

1. Product Information:

The AX88772 Controller is a single chip USB 2.0 to Fast Ethernet Controller. This is a AX88772 NDIS driver for WinCE 5.0 embedded system. It was qualified by WinCE 5.0 CETK on a Intel Celeron 466MHz system with a NEC D720100AGM USB 2.0 PCI Host adapter running WinCE 5.0 CEPC X86 Platform Image.

2. Files Descriptions:

The AX88772 WinCE driver package includes the files as described below,

RELEASE.PDF	This file
AX88772.DLL	Driver file
PROJECT.REG	Sample REG file
CETK_LOG\1C_TEST.LOG	CETK One Card Test log file
CETK_LOG\2C_TEST.LOG	CETK Two Card Test log file
CETK_LOG\1C_TEST.TXT	CETK One Card Test readme file
CETK_LOG\2C_TEST.TXT	CETK Two Card Test readme file

3. Revision History:

Revision	Author	Date	Description
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v1.0.0.0	Allan Chou	2005/06/13	1. New release for WinCE 5.0
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4. Driver Installation:

1. Add below AX88772 registry values into the \$(_WINCEROOT)\PUBLIC\CEBASE\OAK\FILES\PROJECT.REG file.

```
; @CESYSGEN IF BSP_NIC_AX88772
;IF BSP_NIC_AX88772
[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_30496\Default\Default\AX88772]
    "DLL"="AX88772.DLL"
    "Prefix"="NDS"

[HKEY_LOCAL_MACHINE\Drivers\USB\ClientDrivers\AX88772]
    "DLL"="AX88772.DLL"
    "Prefix"="NDS"

[HKEY_LOCAL_MACHINE\Comm\AX88772]
    "DisplayName"="ASIX AX88772 USB 2.0 Fast Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88772.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88772\Linkage]
    "Route"=multi_sz:"AX887721"

[HKEY_LOCAL_MACHINE\Comm\AX887721]
    "DisplayName"="ASIX AX88772 USB 2.0 Fast Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88772.dll"

[HKEY_LOCAL_MACHINE\Comm\AX887721\Parms]
    "BusNumber"=dword:0
    "BusType"=dword:1
;    "NetworkAddress"="00-12-34-56-78-9a"    ;Define an override MAC address 00-12-34-56-78-9a

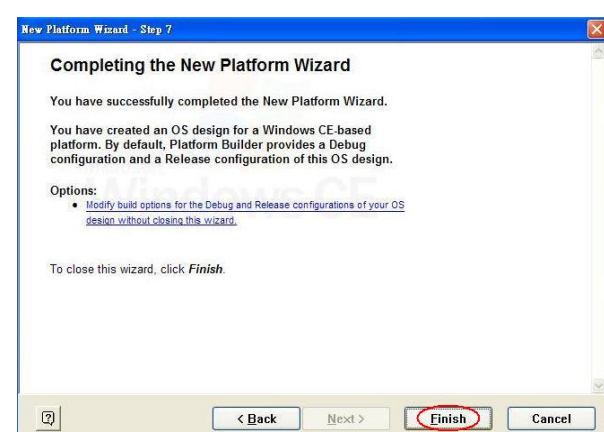
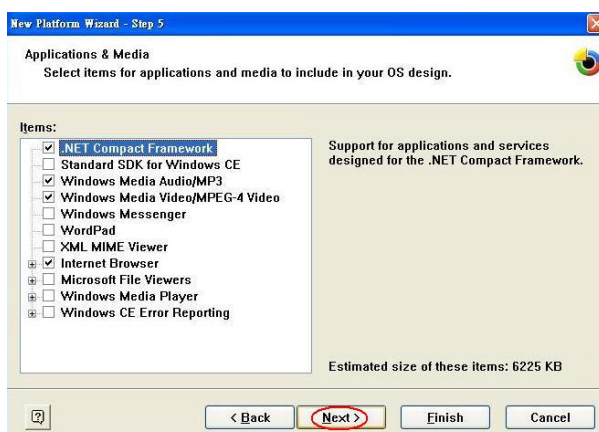
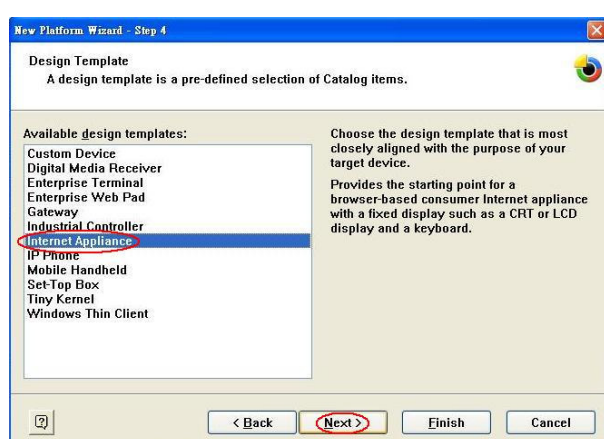
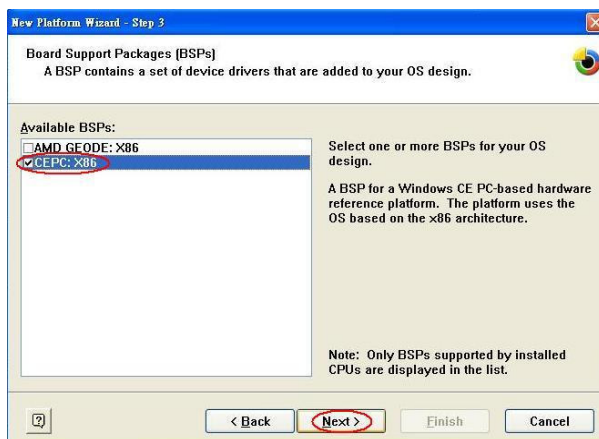
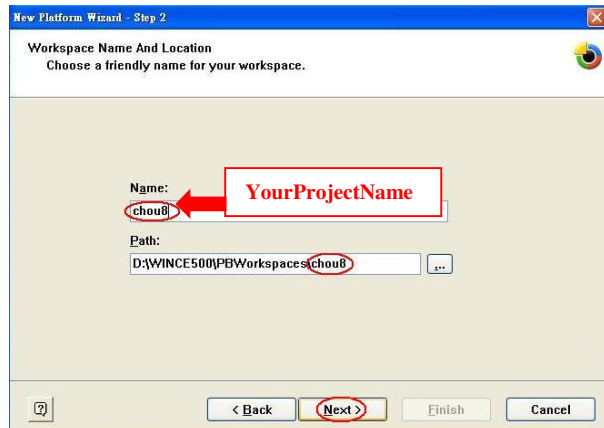
