VMRGenerator

Manual

Version 7.0

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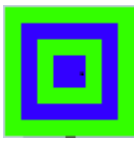


1 Introduction

VMRGenerator generates Matching Rules for vPilot for all AI Aircraft installed in any FSX or P3D Flight Simulator.

Its main advantages are:

- You will get error free matching rules; it will never happen that vPilot matches a plane you do not have installed!
- If you install or remove (part of) an AI Aircraft package you only have to re-run VMRGenerator.
- When you are using more than one AI package, you may specify what package has priority. Equivalent Airline/TypeCode liveries from lower priority packages will not be put in the rules file.
- Configuring your rules in vPilot is very easy.
- The intermediate file AI_liveries.txt can be used by users of my PSXseeconTraffic program.

1.1 Technical information

VMRGenerator is a 32 bit Windows application, written in C++, for Windows 7 and higher.

1.2 System Requirements

In order to run it, you need Microsoft Visual C++ Redistributable for Visual Studio **2015**. The standalone installers for x86 and x64 can be downloaded here at Microsoft. Install the **x86 one**.

1.3 Forum

For questions & answers and discussions use my **PSXseeconTraffic** Forum at MyCockpit.org (free registration required).

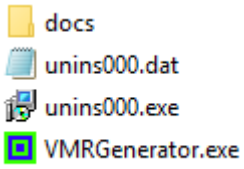
2 Installation

2.1 Download and install

Download **setup_VMRGenerator_vx.y.zip** from www.lekseecon.nl/VMRGenerator.html.

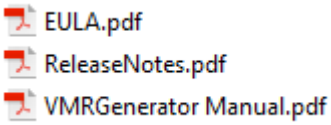
Unzip and run the installer. You should install VMRGenerator at your Flight Simulator PC.
However, do not install in the C:\Program Files (x86) folder!

After installation, you will have a VMRGenerator folder containing the following files and folder:



VMRGenerator.exe is the 32 bit application, unins000.exe is the uninstaller. However, you better uninstall using the Programs interface or the apps interface.

The **docs** folder contains the following files:



Documentation is provided by means of the pdf files ParkPosGenerator Manual and ReleaseNotes.

The EULA is the End-User License Agreement. This is a legally enforceable contract between you and the Author. By accepting the installation you agree to be bound by the terms of this EULA.

2.1.1 Installing VMRGenerator networked

You may also install VMRGenerator at another PC then your FlightSim PC.
Then use **\\PCname\Sharename** as syntax in your full paths, e.g.

\\ADAM\Prepar3D v3\Simobjects\WoAI

Where Prepar3D v3 is a sharename on my flightsim PC with name ADAM

2.2 Update and removal

Download setup_VMRGenerator _vx.y.zip, unzip and simply run the installer. It will first uninstall your previous version and then install the new one.

Removing VMRGenerator from your PC can be done running the uninstaller from the Programs list or the apps list, just like any other Windows program.

