

Veh File Generator Guide II

Part II of this guide will focus on using this Excel utility in conjunction with the 'GT3 World Series Mod'. The Enduracer 2.0 mod was also compatible with this.

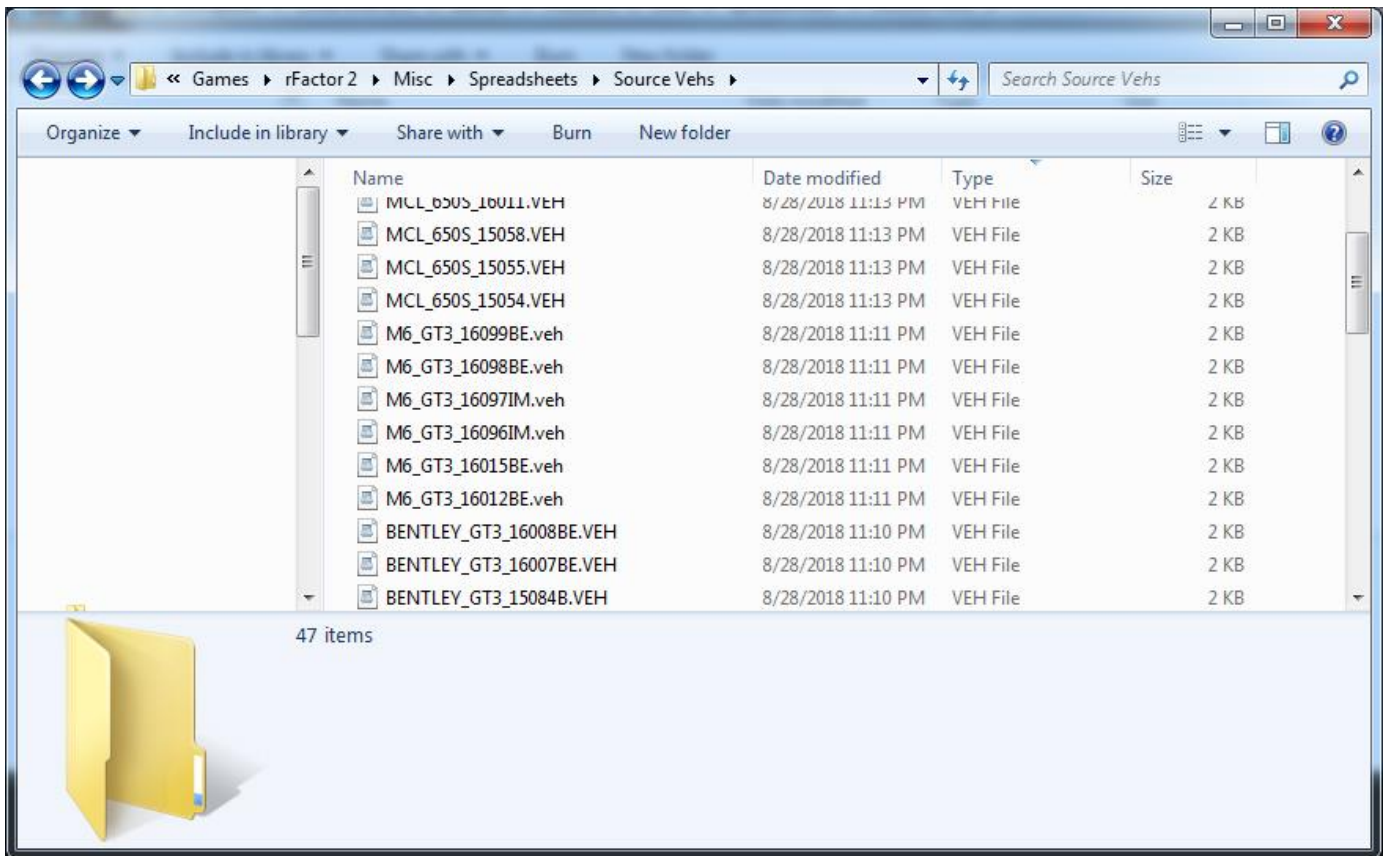
The nomenclature, or file naming format, of this mod's .veh file, is very different from that of the original contents included with the sim. The VBA scripting utility still tries to maintain the same ease of use, regardless.

In this guide, I will demonstrate how to gather 45 .veh files to generate an organized grid of 60 cars, with 2 of them sharing the same pit spot.

Requirements: Microsoft Excel 2007 or later is required to use to this utility. Macro must be enabled.

