

Running AP Rename Script

This script is for bulk rename of APs on an IOS-XE based WLC such as the 9800 series controllers.

Script Function Outline

Takes input from CSV file that is placed in same directory as the Script (.exe) file

- CSV file contains:
 - AP Name (The desired Name of AP after the renaming)
 - Ethernet MAC (MAC of target AP to rename. Must be the "Ethernet" MAC, not "Radio" MAC)

Formats CSV Data

- MACs formatted to xxxx.xxxx.xxxx format
- AP Names to lowercase

Connect to WLC via SSH and gathers info on Registered APs

- Prompts user for target WLC IP and Credentials to login
- Gathers current AP's Name and Ethernet MAC

Compares info from CSV and WLC

- Looks for matching MAC Addresses
- Displays any matches found and displays them for user

Creates commands for renaming Aps

- For each match command is created "ap name {current name from WLC} name {desired AP name from CSV}"

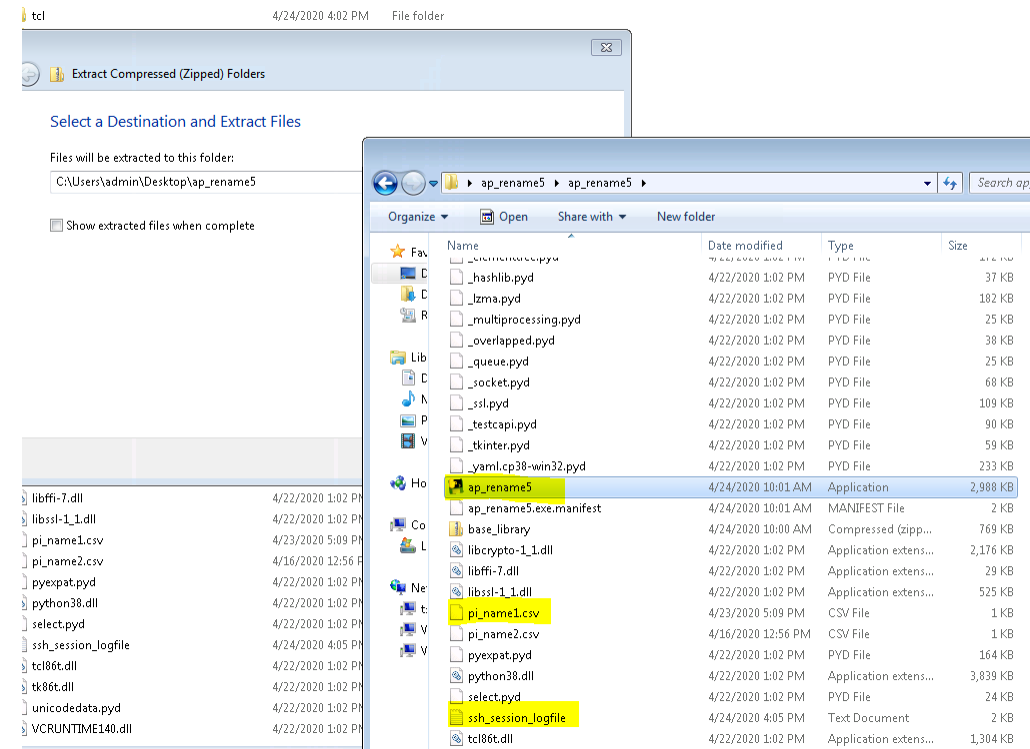
Sends commands to WLC to rename APs

Displays results

- logfile is created in same directory as script "ssh_session_logfile.txt"

