



## Scripting

Cindy Myers - 2020-07-21 - Comments (0) - V8 Scan and Tune Software

Making automated or repetitive changes to tune files can be accomplished by scripts.

Scripting can be used to read tune file and controller information, as well as modify items including comments, history, tune file security settings and remote settings as well as reading/modifying calibration data.

The Lua scripting language and runtime interpreter is used by the EFILive V8 software to implement scripting. A range of example scripts are included in the `\Documents\EFILive\V8\Scripts` folder. Detailed documentation on how to script construction and application is located in the `EFILive Command Line Reference.pdf`.

The ten most recent used scripts are listed in the Script drop down.

To compile and test the script for syntax errors select [Compile].

Scripts can only be applied to open, unrestricted tune file. Any restrictions should be applied after the script is applied.

The [Run] function will apply the script to the tune file, or the script can be saved for later use and applied via the EFILive Command Line Interface.

To display success or error messages when compiling or running a script the Show Output option should be selected.

Where a script is applied, any changes made to the tune file cannot be undone. Changes that may have already been made to the security settings, comments or history will not be available until the tune file is saved.

For example, using E67 {B5102} Low Octane Spark Map a script can be created ensure that each cell in the low octane spark map is always less than the equivalent cell in the high octane spark map. If the lower cell is greater than or equal to the high cell then the low cell is set to one less than the high cell.

The script to compare and execute these changes is in the image below.

```

1  --[[
2  |
3  |           Copyright © 1998
4  |           EFILive Limited
5  |           web: http://www.efilive.com
6  |           email: info@efilive.com
7  |
8  |]]
9  -- Sample script to ensure that each cell in the low octane spark map is
10 -- always less than the equivalent cell in the high octane spark map.
11 -- If the low cell is greater than or equal to the high cell then
12 -- the low cell is set to one less than the high cell.
13
14 high = _efiGetCalId(0,"B5101")
15 low = _efiGetCalId(0,"B5102")
16
17 colCount = _efiGetCalProp(low,cpidColCount)
18 rowCount = _efiGetCalProp(low,cpidRowCount)
19
20 for c=0,colCount-1 do
21   for r=0,rowCount-1 do
22     loVal = _efiGetCalValue(low,c,r)
23     hiVal = _efiGetCalValue(high,c,r)
24     if ( loVal>=hiVal ) then
25       n = _efiSetCalValue(low,c,r,hiVal-1)
26       if ( not n ) then
27         print(["..c..","..r.."] "..EFI_ErrMsg)
28       end
29     end
30   end
31 end

```

Script returned: \$0000 (0)

After running the script, Low Octane Spark Map is modified.

		Air Per Cyl g/cyl									
		0.080	0.120	0.160	0.200	0.240	0.280	0.320	0.360	0.400	0.44
rpm	0	33.0	33.0	30.5	27.5	24.5	18.0	11.5	4.5	0.0	-5.
	200	34.5	34.5	31.5	29.0	26.5	20.0	12.5	5.5	0.0	-4.
	400	35.0	35.0	33.0	29.5	27.5	20.0	13.5	6.5	2.0	-4.
	600	38.0	38.0	35.0	30.0	29.5	21.0	16.5	9.5	5.0	1.
	800	41.0	41.0	38.5	33.5	29.0	25.0	19.0	12.0	8.0	4.
	1000	44.0	44.0	42.0	36.5	30.5	25.0	19.0	13.5	9.5	6.
	1200	45.5	45.5	43.5	36.5	32.0	27.5	22.0	16.5	13.0	9.
	1400	46.0	46.0	43.5	37.0	33.0	29.0	24.0	19.0	15.5	12.
	1600	47.0	47.0	44.5	39.0	34.5	30.0	26.0	21.5	18.0	14.
	1800	50.0	50.0	46.0	42.0	38.0	34.0	30.0	26.0	22.5	19.
2000	50.0	50.0	48.0	45.5	42.0	38.5	33.0	28.0	25.0	22.	

Additional documentation is included in [EFILive Command Line Reference.pdf](#).

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