

USER MANUAL

AUTOWARE MT

The Automated Multi Test Software

AUTOWARE MT
Software

Ver 1.01

© Associated Research, Inc., 2009
13860 West Laurel Drive
Lake Forest, Illinois, 60045-4546 U.S.A.

Printed November 6th, 2009

TABLE OF CONTENTS

INSTALLATION	1
MAIN SCREEN	2
CONFIGURATION SCREEN.....	3
DATA LOG SCREEN.....	6
QUICK START GUIDE	10
INFORMATION	17

AUTOWARE MT

The Automated Multiple Instrument Test Software (AUTOWARE MT) allows a user to monitor and record test data from up to 20 network connected OMNIA 8100 series instruments. Once the software is installed and running it polls each of the connected instruments and downloads test results on each test file completion. This allows for logging and statistical analysis on results information collected from across multiple instruments and test cells.

SYSTEM REQUIREMENTS

- Microsoft Windows 9x, 2000, XP or Windows NT
- PC with Pentium Processor
- CD-ROM drive
- 32 MB RAM minimum, 64MB recommended
- 40 MB free disk space on your hard drive

INSTALLATION PROCEDURE

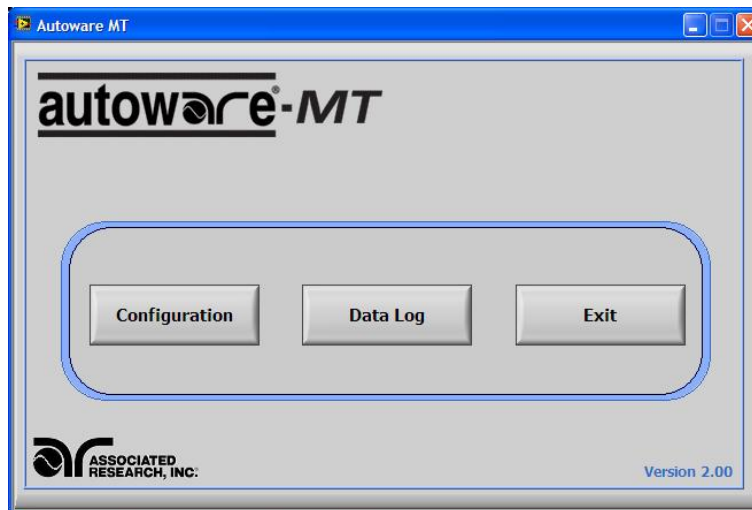
1. Insert the AUTOWARE MT compact disk into your CD ROM drive.
2. Select the Run command from the Start menu.
3. Click the browse button and select the CD ROM drive.
4. Double click or run the program.
5. Follow the instructions within the Setup Program window for a complete installation.

MAIN START UP SCREEN

Starting the application:

To start the AUTOWARE MT program, double click on the program icon. On launch, the main menu is displayed. From the main menu the user has the choice of opening the configuration screen, launching the data-logger or exiting the program.

Main Screen:



Main Menu Screen

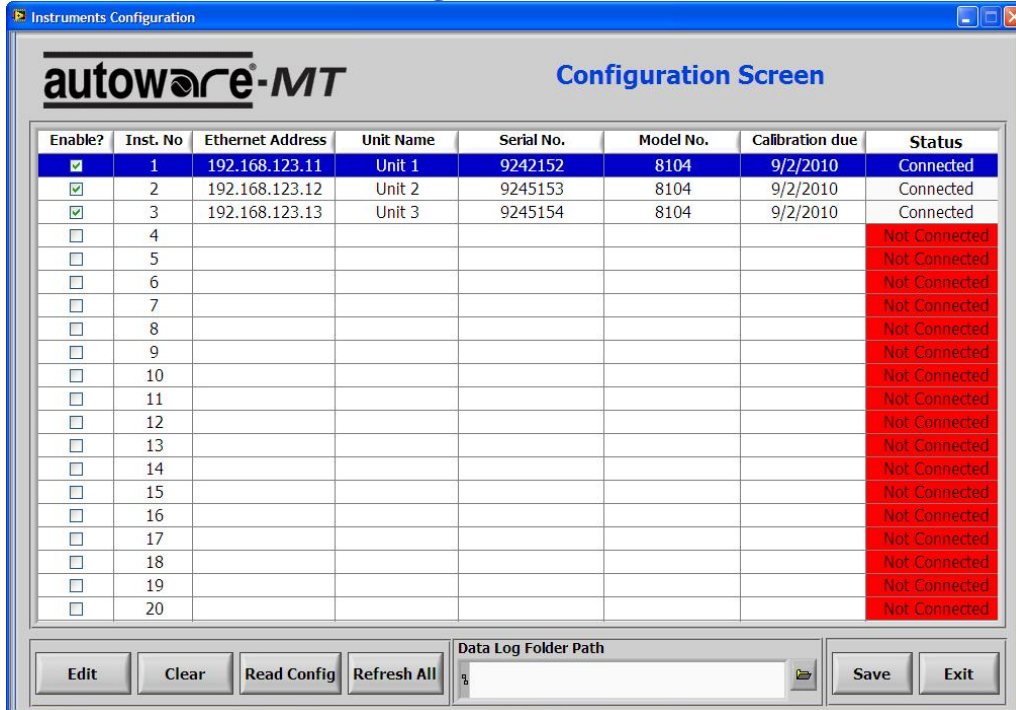
Configuration: The configuration button takes you to the configuration screen to set up the instruments.

Data Log: This brings up the data-logging screen and starts the data-logger.

Exit: Exits the program.

Instrument Configuration:

Before the program can start data-logging, the user must configure one or more instruments in the configuration screen. The configuration screen can be reached by clicking on the CONFIGURATION button in the main screen.

