

1. Product Information:

The AX88179/178A Controller is a single chip USB 3.0/2.0 to Gigabit Ethernet Controller. This is an AX88179/178A NDIS driver for WinCE 7.0 embedded system. It has been qualified under WinCE 7.0 CETK on an Intel Pentium 4 2.8GHz system with a NEC D720100AGM USB 2.0 PCI Host adapter running WinCE 7.0 CEPC x86 Platform Image.

2. Files Descriptions:

The AX88179/178A WinCE driver package includes the files as described below,

RELEASE.PDF	This file
AX88179_178A.DLL	Driver file
PROJECT.REG	Sample REG file
PROJECT.BIB	Sample BIB file
CTK_LOG\1C_TEST.LOG	CTK One Card Test log file (x86 CEPC)
CTK_LOG\2C_TEST.LOG	CTK Two Card Test log file (x86 CEPC)
CTK_LOG\1C_TEST.TXT	CTK One Card Test readme file
CTK_LOG\2C_TEST.TXT	CTK Two Card Test readme file

3. Revision History:

Revision	Author	Date	Description
v1.4.1.0	Alex Chung	2013/10/25	1. Fixed an access violation exception issue.
v1.4.0.0	Alex Chung	2013/07/30	1. Initial release.

4. Driver Installation:

1. Add below AX88179/178A registry values into the
 \$(_WINCEROOT) \ PUBLIC \ CEBASE \ OAK \ FILES \ PROJECT.REG file.

```
; @CESYSGEN IF BSP_NIC_AX88179_178A
;IF BSP_NIC_AX88179_178A
[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_6026\Default\Default\AX88179_178A]
    "DLL"="AX88179_178A.DLL"
    "Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_6032\Default\Default\AX88179_178A]
    "DLL"="AX88179_178A.DLL"
    "Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Drivers\USB\ClientDrivers\AX88179_178A]
    "DLL"="AX88179_178A.DLL"
    "Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A]
    "DisplayName"="ASIX AX88179/178A USB 3.0/2.0 Gigabit Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88179_178A.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A\Linkage]
    "Route"=multi_sz:"AX88179_178A1","AX88179_178A2","AX88179_178A3","AX88179_178A4"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1]
    "DisplayName"="ASIX AX88179/178A USB 3.0/2.0 Gigabit Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88179_178A.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1\Parms]
    "BusNumber"=dword:0
    "BusType"=dword:0
;    "NetworkAddress"="02-12-34-56-78-9a" ;Define an override MAC address 02-12-34-56-78-9a

;=====
; AX88179_178A Driver Parameters:
;=====
"SpeedDuplex"=dword:0 ;0 = "AutoNegotiation"; 1 = "10BaseT Half"; 2 = "10BaseT Full";
;3 = "100BaseTx Half"; 4 = "100BaseTx Full";
;6 = "1000BaseT Full"
"FlowControl"=dword:3 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"WakeOnLinkChange"=dword:1 ;0 = "Disable"; 1 = "Enable"
"WakeOnMagicPacket"=dword:1 ;0 = "Disable"; 1 = "Enable"
"WakeOnPattern"=dword:0 ;0 = "Disable"; 1 = "Enable"
"MaskTimer"=dword:2 ;0 = "0 second"; 1 = "4 seconds"; 2 = "8 seconds"; 3 = "12 seconds"
;4 = "16 seconds"; 5 = "20 seconds"; 6 = "24 seconds"; 7 = "28 seconds"

"PriorityVLANTag"=dword:0 ;0 = "Priority & VLAN Disable"; 1 = "Priority Enable"
;2 = "VLAN Enable"; 3 = "Priority & VLAN Enable"
"WolLinkSpeed"=dword:1 ;0 = "Disable"; 1 = "Enable"
"TCPChecksumOffloadIPv4"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"UDPChecksumOffloadIPv4"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"TCPChecksumOffloadIPv6"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
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"UDPChecksumOffloadIPv6"=dword:0    ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"IPChecksumOffloadIPv4"=dword:3    ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"

"LsoV1IPv4"=dword:1                ;0 = "Disable"; 1 = "Enable"
"VlanID"=dword:0                    ;0 ~ 4095
"AutoDetach"=dword:0                ;0 = "Disable"; 1 = "Enable"; 2 = "Use Eeprom Setting"
"AutoDetachTimer"=dword:2           ;0 = "3 second"; 1 = "4 seconds"; 2 = "5 seconds"; 3 = "6 seconds"
                                       ;4 = "7 seconds"; 5 = "8 seconds"; 6 = "9 seconds"; 7 = "10 seconds"
"UsbPowerSave"=dword:0              ;0 = "0x00"; 16 = "0x10"; 80 = "0x50"; 240 = "0xF0"; 255 = "0xFF"
"JumboFrame"=dword:0                ;0 = "Disable"; 1 = "2KB"; 2 = "4KB"

[HKKEY_LOCAL_MACHINE\Comm\AX88179_178A1\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_AX88179_178A
; @CESYSGEN ENDIF BSP_NIC_AX88179_178A

```

2. Add below AX88179/178A driver file path and attributes into the \$(_WINCEROOT)\PUBLIC\CEBASE\OAK\FILES\PROJECT.BIB file.