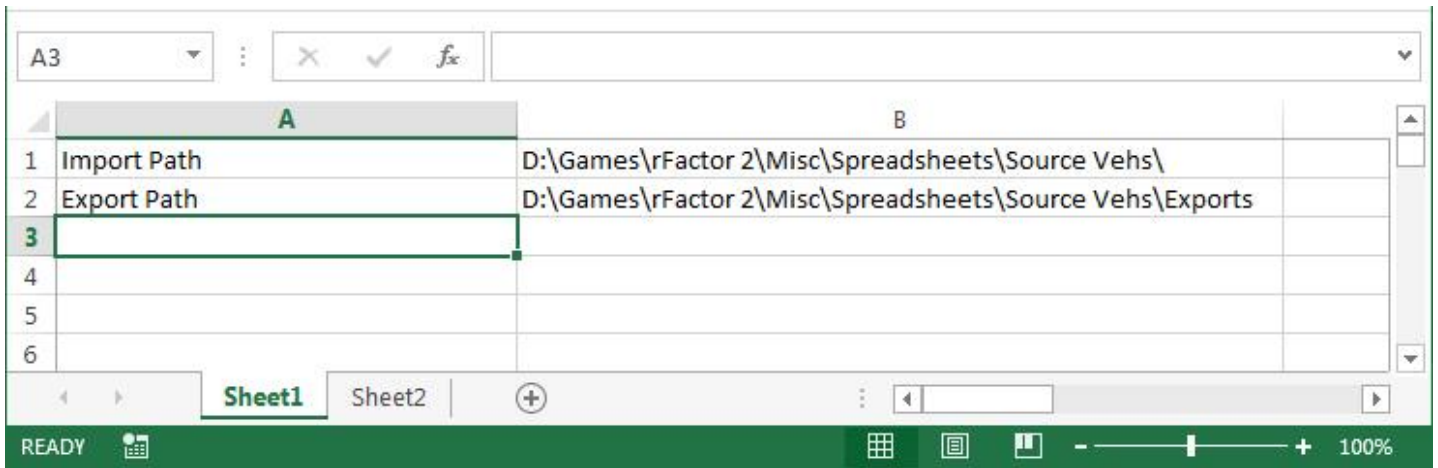
Step 1: Gather the desired .veh files of the ‘GT3 World Series’ and place them in the same directory

- In my case I was able to find 45 skins/liveries (i.e. 45 .veh files) that would be ideal enough to simulate an endurance race with 60 cars.
- Since I’m 15 cars short, the utility will generate the deficit, based on how I arrange the cells in the first column, described later on in the guide.



Step 2: Specify import and export directory of the .veh files

- This is done in Sheet1, at cells B1 and B2. Backslash, '\', at the end is optional.
 - This is the only configuration we make in Sheet1. Head back to Sheet2 when complete.



Step 3: Specify the file prefixes in column 3 named, Import file Prefix

- The values (string), you specify is case sensitive, and must include any underscore, space characters or any other characters, before or after, not a part of the ‘veh ID’ or file extension.
 - This is required, if you want to import the “source veh”, identification, automatically from the directory.
- In the case of this GT3 Word Series mod, they comprised of the following.

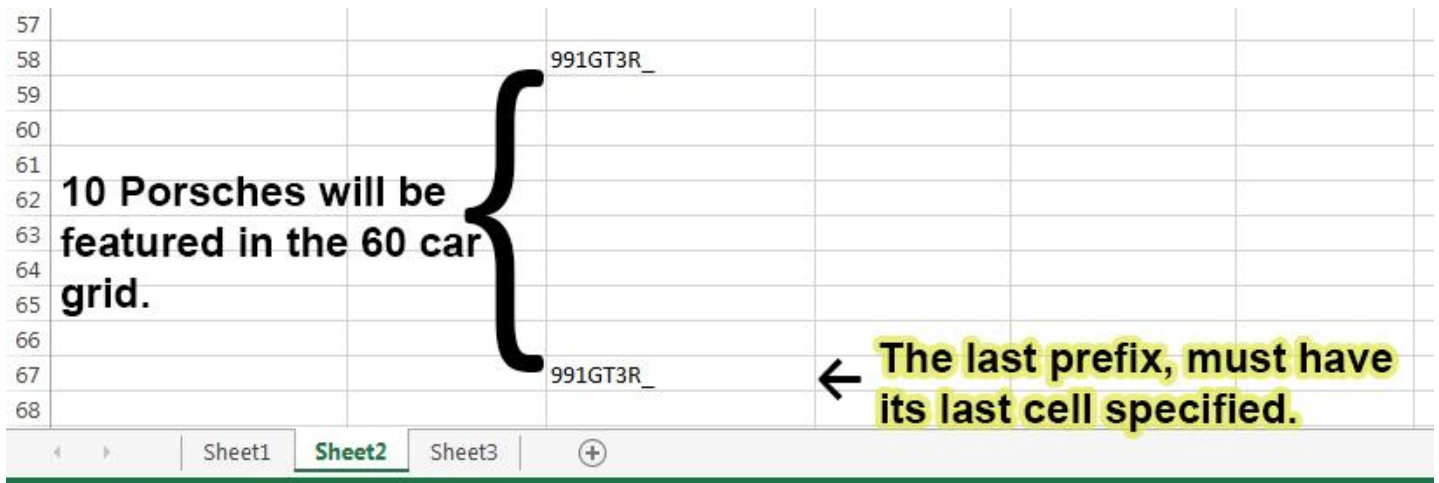
BENTLEY_GT3_ (or BENTLEY_)
 M6_GT3_
 488_GT3_
 _HURACAN_GT3
 MCL_650S_
 _AMG_GT3
 991GT3R_