Configuration Screen:


Enable?	Inst. No	Ethernet Address	Unit Name	Serial No.	Model No.	Calibration due	Status
<input checked="" type="checkbox"/>	1	192.168.123.11	Unit 1	9242152	8104	9/2/2010	Connected
<input checked="" type="checkbox"/>	2	192.168.123.12	Unit 2	9245153	8104	9/2/2010	Connected
<input checked="" type="checkbox"/>	3	192.168.123.13	Unit 3	9245154	8104	9/2/2010	Connected
<input type="checkbox"/>	4						Not Connected
<input type="checkbox"/>	5						Not Connected
<input type="checkbox"/>	6						Not Connected
<input type="checkbox"/>	7						Not Connected
<input type="checkbox"/>	8						Not Connected
<input type="checkbox"/>	9						Not Connected
<input type="checkbox"/>	10						Not Connected
<input type="checkbox"/>	11						Not Connected
<input type="checkbox"/>	12						Not Connected
<input type="checkbox"/>	13						Not Connected
<input type="checkbox"/>	14						Not Connected
<input type="checkbox"/>	15						Not Connected
<input type="checkbox"/>	16						Not Connected
<input type="checkbox"/>	17						Not Connected
<input type="checkbox"/>	18						Not Connected
<input type="checkbox"/>	19						Not Connected
<input type="checkbox"/>	20						Not Connected

Buttons: Edit, Clear, Read Config, Refresh All, Save, Exit

Data Log Folder Path: %

Columns:

Enable: Enables or Disables the instrument in data-logging mode. If the instrument is disabled, no results will be gathered from that instrument.

Inst. No: This is the number which corresponds to the instrument display on the data Log screen.

Ethernet Address: This is the specified ethernet address of the unit to connect to.

Unit Name: This is a user specified handle for the instrument.

Serial No: This is the serial number reported by the connected instrument.

Model No: This is the model number reported by the connected instrument.

Calibration due: This is the calibration due date of the connected instrument.

Status: This shows whether a connection to the instrument has been established.

Buttons:

Edit: This button brings up the Configuration box for the highlighted instrument which allows the user to modify the Ethernet address and unit name of the instrument.

Clear: This button clears the configuration and collected information from the configuration screen for the highlighted instrument.

Read Config: This button causes the program to attempt to connect to the highlighted instrument, collect information from the instrument and update the status.

Refresh All: This button causes the program to attempt connection to and update status for all 20 instruments.

Data Log Folder Path: This box displays the folder location for the data log information. By selecting the folder button the user can select an alternate directory in which to store data logs.

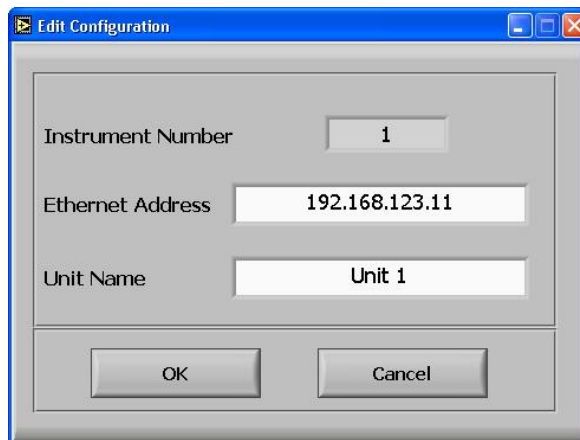
Save: This button saves the current configuration and all configured instruments to disk.

Exit: This button exits the configuration screen and returns the user to the main menu.

This screen lists slots for the 20 instruments that can be monitored by the AUTOWARE MT program. From the configuration screen the user can specify a name and address for the units to connect to. From the configuration screen, the user can also verify connection status and view model, serial and calibration information of the connected instruments.

Adding/Editing an instrument:

The operation to add or edit an instrument is identical. Select the line to modify, if an instrument is to be added select the next empty line. The line will highlight blue when it has been selected. Pressing the EDIT button brings up the Edit Configuration box.



The screenshot shows a dialog box titled "Edit Configuration". It has a standard Windows-style title bar with minimize, maximize, and close buttons. The dialog contains three input fields: "Instrument Number" with the value "1", "Ethernet Address" with the value "192.168.123.11", and "Unit Name" with the value "Unit 1". At the bottom of the dialog are two buttons: "OK" and "Cancel".

The instrument number field displays which line of the configuration you are modifying. Enter the IP address of the unit to control in the *Ethernet Address* field. The IP address for the unit is displayed on the main screen of the unit at power up. *NOTE: the IP address of the units used tied to the AUTOWARE MT system should be either statically assigned or the DHCP leases should be frozen so that the units do not change ip address after a power cycle.* The unit name is a user field for identifying the instrument in the configuration screen and in the data results file. This should be assigned a descriptive name for the unit such as location or assembly cell. To save the instrument configuration press the OK button.

Read Config:

Once an instrument is configured and the IP address of the unit has been entered, the user can test connection and download the instrument information by highlighting the instrument to connect to and pressing the READ CONFIG button. The software then opens a connection to the instrument at the specified IP address. If the connection is accepted then the software will download model number, serial number and calibration due date. After the information is collected the instrument status will be marked connected. If the connection fails, the instrument status will be listed as Not Connected.

Refresh All:

In order to update the information on all the machines, the user may press the REFRESH ALL button. This performs the same operation as described above in Read Config, but the operation is done on every configured instrument. This operation may take time as the software attempts to connect to each instrument and download new information.

Enabling / Disabling Instruments:

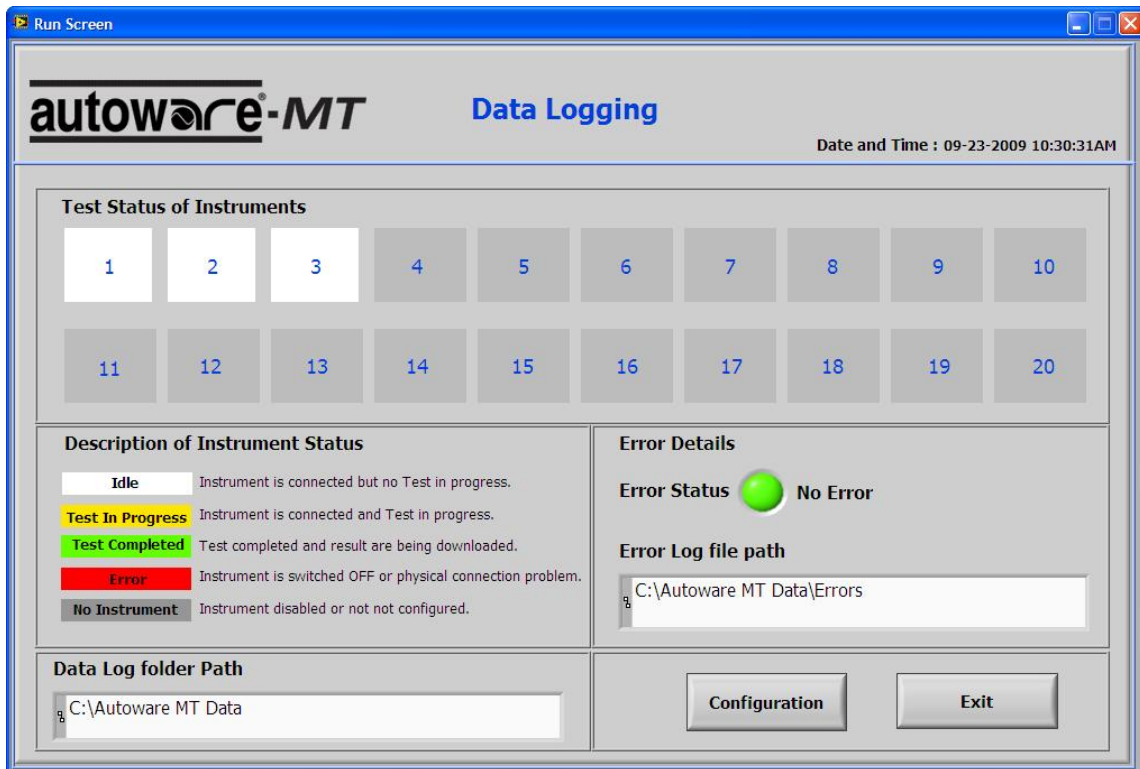
In order to enable data-logging on for an instrument, the user must make sure the *Enabled* check box is checked. Clearing the checkbox disables data-logging for the instrument. If an instrument is not enabled any tests performed on that instrument will not be recorded in the data file.

