

# **Field PC OS Release 3.0.9 Microsoft Windows Mobile® 6.1**

## **Release Notes**

September 2012

Release 3.0.9 of the Microsoft Windows Mobile 6.1 operating system (OS) for the Field PC mainly provides support for replacement parts to sustain manufacturing of the product and integrates a couple of software patches, so the list of features and changes made in Release 3.0.6 have been included.

This OS release is available in 16 languages, similar to previous releases. Additional information regarding previous OS releases is provided in the release notes documents available at:

<http://junipersys.com/Juniper-Systems-Rugged-Handheld-Computers/support/Documentation/Archer-Field-PC/Archer-Field-PC/Operating-system-release-notes>

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## System Requirements

This OS release is only compatible with Field PCs that were originally purchased with a license of the Microsoft Windows Mobile 6.1 operating system.

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## New Features and Enhancements

This section identifies the features and enhancements for WM 6.1 OS releases 3.0.6 and 3.0.9 in comparison to the previous WM5 OS release 2.1.5.

- **Bluetooth connections are maintained through suspends and resumes.** When the Field PC is turned off (suspended) and later turned on (resumed) within a reasonable timeframe, if the previously connected Bluetooth device is on and in range, the connection will resume from the same state as from before the suspend.
- **Secure Digital High Capacity (SDHC) cards are now supported.** Flash memory SDHC cards provide 4GBs and higher removable storage memory capacities (currently tested up to 32GBs), compared to 4GBs and less on previous standard SD flash memory cards.
- **Enhanced system thread priorities.** The order in which system components take priority when utilizing the processor has been enhanced. This ensures that touchscreen inputs do not interfere with serial and Bluetooth communications, and other items that were determined to be of higher priority to prevent potential data loss or other undesired operational behavior.
- **Improved Network Connection Manager.** Provides for support of multiple network connections (ActiveSync, Wifi 802.11, cellular modem, etc.) even when connected simultaneously (ActiveSync setting required).
- **Enhanced and custom screens during boot process.** A progress bar now appears during the boot process.
- **New and Updated OS image install methods.** An OS image can now be loaded directly from an inserted SD card during the

boot process. Also, the time required to load an OS image has been reduced for all install methods.

- **New and updated custom Application Programming Interfaces (APIs).** Application software developers can now more readily access the unique serial number assigned to each Field PC, view and edit system settings, set the system to factory defaults, and perform other functions relating to the hardware while their software is running on the Field PC. **Note:** Programs written to use the previous version of the "Get Serial Number" function will need to be updated to use the new version.
- **Enhanced backlight and processor speed control for the user.** System settings screens have been improved and added to allow better control of the backlight and processor speed.
- **Better security with and more control of enterprise network, exchange server, and Internet connections.** Whether exchanging Office Mobile files, sending Outlook emails, surfing the web using the enhanced Internet Explorer, or remotely accessing a desktop computer, the connection will be more secure and you will be better able to control connection settings.
- **New methods for setting flash storage memory to a factory defaults state.** New utilities similar to Clean Boot and Clean Registry are now available: one clears just the backup \Storage folder (referred to as Clean Storage), and one clears all storage memory for a more complete returning of the Field PC to a factory defaults condition (referred to as Clean All). Refer to the User Guide for instructions.
- **Improved support for some specific USB-to-Serial adapters.** This allows easier setup and connection of the adapter when attached to the Field PC.
- **Added button to enable/disable touchscreen in Power Button menu.** When you press and hold the power button to activate the power button menu, it will show a new option that allows you to enable or disable the touch screen.

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## Installation Notes

Before updating the operating system on a Field PC, review these warnings and notes:

- Replacing the operating system on your Field PC erases all files and data on the device and removes software you have installed. Before you install the operating system, please back up all files to a desktop computer or removable storage memory card or USB device.
- Once a version of the Field PC operating system has been installed, you may not be able to revert back to a previous version. Please ensure that your application will function properly with the new version before performing the install.

Installation of this operating system version is at your own risk. Any loss in functionality of the Field PC unit during or after performing this install (for any reason, such as from installing a partially downloaded or corrupted install file) may require a charged repair service to return full functionality. If desired, the Field PC can be returned to an authorized repair center to install the operating system update for a nominal labor charge.