Step 4: Arrange prefixes based on how many car models you want to be represented in the 60 car grid.

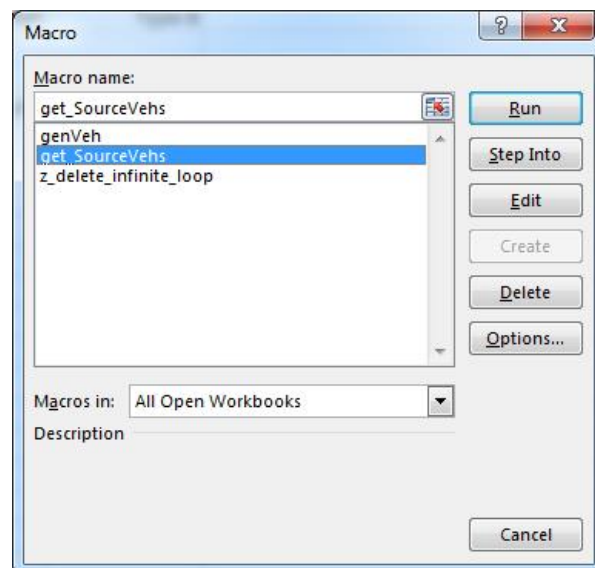
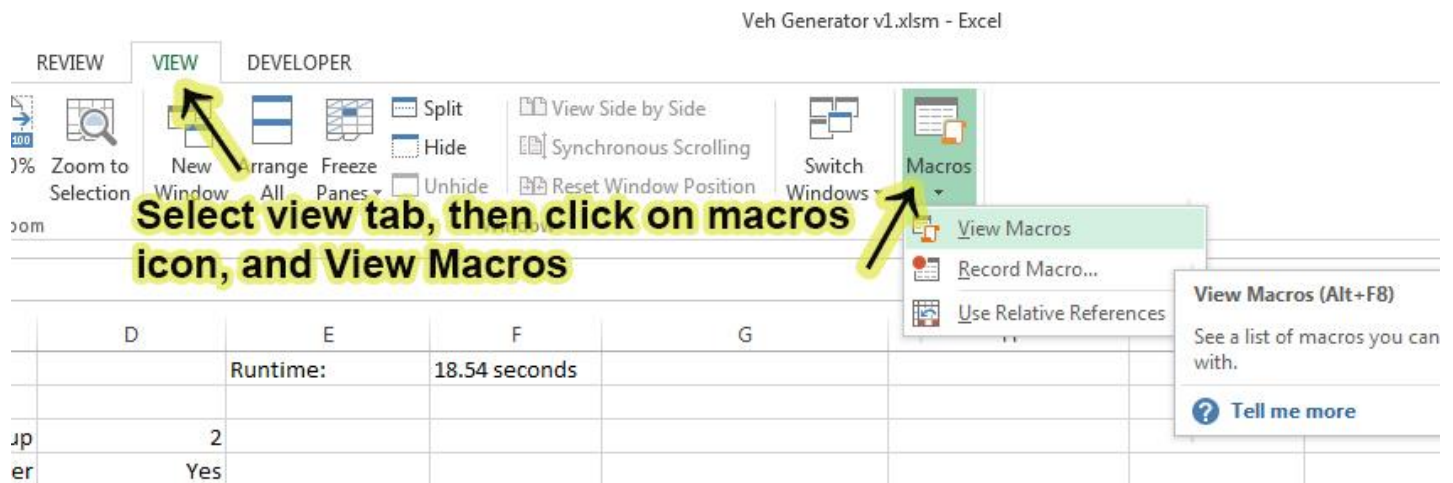
- The images below demonstrate the logic of arranges the prefixes.
- In summary, if you want a car to be represented 10 times, make sure there are at least 9 empty cells below it OR they have the same matching prefix.
 - For the last prefix, make sure you manually write out twice, otherwise the script won’t know how many cars of that prefix, you wanted to add, and will only generate one car for it.