Save and Exit:

When configuration of all the instruments is complete the user should press the SAVE button to save the configuration to the configuration file. After the configuration is saved, pressing the EXIT button will return the user to the previous screen. If the configuration screen was entered from the main screen then the user will be returned to the main screen. If the configuration was entered from the data-logging screen, then the user will be returned to the data-logging screen. When returning to the data-logging screen changes to the configuration are applied after exiting the configuration screen.

Data Logging:

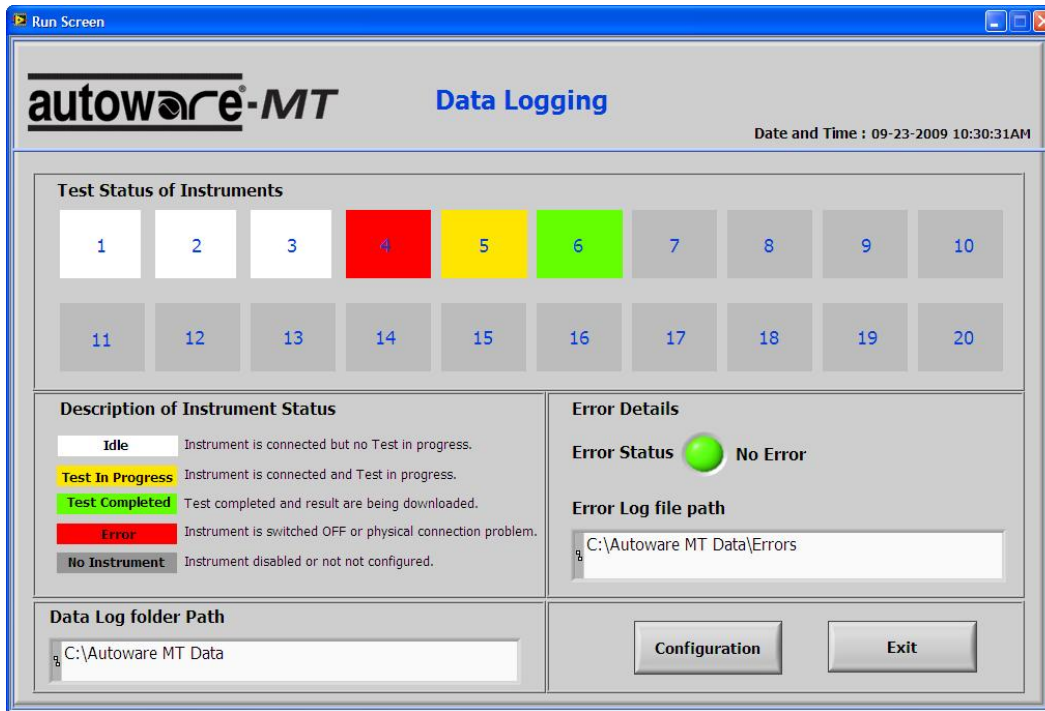
Once one or more instruments are configured and enabled in the configuration screen the user can select Data Log from the main screen. After selecting Data Log, the Data Logging screen is brought up. The system connects to any enabled instruments and begins polling the instrument status. The Data Logging screen is shown below. Each of the sections of the screen is also described below.



Test Status of Instruments:

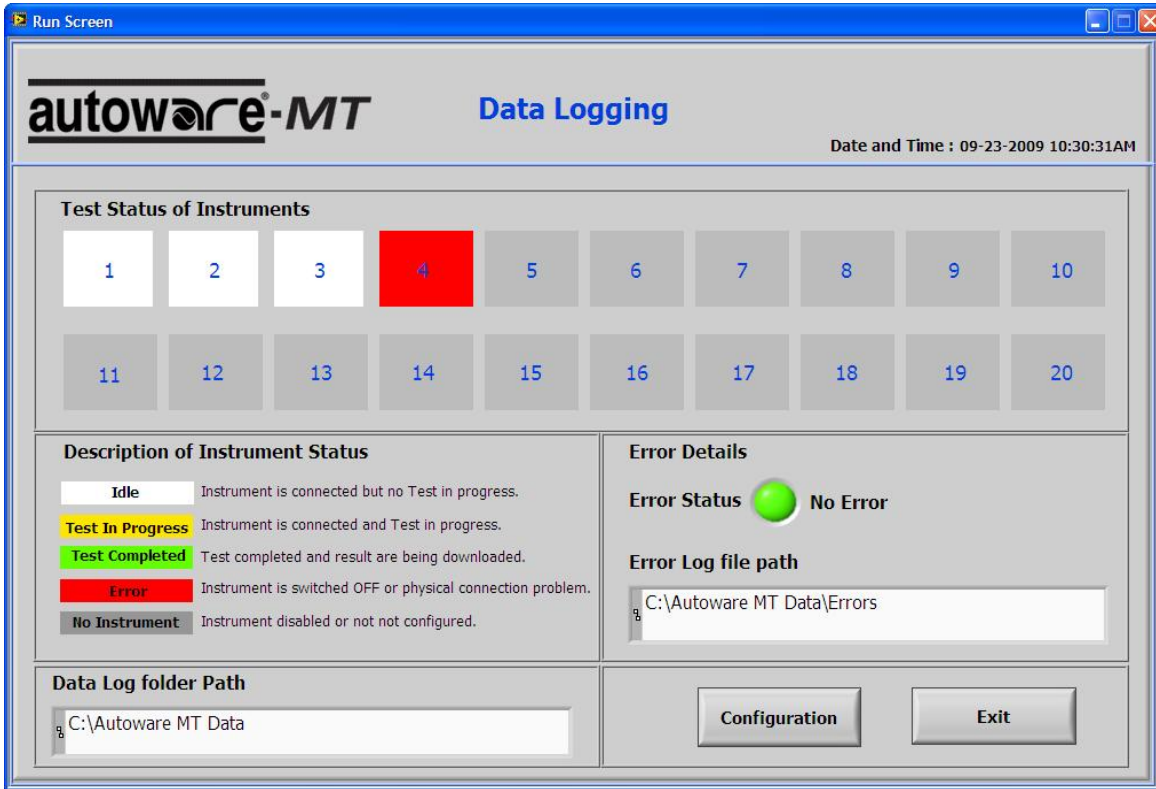
This section displays the instrument statuses graphically. Each of the boxes corresponds to the matching numbered line in the configuration screen. The status of each instrument is updated continuously multiple times a second. The description for each color status is listed in the *Description of Instrument Status* section.

