Release Notes - MC9090 01.09.00 WM 6.1 Classic

Introduction

The released software v01.09.00 contains the images required to update MC9090 device to WM6.1 (REV A).

The flagship MC9090 is a rugged handheld mobile device that incorporates a PDA, computer, scanner and imager in a single unit designed for the rigors of all-day, everyday usage.

The MC9090 has Intel X-Scale Bulverde 624MHz processor, 802.11a/b/g functionality and Bluetooth. It delivers the latest version of the Microsoft WM 6.1 Classic operating system.

Description

General Enhancements

- Microsoft WM6.1 AKU1.1.5 build 19590
- WLAN Fusion version 2.57.0.0.18R
- BTExplorer 1.2.6 Build 24200
- MSPAgent 4.66 AirBEAM 4.66 RDClient 4.66
- iDockIt v 5.02.00.0
- Supports Upgrade from WM5.0 to WM6.1 in a single step.
- Supports Upgrade via AirBEAM from WM5.0 to WM6.1
  Note: For detailed instructions for these upgrade refer to section Installation Instructions
- Supports Upgrade via MSP from WM 5.0 to WM 6.1
  - Restore network connectivity across upgrades
  - Restore critical data across upgrades
- Added Secure Boot Loader support.
- Added NPCS support for Wi-Fi
- Supports Downgrade from WM 6.1 to WM 5.0 using earlier released ULDR packages(Application partition will be formatted on downgrade)
- Three major changes have been made in Windows Mobile 6.1 to improve Virtual Memory (VM) performance
  - Two new VM slots for handling DLL code.
  - Device stacks have been moved to a new slot.
  - OEMDRIVERSHIGH package implemented.

General Issues Resolved

- SPR 15113 - Fixed: Customer's application is writing data from application to SQL DB on SD card. When device suspend and resume, they see transaction.
- SPR 13713 - Fixed: USB host mode after suspend can't recognize any USB accessory.
- SPR 14843 - Fixed: When device is clean booted and sits at windows mobile splash screen before screen calibration, the flash is continuously written.
- SPR 15035 - Support for VT5250 Emulation Keyboard in MC909X

Issues fixed in Scanner

- SPR 15542 - Fixed: If we won't call deinit, it leads to memory leak in device.exe.
- SPR14976 - Fixed: updated with new PixDLL to improve the scanning performance.(Current performance is approx 8 scans per second)
- SPR 14729 - Fixed: Not able to decode Inverse Data Matrix barcodes.
- SPR 14991 - Added support for QR_INVERSE Decoder Params.
- "korean3of5_params.bRedundancy" changed to korean_3of5_params.bRedundancy".
- ENABLE_978_SUPPLEMENTALS barcode support added.
- Fix for Illumination Allowed and Bookland EAN fix.
- ISBT128 Concatenation feature. (Will not work in Auto mode)
- RSS no decode issue fixed.
- Codabar decode issue due to invalid decode status result fixed.
- Bookland EAN issue fixed.
- Fixed the enumeration for ISBT128 Concat mode.
- Supports ISBT128 concatenation feature as well as check ISBT table for common pairs.
- Over Night Scanning Fails: Issue Fixed.

Enhancements in WLAN - Fusion 2.57.0.0.18R

- Support added for CCX v3 including CCKM for all Photon based devices.
- Support added for WM 6.1 including Microsoft NPCS policies
- EAP FAST enhanced to allow manual, file based, PAC provisioning.
- WPA2 enhanced to allow a mixed mode of AES and TKIP encryption options
- Fusion API updated to support all new features including file based PAC provisioning

Issues fixed in WLAN

- SPR 15921 - Added country code support for Tunisia
- SPR 15555 - Security breach in PAC Store
- SPR 15389 - Device occasionally failed to re-auth after suspend resume
- SPR 15366 - Registry handle leak found in Fusion 2.55.1
- SPR 15262 - Added support VGA displays (MC9090 with VGA)
- SPR 15277 - Allow importing PFX file that is not password protected
- SPR 15188 - Fixed Fusion API to return correct version information
- SPR 15204 - Allow viewing MAC address on IPv4 page after a boot-up without first associating to an AP
- Fix for Illumination Allowed and Bookland EAN fix.
- SPR 14824 - Device.exe Exception in certain situations where WPA2-Enterprise is used in conjunction with more than 16 APs

