

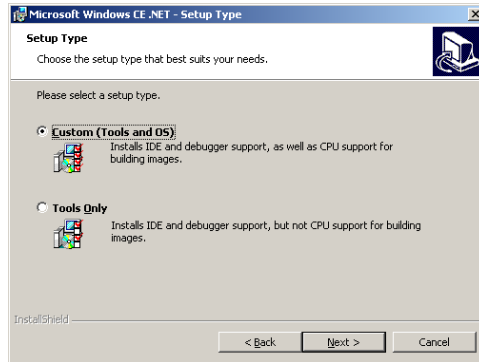
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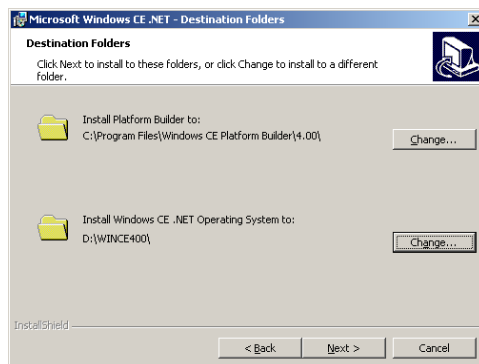
# Windows CE.NET Platform Builder Usage

## Windows CE.NET Platform Builder Installation

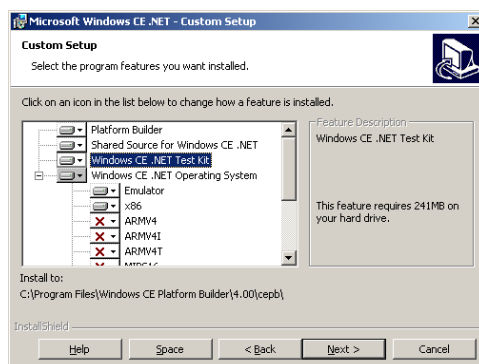
During Platform Builder installation process, select Custom installation.



During Platform Builder installation destination selection process, make sure the destination for “Windows CE.NET Operation System files” has sufficient storage. You will need at least 2G for this. “Windows CE.NET Operating System files” occupied ~1G for each processor. Additional space is needed for your working image (~ 350MB for each image).



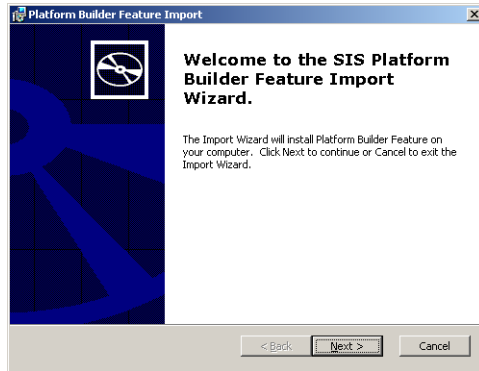
During the program features selection process, select x86 CPU only. Each additional CPU select will cause the system to install more than 1G of files for each selected CPU.



## Windows CE.NET Platform Builder Usage

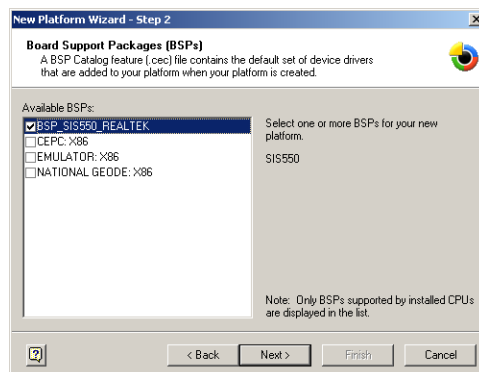
### Install Vortex86 Board-Support-Package

The Board-Support-Package, "Vortex86.MSI" is a Windows install file. Double click on this file will begin the installation process.



