PFE - ProFlight Emulator Ver 2.12

User Manual

Document Issue 1.12

Included with PFE release version 2.12

Table of Contents

1. SYSTEM REQUIREMENTS

Microsoft Flight Simulator version FS2004 or FSX

10 MB disk space required for the standard edition of PFE

300 MB disk space required for the deluxe edition of PFE (which includes ProFlight 2000)

700 MB disk space required for the (optional) voice pack expansion update

700 MB disk space required for the (optional) voice pack enhancement update

Runs under Windows XP (32/64), VISTA (32/64) and Windows 7 (32/64)

To use PFE Standard Edition you must have a working copy of ProFlight 2000

2. INSTALLATION

2.1 PFE Standard Edition

Installing PFE Standard Edition is a three phase process. It is very important to follow these instructions to the letter to ensure the installation completes without any problems.

IF YOU ALREADY HAVE PROFLIGHT 2000 INSTALLED ON YOUR SYSTEM PLEASE UNINSTALL IT NOW!

PFE Standard Edition can be installed in the location of your choice and can even be run from a networked pc running WideFS *(by Peter Dowson).*

2.2 Installation Phase 1

Run the **PFE_1.exe** installer program. This will prompt you to decide where you want to install **PFE**. The default is *C:\Program Files\PFE.*

Once the Phase 1 installation process is complete and, assuming you chose the default location, you should now have the following folders and files present on your system:

C:\Program Files\PFE (containing various files)

C:\Program Files\PFE\FS2000 (containing FS2000.EXE and FS2000.CFG)

C:\Program Files\PFE\FS2000\ADV (containing APLC32.EXE and WAPLC32.EXE)

C:\Program Files\PFE\FS2000\Pilots (containing Install.log)

2.3 Installation Phase 2

Install ProFlight 2000 from your original CD.

The ProFlight 2000 installer will attempt to find a current installation of FS2000 and *should* detect the ***PFE\FS2000\FS2000.exe*** file. If it does not please use the *Browse* function and locate it manually. It is **very important** you select the **PFE\FS2000\FS2000.exe** file. Again, if you chose the default location for the Phase 1 installation process this file would be located in:

C:\Progam Files\PFE\FS2000

The ProFlight 2000 installer will warn you that this must be your Flight Simulator 2000 main directory, but you can ignore this message provided the installer is pointing to the correct file as described above.

Note: You do not require an installation of Flight Simulator to use ProFlight 2000 when used in conjunction with PFE.

Once this first part of ProFlight 2000 installation has completed you may Exit from the installer and then run ProFlight 2000 using the *AETI - ProFlight 2000* shortcut icon which should have now appeared on your desktop.

The first time you run ProFlight 2000 it will prompt you to select the **Aplc32.exe** adventure compiler and you should select it from the following path:

C:\Program Files\PFE\FS2000\ADV\Aplc32.exe

*Note: ProFlight should already be pointing to the correct folder so all you need to do is click on **APLC32.EXE** from the displayed list and then select OK.*

Obviously had you not chosen the default path during Phase 1 installation process you will have to locate the Aplc32.exe file from your chosen installation path if ProFlight does not find it automatically.

ProFlight 2000 will now prompt you to select the voice sets you wish to install. So decide which ones you want then select the ***Install Selected ProFlight 2000 Adventure Voices*** option to install them.

(For added realism we recommend you install all available voice sets)

Note: If you get an error message stating *'ProFlight has been unable to locate the minimum number of Adventure Voice Files and must reinstall the required files'* it means you selected the OK button rather than the large blue/white button immediately above it marked ***Install Selected ProFlight 2000 Adventure Voices.*** In this case simply OK the error message and then continue by selecting the correct button as described above.

If you select to install **all** available voice sets it will take approximately 9 minutes to complete the installation. Obviously the actual time taken depends on the number of voice sets chosen and your system specification, so please be patient.

Once the voice set installation is complete please exit from ProFlight 2000

Please note: Installation instructions can be found in the ProFlight 2000 user manual.

2.4 Installation Phase 3

Run the **PFE_2.exe** installer program. The installer program will not prompt you for a path this time and will automatically install into the same location you chose for the Phase 1 installation process.

Installation of **PFE** and ProFlight 2000 should now be complete. During this final stage ProFlight 2000 will have also been updated with the last update available for that program.

2.5 Installing PFE Deluxe Edition

Compared to installing the standard edition of **PFE** this is a *breeze.*

Simply run the **PFE Deluxe Setup.exe** program and follow the on-screen prompts. The only decision you have to make is where you wish to install **PFE**. Once complete you will have a fully installed version of **PFE** and ProFlight 2000.... ready to run.

Total time for this installation is approximately 2 minutes, depending on your system specifications, which includes installing **all** available ProFlight 2000 voice sets.

3. TGS GAUGE INSTALLATION INSTRUCTIONS

By Dave Leesley

Updated by Dave March for the release of PFE version 2.6

3.1 How to Install the optional Gauge onto a panel

Please Note: Installation of this gauge is entirely optional and you may want to read section 8.1 first, which explains all about PFE's Taxi Guidance System, prior to making your decision

I have hopefully made these instructions as clear and as easy to follow as possible, as I'm hoping to avoid any "pulling of hair out" and "throttling the living daylights out of your PC" because you can't get it to work.

It's very important that you **read** these instructions to avoid any unnecessary problems and wasting valuable flying time so let's begin installing the gauge into Flightsim. It is always wise to save your work before altering any CFG files so that if things don't go as expected, you will be able to start again from the beginning, and also when finished otherwise you will lose your changes.
.
Ok, you have now either downloaded the update that includes the gauge or installed PFE complete from CD or a download which includes everything, so let's go and find it. Look for your main PFE folder, if you chose the default install location this could be either **C:\Program Files\PFE** or **C:\Program Files\Aerosoft\PFE** or similar.

Within your PFE folder you will see a folder named **TGS_Gauge** containing the gauge files. As from PFE version 2.6 the gauge named **TGS_Position_Tester** is no longer required, so you may disregard and/or even delete that file now if you wish. I would recommended you drag the file named TGS.GAU to your desktop, as this will make life easier.

You also need the following line to put into your panel.cfg when the time is right:

gauge??=TGS!TaxiGuidanceSystem, XXX, YYY, 100, 64,Autohide OFF

This line will be used later on in the tutorial and will need to go into your panel.cfg, after everything is installed and **POSITIONED** correctly and not before!

Time to put kettle on for a cup of coffee before we start (optional).

This Gauge was designed for the 2D Cockpit but will also work in most Virtual Cockpits, although this tutorial will assume the former.

Now you are ready to begin!

First of all you need to find your Flightsim folder, by default located at C:\Program Files\Microsoft Games\FS9 (or FSX) depending what sim you

want to use PFE with, or wherever else you may have installed it on your hard drive.

Ok, you have now found your Flightsim folder, let's use FS 9 for this part.

Open your FS folder, now look for the folder called Gauges. Now you will need to go back and open your PFE folder and Copy the gauge file **tgs.gau** into your Gauges folder (or Drag and Drop if you prefer – easier if located on your desktop as I suggested). *It is important this gauges is in the Gauges folder of FS.* You may now close the Gauges folder as you don't need it anymore.

Now let's move onto your Aircraft folder. Locate an aircraft into which you wish to install the TGS gauge. Find the subfolder called Panel, open that folder and find the panel.cfg file. MAKE A COPY and keep it in the panel folder. This where you will now add the line from above by Copying and Pasting:

gauge??=TGS!TaxiGuidanceSystem, XXX, YYY, 100, 64, 64,Autohide OFF

So we'll use the default Boeing 737-400 Panel.cfg for this example.

For the default aircraft you need to find "Window00" as shown in this example.

```
[Window00]
file=Main_640.bmp
file_1024=Main_1024.bmp
size_mm=640
position=7
visible=1
ident=MAIN_PANEL

gauge00=737-400!Airspeed, 0, 64
gauge01=737-400!Flaps, 586, 64
gauge02=737-400!Altimeter, 237, 45
gauge03=737-400!Vertical Speed, 238, 128
gauge04=737-400!Fuel Quantity, 236, 204
gauge05=737-400!Main Set, 335, 85
gauge06=737-400!OMI Lights, 1, 153
gauge07=737-400!Oil, 468, 85
gauge08=737-400!Clock, 17, 147
gauge09=737-400!RMI, 1, 211
gauge10=737-400!HSI, 86, 162
gauge11=737-400!ADI, 85, 39
gauge12=737-400!Gear Lever, 586, 217
gauge13=737-400!Nose Gear Light, 594, 180
gauge14=737-400!Left Gear Light, 579, 198
gauge15=737-400!Right Gear Light, 609, 198
gauge16=737-400!Reverser Unlocked Left, 354, 68
gauge17=737-400!Reverser Unlocked Right, 416, 68
gauge18=737-400!AT Lim, 385, 68
```

gauge19=737-400!Low Oil Left, 458, 68
gauge20=737-400!Low Oil Right, 519, 68
gauge21=737-400!Start Valve Left, 489, 68
gauge22=737-400!Start Valve Right, 549, 68
gauge23=737-400!Flaps Ext, 609, 115
gauge24=737-400!Flaps Transit, 579, 115
gauge25=737-400!Autopilot, 336, 11
gauge26=737-400!Pitch Trim, 305, 144
gauge27=737-400!Aileron Trim Indicator, 242, 261
gauge28=737-400!Aileron Trim Switch, 248, 276
gauge29=737-400!Rudder Trim Indicator, 285, 261
gauge30=737-400!Rudder Trim Knob, 290, 276
gauge31=737-400!Nav GPS Switch, 306, 17
gauge32=737-400!Avionics Master Switch, 239, 300
gauge33=737-400!Autobrake, 581, 134
gauge34=SimIcons!Kneeboard Icon, 181, 10
gauge35=SimIcons!ATC Icon, 194, 10
gauge36=SimIcons!Compass Icon, 264, 10
gauge37=SimIcons!ECU Icon, 250, 10
gauge38=SimIcons!Map Icon, 208, 10
gauge39=SimIcons!Avionics Icon, 222, 10
gauge40=SimIcons!GPS Icon, 236, 10

Now Copy and Paste that line directly under gauge40, so the bottom line now looks like this:

gauge39=SimIcons!Avionics Icon, 222, 10
gauge40=SimIcons!GPS Icon, 236, 10
gauge41= TGS!TaxiGuidanceSystem XXX, YYY, 100, 64,Autohide OFF

(Now SAVE it)

XXX and YYY and the co-ordinates on your FS screen, change them to 140, 130, 100 (leave 100 as it is). You should see the gauge on your screen, now you can alter the co-ordinates as you please to find the right position in your cockpit.

