

OF RAPACE LAUNCHER

Technical Manual

(v 9.79 - 28/06/2007)



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1/ Introducing the RL

The OF Rapace Launcher has been basically designed as a command line editor for Open Falcon. Actually it has become more than that, since it performs various checks to ensure the best multiplayer compatibility. What makes the RL unique is to allow the host of an upcoming flight to share the crucials items that are needed to ensure the maximum compatibility between host and clients. The RL is and probably will be regularly enhanced. Don't worry as the automatic updater checker will ensure you're using the latest version.

2/ Installing the RL

Just unzip the content of the archive into the directory of your choice.

3/ Main features

Upon starting, the RL intergrates with the registry, FalconBMS.cfg, phonebook.ini, theater.lst file, various tdf files, TE .ini files and the rapace_launcher.cfg (for the "preferences") file.

It checks for your WAN IP, you LAN IP and your VPN IP if you got one running.

It also checks if there's an update available. You'll be warned in such a case.

It also features an Installation switcher enabling you to switch between *valid OF Installations*.

If you got a TM Cougar running, its status and current joystick file will be detected.

The TrackIr detection has also been implemented.

4/ Launch area Tab

On startup, the OF Rapace Launcher checks for various parameters from your OF installation and network configuration, to let you customize some of them.

- **Network IP** : This IP is the one you used to put in the command line in order to see other pilots in the Main Chat. This IP is type of network depedant and is IP is needed for both host and clients of an MP game. It is automatically added to the command line. It may be pasted in the clipboard to help share it with others pilots, avoiding any error that may occur.



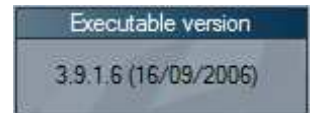
The Wan IP is provided by sending a request to dynsys.org, which can read your actual Wan IP. Note that if the Dynsys server is unreachable, you'll be warned and your Wan IP will be marked as "Unknown". Restart the RL. VPN and LAN IP are retrieved from the registry.

- **Type of Network** : You have the ability to switch from Internet to LAN or VPN adapter. The VPN IP is the

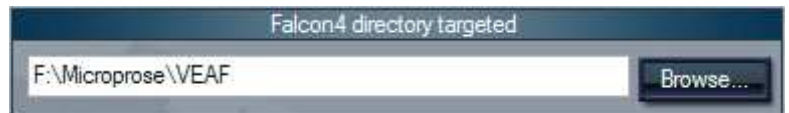


same as the LAN IP as long as you don't have any VPN adapter configured on your machine.

- **Executable Version** is a reminder of your active Falcon4 directory current exe version. Usefull to ensure compatibility with others players prior to launching OF.



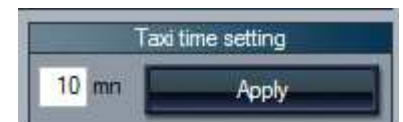
- **Falcon4 Directory Targeted** is taken from Windows registry, and ensures compatibility with any other OF installation. You can use the Rapace laun cher with OF installed in the directory of your choice. You have the ability to switch between various valid OF installations. Click the "Browse..." button and choose the directory of your alternate OF directory.



If this directory appears as a valid OF one, the logbook files of your current OF dir are copied to your alternate OF dir. The registry keys are modified (or created) and your alternate OF dir becomes the current one.

The RL resets to reflect the right parameters of this new installation.

- The Taxi time setting is back. Useful for those willing to take their time before take-off. Matches the set g_nLaunchTaxiTime value of the FalconBMS config file



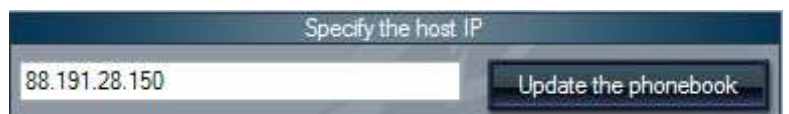
- You may want to use F4AWACS, then these options are designed for you : enter the MSSQLSERVER IP address into the input field and click apply. The selected exe (Validator or AISPY or both) will be launched and automatically connected to this IP address prior to launching OF. Note that Validator will not perform any file check as the RL performs one itself.



