

# DeLogger Pro 3

THE COMPLETE SOLUTION FOR MONITORING, LOGGING, DISPLAYING AND ANALYSING DATA

Data Electronics' **DeLogger Pro 3** makes it easy to program simple or sophisticated data logging projects for the DT50, the DT500 series and the DT600 series of Datataker data loggers. It's ideal for managing multiple remote data loggers, and just as applicable for analysing small experiments.

For programming and supervising Datatakers, DeLogger Pro 3 gives you the choice of a graphical interface or a conventional text input window. For displaying real-time or logged data, DeLogger Pro 3 has chart, mimic, form (tabular/spreadsheet) and plain text (raw data) views.

Whatever the size of your installation, a single copy of DeLogger Pro 3 running on one computer (the "host") is all you need to program and supervise your Datatakers, to monitor sensors and alarms, and to collect data.

Connect DeLogger Pro 3 to your Datatakers (directly, or by modem or radio) and you're in full control of your data.

## Visual Software

DeLogger Pro 3 is Windows®-based software that allows you to program and supervise any number of Datatakers without using the Datataker's command language. Instead of typing commands, you build Datataker programs visually by clicking on icons and selecting from menus in the program builder window. Very little keyboard entry is required.



Program builder window

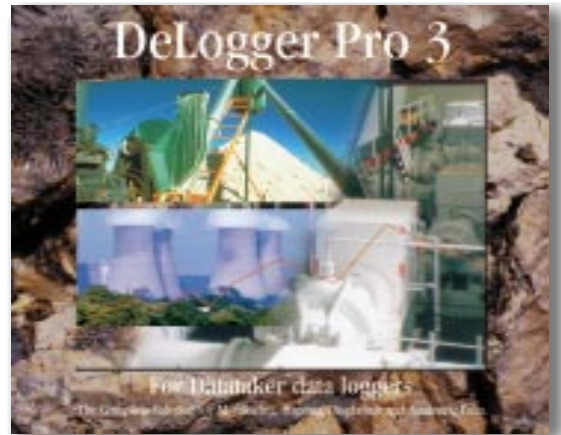
And, unlike some other terminal programs, you don't need the logger present and connected to your computer when creating a program with DeLogger Pro 3.

## Innovative Data Storage

Like traditional data logging software, DeLogger Pro 3 allows you to store data in computer files. In addition, *unlike* traditional data logging software, DeLogger Pro 3 incorporates a database that allows you to store data in a format that is completely compatible with the Microsoft Access® relational database, and this capability brings a new dimension to data collection, analysis and presentation.

With your data stored in DeLogger Pro 3's database, you have immense ease and power to retrieve, process and display information — in fact, in many cases, you'll find DeLogger Pro 3's database reports more informative and much faster and easier to generate than output obtained using traditional methods (an Excel spreadsheet, for example).

In other words, you can now produce instant reports — incorporating up to eight filter parameters — from your



measurement, alarm and error data *directly in DeLogger Pro 3*. For example, you could find all occurrences of the temperature sensor on channel 2 and the temperature sensor on channel 6 both being greater than 50.0°C at the same time during the month of October.

Database storage also means that previously cumbersome data operations, like appending new data to existing data, are now extremely simple.

For even more database power, you can open your DeLogger Pro 3 database in a full version of a proprietary database such as Microsoft Access or FoxPro®, which gives you access to data tools like Find, Sort, macros and calculation fields. And if Excel is your preferred analysis software, you can import saved data from DeLogger Pro 3's database or from data files — and even have DeLogger Pro 3 update your Excel files automatically (see "Options: DDE Server" on page 2).

## Sessions Automate Logging

To automate database logging procedures, DeLogger Pro 3 stores up to 10 concurrent Microsoft Access "sessions" (sequences of database operations), which you can recall and reuse at any time in the future.