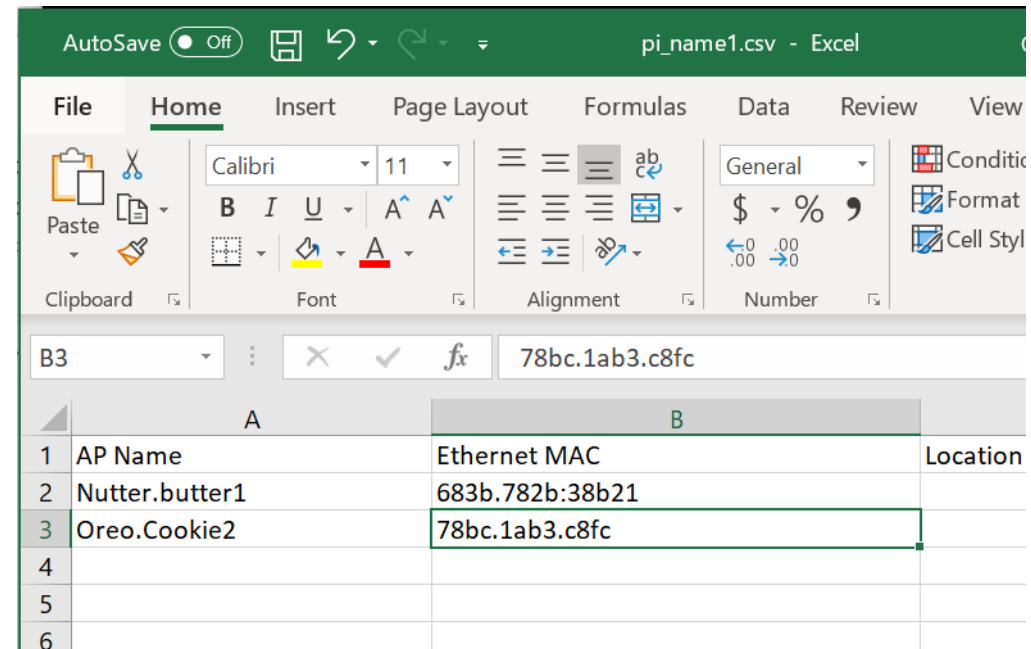
Extract Script and Contents

- Extract contents of “ap_rename.zip”* to a folder on PC.
- Open “ap_rename”* folder
 - “ap_rename.exe”* is main script executable
 - “.csv” files for importing get placed in this folder.
 - Example file “pi_name1.csv” is there for reference
 - “ssh_session_logfile.txt” – is created upon connection to WLC and logs all session output for reference. NOTE! This file is purged upon re-running script. If you desire to save the results, copy the file before running script again.
- *Name may differ slightly upon revisions



Import CSV

- CSV file format is same as PI Import file.
- Populate “AP Name” and “MAC Address fields”. All others are ignored.
- Script attempts to “normalize” and validate MAC address format for errors.
- Script may not catch all errors. Please try and ensure no character errors exist.



	A	B	C
1	AP Name	Ethernet MAC	Location
2	Nutter.butter1	683b.782b:38b21	
3	Oreo.Cookie2	78bc.1ab3.c8fc	
4			
5			
6			

Step 1: Execute Script

Execute the “ap_rename.exe” executable to start script

- Script executes and prompts user

```
<---Welcome to AP Renamerer.--->
-----
In this script we will...
-Scan for CSU files to import.
-Connect to the chosen WLC and gather current registered APs
-We will then parse that data and validate the data imported from
CSU and data imported from WLC matches.
-Then change the names on the WLC.
-----
So first lets get the file to import....
-!! Make sure any CSU files to import
are placed in the same directory as this
script before continuing !!-
-----
Are you ready to proceed? 1=Yes 2=No or Ctrl-C to quit: _
```

Step 2: Select CSV

Choose discovered CSV to import

- Script scans and finds any CSV file in directory to import.
- Input # associated with file

```
<---Welcome to AP Renamerer.--->
-----
In this script we will...
-Scan for CSU files to import.
-Connect to the chosen WLC and gather current registered APs
-We will then parse that data and validate the data imported from
CSU and data imported from WLC matches.
-Then change the names on the WLC.
-----
So first lets get the file to import....
-!! Make sure any CSU files to import
are placed in the same directory as this
script before continuing !!-
-----
Are you ready to proceed? 1=Yes 2=No or Ctrl-C to quit: 1
-----
Scanning current directory for CSU files...
-----
Located 2 CSU files.
-----
The files found are listed below.
Please select a number to select the file
to import in.
-----
Choice # 0 : pi_name1.csv
Choice # 1 : pi_name2.csv
{0: 'pi_name1.csv', 1: 'pi_name2.csv'}
Please select a file # from the list to import: _
```

Step 3: WLC Info

After script imports and displays CSV results, input info to connect to target WLC

