



PHPVMSGEN

The PHPVMS data generator

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Version 1.0

INTRODUCTION

Phpvms V7 is a versatile software package for running your very own Virtual Airline. However you may have a good idea of the scope of your airline but under-estimate the time and effort in setting it up to run . You need Airports , Subfleets ,Aircraft , Fares ,Flights and a few more pieces of data to be input into the system.

However since PHPVMS has a feature built into it to export and import data to and from the airline in the form of CSV files it could be an advantage to build your data outside of PHPVMS and upload it

Even so you still have the time and effort needed to create these csv files so in theory unless you already have the data in PHPVMS the use of csv files does not potentially save much time initially when setting up your airline.

I wanted to set my own virtual airline up based around a number of airports in Northern Europe and in just 5 countries , Ireland , Scotland,Iceland , Norway and Faroe Islands , I have ended up with nearly 80 airports on their own right not say the airports not in that list but where you can catch a flight to such as Glasgow EGPH to Amsterdam EHAM. So it follows that to have a reasonable schedule in place I found that I would need around 200 airports. This is true if you wanted to emulate some of the big airlines in the world such as British Airways or American Airlines. Just think about how many destinations they fly to.

Now since I had access to an industry provider of aviation data I soon found that most of the information I needed could be collated and gleaned from the internet by way of api services or databases providing they were accurate enough. I will not go into detail which ones are best or not as that is and was an individual choice.

So being a software developer I started wondering if I could build a means to use a database and then extract from various table the data and format it into these csv files for input to PHPVMS.

So I have done most of this and quite happy but I wanted to make it a generic process in that it could be tailored to fit my needs rather than just dumping data into csv files.

So this is how PHPVMSGEN got started and now it is available for you for free

IMPORTANT INFORMATION

PHPVMS

The Data generated by PHPVMSGEN is for use with PHPVMS V7 only . It has not been designed to work with older versions. PHPVMSGEN is not part of PHPVMS and any use of the data provided is at the users own responsibility. However every effort from user feedback and suggestions hopefully will enhance the capabilities of PHPVMSGEN and make it a valuable resource for many new Virtual Airlines who want a sort of start-up data base and package.

DATABASE

Given the cost of obtaining current data and the obvious fact that airlines have drastically cut their schedules due to the COVID 19 Pandemic it did not seem to be a good idea to get data from current providers so I obtained a set of schedules that data about three to 4 years ago . This gave me a database of over 650,00 flights that I could use. Sure it does not serve a purpose for those who want to entirely copy a real world airline as they run every day , but my view is its a virtual airline and you make the world how you want it. Besides which you always have the ability to edit the data in your virtual airline so if you want to cancel a flight then you are always able to do it yourself

OTHER NOTES

Phpvmmsgen works in a linear structure in which for this version anyway means that everything is based on a single Airline code in PHPVMS and maybe in the future with some effort I could make it multi-airline. The same goes for a HUB airport . The data created will be for a single hub airport but obviously many airport records will be created

Slightly non-linear is that for each subfleet PHPVMSGEN will be able from the database to create a number of aircraft each with its own registration number.

Requirements

There is no software to install for PHPVMSGEN it is simply a service providing you with a number of csv files, To get the best matching data to your needs you will need to construct a simple configuration file and e-mail it to me. Depending on my own availability the aim is to get you the data sent in return in less than 48 hours. I am not sure yet exactly how long a lead time I need to give . In fact you could get a dataset in a matter of minutes or so which would be a very quick service for what you would be getting

On the next pages the layout of the configuration file is detailed so as to give you the information you need to compile your own file and send it to me.

CONFIGURATION FILE

The file is just a plain text file with the name PHPVMSGEN.TXT the required fields are as shown below

