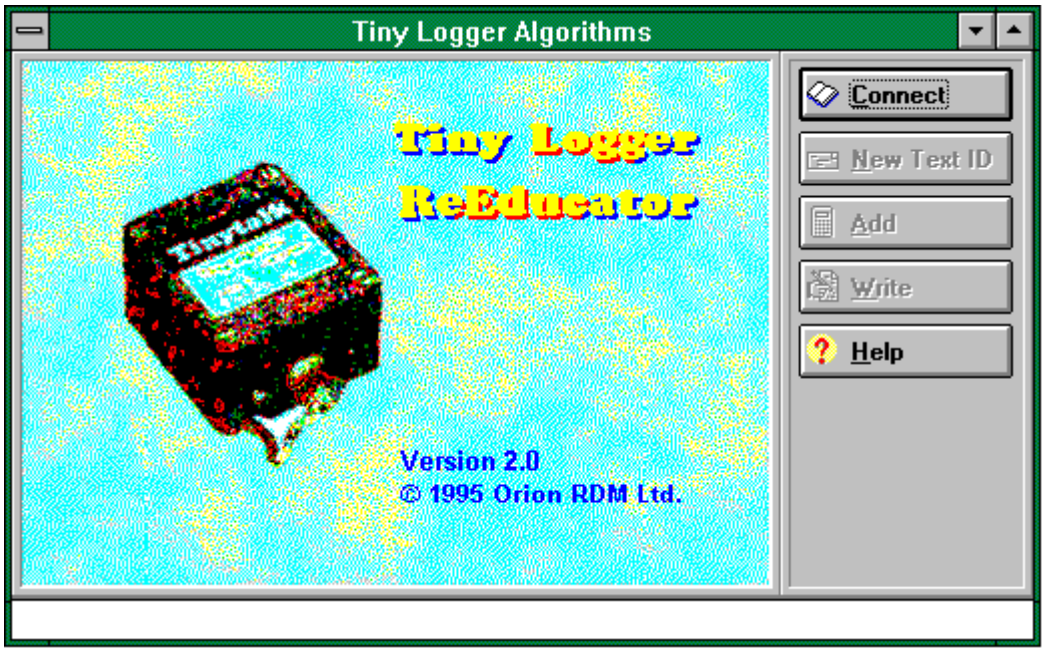
RE-ED

Orion Tiny Logger Re-Educator Software

Windows™ Software for Tinytalk® and Tinytag® Dataloggers



INTRODUCTION
Re-Educator for Windows is a utility software tool for TINYTALK II and TINYTAG dataloggers. It is used to change Tiny logger logger text identification, to add, modify or delete user conversion algorithms for voltage loggers and to select default preferred conversion algorithms.

Please note:
This software is not designed to support TINYTALK or TINYVIEW loggers (Only Tinytag and Tinytalk II) which are supported by separate programmes.

License agreement
Please read the licensing agreement in the Re-Educator help file.

System Requirements
The minimum system required to run Re-Educator for Windows is a 386 PC with 4MB of memory and at least 2MB of hard disk space. Re-Educator requires Microsoft Windows version 3.1. In order to connect a logger to the PC you will also need a spare serial port (9 way D-type connector) and the correct interface cable to connect between the serial port and your data logger. In addition, you should have a current version of OTLM (Orion Tiny Logger Manager) for Windows installed on your computer.

Installation
To install Re-Educator for Windows:

1. Ensure all application are closed to avoid and possible data loss.
2. Run SETUP from Windows (select Run from the File menu in Program Manager, then type a:\setup or b:\setup and click OK).

The setup procedure may take a few minutes.

The Re-educator program icon will be added to the OTLM program group. To run Re-educator double click on the icon with the mouse.

Using Re-Educator
Re-educator provides a set of buttons which are used to load, view and manipulate the factory settings of the dataloggers. When a function is not available, it is either disabled (Greyed out) or not visible.