2.3 Version Check

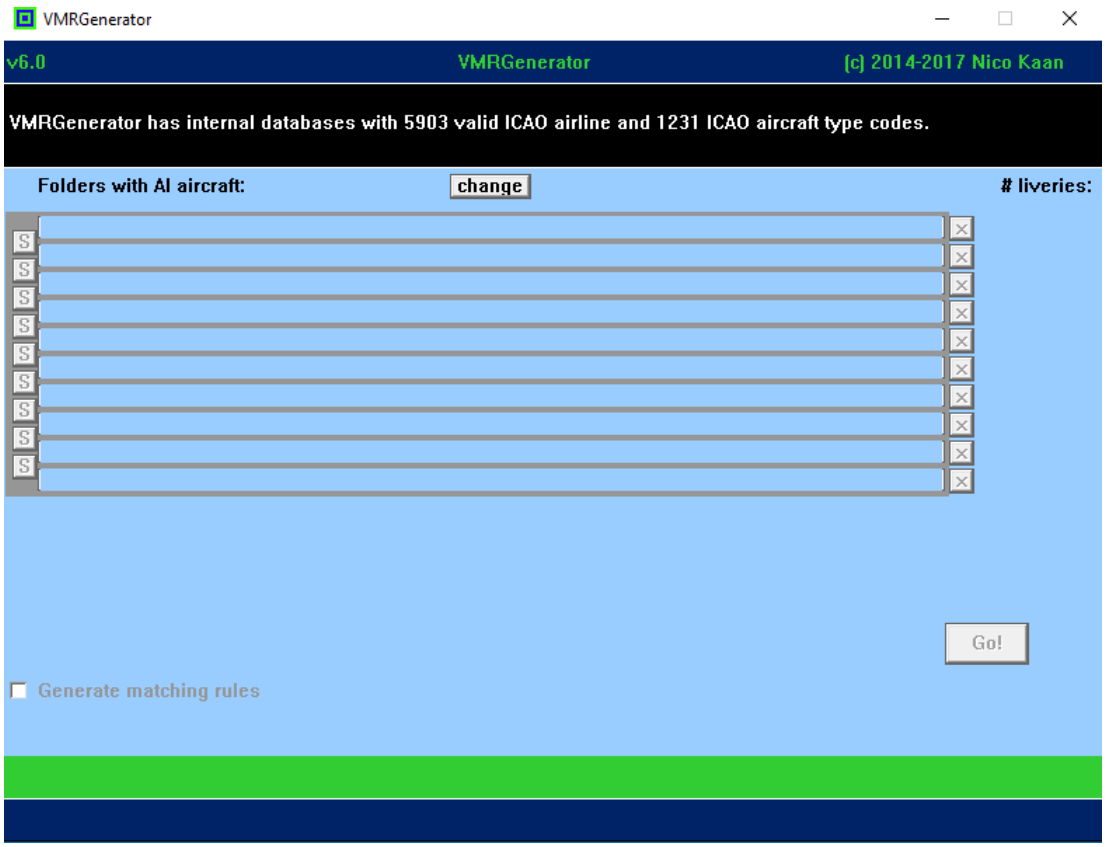
At each start-up VMRGenerator will check if there is a new version available. If so the –normally- green version message in the main window will turn yellow, and the new version number will be indicated.
Decimal version changes are just reminders. However, if a full version change is possible the program will halt with error 77, and you have to update first.

3 Operations

Note that VMRGenerator does not change anything in your FSX/P3D installation. It only reads aircraft.cfg and/or sim.cfg files and it writes into its own folder and/or in the vPilot Files\Model Matching Matching Rule Sets folder at the same PC.

3.1 Searching for AI aircraft liveries

At start-up the main window will show like this:



VMRGenerator has an internal databases with valid ICAO airline codes and valid ICAO aircraft type codes. If you find that a code is missing you can post that in my forum (see section 1.3), then I will add these in the next version.

With the **change button** you can enable the folders area for editing:

- Add a folder with AI aircraft by typing the full-path name into a free folder edit text box, e.g.

  E:\Program Files (x86)\Lockheed Martin\Prepar3D v3\SimObjects\WoAI

  When you are finished editing, push the change button again in order to make the change effective. VMRGenerator will check immediately if the folder exists.

- You can re-order the folders contents with the **Swap buttons**.

  The higher the position of the folder, the higher its priority. If an airline-aircraft type is available in two or more folders, only the highest priority one will be put in the AI_liveries.txt and vPilot rules files.

- You can delete a folder with the **X button**.

If all path names exist, the **Go!** button in the right bottom corner will be enabled. The paths to your AI folders will be saved in VMRGenerator.cfg.

Push the Go! button, if you're satisfied with the folders!

VMRGenerator than searches for **aircraft.cfg** or **sim.cfg** files in the folders specified. It reports for each folder how many valid liveries were found.

If there are invalid Airline codes or invalid Aircraft Type Codes found, VMRGenerator writes these into two files in the VMRGenerator folder: **InvalidAirlineCodes.txt** and **InvalidAircraftCodes.txt**. With the information in those files it will be easier for you to find, and manually repair these errors in your AI packages, if you want to make the best out of your AI package, otherwise you can just go on without paying attention to it.

Some obvious wrong Aircraft type codes will be repaired automatically. A complete list is given in chapter 4. In the log you will find "Fix" messages if this has taken place.

VMRGenerator also checks if the **texture=**, **model=** and **sim=** values in a [fltsim.x] section exist, if not the livery is skipped; this prevents completely black aircraft and/or can't create messages.