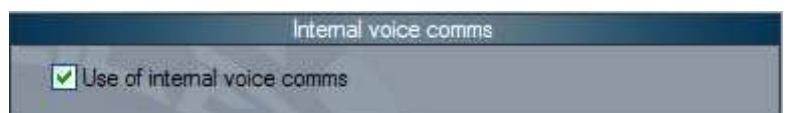
The IP is shared through the online setup file.

See <http://www.e-haf.org/forum/viewtopic.php?t=3008> for further information on the great F4AWACS suite.

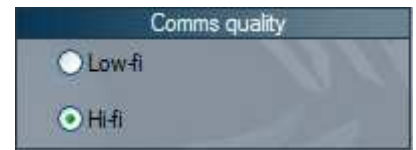
- The **Specify the host IP** section let you enter the IP of the host. It modifies the first entry of the phonebook. When you enter the OF UI an d click the "Comms" button, this IP will be the first you will see.



- The **Use of internal voice comms** state is read from the FalconBMS.cfg file of your active OF directory. If the value "g_bVoiceCom" is set to 1, the checkbox will be checked. Otherwise, it will remain unchecked. Checking this checkbox will update the FalconBMS config file accordingly.



- **Low-fi** and **Hi-fi** radios let you switch between the low bandwidth (1.2 kb/s) and high bandwidth (3.2 kb/s) comm s quality. Their status are read from the FalconBMS.cfg file of your active OF directory. Clicking on the radios will update the file accordingly.

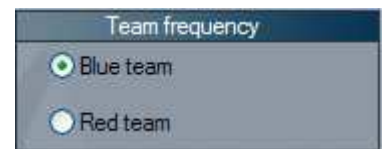


- The state of the **Dedicated voice server** input reflects the state of the "set g_svoicehostip" line of your FalconBMS.cfg file. **Leave it blank if you plan to host both game and comms, or set it @ "127.0.0.1" if you plan to only host the comms.**

On RL startup, each line beginning with "//set g_svoicehostip" will be deleted.

You can put an IP as well as a domain name in the field. Don't put quotes around it, the RL will do it itself... Click apply to update your config file accordingly.
A blank input will simply remove the line of your config file.

- **Team Frequency** lets you switch between 2 sets of frequencies, when using internal comms. Usefull in case of Human vs Human scenario. The freq of the blue team is set at 307.300 as by default. The red team frequency is set at 236.800. Changing this value will update the "set g_nF1TeamUiFreq" value of your FalconBMS.cfg accordingly. The purpose is to ensure 2D comms deconfliction.



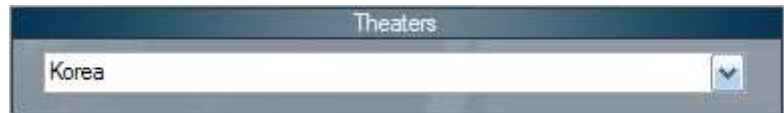
*Note that in 3D, the U13 frequency is set @ 307300 for both teams...
The UHF19 has been set @ 243000 for both teams, ie the Guard Freq...*

The others Red Team presets are different from the OF stock presets :

Chanel	Blue Team	Red Team	Chanel	Blue Team	Red Team
UHF_1	297500	297575	VHF_1	138050	138075
UHF_2	381300	381325	VHF_2	138100	138175
UHF_3	275800	275825	VHF_3	138200	138275
UHF_4	294700	294775	VHF_4	126050	126275
UHF_5	279600	279625	VHF_5	134250	134275
UHF_6	349000	349025	VHF_6	133150	133175
UHF_7	377100	377125	VHF_7	132350	132375
UHF_8	292200	292225	VHF_8	126150	126175
UHF_9	264600	264625	VHF_9	132875	132825
UHF_10	286400	286425	VHF_10	132325	132375
UHF_11	354400	354425	VHF_11	132575	132525
UHF_12	269100	269125	VHF_12	121200	121225
UHF_13	307300	307300	VHF_13	122100	119525
UHF_14	377200	377225	VHF_14	120100	120125
UHF_15	292300	354025	VHF_15	134100	134125
UHF_16	318100	318125	VHF_16	126800	126825
UHF_17	359300	359325	VHF_17	120000	120025
UHF_18	324500	324525	VHF_18	141800	141825
UHF_19	243000	243000	VHF_19	123700	123725
UHF_20	280500	280525	VHF_20	121700	121725