The last parameter (**Autohide OFF**) ensures the gauge remains visible at all times. Should you prefer to have this gauge only popup when TGS is active (during your taxi to/from the runway) you can changes this parameter to **Autohide ON**

Now we move onto 3rd Party add-on aircraft such as PMDG, PSS, LevelD and such. You will still need to do the same as above with the default aircraft, except that the panel.cfg is slightly different from the default as in some add-on aircraft you may have to use "Window01". Anyone who has either PSS or JustFlight's Concorde will have to install it into "Window00", and the CFG will look like this:

//--
[Window00]
file=wiper.bmp

size_mm=2048,1536
(My example is PSS's Concorde)
window_size_ratio=1.000
position=1
visible=1
ident=8100
render_3d_window=1
child_3d=1

gauge00=PSS-concorde!Wipers, 0,0,2048,756
gauge01=TGS!TaxiGuidanceSystem, 140, 130, 100, 64,Autohide OFF

If you install it into "Window01" it will be hidden completely, even though it has more gauges, and I have noticed with PSS aircraft the gauge will be shown in one position on the screen, even if you change the co-ordinates (it is beyond our control - sorry).

Another example of a panel.cfg is Flight One's ATR 72-500:

[Window00]
file=F1ATR_MAIN_W.bmp
size_mm=1024
window_size_ratio=1.000
position=0
visible=1
ident=MAIN_PANEL
window_size=1.000, 1.000
window_pos=0.000, 0.000

(There are 60 lines of gauges above this, left out for the sake of brevity)

gauge61=Atrvesi!stopvesi, 137,287,20,20
gauge62=Atrvesi!vesitimer, 209,280,20,20
gauge63=TGS!TaxiGuidanceSystem, 140, 130, 100, 64,Autohide OFF

The main thing you are looking for is "Window00" and/or Main Panel or "Window01" and/or Headup. Again you should remember to SAVE any changes to your CFG.

One very important note is that you must assign a number and co-ordinates to your gauge or it won't show up in FS.

Now we move onto this part installing into FSX:-

It's very similar to installing into FS9 but the layout is just slightly different, so here goes!

When you have opened up you FSX folder, you will need to find your Simobjects folder and Airplanes subfolder, and then the aircraft of your choice. For this example we will use the default A321 Airbus Panel.cfg.

[Window00]

file_1024=airbus_a321_panel_background.bmp
file_1024_night=airbus_a321_panel_background_night.bmp
size_mm=1024
position=7
visible=1
ident=MAIN_PANEL

gauge00=Airbus_A321!altimeter_backup, 676,505
gauge01=Airbus_A321!annunciator_panel_1, 24,357
gauge02=Airbus_A321!attitude_backup, 651,628
gauge03=Airbus_A321!autopilot, 677,346
gauge04=Airbus_A321!hsi_backup, 517,609
gauge05=Airbus_A321!ias_backup, 581,506
gauge06=Airbus_A321!pfd, 23,521,215,214
gauge07=Airbus_A321!mfd, 264,521,215,214
gauge08=Airbus_A321!ecams,
788,521,215,214
gauge09=Airbus_A321!pfd_mfd_select_panel, 470,345
gauge10=TGS!TaxiGuidanceSystem, 140, 130, 100, 64,Autohide OFF

gauge26=SimIcons1024!ECU Icon, 790,
745
gauge27=SimIcons1024!Overhead Icon, 812, 745
gauge28=SimIcons1024!Kneeboard Icon, 834, 745
gauge29=SimIcons1024!ATC Icon, 856, 745
gauge30=SimIcons1024!Map Icon, 878, 745
gauge31=SimIcons1024!GPS Icon, 900, 745
gauge32=SimIcons1024!Radio Icon, 922, 745
gauge33=SimIcons1024!Other Controls Icon, 944, 745
gauge34=SimIcons1024!Engine Instruments Icon, 966, 745
gauge35=SimIcons1024!Clock Icon, 988, 745
gauge36=n_number_plaque!n_number_plaque, 258,429,67,19

This how I did it for this aircraft and it shows up on FS screen.

Now test your changes in FSX. When initially loading FS, as you would normally you will be presented with a Warning Screen. It is warning you that tgs.gau is from an unknown publisher and do you want to run it. If you want to use it say YES and at the next warning screen again say YES, otherwise you won't be able to use it

We now move onto installing 3rd party aircraft. I'm choosing the LevelD 767-300 panel.cfg for this one.

[Window01]
file=B767forward.bmp
size_mm=1280, 680
position=6
visible=1
ident=12
zorder=2

```
gauge00=LVLD\B767main!light,           0,    0
gauge01=LVLD\B767Afds!Nav1,          535,    0
gauge02=LVLD\B767Afds!MCP,           736,    0
gauge03=LVLD\B767Afds!SMC,           824,  180
gauge04=LVLD\B767Afds!Autoland,      620,  163
gauge05=LVLD\B767Afds!MasterSwitch,  485,   37
gauge06=LVLD\B767Afds!RadarAltimeter, 561,  255
gauge07=LVLD\B767Afds!AltAlert,      722,  250
gauge08=LVLD\B767Afds!InstrSelect,     0,  398
gauge09=LVLD\B767Afds!GASwitch,     1075,  632
gauge10=LVLD\B767Afds!FOSwitch,     1105,  632
gauge11=LVLD\B767Afds!Gear,         1179,  224
gauge12=LVLD\B767Afds!Autobrakes,    769,  518
gauge13=LVLD\B767Afds!OMI,           703,  403
gauge14=LVLD\B767at!AT,              0,   0
gauge15=LVLD\B767FMC!FMS,              0,   0
gauge16=LVLD\B767FMC!XNAV,             0,   0
gauge17=LVLD\B767main!airspeedL,      92,   224,   168
gauge18=LVLD\B767main!altimeterL,    607,   245,   148
gauge19=LVLD\B767main!vsiL,          556,   406,   136
gauge20=LVLD\B767main!rmiL,       90,   404,   176
gauge21=LVLD\B767main!clockL,    547,   549,   146
gauge22=LVLD\B767ehsi!EHSI,      289,   408,   227,, CP
gauge23=LVLD\B767eadi!EADI,      291,   172,   221,, CP
gauge24=LVLD\B767eicas!EICAS,    934,   180,   225,, CP
gauge25=LVLD\B767leicas!LEICAS,  934,   409,   225,, CP
gauge26=LVLD\B767main!ecuL,      700,   601,   197
gauge27=LVLD\B767main!ENG,       767,   363
gauge28=LVLD\B767main!OILW,      790,   498,    95
gauge29=LVLD\B767main!ESW,       925,   629,   150
gauge30=LVLD\B767main!warn,      760,   239,   150
gauge31=LVLD\B767main!TRP,      1178,   168
gauge32=TGS!TaxiGuidanceSystem, 140, 130, 100, 64,Autohide OFF
```

The script is in bold to make it easier to find. You don't need to add it in bold. Again you are using either "Window00" or "Window01" depending on the type of add-on aircraft you are using. Some high end 3rd party aircraft use two panels like FlightOne's ATR 72-500, and so it must be installed into the folder called Panel **not** Panel W, as if you do you may not see the gauge. The gauge installation is the same as FS9 as it is for FSX.

3.2 Backing Up Your Hard Work

After you have installed your gauge to your favourite aircraft wouldn't it be nice to remember which "Window" you installed it in within your panel.cfg? So what I have done is to create my own "Reference" of where the TGS resides.

I have done this so it will make life easier should I ever have to do a re-install of flightsim. Here are some of my examples:

Basically what I have done is taken the "Window" where TGS resides and condensed it, so when I come to reinstalling TGS I can instantly see where it

has to go, including the gauge number. All I have to do is copy and paste the line into the panel.cfg of my aircraft.

You can make copies of these condensed windows and store them onto a floppy using "notepad" of all your aircraft in your hangar.

Now i suggest you only do this if you feel comfortable in copy/pasting and messing with your panel.cfg and as always make a copy of your panel.cfg first, just in case you make an error.

Oh yes, I have deleted the lines of other gauges in the panel.cfg because I really don't need them, all i want is to see where the TGS gauge fits in and that is it!

Please see some example below.

3.2.1 This one is for a third party aircraft in FS9

PSS Airbus A330/A340

[Window01]

file=headup.BMP

size_mm=1024

visible=1

position=7

ident=MAIN_PANEL

gauge10=TGS!TaxiGuidanceSystem, 140, 130, 100

3.2.2 This is for the default Cessna in FS9:

[Window00]

file=panel_background_640.bmp

file_1024=panel_background_1024.bmp

size_mm=640

position=7

visible=1

no_luminous=1

ident=MAIN_PANEL

gauge45=TGS!TaxiGuidanceSystem, 000, 000, 100

3.2.3 This is the default 737-800 FSX

[Window00]

file_1024=737-800_panel_background.bmp

file_1024_night=737-800_panel_background_night.bmp

size_mm=1024

position=7

visible=1

ident=MAIN_PANEL

gauge35=TGS!TaxiGuidanceSystem, 000, 000, 100

3.2.4 The default 747-400 in FSX

[Window00]

file_1024=747_Background_1024.bmp

size_mm=640

position=7

visible=1

ident=MAIN_PANEL

gauge58=TGS!TaxiGuidanceSystem, 000, 000, 100

3.2.5 Installing TGS into the PMDG747-400 Queen of the Skies for FSX.

Just locate Window01 of your panel.cfg and insert the line as shown in my example.

This method is slightly different from the normal procedures of just installing into the panel.cfg you also need to COPY the same line from your panel.cfg to your VC panel.cfg to be able to see and use the gauge.

[Window01] // PMDG_MAIN_PANEL

file=747400_Main_Background_1600.bmp

file_1024=747400_Main_Background_1600.bmp

size_mm=1600,1200

position=7

visible=1

ident=20

zorder=1

window_size= 1.000, 1.000

window_pos= 0.000, 0.000

background_color=0,0,0

gauge00=PMDG_747400_Main!Windshield,0,0,1600,451

gauge01=PMDG_747400_Main!GearLever, 1419,739,229,461

gauge02=PMDG_747400_Main!DSP, 0,684,809,125

gauge03=PMDG_747400_Main!PFDBg, 0,809,405,391

gauge04=PMDG_747400_Main!NDBg, 405,809,400,391

gauge05=PMDG_747400_Main!EICASBg, 1010,807,409,393

gauge06=PMDG_747400_Main!CRTScreen, 32,842,340,340,OUTBD CAPTAIN CRT

gauge07=PMDG_747400_Main!CRTScreen, 436,844,340,340,INBD CAPTAIN CRT

gauge08=PMDG_747400_Main!CRTScreen, 1046,842,340,340,UPPER CRT

gauge09=PMDG_747400_Main!EFIS,274,451,319,233

gauge10=PMDG_747400_Main!MCP,592,451,1059,233,MAIN

gauge11=PMDG_747400_Main!EICASCtrl,1010,684,409,123

gauge12=PMDG_747400_Main!MasterCaution, 125,451,149,233

gauge13=PMDG_747400_Main!GlareshieldEnd,0,451,125,233

gauge14=PMDG_747400_Main!SbyADI, 810,684,200,180

gauge15=PMDG_747400_Main!SbyAltimeter, 810,1032,200,168

gauge16=PMDG_747400_Main!SbySpeed, 810,864,200,168

gauge17=PMDG_747400_Main!AboveGear, 1419,684,229,55

gauge18=PMDG_747400_Main!Whiskey, 1308,0,92,54

//gauge19=PMDG_747400_Main!TestDIB,50,50,340,340

gauge20=TGS!TaxiGuidanceSystem, 500, 000, 100,AutohideOFF

Please note: with any future PMDG release,if you cannot see the gauge in the panel.cfg as described in my tutorial please install it in the VC panel.cfg aswell to see if that brings up the gauge.

