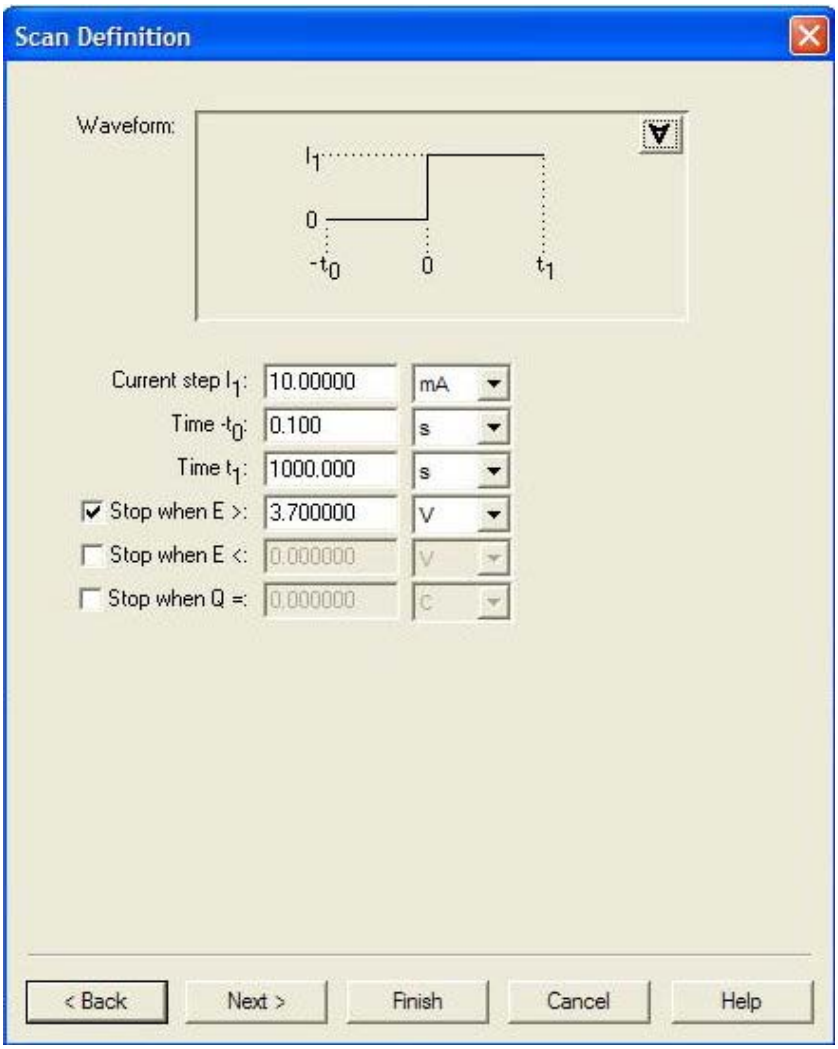
How To Guide

Building an AutoExecute routine with PowerSuite

In order to demonstrate how to build an AutoExecute routine within PowerSuite, we are using a common battery cycling test as an example.



This is an example of a chronopotentiometry (CE) scan definition setup screen (from PowerSTEP) where a constant current of 10 mA (charging current) is applied for **either** 1000 sec or a voltage limit (stop) of 3.7 V, whichever comes first. For a discharge setup, the polarity would be negative and the limit would use the "<" character.