Upon loading of the screen all enabled units are connected to and successful connections to machines show up white. If there is an error in the connection to the instrument the status indicator will change to red. During a test the status will change to yellow and then proceed to turn green after a test while the software is downloading the test results. Below is an action shot of the data logging screen. Instruments 1, 2 and 3 are sitting idle. Instrument 4 has lost connection, Instrument 5 is in the middle of a test, and Instrument 6 is in the middle of downloading the results from the completed test.



Error Details:

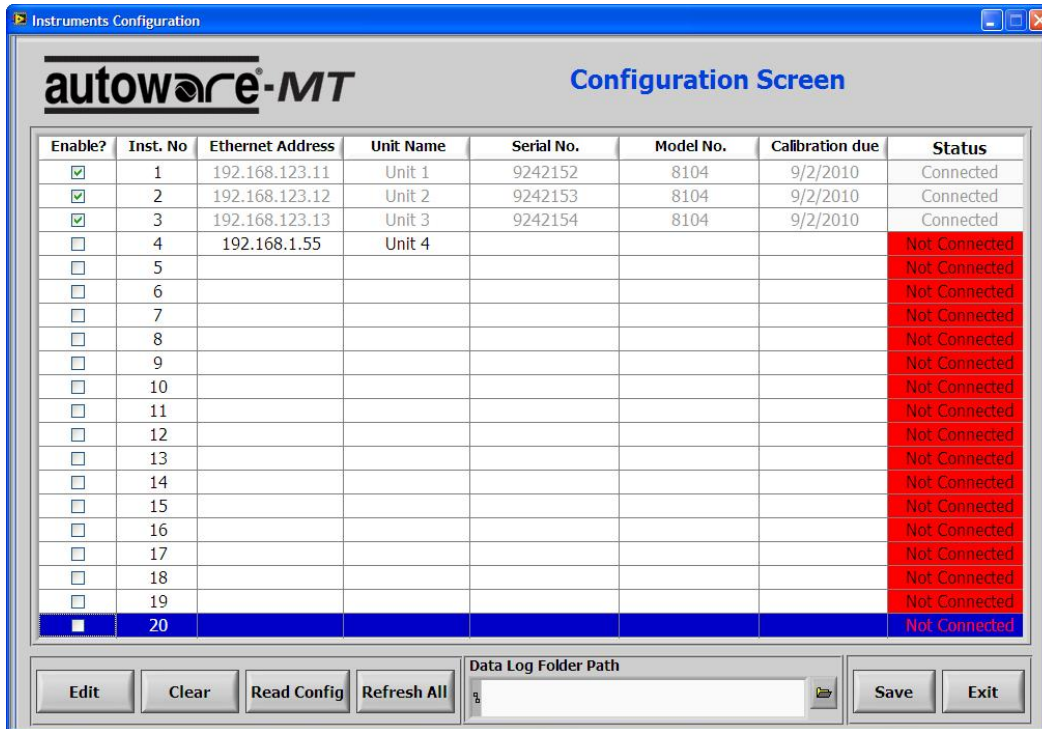
While in the Data Logging mode, any errors in communication with the instrument are displayed on the status screen. Once an error has occurred the Error Status indicator will change from green to red. The status indicator will remain red to alert the user that an error has occurred until the RESET INDICATOR button is pressed. This makes sure that the user will know that an error has transpired.



A log of the errors is kept at the location shown. This defaults to the Info\Error Log\ directory under the installation path. In the error log is an entry with unit number, timestamp, and error description for every error that has occurred.

Configuration:

The configuration button allows the user access to the configuration screen. However, since data logging is in progress, any enabled instruments are grayed out. The only change that can be made to an enabled instrument is to clear the enabled check box and disable the instrument. Any change to the enabled status of the instrument is not effective until after the configuration is saved and the configuration screen is exited.



Data Log File:

The data log file is named Datalog.txt and its default location is the Info\Datalog\ folder under the install folder. The location of the file can be changed from the configuration screen. Under the DATA LOG FOLDER PATH heading, the user can press the folder icon on the right hand side to change the folder path.

