

Apex Embedded Systems Demo GUI Application Quick Start

Contents

Apex Embedded Systems Demo GUI Application Quick Start	1
Contents	1
Prerequisite	2
Scope	2
Overview	2
Setup / Installation	3
Run The Demo	5
Demo Walk Through	6
Open the Forms	7

Prerequisite

In order to utilize the C# Demo GUI Application using Mono, you must be running kernel version 3.2 or later. You can verify your current kernel version by entering the following command

```
$ uname -r
```

A terminal window with a dark purple background. The title bar shows 'ssllc@ssllc: ~'. The prompt is 'ssllc@ssllc:~\$'. The command 'uname -r' has been entered and executed, resulting in the output '3.11.0-19-generic'. The prompt is now 'ssllc@ssllc:~\$' with a cursor.

Scope

This document applies to the aul_tree project being built as a shared resource.

The objective in doing so is to consume the library project from within the accompanying C# executable when run within Mono.

Overview

This application demonstrates using C# and Mono to build a graphical user interface to allow interaction and manipulation of an STX104 PC/104 card.

It is intended to be used to demonstrate utilization of the AUL library interface.

It is not intended to be used for production.

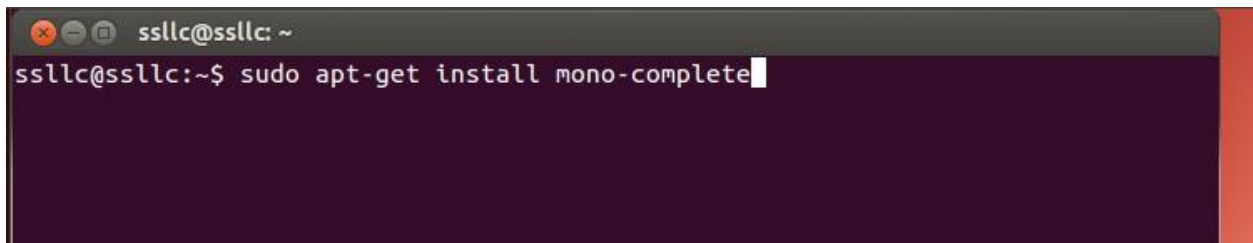
Setup / Installation

-To run the Demo GUI Application for the first time a few setup steps are required. Please see Pre-requisite section before proceeding.

1. Mono Complete must be installed. This is required to run the demo application. This can be accomplished by running:

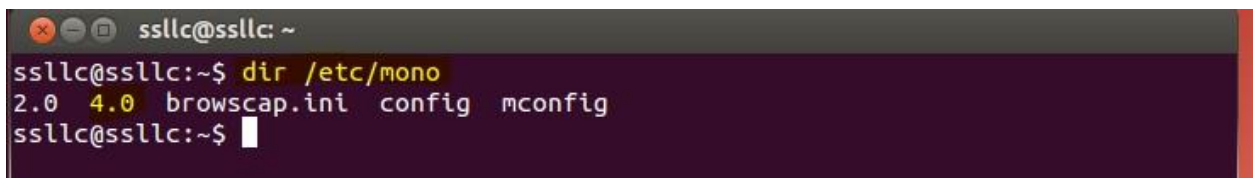
```
$ sudo apt-get install mono-complete
```

--Normal installation steps apply. Answer yes when asked if you want to continue. Enter root password to allow install when prompted.

A terminal window with a dark purple background and a grey title bar. The title bar shows window control buttons and the text 'ssllc@ssllc: ~'. The terminal displays the command 'ssllc@ssllc:~\$ sudo apt-get install mono-complete' with a white cursor at the end of the line.

1.b To verify correct Mono install you need to verify that Mono 4.0 is installed. To do so enter the following command and verify the mono directory contains a 4.0 directory as highlighted below.

```
$ dir /etc/mono
```

A terminal window with a dark purple background and a grey title bar. The title bar shows window control buttons and the text 'ssllc@ssllc: ~'. The terminal displays the command 'ssllc@ssllc:~\$ dir /etc/mono' and its output: '2.0 4.0 browscap.ini config mconfig'. The '4.0' in the output is highlighted in yellow.