Enhancements in Bluetooth - BTExplorer 1.2.6 Build 24200

- SYNC persistent change log.
- BTSnoop format HCI log readable by FTE Capture File Viewer.
- The BTExplorer Provisioning API has been extended with several new features. These new functions are documented in the BTExplorer Provisioning API document. The following is a breakdown of the new features.
    - Command to set the PIN for the local device. The Provisioning API will overwrite any PIN previously stored in BTExplorer and will return to the calling application the overwritten PIN. The new PIN will be used for all incoming connections to local services requiring authentication. This command can be used to clear the PIN used for incoming connections by setting the PIN length to 0.
    - By default, if no PIN has been assigned for incoming connections either in BTExplorer or through the Provisioning API, a pairing dialog will be presented to the user. When a PIN for incoming connections is has been assigned, no dialog will be displayed. A registry value has been added to [HKLM/Software/Stonestreet One/BTExplorer/User Interface] called

SuppressPINDialog to prevent the PIN dialog from being displayed. In the case where the PIN dialog is suppressed and no PIN has been assigned for incoming connections, the connection will fail.
- o Command to set the PIN for all outgoing connections to services on remote devices that require authentication. There is no corresponding PIN dialog in BTExplorer. If an outgoing PIN has been assigned through the Provisioning API, the PIN dialog will not be displayed for outgoing connections. Instead, the outgoing PIN will be used for the connection. The developer may use the registry value [HKLM/Software/Stonestreet One/BTExplorer/User Interface] HideSPPOpen to suppress error messages and progress dialogs on outgoing connections. This function can be used to clear the PIN for outgoing connections by setting the PIN length to 0.
- o A method to return information about the local device. This information includes the friendly name, the Bluetooth board address (BD ADDR), and the class of device.

- The BTExplorer Provisioning API has been further expanded for the HID profile. The new functions and structures have been added to the BTExplorer Provisioning API document. The following is a breakdown of the new functionality
  - o A method to discover remote devices that support the HID profile. This is an extension to the current methods that
    discover devices supporting RFCOMM.
  - o A method to search for services on a remote device supporting the HID profile.
  - o A function to add a remote device that supports the HID profile as a Favorite in BTExplorer.
  - o A function to delete the HID device from the list of Favorites.
  - o Commands to connect to and disconnect from the remote Favorite

Issues fixed in Bluetooth

- SPR 13744 - Fixed: Application will freeze, if the main thread priority is set higher than normal, and SSO BT stack is initialized using BSC_INITIAZE.
- SPR 15507 - Fixed: StackBTC PIN authentication bug
- SPR 15565 - Fixed: BTExplorer provisioning API BTPDeleteConnection() does not entirely remove BT favorites.
- SPR 15508 - Fixed: device fails to print after change of Operation Mode from Wizard to Explorer or Vice Vera.
- SPR 15172 - Fixed: device will not enable bluetooth radio and establish connection to favorite when writing to com port.
- SPR 15410 - Fixed: when using HideSPPOpen set to true, an application attempting to open up a Bluetooth COM port will loose focus
- SPR 15464 - Fixed: long printout truncation with Zebra printer
- Addressed an issue with the interaction between BT Explorer's Favorites page and the Provisioning API call to BTPDeleteConnection. Although the connection and accompanying favorite was deleted from BT Explorer per the API call, there were instances where an errant, 'ghost', icon of the favorite remained in the Favorites window.
- Fixed the issue where a problem was identified in the SPP driver where the mapping of RTS/CTS and DTR/DSR were not correct.
- Removed logic that displays a cancel confirmation dialog when the user cancels the settings dialog. The previous logic only displayed the latter dialog if the user added or deleted a service. Now, the settings dialog silently cancels either of these operations when the user chooses to cancel the dialog. This behavior is consistent with other settings tabs.