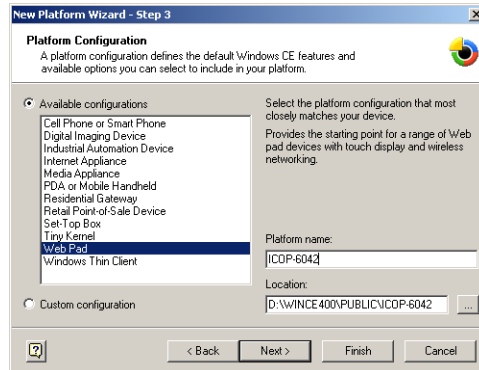
### Creating Windows CE.NET Image for Vortex86 SBC

1. Start Platform Builder.
2. From the "File Menu" select "New Platform".
3. On "New Platform Wizard – Step 1" Windows, click "Next".
4. On "New Platform Wizard – Step 2" Windows, select "Vortex86" and click "Next".

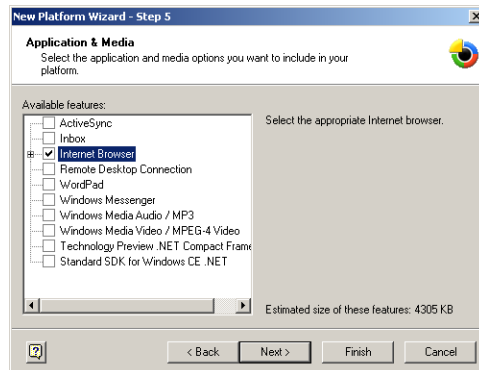


## Windows CE.NET Platform Builder Usage

- On “New Platform Wizard – Step 3” Windows, select “Web Pad” from the available configuration windows, enter name of the platform (i.e. “ICOP\_6042”) and click “Next”.



- On “New Platform Wizard – Step 4” Windows, click “Next”.
- On “New Platform Wizard – Step 5” Windows, un-check everything except “Internet Browser” and click “Next”.



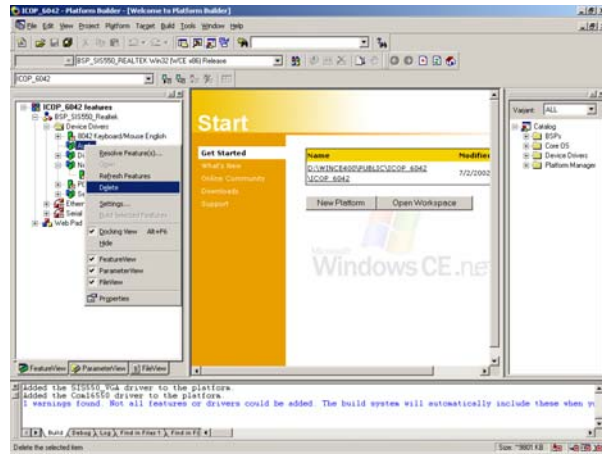
- On “New Platform Wizard – Step 6” Windows, click “Next”.
- On “New Platform Wizard – Step 7” Windows, click “Done”.

Congratulation, you created a Windows CE.NET Platform for ICOP-6042 SBC with “Web Pad” template.

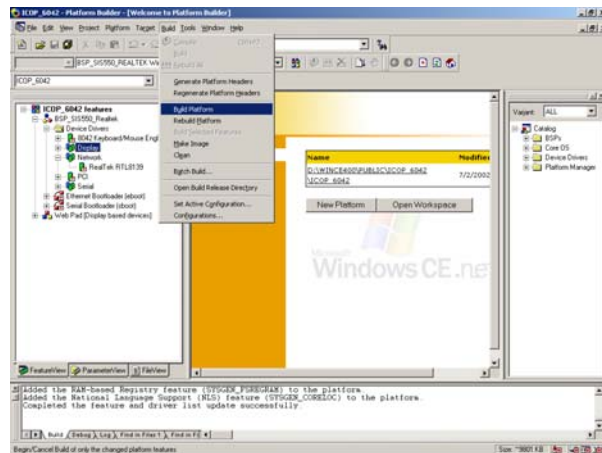
## Windows CE.NET Platform Builder Usage

### Build & Create Windows CE.NET Image for ICOP-6042

ICOP-6042 does not support audio function. We need to remove “Audio” function from the build option. Right-mouse-click on “Audio” and select “Delete” to remove the component.