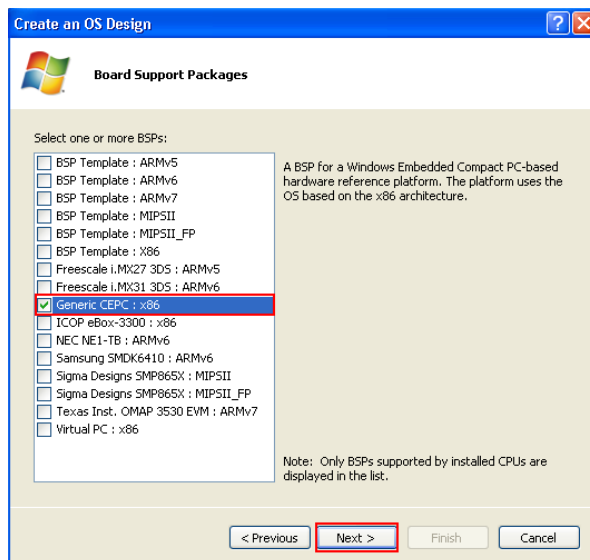
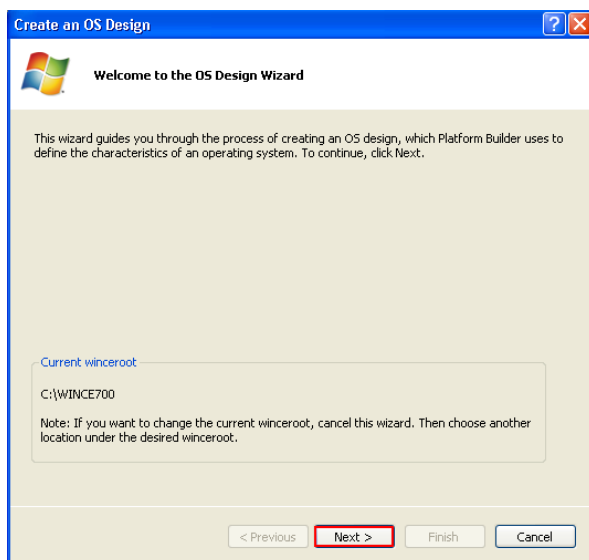
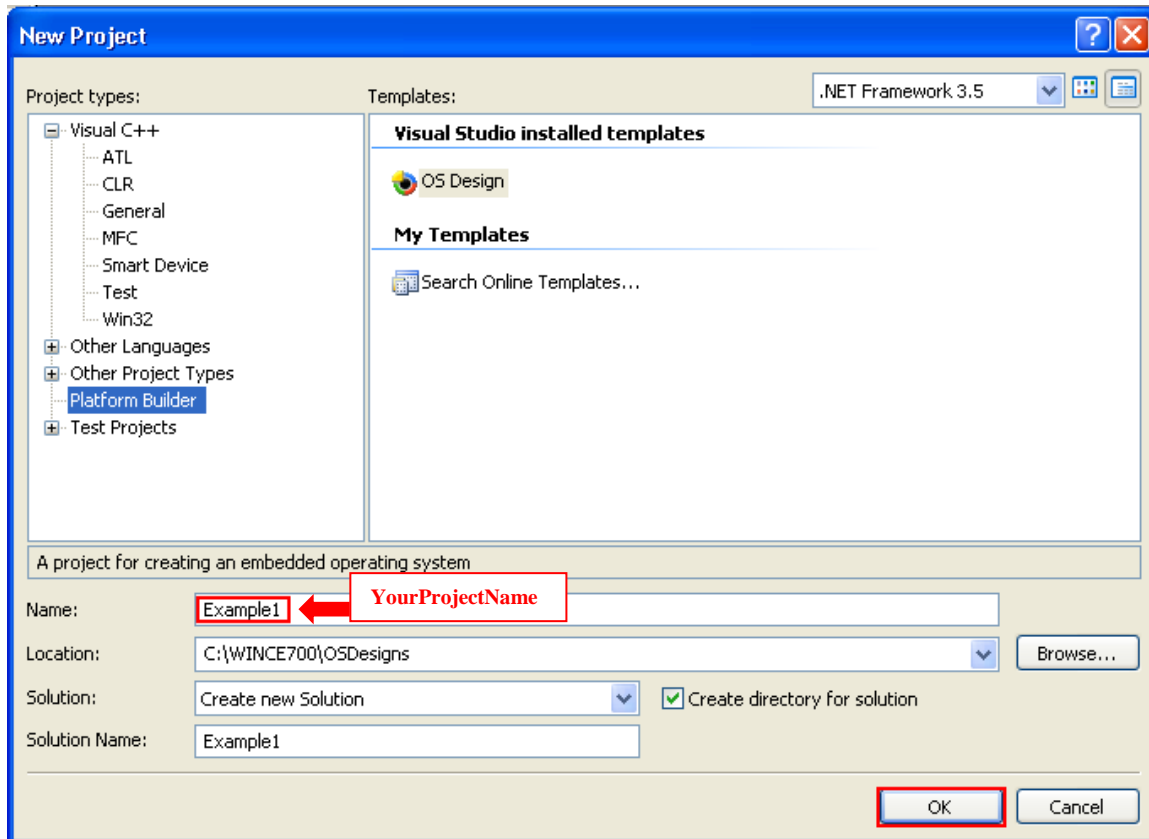
```

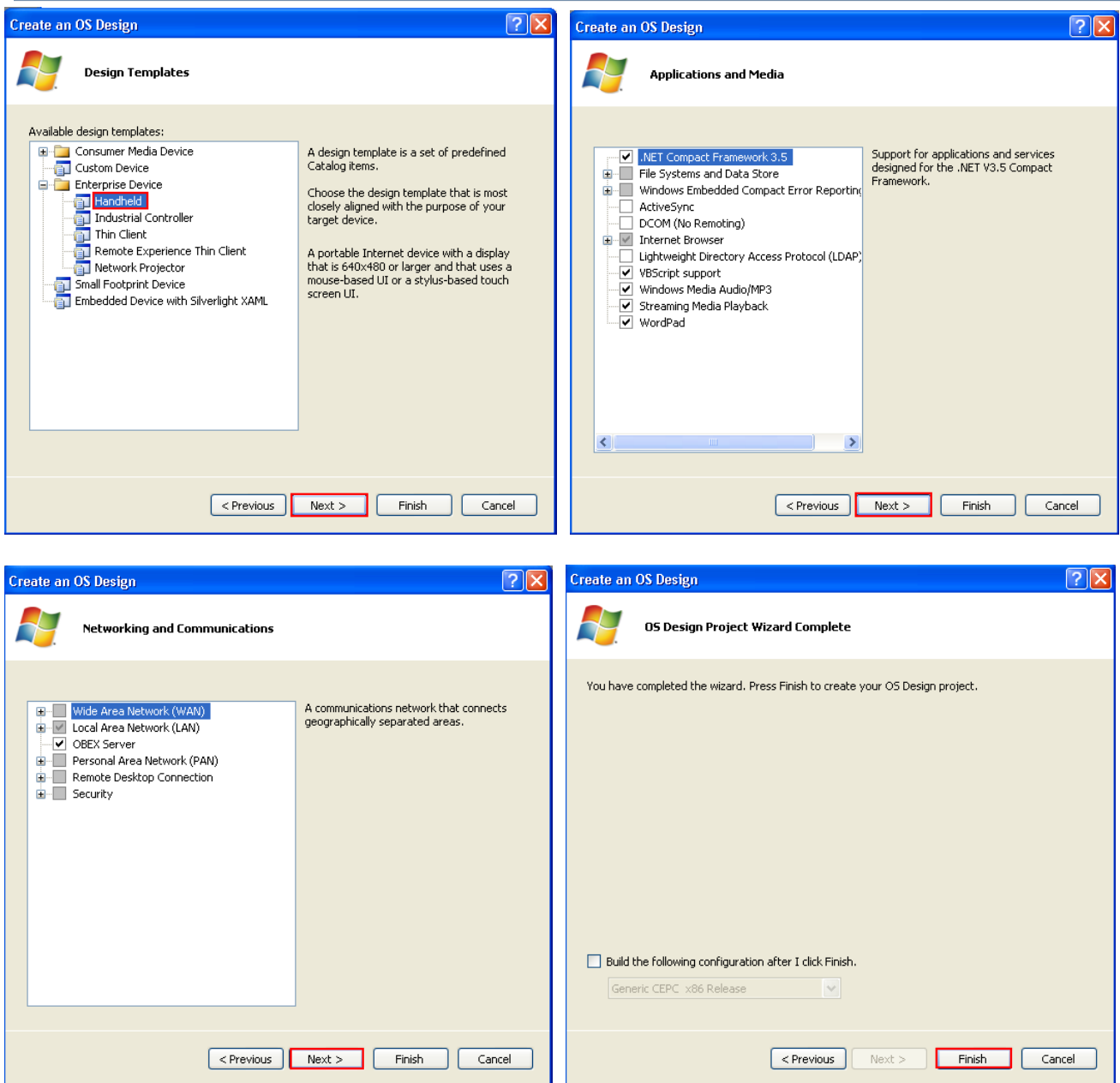
MODULES
; Name      Path                                          Memory Type
; -----
AX88179_178A.dll  $(_FLATRELEASEDIR)\AX88179_178A.dll      NK SHK

FILES
; Name      Path                                          Memory Type
; -----

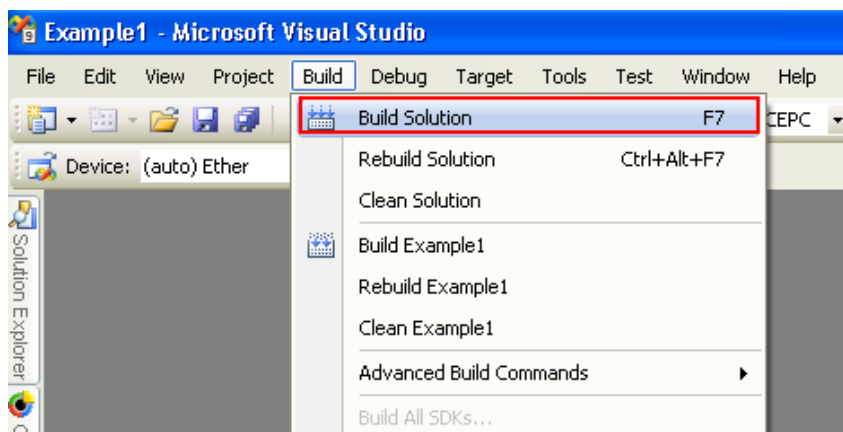
```