==========

Installing the TGS gauge into PMDG 747-400 Queen of the Skies for FS2004

Just locate Window01 of your panel.cfg and insert the line as shown in my example.

This does NOT need to be installed into the VC panel.cfg

[Window01] // PMDG_MAIN_PANEL

file=747400_Main_Background_1600.bmp

file_1024=747400_Main_Background_1600.bmp

size_mm=1600,1200

position=7

visible=1

ident=20

window_size= 1.000, 1.000

window_pos= 0.000, 0.000

gauge00=PMDG_747400_Main!Windshield,0,0,1600,451

gauge01=PMDG_747400_Main!GearLever, 1419,739,229,461

gauge02=PMDG_747400_Main!DSP, 0,684,809,125

gauge03=PMDG_747400_Main!PFDBg, 0,809,405,391

gauge04=PMDG_747400_Main!NDBg, 405,809,400,391

gauge05=PMDG_747400_Main!EICASBg, 1010,807,409,393

gauge06=PMDG_747400_Main!CRTScreen, 32,842,340,340,OUTBD CAPTAIN CRT

gauge07=PMDG_747400_Main!CRTScreen, 436,844,340,340,INBD CAPTAIN CRT

gauge08=PMDG_747400_Main!CRTScreen, 1046,842,340,340,UPPER CRT

gauge09=PMDG_747400_Main!EFIS,274,451,319,233

gauge10=PMDG_747400_Main!MCP,592,451,1059,233,MAIN

gauge11=PMDG_747400_Main!EICASCtrl,1010,684,409,123

gauge12=PMDG_747400_Main!MasterCaution, 125,451,149,233

gauge13=PMDG_747400_Main!GlareshieldEnd,0,451,125,233

gauge14=PMDG_747400_Main!SbyADI, 810,684,200,180

gauge15=PMDG_747400_Main!SbyAltimeter, 810,1032,200,168

gauge16=PMDG_747400_Main!SbySpeed, 810,864,200,168

gauge17=PMDG_747400_Main!AboveGear, 1419,684,229,55

gauge18=PMDG_747400_Main!Whiskey, 1308,0,92,54

gauge19=TGS!TaxiGuidanceSystem, 1500, 000, 100,AutohideOFF

3.3 Installing the TGS Gauge into a Window

Added in document version 1.10 (released with PFE version 2.10)

We are now giving you another option of installing this gauge rather than having it fixed in one position in your panel. So again you need to open your panel.cfg file of the aircraft you intend to add the gauge to.

If you would rather use this 'window' method than the 'fixed' position then you will need to delete all entries in the gauge section (usually in window 00 or 01) relating to the TGS gauge in the panel.cfg, otherwise you will have 2 gauges in your panel.

3.3.1 Install the gauge into a window for the default FS 747-400 for FS2004

```
// Panel Configuration File
// Boeing 747-400
// Copyright (c) 1999-2003 Microsoft Corporation.  All rights reserved.

[Window Titles]
Window00=Main Panel
Window01=Radio Stack
Window02=GPS
Window03=Throttle Quadrant
Window04=Overhead Panel
Window05=Clock
Window06=Mini Panel
Window07=TGS <----------------Enter this line here.
...
...
...
...
[Window06]
position=7
size_mm=350,200
child_3d=1
background_color=0,0,0
ident=MINIPANEL
gauge00=Boeing747-400!Primary Flight Display,   0, 0
gauge01=Boeing747-400!Multi-Function Display, 177, 0
```

Then enter the following section below the last window section:-

```
[Window07]
Background_color=0,0,0
size_mm=100,100
window_size_ratio=1.000
position=7
visible=1
ident=5000
```

window_size_ratio=1.0
gauge00=TGS!TaxiGuidanceSystem, 0,0,100,100,Autohide OFF

Now SAVE Your Work

You should now be able to see the gauge in your 2d cockpit. The gauge will also be seen in Virtual Cockpit and SpotView (just go to Views/Instrument Panel/TGS and make you place a *tick* is next to it.)

3.3.2 Install the gauge into a window for a 3rd party aircraft in FS2004

// Airbus Generic "340 Pro Panel"
// COPYRIGHT Phoenix Simulation Software 2003 (c)

[Window Titles]
Window00=Wipers
window01=VFR Panel
window02=IFR Panel
window03=MCDU
window04=Pedestal
window05=Big PFD
window06=Big ND
window07=Big upper ECAM
window08=Big lower ECAM
window09=GPS

Fixed Window37=OVERHEAD - USE KEYPAD 5
Window09=Reality XP Wx500 Radar - RXP_CONFIG_TOOL - DO NOT CHANGE
Window10=Reality XP DropStack
Window11=Extended Flight Info
Window12=Flight Info Icon
Window13=TGS ←----------Enter this line here.
…
…
…
Then enter the following section after the Window12 section:-

[Window13]
background_color=16,16,16
size_mm=50, 23
window_size_ratio=1.0
position=6
visible=1
ident=12013
gauge00=EFinfoH!Icon, 0, 0, 50, 23
[Window13]
Background_color=0,0,0
size_mm=100,100
window_size_ratio=1.000

position=7
visible=1
ident=5000

gauge00=TGS!TaxiGuidanceSystem, 0,0,100,100,Autohide OFF

Now SAVE Your Work

3.3.3 Install the gauge into a window for a 3rd party aircraft in FSX

For this example we are using the PMDG 747-400X so again go to your panel.cfg (simobjects/airplanes)

So again under windows titles add the following under your last window,

Window23=TGS

Now add this section under the last window section in the panel.cfg

[Window23]
Background_color=0,0,0
size_mm=100,100
window_size_ratio=1.000
position=7
visible=1
ident=5000
window_size_ratio=1.0

gauge00=TGS!TaxiGuidanceSystem, 0,0,100,100,Autohide OFF

Now SAVE Your Work

3.3.4 Install the gauge into a window for a default aircraft for FSX

For this example we will use the A321 Airbus

All you need to do is just add everything as before…

[Window Titles]
Window00=Main Panel
Window01=Radio Panel
Window02=GPS
Window03=Throttle Panel
Window04=Overhead Panel
Window05=Gear Panel
Window06=Clock
Window07=Glass Panel
Window08=PFD

Window09=MFD
Window10=Primary ECAMS
Window11=Secondary ECAMS
Window12=Mini Panel
Window13=TGS ←----------Enter this line here.

Now add this section under the last window section in the panel.cfg

[Window13]
Background_color=0,0,0
size_mm=100,100
window_size_ratio=1.000
position=7
visible=1
ident=5000
window_size_ratio=1.0

gauge00=TGS!TaxiGuidanceSystem, 0,0,100,100,Autohide OFF

Now SAVE Your Work

3.3.5 A few useful notes:

You can adjust the size_mm= to whatever size you want, personally I leave it on the sizes shown in the previous examples.

Don't forget to **save** any changes you make to the panel.cfg.

In some 3rd party aircraft you may need to re-load the gauge again to get it to show, this depends on how complex the panel is. This is not a problem with the TGS gauge file but unfortunately due to the fact that all 3rd party add-on gauges are usually hidden behind your aircraft's panel. Also with some 3rd party aircraft the gauge may be hidden behind the2D panel on startup, in which case you may want to switch to Spot view or VC to adjust it, but this mostly only occurs in FSX.

As with any changes you make to your panel.cfg it is advisable to make a copy of your panel.cfg before making such changes.

3.4 TGS GENERAL FAQ Section

Q "I can't see my gauge"
A Have you installed the gauge into the correct folder?

Q "I have installed the gauge into the folder and copy and pasted the line into my CFG and I still can't see the gauge"
A Have you assigned a gauge number and co-ordinates as shown in the readme?

Q "My gauge doesn't work, the pointer or L.E.Ds don't move or light up"
A Have you changed the line in panel.cfg to the correct one for the TGS.gau or deleted the wrong gauge by mistake?

Q "I have FS running and the gauge isn't there, it's not working"
A You won't see the gauge, it's hidden until you connect to PFE, unless you use the Autohide OFF parameter in the PANEL.CFG file (see instructions above)

Q "I get the warning messages that do I trust it when I start FSX for the first time after installing it"
A If you say Yes to both messages you will be able to use the gauge, if the answer is NO because you are worried that the file
might be corrupt, you will not be able to use it.

Q "I altered the panel.cfg and didn't save changes, now it doesn't work"
A You should always save your changes.

Q "I won't work in my Virtual Cockpit"
A Quite simply, it won't as it's only designed for the 2D Cockpit.

Q "The TGS Gauge doesn't show, even after receiving full taxi instructions?"

A That could be dues to a number of reasons:-
1: You are using a 3rd party aircraft that needs to be re-loaded again and hopefully the gauge will then show.

2: You are using 3rd party scenery addon with the settings very high, in which case you may need to re-load your aircraft or turn some settings down, especially with high end aircraft.

3: It may be hidden by another gauge, try relocating it using 000, 000 co-ordinates as all 3rd party aircraft are different.

Well I hope you enjoy using the TGS gauge as much as I have enjoyed putting this tutorial together!

Dave Leesley

4. HOW TO UNINSTALL PFE STANDARD EDITION

4.1 For Windows XP users

From ***Control Panel*** select ***Add or Remove Programs.***

Select ***PFE Standard Edition (phase 2 of 2)*** then select ***Change/Remove*** to remove PFE part 2 from your system.

Now navigate to the ***PFE/Uninstall_PFE1*** folder and run the ***Uninstall.exe*** program to remove PFE part 1 from your system.

PFE part 1 and 2 have now been removed from your system, with the exception of certain log files, flight plans, etc, which you will have to do manually.

4.2 For Windows VISTA Users

From ***Control Panel*** select ***Uninstall or change a program.***

Select ***PFE Standard Edition (phase 2 of 2)*** then select ***Uninstall/Change*** to remove PFE part 2 from your system.

Now navigate to the ***PFE/Uninstall_PFE1*** folder and run the ***Uninstall.exe*** program to remove PFE part 1 from your system.

PFE part 1 and 2 have now been removed from your system, with the exception of certain log files, flight plans, etc, which you will have to do manually.

5. HOW TO UNINSTALL PFE DELUXE EDITION

5.1 For Windows XP Users

From ***Control Panel*** select ***Add or Remove Programs*****.**

Select ***PFE Deluxe Edition*** then select ***Change/Remove*** to remove **PFE Deluxe** (including ProFlight 2000) from your system.

PFE Deluxe and ProFlight 2000 have now been removed from your system, with the exception of certain log files, flight plans, etc, which you will have to do manually.

5.2 For Windows VISTA Users

From ***Control Panel*** select ***Uninstall or change a program***.

Select ***PFE Deluxe Edition*** then select ***Uninstall/Change*** to remove **PFE Deluxe** (including ProFlight 2000) from your system.