From the “Build Menu”, select “Build Platform”, Platform Builder will perform all the necessary step to generate system files and build a working image.



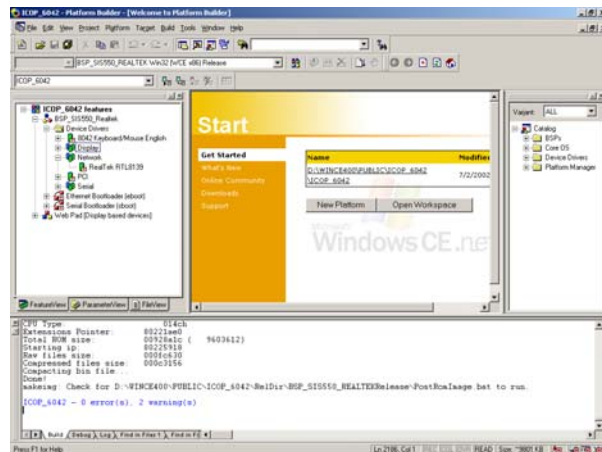
The build process may take anywhere from 10~20 minutes depending on selected components and the speed of you workstation.

## Windows CE.NET Platform Builder Usage

When the build process is completed, there may be some warnings display inside the “Build Tap” within the Platform Builder IDE. Warnings are OK. There should not be any “Error”. If there are any Error at all, the image will not be created.

There should be a message that looks something like this:

**ICOP\_6042 - 0 error(s), 2 warning(s)**



### Download Image to Target Device via Ethernet

Windows CE.NET Platform Builder provides resources to download image to the targeted device via Ethernet, Parallel and Serial interface. Ethernet provides the best option in term of speed.

### Ethernet Download Connection Setup

In order for “Download over Ethernet” to work, your development workstation and the target device must on the same network within the same sub-net. The network must have DHCP service to allocate IP address automatically. The device must be prepared to be bootable into DOS.

Note: A ZIP file, BootDos.zip, is provided with the appropriate files for this purpose. Format a Floppy disk with DOS (prefer DOS 6.22), copy files extracted from BootDos.zip onto this floppy. Run “RSET8139.EXE” to review IRQ setting for Realtek Ethernet device. Edit “Autoexec.bat” file to reflect proper IRQ setting.

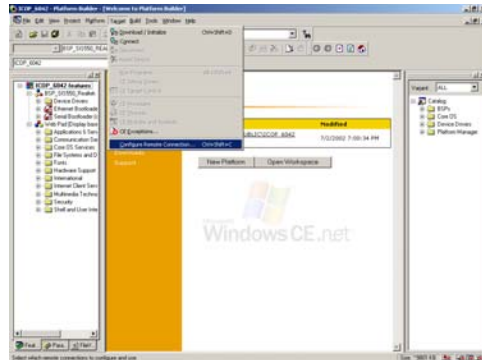
Look for the following entry within “Autoexec.bat”

```
Set NET_IRQ=B (B=IRQ 11)
Set NET_IOBASE=0
Set NET_IP=
```

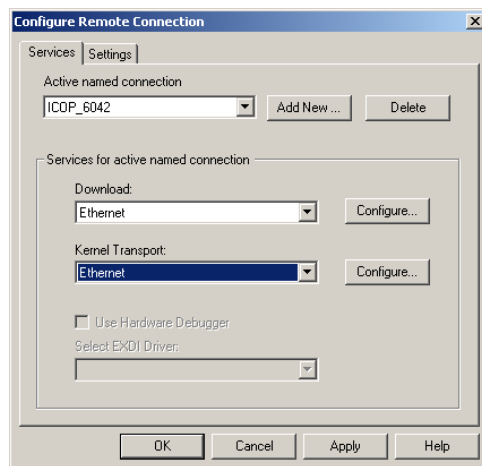
Set the IRQ to the correct IRQ setting. It's in Hex. IRQ-11 is equal to “B”. Leave NET\_IOBASE=0 and NET\_IP blank.

