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