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M933x Software Package Installation for N6030A Users

Scope

The following information applies to users of the N6030 Software Package (release 1.36.3 or earlier), who wish to subsequently install the new M933x Software Package.

Note: For any new software application development it is recommended to use the latest drivers supplied with the M933x software package, as no further releases of the N6030A software will be made.

Driver migration

Release 2.00.0001 (April 2011) or later, of the AgM933x Software Package ensures backward compatibility with existing N6030A software application code. The M933x Software Package provides a specific M933x products driver (AgM933x.dll) which includes a number of bug fixes and improvements, over the N6030 Software Package. For a complete list of these changes please refer to the "readme" files which may be found in the following locations:

- On the controller/PC after M933x installation -<IVIROOTDIR>\Drivers\AgM933x\Readme.txt
- N6030A Series AWG CD -N603xA_IVI-C_Driver_Version_1.36.3.readme.txt

In addition, the M933x Software Package also provides the driver contained in the N6030 Software Package (AGN6030A.dll), allowing backward compatibility with existing software applications.

M933x Software Package Installation

Prior to installing the M933x Software Package, please ensure the following before installation of the M933x Software Package is started:

- Any existing N6030A software has been correctly uninstalled from the controller.
- That the latest Agilent IO Libraries Suite is first installed.

The IO Libraries Suite and the M933x Software package may be installed from either the supplied CDROMs or the Agilent Technologies website: www.agilent.com/find/M9330A

If you wish to install the M933x Software Package, there are two possible ways to proceed:

1. Use the legacy AGN6030A.dll driver without editing or rebuilding any code.
2. Migrate to the new AgM933x.dll driver, by editing and rebuilding your source code.

1. Use the legacy AGN6030A.dll driver.

For LabVIEW software applications:

If you do not wish to migrate, there is no change required in your LabVIEW applications.

For MATLAB software applications:

In the N6030A Software Package, MATLAB was supported through a MEX API interface using the file AGN6030A.dll. This interface and the required M-Files (function declarations) that were included in the N6030 installation, have also been included in the M933x installation for backward compatibility. Thus if you do not wish to migrate to the M933x driver, all that is required, is to configure MATLAB to correctly locate these files as follows:

- Open MATLAB
- From the menu, select **File - Set Path...**
- Add the folder:
'<INSTALL DIR>\N6030Support' (e.g 'C:\Program Files\Agilent\M933x\N6030Support')

For C/C++ software applications:

The legacy AGN6030A.dll file is also included in the M933x Software Package installation, thus if you do not wish to migrate to the M933x driver, no changes are necessary to your existing C/C++ code.

2. Migrating to the AgM933x.dll driver.

For LabVIEW software applications:

The LabVIEW layer and API provided by the M933x software package is significantly different to the previous N6030 software package. Please refer to the detailed documentation and example code provided with the M933x software package.

For MATLAB software applications:

The MATLAB layer and API provided by the M933x software package is significantly different to the previous N6030 software package. MATLAB is now interfaced through the IVI-COM driver and no longer by a dedicated MEX API interface. Please refer to the detailed documentation and example code provided with the M933x software package.

For C / C++ software applications:

1. In the project properties, set the include directory to
`<IVIROOTDIR32>\Include` or `<IVIROOTDIR64>\Include` depending on 32 or 64-bit platform.
2. In the project properties, link to the new library *AgM933x.lib* instead of the old *AGN6030A.lib*
3. In your code, include the header file *AgM933x.h* instead of *AGN6030A.h*
4. In your code, replace all function name prefixes by the new one
e.g. `AGN6030A_init` becomes `AgM933x_init`
5. In your code, replace all macro name prefixes by the new one
e.g. `AGN6030A_ATTR_RANGE_CHECK` becomes `AGM933X_ATTR_RANGE_CHECK`
6. Try to compile your code. Replace any functions that are flagged as undeclared by the compiler by their new equivalent
e.g. `AGN6030A_CreateArbScenario` becomes `AgM933x_ScenarioCreate`
7. In your code, update the initialization call with the new options string format.
8. You can now compile and run your code with the new AgM933x driver.

Troubleshooting

For further information, please refer to the M933x IVI documentation, supplied on the software installation CDROM, or available from the Agilent Technologies website. www.agilent.com/find/M9330A

If you have followed the steps described, and are still encountering difficulties with this process, please contact support at: MPO_support@agilent.com

