Using ARMSim# on Mac OS X

Choice #1: Run Windows via Dual Boot or Virtualization Software

If you need to run more Windows applications than just ARMSim#, your easiest route is to install the Windows operating system on your Mac computer. Once Windows is installed, you can follow the instructions provided to Windows users for installing ARMSim#.

The possibilities for installing Windows include:

- Use Apple's BootCamp software to configure your Mac computer as a dual-boot machine. Each time you power up the computer, you will have a choice as to whether you want to run the Mac OS X operating system or the Windows operating system.

- Install virtualization software as an application on Mac OS X. The virtualization software will create a virtual machine into which you can install the Windows operating system.

  The possible choices for virtualization software include Parallels (from www.parallels.com), QEMU (from www.qemu.org) and Oracle VirtualBox (from www.virtualbox.org).

- Or both of the above ... after using BootCamp to create a dual boot machine, one can also install Parallels under Mac OS X and have the best of both worlds.

Choice #2: Use Mono on Mac OS X

The open source project, Mono, is an implementation of Microsoft's .NET framework. It can be installed as a Mac OS X application and used to execute the code of the ARMSim# application. **Warning!** Mono does not currently provide all the libraries needed by the docking windows feature of ARMSim#. Docking windows therefore have to be disabled when running under Mono.

If you are an experienced Mac and Unix user, you will probably know where you can safely deviate from the following instructions. Otherwise, the safe approach is to follow the instructions below exactly.

Part 1: Install Mono

1. Using the web browser, visit the Mono downloads page at this URL:

   http://www.go-mono.com/mono-downloads/download.html

2. Select Mac OS X as the platform for Mono, and then click on the Intel: Framework link. That will cause a file with a long name of the form `MonoFramework....x86.pkg` to be downloaded to your computer.

3. Click on the downloaded file to begin installing the Mono package onto your Mac computer. Along the way, you will have to click on 'Continue' a few times, enter your Mac's administrator password, and click on 'Install'.

4. When the installation is complete, there will be a new folder created with the name `/Library/Frameworks/Mono.framework` .

Part 2: Copy and Edit the ARMSim# Files

1. Using the Finder (or by any equivalent means) create a new folder named `dotnet` in your home account on the computer.

2. Move the file `ARMSim-1.91.zip` into the new `dotnet` folder.

3. Double click on `ARMSim-1.91.zip` to unpack it and create a new folder named `ARMSim-1.91`.

4. The subfolder should contain the following files:

```
ARMPluginInterfaces.dll
ARMSim.exe
ARMSim.exe.config
ARMSim.Plugins.EmbestBoardPlugin.dll
ARMSim.Plugins.UIControls.dll
ARMSimWindowManager.dll
DockingWindows.dll
DotNetMagic2005.dll
StaticWindows.dll
```

5. Use a text editor (such as TextEdit or the `vi` program inside the Terminal window) to modify the contents of the configuration file `ARMSim.exe.config`. Look for the line which reads:

```
<!-- <add key="DockingWindowStyle"
                    value="StaticWindows"></add> -->
```

and modify it to read:

```
<add key="DockingWindowStyle" value="StaticWindows"></add>
```

Part 3: Create a Shell Script File to Invoke ARMSim#

1. Using a text editor (e.g. TextEdit or `vi`) create a file named `RunARMSim.command` which contains these two lines:

```
#!/bin/sh
mono /Users/myusername/dotnet/ARMSim-1.91/ARMSim.exe
```

where *myusername* should be replaced with your user name on the Mac system. You can place this new file in any of your folders – but put it somewhere easily accessible for now, such as at the top level of the folder containing your personal files.

2. Inside the Terminal window, use the Unix `cd` command to navigate to the folder where you created the file and mark it as executable with the `chmod` command, as follows:

```
cd /Users/myusername
chmod +x RunARMSim.command
```

3. Moving this file (or a copy of it) into your Desktop folder will make it easily accessible.

4. Double-clicking on the icon for the `RunARMSim.command` file will launch the ARMSim# program.