## Projects Aid Organisation

DeLogger Pro 3 uses the "project" concept. A project contains all the files related to a particular Datataker system, like a toolbox that contains all the right tools for a specific job. For example, a project might include

- several Datataker programs (for quick re-programming when you need the Datataker to do something different) and
- two chart windows (for viewing today's data in real time along with a replay of yesterday's logged data) and
- a mimic window containing virtual buttons (for starting and stopping a pump) and virtual meters (for easy identification of over-range conditions).

All these components are saved with the project. Launch a specific project and you instantly have everything to hand exactly as it was the last time you used it, including immediate access to all of the project's historical data.

Data Sites Simplify Your Work  
DeLogger Pro 3 connects to and communicates with "data sites".

A data site can be a single Datataker or as many as 32 Datatakers connected in a network. It can also be a replay of logged data from a data file or from a database. A data site can be in the same room as the one in which you're running DeLogger Pro 3, or on the other side of the world.


Once you've specified a data site — its name, address, connection port, Datataker or Datataker network details and, if used, its remote connection details (modem and Modem Manager settings) — this information is kept in DeLogger Pro 3's database. From then on, DeLogger Pro 3 can make the connection for you. All you do is select the data site name in a dialog box and click OK. This facility makes even the most remote data site as easy to manage as a Datataker on the desk in front of you.

As shipped, DeLogger Pro 3 is set to supervise up to 10 data sites, but it's capable of supporting many more. Contact your Datataker representative for expansion details and pricing.

### Powerful Charting

You can use a DeLogger Pro 3 chart window much the same as you would use a chart recorder: to view data in real time.

But DeLogger Pro 3 has additional charting features. For example, you can

- choose from three types of charts: scroll, sweep or bar
- replay data from a previously saved data file (replay control buttons  are provided)
- replay data from the database
- replay data that has scrolled out of sight in a scroll chart
- display up to 32 channels in one chart
- customise chart attributes such as trace colour and thickness, axis scale and limits, axis ticks, and fonts.

### Set-and-Forget Data Site Management

DeLogger Pro 3 and Datataker do not need constant access to one another.

Typically, you create a Datataker program in DeLogger Pro 3, then connect to the Datataker and send the program (thereby programming the logger) and, finally, disconnect from the Datataker. Once the Datataker is running according to its program (stand-alone mode), you only need connect to the Datataker again if you want to transfer logged data from it, or receive data and alarms from it in real time (that is, as the Datataker measures it).

So, once you've programmed the Datataker at data site 1, you can disconnect from it (leaving it running as programmed), then connect to data site 2 and program, monitor or download data from its logger(s), and so on. In fact, a single copy of DeLogger Pro 3 contains all the tools you need for data management on any scale.

### Remote Support

For communication with Datatakers at remote sites, DeLogger Pro 3 supports PSTN (Private Switched Telephone Network), radio and satellite modem links. It also supports Data Electronics' Modem Manager, which can call DeLogger Pro 3 from a remote site whenever an alarm occurs.

Alarms from remote sites are handled automatically by DeLogger Pro 3 and can trigger actions at the host. Manual and automatic dialling to remote sites is available. Incoming alarm messages are automatically saved in the DeLogger Pro 3 database.

### Custom Reports

In addition to the chart, mimic, form and text views, and reports created directly in DeLogger Pro 3 (via the Microsoft

Access database reporting commands), you can create reports in Crystal Reports™ format ready for output using this dedicated third-party report writer.

For sophisticated data manipulation or graphing, you can import data into a spreadsheet such as Microsoft Excel. And for real-time reporting, you can use the Microsoft ODBC (Open Database Connectivity) drivers supplied with DeLogger Pro 3 to automatically update your Excel report as the data arrives.

## Option Pack

An Option Pack is included with DeLogger Pro 3. It provides the following extra functions: support for Datataker networks, DDE (Dynamic Data Exchange) server capability, event scheduling, password and access level security, and static zoom-in charting.

### Datataker Network Support

Gives you commands and drivers to supervise networks of Datatakers. DeLogger Pro 3 treats each network (up to 32 loggers) as one simple data site.

