Relay Test Plan

jkaten, jsanchez, mmiano

April 2021

1 Summary

Testing procedures for the project relay.

Relay is a project consisting of two programs; dispatcher and relay.

The program dispatcher passively accepts text from standard input, exiting normally on EOF.

The program listener will print out any text that was sent to a running instance of dispatcher. When dispatcher exits, so too does listener.

2 Automated Test Cases

1. Automated Tests

   Automated tests may be executed with make check. This should be run from the top level directory.

   Expected: No errors, outputs as indicated.

3 Common Test Cases

1. Installation

   Prerequisites: Directory does not already exist

   git clone git@git.umbc.tc:tdqc/tdqc8/jkaten/relay.git; cd relay

   Expected: directory is created

2. Correct Branch

   Prerequisites: In the project's directory

   git branch

   Expected: main is active

3. Build Cleaning

   Prerequisites: In the project's directory

   make; make clean; ls *.o; ls dispatcher; ls listener

   Expected: No such file or directory errors

4   relay Test Cases

Prerequisites: In each programs directory; export RELAY=23444

1. Build

   Prerequisites: In the projects directory; make clean

   make; ls dispatcher; ls listener

   Expected: file is listed

2. Build Debugging

   Prerequisites: In the projects directory; make clean

   make debug; readelf –debug-dump=decodedline dispatcher; readelf –debug-dump=decodedline listener

   Expected: debugging info is listed

3. Build Cleaning

   Prerequisites: In the project's directory

   make; make clean; ls dispatcher; ls listener

   Expected: No such file or directory errors

4. Profiling

   Prerequisites: In the project's directory

   make profile; ./dispatcher ; ls gmon.out; make clean; rm gmon.out

   Enter; ctrl+d

   Expected: gmon.out is listed

   make profile; ./listener ; ls gmon.out; make clean; rm gmon.out

   Enter; ctrl+d

   Expected: gmon.out is listed