Enhancements in MSP 3.0 Client Version 4.66

- Updated Fusion plug-in that supports automatically powering on WLAN in RD.
- Added logic to close RD and MSP Agent applications when a ctl-Q or VK_ESCAPE is sent to the application.
- Updated Fusion plug-in to support new Fusion protocols
- Added fix for issue where task bar was cleared after RD and after reboot

- Added fix for issue when AB client configuration UI used to enter maximum characters for Package1 through Package8
- Added change to allow close button (X) to redisplay after RD client is closed
- SPR 15363 - Added fix to handle BATCH command file lines that are not terminated by CR/LF
- Added fix for staging log not being uploaded in staging profile forces two or more reboots.
- Added fix for -1012 error which is caused if bundle file not ready when job delivered. Logic was added to automatically retry when this situation occurs.
- Added fix for issue when more than two jobs are queued for a device. The client-side logic that got the list of jobs didn't handle more than two jobs correctly.
- Added fix for -858 error when client was downloading from some FTP servers. The -858 error was caused by issue with client's implementation of the FTP restart command.
- Added change to increase the size of the FTP receive buffer. This change helps eliminate -813 errors when downloading directly to slower FLASH from some FTP servers.
- Added fix for Kerberos support in legacy WLAN setting plug-in (NwProfile.dll).
- Added support for relay server setting Private IP Address where the IP address has a leading decimal. This IP address specifies a partial IP address. The device's actual IP address is used to fill in the remaining octets. This feature has historically been supported in AirBEAM, but until now was not supported in MSP RD or MSP agent.
- Added RDLeapUtil.exe to resolve issue where LEAP was not working.
- Added fix for issue where 30agent would not automatically start after reboot in WM6 devices in "Flight Mode"

Important Note

- To make serial ActiveSync work the following Registry Settings on the PC has to be changed. 'SerialBaudRate' has to match the ActiveSync serial baud rate on the device (For example if the device has the baud rate set to 115200 then set as follows on the PC).
  [HKEY_CURRENT_USER\Software\Microsoft\Windows CE Services]
  SerialBaudRate (DWORD) : 0x0001c200 (115200)
- To update the terminal with OS partition and application partition together, please copy the images to 'Storage card' and then update. The '\Temp' folder on the flash does not have enough space to copy both (OS and application) images together
- After we enable file encryption via Setttings/Encryption, files on Application partition get encrypted. After a clean boot, the files on Application partition stay, but user can not access them (encryption key on Persistent Store was deleted).
- To use FTP over WLAN while using Internet Explorer for files of sizes greater than 4MB.
  Either modify the below mentioned temporary storage location to "Storage Card"
  [HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders]
      "Cache"="\\Cache Disk\\Profiles\\guest\\Temporary Internet Files"
                              OR
      Increase the value in [HKEY_LOCAL_MACHINE\drivers\builtin\ramdisk] - 'size' to allow downloads accordingly.
      The default value of Cache disk is 4MB.

Contents

- 9090w61LctSP010900.zip

- 9090w61LctUP010900.zip

- 9090w61LdeMP010900.zip

- 9090w61LdeSP010900.zip

- 9090w61LdeUP010900.zip

- 9090w61LfrMP010900.zip

- 9090w61LfrSP010900.zip

- 9090w61LfrUP010900.zip

- 9090w61LitMP010900.zip

- 9090w61LitSP010900.zip

- 9090w61LitUP010900.zip

- 9090w61LjpMP010900.zip

- 9090w61LjpSP010900.zip

- 9090w61LjpUP010900.zip

- 9090w61LkoMP010900.zip

- 9090w61LkoSP010900.zip

- 9090w61LkoUP010900.zip

- 9090w61LsiMP010900.zip

- 9090w61LsiSP010900.zip

- 9090w61LsiUP010900.zip

- SSTFWUpdate051608v1.5.cab

- UpgradingMC909Xv1.0.doc

Device Compatibility

This software release has been approved for use with the following Symbol devices.

Device	Operating System
MC9090	Windows Mobile 5.0 Premium
MC9090	Windows Mobile 6.1 Classic

Installation Requirements

This software requires latest NAND Flash FW v1.5 (SSTFWUpdate051608v1.5.cab). Devices should be updated to the latest NAND Flash FW prior to updating this software.

Installation Instructions

Please refer the document *"UpgradingMC909Xv1.0.doc"*.

Note:

- Please refer the document *"UldrSettingsReadMe.doc"* which is in the ZIP File(*9090w61XenUP010900.zip*) to Configure RAMDisk and PagePool settings on a cleanboot using uldrsettings.cfg

Part Number and Release Date

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