Feature by Feature Comparison: Microsoft® Windows® CE .NET vs. Windows CE 3.0

The following is a comparison between Microsoft® Windows® CE .NET and its predecessor, Windows CE 3.0, using the Windows CE .NET catalog as the basis for comparison. Windows CE .NET represents a major milestone for embedded developers. It is the robust real-time operating system for rapidly building the next generation of smart mobile and small footprint devices. Delivering significant technology gains over its predecessors, Windows CE .NET offers embedded developers a wide range of functionality and flexibility when designing embedded systems. Some prominent new features include:

- Increased granular componentization
- Rich integrated browsing and multimedia capabilities
- Improved Real-time Support
- More comprehensive driver support

If you are interested in learning more about the overall benefits of Windows CE .NET or the new and enhanced features, please see the Windows CE .NET Overview", or "What's New in Windows CE .NET".

The Windows CE .NET product catalog of optional features forms the basis for comparison between the latest version of Windows CE and its predecessor. For reference purposes, the names in the "Catalog" column of the table below map directly to the product catalog, so those sysgen variables that appear several times in the catalog do the same here. Futhermore, indentations indicate the deep tree structure of the product catalog, as do instructions to "choose one" component over another. Because any *required* features are not exposed in the latest catalog, they are not addressed in this comparison guide. Please note that because this document was created prior to the final RTM release of Windows CE .NET, it may not include every feature or sysgen variable that will ship with the final product.

CATALOG	WINDOWS CE .NET	3.0
Applications & Services Development		
ActiveSync	✓	✓
File Sync	✓	✓
Inbox Sync	✓	
Pocket Outlook Database Sync	✓	
Active Template Library (ATL)	✓	
C Libraries & Runtimes		
C++ Exception Handling (SEH)	✓	
Full C Runtime	✓	✓
Run-Time Type Information	✓	
Standard IO (STDIO)	✓	✓
Standard IO ASCII (STDIOA)	✓	✓
Standard String Functions - ASCII (corestra)	✓	✓
Component Services (COM and DCOM)		
Component Object Model (Choose 1)		
COM	✓	✓
COM Storage	✓	✓
DCOM	✓	✓
COM Storage	✓	✓
Minimal COM (no OLE Support)	✓	

CATALOG	WINDOWS CE .NET	3.0
COM Storage	✓	
Device Management		
Simple Network Management Protocol (SNMP)	✓	✓
Lightweight Directory Access Protocol (LDAP) Client	✓	
Message Queuing (MSMQ)	✓	✓
SOAP Reliable Messaging Protocol (SRMP)	✓	
Microsoft Foundation Classes (MFC)	✓	
Object Exchange Protocol (OBEX)	✓	
Pocket Outlook Object Model (POOM) API	✓	
Pocket Outlook Database Sync	✓	
Simple Object Access Protocol (SOAP) Toolkit		
Client	✓	
Server	✓	
Standard SDK for Windows CE .NET	✓	
Technology Preview .NET Compact Framework	✓	
XML		
MSXML (Choose 1)	3.0	2.0
XML Core Services and Document Object Model (DOM)	✓	✓
XML HTTP	✓	✓
XML Query Languages (XQL)	✓	
XML Stylesheet Language Transformations (XSLT)	✓	✓
XML SAX	✓	
XML Minimal Parser	✓	
Applications - End User		
Bluetooth Gateway Configuration Utility	✓	
FLASH Update Sample Application	✓	
Games		
FreeCell	✓	
Solitaire	✓	
Help	✓	✓
Inbox	✓	✓
Inbox Sync	✓	
Remote Desktop Connection		
Remote Desktop Protocol (RDP)	✓	✓

