

## Overview

**Country or Region:** India, Bangalore  
**Industry:** Software development, Service and Support

### Company Profile:

CeWiDus provides innovative technologies to meet the customers' real time embedded software development requirements for future market. The services provided include - optimizing and porting Audio/Video Codecs to TI platforms as well as other proprietary and popular platforms (MIPS, MeP, ARM, x86, SH3DSP), system integration, BSPs and device drivers- for mobile devices, PMPs. We also sell MPEG4 and H.264 codecs (simple profile, baseline profiles) optimized on TI C64X platforms.

### Business:

CeWiDus wants to create Windows Embedded CE Board Support Package for Japan, USA, Europe, Korea and Taiwan market

### Solution:

CeWiDus Core technical members develop the Windows CE 6.0 BSP on TI Davinci DM644x and bring up the Network Projector demo in 4 weeks. Provided BSP solution as well on ATMEL board, TOSHIBA MIPS based platforms

### Benefits:

- Impressive demos for SoCs for showcasing capabilities
- Less development time
- Early customer engagements
- Starting implementations much early to maintain edge on competition
- Low Cost

**“CeWiDus being the Windows Embedded Partner (WEP) aims at developing Windows Embedded CE based BSP solution on various technologies (Davinci, MIPS, x86, ARM) based platforms to help foster the development of cutting-edge digital media applications.”**

CeWiDus Technologies based in India provides support for Silicon business. CeWiDus aims to extend the industry-leadership in BSP development based on Windows Embedded CE and help the designers make the most of the environment's new features. CeWiDus delivers BSP that comes with the technical support. With this comprehensive offering, customers are developing new applications in Windows Embedded CE quickly. In addition, these applications are helping manufacturers penetrate new markets.

CeWiDus Windows Embedded CE 6.0/5.0 BSP development on TI Davinci Technology (TMS320DM6443 and DM6446) digital media processors aimed at supporting a variety of leading digital applications for Network Projector, portable media players, Notebook, set-top boxes (STBs), voice-over-IP phones, and general packet radio service (GPRS) devices.

Microsoft Windows Embedded CE 6.0 provides more memory space, increased reliability, and faster software development cycles. Seeing the commercial opportunities from Davinci technology of TI running Windows Embedded CE 6.0 CeWiDus core technical members developed the BSP for TI-Davinci DM644x providing the Network Projector solution. With this BSP customers can create their next generation STBs, and multimedia and video devices.

CeWiDus being the TI third party aims to provide the Windows Embedded CE BSP solution on various platforms of TI which includes TMS320DM646X DMSoCs, TMS320DM644X DMSoCs, TMS320DM643X DSPs, TMS320DM64X DSPs, TMS320DM355, and OMAP35x Processors. These processors running CE technology have appeared in STBs, media players, phones, and GPRS devices. Now, DAVINCI processors running CE 6.0 will be better suited in products for markets such as the automotive industry.

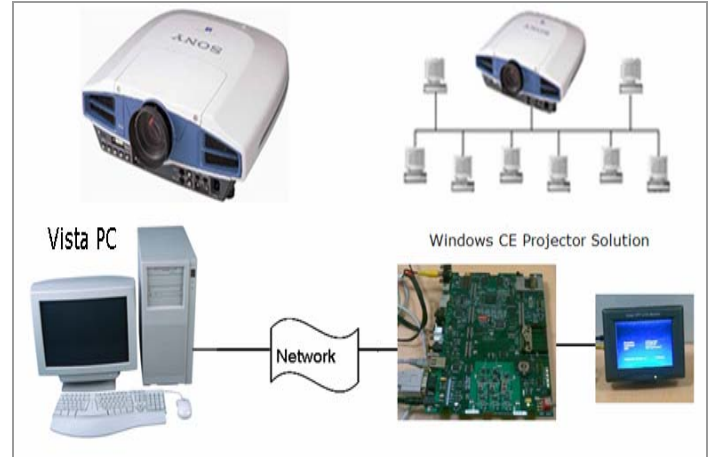
CeWiDus offers services in software engineering especially in industrial environments, with a strong emphasis on embedded and/or real-time developments. CeWiDus core technical members with eight years of experience in Windows CE, and thanks to its partnerships with Microsoft, CeWiDus software design and development targets rich-featured high end products.



## BSP SOLUTION ON WINDOWS EMBEDDED CE

CeWiDus Core technical members develop Windows CE 5.0 & 6.0 BSP on TI Davinci DM644x platform targeting our customers in development of Network Projector, Notebook and Portable Media Player End application/products. We offer software development services offering for companies developing products based on TI's multimedia-oriented TMS320DM644x SoCs (System-on-Chip). The TMS320DM644x processors feature TI DAVINCI multimedia technology, and target applications requiring high-performance video encoding and decoding capabilities.

