

# Real-Time Data Monitor Software

## RTDM 2.0

### Features

- Provides interactive graphs, dials, and digital values that can be easily customized
- Uses data from data files and/or the LoggerNet server
- Refreshes the display automatically as new data becomes available
- Includes interactive controls that allow the input locations, public variables, ports, and flags to be changed via a LoggerNet server
- Calculates values then displays the values
- Triggers alarms based on user-set values
- Sets values in one datalogger based on values from another datalogger
- Exports GIF, JPG, and PNG images for use on a Web site
- Designer, Runtime, and Demo versions available

### Description

Real-Time Data Monitor (RTDM) is a powerful program that allows you to design display screens. The screens can display real-time data retrieved from LoggerNet servers and/or near real-time data retrieved from data files. The RTDM designer environment gives you control over your data display with color, images, and graphical components. RTDM includes comprehensive, context-sensitive, on-line help. A demonstration display illustrates some of RTDM's capabilities.

### What data will RTDM display?

RTDM reads data from a Campbell Scientific data file located on the computer's hard drive or from a LoggerNet server via TCP/IP link (on the same or remote PC). A data file can be the original file retrieved from a datalogger with Campbell Scientific's LoggerNet or PC208W Datalogger Support Software or a file generated by Split, which is a program available in LoggerNet and PC208W. RTDM can read from multiple data files and communicate with multiple LoggerNet servers, allowing the designer to display data from multiple dataloggers on one computer screen.

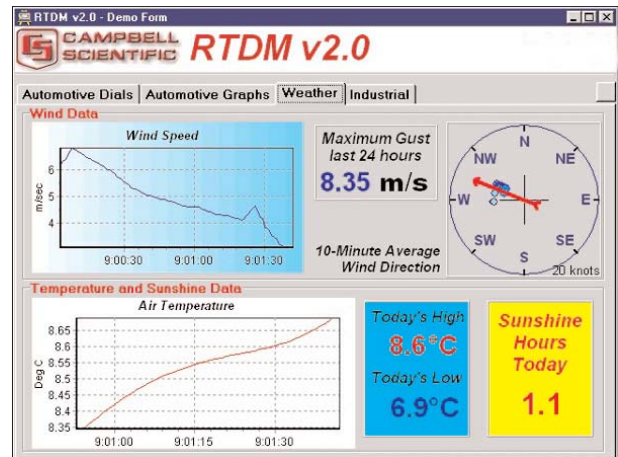
### Designer Controls

#### Active Controls

Active controls include data tables, charts, dials, dynamic labels, and color bars. Standard chart types supported include bar, line, area, and point. Active charts process the data before display, and include curve fitting, average, moving average, and momentum.

#### Interactive Controls

Interactive controls include toggles, sliders, and set points that allow you to change datalogger input locations, public variables, ports, and flags via a LoggerNet server.



## Graphical Controls

Displays can be enhanced with fonts, text labels, group boxes, lines, shapes, panels, headers, tabbed notebooks and images. Displays can be split between several pages of a tabbed notebook.

## Other Controls

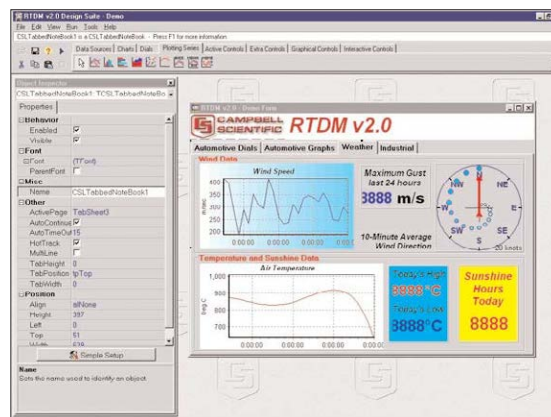
Launch buttons and launch zones allow a command line to be executed when clicked.

## Run-time Operation

### Speed

RTDM checks for new data at a user-specified interval. Using data files, a near-real-time display is achieved by frequently checking the data files for new data then retrieving it. Using LoggerNet servers as a data source, a real-time display is achieved by frequently checking the servers for new data.

However, in many applications updating every few minutes (or even less frequently) is sufficient, and will reduce the time for which the PC must be on-line to the datalogger. The maximum speed of operation will depend on the communication link to the datalogger and capabilities of the PC.



## Alarms

RTDM can alert you when specified data values go out of range and sound alarm conditions. RTDM can pop up a dialogue box, forcing the attendant to acknowledge the condition. A sound file can be played to attract the attendant's attention, or another program can be launched (perhaps to send a warning by fax or email). Input locations, public variables, ports, and flags can be changed on the same datalogger or on another datalogger in response to an alarm condition when a LoggerNet server is used as a data source. The alarms and acknowledgements can be logged to a file.

## Historical Data

RTDM allows you to scroll charts backward and forward to see old values, or to zoom in on points of interest.

## GIF, PNG, or JPEG Output for Internet Web Page Displays

Any control or combination of controls can be configured to automatically generate and periodically update GIF (public domain RLE compression, not LZW), PNG, or JPEG images of themselves. The images can then be referenced by an HTML page for display on a Web site.

## Computer Requirements

- Windows 95/98/ME/NT/2000/XP
- VGA monitor (SVGA 800 x 600 with 256 colors or greater recommended)
- Pentium class or better CPU
- At least 64 MByte of RAM and at least 25 MByte of available hard disk space. Additional RAM is recommended if LoggerNet or PC208W is running at the same time on the same computer
- Mouse

## Ordering Information

- RTDM — full-featured version, required to design display screens
- RTDMRT — Displays screens created using full-featured version. This less expensive version is for customers requiring display-only capability.
- RTDMEVAL — free demonstration version, available from <http://www.campbellsci.com/resource.html>



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