

Software Release Notes

CK3X and CK3R OS v1.62

Microsoft Windows Embedded Handheld

Overview

This is an OS upgrade release of Windows Embedded Handheld for all configurations of CK3X and CK3R computers.

Supported Hardware

All CK3R and CK3X configurations.

Version Numbers

	1.62 Release (Official)	1.61 Release (Official)	1.50 Release (Official)
OS	1.62.27.6	1.61.22.0072	1.50.19.0013
Microsoft WEH	6.5.3.12.43	6.5.3.12.26	6.5.3.12.10
DHCP Client	1.05.03.36	1.05.03.36	1.03.00.0037
ITCFunkSupplcant	2.03.03.160	2.03.03.160	2.01.07.0458
IBI	6.20.04.130	6.20.04.130	6.01.00.0536
IDL_LSRK	1.40.02.40	1.40.02.40	1.21.00.0216
CESDK (IDL_Runtime)	4.03.01.35	4.03.01.35	4.02.00.2198
Intermec_Settings	6.10.04.168	6.10.04.168	5.80.00.0112
IVAUtilites (IVAEventlog)	6.10.04.102	6.10.04.102	5.80.00.0006
IVADCE	6.20.04.192	6.20.04.192	6.03.00.0684
IVADCEDrivers	1.20.04.381	1.20.04.381	1.07.05.0552
IVADeviceSettings	6.20.04.94	6.20.04.94	6.02.00.0412
IVAPAL	6.20.03.154	6.20.03.154	6.02.00.0581
In2Decodes (STCDecodes)	1.20.04.48	1.20.04.48	2.2.3.0
IVAVirtualWedge	6.20.04.80	6.20.04.80	6.02.00.0520
Printer_Configlet	2.50.14.122	2.50.14.122	2.30.00.0115
SS_Client	4.92.03.343	4.92.03.343	4.60.00.0066
TCO_GUI	2.20.03.43	2.20.03.43	1.10.00.0310
TI WiFi Firmware	6.1.0.301.337	6.1.0.301.337	6.1.0.20.337
ITCW ifiMgt	3.03.03.62	3.03.03.62	-
NetworkConfiglet	7.40.03.105	7.40.03.105	-
WAPI	1.05.03.34	1.05.03.34	-

New Functionality

1.62 Release

- Updated AKU to latest version (43) which includes support for SHA-2.

1.61 Release

- Supports a new Honeywell N5603ER scan engine option on new CK3X production hardware.
- Increased the default Flash File Store size from 16 MB to 64 MB on new hardware.
- Added Han Xin decodes to the list of symbologies.
- Improved Intermec Settings password entry. The last character is now displayed when entered and becomes masked when the next character is entered.
- Added _Autoflash support to boot directly into the OS after flashing. This bypasses the Autoflash Complete screen and eliminates the need for a manual reboot.
- Added language selection persistence during flashing. Languages selected on the first boot of an LP flash can be set to persist through future LP flashes. This eliminates the manual step of selecting the language after each LP flash.
- Added visibility of Software Update information. Details can be found in Device Health Monitor and Intermec Settings.
- Added OS upgrade and file transfer functionality to CloneNGo by default. SR1211080*_TOOL_WM65_ALL.CAB is no longer required.
- Added support for negative image reading to the Data Collection Resource Kit. This provides the ability to receive negative images from the imager in order to create a robust OCR solution when light lettering is printed on dark backgrounds.
- Added support to launch webpages by scanning a barcode. This works with PIE, IE6, and HTML5.
- Added a 2D quick connect barcode to the Wireless Scanning app. This is primarily for use with the SR61B.
- Added black and white high visibility Windows Embedded Handheld themes.
- Added video image rotation and snapshot image rotation support to the Data Collection Resource Kit.
- Improved Device Health abuse counter to filter out rapid hits ("shaking the unit").
- Updated EX25 baud rate to 480 kbps which allows it to process data more quickly.
- Fixed the Read Disturb issue.
- Fixed the OpenSSL Heartbleed issue.

Patches Included In This Release

Patches listed here are no longer required with this release.

