EaziVal 2 Quick Start Guide

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ANVILLE INSTRUMENTS LTD.

EAZIVAL 2.

Quick Start Guide

The ANVILLE INSTRUMENTS EAZIVAL 2 software is specifically designed with the engineer in mind. It is easy to use and even if the engineer is not computer literate he should not find too much difficulty in mastering the system. The system is laid out so a natural path is followed to the machine to be tested with every click of the mouse.

The hospital engineer in particular will find that all the tests contained in HTM2010 and HTM2030 are included within the software. These include weekly, quarterly and yearly test sheets for the following machine types: -

Porous load sterilizer.
Unwrapped Instrument sterilizer.
Washer Disinfector machines.

The system has the ability to calculate holding and equilibration times for all machine types and sterilizing bands. Compile reports including machine identification details, thermometric charts, data listings and test sheets. Reports can be printed out or sent to other recipients using e-mail.

This quick start guide is a short introduction to get you started on the system. A more detailed manual can be found on the EaziVal 2 website and on the disc accompanying the system.

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Getting started

Before installing EaziVal V2

Please shut down all running programs.

Software installation

Place the EaziVal 2 CD in your computers CD ROM drive. If you have auto run then the installer will start automatically.

Follow the instructions given by the set-up program to complete the installation of EaziVal 2 on your system.

If the installation does not start automatically then you should open My Computer. Double click the CD ROM drive to display its contents.

Once the contents of the CD are displayed locate the Setup.exe program and double click it. After this follow the instructions from the set-up program.

USB-RS232 converter cable connection details

Please follow the instructions that come with the cable or refer to the main EaziVal 2 manual.

Running the program

Once the software has been installed, click on the Anville EaziVal 2 icon. As the program runs you will be asked for a user name and password. The default user name and password are as follows: -

User name = new user
Password = password

These are case sensitive and each one can be changed once you are in the program in the user management section.

There are two levels of user. One is “Supervisor” level where all functions can be carried out and the other is “User” level. The supervisor can edit restrictions of the functions that can be accessed by anyone given user access.

The site window

The site window allows you to easily log onto the machine that you wish to test. Each time you log onto the system the last machine tested will be highlighted. Enter the site name, the department where the machine is kept, the type of machine and the machine identification. This will form a tree format, which will enable you to find the machine quickly for future testing. All data logged will be stored in files dedicated to the machine that is logged onto at the time.

To enter the site name, click on <New Hospital>, when this is highlighted click on <Edit>. You will be able to enter the name required, follow the same procedure all the way down to the machine identification.

When adding more sites click on <New>. This will bring up a new site, the departments, machine types and machines themselves can be added to in the same way.

Once the machine to be tested is selected click on <OK> and the main EaziVal2 window will open.

Create logger set-up

A logger Set-up, for the test being carried out needs to be created. Click on <Set-up> on the main toolbar and from the drop down menu select <Create logger set-up> and the logger window opens.

In the logger window select the logger being used and using the drop down menu's and tabs select the type of sensors connected, e.g. thermocouples or pressure transducers.

Once the sensors have been selected save the set-up by clicking on the <Save> button. A "save as" window opens, enter the filename and click on <OK>. The "save as" windows appear in several places in the program and all work in the same way.

Create a test set-up

From the set-up drop menu select <Create test set-up>. Enter the name you wish the test to be called e.g. Porous load (small load).

Enter the logger set-up using the button on the logger settings box and selecting a set-up from the list that would have been created in the earlier logger set-up. Click on the <OK> button, the logger set-up will be entered into the test set-up.

Next you need to identify the sensors and give them a location. In the test channel section of the window enter the sensor location in the box adjacent to the channel number, e.g. drain. Make sure that the channel is correctly identified as either temperature or pressure using the drop down menu which has temperature listed as a default.

The channel colours are selected by clicking on the coloured box, lists of colours appear, select the colour required.

When all the identification details of a channel are complete, click on <Add>. Carry out the same procedure on all channels being used. To remove a channel set-up highlight it and click on <Remove>.

The plot set-up is the chart configuration for the logging window. For the type of test being carried out enter a maximum and minimum temperature e.g.: - Porous load would be 0°C-150.0°C. The same should be done for the pressure axis, -1000mb and 4000mb being the ideal settings for a porous load cycle. Milli-bar measurement is recommended.

The test options section is important, as the settings entered will determine the calculations in the cycle summary. The high and low temperature marks are the sterilizing band.