PFE Deluxe (including ProFlight 2000) has now been removed from your system, with the exception of certain log files, flight plans, etc, which you will have to do manually.

6. WHAT IS PFE?

ProFlight 2000 Emulator (PFE) provides you with the means to use one of the all time favorite Flight Simulator ATC programs with FS2004 or FSX. Namely **ProFlight 2000**.

Yes, that's right, despite the fact neither of these versions of Flight Simulator support 'Adventures' **PFE** runs as a standalone program alongside these newer editions of Flight Simulator to *emulate* the adventure engine.

How does it achieve this?

Using our own bespoke APLC32 compiler **PFE** produces an almost identical flight for you as you would have experienced using ProFlight 2000 in FS2000. We say *almost identical* because during the development of **PFE** we did discover (and fix) a few bugs in the way ProFlight 2000 handled various flight scenarios. We also added a lot of new and exciting features plus devoted a lot of time on the approach vectoring functionality... but more on these new features later.

Written in Visual Basic and VB.NET **PFE** does not actually produce flight simulator adventures. It does, however, utilise the flight plan data produced by ProFlight and of course those much loved 40+ regional voice sets. *(Please note: Since version 2.0 you can now purchase an extended voice pack set which provides an additional 59 regional voice sets!)*

Going forward we hope to add even more new features to enhance your enjoyment of ProFlight 2000 further.

PFE is available in two Editions. **PFE Standard Edition** and **PFE Deluxe Edition**.

PFE Standard Edition provides everything you need to enjoy ProFlight 2000 but **without** an actual copy of the ProFlight program. So to use **PFE** you must already have an original copy of 2000. Prior to purchasing **PFE Standard Edition** it would be advisable to check you can (a) find your copy of ProFlight 2000 and (b) that the CD is still in good condition and can be installed. If not you will need to purchase the **Deluxe Edition** of **PFE.**

PFE Deluxe includes everything you need to enjoy ProFlight 2000 **including** a full working copy of the original ProFlight 2000 program *(licensed to us for distribution with PFE by the original publisher and developers of ProFlight)*. Installation of the **PFE Deluxe Edition** is much easier too as it is just a one step installation process whereas **PFE Standard Edition** requires a three stage process.

In summary:- To use **PFE Standard Edition** you must have an *original* copy of ProFlight 2000, which must be installed correctly as described in the **Installation** section of this manual. To use **PFE Deluxe Edition** you have everything you need in one easy installation pack.

As mentioned earlier **PFE** basically uses the flight plan data generated by ProFlight 2000 and the original localised voice sets too. For you, dear user, it

will be just like running a ProFlight 2000 adventure but alongside the latest Flight Simulator versions (FS9 and FSX).

7. OPTIONS AND CONFIGURATION

7.1 ProFlight 2000 Options and Configuration

We do not intend to *reinvent* the wheel here as full details on ProFlight 2000 options and configuration can be found in the ProFlight User Manual, either the hard copy that came with the *original* CD or the electronic one accessed from the Start Menu after installation.

This section is merely to explain which options you *should* set a certain way to prevent any unnecessary issues going forward and which settings have no effect when running **PFE.**

As of the release of PFE version 2.8 the only option you need to concern yourself with on the main ProFlight screen is the Cruise Altitude…. All other options are either defunct and/or overridden and available directly from PFE options.

On the ProFlight *Settings* page you should **select** the option to *Use Real Weather.*

All options on the ProFlight *Settings* page work with the exception of the following, which are now all handled by and configured from PFE

- *Command Line Options*
- *Performance Mode*
- *Performance Count*
- *Hand holding*
- *Changing Barometer*
- *Set Module*
- *Manage FMC*
- *Hold Pct*
- *Changing Barometer*
- *ATC Communications Settings*

During the compilation process there are a few options that popup that again, are now defunct. These are:

- Start Adventure with Engines Running
- Start Adventure with Engines Off
- Start Adventure with a FS2000 Flight File
- Write Flight Plan to the Selected Aircraft Kneeboard
- Write Flight Plan to FS2000 GPS and FMC

7.2 PFE OPTIONS AND CONFIGURATION

PFE offers a host of configurable options for you to tinker with and setup the system to your very own requirements and according to your personal likes and dislikes. A lot of these options will actually override similar options available in ProFlight whilst others will be completely new and not found in ProFlight 2000 at all.

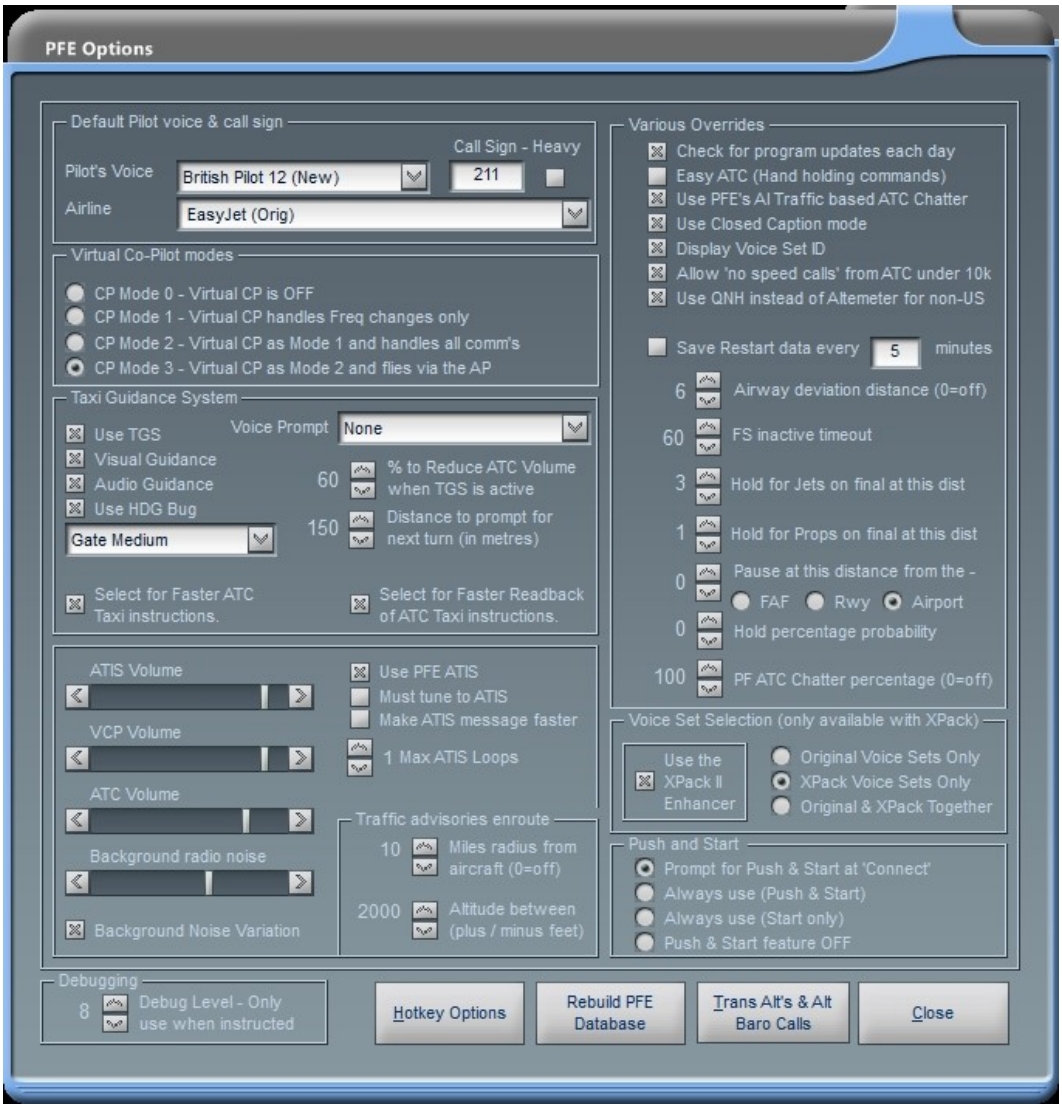
Please Note: Some of these screen shots may have changed slightly in appearance and layout since this document was originally produced, as PFE is a work-in-progress application and new features are always being added.

7.2.1 Main Menu Options Selection

General options are accessed from the main **PFE** screen by selecting either the **Options #1** or **Options #2** buttons.

7.2.2 Options #1 Main Display

The first *options* page (shown below) replicates some of ProFlight's options, plus much, much more…



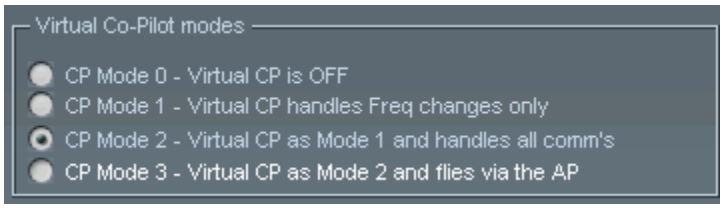
At the top left you will see you can select the *Pilot's Voice* you want to use. This is the voice you will hear communicating with ATC, so in reality it is actually the PNF rather than the PF. To the right on the voice selection is where you can enter your actual call sign and beside that is the 'Heavy' indicator. So in the above example ATC would contact you as *"Speedbird two six eight six heavy"* Just below the call sign options is where you select your airline. These selections will override any you have set in ProFlight. In fact if you have the PFE voice set expansion pack installed you should **always** use these options to select the Pilot's Voice rather than the one in ProFlight, as the later will not display any of the new airlines and/or Pilot Voices available

with the expansion pack. Even without the voice expansion pack installed it is always useful to use PFE's voice/call sign selection options to ensure you always hear the airline/call sign and voice you want, regardless of the ADV Flight File you may be using or who might have created it.