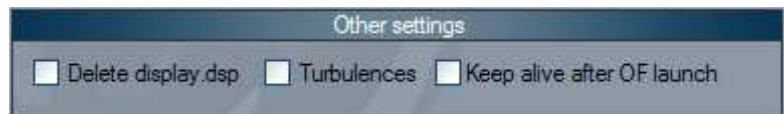
Your freq plan is reseted each time you launch the RL (eg : you will have to set the tower frequencies each time).

- You can change the current **theater** from the RL. The list is automatically built wh en the RL starts.



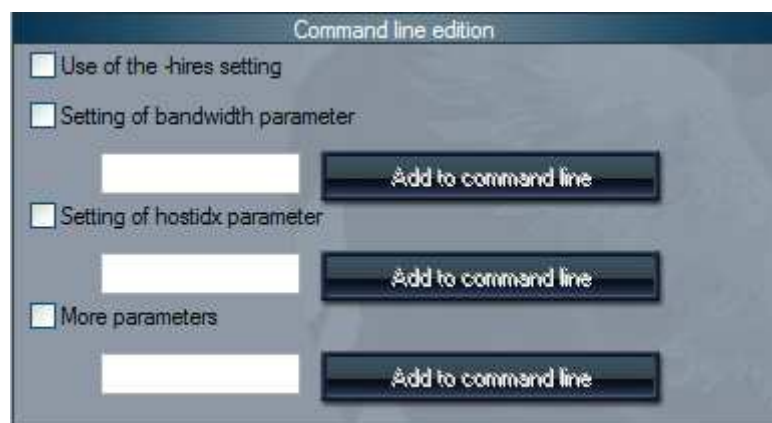
- There is an option that is MP criticals and directly tweakable through the RL : Turbulences that should be set to 0 for MP purposes.

- One more option consists in the automatic suppression of the display.dsp file (cure for the infamous "resolution not available" message). You' ll need to reconfigure the graphical setup again, after that.

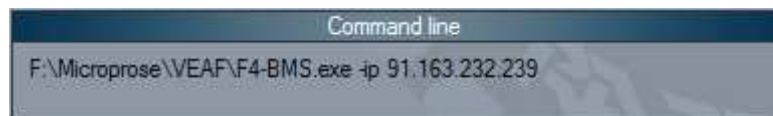


- For all of you wanting to launch OF time after time (e.g for beta-test purpose) we added the ability to keep the RL alive even after OF has been launched.

Let's take a quick look at the command line edition group. These parameters are type of flight dependants. The RL remembers of your last command line settings, so you won't have to retype them each and every time. The command line preferences are save in the rapace_launcher.cfg file next to the RL exe.



- Use of the -hires setting adds "**-hires**" to the command line
- Among others settings, **Setting of bandwidth parameter** is the one to take care of. Just type the value in the field and click apply. You will see the bandwidth changing accordingly in the command line.
- You can add the **-hostidx** argument to the command line the same way as described above, although this argument should not be needed when using the -ip parameter.



Always check the command line parameters prior to launching OF!!

- The **Config Editor** button launches F4Patch in a new window. Note that the file F4-BMS config editor.exe has been renamed to F4-BMS_config_editor.exe. Your desktop link may well be corrupted...

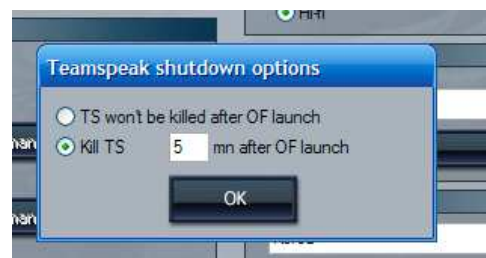
- The **RL Updater** button launches the RL automatic update. On starting, the RL will prompt you for an update if needed.



- The **HostidxCheck** button launches Hostidx. For advanced users only...

- The **VoiceServer** button launches VoiceServer (might be usefull if you want to host all comms and not host the game).