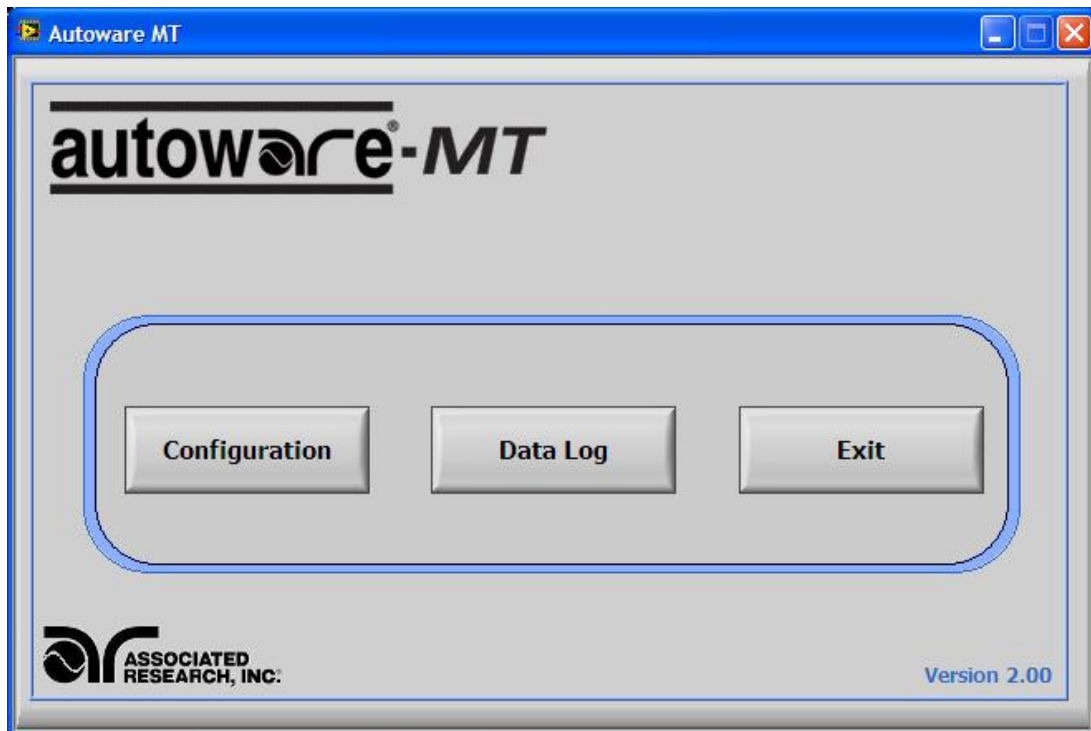
File Format:

The file is a tab delimited text file which can be viewed with any standard text editor, or imported into a spreadsheet application for analysis. The first line in the file contains the headers for each of the columns. Each column is separated from the previous column by a tab character. A line is added to the file for every test result downloaded. The results are tagged with Unit number, Name, timestamp, file name and step number in order to allow the results to be processed properly.

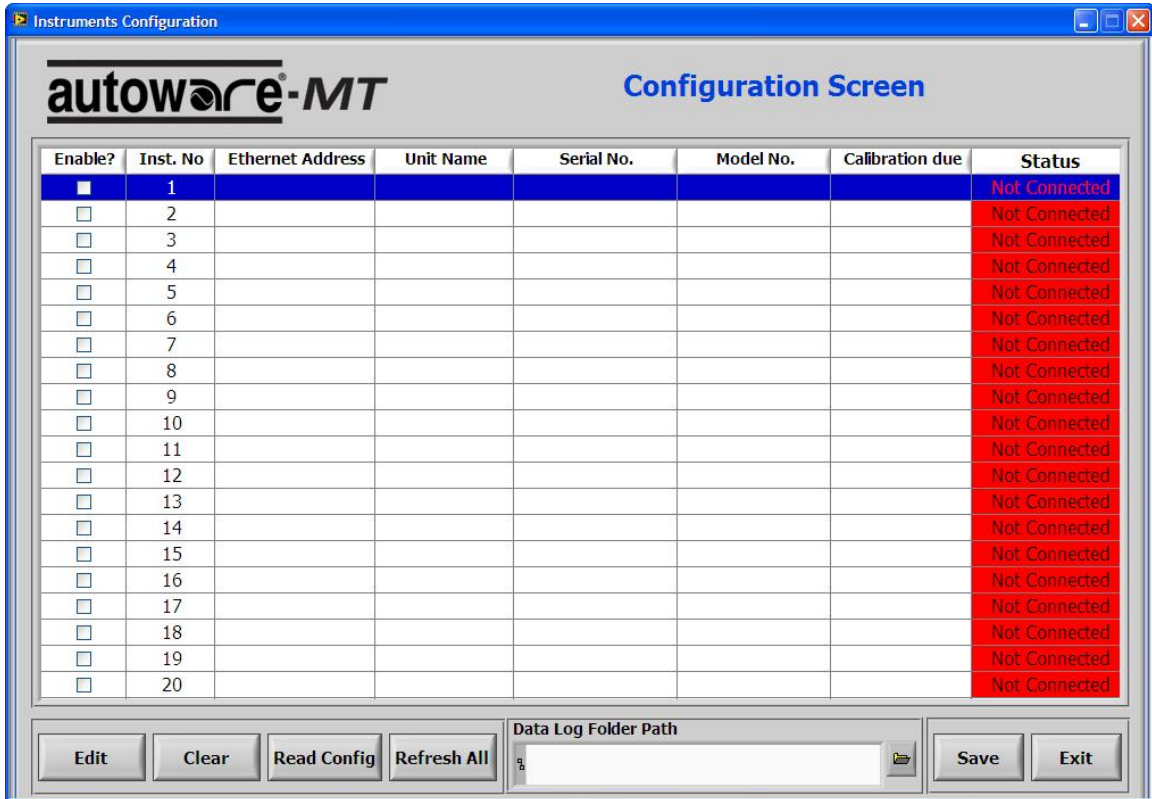
Quick Start Guide:

This guide is designed as a “quick setup” procedure to assist the user in getting the system running. It is recommended that the user read the other sections of the manual before proceeding to the quick start guide as this guide references information contained in previous portions of the manual.