Once information is loaded from a logger, Re-educator provides a set of tabs corresponding to a summary page, and one page per algorithm stored in the logger.

Help

Further information on using Re-educator is available in the Re-educator help file. Click the Help button to view the Help file. The Help file also contains details of changes made to Re-educator after this manual was printed.

Getting Started
Attach the interface cable between the serial port connector on your PC and the serial port on the logger. When Re-educator is started, an introduction screen is displayed, which is cleared as soon as the Connect button is clicked.

Please note : Re-educator software defaults to the same port setting as OTLM.

Connecting and Loading a file

Whenever connecting to a logger, firstly click the Connect button. Re-educator checks the logger status and loads information from the logger. If the logger is waiting to start logging or already logging, you will be asked whether Re-educator should stop the logger, since Re-educator will only load information from a logger that has ceased logging. If there is no logger attached you will be given the chance to retry, or select a file from disk. This can be any offloaded .TTD file (Standard OTLM file format) as long as it is from an editable logger (most likely Voltage) Loading may take a few seconds.

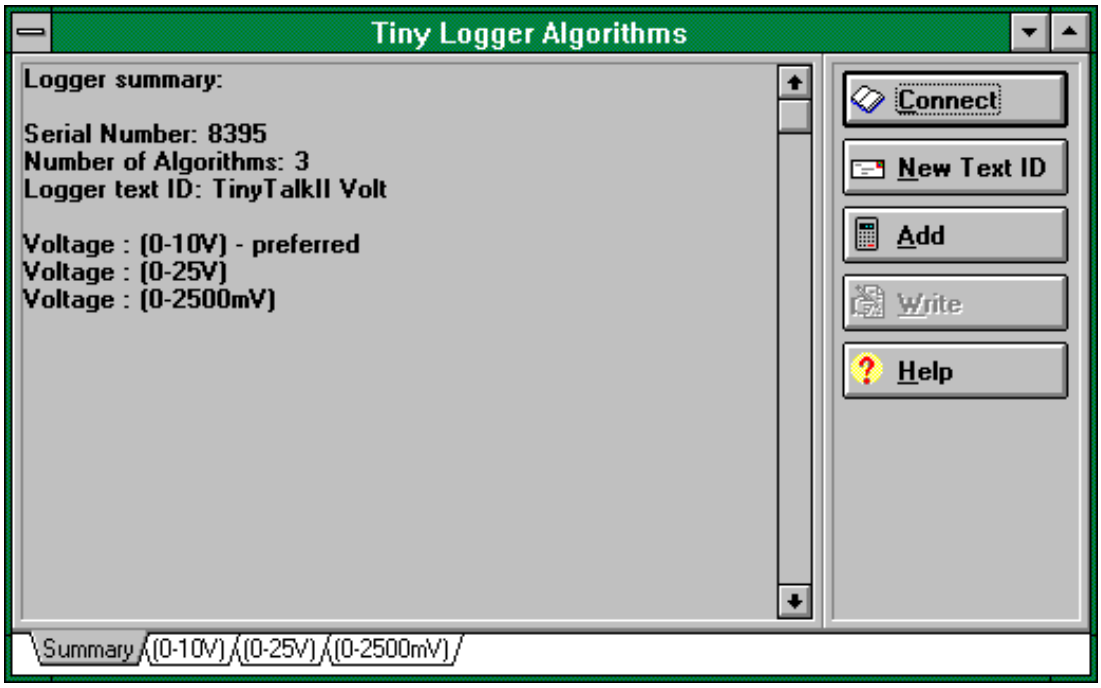
Note :
Clicking 'Connect' later during program execution will re-load data from the attached logger. Re-educator will prompt for confirmation if changes have been made to the old information which have not yet been written to the logger. It is good practice to offload a voltage logger (via OTLM) before attemping to modify it so you can restore the original settings in an emergency.

