

NI-VXI FOR NB-MXI FOR MACINTOSH AND POWER MACINTOSH

Thank you for purchasing the NI-VXI bus interface software for Macintosh from National Instruments. These release notes contain information about compatibility that you need if you will be developing applications using NI-VXI for both the NB-MXI and the PCI-MXI-2, or if you will be migrating an application from one of these MXIbus interfaces to the other.

Power Macintosh Compatibility Library

With the introduction of PCI-based Power Macintosh systems, National Instruments now offers two MXI solutions for controlling VXI systems using a Macintosh computer—the NB-MXI and the PCI-MXI-2.

NuBus-based Macintosh computers use a 680x0-based Device Manager. Even if the computer has a PowerPC microprocessor, those machines will still run an emulated 680x0 version of the Device Manager. Therefore, the NI-VXI device driver for the NB-MXI is a 680x0 device driver, and runs emulated on a Power Macintosh.

PCI-based computers, on the other hand, use a PowerPC-native Device Manager. Therefore, the NI-VXI device driver for the PCI-MXI-2 is a fully PowerPC-native implementation of NI-VXI.

This release of the NB-MXI driver software includes a compatibility library for Power Macintosh. You can use this library to develop PowerPC-native applications that call the emulated NB-MXI driver. If you develop your native applications using this library, they will run without modification on the PCI-MXI-2. If you develop a 680x0 application using NI-VXI, you will need to recompile it as a PowerPC-native application if you want to run it on a PCI-MXI-2.



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The following table shows what file to link with when developing your NI-VXI C programs.

Platform	680x0 Application	Native Application
NB-MXI	<code>cvxi.c</code> (Located in C language interface directory)	NI-VXI for NB-MXI (Located in Extensions Folder)
PCI-MXI-2	Not supported	NI-VXI for PCI-MXI-2 (Located in Extensions Folder)

Binary Compatibility

To ensure binary compatibility between the NB-MXI and the PCI-MXI-2, you must define the symbol `BINARY_COMPATIBLE` before including the NI-VXI header file. Defining this symbol forces NI-VXI to use a binary-compatible method for accessing registers rather than optimizing low-level macros for the particular MXI interface you are using.

The following code shows the syntax for the `#define` and `#include` statements.

```
...
#define BINARY_COMPATIBLE
#include <nivxi.h>
...
```

NI-VISA and LabVIEW

You do not need to modify NI-VISA applications or LabVIEW VIs when migrating from NuBus to PCI.

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