# Windows CE.NET Platform Builder Usage

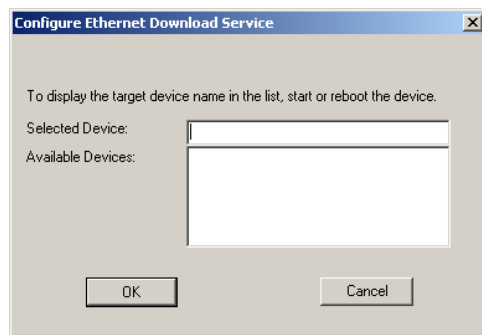
1. From the “Target Menu”, select “Configure Remote Connection”.



2. Select “Ethernet” for both “Download” and “Kernel Transport” on the “Configure Remote Connection” windows.



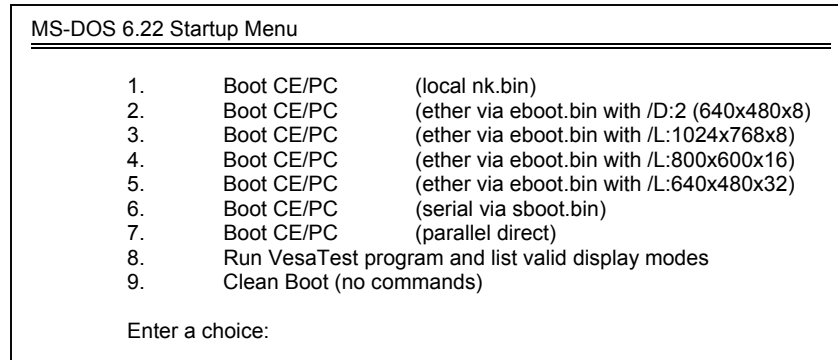
3. Click the top “Configure” button, “Configure Ethernet Download Service” window will pop up.



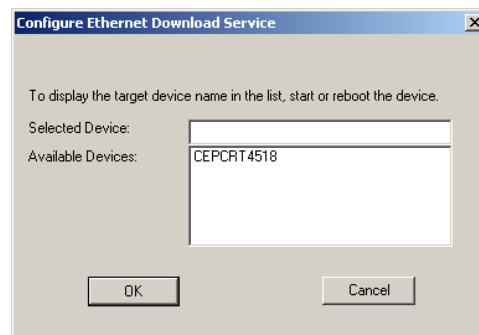
Platform Builder is waiting for the device to register itself.

## Windows CE.NET Platform Builder Usage

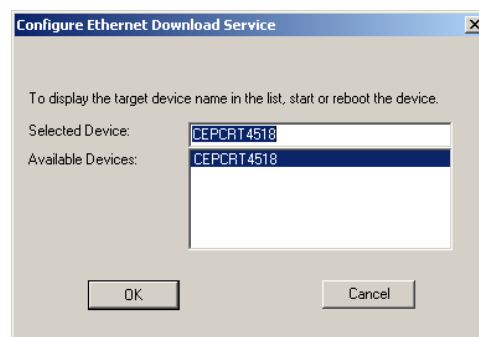
- Power up the device and let it boot with the supplied files. From the selection option menu, select option "5", "Boot CE/PC (ether via eboot.bin with /L:640x480x32)". The target device will send a "Bootme" packet to Platform Builder and register itself.



- Once the target device registered itself with Platform Builder, the target device's ID will be display on the "Configure Ethernet Download Service" window's "Available devices" list.

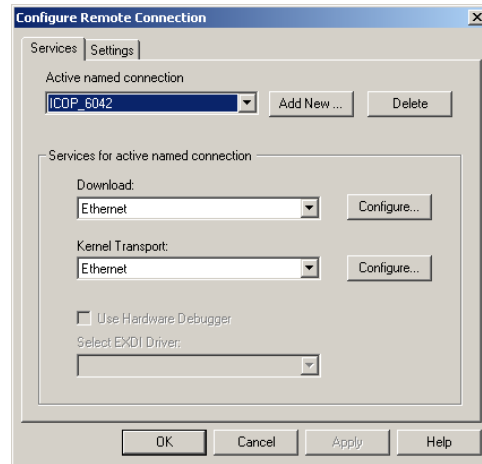


- Select the device and click "OK".



