Quick Start
MCC DAQ Software

InstaCal™
Installation utility

TracerDAQ®
Ready-to-run DAQ application

Universal Library™
Windows® and Android™
programming libraries and examples

ULx for NI LabVIEW™
Drivers and examples

Hardware User Manuals
# Table of Contents

- Getting Started with MCC DAQ Software ................................................................. 4
- Install the MCC DAQ Software and Hardware ....................................................... 4
- Getting Started with InstaCal ..................................................................................... 5
  - Adding a Device .................................................................................................. 5
    - USB, Bluetooth, WEB, and PCI Devices ......................................................... 5
    - Ethernet and Other Devices ............................................................................. 5
  - Configuring a Device ......................................................................................... 5
  - Testing a Device ............................................................................................... 6
  - Calibrating a Device ......................................................................................... 6
  - Getting Started with the Universal Library (UL) .................................................. 6
    - Getting Started with the UL for Android ......................................................... 7
- Getting Started with ULx for NI LabVIEW .............................................................. 7
- Getting Started with TracerDAQ .............................................................................. 8
- MCC Hardware User's Guides and Data Sheets ..................................................... 9
- For More Information ......................................................................................... 10
  - InstaCal ........................................................................................................... 10
  - Universal Library ........................................................................................... 10
  - ULx for NI LabVIEW ..................................................................................... 10
  - TracerDAQ help .............................................................................................. 10
- Trademark and Copyright Information ................................................................. 11
  - Notice .............................................................................................................. 11
Getting Started with MCC DAQ Software

Please read this booklet completely before you install your Measurement Computing Corporation (MCC) software or device.

You can install MCC DAQ Software from the CD on a computer running Windows 10/8/7/Vista/XP* (32- or 64-bit).

- ISA, PC-CARD/PCMCIA and E-PDISO16 devices are only supported on Windows XP.
- MCC USB, Bluetooth®, Ethernet™, WLS, WEB, and most PCI devices are supported on 64-bit Windows operating systems†.

Install the MCC DAQ Software and Hardware

To install the MCC DAQ software, complete the following steps:

1. Insert the installation CD and wait for the setup program to start.
   All software packages are selected for installation if the requirements for the package are met.

2. Click Install and follow the instructions to install each software package.
   Each selected software package is installed one after the other using separate installers, so make sure each installer finishes completely.

3. Install your device by following the instructions in the hardware user's guide so that it gets detected by Windows‡.

   Note: Refer to www.mccdaq.com/software.aspx to download and install the latest updates to the MCC DAQ software.

---

* ISA and PC104 devices are only supported by Windows XP.
† PCI-DAS1000 Series, PCI-DAS1200 Series, and PCI-DAS1600 Series devices are not supported on 64-bit operating systems.
‡ Some MCC devices – such as USB-2500 Series or USB-2404 Series – display an additional prompt while installing. This wizard is required to install additional drivers specific to this device. Do not cancel this wizard or the device will not install properly.
Getting Started with InstaCal
InstaCal is a software utility for installing, configuring, testing, and calibrating MCC devices. Running a supported Windows operating system is the only requirement for installing InstaCal.

Adding a Device
Once you launch InstaCal, how you add your device to depends on the type of bus interface.

USB, Bluetooth, WEB, and PCI Devices
These device types are automatically detected by InstaCal, which prompts you to add the device to the InstaCal board list.
Select the devices to add to InstaCal on the Plug and Play Board Detection dialog box and click OK.

Ethernet and Other Devices
Complete the following steps to manually add these types of devices to InstaCal after they are connected to the computer or network.
1. Select Install»Add Board to display a group of tabs.
2. Click on the tab that corresponds to the type of device you want to install.
3. Select the device and click Add.
Each added device is listed on the PC Board List.

Configuring a Device
To configure a device with InstaCal, complete the following steps:
1. Select the device on the PC Board List and then select Install»Configure.
2. Configure the device and click OK.
InstaCal stores hardware configuration settings in a configuration file which is read by other MCC DAQ software when you run an application.
Note: Only one application program that calls the Measurement Computing driver can be running at a time. If the device is used by a Universal Library program, changes to device configuration settings can only be made when the program is not running.

Testing a Device

The tests available with InstaCal depend on the features of the device.
- If the device samples analog signals, select Test » Analog and follow the onscreen instructions to perform analog input tests such as a loopback test and a Scan test.
- If the device samples digital signals, select Test » Digital to perform digital I/O tests such as an external DI test, an external DO test, an internal CTR test, and an external CTR test.

Calibrating a Device

If your device supports field calibration, complete the following steps to calibrate it with InstaCal:

1. Select the device on the PC Board List and the select Calibrate » A/D or Calibrate » D/A.
2. Follow the onscreen instructions to calibrate the channels.

Getting Started with the Universal Library (UL)

The UL is an application development programming library for MCC devices that requires one or more of these development languages:
- **Microsoft Windows languages**: Visual Basic and Visual C/C++
- **.NET languages**: VB .NET, C# .NET (Visual Studio® 2005 and later)
- **Android languages**: Java (Android Studio, Eclipse™)

Most UL users detect and configure their hardware with InstaCal.
The UL API also includes functions and methods for detecting many types of MCC devices at runtime. You can use these features in addition to or instead of using InstaCal for detection and configuration.
UL example programs are installed by default to Users\Public\Documents\Measurement Computing\DAQ for Windows OS except Windows XP. On Windows XP, the example programs are installed to Program Files\Measurement Computing\DAQ.

