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VXI*plug&play* Software Kit
NI-VISA™ for Solaris 1.*x* and 2.*x*
SUN and GSUN Frameworks

Thank you for purchasing a National Instruments VXI*plug&play*-compliant controller. To be compliant with VXI*plug&play* specifications, a VXI controller must provide the VISA I/O driver library standardized by VXI*plug&play*. VISA ensures that your controller can run all VXI*plug&play*-compatible software now and in the future, while NI-VXI and NI-488.2 ensure that your controller can run the installed base of drivers and applications. The NI-VXI and/or NI-488.2 driver software components are included with your controller, and the documentation that accompanies your controller describes how to install and use them. This VXI*plug&play* software kit includes NI-VISA, which is the National Instruments implementation of VISA, and related documentation. This document describes how to install your NI-VISA software.

The NI-VISA software in this kit is compatible with both the SUN and GSUN frameworks for both Solaris 1.*x* and Solaris 2.*x*. With NI-VISA installed on your computer, you can run any VXI*plug&play* software that is compatible with these frameworks. This includes instrument drivers and executable soft front panel software that are included with VXI*plug&play*-compatible instruments from a variety of vendors.

Please also see the `readme.txt` file included with your software for the most up-to-date information about this release of NI-VISA.

Components

The VXI*plug&play* software kit contains the following software and documentation components.

Software

- VISA 1.0 Shared Object
- VISA 1.0 GPIB-VXI Component
- VISA 1.0 Support Files for LabWindows®/CVI version 3.1

- VPP-6 Compliant Solaris Installer
- HyperHelp Runtime Environment

Documentation

- *NI-VISA Programmer Reference Manual*
- *NI-VISA User Manual*

Supported Application Development Environments

The following Application Development Environments (ADEs) are supported with this release of NI-VISA for Solaris 1.*x* and Solaris 2.*x*.

- LabVIEW version 4.0
- LabWindows/CVI version 3.1
- gcc version 2.6.3
- acc versions SC 1.0 and SC 2.0.1 (Solaris 1.*x* only)
- cc version SC 3.0.1 (Solaris 2.*x* only)

☞ **Note:** *Although NI-VISA has been tested and found to work with these ADEs, other ADEs or higher versions of the ADEs listed above may also work.*

Installation Procedures

Step 1. Install Your NI-VXI/NI-488.2 Driver Software

The installation method varies depending on the type of controller you have purchased, as shown in the following table. Refer to the documentation that came with your controller for detailed installation instructions.

Controller	Installation
VXI-SB2020 MXI controller	Install the NI-VXI for Solaris software.
GPIB-VXI/C controller or any National Instruments GPIB board that has a Solaris driver	Install the NI-488.2 for Solaris software.

If you plan to use NI-VISA with only the serial ports on your computer, you do not need to install NI-VXI or NI-488.2.

Step 2. Install Your NI-VISA Software

The remainder of this document describes how to install the NI-VISA software on your controller. Some of the instructions differ depending on whether you are using Solaris 1.*x* or Solaris 2.*x*.

Installing NI-VISA on Solaris 1.*x*

☞ **Note:** *The NI-VISA driver for Solaris 1.x requires that the kernel configuration include the semaphore and shared memory components.*

1. Log on as super-user (root privileges needed).

2. Change to a temporary directory by typing the following command:

   ```
   cd /tmp
   ```

3. Copy the install script from the NI-VISA diskette by typing the following command:

   ```
   tar xvf /dev/rfd0c INSTALL
   ```

☞ **Note:** *The device name shown in this code example may be different for your system. Please refer to your system's user guide or system administrator for the correct device name. If it is different, modify the* INSTALL *script to reflect the correct device name.*

4. Execute the install script by typing the following command.

   ```
   ./INSTALL
   ```

   Follow the instructions as prompted.

5. Remove the install script by typing the following command.

   ```
   rm INSTALL
   ```

6. Add the following environment variables to your shell setup file as shown below for `csh`. The following commands assume that you installed NI-VISA into `/usr/vxipnp`.

   ```
   setenv VXIPNPPATH /usr/vxipnp
   ```

   ```
   setenv LD_LIBRARY_PATH /usr/vxipnp/sun/bin
   ```

☞ **Note:** *If your shell setup file already contains the* LD_LIBRARY_PATH *variable, you will need to append* /usr/vxipnp/sun/bin *to the end of the statement. The required commands may vary from those shown above if you are not using* csh*.*

7. Exit super-user mode.

Installing NI-VISA on Solaris 2.*x*

1. Log on as super-user (root privileges needed).

2. Change to a temporary directory by typing the following command:

   ```
   cd /tmp
   ```

3. Copy the install script from the NI-VISA diskette by typing one of the following commands, depending on whether you are running volume management.

