

STRATEGIES FOR MIGRATING TO A NEW EXPERIMENT SETUP TOOL AT THE NATIONAL IGNITION FACILITY

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High level requirements for a new Shot Setup Tool

- Ensure data reuse and consistency with other User Tools
- Maintain interfaces to external systems and avoid replication
- Use rule sets to facilitate set up automation an experiment.
- Provide integrated access controls.
- Employ a data group-centric setup to enable parallel experiment edits/workflows.
- Be easier to maintain and evolve.

Minimize operational disruption while maximizing the benefits of a code rewrite

Five successful major releases of SST have been delivered

Realized Benefits

- For users:
 - Greater satisfaction
 - Better engagement
 - Enhanced performance
 - New features
 - Training is easy
- For Developers
 - Agile Development
 - Faster feature additions
 - Use of COTS
 - Skills refresh
 - Cross training

The screenshot shows the SST Shot Setup Tool interface with several annotations:

- "E" icon indicates this column is an experiment, not a template**: Points to the 'E' icon in the top header bar.
- Select the experiment name to pop up a "Details" dialog that combines CMT's "Experiment Info" and "Data Group Status" tabs**: Points to the experiment name in the top header bar.
- Launch Express setup dialog as defined by the diagnostic RS**: Points to the 'Express' button in the top header bar.
- Icon color indicates experiment state**: Points to the colored icons in the top header bar.
- Subcomponents are individually expandable**: Points to the expandable subcomponents in the left sidebar.
- Highlighting shows differences between loaded experiments**: Points to the highlighted rows in the main table.
- Inline validations report cell errors immediately**: Points to the error messages in the table cells.
- Editor table displays only the data group parameters for editing; higher level operations that affect the entire data group are in a popup menu (<right click> or <ctrl-click> over any parameter to launch)**: Points to the right-click context menu.
- De-participate data group**: Points to the 'De-participate' button in the right sidebar.
- Refresh discards edits and returns data group to last saved values**: Points to the 'Refresh' button in the right sidebar.
- Console can be collapsed to maximize screen use**: Points to the console area at the bottom.
- Cell text in italics when experiment is locked**: Points to the italicized text in the table cells.
- Error console with sorting and filtering also shows errors**: Points to the error console at the bottom.
- Populate the entire data group by applying a template or cloning from the same data group in another experiment**: Points to the 'Apply' button in the right sidebar.