To get an accurate equilibration time in the cycle summary for a porous load cycle one or more channels may need to be ignored, eg. the free space channel, as it is likely to pass through the sterilizing band earlier than the other channels and this will give an incorrect reading for the holding time etc. Enter the channel number in the ignore channel box, any number of channels can be ignored by spacing with a comma.

Once all details have been entered, save the test set-up by clicking on <Save configuration>, the "save as" window opens, enter the filename and click on <OK>.

User management

This is where new users can be added to the system and their level of access determined. There are two levels of access "Supervisor", who has access to all parts of the software and "User" level, whose access can be limited by the supervisor if necessary.

Monitor channels

You can view the channels to assist in placing the sensors by clicking on <monitor channels> in the “tools” drop down menu. Note: - the readings used here are not calibrated.

Calibration

Click on the <calibrate> button on the main EaziVal 2 toolbar. An <options> button will be visible in the top corner of the screen. Click on this and select Calibration equipment. Here the details of equipment being used to calibrate the sensors such as pressure calibrators; temperature references etc can be entered. These details will then be attached to the calibration report.

In the calibration window you must first enter a logger set-up. Click the button on the “logger set-up” box and select a set-up from the file. To do this highlight the set-up file required, and click on <OK>. The <monitor channels> button will now become active, click on it. There will be a reading in the measured column and the drift column will show “calculating” for a short time while the software calculates the drift on the channels.

Enter the set points you wish to use for calibration in the specific boxes. e.g. for a Porous load test the following could be used.

High temperature = 140°C
Mid temperature = 137°C
Low temperature = 50°C or ambient.

It is recommended that an external temperature-measuring device be used when calibrating using a temperature bath to ensure accuracy. It should also be noted that the high and low temperature set points should not be too close together.

The pressure set points for calibration on a Porous load test would be as follows: -

High pressure = 3000
Mid pressure = 2000
Low pressure = 1000

It is possible to toggle from temperature to pressure while waiting for stabilization of a set point to help save time.

Select the point to be calibrated first and with monitor channels activated, wait until you are satisfied that the channels have stabilized. Click on <Take reading>. When the box changes to green the set point has been calibrated. Repeat the process for all set points.

Pressure transducers respond very quickly, so the drift from these channels can be ignored at the users discretion. The readings shown for pressure while monitoring the channels is an arbitrary value, not the actual pressure being measured.

The calibration of all the channels can be confirmed by clicking on the <Post calibration> button and then the <Monitor> button after calibration has been completed.

To save the calibration click on <Save calibration>, enter the filename and click on <OK>. The calibration will be stored against a logger set-up and can be used again.

When using the calibration again the easiest way of confirming that the calibration is still good is to use the verification mode.

Verification

The verification mode can be used to prove an old calibration is still good and should also be used after a thermometric test to prove the calibration of the sensors on both sides of the test.

Click on the <Verification> button, then on the <calibration file> button and select the calibration file to be checked.

The procedure is then the same as in calibration. When all the channels have been verified, click on <Save Verification>. The verification file will be able to be included in the report.

New test

The New test window is where you select the set-ups for the test to be carried out. Click on the <New test> button. Select the test to be carried out from the set-up list by highlighting it. Calibration files will appear in the select calibration box. Highlight the calibration set required.

In the test details enter the cycle number and the estimated time you expect the cycle to take.

There is an automatic stop logging facility and to use this select <Stop test after [hh:mm]> and enter after how long you would like the logging to stop. Automatic stop logging can also be used by selecting a channel and a set point a which you would like logging to be stopped.

Logging

When you click the <OK> button in the "New test" window the logging window opens.

To start logging, click on the <Start> button. To stop logging, click on the <Stop> button.

When logging has been stopped and you wish to save the data, click on the <Save> button. At this point you will be asked for a password, use the password that was used to log on to the software. The data will then be given a digital signature.

Other features in the logging window are Show legend; which is a list of all the sensors being used. Show diagnostics; gives you a digital readout from all the channels while logging. Cycle information; contains a lot of useful information on parameters reached during the cycle including, equilibration and holding times.

Note: it is very import that the correct information is entered into the "Ignore channel" box in the "Create test set-up" window for the cycle information to work correctly.

Viewer

The viewer is where the chart and data can be edited for the report and viewed for purposes of analysing tests. To open the viewer window click the <Viewer> button on the main EaziVal 2 toolbar.

Click on the <Load data> button in the viewer window and select the cycle to be analysed. It is possible to add markers for the stages of the cycle. Click on the <Add marker> button and enter the stage name into the box. Click on <OK>, a data line will appear on the left hand side of the chart. This can be placed in the correct position by dragging and using the time that will be displayed with the data line. For additional data lines repeat the process.