3. Install new platform for your project.





4. Choose "Build Solution" from the Build OS menu to build this project.



```

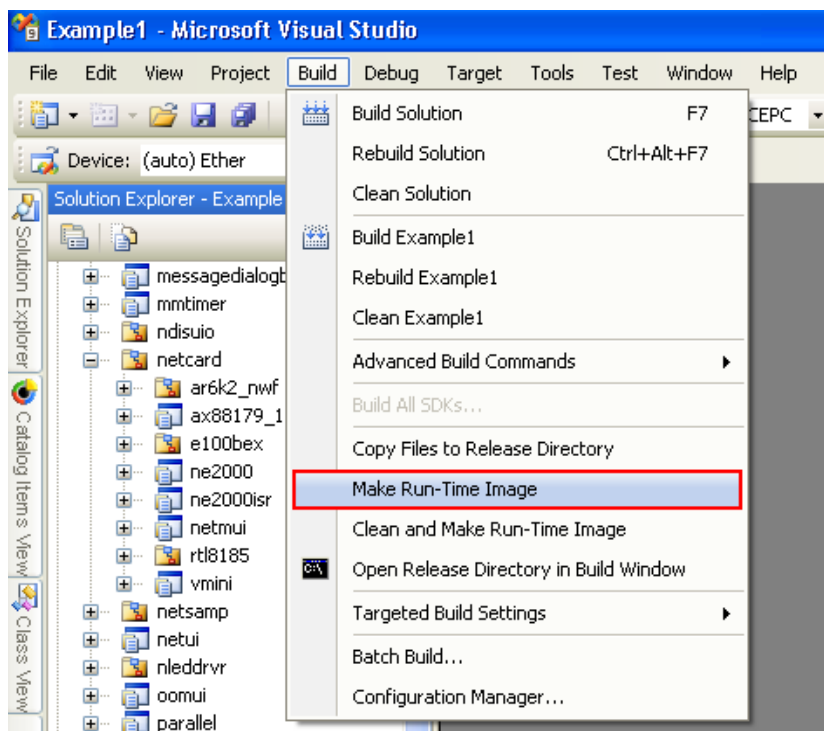
Output
Show output from: Build
C:\WINCE700\build.log(45135) : Warning: Unable to do imports from cetssc.exe to CREDUI.dll - will late bind
MAKEIMG: BUILDMSG: Calling C:\WINCE700\public\common\oak\misc\pbpostmakeimg.bat
MAKEIMG: BUILDMSG: Make Image process completed successfully
BLDDMO: BUILDMSG: OS image exists at C:\WINCE700\OSDesigns\Example1\Example1\RelDir\CEPC_x86_Release\nk.bin
BLDDMO: BUILDMSG: Volume in drive C has no label.
BLDDMO: BUILDMSG: Volume Serial Number is C4A6-D8A9
BLDDMO: BUILDMSG: Directory of C:\WINCE700\OSDesigns\Example1\Example1\RelDir\CEPC_x86_Release
BLDDMO: BUILDMSG: 07/05/2013 12:01 PM 35,308,479 NK.bin
BLDDMO: BUILDMSG: 1 File(s) 35,308,479 bytes
BLDDMO: BUILDMSG: 0 Dir(s) 42,734,477,312 bytes free
BLDDMO: BUILDMSG: cbase build complete.
BLDDMO: BUILDMSG: BldDemo ended at 12:01:54.77 on Fri 07/05/2013 (exit code 0)
BuildLogs: BUILDMSG: Exiting: BldDemo.bat -q (result code 0).
BuildLogs: BUILDMSG: C:\WINCE700\build.log
BuildLogs: BUILDMSG: C:\WINCE700\build.out
BuildLogs: BUILDMSG: C:\WINCE700\build.wrn
Example1 - 0 error(s), 1046 warning(s)
===== Build: 1 succeeded or up-to-date, 0 failed, 0 skipped =====
  