Terminal Emulator	✓	✓
Windows Messenger	✓	
WordPad	✓	✓
Core OS Services		
Debugging Tools		
Debug Shell	✓	✓
Keyboard & Touch Driver Debugging Sample Applications	✓	✓
Tiny Kernel Test Sample Application	✓	
Toolhelp API	✓	✓
Kernel Features		
Fiber API	✓	
FormatMessage API	✓	✓
FormatMessage API – System Error Messages	✓	✓
Memory Mapped Files	✓	✓
Message Queue - Point-to-Point	✓	
Communication Services and Networking		
Networking Features		
Extensible Authentication Protocol	✓	
Internet Connection Sharing (ICS)	✓	✓
NDIS	5.1	4.0
Network Bridging	✓	
Network Utilities (IpConfig, Ping, Route)	✓	✓
Real-time Communications (RTC) Client API	✓	
TCP/IP	✓	✓
IP Helper API	✓	✓
Universal Plug and Play (UPnP)		
Control Point API	✓	
Device Host API	✓	
Device Host API (Minimal Subset)	✓	
Windows Networking API/Redirector (SMB/CIFS)	✓	
Winsock 1.1	✓	✓
Winsock 2.0	✓	
Networking - Local Area Network (LAN)		
Wired Local Area Network (802.3, 802.5)	✓	✓
Wireless LAN (802.11) - Zero Configuration & 802.1x	✓	
Networking - Personal Area Network (PAN)		
IrDA	✓	✓
Bluetooth (Choose 1)		

	WINDOWS CE .NET	3.0
Bluetooth with Universal Loadable Drivers	✓	
Bluetooth with Integrated USB-Only Driver	✓	
Bluetooth with Integrated UART-Only Driver	✓	
Bluetooth Gateway Configuration Utility	✓	
Networking - Wide Area Network (WAN)		
Dial Up Networking (RAS/PPP)	✓	✓
AutoDial	✓	
Virtual Private Networking (PPTP)	✓	✓
Telephony API (TAPI 2.0)	✓	✓
Unimodem Support	✓	✓
Servers		
Core Server Support	✓	
FTP Server	✓	
Telnet Server	✓	
RAS Server / PPTP Server (incoming)	✓	
Web Server (HTTPD)	✓	✓
Active Server Pages (ASP) Support	✓	✓
JScript	5.5	3.0
VBScript	5.5	3.0
NTLM	✓	
Schannel (SSL/TLS)	SSL 3.1 (TLS)	SSL 2.0 / 3.0
Web Administration ISAPI Extensions	✓	✓
File Systems and Data Store		
Compression	✓	✓
Database support	✓	✓
File & Database Replication (Choose 1)		
Bit-based	✓	✓
Change Numbers	✓	
File System - External		
Storage Manager	✓	✓
CD / UDFS File System	✓	
FAT File System	✓	✓
File System - Internal (Choose 1)		
RAM & ROM File System	✓	✓
ROM-only File System	✓	✓
Registry Storage (Choose 1)		
Hive-based Registry	✓	
RAM-based Registry	✓	✓

System Password	✓	✓
Fonts		
Arial		
Arial (Subset 1_30)	✓	✓
Arial Black	✓	
Arial Bold	✓	
Arial Bold Italic	✓	
Arial Italic	✓	
Comic Sans MS		
Comic Sans MS	✓	
Comic Sans MS Bold	✓	
Courier New		
Courier New (Subset 1_30)	✓	✓
Courier New Bold	✓	
Courier New Bold Italic	✓	
Courier New Italic	✓	
Georgia		
Georgia	✓	
Georgia Bold	✓	
Georgia Bold Italic	✓	
Georgia Italic	✓	
Impact	✓	
Kino	✓	
MSLogo	✓	
Symbol	✓	✓
Tahoma		
Tahoma (Subset 1_07)	✓	✓
Tahoma Bold	✓	
Times New Roman		
Times New Roman (Subset 1_30)	✓	✓
Times New Roman Bold	✓	
Times New Roman Bold Italic	✓	
Times New Roman Italic	✓	
Trebuchet MS		
Trebuchet MS	✓	
Trebuchet MS Bold	✓	
Trebuchet MS Bold Italic	✓	