	A	B	C	D	E	F
1	Duplicate source veh	Yes	Unique DefaultLivery	Yes	Runtime:	17.81 seconds
2	Guess Veh #	No	Generate Veh #	Yes		
3	Generate Pitgroup	Per Import Prefix	Cars per pit group	2		
4	Desc. Prefix Delimiters	#, -	Force assign delimiter	Yes	Overwrite FT Name	No
5	Export Table	Yes	Export PitGroup Order	Yes	Export Format	Type B
6						
7						
8	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix	PitGroup Suffix
9			BENTLEY_GT3_			
10	4 maximum veh files, for the Bently, will be generated.					
11						
12						
13			M6_GT3_			
14			M6_GT3_			
15			M6_GT3_			
16			M6_GT3_			
17			M6_GT3_			
18			M6_GT3_			
19			M6_GT3_			
20			M6_GT3_			
21			M6_GT3_			
22			M6_GT3_			
23			488_GT3_			
24						
25						
26						
27						
28						
29						
30						
31						
32						
33	In the case of the Lamborghini, be sure the underscore at the front is included.		_HURACAN_GT3			
34						
35						
36						
37						
38						
39						
40						
41			MCL_			

You don't need to specify these 9 additional rows, but it greatly reduces the chance of making an entry mistake.



Step 5: Use macro, 'get_SourceVeh', to obtain, the source file's identification, and vehicle numbers



	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix
8	15083	83	BENTLEY_GT3_		
9	15084B	84			
10	16007BE	07			
11	16008BE	08			
12	16012BE	12	M6_GT3_		
13	16015BE	15	M6_GT3_		
14	16096IM	96	M6_GT3_		
15	16097IM	97	M6_GT3_		
16	16098BE	98	M6_GT3_		
17	16099BE	99	M6_GT3_		
18			M6_GT3_		
19			M6_GT3_		
20			M6_GT3_		
21			M6_GT3_		
22			M6_GT3_		
23	16011	11	488_GT3_		
24					
25	16034	34			
26					
27	16050AG	50			
28					
29	16052AG	52			
30					
31	16333BE	333			
32					
33	160069	69	_HURACAN_GT3		
34	16016BE	16			
35	16019BE	19			
36	16029BE	29			
37	16100BE	100			
38	16101BE	101			
39					
40					
41	650S_15054	54	MCL_		
42	650S_15055	55			
43	650S_15058	58			
44	650S_16011	11			
45	650S_16037	37			

Step 6: Re-arrange column 1, Source Veh, as desired

- The following image describes the logic of arranging the Source Veh column, it's pretty much the same the import file prefix column.
 - The last source veh ID, in column 1, must be manually written out again, if you wish to duplicate it.
 - The script will do it for you automatically.
- Before you execute the next macro, make sure there's a numerical value to the cells on the right, or cell B2 is set to 'Yes'.
- Note, the IDs are only explicitly specified, if file exists in the import directory; macro will take care of the rest.

7						
8	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix	PitGroup Suffix
9	15083	83	BENTLEY_GT3_			
10	15084B	84				
11	16007BE	07				
12	16008BE	08				
13	16012BE	12	M6_GT3_			
14			M6_GT3_			
15	16015BE	15	M6_GT3_			
16			M6_GT3_			
17			M6_GT3_			
18			M6_GT3_			
19	16096IM	96	M6_GT3_			
20	16097IM	97	M6_GT3_			
21	16098BE	98	M6_GT3_			
22	16099BE	99	M6_GT3_			
23	16011	11	488_GT3_			
24						
25	16034	34				
26						
27	16050AG	50				
28						
29	16052AG	52				
30						
61	16036BE	36				
62	16045PW	45				
63	16076BE	76				
64	16077BE	77				
65	16077IM	77				
66	16540IM	540				
67	16540IM		991GT3R_			
68						
69						
70						

2 *.veh files at the most will be derived from 16012BE

4 *.veh files at the most will be derived from 16015BE

Sheet1 Sheet2 Sheet3

READY

Step 7: Specify attributes in column (D8:K8) or adjust options (A1:F5) and execute macros

- The rest of the column may be left blank. You may head straight to **Step 12**, and then execute the macro to export the .veh files for the 60 car grid.