```

5. Copy AX88179_178A.DLL file into the
 \$(_WINCEROOT)\OSDesigns\<YourProjectName>\<YourProjectName>\RelDir\CEPC_x86_Release directory.

Note: Please check if the PROJECT.REG and file in
 \$(_WINCEROOT)\OSDesigns\<YourProjectName>\<YourProjectName>\RelDir\CEPC_x86_Release directory is included all contents modified in Step 1.

Note: Please check if the PROJECT.BIB and file in
 \$(_WINCEROOT)\OSDesigns\<YourProjectName>\<YourProjectName>\RelDir\CEPC_x86_Release directory is included all contents modified in Step 2.

6. Chose “Build Solution” from the Build OS menu to build this platform image file (NK.Bin).



```

Output
Show output from: Build
C:\WINCE700\build.log(1173) : Warning: Unable to do imports from cryptdll.dll to RSAENH.dll
C:\WINCE700\build.log(1174) : Warning: Unable to do imports from cryptdll.dll to bcrypt.dll
C:\WINCE700\build.log(1175) : Warning: Unable to do imports from k.cryptdll.dll to RSAENH.dll
C:\WINCE700\build.log(1176) : Warning: Unable to do imports from k.cryptdll.dll to bcrypt.dll
C:\WINCE700\build.log(1177) : Warning: Unable to do imports from credssp.dll to RSAENH.dll
C:\WINCE700\build.log(1178) : Warning: Unable to do imports from credssp.dll to bcrypt.dll
C:\WINCE700\build.log(1179) : Warning: Unable to do imports from k.credssp.dll to RSAENH.dll
C:\WINCE700\build.log(1180) : Warning: Unable to do imports from k.credssp.dll to bcrypt.dll
C:\WINCE700\build.log(1181) : Warning: Unable to do imports from rpcrt4legacy.dll to bcrypt.dll
C:\WINCE700\build.log(1182) : Warning: Unable to do imports from dxtmsft.dll to bcrypt.dll
C:\WINCE700\build.log(1183) : Warning: Unable to do imports from wlanapi.dll to bcrypt.dll
C:\WINCE700\build.log(1184) : Warning: Unable to do imports from wlanapi.dll to bcrypt.dll
C:\WINCE700\build.log(1187) : Warning: Unable to do imports from mstscax.dll to CREDUI.dll
C:\WINCE700\build.log(1188) : Warning: Unable to do imports from cetssc.exe to CREDUI.dll - w
MAKEIMG: BUILDMSG: Calling C:\WINCE700\public\common\oak\misc\pbpostmakeimg.bat
MAKEIMG: BUILDMSG: Make Image process completed successfully
Example1 - 0 error(s), 0 warning(s)
===== Build: 1 succeeded or up-to-date, 0 failed, 0 skipped =====
  
```

7. Startup your CE/PC to get the connection.

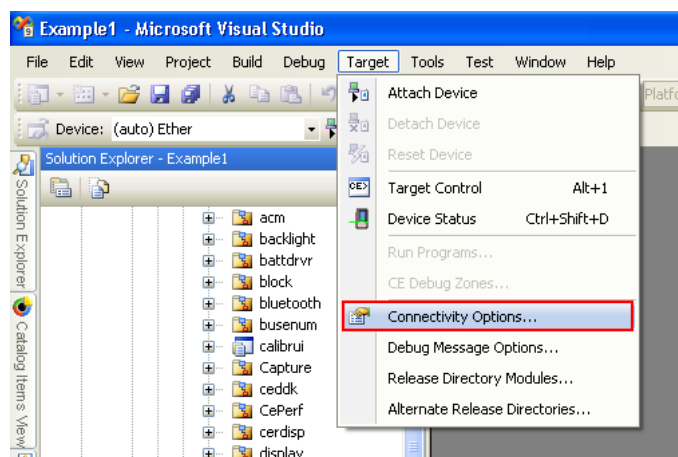
- 6-1. Install a supported Ethernet adapter (like NE2000 ISA card or RTL8139 PCI card) for Ethernet Boot Loader (eboot.bin) and a ASIX AX88179/178A USB 3.0/2.0 to Gigabit Ethernet adapter for tested WinCE driver.