A livery is also skipped if there is no value for the **atc_parking_codes=** parameter or for IVAO_MTL if there is no Airlinecode in the value for the **title=**. In the main interface a message will give the number of liveries skipped because of incomple fltsim sections and the skipped liveries are written to the file **IncompleteFltsimSections.txt.**

A complete aircraft.cfg file is ignored if their [flysim.x] sections are not numbered consecutively from 0 to n and/or if there are no [fltsim.x] sections in it.

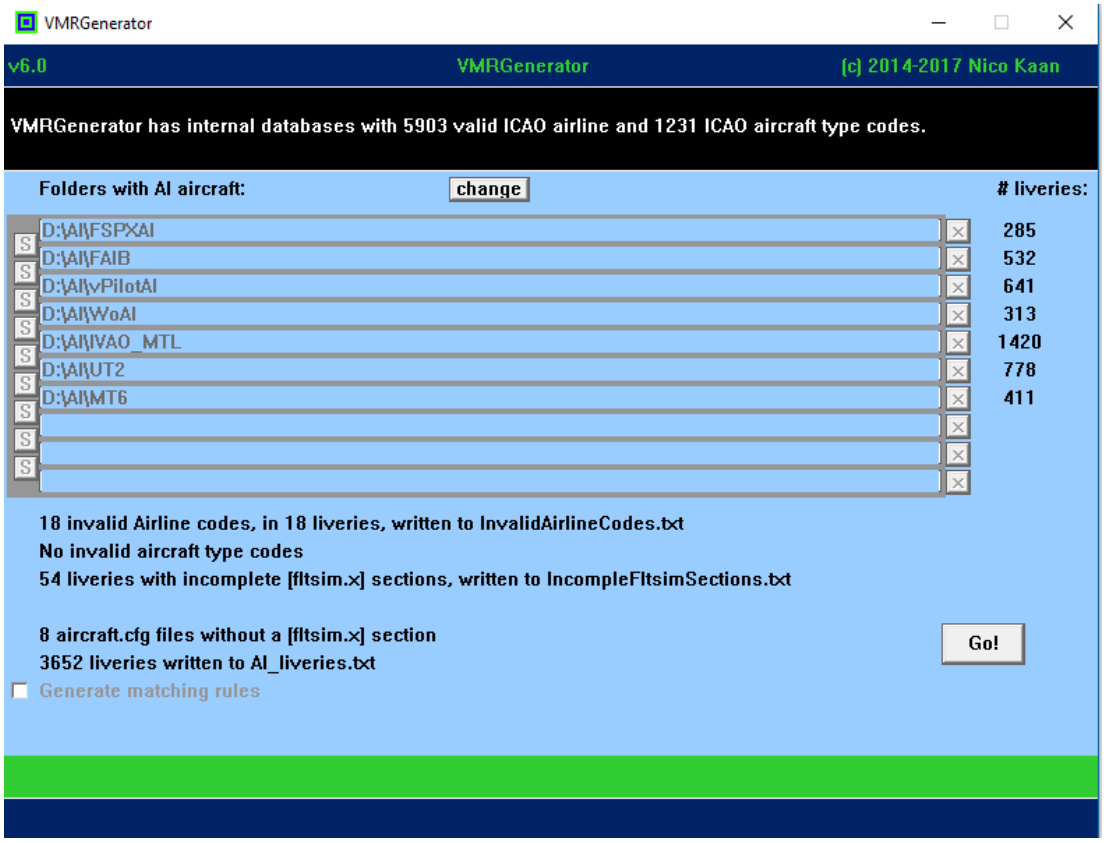
VMRGenerator also detects the **Registration** code(-s) of an aircraft. It takes the value of the **atc_id=** line in aircraft.cfg or sim.cfg as aircraft registration code. On this website you will find the registration codes for lots of airlines.

