

## DESCRIPTION

MaxiThermal software gives users of Logger-Trac family devices a simple yet flexible interface for setup and data retrieval. Downloaded data from Logger-Trac™ devices may be displayed graphically, in table format, or downloaded in CSV format for spreadsheet viewing and analysis. The software is compatible with Windows XP, Vista, 7 and 8.

## SOFTWARE INSTALLATION

- Run provided setup package and follow the screen prompt to complete installation
- Restart computer

## HARDWARE SETUP

- For Logger-Trac Temperature:
  - o Insert device into USB cradle
  - o Connect cradle to computer using USB cable
- For Logger-Trac Humidity or Logger-Trac LN2 connect device directly to computer using USB cable
- If it is the first time connecting to computer, USB driver will install automatically
- Run MaxiThermal Software by clicking icon on desktop

## DATA-LOGGER SETUP

Logger-Trac™ devices require initialization before each use. Initialization sets up all necessary parameters that the device requires.

- Click Logger Initialization tool bar, or click Logger -> Logger Initialization. Logger initialization window opens.
- (Opt.) Enter Description that describes the shipment
- Window displays current computer time and time zone
- (Opt.) Select time zone for a drop down list. Default is the same as computer setting
- (Opt.) Check/uncheck Auto Adjust Daylight Time
- Select temperature measurement unit
- (Opt.) Specify start delay in minutes from drop-down list
- Specify recording duration up to maximum 365 days. The software automatically adjusts sample interval based upon the entered Duration time
- Specify sample interval. Software automatically adjusts recording duration based upon entered sample interval
- Specify Memory Configuration
  - o Record to End of Memory – Data recording halts once memory is full
  - o Continuous Memory – Data recorded overwrites previously recorded data once memory is full beginning with oldest data
- Specify Alarm settings
  - o Maximum Alarm limit
  - o Minimum Alarm limit
  - o Quarantine value (Logger-Trac Temperature only) – To enable the Quarantine feature, set to a nonzero integer. Quarantine count increments when either the temperature transitions to outside the alarm limits or when a temperature reading is logged outside the defined alarm limits. Once the count increments greater than or equal to the set quarantine value, the QUARANTINE LCD symbol becomes active. This feature gives the user an approximation for the cumulative time temperature was outside the alarm limits. Interrogate logged data for further analysis of results.
  - o No alarm checkbox
- Enable/Disable Stop Key. If Yes is selected, logger can be stopped by pressing and holding Start button by user after it starts logging data. If No is checked, logger cannot be stopped once it starts using the Start button

- Once all settings are configured as desired, click the Erase all data button to erase old settings and data from the device.
- Click Write to device button to program device with new settings
- Close logger initialization window

## DATA RETRIEVING

Once shipment is complete, recorded data can be downloaded to computer for viewing and analysis.

- Connect Logger-Trac to computer, reference Hardware Setup section above.
- If Logger-Trac is currently logging, click Logger -> Stop CTempLCD(TYPE A) to stop the data logging
- Click Read Logger tool bar, or menu Logger -> Read Logger
- When prompted, specify a location and file name to save recorded data.
- Once data saving is complete, the software window shows the graph display of the recorded data

## EXPORT DATA

Export data is to export saved data that has been downloaded from the Data-Logger to CSV file in order to view data in Microsoft Excel or similar

- Click Export tool bar, or click File -> Export data
- When prompted, enter file name with extension .csv

## DELETE DATA

- While connected, from the Logger Initialization screen, click Erase all data. All data recorded in the Data-Logger will be erased. However, data that has been read and saved to the computer will not be deleted.

## VIEW DATA

- Once Read Data from the logger is complete, and graph is displayed on screen, click View data tool bar, or click Graph -> View data to view recorded data with time stamp
- To view previously saved data, click Open tool bar, or click File -> Open to open the Open window
- Select previously saved data file to open

## DATA

Recorded data cannot be deleted without using MaxiThermal software.

## DETAILED ELECTRONIC DATA-LOGGER MAXITHERMAL SOFTWARE INSTRUCTIONS

After Maxithermal Software is opened, the screen is shown on Fig. 1, and toolbar function is labeled in Fig. 1.

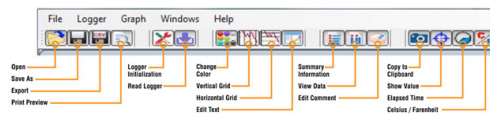


FIGURE 1

1. File
  - 1.1. Open
    - View previously saved data file. Data files have extension .Mp\_Lgr2
  - 1.2. Export data
    - Export data in CSV format so that data can be viewed in Microsoft Excel or similar
  - 1.3. Preferences
    - Set software preferences: Graph (Fig. 2), Language (Fig. 3), Defaults (Fig. 4), Directory (Fig. 5)