- The **TS options** button is dedicated for TS users, in order to ensure the voice continuation between Windows and OF. You can choose to automatically shutdown TS after a certain amount of time (in minutes), once you launched OF.



- The pictured **Launch OF** button launches OpenFalcon with the command line.



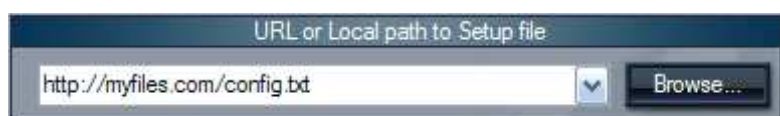
5/ Online Setup Tab

This tab let you import and export a setup file, to make sure you will be flying OF with the same configuration as others pilots.

This doesn't prevent you to apply a common F4Patch filter with your buddies, but in all cases, this feature will help, believe me

Import of a setup file :

- In the field URL or local path to setup file, you can specify the path to the setup file created by the future host of the mission you're ready to fly. It maybe either an URL or the local path to the file



(use the

Browse button, in this last case).

- Click the Download and setup button in order to apply the settings provided by the future host.



In case the crucials files version differs from the host's, you'll be warned and in return, you'll have to inform the host about this specifc problem.

The files that are MD5 sumchecked are the exe, the data files (zippped or not), the current theater object dir files, the current theater.

If the host decided to share his exe and simdata (see below) and yours are checked as differents from the host's, you'll then be prompted to download them...

If the datas don't match, then you'll be suspected as cheater and you won't be able to get the connection information. You then have to report the error to the host.

Your falconBMS.cfg file will also be updated to reflect the crucials MP settings of the host. The values of interest are :

- g_bDisplayTrees
- g_bRealisticAttrition
- g_nReagTimer
- g_nDeagTimer
- g_bIDMDatalink
- g_bManualRadioTuning
- g_bSmartCombatAP
- g_bEnableABRelocation
- g_bServerHostAll
- g_bTurb

If the host decided to use an external Voice server, you'll get it automatically set up.

The bandwidth you'll have to set, the voice quality, host IP, theater of interest and stpt of the TE, are also shared this way.

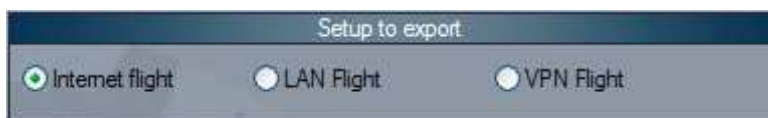
You'll be also warned if your exe is not up to date or the theater requested is not installed on your system.

Then switch to the right one of the first 3 tabs and launch OpenFalcon with the pictured button.

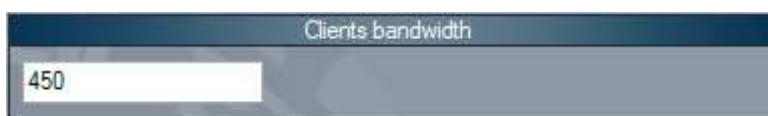
Export of a setup file :

You are the host of the flight and want to share the connection parameters.

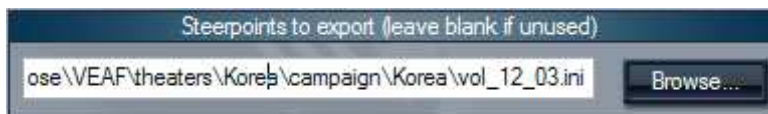
- Choose the kind of Setup to export (may be Online, Lan or VPN). This will transmit your IP to the other pilots, taken from the first tab.



- Enter the Clients bandwidth, the one you want the clients to set, depending of the min clients upload bandwidth, minus a margin.



- If you decide to include the specific steerpoints of the TE you've been planning, then enter the path to the TE.ini file associated to the TE in the Steerpoint to export field. The browse button will open a dialog box automatically set to the current theater TE directory.



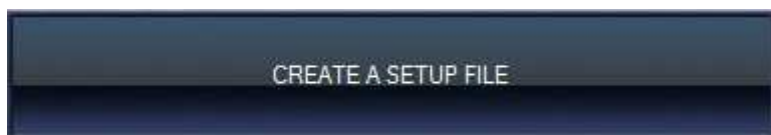
Once in the OF mission briefing, the pilots will see ppt, tgt and lines on the map. Leave the field blank if you don't want to share those infos.

