A dark, atmospheric photograph of a person in a workshop, leaning over and working on the chassis of a vehicle. The scene is dimly lit, with a large, stylized, semi-transparent 'V' shape overlaid on the right side of the image. The background shows shelves with various items and the structural elements of the workshop.

VOLTAIQ

NAATBatt Member Overview and Update

NAATBatt Annual Conference
February 7-10, 2022

The Value of Battery Data

Brief Introduction

Battery testing and data analysis are conducted to make data-driven decisions during battery development.

Testing and analysis are conducted to answer questions throughout development.

Cell design

- Which chemistry is suitable for the application?
- What cell design will be optimal for the application?

Purchasing

- Which suppliers should we purchase materials or cells from?
- What is the composition of the cells we received?

Operation

- Does this cell perform well at extreme temperatures?
- What constraints should be included in the battery management system design?

Performance

- Why are these cells failing earlier than expected?



The Big Data Challenge of Battery Development

Brief Introduction

Big data is difficult to manage and time-consuming to analyze.

Challenges:

- Volume of data
- Velocity of data
- Variety of data sources and formats
- Number of features and parameters being tracked

**80/20
Rule**

80% of a data scientist's time is spent preparing data for analysis, leaving 20% to actually perform analysis



The Voltaiq Solution

Brief Introduction

What we do:

Automate data management:

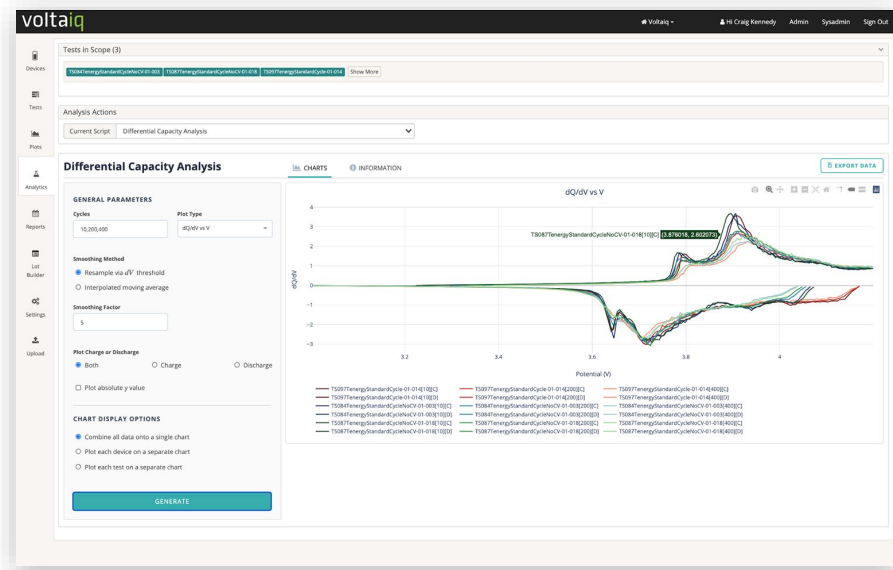
- Collection
- Conversion to a common format
- Calculations of features
- Organization and labeling

Provide a battery-data specific application to enable:

- Rapid, powerful searching
- Instant interactive plotting
- Seamless sharing and collaboration
- Streamlined dQ/dV, HPPC, Rate Study, and correlative analysis

Collaborate with customers to improve their workflows:

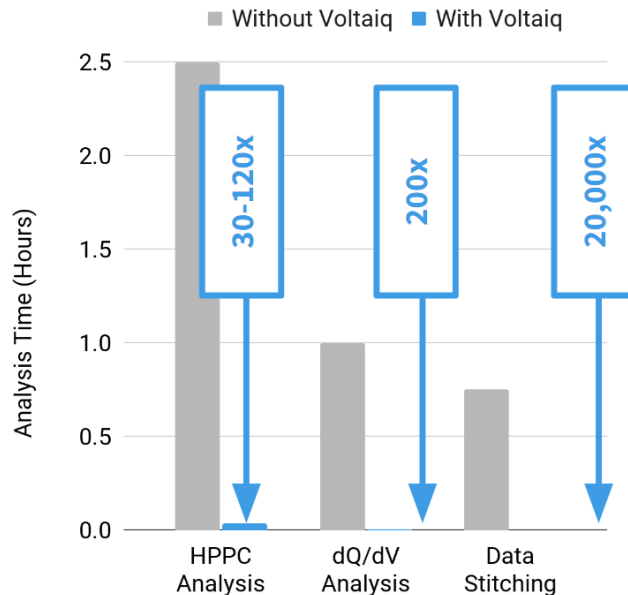
- Share best practices



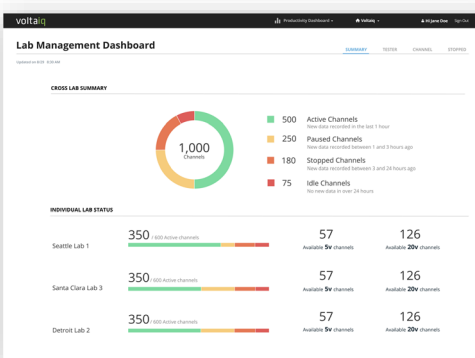
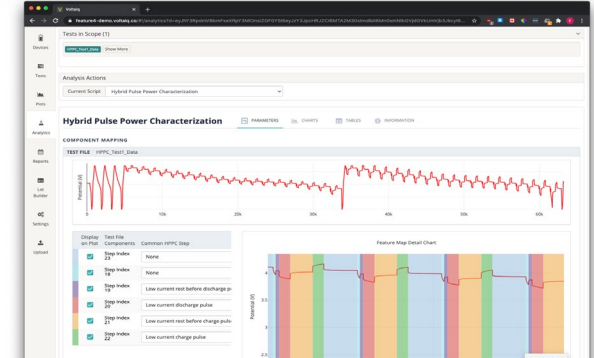
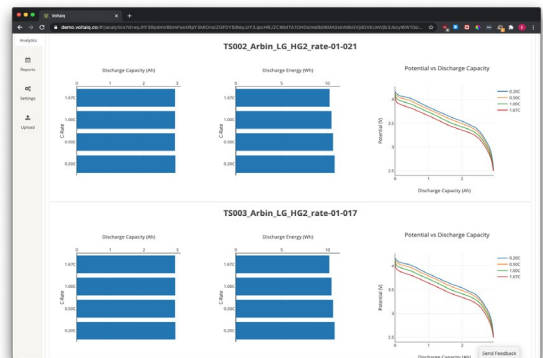
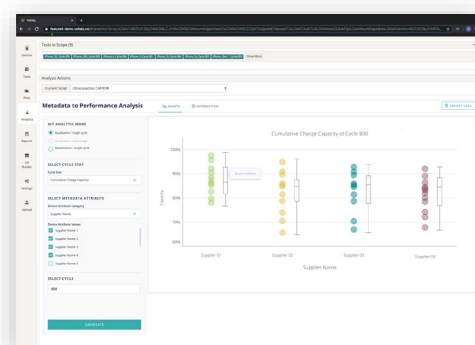
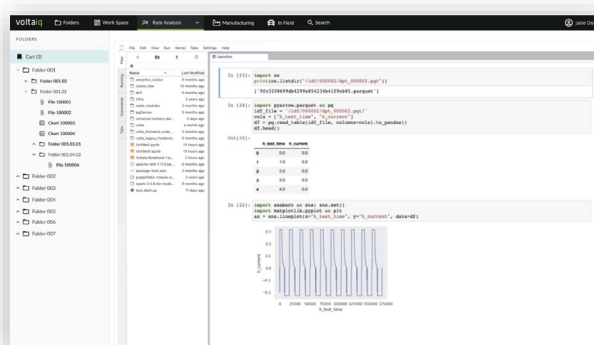
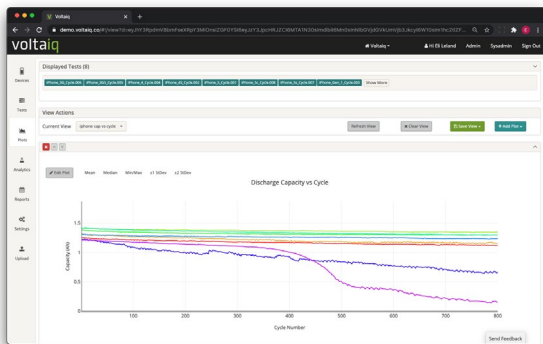
The benefits of streamlining battery data management, analysis, and sharing:

- Make data-informed decisions
- Accelerate product development
- Efficient use of engineering resources
- Perform industry-standard analysis across the organization
- Improve collaboration with colleagues, partners, and clients
- Lead more effective meetings

Sample Workflow Acceleration



Thank you





Sara Mitchell
Sales Enablement Coordinator

sara@voltaiq.com

+1-801-673-5333

www.voltaiq.com