1.62 Release

- None

1.61 Release

SR Name	SR Description
SU02_1.50_CK3 <ul style="list-style-type: none"> ○ SR13031300_KEY_WM65_ALL ○ SR12110808_TOOL_WM65_ALL ○ SR12110600_802T_WM65_ALL ○ SR14031000_KEY_CK3XWM65_ALL ○ SR14011600_EBT_WM65_ALL ○ SR13102900_BAT_Cx70WM65_ALL ○ SR13100101_TOOL_WM65_ALL ○ SR13081801_TCH_Cx70WM65_ALL ○ SR13060601_ETH_Cx70WM65_ALL ○ SR13042600_RSG_Cx70WM65_ALL ○ SR12110601_SENS_CK3XWM65_ALL ○ SR13031101_AUD_WM65_ALL ○ SR14040800_AUD_WM65_ALL 	SR14040800_AUD_WM65_ALL is an exception and will need to be reinstalled after upgrading to 1.61. The SR will be included in all Software Updates for 1.61 as well.
SU01_1.50_CK3 <ul style="list-style-type: none"> ○ SR12110600_802T_WM65_ALL ○ SR12110601_SENS_CK3XWM65_ALL ○ SR12110808_TOOL_WM65_ALL ○ SR13010300_EBT_WM65_ALL ○ SR13031101_AUD_WM65_ALL ○ SR13031300_KEY_WM65_ALL 	
SR12110600_802T_WM65_ALL	Contains fixes for: <ul style="list-style-type: none"> ○ ICM00020788: CNG v2.0: Device fails to clone whenever Master is set to Microsoft security or vice versa. ○ ICM00020336: Once a device has entered ad-hoc mode a static IP address may fail to show up on an interface. ○ ICM00020242: Wireless driver's Wi-Fi scan can be inaccurate.
SR13031101_AUD_WM65_ALL	Contains fix for ICM00020900: Device audio is not controlled by Intermec Settings with new audio SR's loaded.
SR13102900_BAT_Cx70WM65_ALL	Contains fixes for: <ul style="list-style-type: none"> ○ CPR 131023-000175: Units sitting in Ethernet docks won't charge sometimes. CPR 130722-000031: CN70e - Battery expands and will not charge.
SR13032800_BTH_Cx70WM65_ALL SR13022200_BTH_Cx70WM65_ALL	This SR addresses the issue that the Bluetooth connection would not re-establish after the device goes into unattended mode. It contains fixes for: <ul style="list-style-type: none"> ○ CPR 120507-000150: Bluetooth does not reconnect after suspend/resume. ○ CPR 130206-000168: Device times out and will not re-establish the Bluetooth connection
SR13111200_CFG_WM65_ALL	Contains fix for CPR 130408-000100: <ul style="list-style-type: none"> ○ AL-284 (ICM00021708): Duplicate Device ID's

SR14032000_DCL_Cx70WM65_ALL SR13120500_DCL_Cx70WM65_ALL	This SR installs all necessary software components to optimize EX25 performance. Addresses Jira issues: <ul style="list-style-type: none"> o WIVA-559 Reverse Image failed on CK71/EX25 with video preview o WIVA-78 EX25 baud rate changed to 480kbps WIVA-644 EX25C new FW: Resolve Container Label Scanning application issues
SR13102500_DCL_Cx70WM65_ALL SR13083000_DCL_Cx70WM65_ALL SR13070300_DCL_Cx70WM65_ALL	This SR installs all necessary software components to support Direct Product Marking (DPM) licensing. Addresses the following issues: <ul style="list-style-type: none"> o WIVA-88 DCE DPM2 changes to request a license. o WIVA-226 Method for users to select a mode that optimizes DPM reading performance.
SR14050100_DCL_Cx70WM65_ALL SR13112100_DCL_Cx70WM65_ALL SR13091800_DCL_Cx70WM65_ALL	Contains fix for CPR 130701-000180 RFIDWedge issues: <ul style="list-style-type: none"> o Grid not used after a reboot. o Initial RFID scan data after a reboot may be preceded with incorrect data. o No error beeps when scanned data does not meet the grid spec.
SR12070300_DCL_Cx70WM65_ALL	o Contains fix for CPR 120621-000173: EX25 running Intermec applications. Scan engine turns off on a manual Suspend/Hibernate.
SR14020500_DCL_CK3XWM65_ALL	Contains fix for CPR 140124-000029, JIRA CSA-510: This SR installs an update to Intermec Settings to correctly create a backup file for devices with Intermec Launcher installed.
SR13092600_DCL_Cx70WM65_ALL	Contains fix for CPR 130829-000092: Read Ahead Scan buffer filling up during very rapid scanning with EA30.
SR13022200_DHCP_Cx70WM65_ALL	Contains fix for KC 130130-000060: CK71 not releasing/renewing IP when changing wireless profile.
SR14011600_EBT_WM65_ALL.CAB SR13010300_EBT_WM65_ALL.CAB SR13010401_EBT_Cx70WM65_ALL	Contains fix for KC Bulletin - 14411 There is a potential that certain shipped 70 series, 600MHz product may not boot correctly. Cold temperatures may exacerbate this issue. If the handheld does not boot up due to this issue, it is not recoverable and must be returned to service.
SR13060601_ETH_Cx70WM65_ALL	Contains fix for CPR 130108-000066: Flexdock fails to transmit files properly / Upload delays
SR14031100_FFX_WM65_ALL	Contains fix for CN7X and CK3X read disturb issue. Devices stuck on blue screen, won't boot - need to be reflashed. [Incident: 140204-000107]
SR12120300_FUNK_Cx70WM65_ALL	Contains fix for CPR 121107-000173: CN70 will not connect on channel 12/13 if SSID is hidden.
SR13082900_KEY_WM65_ALL	Contains fix for CPR 130827-000067: The screen timeout occurs even though the scan button has been pressed within the timeout value.
SR14031000_KEY_CK3XWM65_ALL	Contains fix for CPR 140130-000007: CK3x/r Function Numeric Keypad exhibits keyboard repeats. Disables Auto-Repeat
SR13031300_KEY_WM65_ALL	Contains fix for Large Key Numeric keypad is getting a sporadic key repeat.