When you install the example programs, an Examples shortcut is added to the directory where you installed the UL. When selected, the directory containing the example programs opens in Windows Explorer.

**Note:** Most UL example programs use API functions and methods to detect and configure hardware.

**Getting Started with the UL for Android**

UL for Android is an API library for supported MCC DAQ devices that support the Android platform. You can develop on supported Windows platforms and deploy to Android devices using integrated development environments such as Eclipse or Android Studio.

Visit [www.mccdaq.com/ULforAndroid](http://www.mccdaq.com/ULforAndroid) for a list of DAQ devices supported by UL for Android, or to download the UL for Android software to develop Android apps on a Linux or Mac platform.

Select **Android Examples** to install example projects on Windows platforms to deploy and run on an Android device. Refer to the *UL for Android Example Projects* help topic in the UL for Android help to learn how to deploy and run example projects on an Android device.

**Getting Started with ULx for NI LabVIEW**

ULx for NI LabVIEW is a library of virtual instruments (VIs) and example programs used with National Instruments LabVIEW that requires the following software:

- InstaCal and UL
- NI LabVIEW 2010 or later
- Microsoft .NET Framework 2.0
Getting Started with TracerDAQ

MCC devices must first be detected and added to the InstaCal configuration file before they can be used with ULx for NI LabVIEW.

You can open a ULx for NI LabVIEW example program from its default installation directory (Program Files\National Instruments\LabVIEW <version>\examples\ULx) or with the NI Example Finder utility in NI LabVIEW.

Refer to the [www.mccdaq.com/PDFs/manuals/QS ULx for NI LabVIEW.pdf](http://www.mccdaq.com/PDFs/manuals/QS ULx for NI LabVIEW.pdf) for a quick start example.

**Getting Started with TracerDAQ**

TracerDAQ is a virtual instrument application suite with strip chart, oscilloscope, function generator, and rate generator that requires the following software:

- Microsoft .NET® Framework 2.0 (installs automatically)
- DirectX 9.0c (installs automatically)
- InstaCal

TracerDAQ requires the following hardware:

- Video card with 16 MB of memory and support for Direct3D Acceleration
- Minimum screen resolution of 1024 × 768
- Computer with Pentium® 4 processor and 256 MB of RAM
- A Microsoft-compatible mouse
- Supported MCC DAQ device

MCC devices must first be detected and added to the InstaCal configuration file before they can be used with TracerDAQ.

Refer to the *TracerDAQ Help* (TracerDAQHelp.chm) for quick start examples of each TracerDAQ application – strip chart/data logger, oscilloscope, function generator, and rate generator.
MCC Hardware User's Guides and Data Sheets


If you installed the MCC hardware user's guides, run InstaCal and select Help » User's Guides. Browse the folders to find your hardware user's guide.

Adobe® Reader® is installed with the user's guides if it is not already installed on the computer.
For More Information

If you have questions that you cannot answer by reading this booklet, refer to these resources:

- Knowledgebase: kb.mccdaq.com
- Tech support form at www.mccdaq.com/support/support_form.aspx
- Email: techsupport@mccdaq.com
- Phone: 508-946-5100 and follow the instructions for reaching Tech Support.

Customers outside of the U.S. should contact their local MCC distributor for support. Refer to www.mccdaq.com/International to locate a distributor.

InstaCal

For more information about InstaCal, refer to the readme files in the \ICalUL folder on the MCC DAQ Software CD.

Universal Library

For more information about UL, refer to the Universal Library Help (ULHelp.chm). Use the Search tab in the help file to find information about the UL functions that your device supports.

For more information about UL for Android, refer to the UL for Android help files in Program Files\Measurement Computing\DAQ\Android\ul_help.zip.

ULx for NI LabVIEW

For more information about ULx for NI LabVIEW, refer to the ULx for NI LabVIEW Help (lvulx.chm).

TracerDAQ help

For more information about TracerDAQ, refer to the TracerDAQ Help (TracerDAQHelp.chm).
Trademark and Copyright Information
Measurement Computing Corporation, InstaCal, Universal Library, TracerDAQ, and the Measurement Computing logo are either trademarks or registered trademarks of Measurement Computing Corporation. Refer to the Copyrights & Trademarks section on mccdaq.com/legal for more information about Measurement Computing trademarks. Other product and company names mentioned herein are trademarks or trade names of their respective companies.

© 2015 Measurement Computing Corporation. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form by any means, electronic, mechanical, by photocopying, recording, or otherwise without the prior written permission of Measurement Computing Corporation.

Notice
Measurement Computing Corporation does not authorize any Measurement Computing Corporation product for use in life support systems and/or devices without prior written consent from Measurement Computing Corporation. Life support devices/systems are devices or systems that, a) are intended for surgical implantation into the body, or b) support or sustain life and whose failure to perform can be reasonably expected to result in injury. Measurement Computing Corporation products are not designed with the components required, and are not subject to the testing required to ensure a level of reliability suitable for the treatment and diagnosis of people.