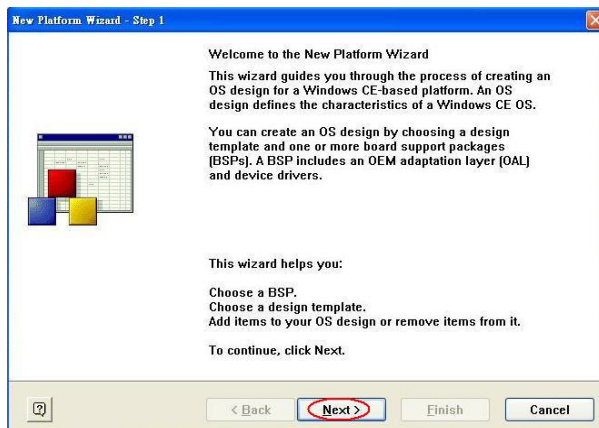
;=====
; AX88772 Driver Parameters:
; "ConnectionType" ==> 0 = "AutoSense"; 2 = "10BaseT Half_Duplex"; 3 = "10BaseT Full_Duplex"
;                      8 = "100BaseTx Half_Duplex"; 9 = "100BaseTx Full_Duplex"
; "FlowControl"      ==> 0 = "Disable"; 1 = "TX PAUSE"; 2 = "RX PAUSE"; 3 = "Enable"
;=====
    "ConnectionType"=dword:0
    "FlowControl"=dword:3

[HKEY_LOCAL_MACHINE\Comm\AX887721\Parms\TcpIp]
;    "EnableDHCP"=dword:0                ;Disable DHCP function
;    "IpAddress"="xxx.xxx.xxx.aaa"        ;Define your IP address (xxx.xxx.xxx.aaa)
;    "Subnetmask"="255.255.255.0"         ;Define Submask IP address
;    "DefaultGateway"="xxx.xxx.xxx.bbb"   ;Define Gateway IP address
;    "DNS"="xxx.xxx.xxx.ccc"              ;Define DNS server IP address

    "AutoCfg"=dword:1
    "EnableDHCP"=dword:1                ;Enable DHCP function
    "UseZeroBroadcast"=dword:0          ;Use zero for broadcast address?

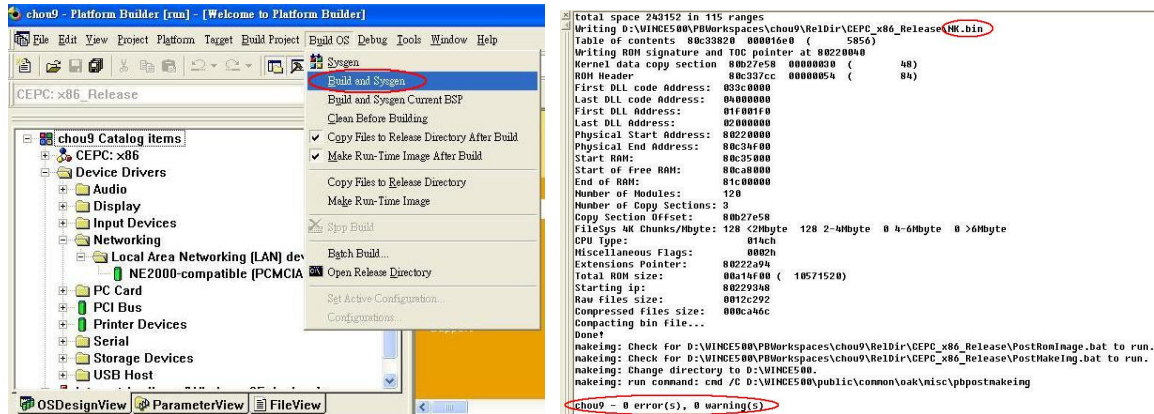
;ENDIF BSP_NIC_AX88772
; @CESYSGEN ENDIF BSP_NIC_AX88772
```

