

EDS Scanner – Python Version 1.00

Python

This program was written in Python 3.3.0. At the time this document was written most computers did not come with Python 3 installed. Python can be downloaded from this website for Windows, Mac or Linux:

<http://www.python.org/download/>

To run the program when it is double clicked from the Finder in Mac and Linux, it is necessary to place a 'shebang' (!) line at the beginning of the program that tells the operating system where to find the desired version of Python. The screenshot below illustrates a #! line for the Mac, and below it is the #! line for Linux that is not functional because of the space between # and !.

```
#!/Library/Frameworks/Python.framework/Versions/3.3/bin/python3
# !/usr/bin/env python3

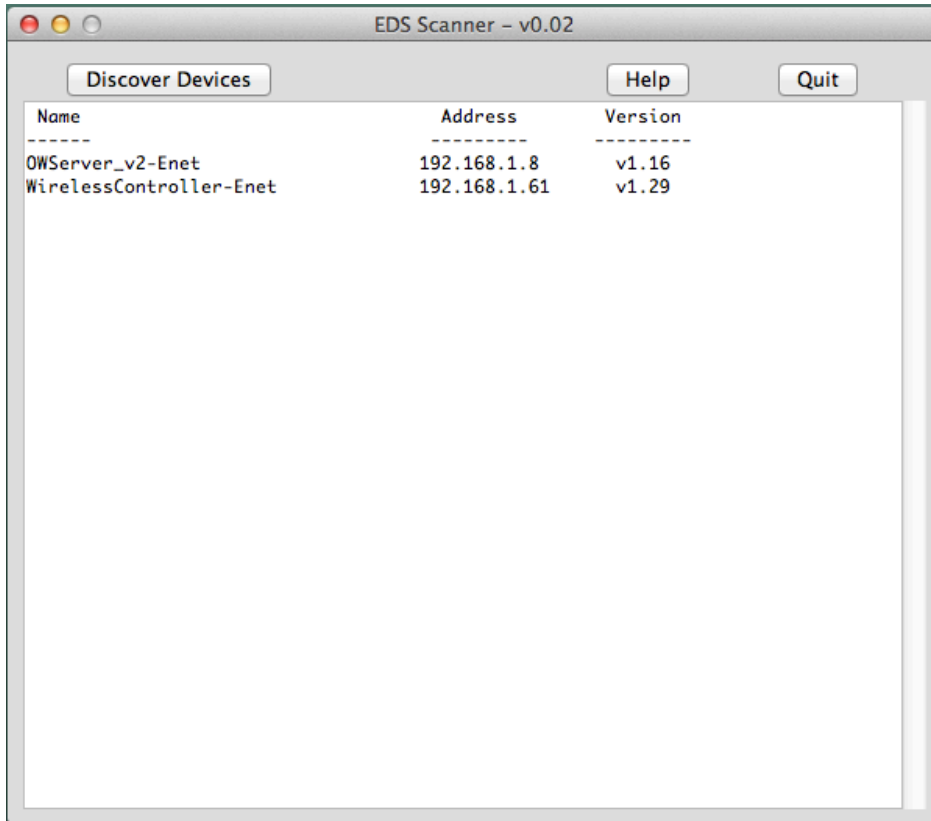
#Copyright 2013 Embedded Data Systems, LLC
#
# Licensed under the Apache License, Version 2.0 (the "License");
# you may not use this file except in compliance with the License.
# You may obtain a copy of the License at
#
#     http://www.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific language governing permissions and
# limitations under the License.

import os
import xml.etree.ElementTree as ET
```

Operation

This software displays all OW Servers and MeshNet Controllers on a network. It does so through 2 methods. When first started it sends a UDP broadcast packet to port 30303 with the uppercase letter 'D' in it. OW Servers and MeshNet Controllers respond with a UDP packet containing configuration information. After this startup process, the program listens for any UDP packets on port 30303. When an OW Server or MeshNet Controller first powers up, it sends out the UDP packet with configuration information on port 30303, which the program receives and displays.

The 'Discover Devices' button may be pressed at any time to update the list. Pressing this button causes the program to send the request packet via UDP on port 30303.



UDP Packet Format

The OW Server and MeshNet Controller send configuration information in JSON format, as shown in the example below.

```
{"NETBios": "EDSOWSERVER2 ",  
"MAC": "00-04-A3-1A-70-CB",  
"IP": "192.168.1.13",  
"Product": "OWServer_v2-Enet",  
"FWVer": "1.08",  
"Name": "EDS-Fortune Dr., Unit 4",  
"HTTPPort": "80",  
"Bootloader": "POST",  
"TCPIntfPort": "0"  
}
```

Development Environment

This software was developed on Aptana Studio 3. Python 3.3.0.

Software License

The EDS Scanner software and source code license is shown below.

Copyright 2012 Embedded Data Systems, LLC

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.