

Software for a smart thermodynamics-based fast battery analyser/charger

Background

Li-ion cells are used in many modern appliances. Battery life affects availability of devices to the user. It is important we understand them and improve them.

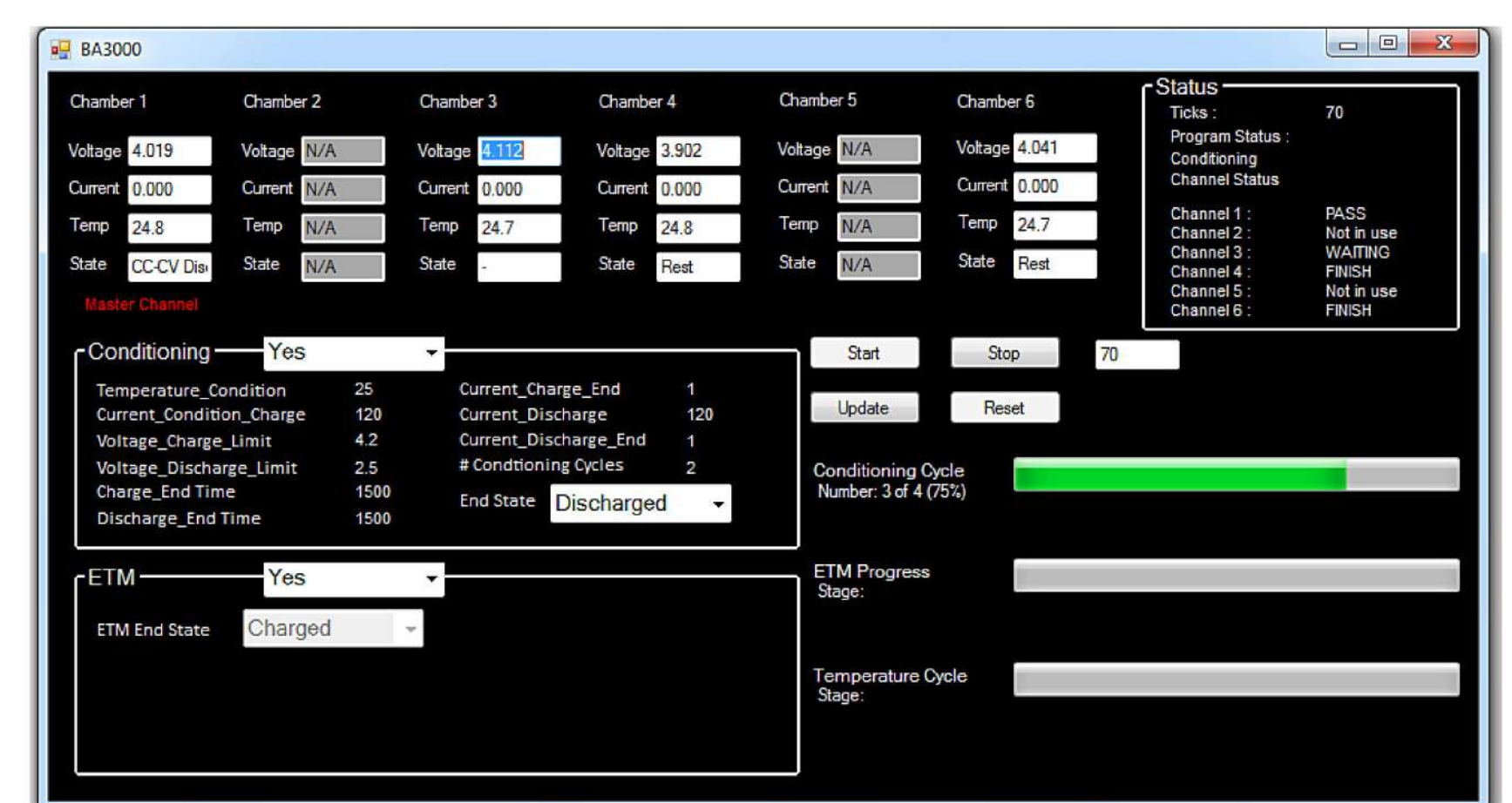
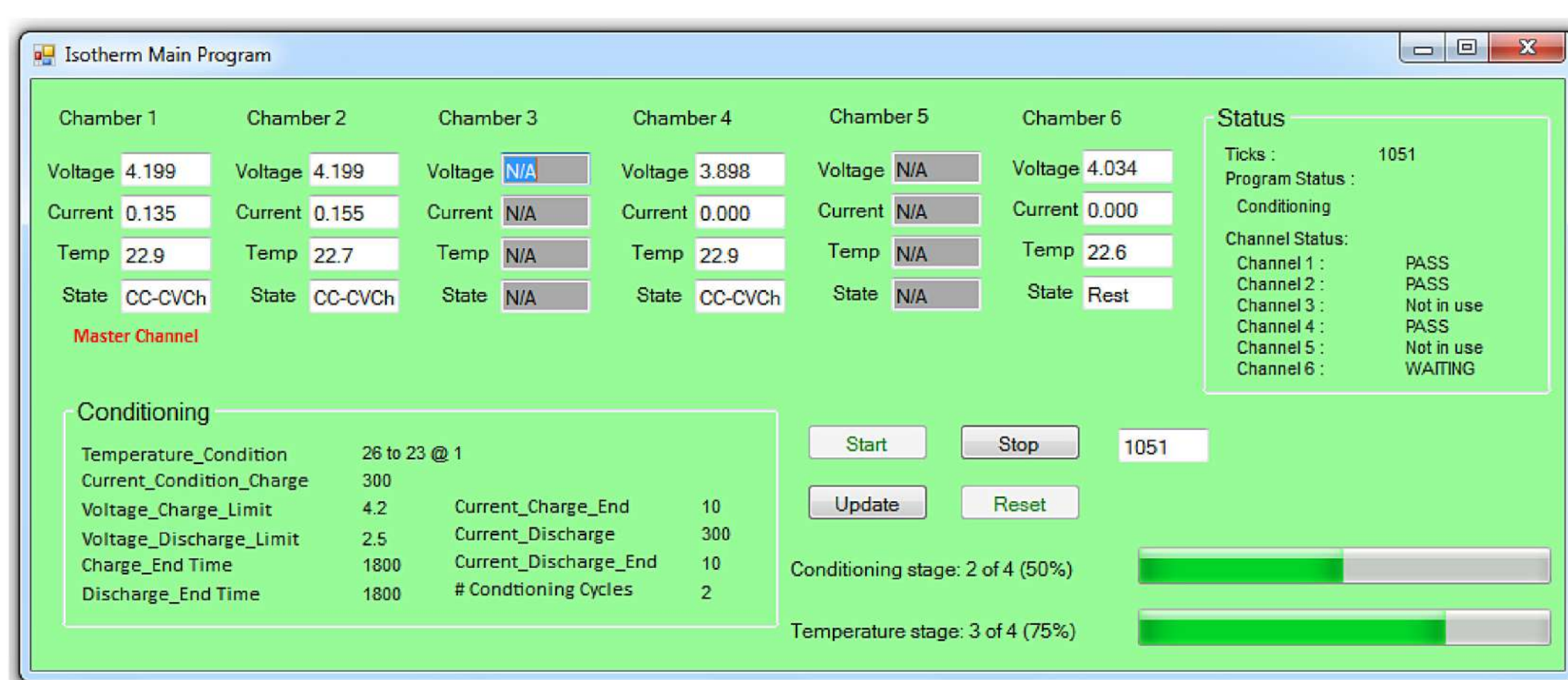


Project Objective

To implement software applications to run and control thermodynamic tests on lithium ion cells. Applications should perform tests autonomously after required inputs are entered.

Design and Implementation

Interface with external components to control current, voltage and temperature. Intuitive and functional Graphical User Interfaces to enter user inputs and see test progression live. Safety features implemented in background to protect cells. Data storage and logging for future use.



Results

Capability to perform conditioning, ETM and Isothermal tests. All test data is logged and can be used for further analysis like the graph on right.