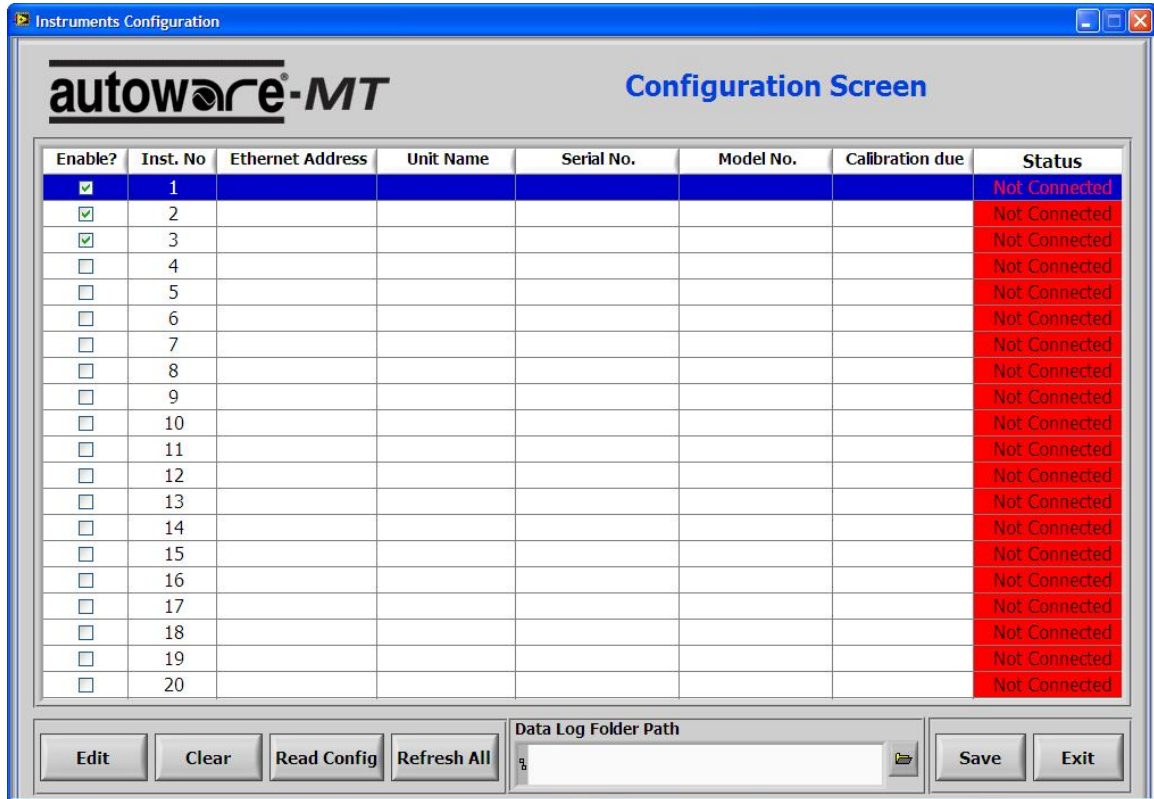
1. The AUTOWARE MT program is designed to help the user record and log data from multiple Omnia units. It is recommended that the user setup all test sequences that will be executed and recorded before running AUTOWARE MT.
2. Open AUTOWARE MT by selecting START/All Programs/Associated Research AUTOWARE MT. The program will initiate to the MAIN SCREEN.



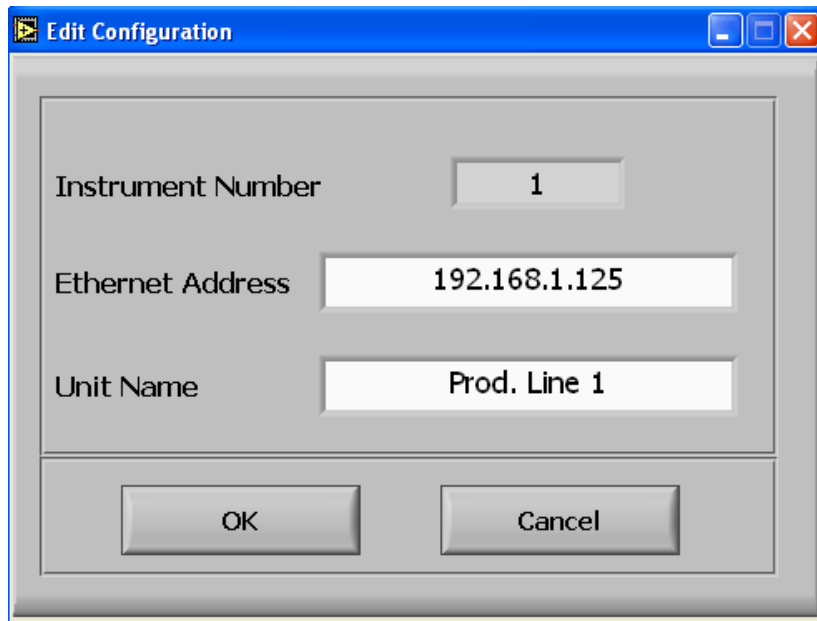
3. Press the CONFIGURATION button. This will take the user to the CONFIGURATION SCREEN. On this screen, the user will set up each instrument.



- Now the user can configure each device. First, it is recommended that the user click the ENABLE box for each device. This ensures that data will be logged. If this box is not enabled, data will not be logged.



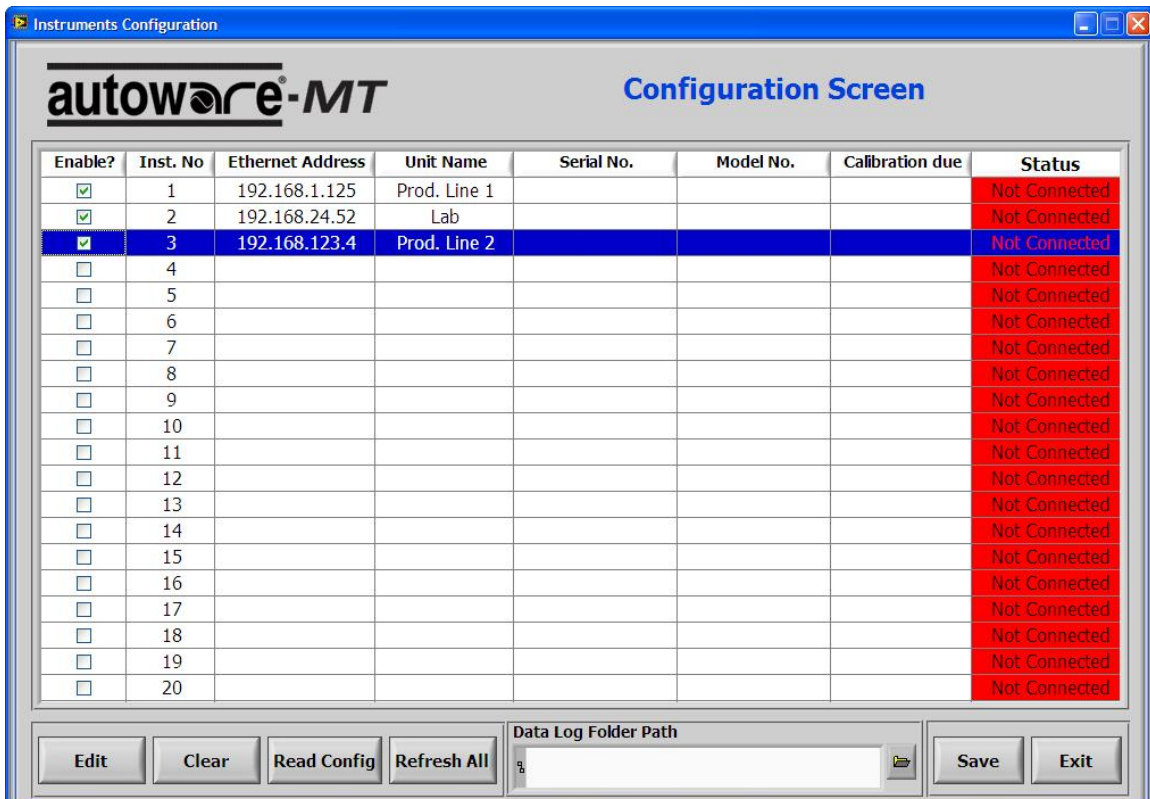
- To configure a device, highlight the line of the device to be configured. Press the EDIT button. The following window will appear:



