

1. Installation Guide

From the web page: <http://www.ece.umd.edu/serts/research/echidna> register for free and download the archived file, *echidna.1.0.tar.gz*.

1.1 UNIX

- At the command line, run the following command to decompress the Echidna files.
% `gtar -xzf echidna.1.0.tar.gz`

1.2 Motorola 6812

- Run Window's winzip program
- Click on "open" and select the *echidna.1.0.tar.gz* archived file.
- Click on the "open" button.
- Answer yes to the dialog box asking if winzip should decompress the file to a temporary folder
- Click on the extract button
- Select a folder to extract to and click on "extract."
- Exit the winzip program.

1.3 Echidna.1.0 directory structure

We will refer to the directory to which you have extracted the Echidna files as \$ECHIDNA.

The \$ECHIDNA directory contains two text files: README.TXT and LICENSE.TXT. Be sure you read and accept the terms outlined in the LICENSE.TXT file. This directory also contains three subdirectories: *src*, *apps*, and *templates*.

1.3.1 src

The *src* directory is divided into three parts. There is a *common* directory where the source code that is common to both the 6812 and unix are placed. These are the hardware independent code. The hardware dependent code is placed in the *6812* and *unix* subdirectories. Ideally we want most of the code to be in the common directory. This make porting Echidna to other platforms easier.

1.3.2 apps

The *apps* directory contains sample code for the beginner's tutorial and developer's guide as well as some simple test programs for Echidna. The directory is divided into code for the 6812 and code for the UNIX emulator. Inside of both the *6812* and *unix* directories, there are two test programs *synctest* and *aliastest*. In addition some of the modules discussed in the car application of Chapter 3: Developer's Guide is in the subdirectory *car*. The code needed to follow the Chapter 2 in Chapter 2 is in the *tutorial* subdirectory.

The code in the *apps* directory will hopefully give you a good introduction to the Echidna environment. In addition it will give you a starting place for your own application.

1.3.3 templates

The *templates* directory contains the file *main.c* which is a template for the *main* module. The *main* module acts as a configuration manager. All Echidna applications must have a *main.c* file. A template for building FPBOs is also provided in the file *xyz.c*.

The *6812* subdirectory contains a sample HIWARE makefile (*appname.mak*) and a sample HIWARE linker file (*appname.prm*).

The *unix* subdirectory contains the same make file. The library paths will need to be modified as necessary.

These templates will be helpful in creating the application you wish to build.