   - If you are *not* running volume management:

     ```
     tar xvf /dev/diskette INSTALL
     ```

   - If you *are* running volume management:

     ```
     tar xvf /vol/dev/rdiskette0/unlabeled INSTALL
     ```

☞   **Note:**   *The device name shown in this code example may be different for your system. Please refer to your system's user guide or system administrator for the correct device name. If it is different, modify the* INSTALL *script to reflect the correct device name.*

4. Execute the install script by typing the following command.

   ```
   ./INSTALL
   ```

   Follow the instructions as prompted.

5. Remove the install script by typing the following command.

   ```
   rm INSTALL
   ```

6. Add the following environment variables to your shell setup file as shown below for `csh`:

   ```
   setenv VXIPNPPATH /opt/vxipnp
   
   setenv LD_LIBRARY_PATH /opt/vxipnp/sun/bin
   ```

☞   **Note:**   *If your shell setup file already contains the* LD_LIBRARY_PATH *variable, you will need to append* /opt/vxipnp/sun/bin *to the end of the statement. The required commands may vary from those shown above if you are not using* csh*.*

7. Exit super-user mode.

Step 3. Install Your VISA Support Files for LabWindows/CVI Version 3.1 (Optional)

This step is necessary only if you are using LabWindows/CVI version 3.1 as a VISA application development environment (ADE). You can use the *VISA 1.0 Support Files for LabWindows/CVI 3.1 for Solaris 1.x* or *2.x* diskette to install VISA function panels and the C language header files into the appropriate LabWindows/CVI directories.

Perform the same steps you followed to install your NI-VISA software as previously described, with the exception of step 6. Setting the environment variables does not apply to LabWindows/CVI.

Step 4. Install the LabWindows/CVI Run-Time Engine (Optional)

This step is necessary only if you have chosen to install the VISA Interactive Control utility and you do not already have the LabWindows/CVI Run-Time Engine installed on your computer. You can use the *LabWindows/CVI 3.1 Run-Time Engine for Solaris 1.x* or *2.x* diskette to install this component.

Perform the same steps you followed to install your NI-VISA software as previously described, with the exception of step 6. Setting the environment variables does not apply to LabWindows/CVI.

Step 5. Install the HyperHelp Runtime Environment

This section describes how to install the HyperHelp Runtime Environment file. You must install these files so that you can access the NI-VISA online help.

1. Identify the directory where you want to install HyperHelp, and change to that directory. For example, if you want to install HyperHelp under the `/usr` directory, enter the following command:

    ```
    cd /usr
    ```

    The HyperHelp installation procedure creates a `hyperhelp` subdirectory in the current working directory.

☞   **Note:**   *For Solaris 1.x the recommended directory is `/usr`.*
For Solaris 2.x the recommended directory is `/opt`.

2. Insert the HyperHelp media into your installation device and copy the HyperHelp archive files with the following command:

```
tar xvf /dev/rfd0
```

☞ **Note:** *The device name shown in this code example may be different for your system. Please refer to your system's user guide or system administrator for the correct device name.*

Repeat this procedure for all HyperHelp runtime environment and configuration diskettes.

3. Uncompress and unzip the HyperHelp files with the following commands:

```
uncompress *.Z
./gunzip.arch *.gz
```

where `arch` represents your platform name (`sol1` or `sol2`).

☞ **Note:** *The* `gunzip` *utility is distributed under the terms of the GNU General Public License solely for the purpose of uncompressing the HyperHelp files. In accordance with the terms of the license, source code for* `gunzip` *is available by sending e-mail to* `visa.support@natinst.com`.

4. Unarchive each file that ends with the `.tar` extension as follows:

```
tar xvf filename.tar
```

5. Set the `HHHOME` environment variable to the location of the HyperHelp files.

   • **C shell users:** Add the following to your login file:

     ```
     setenv HHHOME install_dir/hyperhelp
     ```

   • **Korn shell or Bourne shell users:** Add the following to your login file:

     ```
     HHHOME=install_dir/hyperhelp;export HHHOME
     ```

6. Add `$HHHOME/bin` to your `PATH` environment variable.

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