### DDE Server Capability

DeLogger Pro 3 can be a DDE server, making information available to other programs automatically in the background.

One way you can use this is to have DeLogger Pro 3 send data to a separate Microsoft Access database *automatically* (requires ODBC; drivers are included) to create Microsoft Access tables of returned data. You can filter the data to various tables — site 1 data, site 2 data, alarms, errors and so on. Once this system is set up, you can get on with other computer tasks while, in the background, new data is being fed to the appropriate Access database tables.

### Event Scheduling

DeLogger Pro 3's "Scheduler 32" performs user-defined tasks at predetermined times and frequencies. For example, you can tell DeLogger Pro 3 to dial the Datataker at data site 4 and unload its data to the database at 11:00pm every day.

### Security

Set user passwords and access levels for all DeLogger Pro 3 functions.

### Static Charting

Make a static copy of a real-time chart, then Shift-drag to zoom in. Control-click on a specific data point to display its precise co-ordinates.

## Requirements

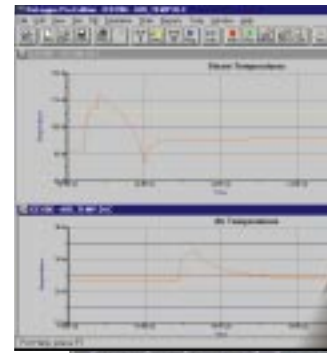
### Computer Requirements

You need the following minimum IBM® or compatible computer configuration for installing and running DeLogger Pro 3:

- Windows® 95 or Windows NT™ operating system
- 75MHz Pentium® processor
- 16MB of RAM
- 20MB of available hard disk space during installation (once installed, application and Option Pack take up 10MB)

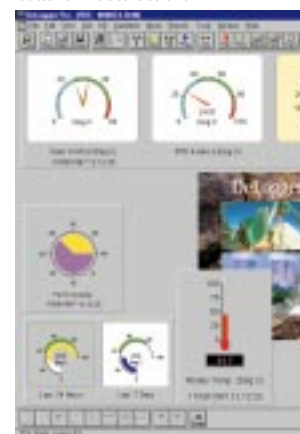
### Datataker Requirements

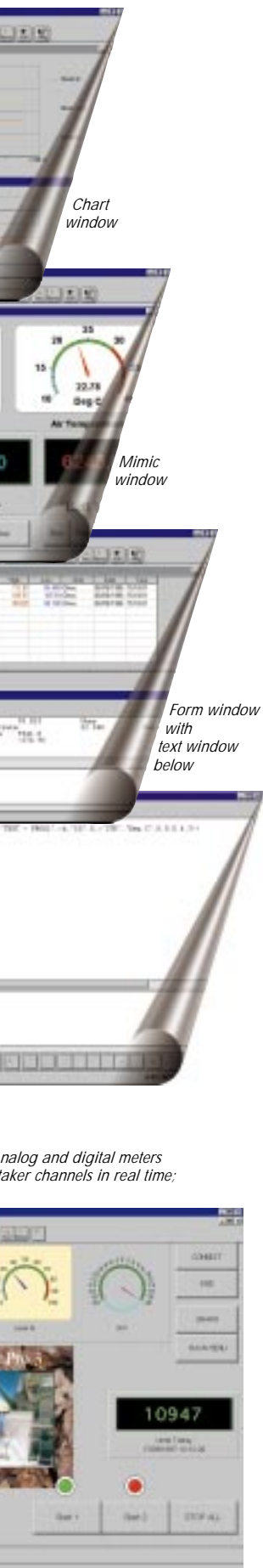
To work with DeLogger Pro 3, Datatakers must be fitted with a version 3.40 (or later) ROM.



