

Using OPC90 with SCSI CIU and Newer Window OS

Unfortunately SCSI manufacturers support for SCSI drivers in newer Windows operating systems pretty much ended after Windows 2008. Fortunately older SCSI drivers can still be loaded in the newer Windows operating systems beyond 2008 and successfully used with the ABB SCSI CIUs. This document provides a procedure used to get an Adaptec 29320LPE 68-pin Ultra320 PCI Express SCSI card working in Windows 2019 using a Windows 2008 driver. It's anticipated this procedure can be used with other versions of Windows too.

Downloaded the Ultra320 SCSI Driver v7.00.00.12 for Windows 7 & Server 2008R2 driver. Keep the drive somewhere on a temporary directory or on a USB Pen drive. This driver can be found here:

https://storage.microsemi.com/enus/speed/scsi/windows/adpu320_win7_2k8r2_x64_v70012_exe.php

Disable BIOS secure boot and reboot the PC.

At the Windows Command Prompt: type the following:

```
bcdedit /set testsigning on  
bcdedit /set nointegritychecks on
```

Now install the driver.

Shut-down the server and install the SCSI cable between the ABB SCSI CIU and SCSI card. The test example used a SCSI cable purchased from Paralan Corp. That cable attaches to the SCSI port on the INICT13A and the Ultra320 SCSI adapter.

Restart the server and test to see the SCSI driver loads correctly during the start-up procedure before windows installs.

You should see the Adaptec driver load and post a message it has detected the ABB CIU called BAILEY IIMCP02 SCSI Processor Device.

Once you have confirmed that the SCSI card can be seen by the Adaptec driver go back to the command prompt and type the following:

```
bcdedit /set testsigning off  
bcdedit /set nointegritychecks off
```

Restart the server and once again make sure the driver can still be seen and the ABB CIU is detected by the driver.

This should then be a permanent driver installation and work every time the server is shut-down and started up. Note the reboot of the server must occur with the SCSI CIU cabled to the SCSI card and in the green light state. The SCSI address of the ABB CIU

can be selected within the OPC90 Device block Primary Port list box (after the list of COM ports) property.

The BIOS secure boot can now be enabled again.

If problems are still encountered there are two other items to investigate. First, make sure the PC hard drive controller isn't using the PCIe bus. That controller will interfere with the SCSI card usage of the PCIe bus. The hard drive type must be swapped to a type that doesn't use PCIe bus. Hard drives (includes SSD type) that utilize SATA are good choice.

The second item to investigate is make sure the SCSI card BIOS settings match (as close as possible) the suggested settings in the OPC90 documentation (see DEVICE block, SCSI Communication section). If the SCSI card BIOS setting can't be invoked on bootup of the PC, try accomplishing this by temporarily plugging it into an older PC that includes the PCIe bus.