> *Normally a livery has of course only one unique Registration code. However, you may fill in multiple Registration codes separated by comma's. Thus it is easier to separate different groups of liveries for a single type without having to install all liveries. For example to differ between Normal BAW 744 liveries and BAW Oneworld 744 liveries. Or to distinguish all freighter liveries of a certain type from the Pax liveries of that same type, or 773–ER versions from 773 versions.*

After all folders have been searched it will write all liveries to an intermediate file called **AI_liveries.txt**. While doing that it ignores Aircraft/TypeCode liveries that are already read from a higher priority folder. Liveries that were ignored will be written to the file **Liveries_ignored_by_priority.txt.**

> *The intermediate file AI_liveries.txt is a plain text file. Each line contains a livery found. First the Airline code, then the TypeCode, then the folder in which it was found (1 is the first folder in the folders area), then the title of the livery and finally (optionally) the registration code(-s). The items are separated by semicolons.*

Searching Liveries will not take long and you will see a screen like this:



As you can see IVAO_MTL is supported for generating liveries because VMRGenerator is also used by IVAO PSXseeconTraffic users. However, vPilot users may not use it. Matching rule generation is blocked if you are using IVAO_MTL liveries (read more here).

The **VMRGenerator.log** file gives a more detailed overview of the run.

3.1.1 How to deal with private aircraft? *[PSXSeecontraffic use only]*

Private (GA) aircraft often do not have an airline code. I recommend to use a non (ICAO) existing airline code **PVT** (for Private) for these type of aircraft. So change the atc_parking_code lines to

atc_parking_codes=PVT

or for IVAO_MTL: **title=**<aircrafttypecode>**PVT**

in aircraft.cfg files that define a private aircraft livery. You can use this code in an Airport file (ICAO.txt) in the folder parked of PSXseeconTraffic in order to see a PVT aircraft at a certain gate.

3.1.2 How to deal with Government aircraft? *[PSXSeecontraffic use only]*

Government aircraft sometimes do not have an ICAO airline code. I recommend to use a non (ICAO) existing airline code **GOV** for these type of aircraft. So change the atc_parking_codes line to

atc_parking_codes=GOV

or for IVAO_MTL: **title=**<aircrafttypecode>**GOV**

in aircraft.cfg files that define a government aircraft livery. You can use this code in an Airport file (ICAO.txt) in the folder parked of PSXseeconTraffic in order to see a PVT aircraft at a certain gate.

3.2 Generate matching rules *[Optional , vPilot use only]*

> *By default the rule generation phase is not activated. This is because there are many more people that use VMRGenerator for PSXseeconTraffic than for vPilot.*

The Rule generation phase starts, if the Rule Generation checkbox is selected, with VMRGenerator reading the AI_liveries.txt file.

The resulting rule file **AI Matching Rules Generated.vmr** is written into the VMRGenerator folder. If VMRGenerator detects a vPilot rules folder it will automatically put a copy into that folder too.

Add the rules file **AI Matching Rules Generated.vmr**, to the Downloaded Rule Sets of vPilot as follows: Run vPilot, select Settings, Model Matching tab and add the file by clicking the Add Custom File(s)... button and select the file from the 'vPilot Files\Model Matching Rule Sets folder'.

Do not forget to use a title from one of the aircraft in AI Matching Rules Generated as Default title, and you may delete other rules in your Downloaded Rule Sets.

Note that you only have to do this Custom File addition once. If you run the VMRGenerator again, you do not have to anything with the vPilot Model Matching settings!

4 Aircraft type fixes

VMRgenerator will automatically change the following wrong airctfat types into correct types:

717 = B712
154 = T154
212 = B212
328 = D328
A36Bonanza = BE36
A380 = A388
An12 = AN12
An-124 = A124
An24 = AN24
An26 = AN26
An30 = AN30
An32 = AN32
An-74 = A743
AS350 = AS50
ATR42 = AT43
ATR72 = AT72
B717 = B712
B748 = A748
B74SP = B74S
B787 = B788
C-160 = C160
Caravelle = S210
CARJ1000 = CRJ1
CARJ200 = CRJ2
CARJ 200 = CRJ2
CARJ700 = CRJ7
CARJ 700 = CRJ7
CARJ900 = CRJ9
CARJ 900 = CRJ9
CARJ 1000 = CRJX
CARJ1000 = CRJX
CH47 = H47
CH53 = H53
CHALLENGER300 = CL30
CHALLENGER600 = CL60
CHALLENGER 300 = CL30
CHALLENGER 600 = CL60
CHALLENGER 850 = CRJ2
Concorde = CONC
CRJ200 = CRJ2
DC9-10 = DC91
DC9-30 = DC93
DC9-40 = DC94
DC9-50 = DC95
Dimona = DIMO
E175 = E170
E195 = E190
Eagle = F15
EC135 = EC35
ERJ 135 = E135
ERJ 145 = E145
ERJ135 = E135
ERJ140 = E135
ERJ145 = E145
F 100 = F100
F 70 = F70