## Windows CE.NET Platform Builder Usage

- Click “Apply” on “Configure Remote Connection” window. Then, click “OK”.

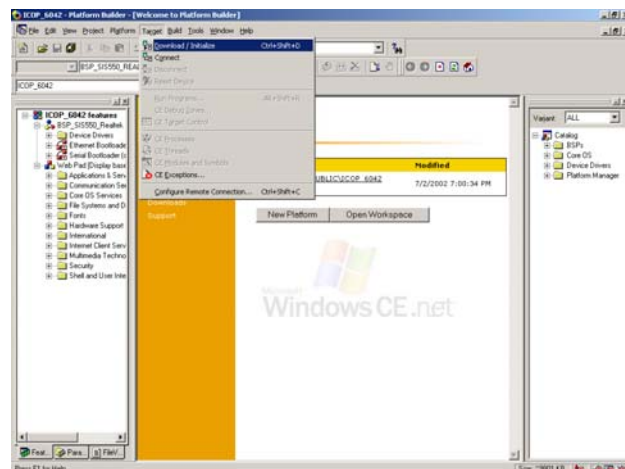


“Remote Connection” is now setup to download Windows CE.NET image via Ethernet.

### Download Image to Device

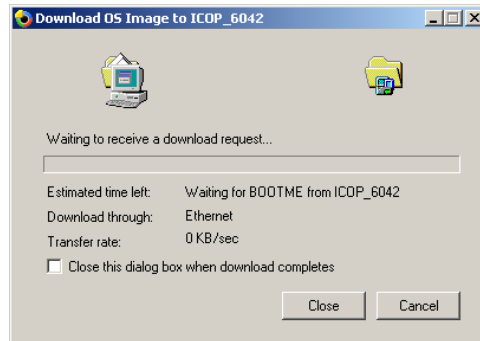
Prepare target device to boot into DOS with the same floppy prepared in the previous step (Remote Connection Configuration). You can also connect a “Null-Serial” cable from the device’s COM1 to your workstation’s COM1 to trap “Serial Debug” message. By default, the target device will output “Serial Debug” message at 38400 Baud. You can use “Windows Hyper Terminal” to collect “Serial Debug” message. Set the port settings to 38400 Baud, 8 data bits, No parity, 1 stop bit and use hardware flow control.

- From “Target Menu”, select “Download / Initialize”.

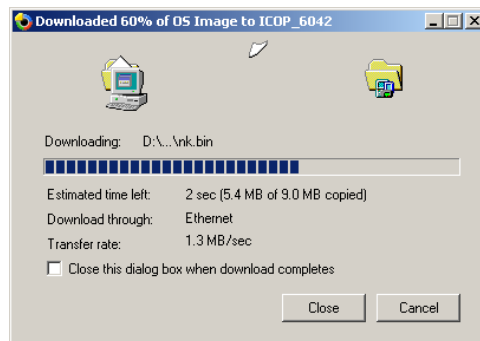


## Windows CE.NET Platform Builder Usage

- Platform Builder is now waiting for the target device's boot me message.



- Boot target device with the boot floppy prepared in the previous step. Select option "5" – Boot CE/PC (ether via eboot.bin with /L:640x480x32). Platform Builder will begin the download process as soon as it receive "boot me" message from the device.



- Once the download process is completed. The device should be able to boot into Windows CE.NET.

**DONE !!! You created a working Windows CE.NET image.**

### Appendix A

In addition to download Windows CE.NET image via Ethernet, you can also copy the compiled image to a bootable device such as DiskOnChip or Disk-On-Module and load the image from local storage using "Loadcepc.exe".

Example: Load Windows CE.NET image from Disk-On-Module.

1. Format a 16 ~ 32MB Disk-On-Module and make it bootable with DOS 6.22.
2. Copy all the files extracted from BootDos.Zip.
3. Rename "Autoexec.bat" to "Autoexec.bak" for backup purpose.
4. Rename "Local.bat" to "Autoexec.bat".
5. Copy "NK.BIN" onto Disk-On-Module.  
(NK.BIN is the Windows CE.NET image)

The system should boot into Windows CE.NET after power on.

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