Password Protection

During your first connection the software will promt you for a password. You will need to enter this three times so the software can check its accuracy. Once stored you will be prompted for this password each time you use the software.

Note:
You may change the password at any time by entering your correct password and pressing the change button instead of OK. Then following the instructions on screen. Pressing the cancel button will automatically quite the software.

The Summary Page

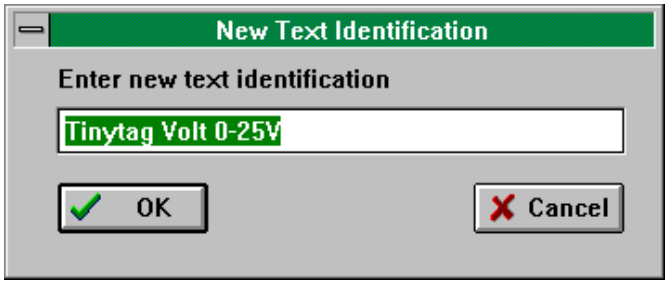


The summary page replaces the introduction screen as soon as the password has been entered This text page gives information about the logger and any changes made during the Re-educator session.

You can select the summary page at any time by clicking the 'Summary' tab.

Changing the logger text identification

When the Summary page is displayed, the text identification can be modified.



The logger text identification informs the user about the type of logger being used. This identification text can be up to 24 characters long and usually includes the logger type, the property being measured and the range; for example 'Tinytalk II -40/75(125)oC'. The text identification should be used to describe the logger in as much detail as possible to help users. Unlike the logger title, this text cannot be changed by users launching the logger with OTLM.

Users of voltage loggers may wish to change this description to correspond to the voltage sensor attached to their logger. A dialogue box displays the existing identification which can be changed. Please note that this information is not written to the logger until the 'Write' button is clicked.

Adding a user defined algorithm

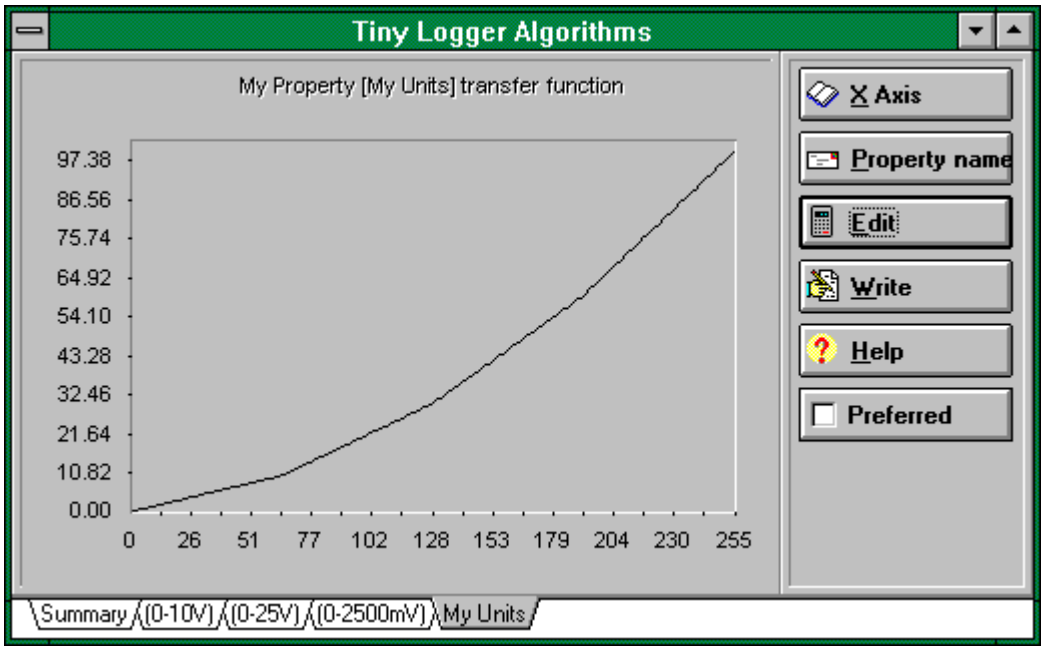
When the Summary page is displayed, algorithms can be added to the loggers. This will mainly be Tinytalk II and Tinytag Voltage loggers. Adding an algorithm creates a new algorithm page and a corresponding tab. To edit this new algorithm, select the tab and following the editing instructions in this manual.

