AS300 CAPTURE & PC ANALYSIS SOFTWARE MANUAL

ALARM MONITORING DATA LOGGING

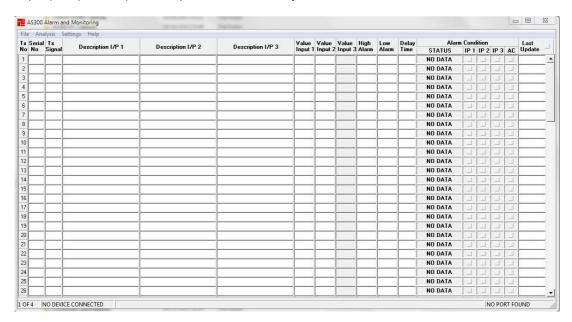Asper **Systems Ltd**
Laboratory Alarm & Monitoring Systems

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Section 1 ► Monitoring & Data Capture Software

1.0 Overview

- Display and logging of all the information sent from the transmitters.
- Data is updated every 15 minutes from each transmitter, increasing to every 5 minutes when in an alarm condition.
- Information sent from each transmitter *(If Enabled)* includes the following :- transmitter number, transmitter serial number, Tx Signal Strength, value I/P1, value I/P2, value I/P3, high alarm set-point, low alarm set-point, delay time and time of last update.
- Alarm status of input 1, input 2, input 3, AC power and low battery are displayed.
- Data is recorded in a CSV and PSA file. The PSA file is encrypted and can only be decoded and read by our analysis software. The CSV file can be read in our analysis software or excel. A set of new CSV and PSA files are generated every day to make record archiving simple.
- Standard 25 inputs can be expanded in blocks of 25 up to 100 inputs.
- Input I/P1, I/P2 and I/P3 descriptions can be added by customer.

1.1 Connecting a Computer to AS300RX

Connect the supplied AS300 cable from the computer USB to the AS300. If drivers are required on your PC they can be downloaded from our web site at *http://www.asper.co.uk/Downloads.htm* **AS300 DRIVERS,** they are also supplied on the AS300 software pen drive stick with your Capture software.

1.2 Installing Capture Software

Double click on the Install file, prompts will guide you through the installation. Once installed the program can be accessed from the program bar under the heading Asper or screen icon.

1.3 Connecting to the AS300RX

The program is required to be run in the "administrator condition", to do this right click the mouse and click *Run as administrator*. Once the program has opened click on Settings > Comm port. Click the box Automatically Find USB Dongle, if the comm port is known this can be selected in Manually Select Comm Port. If more than 20 transmitter are on the system please Select Disconnected Detect Time to 30 mins or greater. Once this has been done go to the Settings > Connect to connect the AS300 to the PC. When connected the relevant Comm port will be displayed at the bottom RHS of the screen, on the LHS of the screen Asper Device Connected will be displayed. This procedure only needs to be done on the first start up of the Capture Software or if a different USB port is selected. With future restarts the capture software will connect automatically to the AS300

The Capture Software must be continually run to capture and store data .

If the program is not run in the Administrator Mode it may have problems with disconnections from the PC to the AS300.

1.4 Main Screen

The data will collect the following details from each transmitter, transmitter number, transmitter serial number, transmitter signal, value I/P1, value I/P2, value I/P3, high alarm set-point, low alarm set-point, delay time and time of last update. This data will be collected every 15 minutes, this interval will increase to every 5 minutes when the transmitter is in an alarm condition. If a probe is broken at a transmitter PB will be displayed at the input value.

1.5 Data Folders

The user can enter the path of two data folders where the collected data will be stored. File > Data Folders > Data Folder1 + Data Folder 2.

1.6 Descriptions

The user can enter descriptions for I/P1, I/P2 and I/P3 for each transmitter. Most transmitters purchased only use I/P1 and a typical description would be type of equipment or ID or location. E.g. –80 Freezer No 05.

1.7 Alarms

Alarms are indicated on the screen by the colour off the transmitter monitoring box, changing from green to red. Items monitored are I/P1, I/P2, I/P3, AC connected and battery low.

Section 2 ► DATA ANALYSIS SOFTWARE

2.0 Data Analysis Software Overview

- CSV and encoded PSA files can be read.
- Numerical & Graph information easily displayed for any transmitter.
- Easy print facility for data required.
- Filtering of data is possible between specific dates and times.
- Statistical Information of the following is recorded : First Reading; Date and Time, Last Reading; Date and Time, Number of Readings, Maximum Temperature, Minimum Temperature, Average Temperature, Time in High Alarm and Time in Low Alarm.
- The Data Capture software and Data Analysis software come as a package. Each licence allows one capture software and up to 5 data analysis software programs.