	WINDOWS CE .NET	3.0
Trebuchet MS Italic	✓	
Verdana		
Verdana	✓	
Verdana Bold	✓	
Verdana Bold Italic	✓	
Verdana Italic	✓	
Webdings	✓	
Wingding	✓	
Hardware Support		
Audio (Waveform Audio)	✓	✓
Device Manager	✓	✓
Display	✓	✓
IEEE 1394	✓	
Audio Video Control (AV/C) Protocol	✓	
AV/C VCR Subunit Driver	✓	
AV/C VCR Virtual Subunit Driver	✓	
AV/C Streaming Filter Driver	✓	
AV/C Virtual Subunit Core	✓	
Non-AV/C Web Camera Driver	✓	
Non-AV/C Web Camera Virtual Driver	✓	
Serial Bus Protocol 2 (SBP-2)	✓	
SBP-2 Storage Driver	✓	
Test Tools - Diagnostics Driver	✓	
Test Tools - Diagnostics Virtual Driver	✓	
Test Tools - Sample Tools	✓	
Input Devices		
Mouse	✓	✓
Touch Display (Stylus)	✓	✓
Network Adapters		
Local Area Network (LAN)		
Cisco 802.11b PC Card	✓	
NE2000 PC Card	✓	✓
USB Remote NDIS Host Driver	✓	
Xircom CE2 PC Card	✓	✓
Wide Area Network		
Asyncmac NDIS Driver	✓	
Parallel Port Support	✓	✓

	WINDOWS CE .NET	3.0
Printing	✓	✓
PCL Printer Driver	✓	✓
Serial Communications	✓	✓
PC Card Dual I/O	✓	✓
Smart Card	✓	✓
SCM Microsystems SCR300 – USB Smart Card Reader	✓	✓
SCM Microsystems SCR120 – PCMCIA Smart Card Reader	✓	✓
Bull Systems SmarTLP3 – Serial Smart Card Reader	✓	✓
Storage Devices		
ATAPI PCI/IDE Storage Block Driver	✓	
Compact Flash / PC Card Storage (ATADISK)	✓	✓
Intel(R) Persistent Storage Manager (PSM)	✓	
M-Systems TrueFFS (DiskOnChip & PC Card)	✓	✓
Resident Flash Array (RFA)	✓	
Secure Digital/Multimedia Card (SD/MMC)	✓	
Universal Serial Bus (USB)	✓	
USB Function Serial Driver (Netchip NET2890)	✓	
USB Human Input Device (HID) Class Driver	✓	✓
USB Printer Class Driver	✓	
USB Remote NDIS Class Driver	✓	
USB Smart Card	✓	
USB Storage Class Driver	✓	
International		
Locale Services		
Natinal Language Support (NLS)	✓	✓
English (USA) National Language Support only	✓	✓
Locale Specific Support		
Chinese (Simplified)		
Agfa AC3 Font Compression	✓	
Fonts		
Simsun & NSimSun (Choose 1)		
Simsun & NSimSun	✓	
Simsun & NSimSun (Subset 2_50)	✓	
Simsun & NSimSun (Subset 2_60)	✓	
Simsun & NSimSun (Subset 2_70)	✓	
Simsun & NSimSun (Subset 2_80)	✓	
Simsun & NSimSun (Subset 2_90)	✓	
SC_Song	✓	✓

