Queuing System Demonstration

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Yellow N.E.A.R.P.S.

Brandon Carpenter:	Lead Programmer
David Doran:	Requirements Engineer
Scott McCammon:	Software Engineer, Marketing
Trevor Menagh:	Project Lead
Jerome Spaulding:	Design Engineer
Ying Zhu:	Test Engineer

Team Member Responsibilities

- **Brandon Carpenter**: Lead Programmer, implements design, implements and white box tests code.
- **David Doran**: Requirements Engineer, produces the SRS. Also assists with system testing.
- **Scott McCammon**: Software Engineer and Marketing. Creates User Manual and project website.
- **Trevor Menagh**: Project Lead. Produces Project Plan, weekly status reports, and presentations. Responsible for project planning and organization.
- **Jerome Spaulding**: Lead Designer. Produces PDR, CDR, and Design Notebook.
- **Ying Zhu**: Testing Lead. Produces test reports and verifies and validates the system functionality.

Agenda

- Traceability Approach
- Test Cases
- Code Changes
- Test Case Demonstrations
- Open Issues
- Current Status
- Action Items

Traceability Approach

- Each system requirement is assigned an identification number.
- Each system requirement is inserted into the Requirements Traceability Matrix (RTM).
- In the RTM, each requirement is assigned a DFD identifier during the design phase.
- Each requirement is associated with a Module in the implementation phase.
- Each requirement is assigned a testing method for verifying that each requirement is met.
- The right-most column in the RTM is used to check-off each requirement test as it is completed.

Requirements Traceability Matrix

Requirement ID System Level	DFD Identifier(s)	Module Name	Verification Method	Tested
A001	1.0	User Interface	T	X
A002	2.0/2.2/2.3	Engine	A or I or T	X
A003	2.3/1.4	Engine	A or T	X
A004	2.3/1.4	Engine	A or T	X
A005	2.0	Engine	A or I or T	X
A006	2.1.2	Engine	A or I or T	X
A007	2.1.2	Engine	A or I or T	X
A008	2.1.2	Engine	A or I or T	X
A009	2.1.2	Engine	A or I	X
A010	2.1.2	Engine	A or I	X
A011	2.1.2	Engine	A or I or T	X
A012	2.1.2	Engine	A or T	X
A013	2.1.4	User Interface	I or T	X
A014	N/A	System	A	X
A015	1.2	System	T or D	X

Key: T = by test, A = by analysis, I = by inspection, D = by demonstration, and An = by analogy

Test Cases

- Run Simulation Without Modifying Simulation Parameters
- Modify Simulation Parameters
- Stop a Simulation
- Pause and Resume a Simulation
- Delete and Insert Functions

Code Changes

- We wanted to have a graphical animation, but time didn't allow for it
- Server inserts and deletes were not implemented
- Accessibility options (i.e. font changing, etc.) not implemented
- Cross-platform ability not fully achieved and tested
- Ability to start a new simulation without restarting the program not present

Test Case Demonstrations

- Run Simulation Without Modifying Simulation Parameters
- Modify Simulation Parameters
- Stop a Simulation
- Pause and Resume a Simulation
- Delete and Insert Functions

Open Issues

- Lack of Java Knowledge
- Lack of Experience Programming an Event Driven GUI
- More Time is Necessary for Completing the Project as Originally Designed

Current Status

Accomplishments:

- Functional Queuing System Simulator With as Many Original Design Options as Time Allowed

Plans:

- Determine if Version 2.0 is Necessary

Problems:

- Lack of Java Knowledge
- Lack of Experience Programming an Event Driven GUI
- More Time is Necessary for Completing the Project as Originally Designed

Action Items