

COL216: Assignment 0

Introduction to the QtSpim Simulator

Posted on: 12 February, 2021

Complete by: 14 February, 2021 [No submission. No Marks.]

We will use QtSpim (MIPS Simulator) for subsequent assignments on MIPS assembly language.

Download and Installation instructions:

1. Commands to follow (Linux Users):
 - a. `$ sudo apt-get install qt4-dev-tools qt4-doc libqt4-help`
 - b. `$ wget https://sourceforge.net/projects/spimsimulator/files/qtspim_9.1.20_linux64.deb`
 - c. `$ sudo dpkg -i qtspim_9.1.20_linux64.deb`
 - d. To Launch QtSpim: `$ qtspim &`
2. Commands to follow (Windows Users):
 - a. Download:
https://sourceforge.net/projects/spimsimulator/files/QtSpim_9.1.20_Windows.msi/download
 - b. Click on the setup
 - c. Accept the license and install it.
3. Commands to follow (MacOS Users)
 - a. Download:
https://sourceforge.net/projects/spimsimulator/files/QtSpim_9.1.20_mac.mpkg.zip/download
 - b. Decompress it and install QtSpim from the setup.

Tutorial to understand QtSpim:

<https://ecs-network.serv.pacific.edu/ecpe-170/tutorials/qtspim-tutorial>

Description of the uploaded example files:

1. Example1.asm: Performs addition and subtraction on integers
2. Example2_hello_world.asm: Prints hello world
3. Row-major.asm: Stores 0-255 values in a row-major order in 16x16 matrix.

References:

1. QtSpim Simulator: <http://spimsimulator.sourceforge.net/>
2. QtSpim files download link: <https://sourceforge.net/projects/spimsimulator/files/>
3. MIPS instruction set reference: <http://www.mrc.uidaho.edu/mrc/people/jff/digital/MIPSir.html>