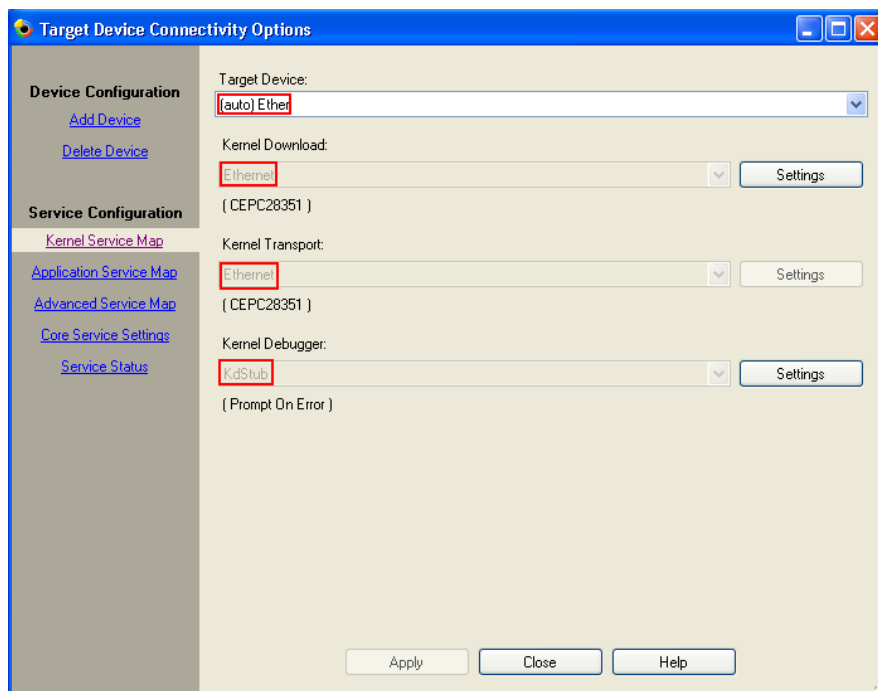
Note 1: Please set a proper IRQ, IOBASE and IP address in the AUTOEXEC.BAT file of the CE/PC Boot Disk for the Ethernet Boot Loader adapter.
(For PCI card: set to IRQ=0, IOBASE =0 for auto-detection.
For ISA card: set to the same IRQ, IOBASE as the H/W setting.)

- 6-2. Insert the CE/PC Boot Disk into your CE/PC.
- 6-3. Power ON the CE/PC.
- 6-4. Select “Boot CE/PC (ether via eboot.bin with /L:800x600x16)” from the boot menu.

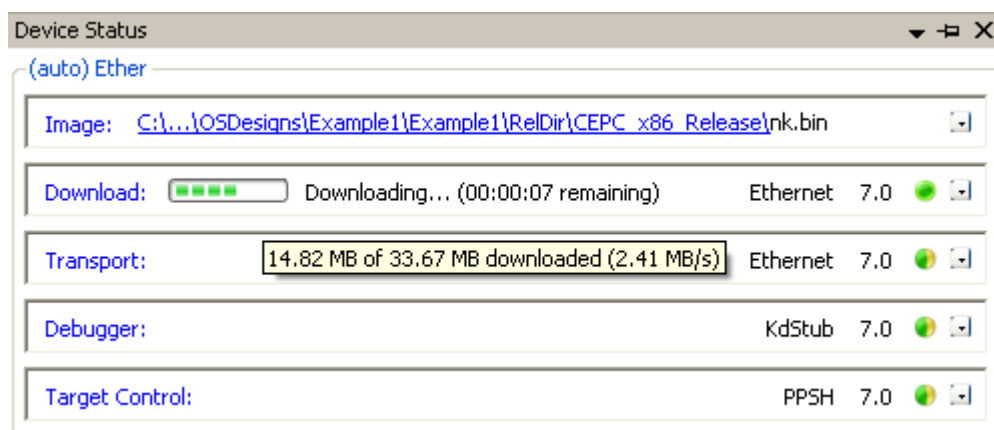
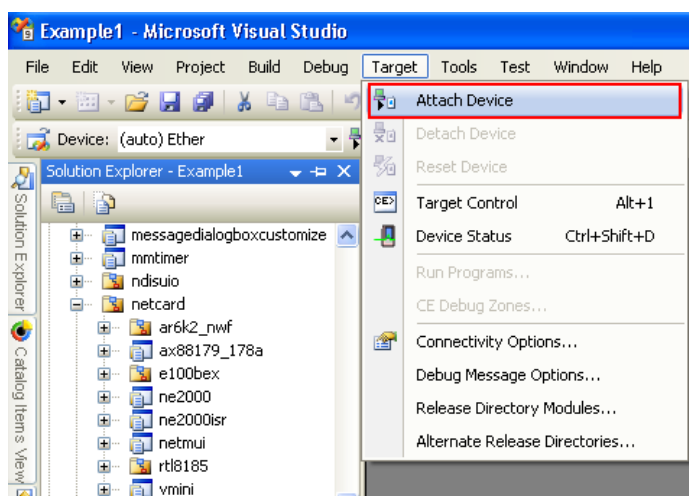
8. Choose “Connectivity Options” from the Target menu to configure an Ethernet connection for downloading and debugging the image file.

- 7-1. Select “Ethernet” in the drop-down menu titled “Kernel Download”.
- 7-2. Select “Ethernet” in the drop-down menu titled “Kernel Transport”.
- 7-3. Select “KdStub” in the drop-down menu titled “Kernel Debugger”.