- Script will prompt for Ip address and credentials necessary to SSH to WLC to gather currently registered APs

```
checked against REGEX to make sure they are
in format xxxx.xxxx.xxxx before proceeding
-----
Incorrect format: 6c:41:0e:17:03:5c
6c410e17035c
6c41.0e17.035c
Format is now correct...adding to list: 6c41.0e17.035c
Incorrect format: 6c410e173bcc
6c410e173bcc
6c41.0e17.3bcc
Format is now correct...adding to list: 6c41.0e17.3bcc
Incorrect format: 6c410e175fbc
6c410e175fbc
6c41.0e17.5fbc
Format is now correct...adding to list: 6c41.0e17.5fbc
Incorrect format: 6c410e173bca
6c410e173bca
6c41.0e17.3bca
Format is now correct...adding to list: 6c41.0e17.3bca
Incorrect format: 6c410e175fbb
6c410e175fbb
6c41.0e17.5fbb
Format is now correct...adding to list: 6c41.0e17.5fbb
-----
We located the below entries in the CSV file.
-----
['dllstxatp01v281a', '6c41.0e17.035c']
['DLLCTX04APN02U088A', '6c41.0e17.3bcc']
['DLLCTX04APN02U088B', '6c41.0e17.5fbc']
['DLLCTX04APN02U088C', '6c41.0e17.3bca']
['DLLCTX04APN02U088D', '6c41.0e17.5fbb']
['DLLCTX04APN02U088E', 'f4bd.9e9b.a0fc']
['DLLCTX04APN02U088F', 'f4bd.9e9b.9eb4']
['Nutter.butter1', '683b.782b.38b2']
['Oreo.Cookie2', '78bc.1ab3.c8fc']
-----
Now we will connect to a WLC to pull currently
connected and Registered APs.
-----
Lets gather info for the WLC we will connect to....
Enter IP address of WLC:
```

Step 4: Validate WLC

Script returns SSH prompt received from WLC

- Ensure this is the prompt expected from the target WLC
- If so, confirm and proceed

```
['Nutter.butter1', '683b.782b.38b2']
['Oreo.Cookie2', '78bc.1ab3.c8fc']
-----
Now we will connect to a WLC to pull currently
connected and Registered APs.
-----
Lets gather info for the WLC we will connect to....
Enter IP address of WLC: 198.18.134.100
Enter username-'must have priv15': admin
Enter password in cleartext: Cisco12345
<'ip': '198.18.134.100', 'user': 'admin', 'pass': 'Cisco12345'>
Is the above connection info correct? 1=Yes, 2=No : 1
Connection Successful!
-----
CONNECTED via SSH-
Device returned : C9800-WLC#
-----
Is the above CLI prompt the prompt you were
expecting from the correct WLC in exec mode?
1= Yes ! 2=No or Ctrl-C to quit :
```

Step 5: Comparison

Script compares CSV and WLC info gathered and looks for matching MAC addresses.

- Matches found are displayed and shown
[matches_MAC, {Old_AP_Name, New_AP_Name}]
- Confirm and proceed if information appears as expected

```
f4bd.9e9b.a0fc inserted for padding
f4bd.9e9b.9eb4 683b.782b.38b2
f4bd.9e9b.9eb4 78bc.1ab3.c8fc
f4bd.9e9b.9eb4 inserted for padding
f4bd.9e9b.9eb4 inserted for padding
f4bd.9e9b.9eb4 inserted for padding
f4bd.9e9b.9eb4 inserted for padding
f4bd.9e9b.9eb4 inserted for padding
f4bd.9e9b.9eb4 inserted for padding
f4bd.9e9b.9eb4 inserted for padding
683b.782b.38b2 683b.782b.38b2
Match:683b.782b.38b2 683b.782b.38b2
683b.782b.38b2 78bc.1ab3.c8fc
683b.782b.38b2 inserted for padding
683b.782b.38b2 inserted for padding
683b.782b.38b2 inserted for padding
683b.782b.38b2 inserted for padding
683b.782b.38b2 inserted for padding
683b.782b.38b2 inserted for padding
683b.782b.38b2 inserted for padding
78bc.1ab3.c8fc 683b.782b.38b2
78bc.1ab3.c8fc 78bc.1ab3.c8fc
Match:78bc.1ab3.c8fc 78bc.1ab3.c8fc
78bc.1ab3.c8fc inserted for padding
78bc.1ab3.c8fc inserted for padding
78bc.1ab3.c8fc inserted for padding
78bc.1ab3.c8fc inserted for padding
78bc.1ab3.c8fc inserted for padding
78bc.1ab3.c8fc inserted for padding
78bc.1ab3.c8fc inserted for padding
Done Inserting Matches
[[['683b.782b.38b2', '<Old_Name': 'Nutter.butter1', 'New_Name': 'Nutter.butter1']
1, ['78bc.1ab3.c8fc', '<Old_Name': 'Oreo.Cookie2', 'New_Name': 'Oreo.Cookie2']]

Listed below are the matches found between
CSV and CLI. Listed as ...
[matched MAC, <Old AP Name, New AP Name>]

['683b.782b.38b2', '<Old_Name': 'Nutter.butter1', 'New_Name': 'Nutter.butter1']]
['78bc.1ab3.c8fc', '<Old_Name': 'Oreo.Cookie2', 'New_Name': 'Oreo.Cookie2']]
Does this info look correct? 1=Yes : 2=No or Ctrl-C to exit : _
```