Step 8: Specify export file prefix

- Leaving this blank, will use the value specified in the import file prefix column.
- If two *.veh files with the same file names share the same root vehicle folder, in this case:
 rFactor 2\Installed\Vehicles\STK (...)\1.20
 rFactor 2\Installed\Vehicles\STK (...)\1.20_1
 - The ‘older’ version located in the folder, \1.20\, may not be permitted to show up in game.
 - The ‘newer’ version, i.e. 1.20_1, will not show up in rFactor 2 Mod Package manager.
 - To overcome this latter issue, delete or move the entire \1.20\, folder. It may re-download itself, when you start the game with internet connection, mod is tied to steam workshop.

Step 9: Specify pit group prefix

- By the game’s default this is, the word, Group, which is then succeeded by an integer. I prefer using the car model’s name, followed by an underscore.
 - You may go ahead and simply write ‘Group’ at cell E9. No need to write redundant values bellow.
- Not specifying this, will resort in the veh files only having the suffix.

	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix	PitGroup Suff
8						
9	15083	83	BENTLEY_GT3_		BENTLEY_	
10	15084B	84				
11	16007BE	07				
12	16008BE	08				
13	16012BE	12	M6_GT3_		M6_	
14			M6_GT3_			
15	16015BE	15	M6_GT3_			
16			M6_GT3_			
17			M6_GT3_			
18			M6_GT3_			
19	16096IM	96	M6_GT3_			
20	16097IM	97	M6_GT3_			
21	16098BE	98	M6_GT3_			
22	16099BE	99	M6_GT3_			
23	16011	11	488_GT3_		488_	
24						
25	16034	34				

Step 10: Pitgroup suffix assignment may be automated by the VB script

- If you wish to assign this manually, make sure cell B3 is set to 'No'.
- If you would like the VBA script to assign this, then set B3 to 'Per Import Prefix'.
 - Since the filename of the 'GT3 World Series Mod' is derived from the source ID, and contains the vehicle numbers, 'Per Source Veh', is not a suitable option, as you'll likely have only 1 car per pit spot, if you set cell D3 to a number greater than 1.
 - Up to 3 cars may be assigned per pit spots.
 - If two vehicle rows are adjacent to each other, and they have a different derived source files, you may assign them any 'fill color' you want, to make them share the same pit spot.
 - This override also works, when you wish to go beyond the 'cars per pit group' limit, specified in cell D3.

B3					Per Import Prefix
	A	B	C	D	E
1	Duplicate source veh	Yes	Unique DefaultLivery	Yes	Runti
2	Guess Veh #	No	Generate Veh #	Yes	
3	Generate Pitgroup	Per Import Prefix	Cars per pit group	2	
4	Desc. Prefix Delimiters	No	Force assign delimiter	Yes	Overwrite FT Na
5	Export Table	Per Import Prefix	Export PitGroup Order	Yes	Export For
6					
7					
8	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Pr
9	15083	83	BENTLEY GT3		BENTI

	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix	PitGroup Suffix
9	15083	83	BENTLEY GT3		BENTLEY_	1
10	15084B	84	BENTLEY GT3		BENTLEY_	1
11	16007BE	07	BENTLEY GT3		BENTLEY_	1
12	16012BE	12	M6_GT3		M6_	1
13	16015BE	15	M6_GT3		M6_	1
14	16096IM	96	M6_GT3		M6_	2
15	16097IM	97	M6_GT3			2
16	16098BE	98	M6_GT3			3
17	16099BE	99	M6_GT3			3
18	16011	11	488_GT3		488_	1
19		12				1
20	16034	34				2
21		35				2
22	16050AG	50				3
23	16052AG	52				3
24	16333BE	333				3
25	16016BE	16	_HURACAN_GT3		HURACAN_	1
26		17				1
27	16019BE	19				2
28	16029BE	29				2
29	16030	30				2

Specifying fill color overrides, cell D3's, limit of 2 per pit group, in favor of 3.

If these were also, Bentley's, then you would use a color other than light red, to override the pitgroup limit.