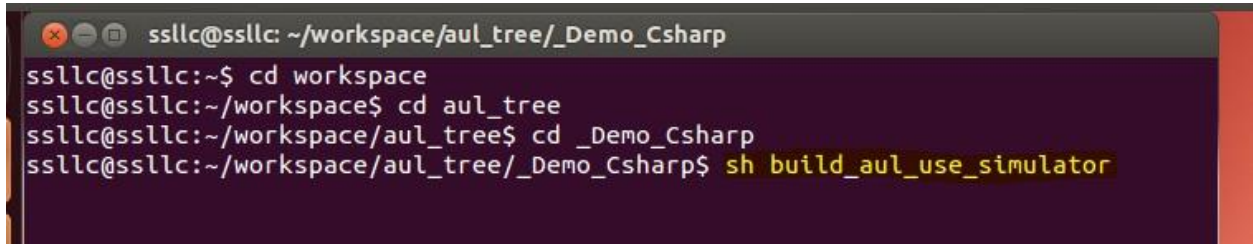
2. Install the correct library. Scripts have been provided to aid in this step and are located in the _Demo_Csharp directory.

There are two options for the library build. The simulator project that does not require hardware (Option A) and the full library (Option B)

2.(Option A) To use the simulator project use the build_aul_use_simulator script with the following command:

```
$ sh build_aul_use_simulator
```

-- Root password will be required to copy library to /usr/lib

A terminal window with a dark purple background and a title bar that reads "ssllc@ssllc: ~/workspace/aul_tree/_Demo_Csharp". The terminal shows the following commands and their outputs: "ssllc@ssllc:~\$ cd workspace", "ssllc@ssllc:~/workspace\$ cd aul_tree", "ssllc@ssllc:~/workspace/aul_tree\$ cd _Demo_Csharp", and "ssllc@ssllc:~/workspace/aul_tree/_Demo_Csharp\$ sh build_aul_use_simulator". The last command is highlighted in yellow.

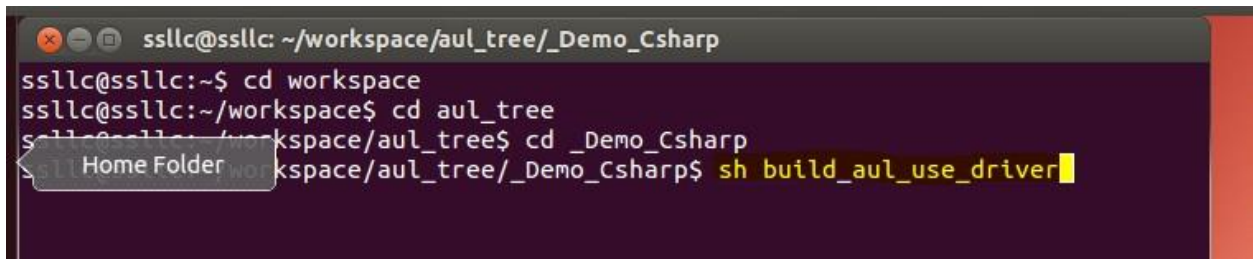
```
ssllc@ssllc: ~/workspace/aul_tree/_Demo_Csharp
ssllc@ssllc:~$ cd workspace
ssllc@ssllc:~/workspace$ cd aul_tree
ssllc@ssllc:~/workspace/aul_tree$ cd _Demo_Csharp
ssllc@ssllc:~/workspace/aul_tree/_Demo_Csharp$ sh build_aul_use_simulator
```

2.(Option B)

To install the full library (for use with STX104 driver and hardware installed) use the build_aul_use_driver script with the following command:

sh build_aul_use_driver

-- Root password will be required to copy library to /usr/lib

A terminal window with a dark purple background and a title bar that reads "ssllc@ssllc: ~/workspace/aul_tree/_Demo_Csharp". The terminal shows the following commands and their outputs: "ssllc@ssllc:~\$ cd workspace", "ssllc@ssllc:~/workspace\$ cd aul_tree", "ssllc@ssllc:~/workspace/aul_tree\$ cd _Demo_Csharp", and "ssllc@ssllc:~/workspace/aul_tree/_Demo_Csharp\$ sh build_aul_use_driver". The last command is highlighted in yellow. A mouse cursor is visible over the first part of the last command, and a tooltip labeled "Home Folder" is displayed.

