punched MIPS and Memory statistics into your calculator to size up a DSP? After going through this chore one time too many, Adaptive Digital Technologies Inc., a TI Third Party, developed a web-enabled utility that makes it as easy as pointing and clicking. Adaptive Digital's DSP Resource



Wizard lets you specify the TI DSP product generation (C54x, C55x, C62x, C64x, C67x) and specific device, the telecom algorithms, and the desired number of channels. The wizard instantly reports the required MIPS and Memory, enabling you to select the right TI DSP product in less than a minute! Adaptive Digital Technologies Inc., www.adaptivedigital.com

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Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265

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