Step 11: Fill in optional columns (G through K) with, desired, updated attributes.

- If you choose not fill the last 4 columns, the script will extract the value from the source .veh file and use those.
- Do not include any quotation marks.
- You don't need to repeat values, if 'Import File Prefix' is the same.
 - The only exception is the Classes column. Similar behavior to Pitgroup Prefix column.
- I recommend not including any space characters before or after any strings/words/descriptions.
- You may specify multiple drivers in the driver column. Make sure they're separated by an underscore, as pictured. Primary driver is specified at least twice.

	Number=08
	Team="M-Sport"
	PitGroup="Bentley_1"
	Driver="Rob Smith"
	Driver1="Rob Smith"
	Driver2="Derek Pierce"
	Driver3="Andy Meyrick"
	Driver4="Sebastian Morris"
Rob Smith_Rob Smith_Derek Pierce_Andy Meyrick_Sebastian Morris	Description="#08 - M-Sport"
	Engine="Bentley 3.9L V8 Twir
	Manufacturer="Bentley Motors
	Classes="Spa 40_GT3"

Step 12: Specify export format and other automation options

- In regards for the 'GT3 World Series' mod, cell F5, must be set to Type B, since the Source veh # is different from the Veh# column.
 - For standard non-mod vehicles, Type A, is most likely the appropriate option, i.e. Import_File_Prefix + Vehicle Number.

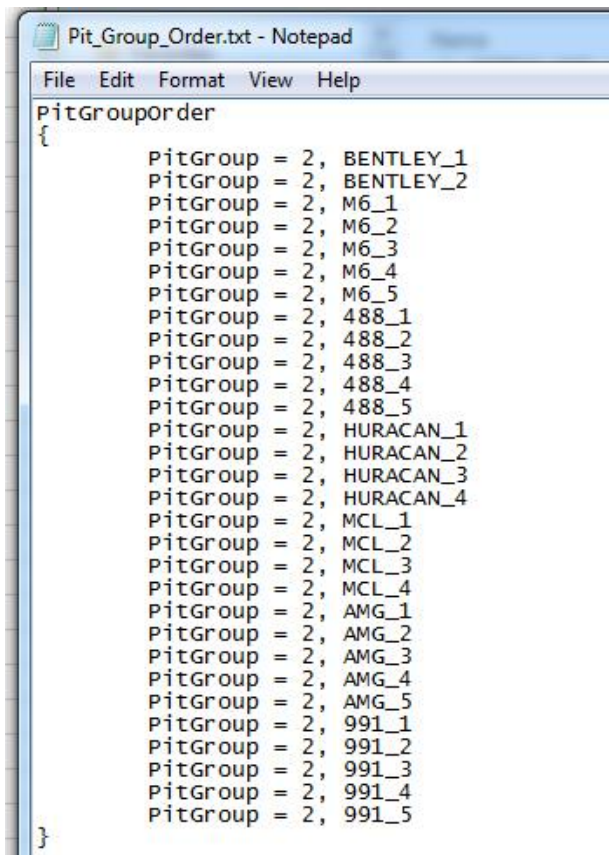
F5				Type B		
	A	B	C	D	E	F
1	Duplicate source veh	Yes	Unique DefaultLivery	Yes	Runtime:	17.81 seconds
2	Guess Veh #	No	Generate Veh #	Yes		
3	Generate Pitgroup	Per Import Prefix	Cars per pit group	2		
4	Desc. Prefix Delimiters	#, -	Force assign delimiter	Yes	Overwrite FT Name	No
5	Export Table	Yes	Export PitGroup Order	Yes	Export Format	Type B
6						Type A
7						Type B
8	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix	PitGroup Suffix
9	15083	83	BENTLEY_GT3_			

- Cell B1, Duplicate Source Veh:
 - If you don't want to generate a new file matching the Source Veh ID of the source file, then set this to no. Pit group generator will take this into account when assigning the corresponding numbers.
 - Since 45 of 60 rows, are original source veh, this should be set to yes.
- Cell D1, Unique DefaultLivery:
 - If you don't intend to modify .DDS file, with an image editing software of your choice, to match that of the veh # in column B, then set this to no.
- Cell B2, Guess Veh #:
 - If you chose not to use the macro, get_SourceVehs, then you may use this to acquire the veh # of the source files, otherwise set to no.
- Cell D2, Generate Veh #:
 - Generates veh #, in column B, that haven't been specified.
 - If you're using Type A export format, and no veh # is specified in column B, then make sure Column A only has numeric values.
- Cell B3, Generate Pitgroup:
 - Per source veh: Not a viable for the 'GT3 World Series Mod', since only 15 out of 60 source veh IDs are derived from another. Pit group automation counter resets each time its comes across a different or non-empty cell.
 - Per import prefix: Will avoid resetting pitgroup automation counter, unless a different import file prefix (car model) is encountered, or pit group limit is exceeded..
- Cell D3, Cars per pit group:
 - 1, 2, or 3 cars per pit sport.