	WINDOWS CE .NET	3.0
GB18030 Data Converter	✓	
Input Method Editor		
MSPY2 for Windows CE (Choose 1 Database)	✓	
1.1 MB - Minimal Database	✓	
1.3 MB - Compact Database	✓	
1.7 MB - Standard Database	✓	✓
Pocket IME	✓	✓
Chinese (Traditional)		
Agfa AC3 Font Compression	✓	
Fonts		
MingLiU & PMingLiU (Choose 1)		
MingLiU & PMingLiU	✓	
MingLiU & PMingLiU (Subset 2_70)	✓	
MingLiU & PMingLiU (Subset 2_80)	✓	
MingLiU & PMingLiU (Subset 2_90)	✓	
MSMing	✓	✓
Input Method Editor		
Pocket IME	✓	
Input Methods		
Handwriting Recognizer Engine (HWX)	✓	
English (Worldwide)		
Input Methods		
Handwriting Recognizer Engine (HWX)	✓	✓
English (U.S.)		
Input Methods		
Transcriber Handwriting Recognizer Application	✓	
Spelling checker (USA)	✓	✓
French		
Input Methods		
Transcriber Handwriting Recognizer Application	✓	
German		
Input Methods		
Transcriber Handwriting Recognizer Application	✓	
Japanese		
Agfa AC3 Font Compression	✓	
Fonts		
MSGothic (Choose 1)		
MS Gothic & MS PGothic & MS UI Gothic	✓	

CATALOG	WINDOWS CE .NET	3.0
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_50)	✓	
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_60)	✓	
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_80)	✓	
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_90)	✓	
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_70)	✓	
MS Gothic & MS PGothic (Subset 30)	✓	✓
MS Gothic & MS PGothic (Subset 30_1_19)	✓	
Input Method Editor (Choose 1)		
IME 98 (Choose 1 Database)		
Compact Database	✓	✓
Standard Database	✓	
Pocket IME (Choose Additional Databases)	✓	✓
Name/Place Database	✓	✓
Supplemental Database	✓	✓
Test IME	✓	✓
Input Methods		
Handwriting Recognizer Engine (HWX)	✓	✓
Multibox HWX Sample UI	✓	✓
Input Method Selector Sample Application	✓	✓
Kana Soft Keyboard	✓	
Romaji / English Soft Keyboard	✓	
Search by Radical	✓	
Search by Stroke	✓	
Korean		
Agfa AC3 Font Compression	✓	
Fonts		
GL_CE	✓	✓
Gulim & GulimChe (Choose 1)		
Gulim & GulimChe (Subset 1_30)	✓	
Gulim & GulimChe (Subset 1_40)	✓	
Gulim & GulimChe (Subset 1_50)	✓	
Gulim & GulimChe (Subset 1_60)	✓	
Input Method Editor		
IME 97	✓	✓
Input Methods		
Handwriting Recognizer Engine (HWX)	✓	
Korean Soft Keyboard Sample	✓	✓
Multiple Language Support	✓	

	WINDOWS CE .NET	3.0
Internet Client Services		
Browser Application (choose 1)		
Internet Explorer for Windows CE - Standard Components	5.5	4.0
Internet Explorer Sample Browser	5.5	4.0
TV-Style Navigation Components	✓	
Pocket Internet Explorer	5.5	4.0
Internet Explorer for Windows CE Components		
Internet Explorer Browser Control Host	5.5	4.0
Internet Explorer HTML/DHTML API	5.5	4.0
Internet Explorer Multiple-Language API	5.5	4.0
Internet Explorer TV-Style Navigation	✓	
Fixed-Width Layout	5.5	
Directional Tabbing	5.5	
Disable Vertical Scroll Bar & Events	5.5	
URL Moniker Services	5.5	4.0
Windows Internet Services	5.5	4.0
Pocket Internet Explorer HTML View (WEBVIEW)	✓	✓
Sample IE 5.5 Internet Options Control Panel	✓	
Scripting		
JScript	5.5	3.0
VBScript	5.5	3.0
Multimedia Technologies		
Basic Multimedia		
WMA & MP3 Local Playback	v8 MP3 new on all CPUs	v7
WMA & MP3 Streaming	v8 MP3 new on all CPUs	v7
WMV & MPEG-4 Streaming	v8 MP3 new on all CPUs	v7
Multimedia Components		
Audio		
Waveform Audio	✓	✓
GSM 6.10 Codec	✓	✓
MSFilter Codec	✓	✓
DirectMusic	✓	
DirectSound	✓	✓
Waveform Audio	✓	✓
Digital Rights Management		
Digital Rights Management (DRM)	✓	
DRM for Portable Devices	✓	

