WinPAC – 8000 Version 1.2.1.0 Release Note

Brief Description

This upgrade added SQL CE 3.5 and recovered .NET CF 2.0 for OS.

Fixed some bugs for SDK.

Support new method for update OS and SDK.

On this document:

Why choose SQL CE 3.5 and .NET CF 2.0

What's new for SQL CE 3.5

To provide a rich development environment, Microsoft SQL Server Compact 3.5 has various new features.

- SQL Server Compact 3.5 has a new set of MSI files:
- SQL Server Compact 3.5 implements the **timestamp (rowversion)** data type.
- SQL Server Compact 3.5 supports local transaction scope on desktop computers.
- SQL Server Compact 3.5 Table Designer in Visual Studio 2008 has been enhanced to provide a user interface for creating primary key and foreign key relationships between tables.
- SQL Server Compact 3.5 support for transact-SQL statements has been extended as follows:
    - Nested query in **SELECT FROM** clause
    - **CROSS APPLY** and **OUTER APPLY**
    - **CAST**
    - **TOP**
    - **SET IDENTITY INSERT**
- SQL Server Compact 3.5 supports Unicode characters of any locale, including Chinese GB 18030 characters.
- SQL Server Compact 3.5 supports data replication with SQL Server 2008 by using Microsoft Synchronization Services for ADO.NET. Synchronization Services is available for desktop computers only.
- SQL Server Compact 3.5 can be used for developing SQL Server Compact 3.5 desktop applications by using Visual C# 2008 Express Editions and Visual Basic 2008 Express Edition.
- SQL Server Compact 3.5 can be supported side-by-side with the previous version (3.1) on desktop computers.
- To support older operating systems, with older encryption algorithms, and newer, more secure encryption, SQL Server Compact 3.5 supports backward-compatible encryption modes.

    For more information:
    http://www.microsoft.com/sql/editions/compact/default.mspx

What's New in the .NET Compact Framework Version 3.5

- LINQ
- SoundPlayer
- Compression

- ……

Compare the new features from SQL CE 2.0 to 3.5 and .NET CF 2.0 to 3.5. The new features of SQL CE 3.5 are more important for our applications. In additions, we tested all combinations about different .NET CF and SQL CE versions. We obtained the best situation is SQL CE 3.5 with .NET CF 2.0.

For more details about the test as show as follow:

Cooperate .NET CF and SQL CE

SQL CE	.NET CF	Create table	Insert Primary	Max Primary Key	Appendix
3.5	2.0	OK	OK	600000	The maximum depends on the memory size
3.5	3.5	OK	OK	NG	Error occurs after inserted 1900 primary keys
3.5	2.0 & 3.5	OK	OK	NG	Error occurs after inserted 1900 primary keys

According to the above table, SQL CE 3.5 and .NET CF 2.0 is the best combination for using database.

Overview

By component:

OS image:

- Added SQL CE 3.5 and recovered .NET CF from 3.5 to 2.0.
- Support HP Laser Jet Printer using Network and USB
- Support new update method: update from file. The new method not only update OS image but update boot loader at the same time.

WinPacSDK:

- Added the protection for accessing EEPROM and SRAM.
- Added pac_DoEvenst
- Added MUTEX operation to protect accessing EEPROM
- Added pac_GetBatteryLevel for retrieving battery status
- Remove 701X API

  (All IO modules' API will be isolated, WinPacSDK only focus on kernel and normal API)
- Fixed pac_InterruptDone can't work
- Fixed the invalid input errors: pac_GetModuleType, pac_GetModuleName, pac_GetMacAddress, and pac_GetComMapping.
- Fixed he monitor display turns black error when call pac_ChangeSlot several times.

WinPacNet:

- Added pac_GetBatteryLevel for retrieving battery status
- Removed subclass

  Take the pac_GetOSVersion for instance,

  Original WinPacNet:

  [C#]

  string OS;

  OS = WinPAC.System.SystemInformation.pac_GetOSVersion();

  New WinPacNet:

  [C#]

  string OS;

  OS = WinPAC.pac_GetOSVersion();

WinConSDK:

- Fixed the interrupt bugs

  (this will ensure the interrupt module work correctly such as 8048, 8094)

- Fixed the EnableWDT and DisableWDT cannot work

WinPac_Utility:

- Added registry operations. How to use it as show as follow:

Configuration menu

- **Import Registry Key**

  This action is used to back up a subkey of registry by using a registration entries (.reg) file.

  How to use:

  Step 1: Select the "Import Registry Key", then the "Open" dialog box will appear.

  Step 2: On the "Open" dialog box, select a specific .reg file to import.

  Warning:

  1. The .reg files which should be saved by "Export Registry Key"

  2. It will not save automatically after import a .reg file.

- **Export Registry Key**

  This action is used to make a back up of a registry subkey

  How to use:

  Step 1: Select the "Export Registry Key", then the "Export Registry" box will appear

  Step 2: Select a specific root key.

