**ARM SIM PHASE 1**

Overview

Arm Sim phase one has two operating modes. Operating mode one is when the --exec and --load (filename) are used in conjunction to test the implementation of the commands. The second operating mode is the gui operational mode. This mode contains helpful debugging features; as well as the ability to run and test the command implementation

**Requirements**

The requirements to run this project are Visual Studio 2013, and any version of windows that will run it. The reason for specifically 2013 is that my solution file for the project has a VS2013 modeling project inside of it, and I have had no success opening any part of the project solution on a VS2012 machine.

**Build and Test**

**The easiest way to build and test this project is to run it in VS2013 and run it with --exec and --load (filename). However these will still work with the included exe’s. To run the unit tests use --test in the command prompt. --test should not be used to do any testing with other than the unit tests because it will throw off the log files.**

**Configuration**

**All of the configuration options are available in the gui.**

**User Guide**

The easiest way to use the program is to use the --exec and --load (filename) command line arguments. This will allow you to run an entire elf file and see what has done to memory and registers. However, if you need more step by step information the gui can run the entire elf file, or go step by step through the elf file. The gui also has a memory panel that can show you specific points in memory.

**Instruction implementation**

|  |
| --- |
| **Mov** |
| **Sub** |
| **Add** |
| **Bic** |
| **And** |
| **Mul** |
| **Eor** |
| **Mvn** |
| **Orr** |
| **Rsb** |

**DataManip Commands**

**DataStore Commands**

|  |
| --- |
| **Mov** |
| **Sub** |
| **Add** |
| **Bic** |
| **And** |
| **Mul** |
| **Eor** |
| **Mvn** |
| **Orr** |
| **Rsb** |

|  |
| --- |
| **Ldr** |
| **Ldrb** |
| **Ldrm - FD variant** |
| **Str** |
| **Strb** |
| **Strm - FD Variant** |

**Misc Commands**

|  |
| --- |
| **Swi - currently exits code** |

**Misc Features**

**-shifters implemented.**

**-all datamanip operand 2 implemented**

**-immediate, reg, and scaled register operand 2 implemented for data store**

**Bug Report**

Dissasembly Panel is not implemented.

Fri Oct 31 19:17:02 2014 -0400 Sim1 FInal push

Fri Oct 31 03:21:07 2014 -0400 B completly done

Fri Oct 31 01:28:56 2014 -0400 Because some people want to watch the world burn

Mon Oct 27 08:52:15 2014 -0400 c/b level stuff

Fri Oct 24 21:59:52 2014 -0400 Ctest works working on disassembly and gui stuff

Fri Oct 24 13:40:20 2014 -0400 more swi less bugs more program counter

Fri Oct 24 09:38:39 2014 -0400 C version complete without CWI or error testing

Mon Oct 13 12:47:01 2014 -0400 Detailed design done

Mon Oct 13 10:49:29 2014 -0400 uml begining steps

Mon Oct 13 10:32:20 2014 -0400 uh binary file thingie

Mon Oct 13 10:31:22 2014 -0400 mov works for immediate

Sun Oct 12 19:57:36 2014 -0400 add project

Sun Oct 12 19:54:46 2014 -0400 :octocat: Added .gitattributes

Full repository commits.

https://github.com/Carragher/MicroP/commits/master