Text (raw data) window: upper pane for returned data, lower pane for command entry

Mimic (virtual instrument) window: gauges and indicators are driven from Data... buttons initiate actions





## Limits

|   |                                 |
|---|---------------------------------|
| Maximum projects                            | limited by available disk space |
| Maximum ports                               | limited by available hardware   |
| Maximum Datataker Channel Expansion Modules | 2                               |
| Maximum open windows                        | limited by computer             |
| Maximum channels per schedule               | 50                              |
| Maximum channels in data hub                | 200 per session                 |
| Maximum channels per form                   | 64                              |
| Maximum channels per chart                  | 32                              |
| Maximum panels per mimic window             | 16                              |
| Maximum mimic objects per mimic panel       | 5                               |
| Maximum chart + mimic windows               | 16                              |
| Maximum sessions in database                | limited by available disk space |
| Maximum data in database                    | limited by available disk space |

## Summary

### General Features

- Data logging to industry-standard database incorporated in DeLogger Pro 3 host software
- Graphical or command-based (textual) program builder
- Multiple textual and graphical views of data — multiple display windows can be open at the same time
- Data replay facility from database or file
- Supports remote communications via modem and Modem Manager
- Multiple local and remote Datataker connections
- Event triggering upon receipt of Datataker alarm
- Crystal Reports reporting engine
- Option Pack: Datataker network support, DDE server capability, event scheduling, password and access level security, static zoom-in charting

### Remote Sites

- Direct support for modems and radio modems
- Direct support for Data Electronics' Modem Manager
- Incoming alarms handled automatically; can trigger actions at the host computer
- Manual or automatic dialling out to sites

### Database

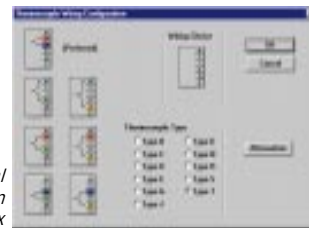
- Microsoft Access database file structure
- Microsoft ODBC drivers supplied
- Stores returned data, reported alarms, reported errors, configuration details
- Data source for reporting
- Data source for historical replay
- Memory cards can be unloaded directly to the database

### Logging to Database

- Incoming data can be logged to DeLogger Pro 3's Microsoft Access-based relational database.
- Descriptive session logging names can be used
  - Data hub allows any combination of active channels from any site to be logged at the same time
  - Up to 10 concurrent database logging sessions can be defined for repeat use
  - Simple unload-to-database function
  - Memory cards can be unloaded directly to the database

### Program Builder

- Completely graphical interface
- Supports all Datataker data acquisition schedules and alarm schedules
- Supports all commonly used signal types accepted by the Datataker
- Supports all commonly used channel options provided by the Datataker
- Supports Datataker internal channels and channel variables
- Supports Datataker spans and polynomials
- Illustrates sensor-to-Datataker wiring for every sensor type and configuration



Typical wiring selection dialog box

### Chart Windows

Chart windows plot real-time or logged data in time-based trend/sweep charts or bar charts.

- Scroll, sweep or bar chart modes
- Up to 16 chart windows open at the same time
- Up to 32 channels (traces) per chart window
- Historical mode: stores 8192 data points per trace
- User-definable axes, labels, traces and legends
- Configurable grid and setpoint lines
- Toolbar buttons for frequently used commands
- Multiple windows can be open at the same time
- Can be copied to the clipboard and printed

### Mimic windows

Mimic windows display data as user-definable virtual instruments.

- Needle meters (up to five needles per meter), arc meters, digital meters, pie meters
- Labelled buttons; initiate DeLogger Pro 3 actions such as sending commands to a site
- LED indicators
- Support background images (.BMP or .WMF formats)
- Context-sensitive pop-up menus on right mouse button
- Multiple windows can be open at the same time
- Can be copied to the clipboard and printed

### Form Windows

Form windows display data from selected channels of any connected Datataker site or data source in a formatted grid (similar to a spreadsheet: columns, rows, column headers).

