IPAD WinCE
User Guide

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MAGTEK ®

REVISIONS

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1.01	17 Jun 2011	Initial Release

Table of Contents

WinCE Demo

I. Install WinCE Demo on the target Windows CE platform

    a. Copy **windrvr6.dll** and add WinDriver to the list of device drivers Windows CE loads on boot as it is mentioned in section 2.3 (Installing WinDriver CE when Developing Applications for Windows CE) on page 2 and page 3 if this step has not been done. Otherwise, proceed to the next step.

    b. For Windows CE 6.0 - x86 target:

        i. unzip Setup_x86.zip

        ii. Copy all files to your target Windows CE platform.

        iii. Double click on "IPADCEDemoX86Setup.CAB" and follow instructions on the screen to install the IPADCE_Demo application on a FLASH DISK drive of your target Windows CE platform

    c. For Windows CE 6.0 – ARMV4I target:

        i. unzip Setup_ARMV4I.zip

        ii. Copy all files to your target Windows CE platform.

        iii. Double click on IPADCEDemoARMV4ISetup.CAB and follow instructions on the screen to install the IPADCE_Demo application on a FLASH DISK drive of your target Windows CE platform

II. Run Demo Application

The demo program shows a few basic IPAD WinCE library functions. Console is used for showing the debug information. The following steps are used for request card swiping:

1. Connect the IPAD to the windows CE device;
2. Run IPADCE_Demo.exe;
3. From "Test" menu choosing "Connect IPAD", IPAD information will be printed on the console;
4. From "Test" menu choosing "Swipe Card", request card swipe command will be sent to the device and device will prompt "Swipe Card" on the IPAD LCD;
5. Swipe card using IPAD, if card swipe is successful, then the card information will be sent back and printed on the console;
6. If step 5 is successful, the IPAD will prompt for PIN entry. After PIN is entered, the encrypted PIN block data and KSN will be sent back to the host and printed on the console;
7. If step 6 is successful, then "Thank You" will be shown on the IPAD LCD for a few second.

For other functions usage and description, please see 99875438-5.02.pdf.

Windows CE

Followings briefly describe the requirements and installation of WinDriver, which are excerpted from Jungo WinDriver's manual (see below 4.1 to 4.2).

2.2. Windows CE System Requirements for WinDriver

An x86/ ARM Windows CE 4.x – 5.x (Windows CE.NET) or Windows Embedded CE v6.00 target platform

Windows 7/Vista/Server 2008/Server 2003/XP/2000 host development platform

For **Windows CE 4.x – 5.0**: Microsoft eMbedded Visual C++ with a corresponding target
   SDK, **OR** Microsoft Platform Builder with a corresponding BSP (Board Support Package) for the target
   platform
   For **Windows Embedded CE 6.0**: Microsoft Visual Studio 2005/2008 with a corresponding
   target SDK or with the Windows CE 6.0 plugin.

2.3. Installing WinDriver CE when Developing Applications for Windows CE Computers

The following instructions apply to driver developers who do not build the Windows CE kernel, but only download their drivers, built using MS eMbedded Visual C++ (Windows CE 4.x – 5.x) or MS Visual Studio 2005/2008 (Windows Mobile or Windows CE 6.x) to a ready-made Windows CE platform:

1. Copy WinDriver's kernel module – **windrvr6.dll** on the Windows host development PC to the
   Windows directory or **other folder** on your target Windows CE platform.

2. Add WinDriver to the list of device drivers Windows CE loads on boot:

   Modify the registry according to followings:

```
[HKEY_LOCAL_MACHINE\Drivers\BuiltIn\WinDriver]
   "Prefix"="WDR"
   "Dll"="windrvr6.dll"  (add path if not in \Windows)
   "Order"=dword:9
   "Index"=dword:1

[HKEY_LOCAL_MACHINE\DRIVERS\USB\LoadClients\<ID>\Default\Default\WDR]

   "DLL"="windrvr6.dll" (add path if not in \Windows)
```

   <ID> consists of your vendor ID and product ID, separated by an underscore character:

   For IPAD <ID> = 2049_12292 (decimal value of VID (0x0801) and PID (0x3004)

This can be done using the Windows CE Pocket Registry Editor on the hand-held CE computer or by using the Remote CE Registry Editor Tool supplied with MS eMbedded Visual C++ (Windows CE 4.x – 5.x) / MS Visual Studio 2005/2008 (Windows Mobile or Windows CE 6.x). Note that in order to use the Remote CE Registry Editor tool you will need to have Windows CE Services installed on your Windows host platform.

On Windows Mobile the operating system's security scheme prevents the loading of unsigned drivers at boot time, therefore the WinDriver kernel module has to be reloaded after boot. To load WinDriver on the target Windows Mobile platform every time the OS is started, copy the **wdreg.exe** utility to the **Windows\StartUp** directory on the target PC.

3. Restart your target CE computer. The WinDriver CE kernel will automatically load. You will have to do a warm reset rather than just suspend/resume (use the reset or power button on your target CE computer).