If you check Upload the setup file to an FTP server, you'll get the ability to upload the setup file to a remote FTP server. This remote file will have the same name as the local one.

You'll also get the ability to upload both simdata and F4-BMS.exe @ the same address.

Clients will have the opportunity to download them if this specific files aren't the same as yours. Anyway, they'll be warned if their exe, simdata, current theater object dir file, current theater are different from yours.

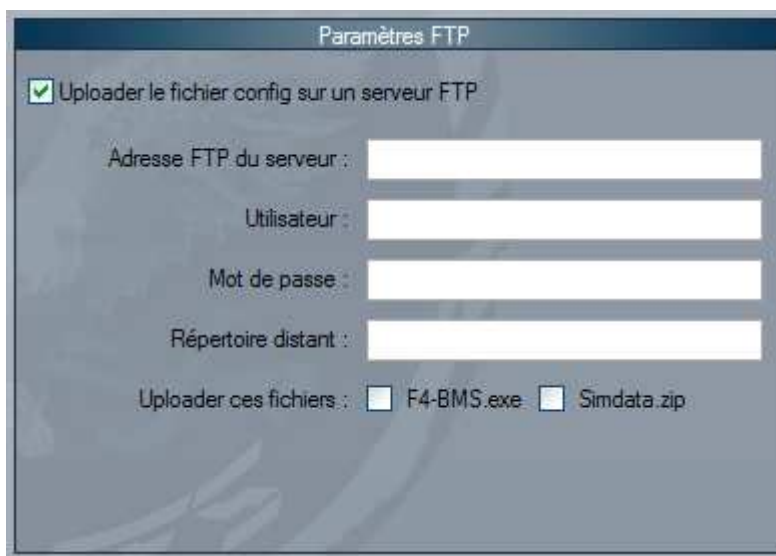
- Click the Create a setup file button. You'll be asked where to save this file. It's up to you to decide to host it on the Internet or to share it via P2P.



All this is simple as hell, once you're used to it.

To sum up, you'll share the following values :

- g_bDisplayTrees
- g_bRealisticAttrition
- g_nReagTimer
- g_nDeagTimer
- g_bIDMDatalink
- g_bManualRadioTuning
- g_bSmartCombatAP
- g_bEnableABRelocation
- g_bServerHostAll
- g_bTurb
- Theater of interest
- Clients bandwidth
- Your own IP
- SQSERVER IP
- Voice comms status
- Version of crucial files



The role of the **Public servers list** is to make things easier, for those running dedicated servers... and others.

The **Show description** button makes the text related to the selected server appear in the blank field.

This should display the ROE and other useful information.

Then click the **Automatic setup** button to automatically perform the standard file check and populate the Launch Area fields. You may need a password to rejoin, as displayed in the restricted access column.

If you want to create a server, you will need to create a setup file and upload it somewhere, as shown above. Then, just click the "new" button and give the server details.

Be aware that you have the ability to set two different passwords : one that will let you edit and delete the entry in the list, and another you give to the pilots you authorize to connect to your server.



The **Synchronization** button allows the user to take control of a server status automatically, assuming the state of Falcon-BMS.exe process on user's computer should reflect the state of the server in the list. So, do as follow :

- Launch the Rapace launcher on the server
- Create and upload the server setup URL using the inbuilt FTP module
- Click the New button to create a new entry
- Type in the needed information, click OK and wait for the new entry to appear in the servers list.
- Click on the new entry
- Click the Synchronization button
- Enter the admin password if prompted
- Chose whether you want to update the setup file each and every OF launching (see below)
- Launch OF through the Launch area tab

The RL enters silent mode (0% CPU usage), and will detect OF is running. So it will update the displayed status to On.

Once OF is off, the RL, still running in the server background sniffes it and set the status to Off and shuts itself down.

Important note : you will chose to renew the setup file each and every launching, only if the server IP is likely to change. For this purpose, always make sure that all information (FTP is required and have to match the server URL you specified when you created the entry in the public server list) is correctly setup in the right panel. You'll be warned anyway...