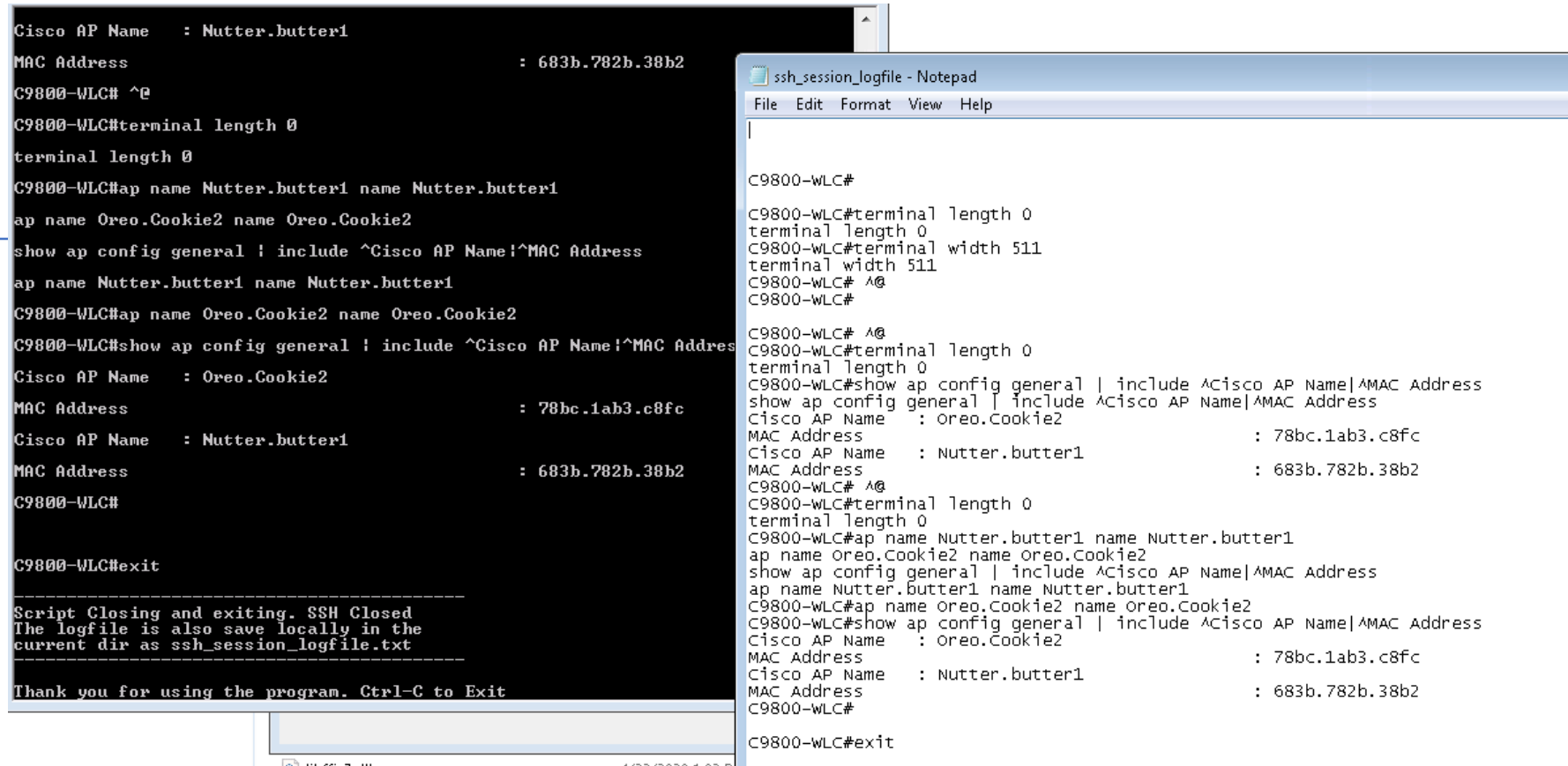
```
-----
Listed below are the matches found between
CSV and CLI. Listed as ...
[matched MAC, <Old AP Name, New AP Name>]
-----

['683b.782b.38b2', '<Old_Name': 'Nutter.butter1', 'New_Name': 'Nutter.butter1']]
['78bc.1ab3.c8fc', '<Old_Name': 'Oreo.Cookie2', 'New_Name': 'Oreo.Cookie2']]
Does this info look correct? 1=Yes : 2=No or Ctrl-C to exit : _
```

