How to configure handheld devices to keep configuration after a cold boot

Overview

Handheld devices have different rebooting options based on their operating system:

Windows CE

- warm boot:
  - clears program memory
  - keeps storage memory
- cold boot:
  - clears both program and storage memory
  - keeps flash memory and memory card
  - returns formats, preferences and other settings to factory default

Windows Embedded Handheld

- warm boot:
  - clears program memory
  - keeps storage memory
- cold boot:
  - clears program and storage memory
  - keeps persistent memory
  - on Motorola devices resets the Real-Time-Clock
- clean boot:
  - clears program, storage and persistent memory
  - keeps flash memory and memory card
  - returns formats, preferences and other settings to factory default

On devices that have Windows CE as an operating system, it is advised to install and configure Produmex applications in a way that they will resist after a cold boot. The installation and configuration method is device-dependent.

1. Motorola/Symbol device

On Motorola devices, all memory is volatile except the /APPLICATION and /PLATFORM folders (flash memory). The /APPLICATION folder is used to store application programs.

1.1. Produmex WMS

To keep the configurations after a cold boot, store the following files in the /APPLICATION folder:

- RDP file: Setup the remove desktop connection as described in: Remote desktop connection.

Make sure that you save it in in the \APPLICATION folder.
- .reg file: The registration file that contains specific registry settings. See: *Details of the .reg file*
- Default.xml file: This file is for the scanner setup. It contains scanner settings such as DataWedge setup and intercharacter delay setting
- TSC.CPY: This file contains the commands to copy the .rdp and the default.xml file after a cold boot. See: *Details of the .cpy file*

Download the example files from the FTP. \\In order to keep the Wi-Fi settings, configure it as described in Setup the Wi-Fi connection, then export it to the /APPLICATIONS folder. This way it also will be automatically reimported after a cold boot.

Details of the .reg file
After a cold boot the Motorola system will check for .reg files in the /APPLICATION folder and will place these files back automatically. See the example file here: Power-Desk-Vol-RDP.reg

To restore the power usage setup insert the following to the .reg file:

```
REGEDIT4

[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Power\Timeouts]
"BattSuspendTimeout"=dword:00000000
"ACSuspendTimeout"=dword:00000000
"ACResumingSuspendTimeout"=dword:0000000F
"BattResumingSuspendTimeout"=dword:0000000F
"ChangeEvent"="PowerManager/ReloadActivityTimeouts"
"ACUserIdle"=dword:00000000
"BattUserIdle"=dword:00000000
"BatteryPoll"=dword:000007D0
```

Optional settings:
1. Background image
To restore the background picture insert the following:

```
[HKEY_CURRENT_USER\ControlPanel\Desktop]
"Wallpaper"="\\APPLICATION\\DestopPicture.PNG"
"tile"=dword:00000000
```

Adjust the image name (in the example: *DestopPicture.PNG*). Supported formats: PNG or JPG.

2. Mute touch sound
To mute the sound on touch insert the following:

```
[HKEY_CURRENT_USER\ControlPanel\Volume]
"Screen"=dword:00010000
"Key"=dword:00010000
"Mute"=dword:00000007
"Volume"=dword:99999999
```

This setting will mute only the sound when touching the scanner. All other sounds (eg. when scanning, or in the case of an error) will still work.

3. Set default RDF user
To set the default RDP user for the device insert the following:

```
[HKEY_CURRENT_USER\Software\Microsoft\Terminal Server Client\UsernameHint]
"RDP SERVER IP"="DOMAIN\\WINDOWS_USER"
```

Adjust the domain name (in the example: *DOMAIN*) and the user name (in the example: *WINDOWS_USER*) according to your specifics.

Details of the .CPY file
On a cold boot the system will look for .cpy files in the /APPLICATION folder then initiate them. The .cpy files will copy files from a non-volatile source to a destination. See the example files: TSC.CPY, TSC.CPY.1

In the .cpy file the source file and path and the destination file and path will be separated by '>'.