SR12121701_PRT_Cx70WM65_ALL	Contains fix for KC 121210-000119 and KC121217-000018: Printers with no authentication will not connect to CN70 with OS 1.50.19.0013. This SR modifies a registry location so no authentication will be processed. This SR is NOT intended for use with printers that do use BT authentication.
SR13101600_PRT_WM50_ALL	Contains fix for Printer Configlet does not start UpdatePrinter.exe using a SmartSystems command or SmartSystems XML file.
SR13012500_PRT_WM50_ALL	Contains fix for Wireless Printing/Printer Configlet won't test print to the PR2, PR3, PB20, PB40, and PB41.
SR14012800_REG_WM61_ALL	Contains fix for CPR 140123-000125: Losing static IP when configured before connecting to a Flexdock.
SR13042600_RSG_Cx70WM65_ALL NOTE: Must have SmartSystems 4.80 or newer to remove this SR.	Contains fix for ICM00021727 RoamScanEnable is getting set to 0
SR12110601_SENS_CK3XWM65_ALL	Contains fix for sensor driver rejecting valid sensors based on an improper check of the device-ID.
SR13011600_TCH_Cx70WM65_ALL	Contains fix for CPR 130116-000037: Device sends tap event when the screen comes out of Idle state.
SR13071602_TCH_Cx70WM65_ALL	Contains fix for CPR 130715-000047: Losing screen alignment after screen has been re-aligned.
SR13081801_TCH_Cx70WM65_ALL	Contains fix for CPR 130715-000047: Touch screen needs recalibrated on the production line
SR12110808_TOOL_WM65_ALL SR12110802_TOOL_WM65_ALL	<p>Contains fixes for:</p> <ul style="list-style-type: none"> o ICM00020788: Device fails to clone whenever the Master is set to Microsoft security. o ICM00020755: Settings are not getting restored on the Master after an OS Upgrade. o ICM00020818: File Transfer - Special Cases after cloning the device is not working as expected. o ICM00020536: Clone Master corrupted settings when driver failed to allow switch from a/b/g to b/g. <p>Additionally fixed an issue with Heap Corruption that caused CloneNGo to crash during file transfer.</p> <ul style="list-style-type: none"> o ICM00021599: Client can fail to find a master with the same hardware version string when multiple masters are available. o ICM00021651: Improved channel selection. o ICM00021599: Improved master selection. o ICM00021632: CloneNGo GUI in master mode throws ObjectDisposedException on exit. <p>ICM00021604: Automatically reset stack and reconnect to network to work around a Microsoft stack issue that causes de</p>
SR13100101_TOOL_WM65_ALL SR13100100_TOOL_WM65_ALL	Software Updates are following a new process going forward. This will install the new process on legacy devices.

Additional Information

The CK3X and CK3R handheld computer manuals and downloads can be located at:
www.intermec.com | Products | Computers | Handheld Computers | CK3X/CK3R

Installation Methods

This OS upgrade package is intended to be used on devices running OS v1.50.19.0013. For devices running older OS versions, please contact Intermec product support.

SmartSystems

Drag and drop the OS upgrade bundle on the device or folder. See the SmartSystems help file for more information.

