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CAMPBELL SCIENTIFIC TRAINING COURSES

INTRODUCTION TO DATALOGGERS
& CR BASICS



This two day introductory training course will teach you the fundamentals of programming the latest generation of Campbell Scientific dataloggers using LoggerNet with CRBasic.

Day one of the course provides a good introduction to using LoggerNet to administer, program and collect data from Campbell's most popular dataloggers. Day two of the course will teach you how to customise a datalogger program to suit different sensor and data storage requirements.

Course Overview

Day 1 : Software and Datalogger Hardware.

Introduction to datalogging.

Software Overview:

- Device Configuration Utility
- Changing datalogger settings using Device Configuration utility
- Sending an Operating System to the datalogger
- PC400
- Loggernet
- ShortCut

Detailed review LoggerNet:

- Creating a new Station Profile in the setup screen
- Connecting to a datalogger using Connect Screen
- Setting the datalogger clock
- Sending a program to the datalogger
- Working with Data
 - Monitoring and graphing Real Time Data
 - Viewing historical data using View Pro
 - Accessing files via File Control
 - Downloading data on a schedule
 - Monitoring schedules with the Status Monitor
 - Displaying data with RTMC

Troubleshooting:

- Status Monitor
- Status Table
- Log Tool

Introduction to CRBasic and the CRBasic language

Day 2: Datalogger Programming

Programming with ShortCut

The CRBasic Editor:

- Help System
- Commenting and Syntax Highlighting
- Navigation

Program Templates

- Introduction to Programming
- Measurement and Control Example Program
- Declaring Variables
- Declaring DataTables

Creating a Main Program

- Measurement and Control example program
- Using If-Then-Else Statements
- Using Program Features
- Different measurement instructions for different sensor types

Data Types and Formats

- Dim, Alias and Const instructions
- Available Data Types
- Data precision (e.g. FP2 versus IEEE4)
- Defining Data Tables
- Conversion and manipulation of data

Loops

- Sub routines
- For loops
- Multiplexers

Serial communications

- Digital data
- Using the Terminal Emulator with SDI-12 sensors

Important Information

- Course commences 9am each morning and finishes at 5pm, there is ample parking on site.
- Lunch and training materials are provided. Please advise of any special dietary requirements before the course.
- Accommodation and travel is not included but we can provide local recommendations.
- All courses are taught using the latest version of LoggerNet software, all equipment is provided.
- All fees must be paid in full prior to the course by either credit card or invoice. Full refunds are given up to 2 weeks before the course, cancellations after this time attract a 20% charge. No refund is given for cancellations 24 hours prior to commencement.
- Participant substitutes are welcome at any time prior to commencement of the course. No substitutes welcome after the course has begun.

WHAT PEOPLE HAVE TO SAY:

The facilities and equipment provided for the course were excellent.

It was extremely useful to get hands-on experience with a variety of instruments and learn how to use them with the logger.

The trainer is the best I have ever met. We got more than expected from Campbell. Thank you very much for the course and hospitality.





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As a trusted provider of measurement solutions since 1974, Campbell Scientific has delivered the information that helps mitigate severe weather casualties; aids scientists in gathering data to assist in the understanding of climate change and other human-made environmental impacts; and supports countless organizations, institutions, and national agencies in providing more efficient services to their people. Our instrumentation hardware is known to be the best in the business. Our software services provide an unrivaled level of insight. Our project delivery expertise combines both to deliver a unique end-to-end solution capable of changing the world.



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