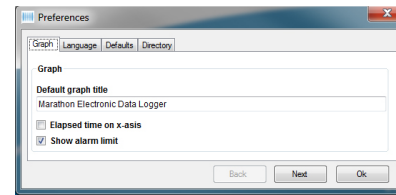


FIGURE 2

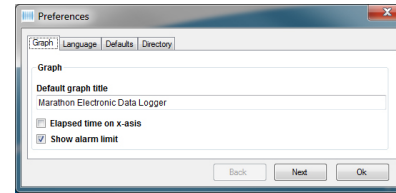


FIGURE 3

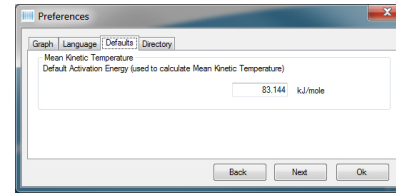


FIGURE 4

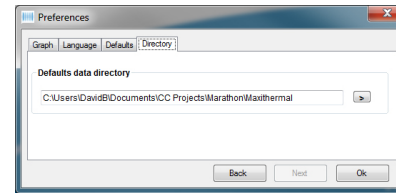


FIGURE 5

2. Logger
  - 2.1. Logger initialization – main screen to set up Data-Logger (Fig. 6)

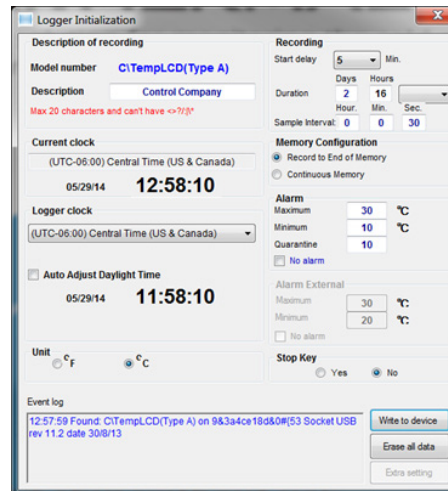


FIGURE 6

- 2.1.1. Model Number
  - Displays the connected Data-Logger model number
- 2.1.2. Description
  - Enters a meaningful description for the shipment. Maximum number of characters is 20, and cannot have <?/!\\*
- 2.1.3. Current Clock
  - Displays computer's current time and time zone
- 2.1.4. Logger Clock
  - From the drop-down list, select the time zone for Data-Logger. Default is the same time zone as computer's
- 2.1.5. Auto Adjust Daylight Time
  - Check the box to enable auto-adjust daylight saving time; uncheck the box to disable the function
  - The displayed date and time will be auto-adjusted according to the setting above
- 2.1.6. Unit
  - Check the appropriate box to select temperature unit, in Celsius or Fahrenheit
- 2.1.7. Start Delay
  - Specify the delay time from the drop-down list. The Data-Logger will not begin to record data until the delay time has been reached after Data-Logger starts
- 2.1.8. Duration
  - Specify the duration during which Data-Logger records data. Maximum duration is 365 days. Once duration is set, the software will adjust Sample Interval automatically
  - User can also select duration from drop-down list
- 2.1.9. Sample Interval
  - Specify the interval that the Data-Logger samples. The longer the sample interval, the longer the duration.
- 2.1.10. Memory Configuration
  - Record to End of memory
  - Continuous Memory
- 2.1.11. Alarm
  - Maximum: set the upper limit
  - Minimum: set the lower limit
  - Quarantine: (For Logger-Trac Temperature only) The number of recorded temperature readings outside the alarm limits to trigger Quarantine LCD symbol.
  - No alarm: If checked, Alarm function will be disabled, and Maximum, Minimum, Quarantine will be grayed out
- 2.1.12. Stop Key
  - Yes: If checked, user is able to stop the Data-Logger from logging data by pressing the Start key.
  - No: If checked, Data-Logger cannot be stopped from logging once it begins to log. It can only be stopped with MaxiThermal Software/USB connection.
- 2.1.13. Write to device
  - Upload all user settings to Electronic Data-Logger
  - If Data-Logger is to be reinitialized for next shipment, click Erase all data first. The software will prompt a warning message. See Fig. 7.

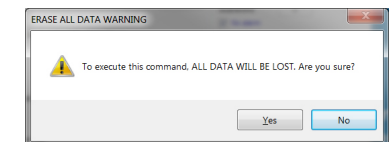


FIGURE 7

- Data-Logger shall be in Stop state to upload all setting. If the Data-Logger is still in use, the software will prompt an error message, see Fig. 8.

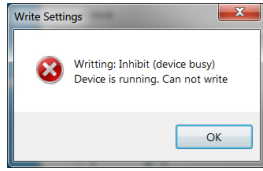


FIGURE 8

- 2.1.14. Erase all data
  - Erase all user setting from the Data-Logger's internal memory, and ready for next initialization
  - If necessary, download all recorded data from the Data-Logger before erasing all data. All recorded data will be lost once Erase all data operation is complete
- 2.1.15. Event log
  - Display software status
- 2.2. Read Logger
  - 2.2.1. If the Data-Logger is still in use, the software will display a warning message, see Fig. 9

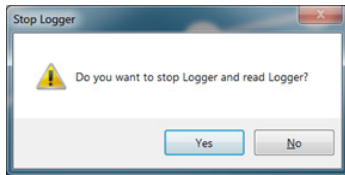


FIGURE 9

- 2.2.2. Click Yes to read data from the Data-Logger, and software prompts to input filename and location, see Fig. 10.