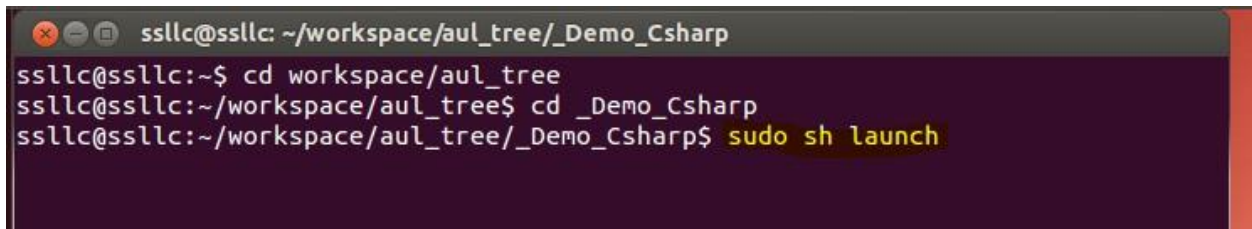
```
ssllc@ssllc: ~/workspace/aul_tree/_Demo_Csharp
ssllc@ssllc:~$ cd workspace
ssllc@ssllc:~/workspace$ cd aul_tree
ssllc@ssllc:~/workspace/aul_tree$ cd _Demo_Csharp
ssllc@ssllc:~/workspace/aul_tree/_Demo_Csharp$ sh build_aul_use_driver
```

Run The Demo

A launch script has been provided to aid in setting Mono and starting the application.

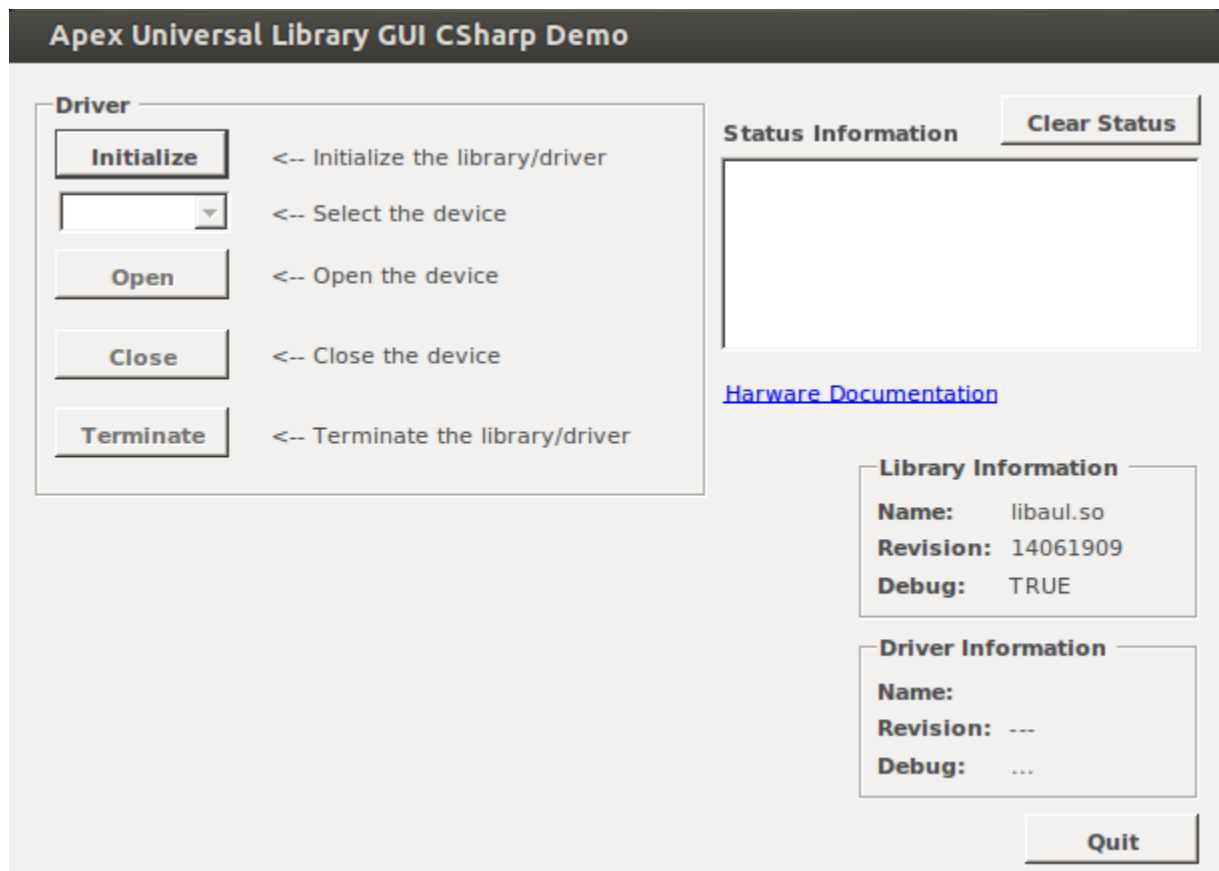
To run the application, navigate to the `_Demo_Csharp` directory and run the following command:

```
$ sudo sh launch
```



```
ssllc@ssllc: ~/workspace/aul_tree/_Demo_Csharp
ssllc@ssllc:~$ cd workspace/aul_tree
ssllc@ssllc:~/workspace/aul_tree$ cd _Demo_Csharp
ssllc@ssllc:~/workspace/aul_tree/_Demo_Csharp$ sudo sh launch
```

