MCC-DAQ Driver for DASYLab

Updated driver for Measurement Computing Corporation DAQ hardware

The version 11 MCC-DRV driver (mccdrv_i.dll) for DASYLab installs with DASYLab version 11 and is intended to replace the previous driver (mccdaq.dll). Both drivers can be installed, although only one driver can run at a time.



When installing software and hardware, you may need to log on to a user account with Administrator privileges. If you have any problems, please verify your user account privileges before calling technical support.

Introduction

Please review these notes before working with MCC data acquisition hardware.

*Insta*Cal and the Universal Library are required

Before you install the MCC-DRV driver, you must install Measurement Computing's *Insta*Cal configuration software and the Universal Library software version 5.91 or later. The MCC-DRV also requires revision 2.0 of the Microsoft .NET Framework or later.



Configure your MCC DAQ hardware with the *Insta*Cal configuration software before using the MCC-DRV driver. DASYLab will not recognize your MCC DAQ hardware until it is first configured with *Insta*Cal.



The latest version of the MCC-DAQ Driver for DASYLab is available for download at www.mccdaq.com/software.aspx.

Installing the MCC-DAQ hardware drivers

During the DASYLab installation, a **Setup** screen prompts you to select the driver(s) to install. Expand the **Data Acquisition** folder to select the Measurement Computing driver(s):

- Select **Measurement Computing** to install the MCC-DRV driver **mccdrv_i.dll**.
- Select **Measurement Computing Legacy** to install the legacy driver **mccdaq.dll**.

  Select this driver if you want to run existing programs in older DASYLab versions without upgrading to DASYLab version 11.

Each driver can run with DASYLab version 11. Both drivers can be selected for installation, although only one driver can be run at a time.

The DASYLab.ini file specifies the driver that loads when the software is launched. When both drivers are installed, you can modify the DASYLab.ini file to specify the driver that you want to load when DASYLab is launched.

Modifying the DASYLab.ini file

1. Browse to the directory where the DASYLab.ini file is installed, and open the DASYLab.ini file.
   - On Windows XP and 2000 systems this file is located in the x:\Documents and Settings\All Users\Shared Documents\DASYlab\11.0.0\Eng folder of the system drive.
   - On Windows Vista systems this file is located in the x:\Users\Public\Public Documents\DASYLab\11.0.0\Eng folder of the system drive.
2. Note the line defining which driver file is loaded "DLLx= *filename*". This line specifies which driver to load when DASYLab is run:
   - **DLLx= mccdrv_i.dll** loads the MCC-DRV driver
   - **DLLx= mccdaq.dll** loads the legacy driver
3. Change the driver listed, if desired, then save and close the DASYLab.ini file.

Supported MCC DAQ hardware

- The mccdrv_i.dll driver supports the data acquisition devices listed in the "Measurement Computing hardware supported by the MCC-DRV DASYLab driver" document (www.mccdaq.com/pdfs/manuals/mcc-drv-DASYLab-hw.pdf).

- The mccdaq.dll driver supports older data acquisition devices that are supported by the Universal Library hardware driver from Measurement Computing Corporation (MCC).

Working with the MCC-DRV driver

The MCC-DRV driver modules are located in the Browser under **Modules » Inputs/Outputs » MCC-DRV**. An **MCC-DRV** option is shown under the **Modules » Inputs/Outputs** menu, the **Measurement » Hardware Setup** menu and the **Measurement » Measurement Setup** menu.

Setting up the MCC-DRV hardware

Use the **Hardware Setup** dialog to configure the MCC-DRV modules. You can open this dialog from either the **Hardware** button on the module's property page or from the **Measurement » Hardware Setup » MCC-DRV » Hardware-Settings** menu item. The settings are saved with the worksheet.

The **Hardware Setup** dialog lists a tab for each device installed in *Insta*Cal. Each device has the appropriate subsystem tabs which contain settings that apply to the subsystem. You can define the following settings, depending on the device:

- Acquisition mode
- Clock source
- Temperature options
- Trigger settings
- Data generation

Setting up the measurements

Use the **Measurement Setup** dialog to list the MCC-DRV devices that are available for data acquisition measurements, and the subsystems supported by each device. You can open this dialog from either the **Measurement…** button on the module's property page or from the **Measurement » Measurement Setup » MCC-DRV » Measurement…** menu item.

Each subsystem tab lists the following information:

- Subsystem name
- Sample mode, sample rate, and block size
- Selected time base
  - A drop down control lists the time base option(s) supported by the device.
  - A **Modify** button opens a dialog for changing the time base settings (sampling rate and block size)
- Current buffer level progress bar that dynamically updates during a measurement process

The settings are saved with the worksheet.

Time base options

The MCC-DRV driver is time base driven rather than event driven. The driver uses four time base options — input hardware, input software, output hardware, and output software. The hardware options are selectable when the device supports hardware pacing.

Help for the MCC-DRV driver and the Universal Library

- A help file for the MCC-DRV driver is available from the **Help » MCC-DRV » Help** menu. This help file contains information on the hardware and the functions for the installed hardware driver.
- A help file for the Universal Library is available from the **Help » MCC-DRV » Universal Library Help** menu.
- Documentation for your hardware is available from the **Help » MCC-DRV » Product Manuals Homepage** menu. This opens MCC's Product Manuals page from which you can download the *User's Guide* for your device.

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