Please note:

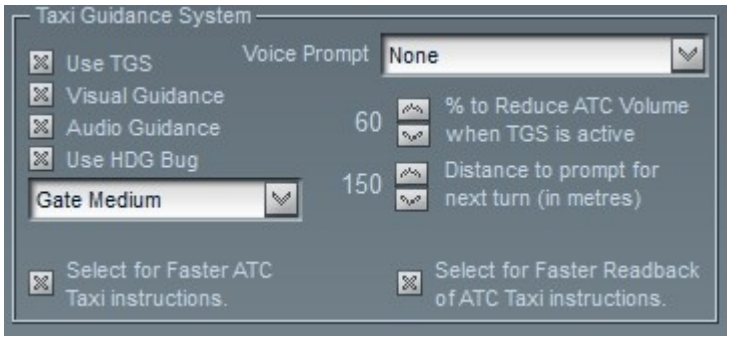
The actual pilot voices and airlines listed may change dependant on the voice set selection made on this panel:

7.2.3 VCP Mode Selection



Below the "Default Pilot voice & call sign" panel you will see the various *Virtual CoPilot modes* available, all of which are fully explained on the *options* page by right-clicking the actual option text. Selecting a particular mode will ensure this is the one that will be used for all loaded ADV Flight Files. This mode can also be changed at anytime during your flight simply by using the C\S\V hotkey. *(Note: C\S\V means pressing and holding the Ctrl and Shift keys together, then pressing and releasing the V key. Finally you release the Ctrl and Shift keys.)*

7.2.4 TGS Options



Below the "Virtual Co-Pilot modes" panel you will find a new and exciting feature of PFE (introduced in version 2.00), the Taxi Guidance System. This panel will configure the TGS in a variety of ways. You must check the "Use TGS" in order to activate this feature. Doing so will ensure your arrival at the active runway and/or gate as assigned by the ground or tower controller! The

"Visual Guidance" option will enable the nifty TGS Gauge (explained in detail further on), "Audio Guidance" will provide you with aural directions, not unlike an in-car GPS system. The "Use HDG Bug" enables your heading bug to constantly point towards the next taxi *waypoint* along the route to the holding point for the active runway or gate plus the number of taxi waypoints remaining well appear in the AP Course display. Whatever settings were showing on the AP HDG and/or AP Course displays is remember by PFE when the TGS is started and reset to their original values when TGS completes. *Please Note this function may be disabled with some third-party add-on aircraft.*

The "Voice Prompt" selection enables you to choose a different voice for the TGS commands than the one you hear communicating with ATC. If you select 'None' then the TGS voice defaults to the pilot's voice set selected above. This option is also useful for those using applications like Game Commander or Voice Buddy, as those users prefer to select 'None' for their pilot's voice and would therefore not hear any TGS audio prompts. But this option now provides them with full TGS operations too.

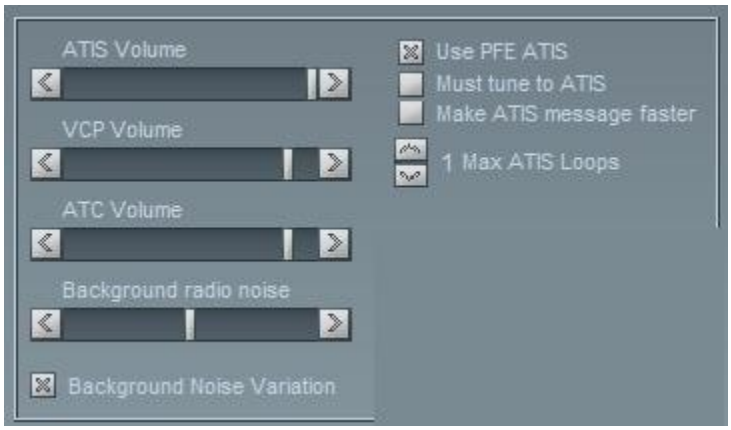
The "% to Reduce ATC Volume when TGS is active" reduces the volume of general ATC chatter so you don't miss any of the taxi instructions given by your trusty VCP. Any ATC instructions directed at you though will not be affected.

The "Distance to prompt for next turn" is the distance before the next taxiway turn you will hear your VCP say 'Next left' or 'Next right into taxiway Delta'. So if you prefer to hear this when you are literally on top of the next turn you need to reduce this setting. If you want more time to get ready for the turn you need to increase the setting.

Finally, and new to version 2.12, we've added two more options to this section to allow you to choose the speed of ATC's taxi instructions, and your readback, independently.

The new options default to both faster ATC instructions and your readback.

7.2.5 ATIS Volume and Options



Below the Taxi Guidance System selections you will find the *Volume* control and *ATIS* control panel.

The first control ("ATIS Volume") allows you to adjust the volume of PFE's own ATIS messages. The next one ("VCP Volume") controls the volume of your VCP (I know in PF terms this was considered to be the pilot's voice but we will, from hereon, refer to it as the VCP's voice). Below that you have a control for the ATC volume only. This is the sound of ATC or other aircraft you might here on your current frequency.

The "Background radio noise" slider adjusts the sound heard "behind" the radio transmissions. Background noise adds to the authenticity of the transmissions, and is adjustable to your liking. This additional ambience will only be heard when ATC are talking or you hear another aircraft in communication with ATC, it is not heard when your VCP is talking.

The small *check box* marked "Background Noise Variation" changes the type of background radio noise you will hear each time you switch from one control facility to another. Not only does this alleviate the risk of your ears becoming tired of the same background noise but also adds a little more realism, replicating the fact that some control facilities provide a better signals than others.

All these controls provide the means by which you can finely tune the sounds and volumes to suit your own particular taste and to create the level of ambience you prefer and consider to sound just 'right'.

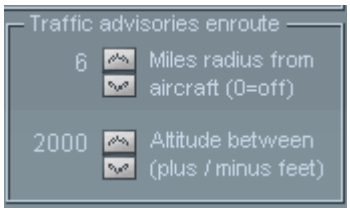
A little to the right of the ATIS volume control is the master switch "Use PFE ATIS" which obviously turns this whole feature off, should you wish to use the FS default system to listen to ATIS, although this is not really recommended.

Below this is "Must Tune to ATIS" which will initiate a prompt to ensure you actually tune to ATIS prior to making initial contact with ATC.

And finally we have the "Make ATIS message faster" for those impatient ones amongst you.

Also on this panel you will see some additional options, like "Max ATIS Loops". This simply means that after this number of loops the ATIS message will stop automatically. The main reason for this option is to alleviate any issues should the COM frequency set for ProFlight ATC conflict with an ATIS broadcast frequency. Buy setting a limit here as to how many times the message is played will prevent you getting stuck in a COM's loop. **If, however, the message stops and you do want to listen to it again just momentarily change the COM frequency and then set it back to the ATIS frequency and the message will replay for the number of loops defined here**.

7.2.6 Traffic Advisory Options



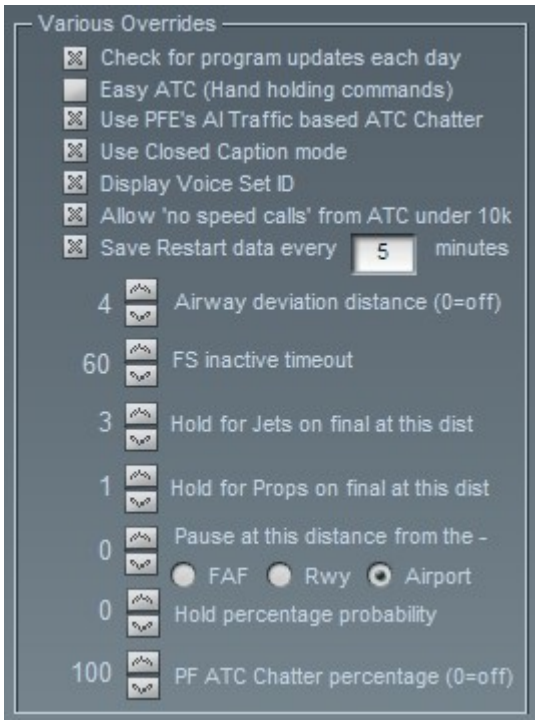
To the right of the volume control are our Traffic Advisory options. The first one controls the horizontal radius within which you want to be advised of other (AI) traffic and the second one defines the vertical radius (altitudes above and/or below your aircraft you want to be advised of other traffic.

7.2.7 Debug Info

Below the volume controls at the lower left of this screen there is a *Debugging* control. This control filters the information we want written to the debug logging file. Normally this would be set to '5' but you may be requested by *PFE Support* to increase this as an aid to collating data with regard to any problems. **Be warned**: setting this to 8 or 9 will produce ***very*** big logs.

7.2.8 Various Override Options

On the right-hand side of the main options page you will see the following options, working from top to bottom:



Check for Program Updates each day - ensures you always keep up to date with any program updates using our own auto-updates feature.

Easy ATC - which is the ProFlight ATC hand-holding option for those new to flying and ATC.

Use PFE's AI Traffic based chatter - turns on PFE's own ATC chatter which is based on the movement and control of any AI traffic around you. Leaving this option unchecked will turn on the original ProFlight canned chatter, which is not recommended.

Use Closed Caption mode – enables you to 'see' a text display of all ATC communications on the screen. Great for those who may be hard of hearing but also useful for those times when you may not be 100% certain as to what was just said.

Display Voice Set ID – Used to pre-fix the closed caption text with a two letter voice set identifier, which is required if you wish to use the new feature in version 2.11 to exclude the use of specific voice sets.

Allow 'no speed calls' from ATC under 10k – Normally aircraft are restricted to a maximum of 250 knots below 10,000', although at times ATC can lift this restriction. PFE simulates this by randomly giving you a *'no speed restriction'* call. However, some users requested this should be optional… hence this option.

Save Restart data every – turns on PFE's 'resume-a-flight' feature, allowing you to resume from a point mid-flight should you either abort a flight or as a result of a program problem. Next to this is a small data entry box where you enter the interval length (in minutes) you want PFE to save your flight data.

We recommend for best results to set this to 1 minute, which means PFE will save its restart data every minute.

Airway Deviation Distance - by default ATC will nag you if you are +4 or -4 miles off the designated airway. You can use this option to increase this margin or set it to zero to turn the 'nags' off completely.

FS Inactive Timeout - is the amount of time **PFE** will wait if not getting any response from FS before closing down automatically. It should be set to a higher value if/when running PFE on a networked PC.

Hold for Jets and *Hold for Props* - sets the distance at which you will be told to hold for inbound traffic while waiting for takeoff clearance.

Pause Mode - an old favorite, this determines the distance from either the FAF, the runway or the airport you want to pause FS/PFE. The first two options (FAF/Runway) would not become *active* until you reach the last waypoint in your flight plan, whereas the last option (Airport) is active for the entire flight.

Hold Percentage Probability - set between 0 and 100 to decide on the probability of you getting a hold en route, dependant of course of several other factors.

PF ATC Chatter percentage - controls the frequency of ProFlight's canned ATC chatter. This option obviously has no effect if using the PFE ATC Chatter option, which is recommended.

7.2.9 Voice Set Selection

The next panel is "Voice Set Selection". Please note: These options will only be active (available) if you have the (optional) PFE Voice Set Expansion Pack (XPack 1) installed, which of course is highly recommended and provides you with an unprecedented number of voice sets from which to choose.

The options shown to the right of this panel are quite self-explanatory. Selecting the top one results in you hearing only the original PF voice sets. The next option down activates the voice sets from the expansion pack only. The third option allows you to hear both old and new voice sets.

To the left of the voice set selection options, and new to version 2.8, is an option marked "Use the XPack II Enhancer". This option will only be available if you have installed our new Voice Set Enhancement Pack (XPack 2).

XPack2 provides newly processed voice sets that sound just like the sounds are being played over your aircraft's VHF radio system. The added ambience is quite striking. With XPack2, good use of the independent volume controls

plus a subtle blend of our background radio noise we believe you will be truly amazed and delighted at the effects.

If you don't already have XPack2 you can get it (for FREE) from Aerosoft using the following link:-

http://www.aerosoft2.de/downloads/pfe/PFE_XPack2.zip

7.2.10 Push & Start Options

The "Push and Start" panel enables you to set the default behavior of this function. Enabling the "Prompt" gives you the greatest degree of flexibility on each flight.