The Rapace Launcher will then automatically enter the "Create and upload a setup file" function right after you click the Launch OF button, and right before OF is actually launched.

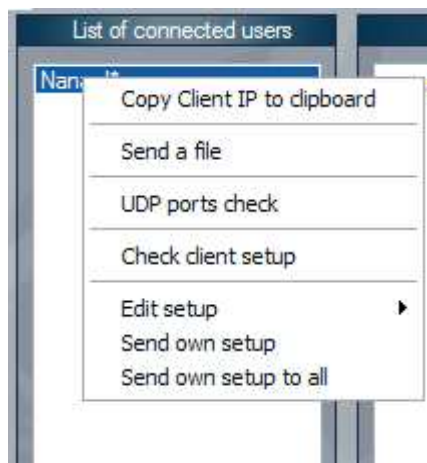
You won't encounter any problem if you do things step by step as described above.

As the picture demonstrates it, you can of course refresh the list. Please don't hit the button as if it was your last day on earth... Click it once, then leave it alone.

6/ Lobby Tab

This new feature is definitely a step beyond what you could expect from such a tool. We all encountered problems with mates who can't figure out how to do this or that computer related thing. Especially when it comes to OF. So, the RL can now be used in a client/server environment, so that a server can force a client Falcon parameters.

Server mode : the future host will initiate a server by entering his nickname (no space, please...) and clicking on the "Initiate a server" button. This will of course refresh the current active servers.



Then, the other pilots refresh the server list by their side, choose their nicknames and connect to the selected server. Not only both clients and server can send messages to each others, but the server can send files to the clients (the file will always be created in the MyDocuments folder client side), can check compatibility of the client parameters (including cfg varies, file version), can edit some of the client parameters one by one or force the whole client setup, using OnlineSetup parameters. The chat window will keep both client and server aware of the processes.



Don't forget to redirect TCP ports 21, 2934, 2935 and 2936 to your own machine in case your running the RL behind a router... or the server may experience a huge slowdown.

7/ Operating the RL through the Online Setup Tab

I'm the host and I've planned a cool TE. Now it's 9 PM and time to get the others pilots in place.

I launch the RL, go to the Launch Area tab and setup the options as I want them to be (especially the comms section).

Then I go to the Online Setup tab and chose Internet flight.

Tonight there are 5 pilots and I have a 620 kb/s internet stable connexion. The minimum client bandwidth is - say- super mate Toopack, who only is a 256 kb/s uploader.

I decide to put a 200 for client bandwidth (= 256 minus margin).

As I planned a cooperative TE featuring a lot of AAA, I want to share the tgt, ppt and line stpt. So I browse until I get the MyTE.ini file from my Campaign\Save directory.

I chose to upload the file on my FTP space.

Then I setup the FTP entries and click Create a setup file.

I chose "E:\config.txt".

Ok, I'm done, time to share the URL to the file I just created.

I'm now the client. I just enter the URL above, in the left area of the Online setup tab.

I then click Download and setup. I check for the command line parameters, and click the Launch OF button...

Once ingame, I just hit the comms button, then connect.

8/ Operating the RL through the Lobby Tab

Ok, I'm the server :

1/ I launch the RL, go to the lobby tab and initiate a server. I tell the cients to rejoin and chat a bit...

2/ I go the Launch Area tab and setup the options as I want them to be.

Tonight there are 5 pilots and I have a 620 kb/s internet stable connexion

I decide to put a 100 for client bandwidth.

I go to the Online Setup Tab, choose the client expected bandwidth, then specify the link to the TE.ini file.

3/ I click on the Launch Area tab and checks for various parameters.

4/ Back to the Lobby Tab, I right click the connected users list and choose " Send own setup to all".

It's time to launch the game...

When a client reports a problem, I select his nickname, rightclick and "check client setup".

I'm the client :

I launch the RL and connect to the future host. I wait for him overriding my setup, I'm done.

It's time to join the OF server...