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



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

5. Modify Driver Parameters:

1. Modify the AX88179/178A registry values from the \$(_WINCEROOT)\OSDesigns \<YourProjectName>\<YourProjectName>\RelDir\CEPC_x86_Release\PROJECT.REG file.

```

; @CESYSGEN IF BSP_NIC_AX88179_178A
;IF BSP_NIC_AX88179_178A
[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_6026\Default\Default\AX88179_178A]
    "DLL"="AX88179_178A.DLL"
    "Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_6032\Default\Default\AX88179_178A]
    "DLL"="AX88179_178A.DLL"
    "Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Drivers\USB\ClientDrivers\AX88179_178A]
    "DLL"="AX88179_178A.DLL"
    "Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A]
    "DisplayName"="ASIX AX88179/178A USB 3.0/2.0 Gigabit Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88179_178A.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A\Linkage]
    "Route"=multi_sz:"AX88179_178A1","AX88179_178A2","AX88179_178A3","AX88179_178A4"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1]
    "DisplayName"="ASIX AX88179/178A USB 3.0/2.0 Gigabit Ethernet Driver"
    "Group"="NDIS"
    "ImagePath"="AX88179_178A.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1\Parms]
    "BusNumber"=dword:0
    "BusType"=dword:0
;    "NetworkAddress"="02-12-34-56-78-9a"    ;Define an override MAC address 02-12-34-56-78-9a

;=====
; AX88179_178A Driver Parameters:
;=====
"SpeedDuplex"=dword:0          ;0 = "AutoNegotiation"; 1 = "10BaseT Half"; 2 = "10BaseT Full";
                                ;3 = "100BaseTx Half"; 4 = "100BaseTx Full";
                                ;6 = "1000BaseT Full"
"FlowControl"=dword:3          ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"WakeOnLinkChange"=dword:1     ;0 = "Disable"; 1 = "Enable"
"WakeOnMagicPacket"=dword:1    ;0 = "Disable"; 1 = "Enable"
"WakeOnPattern"=dword:0        ;0 = "Disable"; 1 = "Enable"
"MaskTimer"=dword:2            ;0 = "0 second"; 1 = "4 seconds"; 2 = "8 seconds"; 3 = "12 seconds"
                                ;4 = "16 seconds"; 5 = "20 seconds"; 6 = "24 seconds"; 7 = "28 seconds"

"PriorityVLANTag"=dword:0       ;0 = "Priority & VLAN Disable"; 1 = "Priority Enable"
                                ;2 = "VLAN Enable"; 3 = "Priority & VLAN Enable"
"WoLinkSpeed"=dword:1          ;0 = "Disable"; 1 = "Enable"
"TCPChecksumOffloadIPv4"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"UDPChecksumOffloadIPv4"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
  
```

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"TCPChecksumOffloadIPv6"=dword:0      ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"UDPChecksumOffloadIPv6"=dword:0      ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"IPChecksumOffloadIPv4"=dword:3       ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"LsoV1IPv4"=dword:1                   ;0 = "Disable"; 1 = "Enable"
"VlanID"=dword:0                      ;0 ~ 4095
"AutoDetach"=dword:0                  ;0 = "Disable"; 1 = "Enable"; 2 = "Use Eeprom Setting"
"AutoDetachTimer"=dword:2             ;0 = "3 second"; 1 = "4 seconds"; 2 = "5 seconds"; 3 = "6 seconds"
                                       ;4 = "7 seconds"; 5 = "8 seconds"; 6 = "9 seconds"; 7 = "10 seconds"
"UsbPowerSave"=dword:0                ;0 = "0x00"; 16 = "0x10"; 80 = "0x50"; 240 = "0xF0"; 255 = "0xFF"
"JumboFrame"=dword:0                 ;0 = "Disable"; 1 = "2KB"; 2 = "4KB"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1\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_AX88179_178A
; @CESYSGEN ENDIF BSP_NIC_AX88179_178A

```

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. How to configure WinCE 7.0 to run the SROM Programming Tool?

None

7. How to support AX88179/178A board with different Vendor ID/Product ID?

The AX88179/178A WinCE 7.0 driver supports AX88179/178A's default VID/PID (0B95h/1790h)/(0B95h/178Ah). If the VID/PID of your AX88179/178A board is different from AX88179/178A's VID/PID, please follow below procedures to change the VID/PID registry setting of AX88179/178A WinCE 7.0 driver to support your AX88179/178A board.

7-1. Change the VID/PID setting from the Registry File

1. Add the following registry setting highlighted in below **blue** text in the \$(_WINCEROOT)\OSDesigns\<YourProjectName>\<YourProjectName>\RelDir\CEPC_x86_Release\PROJECT.REG file, and then change the VID/PID registry setting to meet the real VID/PID of your AX88179/178A board.

Note: The VID/PID registry values in the PROJECT.REG file are demonstrated in “decimal” numbers. For example, the “2965” means 0B95h in a hexadecimal number; meanwhile, the “6032” means 1790h in a hexadecimal number. The VID/PID registry setting “2965_6032” is for AX88179's default VID/PID (0B95h/1790h); meanwhile, the “6026” means 178Ah in a hexadecimal number. The VID/PID registry setting “2965_6026” is for AX88178A's default VID/PID (0B95h/178Ah).

```

; @CESYSGEN IF BSP_NIC_AX88179_178A
;IF BSP_NIC_AX88179_178A
[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\49274_41591\Default\Default\AX88179_178A]
"DLL"="AX88179_178A.DLL"
"Prefix"="ASX"

```

Change to the VID/PID value of your AX88179/178A board.
 (The VID is C07Ah and the PID is A277h in this example.)

```

[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_6026\Default\Default\AX88179_178A]
"DLL"="AX88179_178A.DLL"
"Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Drivers\USB\LoadClients\2965_6032\Default\Default\AX88179_178A]
"DLL"="AX88179_178A.DLL"
"Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Drivers\USB\ClientDrivers\AX88179_178A]
"DLL"="AX88179_178A.DLL"
"Prefix"="ASX"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A]
"DisplayName"="ASIX AX88179/178A USB 3.0/2.0 Gigabit Ethernet Driver"
"Group"="NDIS"
"ImagePath"="AX88179_178A.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A\Linkage]
"Route"=multi_sz:"AX88179_178A1","AX88179_178A2","AX88179_178A3","AX88179_178A4"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1]

```