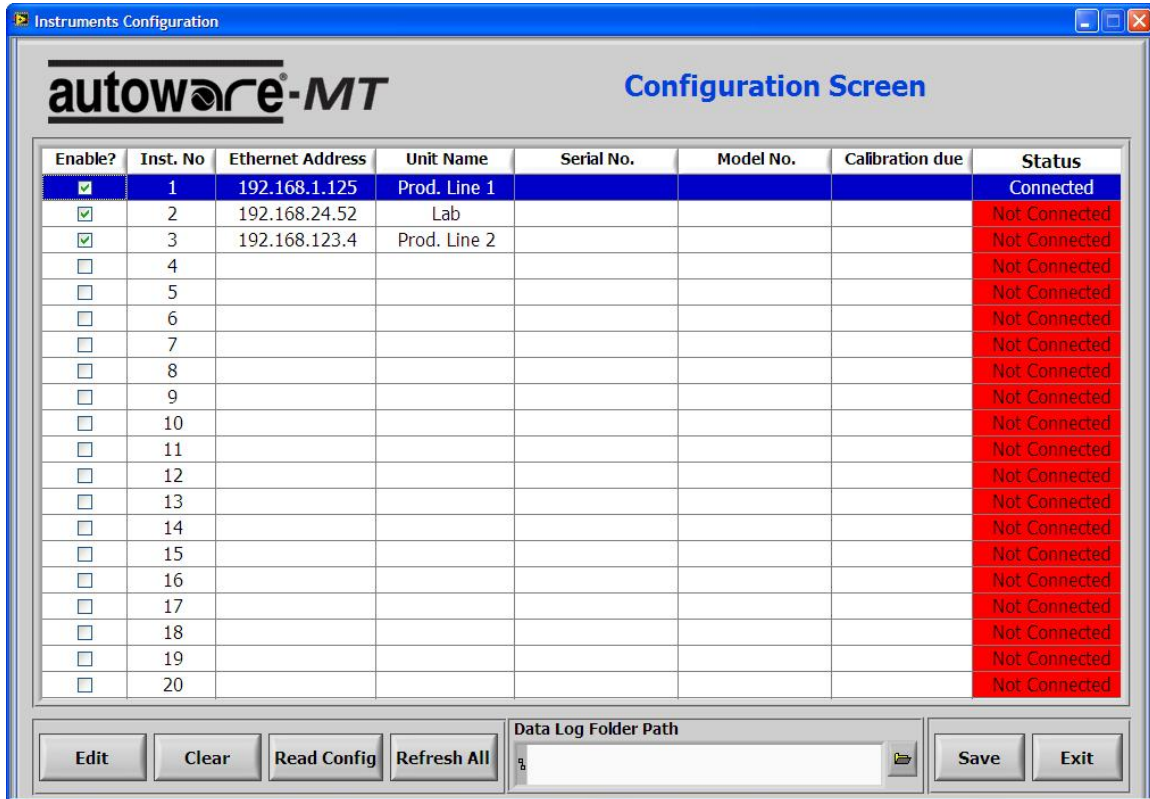
- Add the Ethernet Address for the instrument. The user may also give the instrument a name to help identify and distinguish it from the other Omnia units. In

the case of this example the first instrument was named for its location which is Production Line 1.

7. Repeat this process by highlighting the necessary line and adding the other instruments by pressing the EDIT button. For this example, the user set up three separate instruments. Each instrument was named for its location: (1) Production Line 1, (2) Lab and (3) Production Line 2. NOTE: At this point the units are not yet connected to the network. The user is simply specifying the Omnia units that will be used.