9/ Overall MP considerations

There are things you gotta know in order to play OF safely in the multiplayer environment.

a/ OF features the best MP Falcon code so far. You can argue this or that, it's simply the truth, thanks to Boxer and fellow beta testers.

b/ This doesn't mean it's the more stable. But at least it won't try to make you think you're synchronized when you're not. If you think you are out of sync, then switch the master light button off and on, it should help.

c/ How do I set the bandwidth for the host and the clients ? Just put the host max upload (minus a 20% margin) for the host bw and put the min clients upload (minus a 20% margin) as clients bw. Simple as hell!

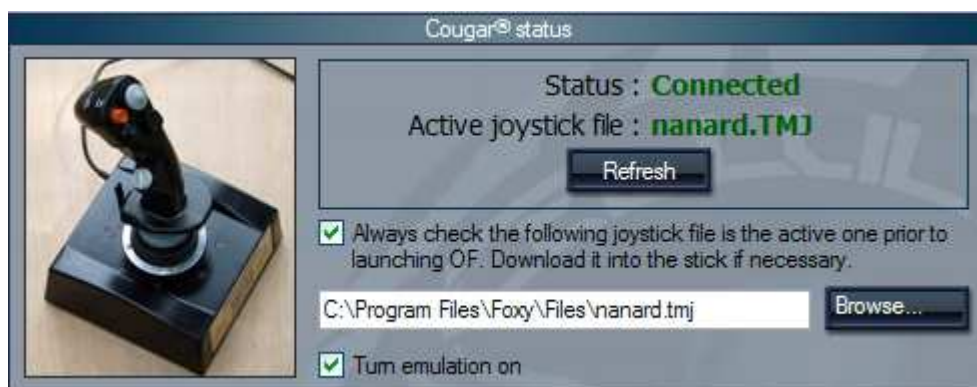
d/ Can I fly human vs human scenarios with OF ? Yes.

e/ When do I run a dedicated Voiceserver and how do I run it ? New IVC's is a real challenge to deal with. You should set a client run the comms anyway. You should have 2 dedicated comms server when flying force on force. Remember that over 10 pilots on a single voice server may introduce some comms latencies.

The voiceserver runner should launch the voiceserver, run it and put "127.0.0.1" in the RL, while the other people (including the host) should put the IP of the comms host in this same field. Should I use the Blue team/Red team option? You'd rather use 2 separates comms servers...

10/ Input Devices tab

This feature let you know about the status of the TM Cougar, and if present, tests the active tmj



file in it. It also offers the ability to force a defined tmj file to be downloaded to the stick before any OF session. Of course, it will not download a file already present.

Remember that the HOTAS CCP is not as reliable as we would want sometimes. You wouldn't try to download the tmj 30 times a minute, would you ? So



don't do it with the RL, since it simply intergrates with the HOTAS CCP.

The track IR is also supported and will show 3 different states : not found, connected but not active, active.

11/ DTC management

Since OF 4.3 MFD management is a bit porked, it sounded interesting to add a complete MFD and EWS management to the RL.

2 buttons to export/import an MFD setup, 2 others to Import/Export an EWS setup, and one button to write into the DTC. Simple as hell!

Note that the DTC consists of the callsign.ini file, as read in the registry. Both MFD and EWS files will be stored under MyDocs\DTC folder, using .mfd and .ews file extension.

MFD management

MFD 1

Mode	Slot 1	Slot 2	Slot 3	Default
AG	FCR	HAD	OFF	SLOT 2
AA	FCR	HAD	FLIR	SLOT 1
NAV	FCR	HAD	TFR	SLOT 1
MRM	FCR	OFF	OFF	SLOT 1
DGFT	FCR	OFF	OFF	SLOT 1

MFD 2

Mode	Slot 1	Slot 2	Slot 3	Default
AG	WPN	HSD	SMS	SLOT 3
AA	TGP	HSD	SMS	SLOT 3
NAV	WPN	HSD	SMS	SLOT 2
MRM	OFF	HSD	SMS	SLOT 2
DGFT	WPN	HSD	SMS	SLOT 2

MFD 3

Mode	Slot 1	Slot 2	Slot 3	Default
AG	OFF	HSD	OFF	SLOT 2
AA	OFF	HSD	OFF	SLOT 2
NAV	OFF	HSD	OFF	SLOT 2
MRM	OFF	HSD	OFF	SLOT 2
DGFT	OFF	HSD	OFF	SLOT 2

