

# Sprint Report VI

## Team Overview

---

### Name

Silver Redux

### Members

Dean Laganieri, Trevor Mahoney, Teresa Worner

### Project Title

APMAX Test Suite and Set-Top Box Regression Testing Framework

### Company

Innovative Systems, LLC

## Sprint Report

---

### Goal:

With the core components of our project functionally complete, the focus for this sprint was testing and bug fixes. Along with this, we updated some of our documentation for our deliverables. As of now, the only remaining task is finishing documentation.

### Work for this sprint included:

The number in parenthesis indicates the amount of *story points* that our team assigned to each task.

- **General**

- **(1) Disable sorting on command relation grids that are pre-sorted by ordinal**
- **(2) Emulator Client – When using the search panel on any GridControl, the bound ListCollectionView gets unfiltered**  
Filter editing and sorting was disabled on some grids in order to maintain proper filtering and/or sorting, as it did not make sense for those grids to have that functionality.
- **(1) UI STBRT: Test Preconditions**  
It was decided that test preconditions are a part of script dependencies.
- **(1) UI STBRT: Most buttons could use tooltips and/or icons**  
Tooltips were added to any button on the testing framework pages that were not clear.
- **Temporary database objects shouldn't be attached to real database objects before being added to the database**  
Due to how LINQ to SQL works, database objects attempt to automatically insert into the database on submit if they are in any way associated with the data context. Temporary objects are now handled in transaction scopes to avoid attempting to insert deleted objects.

- **Create/Edit Script Page**

- **(2) Removing a screenshot command after running a script that has not been finalized crashes the client**  
Deleting a screenshot from an un-finalized script will now remove all test run failures associated with that screenshot. Reordering the screenshot commands was also tested and this has no effect on the test run failures (as intended).
- **(2) Supported Baselines grid doesn't update if a script is chosen before an STB**  
The Supported Baselines grid on the Script Creation/Editing page now properly updates regardless of the order in which script and STB are chosen.

- **(3) Trying to remove a script that has test runs associated with it will crash the UI**  
 Removing a script will remove any test run data associated with the script; however, users are only allowed to remove a script if the script is not yet finalized.  
 There is a new special notification for trying to remove a script that falls under this new case (Not finalized, has test run data)
- **(2) Selections lost on Create/Edit Script page when switching tabs in Tabbed MDI Mode.**
- **(2) Setting loops on the create/edit scripts page no longer immediately updates the name**
- **Edit Mask Dialog**
  - **(1) Screenshot Editing: If you rerun commands (refreshing screenshots) this page won't use the new screenshots**
  - **(1) Optimize Screenshot Refresh on Edit Masks page to only refresh screenshots from the current script**  
 Due to a bug on the Edit Mask page, data was not being properly refreshed from the database; this has now been fixed.
  - **(1) Edit Mask Page can crash while saving a mask group.**  
 If a mask was selected while creating a mask group, it would cause a null reference exception due to being removed when creating a mask group.

### **Run Test Page**

- **(1) If the test run is quit while taking screenshot, the Client crashes.**  
 If a test is aborted, it is cleared from the database. Since screenshot comparison is handled asynchronously, if the test is aborted during a screenshot command the test data is wiped out while the comparison is still happening. Then, if the screenshot is determined to be a failure, the attempt is made to add it to the database. The Client would crash here because the test run associated with the screenshot doesn't exist in the database. A try-catch block was added around the insert; if an exception is thrown, then the test run was aborted and the screenshot work is aborted as well.
- **(1) Run Wizard: While looking at a screenshot and then switching the selected STB, we should automatically highlight the corresponding screenshot for the newly selected STB**

- **(1) Disable ability to add disconnected STBs to a test**  
STBs are now verified to be online before adding them to a test by checking their version number (if a version query fails, the STB is offline).
- **Test Analysis Page**
  - **(1) Analysis page needs STB version info**
  - **Analysis Page – Refresh button doesn’t update properly if analysis page was already open when a test run started**  
The refresh button now updates both the test run list and the commands list (in case the script is unfinalized and has been altered).
- **Screenshot Analysis Dialog**
  - **(5) Change default behavior of checkboxes on the test analysis page**  
The checkboxes involved in analysis are “Show Masks”, “Show Failure Locations”, and “Show Baseline”.
    - By default, “Show Baseline” is unchecked and the other two are checked
    - “Show Masks” is disabled if the failure and baseline have different pixel resolutions.
    - “Show Failure Locations” is disabled when there are no failure regions and when the failure and baseline have different pixel resolutions.
    - The Screenshot Analysis View Model was separated from the Analysis View Model and the Run View Model
- **Design Senior Design Poster for Design Fair**
- **App User Review**  
Brian reviewed the project, leading to the following changes:
  - General
    - Dialog boxes no longer have min/max buttons
  - Create/Edit Script Page
    - General
      - Current Script dropdown sorted alphabetically
      - Dependency Additional Info form: “Enter” closes form
    - Bugs
      - The first dependency added didn’t show until focus changed
      - Dependency grouping name wasn’t displaying

- Baseline screenshots update properly when Rerun Commands is pressed
- Run Scripts
  - General
    - Script dropdown in New Run tab sorted alphabetically
    - View Dependencies tab: added Description column to grid
    - STB Preconditions moved and re-labeled “Select STB Preconditions”

### **Remaining Work:**

- Design Documentation
- End User Documentation