```

"DisplayName"="ASIX AX88179/178A USB 3.0/2.0 Gigabit Ethernet Driver"
"Group"="NDIS"
"ImagePath"="AX88179_178A.dll"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1\Parms]
"BusNumber"=dword:0
"BusType"=dword:0
; "NetworkAddress"="02-12-34-56-78-9a" ;Define an override MAC address 02-12-34-56-78-9a
;=====
; AX88179_178A Driver Parameters:
;=====
"SpeedDuplex"=dword:0 ;0 = "AutoNegotiation"; 1 = "10BaseT Half"; 2 = "10BaseT Full";
;3 = "100BaseTx Half"; 4 = "100BaseTx Full";
;6 = "1000BaseT Full"
"FlowControl"=dword:3 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"WakeOnLinkChange"=dword:1 ;0 = "Disable"; 1 = "Enable"
"WakeOnMagicPacket"=dword:1 ;0 = "Disable"; 1 = "Enable"
"WakeOnPattern"=dword:0 ;0 = "Disable"; 1 = "Enable"
"MaskTimer"=dword:2 ;0 = "0 second"; 1 = "4 seconds"; 2 = "8 seconds"; 3 = "12 seconds"
;4 = "16 seconds"; 5 = "20 seconds"; 6 = "24 seconds"; 7 = "28 seconds"

"PriorityVLANTag"=dword:0 ;0 = "Priority & VLAN Disable"; 1 = "Priority Enable"
;2 = "VLAN Enable"; 3 = "Priority & VLAN Enable"
"WoLinkSpeed"=dword:1 ;0 = "Disable"; 1 = "Enable"
"TCPChecksumOffloadIPv4"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"UDPChecksumOffloadIPv4"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"TCPChecksumOffloadIPv6"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"UDPChecksumOffloadIPv6"=dword:0 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"IPChecksumOffloadIPv4"=dword:3 ;0 = "Disable"; 1 = "TxEnable"; 2 = "RxEnable"; 3 = "TxRxEnable"
"LsoV1IPv4"=dword:1 ;0 = "Disable"; 1 = "Enable"
"VlanID"=dword:0 ;0 ~ 4095
"AutoDetach"=dword:0 ;0 = "Disable"; 1 = "Enable"; 2 = "Use Eeprom Setting"
"AutoDetachTimer"=dword:2 ;0 = "3 second"; 1 = "4 seconds"; 2 = "5 seconds"; 3 = "6 seconds"
;4 = "7 seconds"; 5 = "8 seconds"; 6 = "9 seconds"; 7 = "10 seconds"
"UsbPowerSave"=dword:0 ;0 = "0x00"; 16 = "0x10"; 80 = "0x50"; 240 = "0xF0"; 255 = "0xFF"
"JumboFrame"=dword:0 ;0 = "Disable"; 1 = "2KB"; 2 = "4KB"

[HKEY_LOCAL_MACHINE\Comm\AX88179_178A1\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_AX88179_178A
; @CESYSGEN ENDIF BSP_NIC_AX88179_178A

