

Technical Support

Technical Bulletin

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Product:	IEEE-1394	

Title:	Windows XP SP2 compatibility problem with IEEE-1394B adapters	
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PURPOSE

This technical bulletin describes an issue regarding Windows XP Service Pack 2 (SP2) and IEEE 1394b (Fire Wire) adapters. This problem affects Image Acquisition from all IEEE 1394 DCAM cameras connected to PCs via IEEE 1394b interface cards when using Windows XP SP2. Cognex software (CVL and VisionPro) will fail to acquire images from IEEE 1394a DCAM cameras that are plugged into IEEE 1394b adapter cards and also has Windows XP SP2 installed. This problem does not occur when using Windows XP Service Pack 1 (SP1) and does not occur when IEEE 1394a cameras are plugged into IEEE 1394a adapters.

TECHNICAL DETAILS

In Microsoft's Service Pack 2 (SP2) release for Windows XP operating system, IEEE 1394 devices (including IEEE 1394 DCAM compliant cameras) connected to the PC via **IEEE 1394b** host adapter cards will no longer operate at the right speeds. All IEEE 1394 devices on the bus will operate at 100Mbit/s speeds instead of their maximum speeds. This issue is documented in the Microsoft Knowledge Base article [KB885222](http://support.microsoft.com/kb/885222).

Note that this problem does not apply to IEEE 1394 devices connected via IEEE 1394a adapters. They will continue to work correctly after SP2 is installed.

The error symptom seen will be that all image acquisition commands via the acquisition API in CVL and VisionPro using an IEEE 1394 DCAM will fail with an acquisition error. Attempting to prepare the acquisition software for acquisitions will fail. All acquisitions will return acquisition failures. No images can be acquired.

WORKAROUND

Microsoft has released a hotfix outlined in [KB885222](http://support.microsoft.com/kb/885222) that fixes the issue for IEEE 1394a devices. Note that the hotfix does not completely bring IEEE 1394b devices to 800 Mbit/s speed but only to 400 Mbit/s. This is acceptable since Cognex CVL and VisionPro only currently support IEEE 1394a DCAM cameras operating up to 400 Mbit/s. The only known solution to get IEEE 1394b devices to full speed is to reinstall SP1 IEEE 1394 device drivers in SP2. But this is beyond the scope of this bulletin.

Where to get the Microsoft hotfix:

<http://support.microsoft.com/kb/885222>

* There have been problems of the hotfix install failing on certain PCs. Contact Cognex Technical support if you experience this problem. There is a workaround to make the hotfix install correctly.

Technical Support

Technical Bulletin

MOVING FORWARD

Cognex recommends one of the following solutions if you are experiencing the problem:

- Install the hotfix supplied by Microsoft
- Uninstall Windows XP SP2 and revert back to Windows XP SP1
- Replace the IEEE 1394b adapter with an IEEE 1394a adapter.