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LIFE FORMS

Mac OS X
PDK Notes

Mac OS X Support

The Pleo Development Kit includes everything needed to build Pleo applications on Mac OS X. No additional software installation is required.

Quick Step Overview

Building the PDK example projects on Mac OS X is easy. Follow these quick steps and you can build your first Pleo application on Mac OS X.

1. Open the Terminal.app

2. Change directory "cd" to the `$PDK/examples/touch_test` directory.

3. Type the command: `../build.sh touch_test`

4. Copy the URF file from `build/touch_test.urf` onto an SD Card for use in Pleo.

Mac OS X Tools

The Mac OS X PDK development environment is command-line based. All the PDK tools must be ran from Apple's Terminal.app.

The Mac OS X PDK development tools have been organized into the $PDK/macosx directory. The equivalent Windows based tools are located in the $PDK/bin directory. The Mac OS X tools consist of just two main executables: the Pawn 3.3 compiler; and the ugobe_project_tool.app. Additionally, a Mac OS X-specific macprojtool.sh shell script has been provide to assist in running the ugobe_project_tool.app, as described in the following section.

The $PDK/macosx directory listing:

```
$PDK/macosx/
      ugobe_project_tool.app
      macprojtool.sh
      pawncc
```

The Mac OS X PDK provides the Pawn 3.3 compiler which supports Pleo firmware 1.1 and newer. The original Pleo 1.0 firmware is not supported on the Mac OS X platform. Firmware updates are available from the PleoWorld.com website.

NOTE: Pleo 1.0.x firmware requires Pawn compiler version 3.2. The Pleo 1.1 firmware and newer requires the Pawn compiler version 3.3.

EXECUTING THE UGOBE_PROJECT_TOOL.APP

Building a Pleo application involves compiling one or more Pawn scripts and associated sound and motion files. See the PAWN Scripting in LifeOS v1.x for more information. These files are grouped into Ugobe Project File (UPF). The `ugobe_project_tool.app` reads the UPF file and compiles the scripts and associated sound and motion files into a Ugobe Resource File (URF).

The `ugobe_project_tool.app` invokes the Pawn compiler to compile the Pawn scripts. Thus the location of the Pawn compiler needs to be in the command line search path. It is recommended to include the path to the $PDK/macosx directory into your environment path (e.g., add the path to your .profile, or .bash_profile files).

Executing the `ugobe_project_tool.app` from the Mac OS X Terminal is a bit challenging. The actual executable is now deeply nested inside of the application bundle at `ugobe_project_tool.app/Contents/MacOS/ugobe_project_tool`. This is neither intuitive nor is it very friendly to make users drill down into this path.

Executing the `ugobe_project_tool` from the command line has the following structure: *ugobe_project_tool project.upf command.*

For example:

```
$PDK/macosx/ugobe_project_tool.app/Contents/MacOS/ugobe_project_tool \
          touch_test.upf rebuild
```

However, Ugobe has created a couple simple shell scripts to make invoking the `ugobe_project_tool` a lot easier; The `macprojtool.sh` shell script calls into the ugobe_project_tool.app to the actual executable. This shell script simplifies the command line such that executing the `ugobe_project_tool` looks like the following:

```
      $PDK/macosx/macprojtool.sh touch_test.upf rebuild
```

Additionally, Ugobe has provided the `build.sh` shell script in the root of the examples directory. This shell script calls makes sure the command path includes the path to the Pawn compiler and then calls the `macprojtoo.sh` script.

So from the example project directory, the projects can be built by simple executing the following command:

```
../build.sh touch_test
```