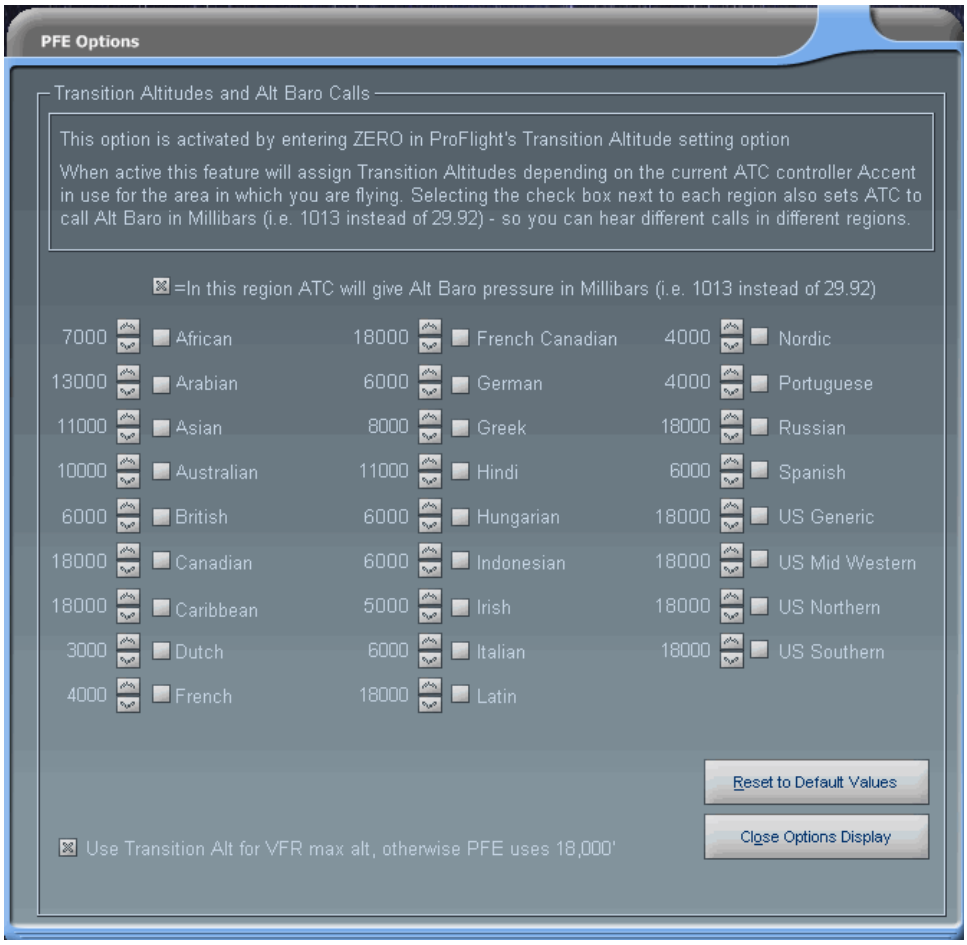
7.2.11 Other Options from the Main Menu

Below the "Push and Start" panel this you will see four additional buttons:-

Working from right to left the Close button obviously closes the *Options* display and returns you to PFE's main menu display.

7.2.12 Trans Alt & Baro Calls

The *Transition Alts & Alt Baro Calls* button displays another screen (see below) showing 26 geographic regions.



These are ProFlight's geographic regions and each one will be set with a default value showing the *transition altitude* for that area. The area you're currently flying through will be determined by **PFE** by the current voice/accent configured for, but not necessarily in use by, the ATC controllers and will then use the TA as required. What this means is you could fly from one country to another and experience varying *transition altitude* calls. Regional specific Alt Baro call options are likewise provided, so you might hear ATC say *'one zero one three'* in the UK but *'two nine nine two'* in the US, if that's how you had it configured. These options give you complete control over the transition altitude and altimeter setting calls you will hear within each of these regions.

Please Note: These **are** ProFlight's regions and whilst we appreciated there are many other areas not supported we are unable to make any such changes to this feature.

Closing the *transition altitude* display takes you back to the first *options* page and from there you can select the *Rebuild PFE Database* option.

7.2.13 Rebuild PFE Database Procedure

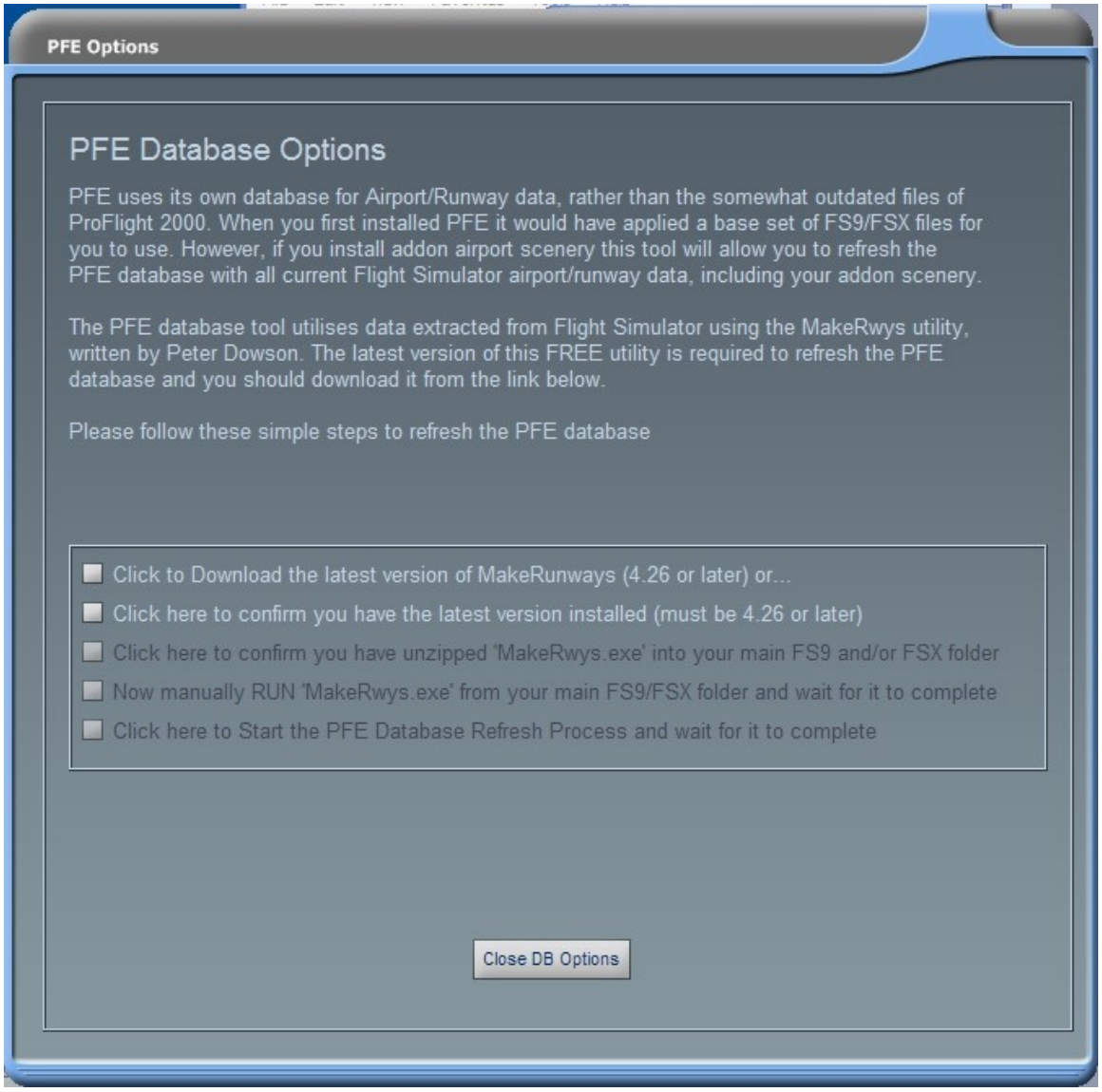
Accessed by using the "Rebuild PFE Database" button this is a very important feature and one you will need to use from time to time, either when adding

new scenery to Flight Simulator or when advised by us following the addition of a new feature that might require the database to be rebuilt.

The reason for this is that PFE uses the same data for runways and com frequencies as FS, so any time any such changes are made to FS we need to reflect those changes in the PFE database files.

So let's see how easy this is to perform:-

After selecting "Rebuild PFE Database" the following screen will be displayed:-



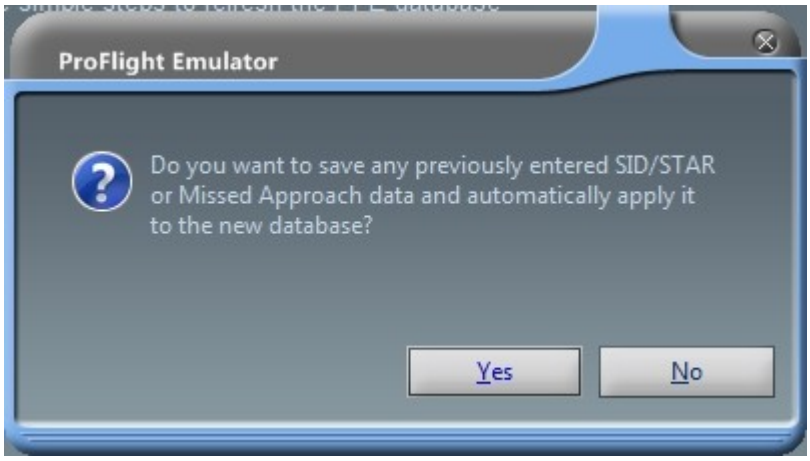
This screen is quite self-explanatory, especially if you take the time to read the displayed text. The whole idea here is to give you a checklist of things to do and make each step as easy as possible. So for this example we will assume this is the first time you have rebuilt the PFE database.

Selecting the first option to download the MakeRwys utility will do just that… it will link to the latest version of Peter Dowson's utility, which is used to extract the required data from FS.

Once you have download the utility you should follow the instructions provided with the program, but simply all you have to do is copy the **MakeRwys.exe** program into your main FS folder, then run it. At which point you can select the 2nd, 3rd and 4th checklist items (see above) to confirm (a) you have the latest version of MakeRwys, (b) you have installed it and run it.

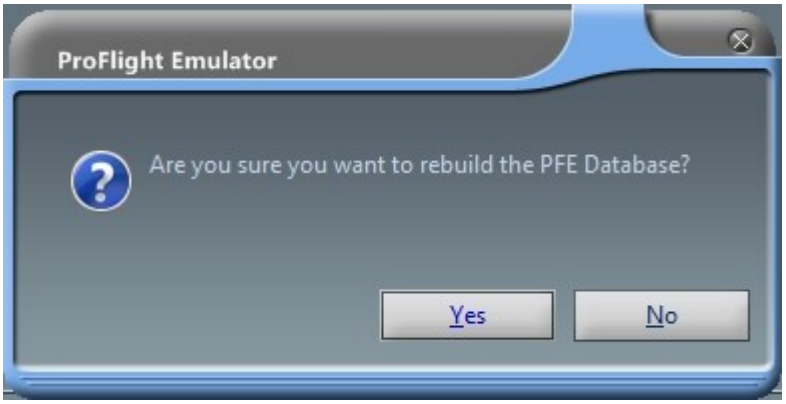
Finally, once MakeRwys has completed it's task, which can take a few minutes, you can then select the 5th and final check item that says *"Click here to Start the PFE Database Refresh Process and wait for it to complete"*

A warning screen will then appear asking if you wish to save any of the changes you may have made to the database.

