# Sprint Report I

## Team Overview

### Name

Silver Redux

### Members

Dean Laganiere, Trevor Mahoney, Teresa Worner

### Project Title

APMAX Test Suite and Set-Top Box Regression Testing Framework

### Company

Innovative Systems, LLC

## Customer Overview

### Customer Description

Innovative Systems, LLC is a company based out of Mitchell, SD that offers hardware and software solutions for telecommunications companies throughout North America. Currently they have over 1200 systems deployed across these regions.

### Customer Problem:

Currently, all testing for the APMAX and Set-Top Box systems must be done manually by the QA staff in Mitchell. The customer needs a way to consistently automate this process.

### Customer Needs:

- Internal tool for running tests against the APMAX and Set-Top Box products

- Method for analyzing and comparing these test results

- Intuitive UI for test setup and management

- End-user documentation for testers and developers

## Project Overview

### Phase 1

This project will encompass finalizing a set of features required to deliver the core test suite to be used by QA staff in Mitchell.

### Phase 2

The vast majority of the project will encompass building a complete STB (Set-top Box) regression testing framework including user-intuitive test setup (including layered test builder), image processing comparison logic (including ignore blocks), multiple screen resolution comparison, and complete regression test pass, fail, and comparison reporting.

## Project Environment

### Project Boundaries

* The project will only be used internally by Innovative Systems’ QA Team
* Source code will be kept in Innovative Systems’ Team Foundation Server source control
* Project will be written in C# 4.0 according to Innovative Systems’ coding standard

### Project Context

* The project will be coded to operate in a Windows environment
* The project will interface with the following devices:
  + APMAX
  + Set-Top Box (AMINO Models M110, M130, M140, M530, and M540)

## Deliverables

### Phase 1

* Software to Mitchell
* End-User Documentation
* Updated APMAX Test Suite document
* Requirements Document for Phase 2

### Phase 2

* Mission Statement
* Project Design Document
* Progress Reports
* Industrial Experience Report
* Design Fair Materials
* Code and required libraries/binaries

## Backlog

### Phase 1

* Emulator Client – MDI
* User-Intuitive Test Run Wizard
* APMAX System Performance Statistics
* Test History Graphs
* Test Summary Reports
* Test History Regression Results Comparisons
* End-User Documentation
* Migrate Smartphone Emulator (Load test) to Emulator Controller, and Add Necessary GUI Controls (Setup Test)

### Phase 2

* Whole Home Communications Latency
* SI Stream – Simulate Bad or Missing Packets
* SI Stream – Guide Creation compared to Downloaded Database
* Voicemail Regression
* DVR Controller Regression
* Test QoE Indicators by Creating Network Errors in Real-time
* Test Whole Home Communications Latency
* Test [Search] Processing and Performance
* Test [Tribune Guide] Processing
* Implement Change Password
* Remote Control Button List Generator

## Sprint Report

### Work for this sprint included:

* Chose a team lead
* Set-up sprint backlog
* Wrote a Mission Statement
* Wrote a Software Contract
* Melded Testing Controls with the GUI
* Implemented New Mobile Access GUIDs
  + This was needed to add support to the *LoadSubscribers* application to mass provision these new Mobile Access features dictated by the new service GUIDs
* Implemented *CurrentlyWatching* Command
* Started Migration of Smartphone Emulator (Loadtest) to Emulator Controller:
  + Created basic proof of concept
  + Added tables to database to hold information / results
* Started converting GUI Controls to the DevExpress Equivalents:
  + Converted all of the pages listed under the C*ommon* group.
  + Converted all of the pages listed under the *vSTB Series* group.
* Started design of APMAX Performance Stats inclusion into Test Suite
  + Created standalone program based off TCP code from *EmulatorController* that will be started from the Client using the WPF service
  + Implemented way of sending requests

### Work that is carried over into sprint 2 is as follows:

* Continue fixing MDI UI Behavior Issues
* Implement APMAX Performance Stats Command
* Migrate Smartphone Emulator (Loadtest) to Emulator Controller
* Finish Converting GUI Controls to DevExpress
  + Covert all of the pages listed under the *Commands* group
  + Convert all of the pages listed under the *Testing* group
* Investigate slow database calls in the Emulator Client