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## Important Notes

- **Board revision 0.9.x requires version 3.0.9 of the operating system.** A Field PC that uses board revision 0.9.x will not work with any previous version of the Operating System.
- **Operating System cannot be downgraded.** A Field PC running Windows Mobile 6.1 OS release 3.0.6 or higher cannot be downgraded to a previous Windows Mobile 5.0 version of the operating system. A Field PC running version 3.0.9 of the operating system can only be downgraded to 3.0.6 if it was previously running 3.0.6 on a board revision 0.8.3 or 0.5.2 (without built-in Bluetooth).
- **Device drivers should be installed in the primary device storage.** Install device drivers and applications in the "Device" option on the Field PC, not in a secondary storage area (such as \Storage). Installing them in another area may prevent the device driver or application from functioning properly.

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## Resolved Issues

This section lists resolved issues in this version of the Field PC operating system.

### Release 3.0.9

- Added a new touch screen driver to support board revision 0.9.x. The existing driver is still present to support board revision 0.8.3 and 0.5.2 (without built-in Bluetooth).
- Added a new audio driver to support board revision 0.9.x. The existing driver is still present to support board revision 0.8.3 and 0.5.2 (without built-in Bluetooth).
- ActiveSync PPP patch integrated with this release. This fixes an issue where the connection dropped when copying large files over PPP (having "Advanced Network Functionality" disabled).
- Backlight driver updated with minor change for tactical mode.
- Notification LED driver updated with minor change for tactical mode.
- PC (CF) card driver updated with a fix for a card that was asking for the wrong voltage.
- Keypad driver changed to support backdoor re-assignment of the enter key.

### Release 3.0.6

- ActiveSync connections using the legacy USB Serial drivers now start at COM6 instead of COM1. This minimizes problems with Compact Flash GPS cards dynamically changing from COM2 to another COM port number. [1929]
- An issue where RS-232 serial communications may become slow, lock up, or drop packets on higher baud rate connections is fixed. [1668]
- An issue that caused the touch screen to become unresponsive is fixed. [1987]

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## Known Issues

The following are the anticipated most commonly encountered issues known to exist in this OS release for the Field PC. Other less common issues may also exist.

| #   | Issue   | Workaround   |
|---|---|--|
| 1489<br>1647<br>1808                      | COM port numbers may become unavailable after previously being assigned to a Bluetooth device.  | Always check the "Serial Port" service checkbox under Advanced settings when bonding with a Bluetooth device before assigning a COM port number to that device. If a COM port number has already become unavailable, a utility is available to clear the unintentionally remaining previous COM port number assignment.  |
| 52<br>140<br>1233<br>1474<br>1645<br>1647 | Passkey required for connecting a Bluetooth device, even though the Bluetooth device does not specify a passkey. Issues may be encountered when a passkey was not entered while bonding to a Bluetooth device.  | Entering 0000 as the passkey should be the same as if no passkey were required. Otherwise, most Bluetooth devices (such as GPS receivers) use either 0183, 1111, 1234, or 0873. If issues are encountered when connecting to a Bluetooth device that was previously connected without entering a passkey, a utility is available for clearing the previous bond that is causing the issue so a new bond with a passkey can be established. |
| 625<br>945<br>1698<br>1702                | An attached CF, SD, or USB device (such as a GPS receiver, network adapter, or serial adapter) reloads software drivers after suspending (turning off) and later resuming (turning on) the Field PC. This can cause software that was previously using the device to have to wait before being able to re-connect and/or requires you to manually re-connect to the device. | Disconnect from the device in software before suspending the Field PC. Some software applications compensate for this behavior in a newer version. The Microsoft GPS Manager system setting can be used with a GPS receiver to help compensate for some symptoms of this issue.  |

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|------|---|---|
| 2022 | Toggle TS cannot be assigned to a hardware button in non-English versions of the 3.0.6 operating system.  | To fix this issue, copy ToggleTS.exe out of the Windows directory and into the \Windows\Start Menu\Programs folder (Start Menu and Programs is translated. For example, in German it looks like \Windows\Startmenü\Programme ). After this is done, hardware buttons can be assigned to this program. In future releases of the OS, the name of "Toggle TS" will be translated and this workaround will not be necessary. |
| 271  | An attached CF, SD, or USB device (such as a GPS receiver, network adapter, or serial adapter) remains powered even when not actively being used by a software application. | Attached devices do not remain powered when the Field PC is in suspend or is fully powered off. Some newer devices may go into a low power idle state when not in use. Most devices still provide a full 10 hour work day worth of battery life even with this issue. Some devices may require carrying a fully charged spare battery and recharging it using a Power Dock or Travel Charger.                             |

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