A blank file will be available in PHPVMS Forum

Field ID	Description	Example Only
[userinfo]	Just a separator for the data must be there	[userinfo]
NAME	Your Name for reference only	NAME=Leslie Jarrett
EMAIL	Your e-mail address to send the data files to	<u>EMAIL=lesmar@airalbavirtual.com</u>
[airline]	Just a separator for the data must be there	[airline]
CODE	Your Virtual Airline code	CODE=AAV
HUB	Your Main Hub ICAO CODE	HUB=EGPH
TAILNUM	Do you want existing aircraft reg numbers Y/N	TAILNUM=N
TAILPREFIX	Your own tail number prefix if TAILNUM = N otherwise leave blank	TAILPREFIX=YF
ATTACHHUB	Do you want to attach Subfleets to the hub code Y/N	ATTACHHUB=N
WEIGHT	Aircraft Weight N = no K = kilos P= lbs	WEIGHT=K
[data]	Just a separator for the data must be there	[data]
BASIS	Y if you want to use a real world airline N if you want to use a selection of airports	BASIS=N
SELECTION	If you selected Y to BASIS you put an airline code I.e. BAW or AAL etc. If you selected N to BASIS you put a line of airport icao codes separated by commas I.e. EGLL,EHAM,EGPH,BIKF	SELECTION=EGLL,EGPH,BIKF
[fares]		[fares]
CALCULATE	Y if you want a calculation of air fare for a flight N if you do not want any fares created If selecting Y inputs are made to the next items if selecting N leave blank	CALCULATE=Y
BASIC	Base price for calculations industry analysis suggested this to be \$50 but you can set it to what value you like	BASIC=65

Field ID	Description	Example Only
PERMILE	Factor of cost per mile flown using the industry analysis the suggestion was \$0.11 but you can set this to whatever you like	PERMILE=15
BUSINESS	Factor by which Business class fare is scaled against ECONOMY it would be something like three times economy fare but again the choice is yours	BUSINESS=3
FIRST	Factor by which First class fare is scaled against ECONOMY it would be something like five times economy fare but again the choice is yours	FIRST=5
CSVSPILT	In case of large csv files this is the split factor to create one or more csv files	CSVSPILT=1000

As you can see the inputs are very simple and straightforward however the FARE prices will be fixed at a value based on the values set in the parameters as a percentage of a basic fare structure so if you say your BASIC PRICE is 60 then if the calculation comes out at 75 the price will be 125% . This will enable some flexibility as the fare will adjust accordingly if you amend the basic price.

The flight number has to conform to the airline code for the Virtual Airline and as such original complete flight numbers with letters cannot be used , however if you selected Y for FLIGHTNUM every effort will be made to get the numeric part of the original flight number and use that as the flight number

Please note that the CSVSPILT parameter has to be set there is no default value that PHPVMSGEN is going to use . The suggestion is to use 1000 as the required value as this seems to work. The splitting of large csv files is essential to avoid timeout errors when importing to PHPVMS due to PHP restrictions of the amount of time a PHP script can run by some hosting companies.

As part of the process of trying to create a reasonable working Virtual Airline from this data each aircraft created has been given a random name based on the countries where for which the airports created are used. This name is based on a global gazette database of towns and cities and as such many of the names are going to be similar to those used in the real world. Of course one imported or even before import to PHPVMS you are free to change them to whatever you like

Here is an example of a completed PHPVMSGEN.TXT

[userinfo]

NAME=Leslie Jarrett

EMAIL=lesmar@airalbavirtual.com

[airline]

CODE=AVA

HUB=EGPH

TAILNUM=N

TAILPREFIX=AV

FLIGHTNUM=N

FLIGHTPREFIX=AV

[data]

BASIS=N

SELECTION=EKVG,EIDL,EIDW,EIKY,EIKN,EICK,EINN,BIAR,BIEG,BIIS,BIKF,BIRK,ENAL,ENAT,ENAN,ENDU,ENBR,ENBS,ENBN,ENBO,ENBV,ENEV,ENBL,ENFL,ENHK,ENHD,ENHF,ENOV,ENKR,ENCN,ENKB,ENNA,ENLK,ENSB,ENMS,ENML,ENRA,ENOL,ENGM,ENNM,ENRS,ENRO,ENSD,ENSK,ENSG,ENSR,ENSO,ENST,ENZV,ENSH,ENTC,ENVA,ENTO,ENSS,ENVD,EGPD,EGPL,EGPR,EGEC,EGPN,EGPH,EGPF,EGPI,EGPE,EGPA,EGPB,EGEN,EGPK,EGEP,EGER,EGPO,EGPU,EGPC,EGEW

[fares]

CALCULATE=Y

BASIC=65

PERMILE=0.15

BUSINESS=3

FIRST=5