Note :
If this option is not available it will be for one of the following reasons :

1/ A Tinytalk II or Tinytag has been connected which does not allow modification.
2/ Re-ed software has calculated their is insufficient memory in the logger for further algorithms.

THE ALGORITHM PAGES

A set of tabs along the bottom of the program window provides access to more detailed information about each of the algorithms stored in the logger. Clicking on the tab will select the appropriate algorithm page. When first selected, each algorithm page displays a transfer function relating the real world reading to a logger digital reading. All Tinytalk II and Tinytag loggers measures 8 bit readings, giving a range of 0 to 255, which is displayed on the X axis. The real world reading, which may be temperature, humidity, voltage etc., is displayed on the Y axis and the property and units are shown in the graph title. Placing the mouse carefully over the line and double clicking will display a bubble indicating the X and Y co-ordinates of the point.



Changing the X axis units

It is often inconvenient to work in terms of the logger's 8 bit readings. Clicking on the X Axis button allows you to select another algorithm to display on the X axis. This is particularly useful for comparing algorithms and for setting up new Voltage algorithms against existing voltage input ranges.

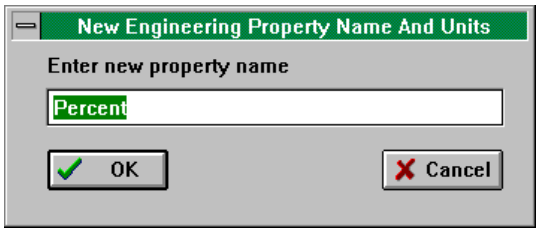
Note :

Changing the X axis algorithm does not alter information in the logger; it is purely a tool to make working with algorithms within Re-educator easier.

Changing the property name and units

Clicking on the 'New Property' button will display a dialogue box which allows modification of the real world property name and the units in which it is measured.

Firstly enter the New Property and click OK. The box will clear then enter the units of measurement. Once complete a second click on OK will return you to the main edit screen where you will see your new property at the top.



Notes :
The '%' symbol must not be used alone in either the property name or the units strings. To obtain the '%' symbol you must enter '%%' in the string. A single '%' may cause OTLM to misrepresent the following character.

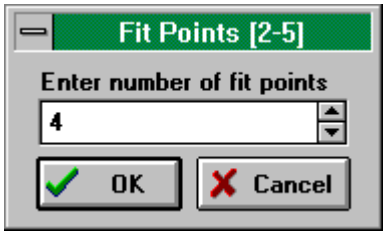
Information is not written to the logger until the end of the edit session.

Modifying an existing algorithm

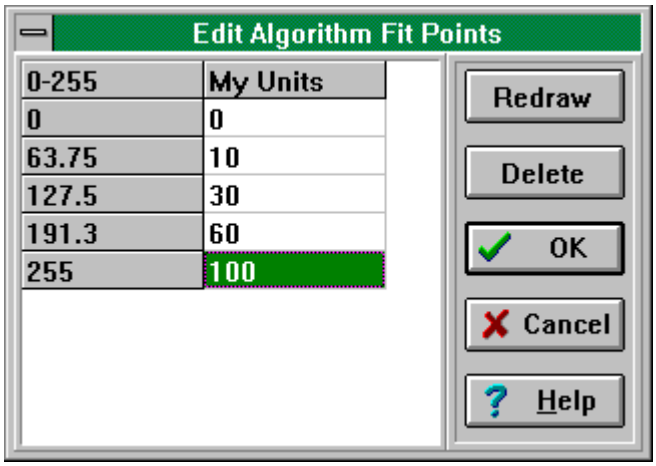
Clicking on the 'Edit' button allows alteration of the transfer function for an algorithm.