- To place the RDP file on the desktop for easy access add:

```
\Application\PDMX.rdp > \Windows\Desktop\PDMX.rdp
```

- To places the scanner settings in the correct location add:

```
\Application\Default.xml > \Windows\DataWedge\Config\Profiles\Default.xml
```

1.2. Produmex Scan

To keep the configurations after a cold boot, create an install folder in the non- volatile /APPLICATION folder. The install folder should contain the following files:

- the application loader that can be found in the /WINDOWS folder on the device
  - on OEM devices, the file name is: wceldcmd.exe
  - on non-OEM devices, the file name is: wceload.exe
- .cab file (For example the Produmex Scan install cab file)

The /APPLICATION folder also should contain:

- .reg file (for the application loader)
- .reg file (for the configurations)

Details of the .reg file – for the application loader
The .reg file runs the .cab file(s) on cold boot only.

```
[HKEY_CURRENT_USER]
"Name"="\Application\ INSTALL FOLDER NAME \wceldcmd.exe"
"Command"="/delete 0 \Application\INSTALL FOLDER NAME\EXAMPLE.cab"
"Continue"=dword:1
"ColdBootOnly"=dword:1
```

- /delete 0: this parameter determines that the .cab file will not be deleted after the installation
- ColdBootOnly: this parameter determines that no changes will be made in the case of a warm boot

Adjust the .cab file name and path in the 'Command' parameter.

Details of the .reg file – for the configurations
After installing and configuring the applications, export the registry. From the Registry menu choose the ‘Export Registry File’ option. Save the file to the /APPLICATION folder.
The following values store the configurations for Produmex Scan:

Example:

```
[HKEY_CURRENT_USER]
"Database"="DATABASE NAME"
"ServerUrl"="SERVER_URL”
"Language"="English"
"NoBuiltInButtons"="N"
"TesterMode"="N"
"DemoMode"="N"
"CustomizationAssits"="N"
"WinLayout"="Normal"
"HID"="HID"
"RegPersisted"=dword:00000001
```

2. M3 Mobile

On M3 Mobile Devices use the MS-Backup function to restore configurations and registries after a cold boot. In order to use the MS-Backup you must have copy of the flash disk files provided with the OS.

2.1. Preparation

Open the power properties and set the configurations as below to prevent the device going to sleep mode:

MS-Backup Usage:
Launch MS-Backup by either

- My Device > Flash Disk > xPIMS > MS-Backup.exe
- Start > Programs > Utility > MS-Backup

From MS-Backup, select whether you want to backup all data or personal information management (PIMS) data. Then select the ‘Name’ and the ‘Location’ and press ‘Backup Start’ to back up the data. To restore the data, go to the 'Restore' tab and select appropriate data then press 'Restore Start'.

2.2 Auto Restore After Cold Boot

Automatically restoring data after cold boot requires a little configuration in M3.ini. In addition, backup data must be saved as 'ExBackup' as shown in the above figures.

Set folder options to view hidden files: Open ‘Folder Options’ by My Device > View > Option and uncheck all options.



Open M3.ini file with Microsoft WordPad. Launch WordPad and open the M3.ini from \Flash Disk\StartUp.



From the M3.ini file, set the ‘Install’ and ‘Reset’ value of [RESTORE] to '1' as shown in the following figure.

```
[KEYPAD_LED]
Install=0

//Automatic restore after Hardware reset with a help of MS-Backup.exe.
//ExeFile: Program Path
//Reset: 0-> reset after restore, 1-> no reset after restore
//Type: 0-> restore all data, 1-> restore only PIMS data
[RESTORE]
Install=1
ExeFile=\FlashDisk\xPIMS\MS-Backup.exe
Type=0
Reset=1
```

After cold boot, the device will automatically restore the backup data (ExBackup) and perform a warm boot after a successful restoration.

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