2. Install new platform for your project



Note: Please check if the PROJECT.REG file in \$(_WINCEROOT)\PBWorkspaces \<YourProjectName>\WINCE500\CEPC_x86\OAK\files subdirectory is included all contents modified in Step 1.

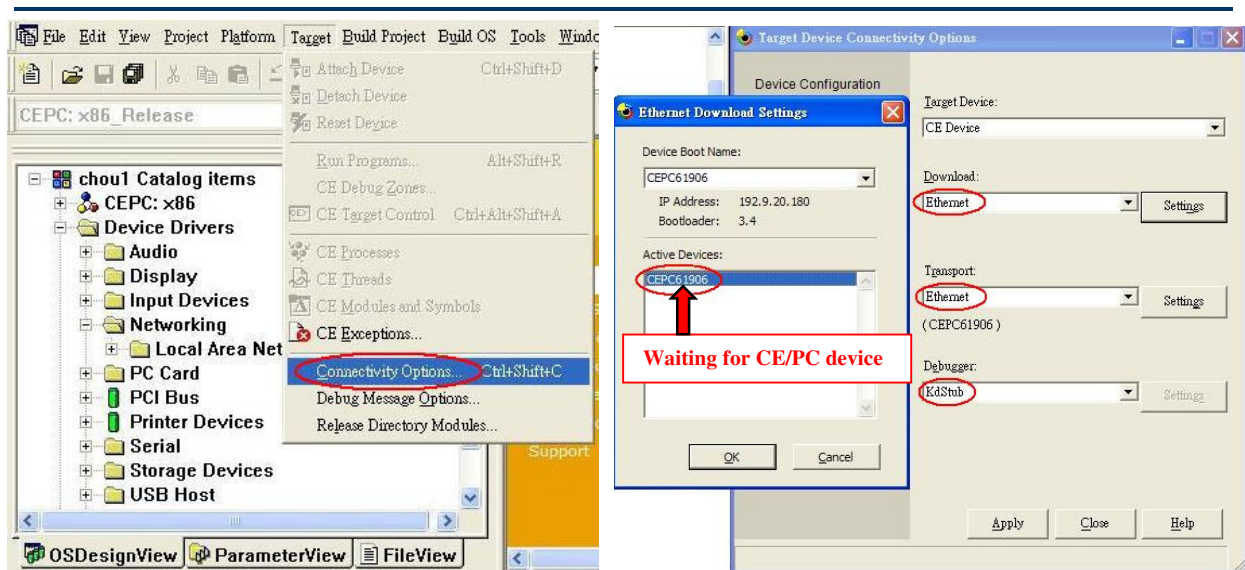
3. Copy AX88772.DLL file into the \$(_WINCEROOT)\PBWorkspaces \<YourProjectName>\WINCE500\CEPC_x86\OAK\files subdirectory.
4. Choose “Build and Sysgen” from the Build OS menu to build the platform image file (NK.BIN).



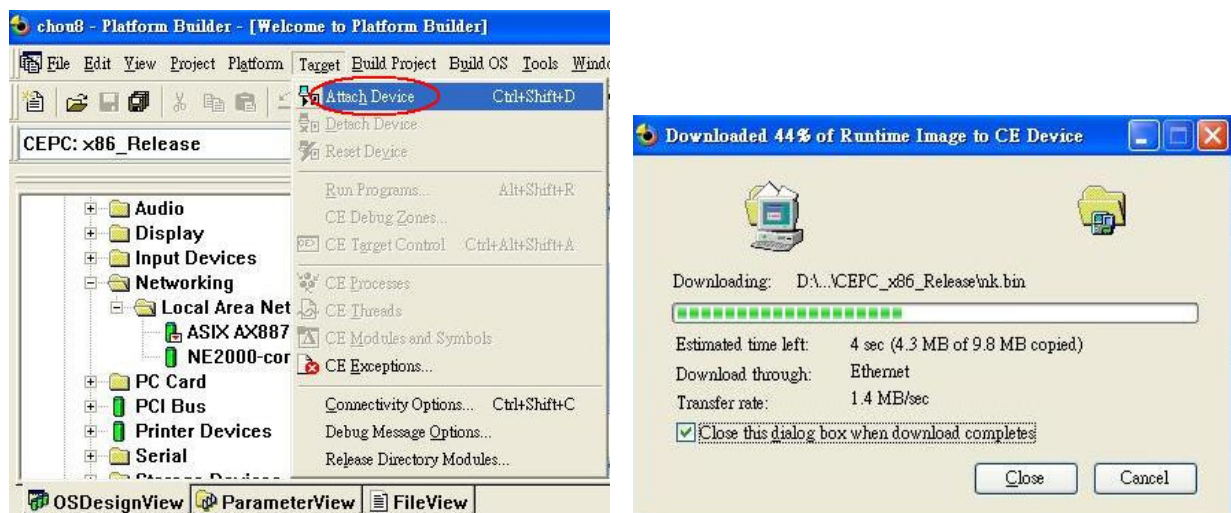
5. Startup your CE/PC to get the connection with the Platform Builder.
 - 5-1. Install a supported Ethernet adapter (like NE2000 ISA card or RTL8139 PCI card) for Ethernet Boot Loader (eboot.bin) and a ASIX AX88772 USB to Fast Ethernet adapter for tested WinCE driver.