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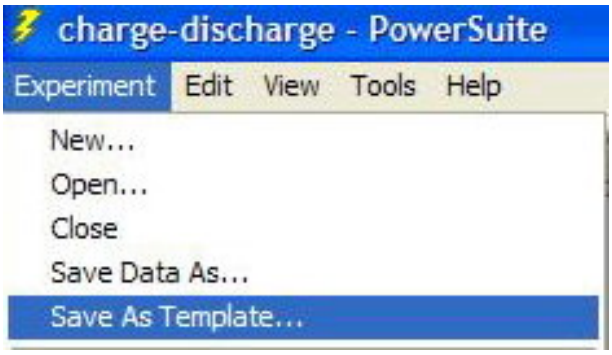
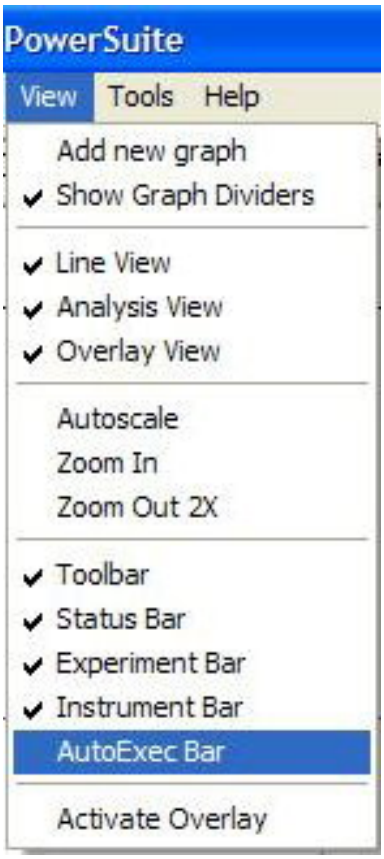
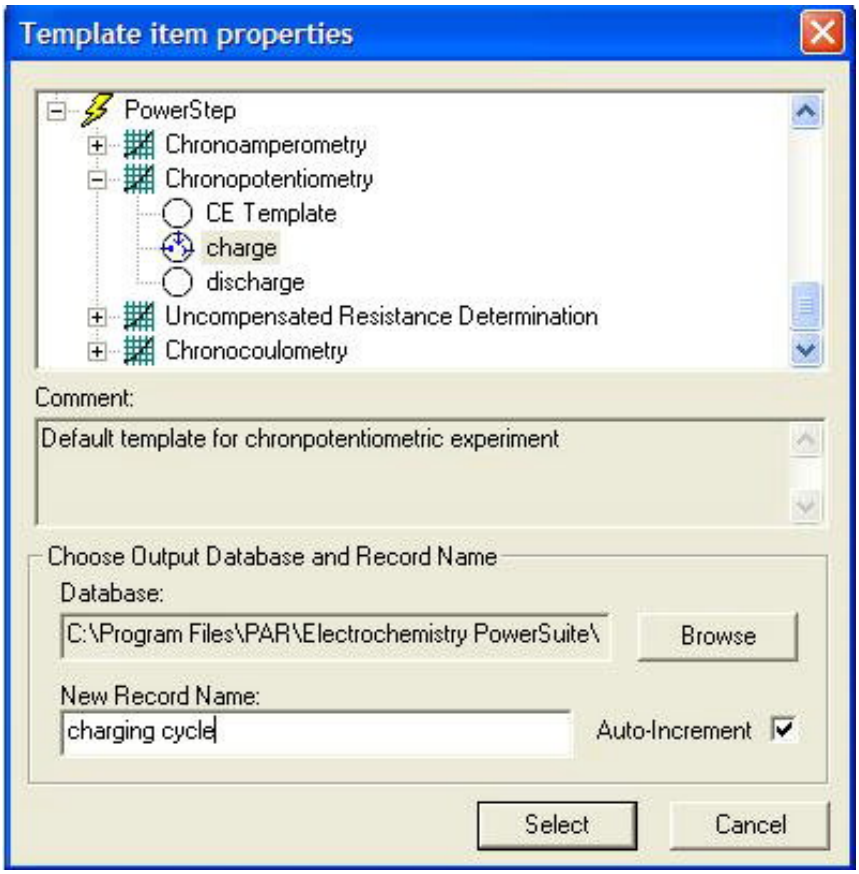


When finished, use "Save As Template…" to save the parameters as a setup file. Repeat the same steps above for a discharge cycle (if desired).

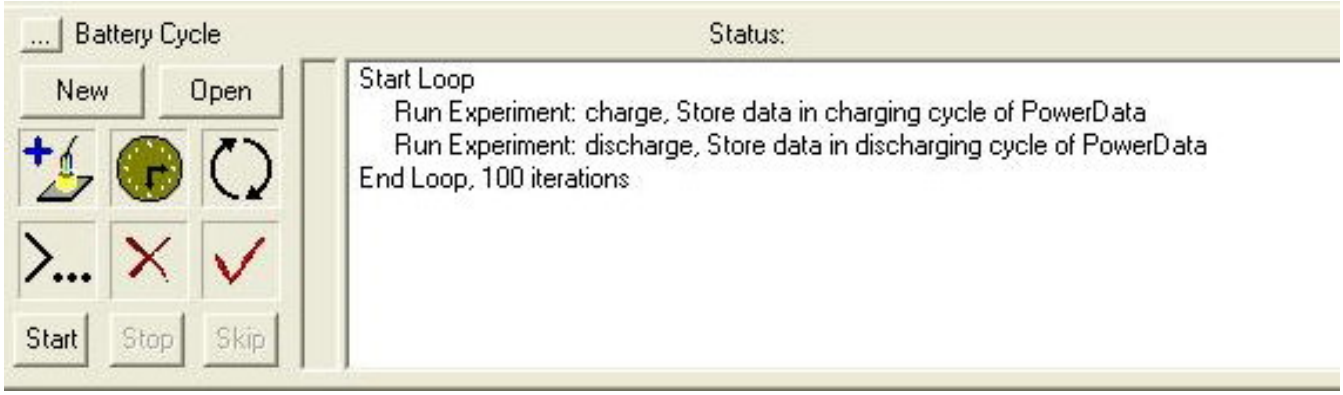


To setup the charge/discharge cycles using the two CE experiments built and saved as templates, open the AutoExecute bar selectable within the View window.

Here, a new AutoExecute was created and named “Battery Cycle”. To build an AutoExecute, use the tools in the window shown above (starting in top left) to insert a new template, set a time delay, insert a start or end loop, insert a message prompt, delete a line from the AutoExecute, and check the AutoExecute for any errors.



When inserting a template, select the template from the list within the correct module of PowerSuite, give it a name to be stored into the appropriate database, and if containing multiple cycles, select the “Auto-Increment” box so that each repeat scan will be recordname_1, recordname_2, etc.



For a battery cycle, use a Start Loop followed by a charge and discharge cycle, and complete with an End Loop and the desired number of cycles. Use the "Start" button to start the cycle. To stop the entire AutoExecute, use the "Stop" button on the AutoExecute tool bar (which becomes active after starting an AutoExecute sequence).