WINCOR NIXDORF

Retail Division - Technical Information

BEETLE Systems

Hardware Driver

for

WN PCI COM / WN PCI LPT

Multi I/O cards>

Version 1.0 (2011/02/02)

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1.0 Summery / Overview

Device Family	BEETLE / Extension cards / Multi I/O
Category	Hardware Driver
Software Revision	7.2.0.0 (07/07/2011)
Type of Software	Hardware Driver
Scope of Application	Service and Customer IT

2.0 Introduction

The information given in this document is based on hardware, BIOS and software used during WN internal test and may change with new releases of BIOS and drivers.

This description is intended only for skilled personnel. Accordingly, pre-requisite to using this description is the adequate technical expertise in software and hardware configuration in the POS field.

3.0 Contents of DOWNLOAD.ZIP

SETUP.EXE	Installation procedure
README.PDF	This information

4.0 General Remarks

4.1 Features / improvements / highlights

- Made for and tested with:
  WN PCI COM (4 ports); WN PCI COM (8 ports); WN PCI LPT
  It runs with older (EOL) based on SUNIX 4056WN, 4066WN, 4008A
  and new cards 5056WN, 5066WN, 5008A
- WN mainboards: F2std/ulv; G1imp; H1std; G41std
- Supported (and tested) operating system platforms (WN pre installed recommended):
  Windows 7 x86; Windows XP (SP3) x86; Windows Server 2003 x86;
  Windows Embedded POSReady 2009; Windows Embedded for Point of Service Version 1.0
- This driver package replaces all previous versions and can auto uninstall below drivers:
  V6.0.0.0; V6.001.0.0 (32bit); V6.4.2.1; V7.0.0.0; V7.1.0.0
- It solves the Windows blue screen (BSOD) issue of previous SETUP procedures, we could see in our labs.

4.2 Common problems or restrictions

- If your driver and platform is not in the “auto uninstall” list,
  UNINSTALL OLD DRIVER BEFORE INSTALL NEW ONE!
- After SETUP.EXE is started, it may take a long time until previous driver version is uninstalled. The time depends on already installed driver version and hardware configuration. It may take up to 1 minute!

5.0 Installation / Update Procedure

Run SETUP.EXE …

5.1 Unattended / silent installation

a) Run SETUP.EXE /s …there is a setup.iss file to be found in installation archiv.
b) For silent un-installation a uninst.iss is also present

5.2 Update installation

During installation procedure, you will see Windows notifications from the "Windows Hardware Wizzard".
It found new hardware and asks for driver. Ignore them! They will disapear automatically.

6.0 RS232 / COM ports

There are many types of RS232 ports available for WN POS motherboards:

1. Legacy — 2 x onboard PC standard COM port at UART 16C550
2. COM34 adapter — 2 x onboard PCI device based on ITE 8774F chip
3. PCI COM board — up to 4 x PCI slot card based on SUNIX chip
4. Intel AMT SOL — Serial Over LAN (emulated RS232 port) for H1std

6.1 Windows enumeration of COM ports

Windows has an internal data base for enumerated devices. If you remove such a device, then it is handled as non present and its parameters are stored. If plugged in afterwards, Windows remembers its parameters and restores them.

In case of BEETLE COM ports (onboard ITE based COM3/COM4 and PCI card WN PCI COM based on SUNIX chip) this may confuse the user, because the numbering on BEETLE case or extension card differs from Windows port number.

Here is an example: You plug in WN PCI COM card very first time in 1st PCI slot of motherboard and check RS232 port enumeration. Usually, you will see port COM5:, COM6:, COM7: and COM8:. Remove the card and plug the same one into 2nd PCI slot. Now, you will see COM9: – COM12:. Windows reserves the numbers 5 to 8 for the non present devices, which are already stored in the internal data base.

6.1.1 How to re-arrange COM ports manually?

1. Write the following lines to a new file with **".REG"** extension:

```
Windows Registry Editor Version 5.00
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment]
"DEVMGR_SHOW_NONPRESENT_DEVICES"="1"
```

2. Double click on the file (Windows explorer) and confirm import action.
3. You need to logoff and logon to activate this option
4. Run the Windows device manager and select "view" + "show hidden devices"
   Now, non present devices are shown and you can remove them.
5. Afterwards rescan for new devices. Windows will find new COM ports and will use the previously reserved numbers for enumeration.

6.1.2 How to re-arrange COM ports unattended?

1. Download "**WNdevcon.exe**" from our web site
2. Copy it on your target system to Windows system folder (type "%windir%").
3. For WN PCI COM cards build a batch file like this:

```
c:\WNdevcon remove *SNX*
c:\WNdevcon rescan
```

4. Move the batch into auto start folder and reboot.

→ Using the original devcon.exe from Microsoft® DDK
does not remove the non present devices!

You need to run this script *only once after Windows installation or BIOS update! It is good practise to (automatically) delete the script after first Windows start up. Of course, you can place the executable into any other folder instead of "C:\".*