  Step 3: Input a specific path of subkey.

  Step 4: Push the "OK" button, then the "Save As" dialog box will appear prompting you to select a location where you want to save this exported file.

  Warning:

  The export operation will export all the subkeys of the specific key which you input.

- **Store All Registry Setting**

  Stores all registry setting to flash from .das file which is saved by "Dump All Registry Setting".

  How to use:

  Step 1: Select the "Store All Registry Setting" , then the "Open" dialog box will appear.

  Step 2: On the "Open" dialog box, select a specific .das file to store.

Warning:

1. The .das file which should be saved by "Dump All Registry Setting"

2. It will save automatically after store .das file.

- **Dump All Registry Setting**

Dump all registries setting to .das file.

How to use:

Select the "Dump All Registry Setting", then the "Save As" dialog box will appear prompting you to select a location where you want to save this exported file.

How to update

For this updating, you can use the original way, update OS by eshell or copy the .dll files manually. But, this time we support more convenient method as show as follow.

OS and Eboot:

Warning:

Please never turn off the device during updating. Besides, we recommend you turn off all other applications before updating.
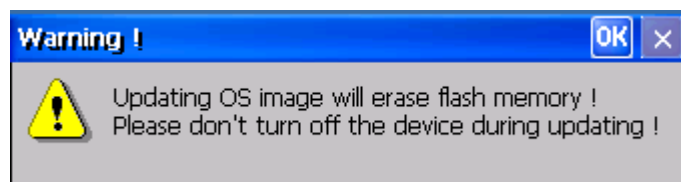The OS update will reset your registry setting to default setting.

Step 1:

Download the update file from FTP to your device. You could copy the file to Micro_SD, USB_Disk, or SRAM. If you want to download to SRAM, please ensure your SRAM size is large enough.
You could change your SRAM setting by WinPac_Utility.

Step 2:

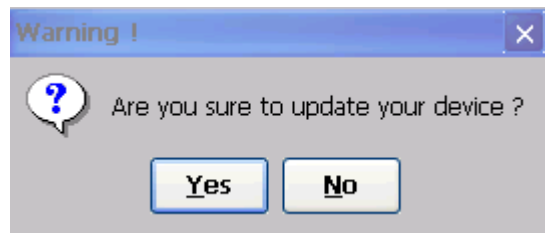Execute the update file, and then it will show a warning dialog.

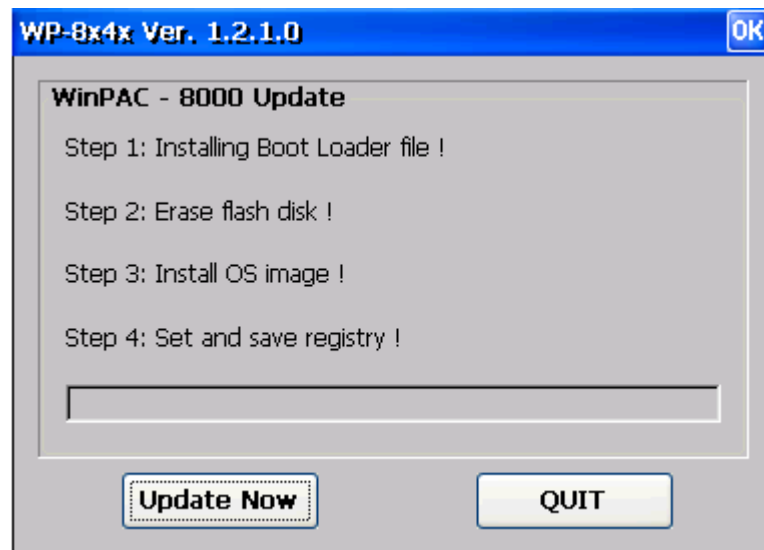Touch the OK button, and the main dialog will appear.

Step 3:

After touched the "Update Now" button, it will show a dialog to ensure you want to update.
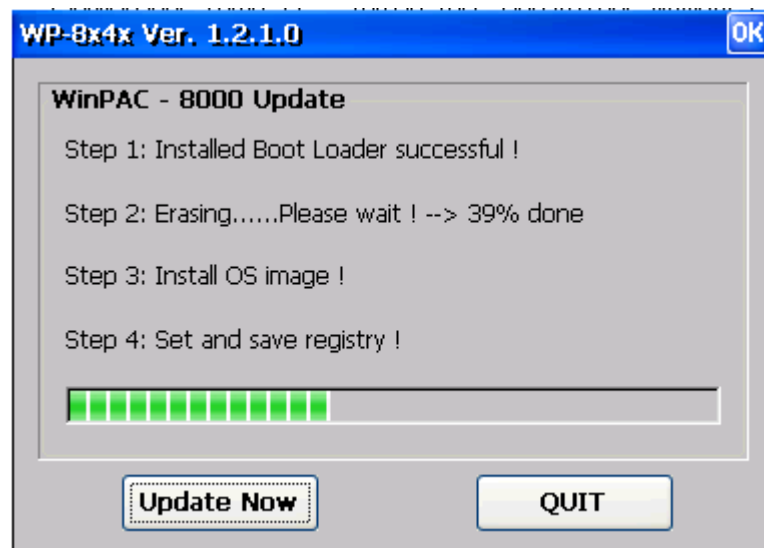