Note 1: Please set a proper IRQ, IOBASE and IP address in the AUTOEXEC.BAT file of the CE/PC Boot Disk for the Ethernet Boot Loader adapter.
(For PCI card: set to IRQ=0, IOBASE =0 for auto-detection.
For ISA card: set to the same IRQ, IOBASE as the H/W setting.)

- 5-2. Insert the CE/PC Boot Disk into your CE/PC.
- 5-3. Power ON the CE/PC.
- 5-4. Select “Boot CE/PC (ether via eboot.bin with /L:800x600x16)” from the boot menu.
6. Choose “Connectivity Options” from the Target menu to configure an Ethernet connection for downloading and debugging the image file.
 - 6-1. Select “Ethernet” in the drop-down menu titled “Download”.
 - 6-2. Select “Ethernet” in the drop-down menu titled “Transport”.
 - 6-3. Click “Settings” button associated with the “Download” option.
 This will open a new dialog to wait for the available CEPC devices.
 - 6-4. Select “KbStub” in the drop-down menu titled “Debugger”.



7. Choose “Attach Device” from the Target menu to start downloading the Platform Image file onto the CE/PC.



8. After the image file is downloaded successfully, the CE/PC will be booted up to WinCE operation system by running the Platform Image file.
9. Run Ping command to verify the network connection function.

5. Modify Driver Parameters:

1. Modify the AX88772 registry values from the \$(_WINCEROOT)\PBWorkspaces \<YourProjectName>\RelDir\CEPC_x86_Release\PROJECT.REG file.

```
; @CESYSGEN IF BSP_NIC_AX88772
;IF BSP_NIC_AX88772
[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_30496\Default\Default\AX88772]
    "DLL"="AX88772.DLL"
    "Prefix"="NDS"

[HKEY_LOCAL_MACHINE\Drivers\USB\ClientDrivers\AX88772]
    "DLL"="AX88772.DLL"
    "Prefix"="NDS"

[HKEY_LOCAL_MACHINE\Comm\AX88772]
    "DisplayName"="ASIX AX88772 USB 2.0 Fast Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88772.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88772\Linkage]
    "Route"=multi_sz:"AX887721"

[HKEY_LOCAL_MACHINE\Comm\AX887721]
    "DisplayName"="ASIX AX88772 USB 2.0 Fast Ethernet Driver"
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    "ImagePath"="AX88772.dll"

[HKEY_LOCAL_MACHINE\Comm\AX887721\Parms]
    "BusNumber"=dword:0
    "BusType"=dword:1
;    "NetworkAddress"="00-12-34-56-78-9a"    ;Define an override MAC address 00-12-34-56-78-9a

;=====
; AX88772 Driver Parameters:
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; "FlowControl"      ==> 0 = "Disable"; 1 = "TX PAUSE"; 2 = "RX PAUSE"; 3 = "Enable"
;=====
    "ConnectionType"=dword:0
    "FlowControl"=dword:3

[HKEY_LOCAL_MACHINE\Comm\AX887721\Parms\TcpIp]
;    "EnableDHCP"=dword:0                ;Disable DHCP function
;    "IpAddress"="xxx.xxx.xxx.aaa"        ;Define your IP address (xxx.xxx.xxx.aaa)
;    "Subnetmask"="255.255.255.0"        ;Define Submask IP address
;    "DefaultGateway"="xxx.xxx.xxx.bbb"  ;Define Gateway IP address
;    "DNS"="xxx.xxx.xxx.ccc"             ;Define DNS server IP address

    "AutoCfg"=dword:1
    "EnableDHCP"=dword:1                ;Enable DHCP function
    "UseZeroBroadcast"=dword:0          ;Use zero for broadcast address?

;ENDIF BSP_NIC_AX88772
; @CESYSGEN ENDIF BSP_NIC_AX88772
```

2. Choose “Make Run-Time Image” from the Build OS menu to build a new platform image (NK.BIN) to take effect the new settings.

6. Known Errata:

None.