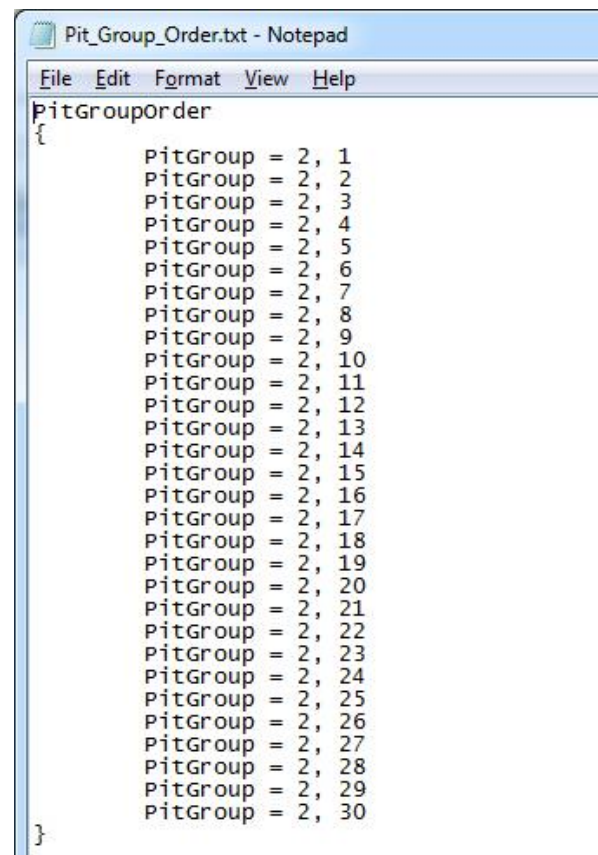
1	Duplicate source veh	Yes	Unique DefaultLivery	Yes	Runtime:	17.81 seconds
2	Guess Veh #	No	Generate Veh #	Yes		
3	Generate Pitgroup	Per Import Prefix	Cars per pit group	2		
4	Desc. Prefix Delimiters	No	Force assign delimiter	Yes	Overwrite FT Name	No
5	Export Table	Per Source Veh	Export PitGroup Order	Yes	Export Format	Type B
6		Per Import Prefix				

- Cell B4, Desc. Prefix Delimiters:
 - This relates to number identification symbol you may want to use in column I, 'Description Prefix'.
 - The, hyphen is there for demonstrative purposes. If you wished to use both hyphen, -, and the pound symbol, #, in column I, it would let the script know why it's there. They are separated by commas. Any amount of space is optional, script should ignore it.