- Display data site name, channel description and label, the value and its date/time stamp for every reading; one row per reading
- Display each channel's highest and lowest value for the logging session
- Trend indicator for each reading shows whether value is greater than or less than previous reading
- Multiple windows can be open at the same time
- Can be copied to the clipboard and printed

### Text (Raw Data) Windows

Text windows emulate the basic functionality of a communications terminal.

- Direct command entry for creating and editing Datataker programs
- Direct program downloading to data sites
- Display real-time and logged data
- Multiple windows can be open at the same time
- Can be copied to the clipboard and printed

### Replaying Logged Data

- Data saved in the database can be replayed in DeLogger Pro 3
- Data saved in a replay file can be replayed in DeLogger Pro 3 (including replay files created by DeTerminal and DeCipher Plus)



### Reporting

- Inbuilt reporting via Crystal Reports Engine; select report from DeLogger Pro 3 list box
- Produce reports in Crystal Reports format
- Produce reports with other third-party tools such as Excel, Visual Basic™ or the full version of Access after importing data into these from the DeLogger Pro 3 database
- Initiate reports manually, automatically on alarms, or automatically via the event scheduler; parameters can be passed into the report from DeLogger Pro 3

### Datataker Network Support (supplied in Option Pack)

- Connect up to 32 Datataker 500/600 series loggers (not DT50) to form a local area network and manage as a single DeLogger Pro 3 site
- 1000 metres maximum total length of Datataker network cable per site
- Data Electronics' proprietary network protocol with error detection and correction
- 1200 baud over single twisted pair of polarised wires

### Dynamic Data Exchange (supplied in Option Pack)

DeLogger Pro 3 supports DDE as a "server" so that other programs ("clients"; Excel, for example) can automatically access data from DeLogger Pro 3.

- Client can request information on DeLogger Pro 3 data sites, actions and channels
- Server data is supplied to client whenever requested or whenever data is updated
- Client can initiate DeLogger Pro 3 actions (for example: connect to site, unload data)
- Text from client can be sent to any connected Datataker site (for example: Datataker HALT, GO and UNLOAD commands)

### Scheduling Events (supplied in Option Pack)

Event scheduler utility performs tasks at user-defined times and frequencies.



- Scheduled tasks can be logged
- Scheduler utility communicates with DeLogger Pro 3 via DDE sharing
- Can specify date, time, repeat details, priority, and retry and timeout durations for each event

### Security (supplied in Option Pack)

Administration utility manages user passwords and access to DeLogger Pro 3 functions.



- Define up to 50 different users, each with their own access level and password; user information is stored in database
- Set an access level for every DeLogger Pro 3 function

### Static Charting (supplied in Option Pack)

- Create static copies of a real-time chart
- Shift-drag to zoom in, Control-click a data point to display its co-ordinates
- Window can be saved (.WMF format) and printed

## More Information

For further information, please contact Data Electronics or our representatives. Our application engineers are happy to talk over your requirements at any time.

## Ordering

ORDER CODE

DeLogger Pro 3 (on compact disk)\* ..... DLP-CD

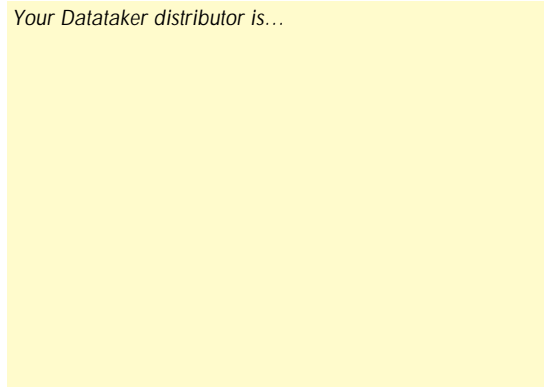
DeLogger Pro 3 (on 3.5" 1.4MB floppy disks)\* ..... DLP-FD

\* Includes Option Pack, user's manual and help file. Supports 10 data sites (easily expanded to support more: contact your Datataker representative for details and pricing).



Open several DeLogger Pro 3 windows at the same time

Your Datataker distributor is...



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