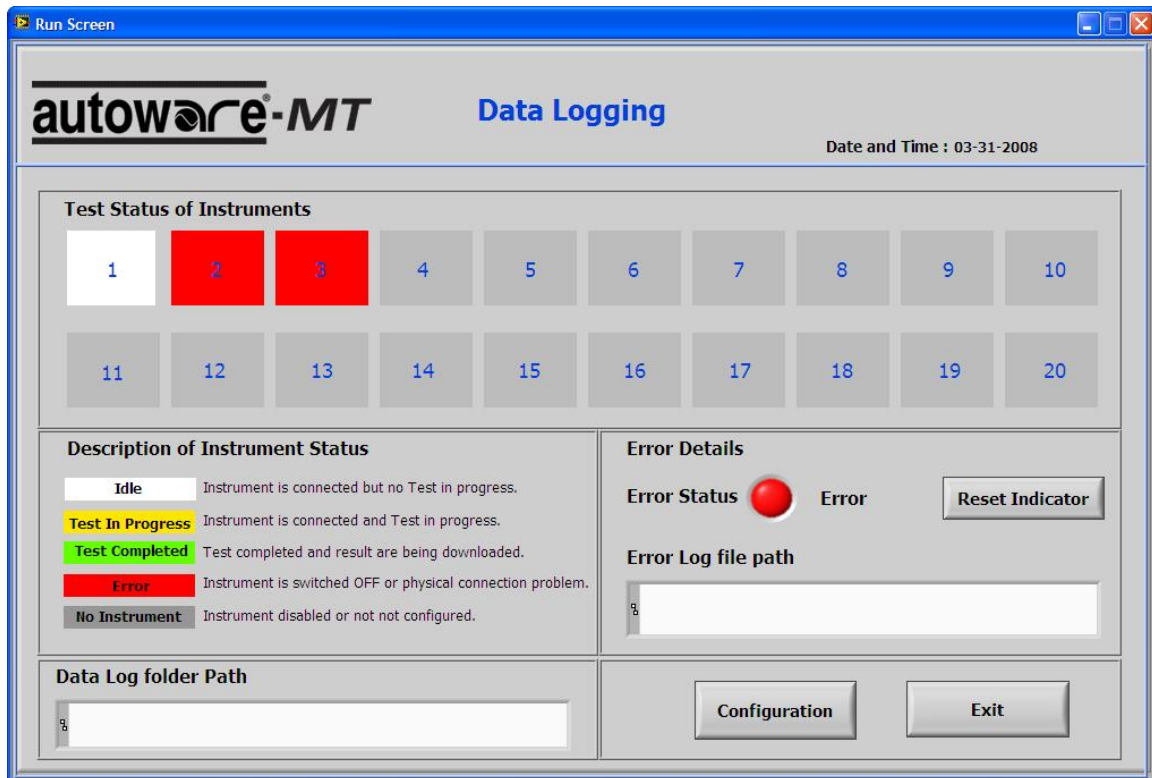


8. The user now has two options for the AUTOWARE MT program to read the Omnia configurations. (1) The user could highlight an individual instrument and press the READ CONFIG button. This will allow the user to read the Omnia instruments one at a time to ensure each is properly connected to the network. (2) The user can attempt to read all units at once by pressing the REFRESH ALL button. If the user presses this button the AUTOWARE MT program will automatically read the configuration of each instrument to verify the IP address on the network for each unit.

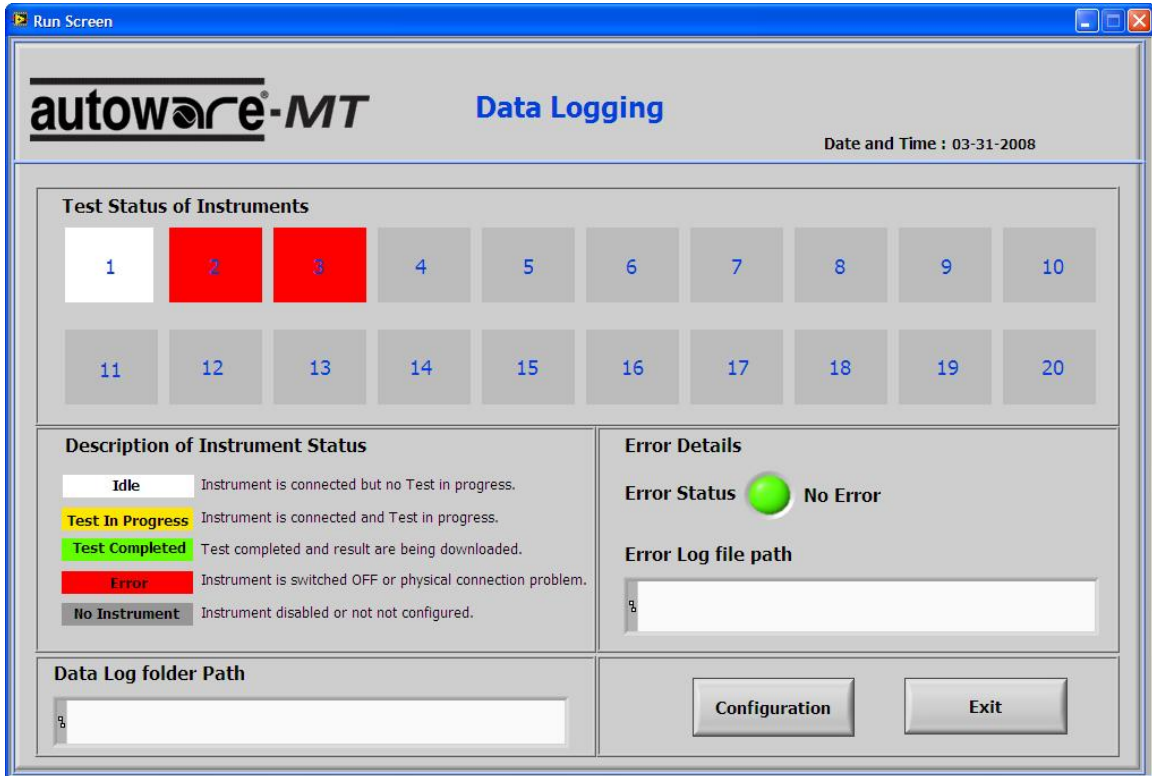


9. If the AUTOWARE MT program is able to read the instruments configuration on the network, the instrument STATUS will change from NOT CONNECTED to CONNECTED. In the example above the program read the configuration of instrument 1 but did not read the configurations of instruments 2 and 3.
10. At this point the program has changed control on the Omnia to Remote PLC control. The Omnia will be expecting the initiation of a test from the Remote PLC (Signal Input on the back of the Omnia unit) and not the front panel. The units are now ready for data logging. The location where the data will be saved can be seen under the DATA LOG FOLDER PATH HEADING. To change this path, the user must hit the folder icon button under the heading and specify a new path. Once a new path is selected, hitting the CURRENT FOLDER button on the File Path window will change the location of all saved data files.
11. Press the SAVE button to ensure that your settings are saved to the program files. If the save is successful, a small prompt will appear: "Configuration saved successfully..."
12. Press the EXIT button to return to the MAIN SCREEN.

13. From the MAIN SCREEN, press the DATA LOG button. This is the section of the program that allows the user to visually track all instruments at once for connection status and logging of information.



14. This screen shows which instruments are connected to the AUTOWARE MT program (and thus the network) and which are not. In this example, Instrument 1 is connected but there is a problem with the connection on Instruments 2 and 3. This is also indicated for the Error Details section on the screen. Note that the Error Status light is RED. This indicates an error with the setup of one or more instruments. If the user chooses to ignore the error, the RESET INDICATOR button can be pushed to clear it. The light will then change from RED to GREEN and NO ERROR will be indicated allowing the user to proceed.



15. Now the system can run and track information. The Data Log folder Path shows the location of all the test data being tracked by AUTOWARE MT. The Error Log file path shows the location of any system errors that occur during the course of testing so that the errors can also be tracked.

16. The user can navigate to the CONFIGURATION SCREEN to troubleshoot connection errors by hitting the CONFIGURATION button. The user can also change the data log folder path in the CONFIGURATION screen (see step #10). If the user presses EXIT from the CONFIGURATION SCREEN, it will return to the DATA LOGGING SCREEN. Hit the EXIT button from the MAIN SCREEN to exit the program.

Where to go if you need more Information

If have questions you can visit the Associated Research website at www.asresearch.com or email us at info@asresearch.com. You can also contact technical support by phone at 1-800-858-TEST (847-367-4077 outside the U.S.) or by fax at 847-367-4080.