MFD 4

Mode	Slot 1	Slot 2	Slot 3	Default
AG	OFF	RWR	OFF	SLOT 2
AA	OFF	RWR	OFF	SLOT 2
NAV	OFF	SMS	OFF	SLOT 2
MRM	OFF	RWR	OFF	SLOT 2
DGFT	OFF	RWR	OFF	SLOT 2

EWS management

Flare Bingo : 10 ☒ Request CTR

Chaffs Bingo : 10 ☒ Enable Bingo

Default Program : 1 ☒ Enable Feedback

Default Mode : MAN

	PROGRAM 1		PROGRAM 2		PROGRAM 3		PROGRAM 4	
	chaffs	flares	chaffs	flares	chaffs	flares	chaffs	flares
Burst Quantity	3	0	1	4	2	0	2	2
Burst Interval (ms)	500	0	500	250	500	0	500	500
Sequence Quantity	3	0	3	2	4	0	4	3
Sequence Interval (ms)	2000	0	3000	1000	3000	0	3000	3000

Buttons: Load MFD setup, Save MFD setup, Load EWS setup, Save EWS setup, Save to DTC

12/ RL updater

We try to keep this tool up to date, adding new features almost every months. You'll be warned if your version is not up to date. You'll then have to press the RL Updater button and let things happen. Only use this fonctionnality with 9.78 and later versions. In case of proeblems, always redownload the whole package : http://nanardlecanard.free.fr/RL/RL_OF.zip

13/ OF Updater

The former hidden OF update functionality is back and available to all. The RL will ask you whether you want to take benefit of the automatic updates provided by Naldo's Global Falcon team or not. If you click Yes then you'll be prompted each and every time there's something new available, with a detailed description text.

You are free to not install some of the updates. Please read the description before throwing an update to trash.

Those updates are beta tested before their release. They are meant to bring realism and comfort to OF. Nothing more nothing less

14/ Languages

The language module has been completely revamped. French, English, Spanish, Czech are fully implemented. Greek, German, Dutch, Italian and Portuguese are waiting for translators. Other languages can be easily implemented by creating the matching ???.lng file, drawing the btn_launch_???.jpg file and adding the following 2 lines to the rapace_launcher.cfg :

```
[Lang]
lang=??
```

(replacing ?? by "jv" if you are javanese, for instance...)

This can be also be used if you plan to use different languages for the RL and Windows.
I know a guy who recently put

```
[Lang]
lang=cz
```

because he's got OF running on an english Windows, while he being Czech actually.

15/ Customizing the RL

You have direct access to the RL UI pictures. It's up to you to modify them, but remember the golden rule : no support for tweakers...

16/ RL and OF development

The Rapace Launcher has been used extensively during the OF MP beta test carried on by the Cellules Rapaces. It has allowed the Rapaces to proceed to a large amount of testings, including upto 23 people at the same time, with the very same configuration. The OF updater made it possible, because at this time, there were new files everyday. And if a pilot had a different file from the host, he knew which one was different. The solution was then easy to find.

We went in the game within 15 minutes. Not that bad...

A new launcher appeared on the internet, clearly violating our copyrights (see below). In anyway can the 2 programs be compared in terms of UI or fonctionnalités. No file check, lobby nor server list in this pale copy...

17/ About

This program designed and built by Fred "Couby" Coubard and Bernard "Nanard" Navarro. Thanks to the Rapaces for betatesting it (especially Loulou, Badboy, Abis and Toopack ;)

You know where to contact us : www.veaf.org

Thanks to Buzzz for additional development, Kremik and Revientor for the translations.

Special thanks to Naldo from GlobalFalcon (www.globalfalcon.org) : beta test, ideas, dedicated board creation and awards ! You're da man...

French support and changelog : http://www.veaf.org/veaf_forums/index.php?topic=4445.0

International support and changelog :

<http://www.globalfalcon.org/vb/forums/showthread.php?t=456>

The files are made available to you "AS IS," "AS AVAILABLE," and "WITH ALL FAULTS."

In no event will Couby or Nanard, or anyone else associated with it, be liable for any indirect, special, incidental, economic or consequential damages arising out of the use, or inability to use, the OF Rapace Launcher files, even if they have been advised of the possibility of such damages.

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