Click on the <Auto-mark> button and three data lines will be placed on the chart, one at the start of the equilibration, one at the start of the holding period and one at the end of the holding period. Additional data lines can be added after using the auto-mark facility.

To delete data lines click on it and then click on the <Delete> button.

A cursor is available by clicking on <Show cursor>. A sensor trace on the chart can be analysed at any point by either dragging the cursor along it or using the directional keys on the keyboard. Toggle between the trace lines by using the up and down directional keys. The trace reading will appear in the bottom left hand corner of the trace. A channel values window will also show information from all the sensor traces as the cursor is moved along the chart. To hide the cursor, click on <Show cursor> a second time.

To zoom into an area of the chart, click on the <Show zoom box> button. The zoom box appears on the chart and by using the enter key on the keyboard the area will be enlarged. The size of the zoom box can be adjusted and moved using the mouse. It is also possible to move the zoom box on the chart using the directional keys on the keyboard. The zoom can be repeated to give a detailed view of an area, to zoom out use the <Full zoom out> button.

To view the data list, click on the <Show data list> button. The data list will appear and it is possible to enter stages onto the chart using the <Add marker here> button. Highlight the position on the data list where you would like the data line to be placed and click on <Add marker here>. Enter the stage name into the box. A data line will be placed onto the chart.

Data list options allows you to adjust how much data is listed in your report. It is possible to show the data listed every 1-second or every 60 seconds; it is up to the user. This is very useful when testing long cycles and a report is being printed. A report of a long cycle containing data recorded every second can be very bulky when printed so reducing the frequency of the data is a great advantage.

Click on the <Data list options> button and enter the first stage name into the set-up window. The display interval is the frequency that you would like the data to be listed in the report, e.g. the air removal section of a cycle would not require to be listed as frequently as the sterilizing stage. Enter the frequency time for each stage. Enter the details for all stages before clicking on <OK>. Each stage is accessed from the drop down menu in the set-up window.

Save the edited chart by clicking on the <Store view> button and giving it a filename. Any number of views of the same chart can be stored and can be accessed using the drop down menu under the <Delete view> button. When you wish to exit the viewer you will be asked to “Save changes to this data”. <Yes> must be clicked, if <No> is clicked the views that have been edited and stored will not be saved.

Reports

A complete report can be assembled from all the data and test sheets that have been completed during testing. Click on the <Report> button on the main toolbar. The report builder opens showing a list of files. Click on a file to show a list of contents, each of the contents can be added to a report by dragging the item across to the report box on the right of the window.

Thermometric data is in a tree menu format, click on the cycle required to reveal either “Plot” or “Data listing”. Each plot or data listing will have its own tree menu depending on the number of views that have been stored in the “Viewer” section. There will be a plot for each view saved and a view for each data listing that has been saved. Either highlight the item required for the report and click the directional arrow in the window or drag the item across.

Page breaks can be placed in a report so machine printouts etc can be included. The items of the report can be moved up and down so as each page will appear in the correct order. Highlight the item and click on either <Move up> or <Move down>.

Follow the same procedure to assemble all parts of the report. It is possible to add titles and footers to a report of your choice. Please refer to the main manual for details on this.

When the report is assembled click on <Build report> and the VPE reviewer opens. The report can be viewed to check page positions etc.

To save a report click on the <save> button and give the report a filename. Reports can be accessed by using the <Open report> button in the “File” drop down menu in the main window. Only the reports for the machine that has been logged onto are viewable.

Manage files

The file manager can be found in the “Tools” drop down menu. Files can be browsed by Site or type. Click on a site to reveal a tree menu that ultimately contains the thermometric data, reports and paperwork for a particular machine. The list of files contained in each or these sections can be viewed in turn from the list that will appear when each one is highlighted. To access the file double click on it and the VPE viewer will open showing that file.

The set-up files are listed here but are not viewable. These files are global and will be the same no matter what machine has been logged onto.

By right clicking on the mouse some useful tasks can be carried out. You can cut, copy, paste, rename and delete files. Thermometric files can be Export.CSV to software such as Microsoft excel. PDF’s can also be generated from a report file.

Generate PDF from report

A PDF file can be generated from a report and the report can then easily be e-mailed to another PC. Adobe Acrobat Reader or another PDF viewer is required for this.

Click on <Generate PDF from report> in the “Tools” drop down menu. Select the report to be converted and click on <OK>. The report will be placed in “My Documents” in PDF format.

The main EaziVal 2 manual is available on the disc supplied or updated copies can be downloaded from the EaziVal website.

www.EaziVal.com.