



August 2, 2007 – Webcast: Windows® CE for DaVinci™ Technology

Attendee Submitted Questions and Answers

- 1) What is the part number of the hardware platform that the Windows CE Software Development Kit (SDK) runs on?**
The SDK runs on the TMS320DM6446 Digital Video Evaluation Module (DVEVM). More information on the DM6446 DVEVM can be found at <http://www.ti.com/dvevm> . Information on the SDK can be found at www.ti.com/windowsce .
- 2) Can you please provide more information regarding the Test Kit used by Mistral?**
Mistral used the Windows CE Test Kit for validating the board support package (BSP) and drivers. The Codec Engine and DSP/BIOS™ Link include their own test suites which have been ported to Windows CE. Custom test applications were also used.

More information on the Windows CE Test Kit can be found at the following links:

<http://www.microsoft.com/downloads/details.aspx?FamilyId=40B7CEDB-DC8B-4503-8DC9-E75F8E8496C1&displaylang=en>

<http://blogs.msdn.com/testembedded/archive/2005/11/14/492715.aspx>
- 3) Does Windows CE for DaVinci technology support digital rights management (DRM) and if so, which one?**
Windows CE supports both Janus and Cardea DRMs on ARM® CPU architecture. If a customer has a specific request for DRM support on DaVinci technology-based devices and Win CE, a system integrator like Mistral software (www.mistralsoftware.com) can help.
- 4) Can you tell me more about video latency?**
The video latency is low enough for one to observe barely a 1 to 2 frames drop while there is the simultaneous display of raw image and processed image (raw image being encoded using the DSP Encoder, coming back to application and then sent to the DSP

for decode and the decoded image being displayed at 30 FPS).

5) **How do TI, Microsoft and Mistral fit together?**

When TI introduced DaVinci technology, our customers showed us a need in the market for development in the Windows CE environment. Mistral Software was in a unique position to leverage their familiarity with TI DaVinci-based devices and Microsoft Windows to build the Windows CE BSP for DaVinci technology. The BSP was built using Microsoft Windows Platform Builder tools, and the Windows Embedded CE development environment. Tools from TI, such as DSP/BIOS™ Link and Codec Engine were ported to Windows CE. Mistral has also extended certain TI tools to support some of the compilers.

6) **Where can I get the Windows CE 6.0 SDK for DaVinci technology for evaluation?**

You can get an evaluation version of the Windows CE 5.0 for DaVinci technology SDK at www.ti.com/digitalmediasoftware or at www.mistralsoftware.com/davinci. Mistral also offers a Windows CE 6.0 BSP for DaVinci-based devices.

7) **Are there any types of image processing libraries that can be purchased along with DaVinci processors?**

Libraries that are supported through the Codec Engine are immediately available on in Windows CE (or can be easily ported) For instance the H.264 encoder utilizes the Video Imaging co-processor.

8) **What are the resources used by Windows Embedded CE (for example, DSP processing power, memory, etc.) from the DSP system?**

The resources used in Windows CE are highly dependent on the set of peripheral drivers included and the Codec Engine framework. The BSP provides means to exercise/utilize the majority of the peripherals including the ARM, DSP, VPFE, VPBE, McASP etc. The DSP processing power is not utilized if there is no DSP algorithm (Codec) being executed. Under such circumstances, the DSP is held reset. The memory is proportional to the applications being executed too.

9) **What is the codec server?**

Codec Server is a customized DSP executable, which contains the DSP/BIOS™ kernel along with XDAIS-compliant codecs. The set of codecs are highly customizable.

Any application that requires encoding/decoding of the media data can be visualized as the client to the Codec Servers. The Client would call the Codec Engine APIs for encoding/decoding the media. The Codec Engine framework completely abstracts the underlying sequence of activities that involve the following:

- a. Sending the data to the DSP
- b. DSP performing encode/decode
- c. DSP returning encoded/decoded media back to ARM
- d. API returning the encoded/decoded media back to client

10) Can you please elaborate on the DVR engine for Windows CE 6.0?

More information can be found at <http://msdn2.microsoft.com/en-us/library/aa934191.aspx>

11) Does the 10-year support model by Microsoft apply to Windows CE 5.0 as well as 6.0?

Absolutely. For more information on Microsoft support, visit <http://support.microsoft.com/lifecycle/?LN=en-us&x=14&y=15&p1=3100>

12) What is the difference between Windows CE 5.0 and 6.0?

Windows CE 6.0 is a componentized, real-time operating system that includes powerful tools for building a broad range of small-footprint embedded solutions. More information on the improvements in Window CE 6.0 can be found on the following datasheet: <http://download.microsoft.com/download/0/f/1/0f1dce86-dd37-4ebb-ac4f-be6d9ee078b1/WindowsEmbedded-CE6-Datasheet.pdf>