2015
Global Azure
BOOTCAMP
Saturday, April 25, 2015

Hands on Lab

HOL-3.7: CEJSON – Compact 2013

In this lab you will use the CEJSON API to post and get some simple telemetry data to and from a Windows Embedded Compact device such as an 86Duino. The lab assumes that you are familiar with Compact 2013 OS development and application development with AppBuilder.

Development

In this lab we will use prebuilt binaries.
There are three versions of CEJSONApp. A desktop version, a Compact 2013ARM version and one built with the Compact 2013 86Duino SDK that will run on that device and probably on any x86 Compact 2013 image such as the Virtual CEPC.

Your target can be an 86Duino, Virtual CEPC or an ARM device. You will need a running OS on the target as well as its SDK for AppBuilder.
The Getting Started Guide for 86Duino can be found here.
Its BSP and SDK can be found here.

CEJSON on Codeplex will be used. The link to that is here. This has two VS 2013 projects:

- A native code C++ desktop console app to send HTML queries to AzMS and too parse the JSON responses
  A prebuilt configurable desktop console app will be used in this lab.
  It comes as an app, a DLL and a configuration file
- A Compact 2013 version of the same app. (It uses in the same the same source code files).
  A prebuilt configurable console app for x86 and ARM will be used. Same link as above.

The full source code for these projects is also available from the same link as above

The Desktop Project

1. Download the desktop app from here.
2. Unzip it.
3. There are three files
    - CEJSONApp.exe The app
    - JSONParser.dll The CEJSON API DLL
    - Config.txt Configure the AzMS URL, AppKey and Table
4. Open config.txt and configure it for your (Version 1) AzMS table

```
telemetry2
sportronicsdj.azure-mobile.net
NtcMLPQtuAqWtvXOwrZVQtqHevNUnN27
Leave this line as is.
```

5. Run the app with no parameters. You get a list of the options and it will do a default GET
6. Test the POST, GET, PATCH/PUT and DELETE options according to:

```
CEJSONApp GET
CEJSONApp GET <Filter>
     Filter can be any valid AzMS Filter.  Some telemetry2 specific ones:
CEJSONApp GET embedded={1|2|3}
                        1 is the default
CEJSONApp GET sensor=<Sensor name>
CEJSONApp POST  <Sensor name> <int Sensor value>
CEJSONApp {PATCH|PUT}  <id> value <int value>
CEJSONApp DELETE  <id>
```

- Only first 3 characters of verbs are important.
    - ie Can be GET POS PAT PUT or DEL
- Defaults to GET.

The Compact 2013 Project.

1. You will need a running Compact 2013 OS on the target. It doesn't need .NET as the app is a native code C++ console app. You might like to include Telnet and FTP.
2. Download and unzip the specific target's app zip from here.
3. There again are three files
    - CEJSONApp.exe The app
    - JSONParserAPI.dll The CEJSON API DLL
    - Config.txt Configure the AzMS URL, AppKey and Table
4. Configure Config.txt for your AzMS Table as above
5. Copy the three file across to the target
    - eg FTP, USB memory stick, or include on boot SD
6. Run the app on the target as previous, eg from command line or Telnet if headless.
7. Same command line options to test.