Section 1:
CLIPS iOS

This section describes the installation of examples demonstrating how a CLIPS expert system can be integrated with an iOS interface. The examples have been tested with iOS 9.3.1 using Xcode 7.3 running on Mac OS X 10.11.4. These instructions assume you have Xcode installed and a basic understanding of how to use it to build and run apps.

1.1 CLIPS iOS Folder Structure

In order to use CLIPS iOS you must obtain the source code by downloading the **clips_ios.dmg** disk image file from the Files page on the CLIPS SourceForge web page. Once downloaded, double click the file and then drag the **CLIPS iOS Project** folder into the folder you'll be using for development.

The **CLIPS iOS Project** folder has the following folder structure:

```
CLIPS iOS Project
    Animal
        Animal
    Auto
        Auto
    Framework
        CLIPS_Source
        CLIPSiOS
    Wine
        Wine
```

The **CLIPS iOS Project** folder contains a copy of the CLIPSiOS framework that you can use with your own projects. A framework is basically a library that includes embedded header files. The Animal, Auto, and Wine examples make use of the CLIPSiOS framework and it is also contained in their source folders.

The Framework folder contains the project and source files used to create the framework. You'll only need to use this project if you want to add functionality to the existing framework (such as including any user-defined functions you have created). In addition to the source code specific to the iOS framework, the core CLIPS source code is also included with the project, so there is no need to download this code separately.

1.2 Running the iOS Demo Programs

1.2.1 Running the Animal Demo

To run the Animal demo, open the **CLIPS iOS Project** folder and then the **Animal** folder. Double click the **Animal.xcodeproj** file. After the file opens in the Xcode application, select the desired iOS device or simulator from the Scheme pop-up menu in the toolbar. From the **Product** menu, select the **Run** menu item. The Animal app should launch on your iOS device or simulator:
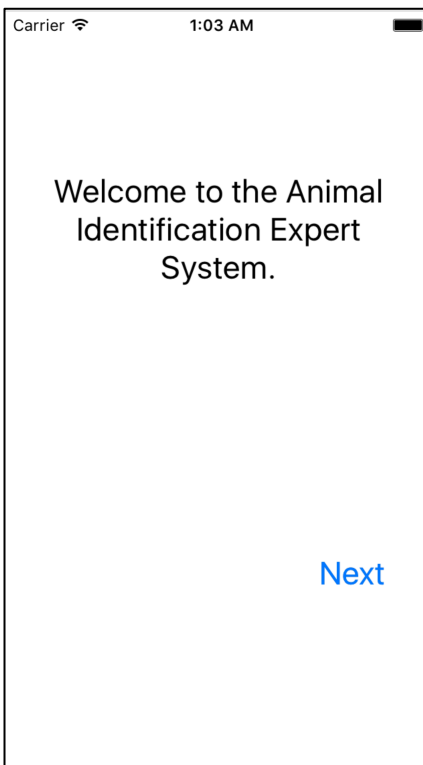
1.2.2 Running the Auto Demo

To run the Auto demo, open the **CLIPS iOS Project** folder and then the **Auto** folder. Double click the **Auto.xcodeproj** file. After the file opens in the Xcode application, select the desired iOS device or simulator from the Scheme pop-up menu in the toolbar. From the **Product** menu, select the **Run** menu item. The Auto app should launch on your iOS device or simulator:

Welcome to the Engine Diagnosis Expert System.

Next
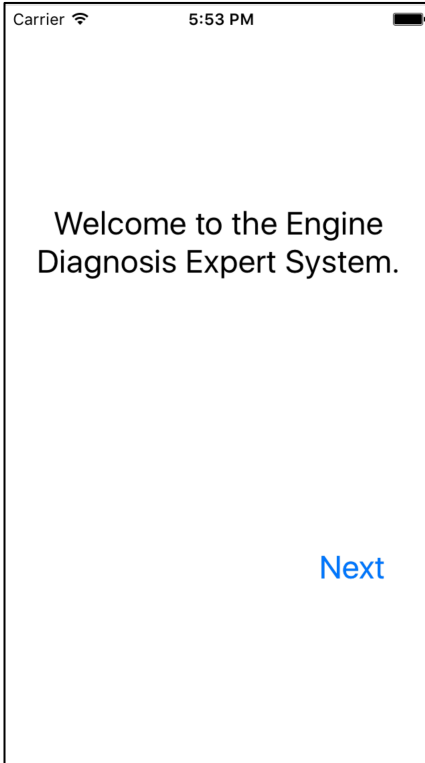
1.2.3 Running the Wine Demo

To run the Wine demo, open the **CLIPS iOS Project** folder and then the **Wine** folder. Double click the **Wine.xcodeproj** file. After the file opens in the Xcode application, select the desired iOS device or simulator from the Scheme pop-up menu in the toolbar. From the **Product** menu, select the **Run** menu item. The Animal app should launch on your iOS device or simulator:

1.3 Creating the CLIPS iOS Framework Using Xcode 7.3

The CLIPS iOS distribution already contains a precompiled framework for iOS in the top level CLIPS iOS directory. Each of the iOS examples also contains the framework within the project's source code folder. It is only necessary to create the framework if you want to add new functionality to it (such as including any user-defined functions you have created).

To build the framework, open the **CLIPS iOS project** folder and then the **Framework** folder. Double click the **CLIPSiOS.xcodeproj** file. After the file opens in the Xcode application, select the **Product** menu, then the **Scheme** submenu, and then select the **Framework** menu item. Select the **Product** menu again, the **Scheme** submenu, and then the **Edit Scheme…** menu item. On the **Info** tab, set the **Build Configuration** drop down menu to **Release**. Click the **Close** button. Select the **Build** menu item from the **Product** menu to create the CLIPSiOS framework. The generated framework can be found in the **:Build:Products:Release-iphoneos** folder.