- The pound symbol listed first, means the script will assume it's the default, if you don't specify any delimiter in Column I.
- If you leave this option blank and column I, script will try to guess the location of the delimiter in the imported veh file.
- Cell D4, Force Assign Delimiter:
 - If you set this to no, and don't include the # symbol, in column I, the script will not add anything to it, except the Veh #.
- Cell F4, Overwrite FT Name:
 - This will overwrite, FullTeamName=, inside the veh file, with that of Team=, specified in column H.
- Cell B5, Export Table:
 - After executing the next macro, Sheet2 will be exported along with the 60 .veh file
- Cell D5, Export Pit Group Order:
 - Will export a text file, with a formatted pit group data, that should be pasted in the track's .GDB file or event's .rFM file.
 - The images below shows the output of two possible configuration options.



```
Pit_Group_Order.txt - Notepad
File Edit Format View Help
PitGroupOrder
{
    PitGroup = 2, BENTLEY_1
    PitGroup = 2, BENTLEY_2
    PitGroup = 2, M6_1
    PitGroup = 2, M6_2
    PitGroup = 2, M6_3
    PitGroup = 2, M6_4
    PitGroup = 2, M6_5
    PitGroup = 2, 488_1
    PitGroup = 2, 488_2
    PitGroup = 2, 488_3
    PitGroup = 2, 488_4
    PitGroup = 2, 488_5
    PitGroup = 2, HURACAN_1
    PitGroup = 2, HURACAN_2
    PitGroup = 2, HURACAN_3
    PitGroup = 2, HURACAN_4
    PitGroup = 2, MCL_1
    PitGroup = 2, MCL_2
    PitGroup = 2, MCL_3
    PitGroup = 2, MCL_4
    PitGroup = 2, AMG_1
    PitGroup = 2, AMG_2
    PitGroup = 2, AMG_3
    PitGroup = 2, AMG_4
    PitGroup = 2, AMG_5
    PitGroup = 2, 991_1
    PitGroup = 2, 991_2
    PitGroup = 2, 991_3
    PitGroup = 2, 991_4
    PitGroup = 2, 991_5
}
```



```
Pit_Group_Order.txt - Notepad
File Edit Format View Help
PitGroupOrder
{
    PitGroup = 2, 1
    PitGroup = 2, 2
    PitGroup = 2, 3
    PitGroup = 2, 4
    PitGroup = 2, 5
    PitGroup = 2, 6
    PitGroup = 2, 7
    PitGroup = 2, 8
    PitGroup = 2, 9
    PitGroup = 2, 10
    PitGroup = 2, 11
    PitGroup = 2, 12
    PitGroup = 2, 13
    PitGroup = 2, 14
    PitGroup = 2, 15
    PitGroup = 2, 16
    PitGroup = 2, 17
    PitGroup = 2, 18
    PitGroup = 2, 19
    PitGroup = 2, 20
    PitGroup = 2, 21
    PitGroup = 2, 22
    PitGroup = 2, 23
    PitGroup = 2, 24
    PitGroup = 2, 25
    PitGroup = 2, 26
    PitGroup = 2, 27
    PitGroup = 2, 28
    PitGroup = 2, 29
    PitGroup = 2, 30
}
```


Step 13: Swap tool

- The button, Swap, on cell F3, allows you to swap the location of 2 different cells.
 - Press and hold the Ctrl Button, then left click on the 2nd cell; then press swap.
 - This is primarily intended for reorganizing column A, Source Veh IDs.

Step 14: Execute macro, genVeh

- The table will look similar to the following image before the execution.
- It takes around 35 seconds for my AMD Phenom to execute the 60 row macro; the first time.

	A	B	C	D	E	F	G	H	I	J	K
1	Duplicate source veh	Yes	Unique DefaultVeh	Yes	Runtime: 12.78 seconds						
2	Guess Veh #	No	Generate Veh #	Yes							
3	Generate PitGroup	Per Import Prefix	Cars per pit group	2							
4	Desc. Prefix Delimiters	#, -	Force assign delimiter	Yes	Overwrite FT Name	No					
5	Export Table	Yes	Export PitGroup Order	Yes	Export Format	Type B					
6											
7											
8	Source veh #	Veh #	Import file Prefix	Export file Prefix	PitGroup Prefix	PitGroup Suffix	Driver	Team	Description Prefix	Classes	Category
9	15083	83	BENTLEY_GT3		BENTLEY_				Bentley Continental GT3 <>	Spa_GT3	Spa 24 hrs, Bentley Continental GT3
10	15084B	84									
11	16007BE	07									
12	16008BE	08					Rob Smith_Derek Pierce_Andy Meyrick_Sebastian Morris				
13	16012BE	12	M6_GT3		M6_				BMW M6 GT3 <>		Spa 24 hrs, BMW M6 GT3
14			M6_GT3								
15	16015BE	15	M6_GT3								
16			M6_GT3								
17			M6_GT3								
18			M6_GT3								
19	16096IM	96	M6_GT3								
20	16097IM	97	M6_GT3								
21	16098BE	98	M6_GT3								
22	16099BE	99	M6_GT3								
23	16011	11	488_GT3		488_				Ferrari 488 GT3 <>		Spa 24 hrs, Ferrari 488 GT3
24											
25	16034	34									
26											
27	16050AG	50									
28											
29	16052AG	52									
30											
31	16333BE	333									
32											
33	160069	69	_HURACAN_GT3		HURACAN_				Lamborghini Huracan GT3 <>		Spa 24 hrs, Lamborghini Huracan
34	16016BE	16									
35											
36											
37	16019BE	19									
38	16029BE	29									
39	16100BE	100									
40	16101BE	101									
41	6505_15054	54	MCL_		MCL_				McLaren 650S GT3 <>		Spa 24 hrs, McLaren 650S
42	6505_15055	55									
43	6505_15058	58									
44											
45	6505_16011	11									

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