	WINDOWS CE .NET	3.0
DRM License Acquisition OCX	✓	
Direct3D		
Direct3D	✓	
Reference Rasterizer	✓	
DirectDraw	✓	✓
DirectShow		
ACM Wrapper Filter	✓	✓
Audio Codecs & Renderers		
DirectSound Audio Renderer	✓	✓
G.711 Audio Codec	✓	✓
GSM 6.10 Audio Codec	✓	✓
IMA ADPCM Audio Codec	✓	✓
MP3 Codec	Floating Point and integer CPUs (SA1100, MIPS, SH-3)	Floating Point CPUs only
MPEG-1 Layer 1 & 2 Audio Codec	✓	✓
MS ADPCM Audio Codec	✓	✓
Waveform Audio Renderer	✓	✓
WMA Codec	v8	v7
DirectShow Core	✓	✓
Media Formats		
AVI Filter	✓	✓
MIDI Filter	✓	✓
MPEG-1 Parser/Splitter	✓	✓
Wave/AIFF/au/snd File Parser	✓	✓
Video Codecs		
Cinepak Video Codec	✓	✓
DirectShow Video Renderer	✓	✓
MPEG-1 Video Codec	✓	✓
MS RLE Video Codec	✓	✓
QuickTime V2 Video Codec	✓	✓
WMV / MPEG-4 Video Codec	v8	v7
DVD-Video	✓	
Windows Media Player		
Windows Media Player Application	✓	✓
Windows Media Player OCX	✓	✓
Windows Media Technologies		
Windows Media Technologies	✓	✓

	WINDOWS CE .NET	3.0
ASX v1 and M3U File Support	✓	✓
ASX v2 File Support	✓	✓
ASX v3 File Support	✓	✓
Windows Media Multicast and Multi Bit Rate	✓	✓
NSC File Support	✓	✓
Windows Media Streaming from Local Storage	✓	✓
Windows Media Streaming over HTTP	✓	✓
Windows Media Streaming over MMS	✓	✓
Security		
Authentication Services (SSPI)	✓	✓
NTLM	✓	✓
Kerberos	✓	
Schannel (SSL/TLS)	SSL 3.1 (TLS)	SSL 2.0/3.0
Cryptography Services (CryptoAPI 1.0) with High Encryption Provider	✓	✓
Certificates (CryptoAPI 2.0)	✓	✓
Low Encryption Provider (40-bit)	✓	✓
Smart Card Encryption Provider	✓	
Shell and User Interface		
Graphics, Windowing & Events		
Minimal GWES Configuration	✓	✓
Minimal GDI Configuration	✓	✓
Minimal Input Configuration	✓	✓
Minimal Notifications Configuration	✓	✓
Minimal Window Manager Configuration	✓	✓
Shell		
Graphical Shell (Choose 1)		
Standard Shell	✓	✓
Taskman Sample Shell	✓	✓
Windows Thin Client Shell	✓	✓
Command Shell		
Console Window	✓	✓
Command Processor	✓	✓
Control Panel Orientation (Choose 1)		
Landscape (480x240 and larger)	✓	✓
Portrait (240x320 and larger)	✓	✓
User Interface		
Accessibility	✓	
Customizable UI		

OEM Custom Skin	✓	
Windows XP-like Sample Skin	✓	
Multiple Screens	✓	
Network User Interface	✓	
Software Input Panel		
Input Method Selection Sample Application	✓	✓
Software-based Input Panel Driver	✓	✓
Software-based Input Panel (SIP) (Choose 1 or more)		
SIP for Small Screens	✓	✓
SIP for Large Screens	✓	