Editable algorithms are those stored in loggers having the capability to offer modification by the Re-educator user. For example, in a brand new Voltage logger there are three non-editable algorithms, although the user may add several editable algorithms.

Once selected a box will appear allowing you to modify the number of points in the table. The default setting for a new algorithm is 2 points. If you do not wish to add any more points click OK. Alternatively use the up and down arrows to amend the number of points required then click OK.



Once the number of Fit Points has been established the Edit box will appear.



Use the keyboard and mouse to edit points in the algorithm.

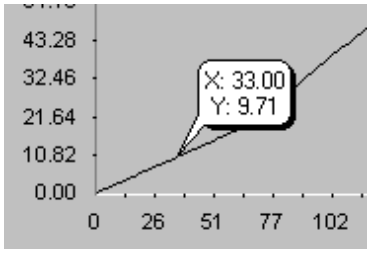
Redraw
At any time you can quickly check your work by clicking the redraw button.

Finished
Clicking on OK will update the graph and return you to the current tab.

Points to note :

1. New algorithms will default to a range of 0 to 100.
2. The highest value must be at the start or end of the table.
3. Use as few points as possible to save logger memory.
4. The Edit button will only be available for editable algorithms.

Check bubble
While graphical data is in an active window it is possible to check on exact data points by double clicking on the graph. This produces a reading on the graph.



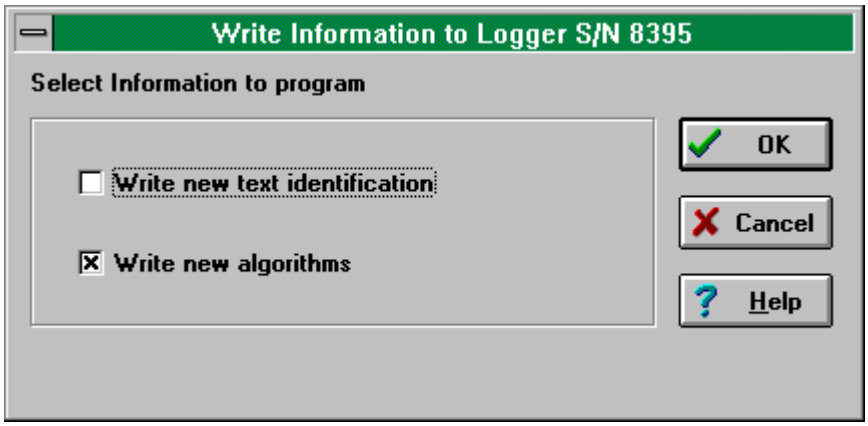
Preferred units

Before any modification are save to the Dataloggers you will need to select a preferred algorithm. This will be the one used by OTLM.

Note :
Non preferred algorithms are still stored in the data logger

Writing data to the logger

If changes have been made to the data read from the logger, then the 'Write' button will be enabled. When this button is clicked, Re-educator writes the changed information back to the logger, over-writing the information stored there. You may write new algorithms and the text identifier by checking the required boxes on the write screen.



Please note that until the 'Write' button is clicked, no changes are made to the data in the logger itself, however, once over-written the original data cannot be retrieved again.

Hint: Since writing data to the logger takes a little time and to prevent inconsistency in the logger's data, it is usually best to make ALL the required changes in Re-educator before writing them.

Warning : When writing information to the logger it is critical that the logger is not disconnected during the write process. Should this happen, data will be lost, the logger will become inoperable, and the unit may have to be returned to the supplier.

Further information
Further information concerning loggers and their use can be found in the product manuals supplied with units and in the OTLM Software manual. For further technical support contact your supplier.