

# **Technical Application Note**

### Tech20040902

## **Exporting Cellwatch data to other applications.**

It is possible to use "raw data" generated in the Cellwatch program in other applications such Microsoft EXCEL. The following export opportunities exist:-

- 1. Capture all the readings taken by Cellwatch TODAY, and view it in Excel.
- 2. Export the raw data in the History file.
- 3. Export the raw data in a Discharge file.

A limitation in Excel is the width of a single worksheet is limited to 256 columns. Because of the data structure of Cellwatch data files, the data can often times exceed 256 columns. In this case Excel's import wizard will allow further data to be added to subsequent worksheets or the data can be rotated before it is put into Excel using a rotator specifically designed for this purpose.

### Capture the current day's reading taken and store it in Excel.

- 1. If you intend to carry out this procedure at (say) 6.00 a.m. then you will only capture the data recorded from midnight through to 6.00 a.m. More data will be captured at 11.00 p.m. than at 6.00 a.m.
- 2. On the Cellwatch screen select the drop down menu "Configuration" and select "View Configuration" from the drop down menu.
- 3. The screen that opens, looks like a spreadsheet and is entitled Cellwatch battery system configuration settings
- 4. On its drop down menu, select "File" and select "Save data as" from the drop down list.
- 5. Save the data as a .CSV file to the Cellwatch folder.
- 6. Copy the data to a memory stick or floppy disk or a network share. Do not try to run Excel on the Cellwatch iBMU.
- 7. Having transferred the data to a PC running Microsoft Excel, open Excel and import the data into Excel by following step 18 and onwards of the following procedure.

#### Import the History into Excel.

- 1. Open Windows Explorer by right clicking the "START" menu located on the lower left of the desktop.
- 2. Left click on the word "Explorer" to open Windows Explorer.
- 3. Left click the plus (+) symbol next to the hard drive (C:)
- 4. If C: is already expanded, left click the plus (+) symbol next to PROGRAM FILES and then left click on the words "CELLWATCH".
- 5. At this point you should see the contents of the "CELLWATCH" folder appear in the right-hand side of Windows Explorer. Left click on "history2004.his" file so it is highlighted.
- 6. While the file is highlighted, press the control (Ctrl) key and the "C" key on the keyboard at the same time. This will copy the file to the clipboard.
- 7. Now left click in the blank portion of the content area of the CELLWATCH folder on the right side of Windows Explorer (this is the white area). This causes the history2004 file to become un-highlighted.
- 8. Now press the control (Ctrl) key and the "V" key on the keyboard at the same time. This will create a file named "copy of history2004.his"

- 9. Left click on the file "copy of history2004.his" and press F2. This should allow you to change the name of the file to whatever you wish. Just make sure you change the ".his" to ".csv" and press enter. You will see a conformation window appear asking you if you are sure this is what you want done. Click "YES". This causes the file to become a comma separated variable file.
- 10. Double click the "RotateCVS.exe" file. You will see a window open called "Form 1".
- 11. Click on the "Load" button in the top right corner of the window.
- 12. At this point a window labeled "Open" will open and you will the contents of the "CELLWATCH" folder. Select the "history2004.csv" (or whatever you called it) file you created earlier and click on the "Open" button located in the lower right corner of the window.
- 13. After a few seconds you will see the window labeled "Form 1" load with the information from the "history2004.csv" file. Click on the "Rotate" button located in the upper right side of the window. This will reorient the data 90 clockwise.
- 14. Click on the "Save" button. A "Save As" window will appear allowing you to save the reformed file. If the name in the "File name" box is what you wish to name it, click on the "Save" button located in the lower right of the window. Note by saving it as the same filename as the original, you will overwrite the file.
- 15. Left click on the "X" box located on the top most right side of the window to close "Form 1".
- 16. Left click on the "X" box of the Windows Explorer window.
- 17. Open Microsoft Excel.
- 18. In the upper left corner of the window you will see a list of drop down menus (File, Edit, View, Insert, Format, Tools, Data, Window, Help). Left click on the menu entitled "Data".
- 19. This will cause a dropdown window to appear. Select "Import External Data" with the mouse cursor. This will cause another dropdown window to appear. Left click on the item "Import Data".
- 20. A "Select Data Source" window will appear. Left click on the dropdown arrow of the "Look In" box.
- 21. Left click on the hard drive "C:".
- 22. Double left click on the "Program Files" folder.
- 23. Double left click on the "Cellwatch" folder.
- 24. Double left click on the "history2004.csv" file you created.
- 25. At this point a "Text Import Wizard" window will appear. Make sure the "Delimited" radio button is selected in the "Original Date Type" area of the window.
- 26. Left click the "Next" button located in the lower right corner of the window.
- 27. In the "Delimiters" area of the next window that appears, make sure the "Tab" check box is unchecked and "Comma" check box is checked.
- 28. Left click the "Next" button located in the lower right corner of the window.
- 29. Left click the "Finish" button located in the lower right of the next window that appears.
- 30. Left click the "OK" button of the following window and after a few seconds the information of the "history2004.csv" file will appear in the Excel worksheet.
- 31. From here you can edit the data as you wish.

#### Discharge data

Discharge data is treat exactly the same as the history data except that the file is entitled ????.dis instead of (date)history.his. See page 45 of Cellwatch Software V2.5 for more details of what the filename means.