2.1 Installing Data Analysis Software

Double click on the AS300 Alarm and Monitoring Data Analysis file, prompts will guide the installation. Once installed the program can be accessed from the program bar under the heading Asper.
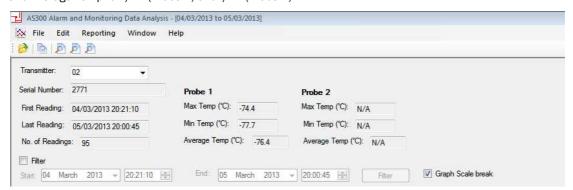
2.2 Opening a Data File

To open a data file go to File > Open. The files are automatically saved in a date form e.g. 12_05_2013 is data collected on the 12th May 2013. Two files are made for each date a csv and psa. The psa file is encrypted and can only be viewed in the analysis software.

2.3 Using a Data File

Once the required date or dates are opened for analysis, select the transmitter unit number required to be viewed. This is done by using the mouse to move the "Transmitter Unit" column numbers up or down. Once the required transmitter unit is selected data for this unit is displayed.

2.4 Top Screen Displayed Information

Information at the top of the screen is displayed for the selected transmitter. The information is Serial Number, Descriptions if entered into the capture screen, First Reading, Last Reading, Number of Readings, Max Temp, Min Temp and Average Temp for I/P1 (Probe 1) and I/P2 (Probe 2)
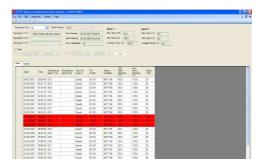

2.5 Column Data

The data in the columns gives easy access to the following :-
Date, Time, Temperature input 1, Temperature Input 2, Door Switch I/P3, AC Power, Battery Condition, High Alarm Set-point, Low Alarm Set-point and Delay Time.

2.6 Alarm Highlighting Column Data

If an alarm occurs it will be highlighted in red for a high alarm and blue for a low alarm in the column data.
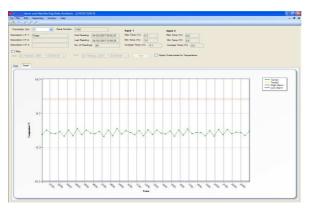

2.7 Filtering Data

Data can be filtered by ticking the filter box and selecting a start date and time and end date and time. Once this has been done click on the filter button.
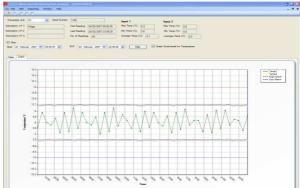
2.8 Displaying Graphs

A graph of the current data can be displayed by clicking on the Graph Tab. To return to the column data, click on the Data Tab.

2.9 Graph Scale Break for Temperature

When the graph is displayed, if there is a relatively large difference between the High Alarm, Low Alarm and I/P1, I/P2 measurements, the I/P1 and I/P2 variations can be hard to distinguish. To make this clearer, the "Axis Scale Break" feature collapses the gap between the highest data line and lowest data line. This allows the variations between the data lines to become more visible.
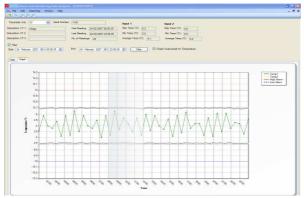

Scale Break Off

Scale Break On

2.10 X Axis Zooming

As well as the existing "Filter" functionality of the analysis application, which allows the user to filter a subset of the transmitter readings using a smaller time span, there is also the "Graph Zoom" function. This allows the user to zoom into a specific X-axis range of the graph. This is achieved by clicking on the start of the range required and then drag-

Highlighted Area to be Zoomed

Zoomed Graph

ging the mouse to the end of the range the zoomed data is then displayed.

2.11 Alarm Highlighliting

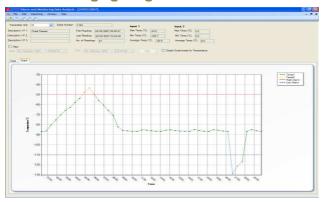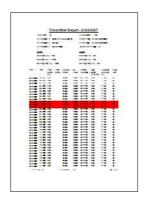If either I/P1 (Temp1) or I/P2 (Temp2) value goes into the high alarm, the graph line is coloured red. If the input value goes below the low alarm set-point, the graph line is coloured blue.

2.12 Reporting

Print out of data can be done in three ways.

- "Transmitter Report" prints the data column view.
- "Graph Report" prints the graph view.
- "Summary Report" prints the "header" information for each transmitter.

To access these functions go to Reporting > Transmitter Report etc.

Transmitter Report

Graph Report

Summery Report

2.13 Report Output Format

The reports can be output in the following formats: -

- Adobe Acrobat (PDF)
- Microsoft Excel
- Microsoft Word

This can be done by selecting the "Exporting Report" button from the top left of the report window. Then select the report type from the "Save as type" selection in the "Export Report" dialog window.

2.14 Clipboard Export

Data in the data column and graph can be copied to the windows clipboard. In the data column the user can select the appropriate data cells using the mouse. The user then select the "Edit / Copy" menu item from the main window. For graphs the Graph's image is copied to the Windows Clipboard
Once the data is copied to the Windows Clipboard, this can then be pasted into any appropriate Windows application
(*Note :- By clicking the top left cell, all the cells in the data column are selected*)

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