Step 6: Script Completion

Script creates and sends commands to WLC based on matches found to rename APs

- Commands are send in bulk and executes one after another
- After completion, results of complete session logfile are printed on screen
- Logfile is also saved in local folder as “ssh_session_logfile.txt” – This file is purged and recreated during each execution of script



```
Cisco AP Name : Nutter.butter1
MAC Address : 683b.782b.38b2
C9800-WLC# ^@
C9800-WLC#terminal length 0
terminal length 0
C9800-WLC#ap name Nutter.butter1 name Nutter.butter1
ap name Oreo.Cookie2 name Oreo.Cookie2
show ap config general | include ^Cisco AP Name|^MAC Address
ap name Nutter.butter1 name Nutter.butter1
C9800-WLC#ap name Oreo.Cookie2 name Oreo.Cookie2
C9800-WLC#show ap config general | include ^Cisco AP Name|^MAC Address
Cisco AP Name : Oreo.Cookie2
MAC Address : 78bc.1ab3.c8fc
Cisco AP Name : Nutter.butter1
MAC Address : 683b.782b.38b2
C9800-WLC#
C9800-WLC#exit

-----
Script Closing and exiting. SSH Closed
The logfile is also save locally in the
current dir as ssh_session_logfile.txt
-----

Thank you for using the program. Ctrl-C to Exit
```

```
ssh_session_logfile - Notepad
File Edit Format View Help

C9800-WLC#
C9800-WLC#terminal length 0
terminal length 0
C9800-WLC#terminal width 511
terminal width 511
C9800-WLC# ^@
C9800-WLC#
C9800-WLC# ^@
C9800-WLC#terminal length 0
terminal length 0
C9800-WLC#show ap config general | include ^Cisco AP Name|^MAC Address
show ap config general | include ^Cisco AP Name|^MAC Address
Cisco AP Name : Oreo.Cookie2
MAC Address : 78bc.1ab3.c8fc
Cisco AP Name : Nutter.butter1
MAC Address : 683b.782b.38b2
C9800-WLC# ^@
C9800-WLC#terminal length 0
terminal length 0
C9800-WLC#ap name Nutter.butter1 name Nutter.butter1
ap name Oreo.Cookie2 name Oreo.Cookie2
show ap config general | include ^Cisco AP Name|^MAC Address
ap name Nutter.butter1 name Nutter.butter1
C9800-WLC#ap name Oreo.Cookie2 name Oreo.Cookie2
C9800-WLC#show ap config general | include ^Cisco AP Name|^MAC Address
Cisco AP Name : Oreo.Cookie2
MAC Address : 78bc.1ab3.c8fc
Cisco AP Name : Nutter.butter1
MAC Address : 683b.782b.38b2
C9800-WLC#
C9800-WLC#exit
```


Step 7: WLC Validation

Check WLC and validate AP names are changed as desired

The screenshot displays the Cisco Catalyst 9800-40 Wireless Controller interface. The top navigation bar includes the Cisco logo, the controller name, a user welcome message, and a search bar. The left sidebar contains navigation links for Dashboard, Monitoring, Configuration, Administration, and Troubleshooting. The main content area is titled 'Monitoring > Wireless > AP Statistics' and shows a 'General' tab. It indicates 'Number of AP(s): 102' and a search filter 'AP Name * is equal to* dlctx04apnpz01v287b'. A table lists AP details, with the first row showing the selected AP's information. The table has columns for AP Name, AP Model, Admin Status, IP Address, AP MAC, Operation Status, Site Tag, Policy Tag, RF Tag, and a 'Hy M' column. The first row shows 'dlctx04apnpz01v287b', 'C9120AXI-B', a green checkmark, '10.126.250.175', 'f4bd.9ec2.af40', 'Registered', and various tags. The bottom of the table shows pagination controls for 10 items per page, displaying '1 - 10 of 102 items'.

AP Name	AP Model	Admin Status	IP Address	AP MAC	Operation Status	Site Tag	Policy Tag	RF Tag	Hy M
dlctx04apnpz01v287b	C9120AXI-B	✓	10.126.250.175	f4bd.9ec2.af40	Registered	DALLAS_DISCOVERY_SITETAG	DALLAS_DISCOVERY_POLICYTAG	DALLAS_DISCOVERY_RFTAG	De