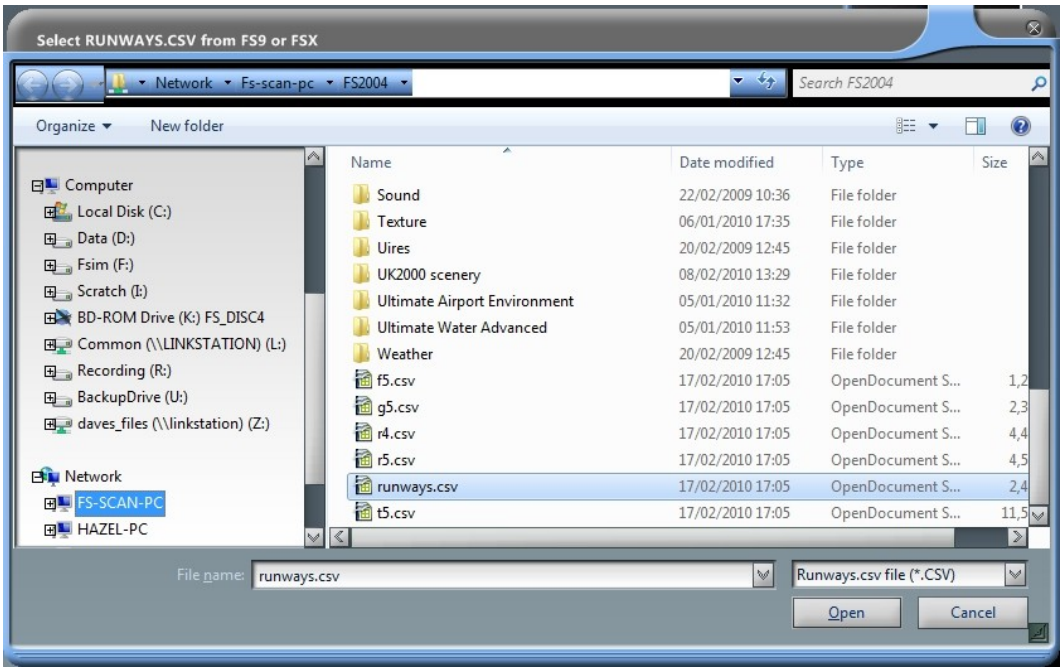


If you have configured any SIDs/STARs, missed approach data, etc, etc, and do not wish to lose it you should select 'Yes'. This will ensure PFE saves any 'user' changes and then reapply them following the creation of the new database.

After that you will be asked once more to confirm that you do actually want to update/create the PFE database.



If you select 'Yes' to continue the following screen will appear, from which you have to selet the **runways.csv** file from tha main FS folder.



Once you've selected the **runways.csv** file and then clicked on OPEN the PFE database will be created/rebuilt, which should only take a few minutes maximum to complete.

That’s it!

If you should have any problems rebuilding the PFE database try deleting the following files from you main FS folder first:-

F5.csv

G5.csv

R5.csv

T5.csv

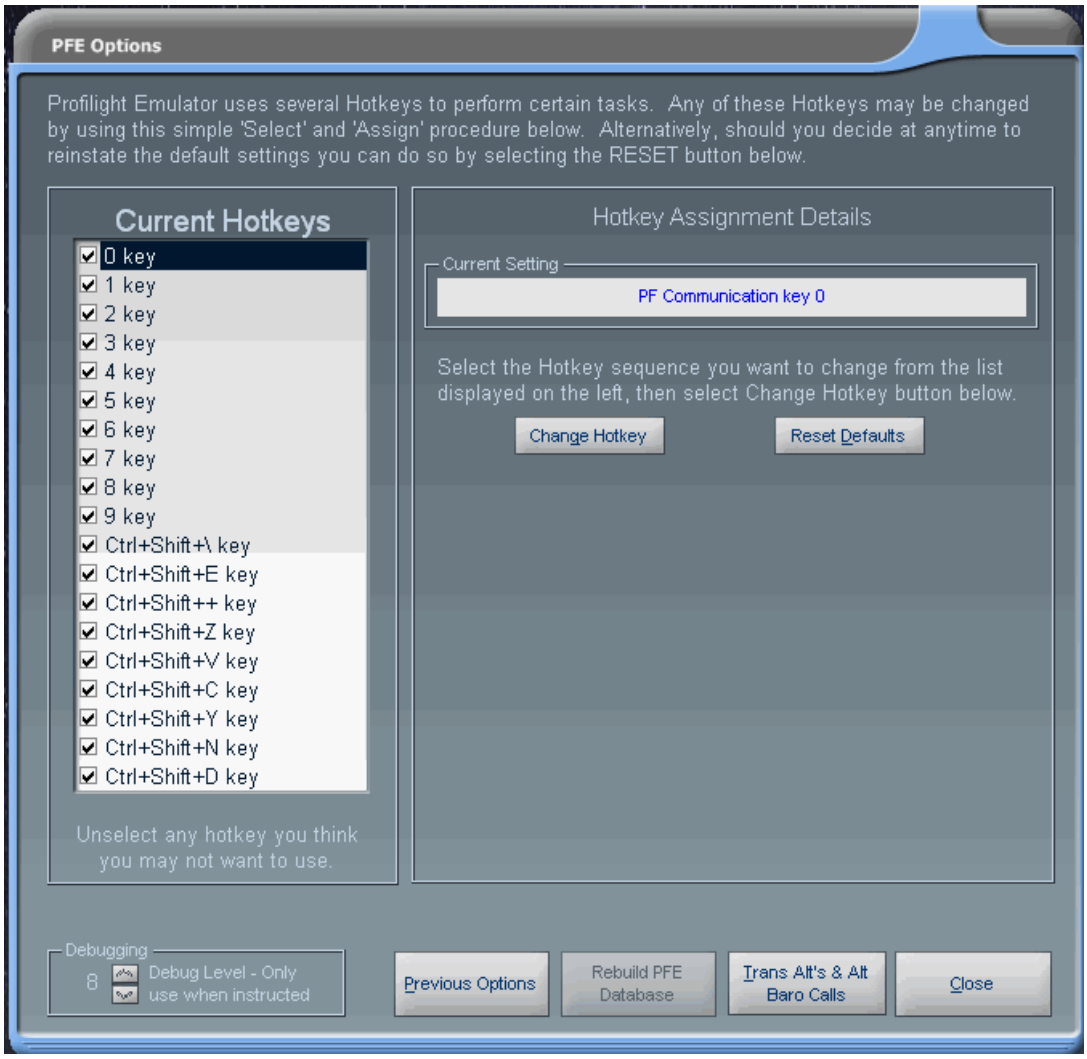
Runways.csv

You can run this database rebuild at anytime, even if you have not made any scenery changes to FS - in which case you could skip the 1st (download) item then click on the 2nd, 3rd, 4th and 5th items immediately - because provided you have run the MakeRwys utility at least once you only have to run it again if you make any scenery changes to FS, like adding a new airport, etc.

Please ensure you always read the version history document found in **... PFE\Help** after each PFE update as it might contain instructions to rebuild your PFE database due to us having applied some new features that may require additional data from FS.

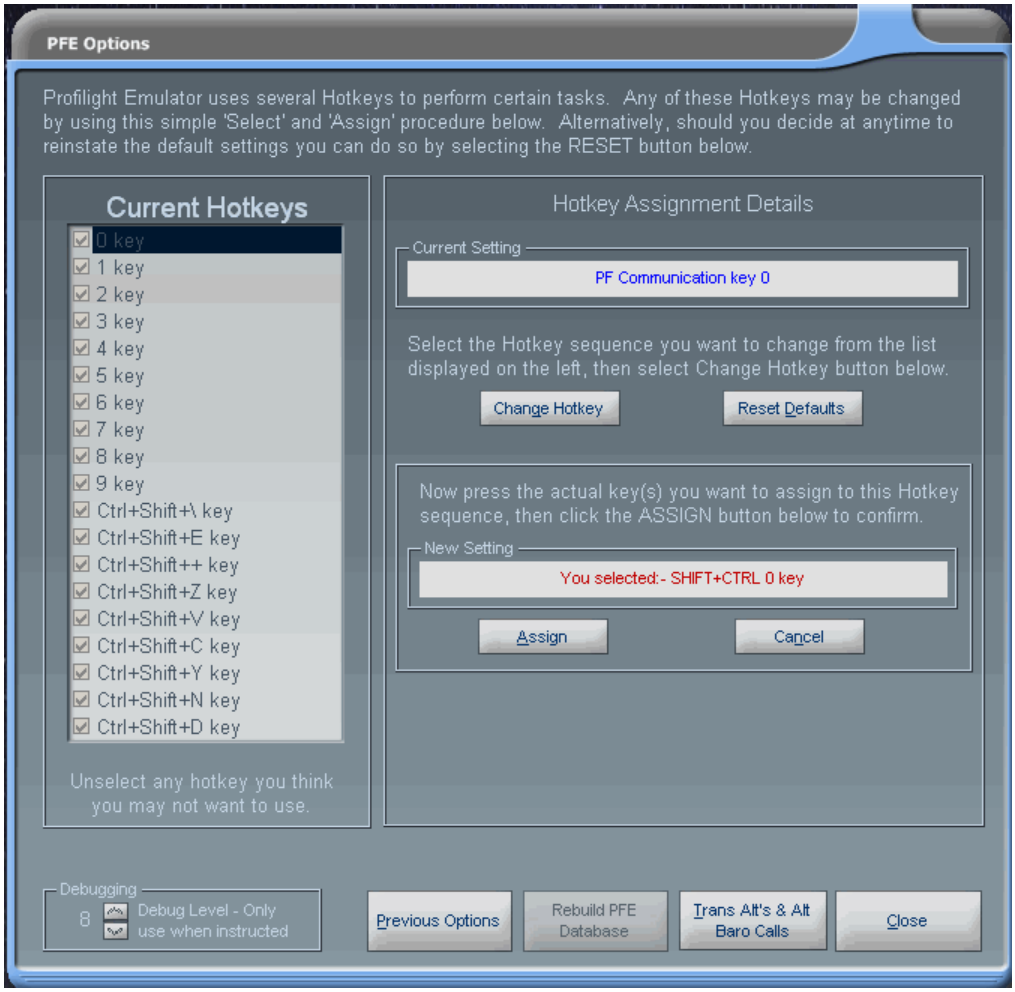
Now you can select the "Close DB Options" button to return to the main options screen and from there you can select the *Hotkey Options* by using the large button toward the bottom of the display named *Hotkey Options*, which in turn will display the page shown in section **7.2.14**

7.2.14 Hotkey Options

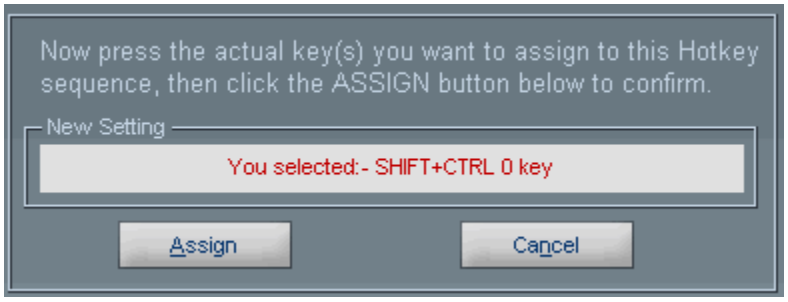


There are 21 pre-configured hotkeys in **PFE**, which are basically the same as those found in ProFlight 2000 plus some additions added to support new PFE functionality. However, the Hotkey page allows you to configure any key or multi-key combination for each hotkey if you wish. Simply select the hotkey from the left hand-side and then select *Change Hotkey*, then press the key(s) you want to use for this procedure then press *Assign* and the new keying sequenced will be active and ready to use.