SD Card

Find the AutoFlash.img file that is installed in the SmartSystems library on your PC. This is typically located here:

C:\Program Files\Intermec\SmartSystem\SS_Lib\Software\OS_CK3NG_v1.61.22.72

1. Place the "AutoFlash.img" file on a microSD card.
- NOTE: A 4GB or smaller SD card must be used when upgrading devices via SD card.
2. Remove the battery and insert the SD card.
 3. Press the Reset button and replace the battery.
 4. Put the device on charge and the OS upgrade will begin.
 5. During the upgrade process, status messages will update along the bottom of the screen.
 6. When the "Autoflash Complete" message is displayed you can remove the SD card and reboot the device.

Clean Boot Instructions

1. Reboot the device.
2. Press and hold the yellow I/O button.
3. Hold until message pops up stating "Release IO button".
4. A new message will pop up stating "Caution! You are about to reset your device to factory defaults. If you wish to proceed, enter first key in 20 seconds". Press any key on the keyboard.
5. Another new message will pop up stating "Enter second key in 6 seconds". Press any other key on the keyboard.
6. New message "Reconfirm first key in 6 seconds". Press same key from step 4.
7. New message "Reconfirm second key in 6 seconds". Press same key from step 5.
8. If completed correctly, a message will pop up stating "Cleanboot Confirmed". If not, restart at step 1. If any of the time restrictions are exceeded in steps 4-7, the clean boot will be aborted.

Software Updates

Software updates are now a standard process we use to bundle groups of SRs after release. SU00 is a base software update with no content. The current software update you have on the device can be found in two locations:

1. Intermec Settings > SmartSystems Information > Identity > Software Update
2. Device Health ("?" key) > Information > Software Update

Time Zone Changes

Due to a Microsoft AKU change many of the time zones available have had their names changed since the 1.50 release.

EX25 Downgrade Instructions

If a device with an EX25 scanner needs to be returned to 1.50.19.0013 the scanner will not function until SR14022600_DCL_Cx70WM65_ALL.CAB has been installed on the device. Please contact Product Support if you require this SR.

Device Management

CloneNGo

CloneNGo is a license free application that ships on every CK3X and CK3R that greatly simplifies and expedites configuration. This powerful application will clone all settings from a fully configured “master” unit, to a completely un-configured “client” unit, via an 802.11 connection with minimal user intervention.

SmartSystems

SmartSystems Foundation 4.50.00.0193 or newer is required for use with CK3X/CK3R devices. This is available for download from www.intermec.com. **Note:** The current release of SmartSystems Console is 4.80.01.76.

Application Support

Autorun Support

Autorun is available on the device to automate cab file installation and configuration of application launch sequences. Refer to KC Answer #13000 for more information:

http://intermec.custhelp.com/app/answers/detail/a_id/13000/

Features Demo

The Features Demo application is available for download on the Intermec Software download site, as well as through the ScanNGo feature. Instructions for ScanNGo are located on the product page.

.NET Application Support

Microsoft recommends that .NET applications use the form property ‘TopMost’ set to True in order to ensure the applications remain maximized.

Windows Embedded Handheld Gesture Support

Gesturing is supported by Windows Embedded Handheld. This means that applications using listbox, listview, treeview, webview, or tab controls will need to be aware of how the Windows GUI interprets the gestures.

Best Practices

1. When using Bluetooth audio and Wi-Fi together, performance will be improved if the 802.11 radio is associated to an Access Point when powered on. It is also recommended to limit the radio band to only the band that you are using. When not using Wi-Fi, turn off the 802.11 radio to maximize Bluetooth performance.
2. For best results, it is recommended to resume the device before attaching and detaching snap-on adapters.

PTT/Voice Solutions

Only the CK3X has a microphone and can support voice solutions. The CK3X is optimized for scan beep volume out of the box. To improve the performance for voice solutions the speaker volume and microphone gains should be reduced. This can be done through APIs or the registry.

CK3 Accessories

The CK3X and CK3R devices have been designed so that they are compatible with most previous generation CK3 accessories. This includes standard and extended batteries, CK7x ‘smart battery’, snap-on adapters (excluding the 850-819-001 Vocollect and 850-823-001 Audio adapter), and charge docks. **Note:** original CK3 batteries are not “smart” batteries so information provided to the Device Health Monitoring will be limited to charge state only. Consult your regional price guide for new accessories (holsters, protective boots, and universal wall charger).

Version History

Version	Date Available
1.62.27.6 (Official Release)	Oct 2015
1.61.22.0072 (Official Release)	Oct 2014
1.50.19.0013 + Eboot Patch (Official Release)	Jan 2013
1.50.19.0013 (Official Release)	Nov 2012