Falcon50 = FA50
Falcon 50 = FA50
Global Express = GLEX
Goshawk = HAWK
GULF3 = GLF3
GULF4 = GLF4
GulfstreamV = GLF5
Gulfstream V = GLF5
Harrier = HAR
HERCULES = C130
Il-62 = IL62
Il-76 = IL76
Il-86 = IL86
Il-96 = IL96
J31 = JS31
J41 = JS41
KA90 = BE9L
Katana = DV20
KC10 = DC10
KC137 = B703
Lance = P32R
L-1011 = L101
LEAR40 = LJ40
LEARJET45 = LJ45
MB339 = M339
Metro = SW4
Metroliner = SW4
Mirage = MIRA
MIG29 = MG29
Nighthawk = F117
Nimrod = NIM
PA32R = P32R
PA32T = P32T
Phantom = F4
Rafaele = RFAL
Raptor = F22
RV6a = RV6
Setendard = ETAR
S2000 = STAR
SF340 = SF34
Spirit = B2
Super Dimona = DIMO
Super Etendard = ETAR
SuperEtendard = ETAR
TORNADO = TOR
Tu-134 = T134
Tu-134 = T134
TU154 = T154
Tu-154 = T154
TU204 = T204
Tu-204 = T204
Typhoon = EUFI
Viscount = VISC
Vulcan = VULC
YAK-40 = YK40
Yak-40 = YK40
Yak-42 = YK42
Yak-52 = YK52

5 FAQ

5.1 The program cannot start because MSVCP140.dll and/or VCRUNTIME140.dll is missing from my computer?

See section 1.2 System Requirements.

5.2 I'm still getting vPilot red error messages about objects, or even an FSX/P3D crash?

Possible causes:

- If you get lots of them: You probably have forgotton to activate the AI package in your FlightSimulator. For P3Dv3 for instance you should add a path statement for each package in c:\Program Data\Lockheed Martin\Prepare3D v3\simobjects.cfg.
- Although the aircraft is installed in FSX/P3D, creating an object failed (due to incorrect data), or even worse, caused FSX/P3D to crash...
- You may have deleted some [fltsim.x] sections from aircraft.cfg files in AI Packages but you forgot to renumber these [fltsim.x] sections starting from 0, consecutively.

5.3 How does VMRGenerator create a matching rule?

VMRGenerator deduces a rule based on information it finds in the aircraft.cfg or sim.cfg file. It searches for the lines with:

parameter	**is used as**
atc_model	ICAO aircraft code or TypeCode in vPilot terminology
atc_id	Registration code(-s) *)
title	Title of livery or ModelName in vPilot terminilogy
atc_parking_codes	ICAO Airline code(-s) or CallSignPrefix in vPilot terminology

The IVAO package does not support all these parameters, but thanks to their rigid information structure VMRGenerator can generate rules for their aircraft. However, you must have installed IVAO in its default folder: ..\SimObjects\IVAO_MTL or ..\IVAO_MTL, in order to be recognized by VMRGenerator.

For IVAO liveries are recognised based on:

parameter	**is used as**
max 4 letters after "IVAO_" in the folder name	ICAO aircraft type code
atc_id	Registration code(-s) *)
title	Title of livery
first 3 letters after the aircraft type code in the title	ICAO airline code

*) Normally a livery has of course only one unique Registration code. However, PSXseeconTraffic users may fill in multiple Registration codes separated by comma's. Thus it is easier to separate different groups of liveries for a single type without having to install all liveries.

For example to differ between normal BAW 744 liveries and BAW Oneworld 744 liveries. Or to separate all freighter liveries of a certain type from the passenger liveries of that same type.

Another advantage is that if the callsign is missing an aircraft may be marched upon its registration code.

The registration codes for lots of airlines can be found here.