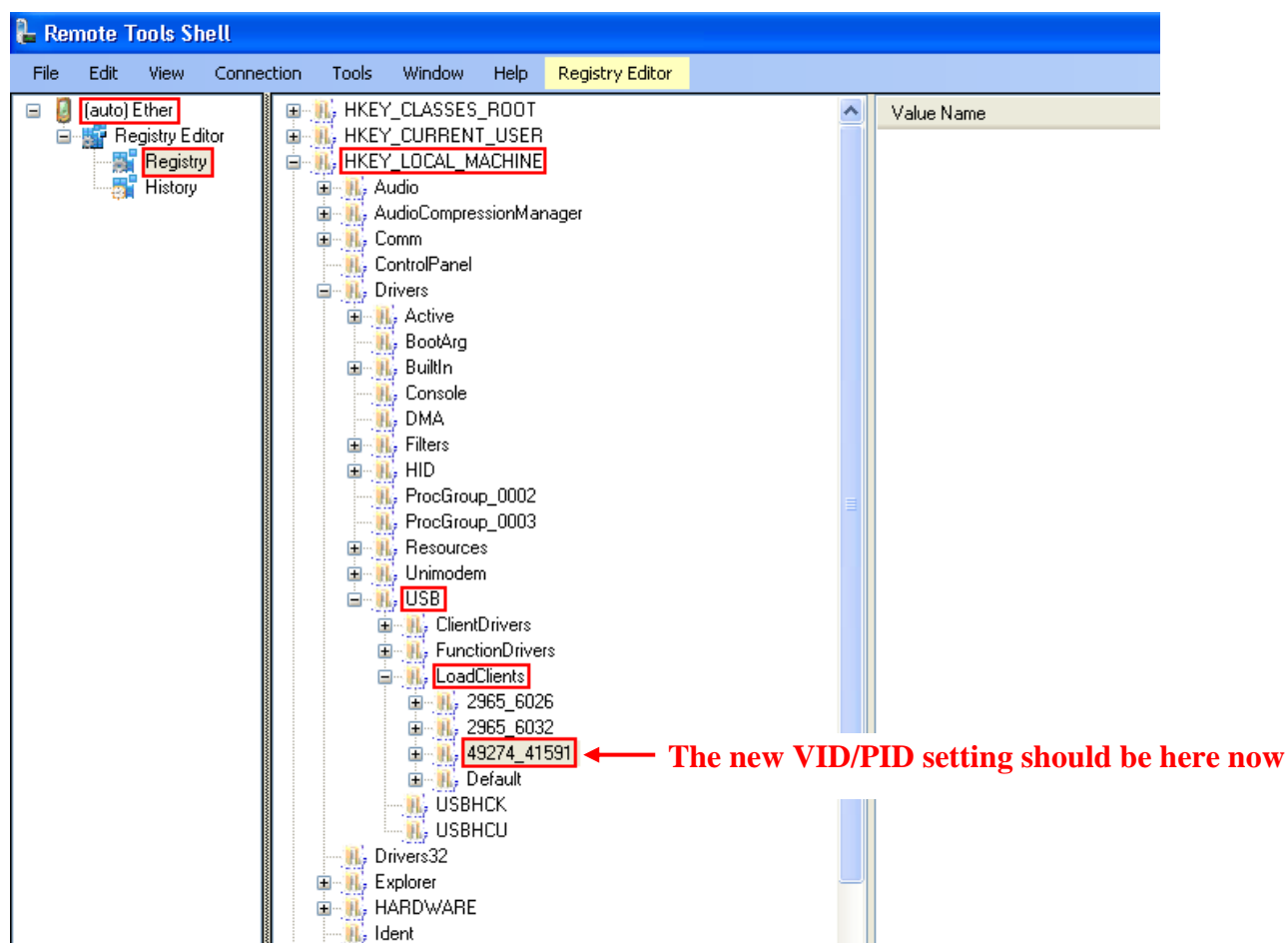
```

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

7-2. Check the modified VID/PID in WinCE Remote Registry Editor

After changed the VID/PID registry setting on your WinCE image file, you can follow the following procedures to double check if the new VID/PID setting was taken effect properly.

1. When the image has been built, click **Target>Attach Device** to download the Platform Image file onto the CE/PC.
2. After the image file is downloaded successfully, the CE/PC will be booted up to WinCE operation system by running the Platform Image file.
3. Establish the connection with CE/PC.
4. Click **Tools>Remote Tools> Registry Editor**.
5. The (auto) Ethernet icon will be shown up. Click **HKEY_LOCAL_MACHINE>Drivers>USB>LoadClients**. You will see your own VID/PID under **HKEY_LOCAL_MACHINE>Drivers>USB>LoadClients**.



7-3. Change the VID/PID setting from WinCE Remote Registry Editor manually

The following method illustrates how to change the VID/PID registry setting of AX88179/178A WinCE 7.0 driver from the WinCE Remote Registry Editor directly.

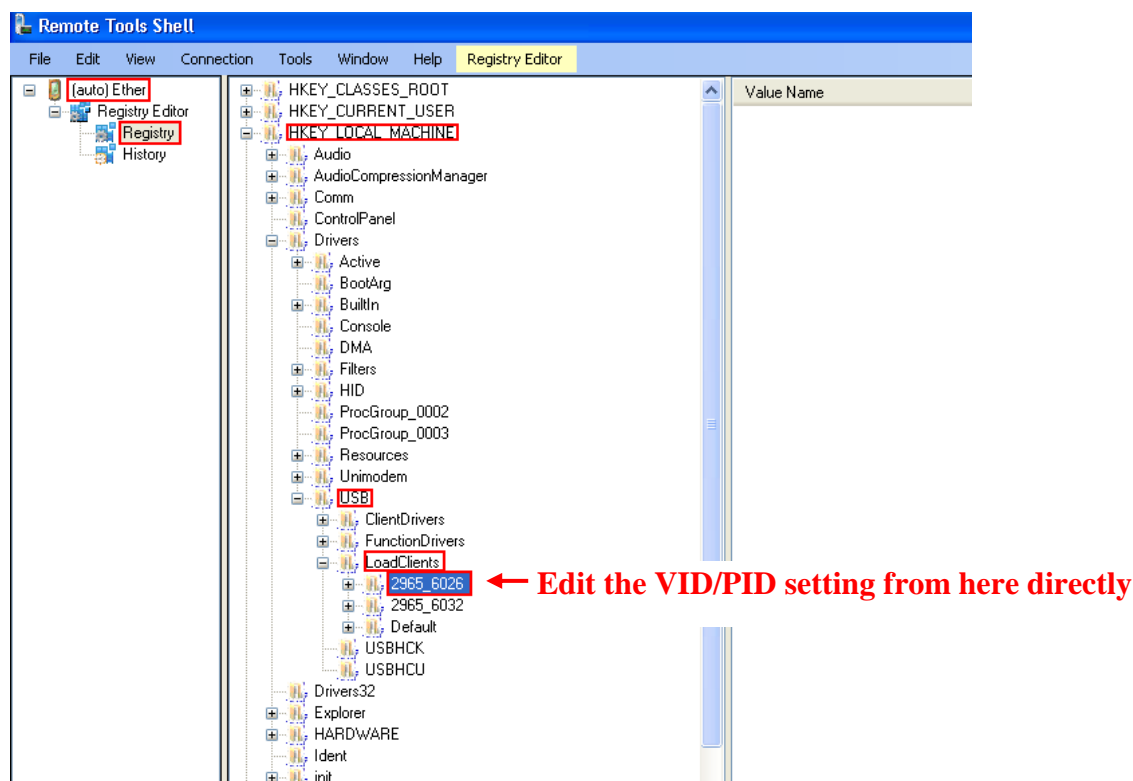
Note: This is a temporary configuration for testing purpose and will be reset to the default registry setting of WinCE 7.0 platform boot image file after rebooting the WinCE 7.0 platform. Please refer to Section 7-1 Change the VID/PID setting from the Registry File to modify the VID/PID registry setting of AX88179/178A WinCE 7.0 driver from the register file (PROJECT.REG) for official release purpose.

1. Follow Step #1 to Step #5 in Section 7-2 Check the modified VID/PID in WinCE Remote Registry Editor to establish the WinCE Remote Registry Editor connection with your WinCE 7.0 platform.
2. Modify the VID/PID registry under **HKEY_LOCAL_MACHINE>Drivers>USB>LoadClients** to meet the real VID/PID of your AX88179/178A board.

Example: The VID/PID of your AX88178A board is **C07Ah/A277h** respectively.

You should adjust the following “**2965_6026**” registry value to “**49274_41591**”.

(Please refer to the [WinCE registry VID/PID setting note](#) in Section 7-1 for more details.)



3. Un-plug/re-plug your AX88179/178A board with VID (C07Ah)/PID (A277h) in this example. The AX88179/178A WinCE 7.0 driver should work fine with your AX88179/178A board now.

8. Known Errata:

None.



**4F, No.8, Hsin Ann RD., Hsinchu Science Park,
Hsinchu, Taiwan, R.O.C.**

TEL: +886-3-5799500

FAX: +886-3-5799558

Email: support@asix.com.tw

Web: <http://www.asix.com.tw>