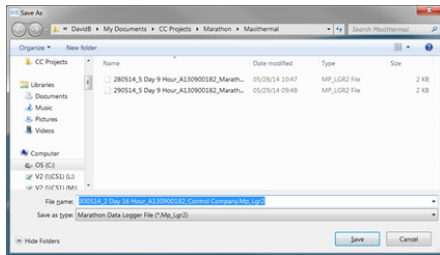


FIGURE 10

- 2.2.3. Click No, Data-Logger will continue to record, and data will not be downloaded to computer
- 2.2.4. Once data is downloaded to computer, data graph will be displayed, see Fig. 11

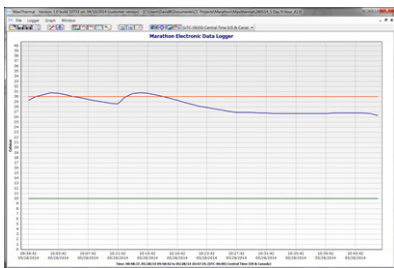


FIGURE 11

- 2.3. Stop C\TempLCD(Type A)
  - 2.3.1. Stop Data-Logger from recording data. The software will ask for confirmation before stopping Data-Logger
  - 2.3.2. If Stop Key is set to No, Data-Logger can only be stopped from logging data through MaxiThermal software via USB connection
- 2.4. Summary
  - 2.4.1. Displays summary of opened records, see Fig. 12

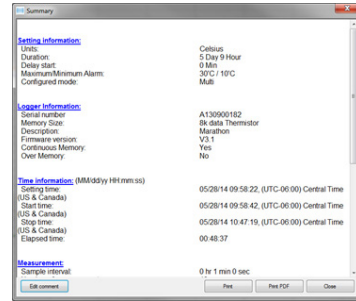


FIGURE 12

- 2.5. General Information
  - 2.5.1. Retrieve and display information on Data-Logger's device information and settings.
  - 2.5.2. Click Read to retrieve information from Data-Logger. Note: Data-Logger must be stopped to read. See Fig. 13



FIGURE 13

- 2.6. Multi Traces
  - 2.6.1. Display multiple traces at the same graph.
  - 2.6.2. Click Open to open multiple traces. Maximum number of traces is 20.
- 2.7. Setting Offset humidity—Only available Logger-Trac™ TEMP-RH
  - 2.7.1. Setting offset, see Fig. 14

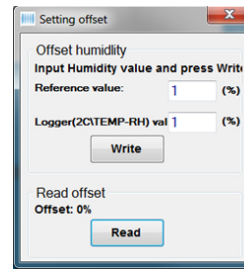


FIGURE 14

- 2.7.2. Input Reference value and Logger value, and click Write
- 2.7.3. Click Read to read offset value

- 2.8. Multi Logger Initialization
  - 2.8.1. Initialize multiple Data-Loggers simultaneously
  - 2.8.2. Set the parameters as stated in 2.1
  - 2.8.3. Click Config Initialization, and a new window pops up, see Fig. 15

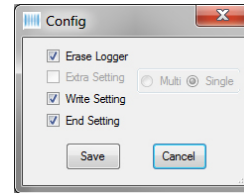


FIGURE 15

- 2.8.4. Click Write To All Device to perform operations specified in 2.8.3. A confirmation window pops up, see Fig. 16. Click Yes to start initialize multiple loggers, or click No to return.

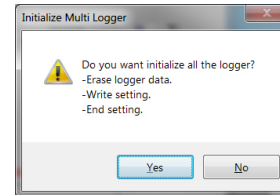


FIGURE 16

- 2.9. Calib Buzz – not available
- 3. Graph
  - 3.1. View Summary Information: refer to 2.4
  - 3.2. View Data
    - 3.2.1. View recorded data only, see Fig. 17

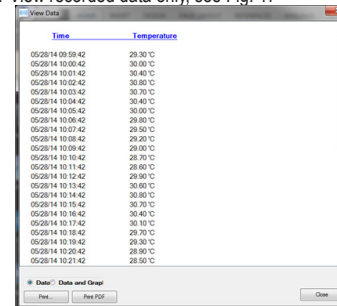


FIGURE 17

# MAXITHERMAL™ SOFTWARE FOR ELECTRONIC DATA LOGGER INSTRUCTIONS

- 3.2.2. Check Data or Data and Graph to print data only or data with graph.
- 3.3. Copy to clipboard
  - 3.3.1. Copy the graph to clipboard so that it can be pasted
- 3.4. Edit
  - 3.4.1. Edit the displayed graph: title, trace color
- 3.5. Grid
  - 3.5.1. Turn on/off vertical grid, horizontal grid
- 3.6. Toolbar
  - 3.6.1. Toggle toolbar display
- 4. Window
  - 4.1. When multiple recorded data files are open, select the way they are displayed
  - 4.2. Fullscreen all: full screen display. Click opened file to switch displayed graph
  - 4.3. Cascade all: cascade all opened graph