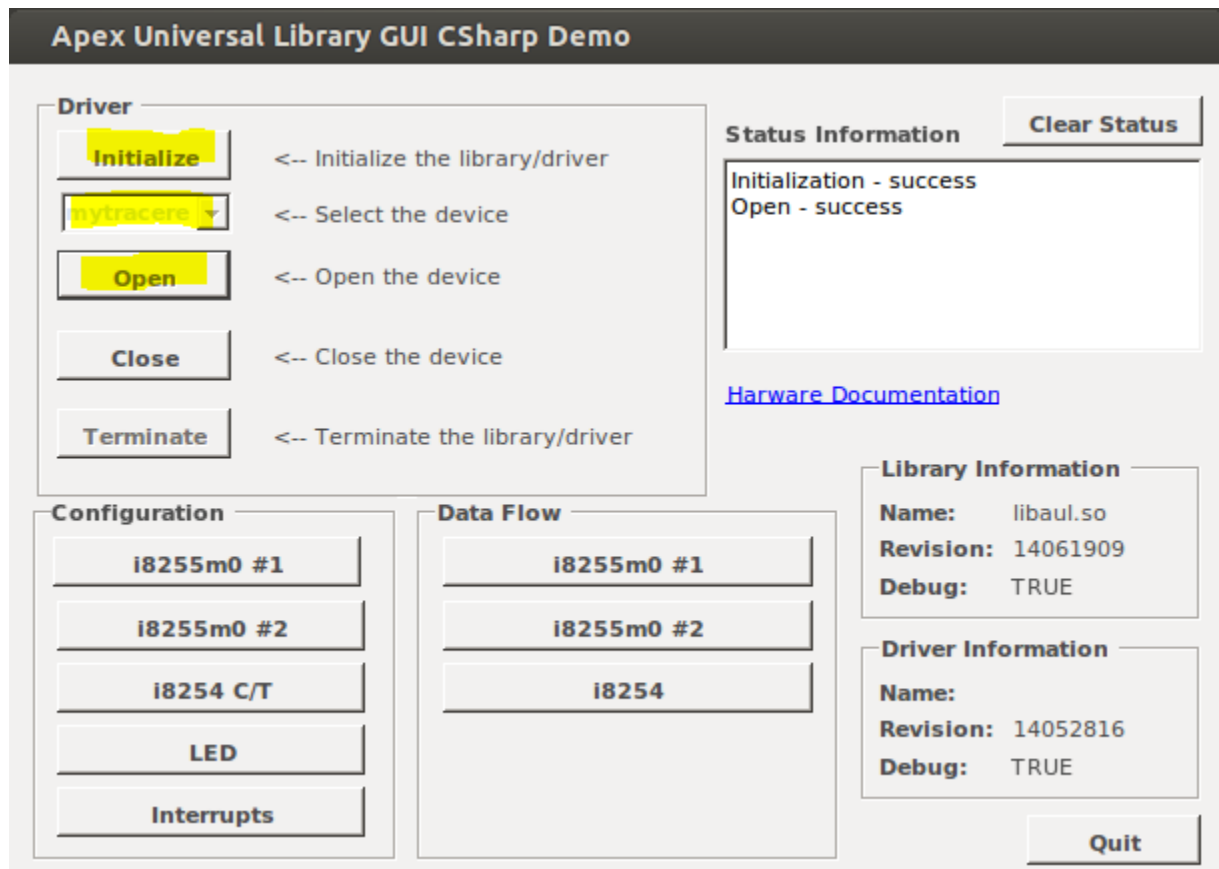
Doing so will start Mono and the Demo GUI Application.



Demo Walk Through

This document provides a simple walk through to Setup and run the Apex Universal Library GUI Demo

1. Run demo GUI application. Initialize, Select Your Device and Open drive. Verification of success is displayed in the Status Information window. NOTICE the Configuration and Data Flow buttons as they will be discussed later.



Open the Forms

You can open any or all of the forms for the Tracer as shown below.