TI TMS320C64x+ DSP core along with an ARM926 RISC processor core additionally include TI DAVINCI multimedia technology, which encompasses video accelerators, networking peripherals, and external memory/storage interfaces that are all "specifically tuned for video," The TMS320DM6443 targets video decode applications, while the TMS320DM6446 targets both encode and decode applications. The familiar Windows CE DirectShow media framework is layered on the DAVINCI Codec Engine, enabling developers with limited DSP (digital signal processor) experience to access DSP-based performance for video and audio applications.



CeWiDus has the Windows CE 5.0 & 6.0 BSP on ATMEL AT91SAM9261 MicroController fully compliant with Atmel's AT91SAM9261-EK development board. The AT91SAM9261 is an ultra low-power; deterministic MicroController based on the ARM926EJ-S processor, with 16K byte instruction and 16K byte data cache memories. It operates at 210 MIPS with a 180 MHz clock. It features 160K bytes of SRAM and 32K bytes of ROM with single cycle access at maximum processor or bus speed, together with an external bus interface with controllers for SDRAM and static memories including NAND Flash and Compact Flash.

Fully-featured to cover all customer applications - The BSP includes all the drivers for the peripherals integrated in AT91SAM9261. This allows targeting of all types of custom solutions. The BSP covers MMI features (display, keyboard, mouse, touch screen, audio, etc.), communications (serial, Ethernet, USB, SPI, 2-wire, etc.) and storage (NAND and NOR Flash, SD Card, etc.).

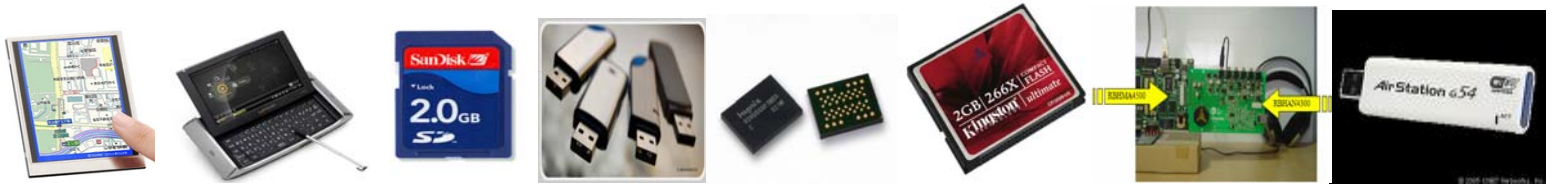
## BSP Development and Customization

A Board Support Package (BSP) include all the required Customization for our Customer's proprietary design. Our speciality is in Windows CE operating systems.



## Device Drivers

Device drivers are developed following customer requirements. For each driver developed by Embedded Solutions staff we develop a test application to verify its functionality and stability. In many cases the test application is used also as a skeleton for the user application. CeWiDus technical team has knowledge and experience of development of all kinds of drivers on various platforms (Audio, Display, Touch Panel, Camera, Storage, USB Host/Client, Wireless & Wired LAN, SDIO, NOR/NAND Flash, PCMCIA, PCI Express, CAN, I2C, SPI) in Windows Embedded CE.



## Kernel

In cases where kernel level development and debugging are required you may benefit from vast experience in this area.



## Experience

We have developed BSP, device drivers and applications for most of the leading architectures including TI Davinci, ARM, MIPS, XScale, SH3DSP, Power PC.



## Development Tools

---

Sophia, ARM, GNU tool chains, Microsoft Platform builder, Embedded Visual are part of the tools we have been using for developing solutions for our customers.



## Consulting

---

Consulting in early stages of your project and on may be of great value for you. Decisions taken in an early stage are in some case difficult or even impossible to change later. Let us be with you in those critical stages.



## Windows Embedded

---

The Windows Embedded family of products helps you turn your vision and ingenuity into superior business results. Windows Embedded consists of Windows Embedded CE, Windows XP Embedded and Windows Embedded for point of service. These operating system technologies combine with the best set of tools and support to provide you the control to build what you want, accelerated time to market, and industry leading support.

## CeWiDus Technologies

---

CeWiDus has been in Business since May 2008. In Bangalore, CeWiDus has state of the art infrastructure spread within 1600 square feet facility to support offshore development activities for all our customers. CeWiDus aims to be a leading provider of Embedded Multimedia Solutions that enable customers to develop the products quickly, thereby reducing their time to market.