Then the update will begin as show as follow:

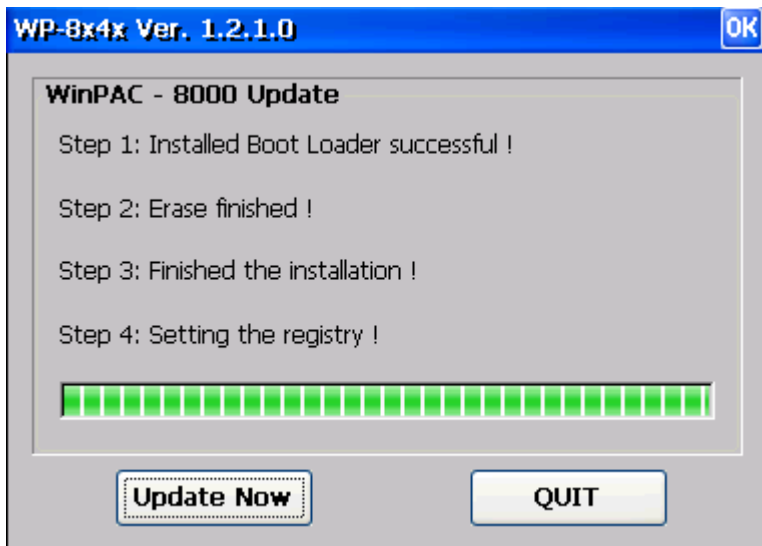Install Boot Loader file.

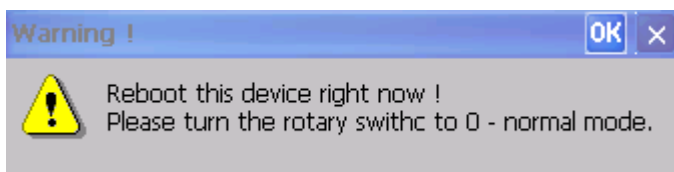Erase flash memory.

Install OS image.

Set Registry setting to default.

Step 4:

Finally, updating has finished. Then turn the rotary switch to 0, normal mode. Touch the OK button,

the device will reboot.

After rebooted, the update has been finished.

Header files and library files for desktop:

[wp8000_update_for_desktop(wp20080917)]

[Warning]

After executed the .msi program, it will show a dialog ask you where do you want to install. We recommend you use the default setting, if you want to change the location, you should check your evc link path match up you setting.

[Brief Description]

This update includes following files:

    –WinpacSDK.lib: 1.0.7.4

    –WinconSDK.lib: 2.2.0.8

The two files will be copied to

c:\Program Files\Windows CE Tools\wce500\PAC270\Lib\ARMV4I\

    –WinpacSDK.h: 1.0.7.4

    –PACERROR.h: 1.0.7.4

    –WinconSDK.h: 2.2.0.8

The three files will be copied to

c:\Program Files\Windows CE Tools\wce500\PAC270\Include\Armv4i\

Applications and .dll files for device:

[wp8000_update_for_device(wp20080917)]

[Warning]

After executed the .cab program, it will show a dialog ask you where do you want to install. Please don't care about that. No matter where you choose, it will install at correct location. Besides, the .cab will delete by itself after installed. Please back it up or download from FTP if you will use the .cab file again.

[Brief Description]

This update includes following files:

    - isqlw35.exe

    The file will be copied to

System_Disk\Tools\ISQLW35

- WinPAC_Utility.exe   2.0.0.3
- WINPAC_Utility.dll
- WinPacNet.dll
- WinpacSDK.dll
- ReleaseNote.htm

The five files will be copied to

System_Disk\Tools\WinPAC_Utility

- AutoLoader.exe
- DCONCE.dll   1.0.5.0
- I7000CE.dll   5.1.7.0
- MFCCE400.dll   6.0.712.0
- mfcce400d.dll   6.0.712.0
- OLECE400.dll   6.0.712.0
- olece400d.dll   6.0.712.0
- UARTCE.dll   2.14.0.0
- WinconSDK.dll   2.2.0.8
- WinpacSDK.dll   1.0.7.4

These files will be copied to

System_Disk\ICPDAS\System