

# Microsoft® Windows® CE 5.0 Support

## Feature Spec

Digi provides Board Support Packages and Custom Development

### Overview

Microsoft Windows CE 5.0 provides a powerful platform for embedded systems development. Digi International supports Windows CE on many of our embedded products. Windows CE provides outstanding development tools, real-time performance and excellent support for a user interface with LCD and touch screen.

Digi's Windows CE Board Support Packages (BSPs) provide complete support for peripherals and devices included on Digi modules and microprocessors. Because sources are included, the Windows CE kernel can easily be recompiled, using Microsoft Platform Builder, to include the specific devices and services needed for the application. The BSPs provide complete hardware support, allowing embedded developers to concentrate on their application software.

### Unique advantages of Digi's Windows CE support

**Digi BSPs are custom-developed to support all Digi micro processor and module peripherals**

Digi develops complete embedded device drivers for the microprocessors and other peripherals included on a module. These are not generic drivers – they are optimized for the specific peripherals and features included. Because Digi manufactures the modules, we ensure the low-level code provided takes advantage of any proprietary features included on the modules.

**Ongoing development and support of Windows CE BSPs**

Digi's software engineering group includes a team actively involved in the development and maintenance of Windows CE BSPs. This group in Spain has been certified as a Gold Level Member of the Microsoft Windows Embedded Partners Program (WEP), one of fewer than 50 worldwide. This group is constantly enhancing the software and fixing defects or issues. Ongoing updates to the BSP are available through software subscription.

**Sources are included with Digi BSPs in development kits**

Many companies supporting Windows CE provide BSP in binary form only. Digi development kits include full sources, which can be used by embedded developers to debug their code or execute the exact features they need.

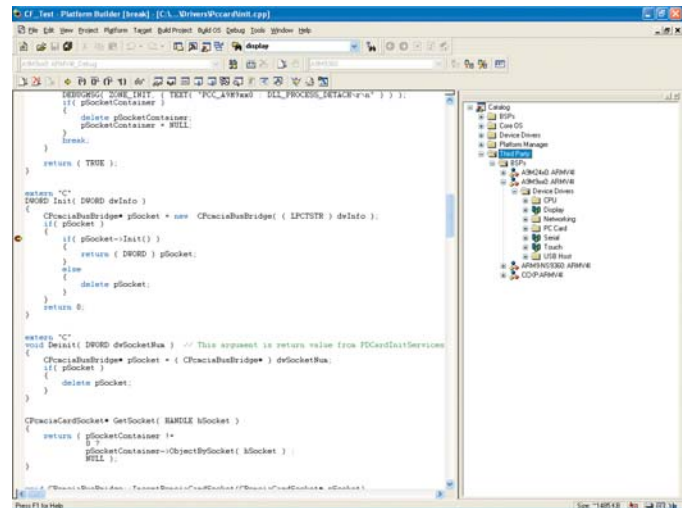
**Digi's Windows CE BSPs are royalty-free**

There are no royalties on software developed by Digi, as long as it is used on hardware provided by Digi.

### Unique advantages..... (continued)

**Support is available from Digi for integrated hardware/software issues**

A Digi support contract extends to both hardware and software, so there is never any question among vendors of who “owns” the problem. This allows for the efficient and rapid identification and correction of any issues, whether they are hardware, software or an interaction between the two.



### Features/Benefits

BSPs are developed specifically for Digi's microprocessors and modules

Sources, libraries included in all Windows CE BSPs

Exclusive Ethernet debugging channel

- Guaranteed compatibility between hardware and software, and no valuable development time spent debugging problems in generic device drivers
- Windows CE kernel can be recompiled in Microsoft Platform Builder to provide exact functionality required and smallest memory
- Downloads and debugging over Ethernet are fast and easy



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## Development kits for Microsoft Windows CE 5.0

Development kits include a complete Windows CE BSP with sources, which is compatible with Microsoft Platform Builder Embedded Visual C++ IDE. In addition to complete support for module peripherals, drivers for LCD and touchscreen are included. Each kit includes all the necessary hardware, software and tools to achieve fast results. Simply attach the development board to the Ethernet LAN, load the BSP into Platform Builder, and begin immediate application development.

Windows CE 5.0 BSPs are available for the following models of Digi's ConnectCore™ modules and NetSilicon® microprocessors:

- ConnectCore™ XP
- ConnectCore™ 9P 9750
- ConnectCore™ 9P 9360
- ConnectCore™ 9C (Coming Soon)
- ConnectCore™ 9M
- NetSilicon® NS9750
- NetSilicon® NS9360
- ConnectCore Wi-9C (coming soon)

Please check the Digi website for current Windows CE development kit part numbers.

## ModARM9 development kit

- ModARM9 module and development board
- Windows CE 5.0.NET BSP
- Ethernet-based download/debug support
- JTAG Booster for reprogramming Flash memory
- Complete documentation
- Schematics for development board

## Digi professional services

Digi's engineers are available to develop custom low-level software or Windows CE development projects. Examples include drivers for TFT LCDs, and drivers for additional peripherals such as CAN controllers, cameras or other peripherals. Please contact your Digi Sales Representative for more information.

Digi Support Services can be ordered by product number through distribution at a fixed price. These include:

- Hardware design review
- TFT LCD device drivers
- Bootloader modification
- Board bring-up

## BSP software catalog file contents

- Ethernet NDIS driver
- Serial ports (for internal and external UARTs and for external UARTs memory mapped on)
- PC card driver (ConnectCore 9P)
- CPU type (NS9360/NS9750)
- USB host
- USB device
- Flash file system for on-board Flash
- Touch
- Audio

## Digi exclusive!

Digi's BSPs for networked modules and microprocessors include an Ethernet debugging channel that allows debugging over the Ethernet, without disturbing normal network transactions. This makes downloading and debugging new code fast and easy.

## Features that can be selectively integrated into the Windows CE kernel

- .NET Compact Framework
- Windows applications (Internet Explorer, etc.)
- Core OS services (USB Host and display support)
- Communication support and networking
- Network Utilities: ipconfig, ping, etc.
- Wired Local Area Network - 10/100 Ethernet networking
- Servers: Telnet, FTP Server
- FAT File system
- Font support
- Language support
- Internet client services
- Graphics and multimedia technology
- Security
- Shell/QVGA support
- Error reporting
- VOIP services
- Local support defines default language, currency formats, date and time format specific to each country
- Virtual keyboard
- USB mouse or keyboard support