The following screen shot shows how this display changed after you select the "Change Hotkey" option.



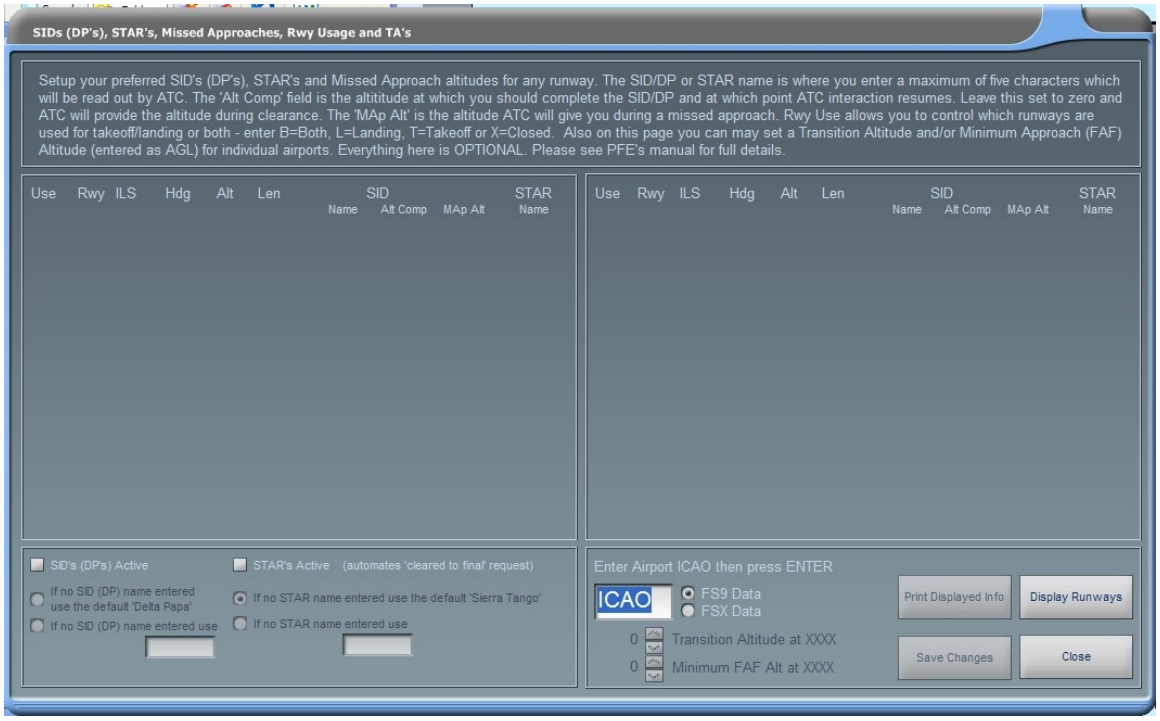
In the example shown above/below we are attempting to change the ZERO hotkey to use the Shift+Ctrl+0 combination of keys.



You can now close the *Hotkey* screen

7.2.15 SID/STAR Page Options

From the main menu display if you select "SID's/STAR's) PFE's *unique* SID's (DP's) and STAR's display page will now be displayed:-



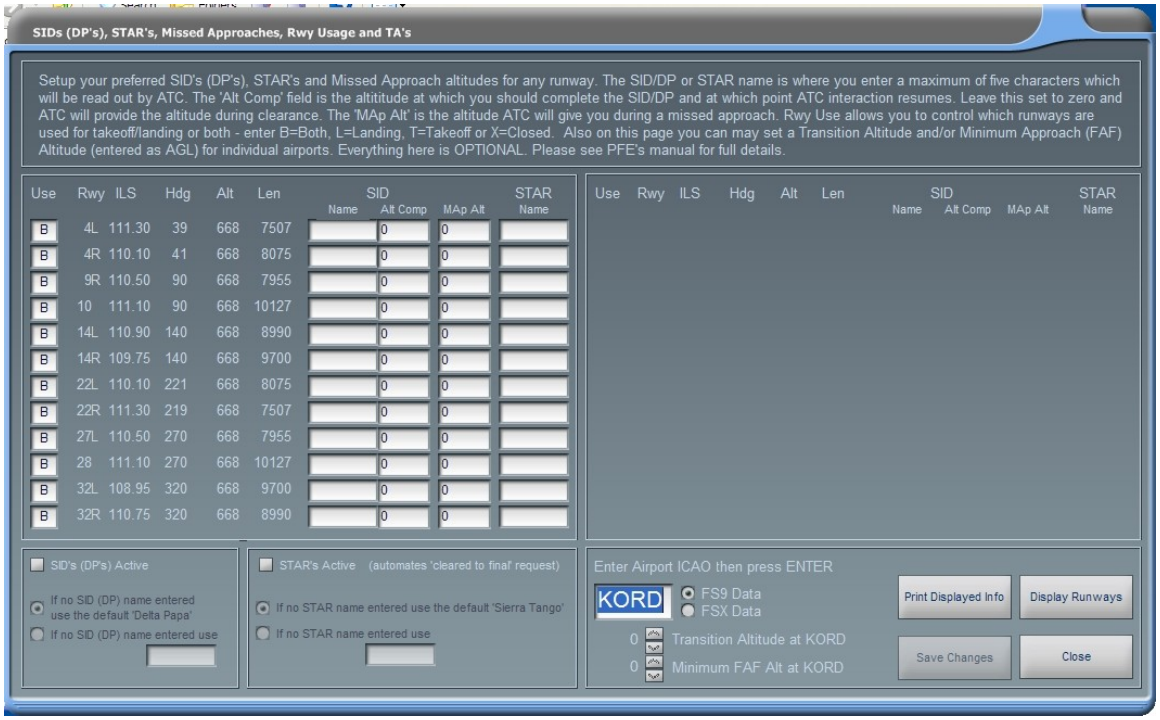
This is where you control the use of SIDs (DPs), STARs, Missed Approach altitudes, airport specific transition altitudes and runway landing/takeoff designation.

There are quite a few variations you can choose when deciding how to use SIDs. If you wish to fly a published departure from all airports but really can't be bothered to enter any data here, simply select the *SIDs (DPs) Active* master switch. Just below this option if you choose *If no SID (DP) name entered use the default "Delta Papa"* then each time you contact clearance (at any airport) you will hear *'Cleared as filed, squawk 1234, Delta Papa departure at xxxx approved, contact ground on…"* (where xxxx will be the altitude you are initially cleared to while flying the published departure and at which point ATC will resume interaction with you). Until you reach that altitude you will not hear anything from ATC other than to hand you off to another control facility.

If you don't want to use the default *'Delta Papa'* name for your generic published departures you can enter your own default name if you select the option '*If no SID (DP) named entered use...'.* Here you can enter a five character alpha numeric code which ATC will read out.

The other alternative is for you to enter a name against individual runways. To do so you need to first enter the ICAO code for the airport you want to display, then hit ENTER or select the *Display Runways* button.

In the following screen shot example we're displaying the runways for KORD:



Using the above configuration, if departing runway 4L Clearance would confirm *"Cleared as filed, squawk 1234, Mike-Alpha-Four-Lima at Five Thousand departure approved".* You would also hear the same from Tower when being cleared for takeoff. (since version 2.12 there may be some variation on the exact phraseology here)

Departing runway 14L you would hear "*Cleared as filed, squawk 1234, Alpha-Delta-Lima-One-Four at Six Thousand departure approved".*

Departing from any other runway you would hear "*Cleared as filed, squawk 1234, Delta-Papa at xxxxx Thousand departure approved*" (where xxxx would be determined by PFE at the time of the clearance and would normally be set at an altitude halfway between the current airports ground elevation and the altitude set for the first waypoint. e.g. If your departure airport's elevation is 1,000' and the first waypoint altitude is set to 11,000' then the *cleared to* altitude would be 5,000' (11,000 - 1,000 / 2).

Please note you need to indicate which version of flight sim you are using to ensure the correct PFE database is configured with the above data. This is done simply by choosing either the *FS9 Data* or *FSX Data* option situated just to the right of the Airport ICAO entry box.

This same screen is also used for configuring STARs and/or Missed Approach altitudes. As previous users of ProFlight 2000 will remember you were always able to fly a published approach by activating the *"Cleared to Finals"* feature. Obviously this feature is still available to you but now, should you choose to activate the PFE STARs option (using the default STAR name) you would be cleared as such: *"Cleared to final for Sierra-Tango approach, runway xx...".*

Exactly the same variations are available for STARs as they are for SIDs with regard to the departure/approach name used by ATC.

This screen is also used to enter a missed approach altitude. This is the altitude you will initially be told to climb to should you report a *go around.* You don't have to use this feature as PFE will usually tell you to climb to 2,000', but should you find an airport where surrounding terrain would make such an altitude too dangerous you can adjust this feature for each runway should you wish.

Any changes you make to runways, like entering SID/STAR names or altitudes must be saved by selecting the *Save Changes* option. You will be prompted to do so should you forget.

Just below where you enter the airport ICAO you will see a small up/down arrow where you can set the transition altitude for the displayed airport and this will override the value set against the *regional* area (see earlier explanation). However, you do not need to adjust this for each airport and if left at 'zero' then the value set for this airport's region will be used instead.

Below the TA setting and new to version 2.8 is a similar option for setting the minimum FAF altitude for the selected airport. This means this will be the minimum altitude ATC will tell you to descend to during your approach to this airport. This is extremely handy for those difficult approaches, particularly in mountainous areas or at airports surrounded by other hazardous obstructions. However, you do not need to adjust this for each airport and if left at 'zero' PFE will handle your approach as normal.

To the left of each runway number you will see a small text box, which defaults to the letter 'B', meaning that runway is designated for both landing and takeoffs. You can changes this to an 'L' for landing only, or 'T' to designate it for takeoffs only or even enter an 'X' to marked the runway as closed.

Please note, these settings will have no effect on AI traffic. To restrict AI traffic from using a runway for landing/takeoff you would have to configure the AFCAD file.

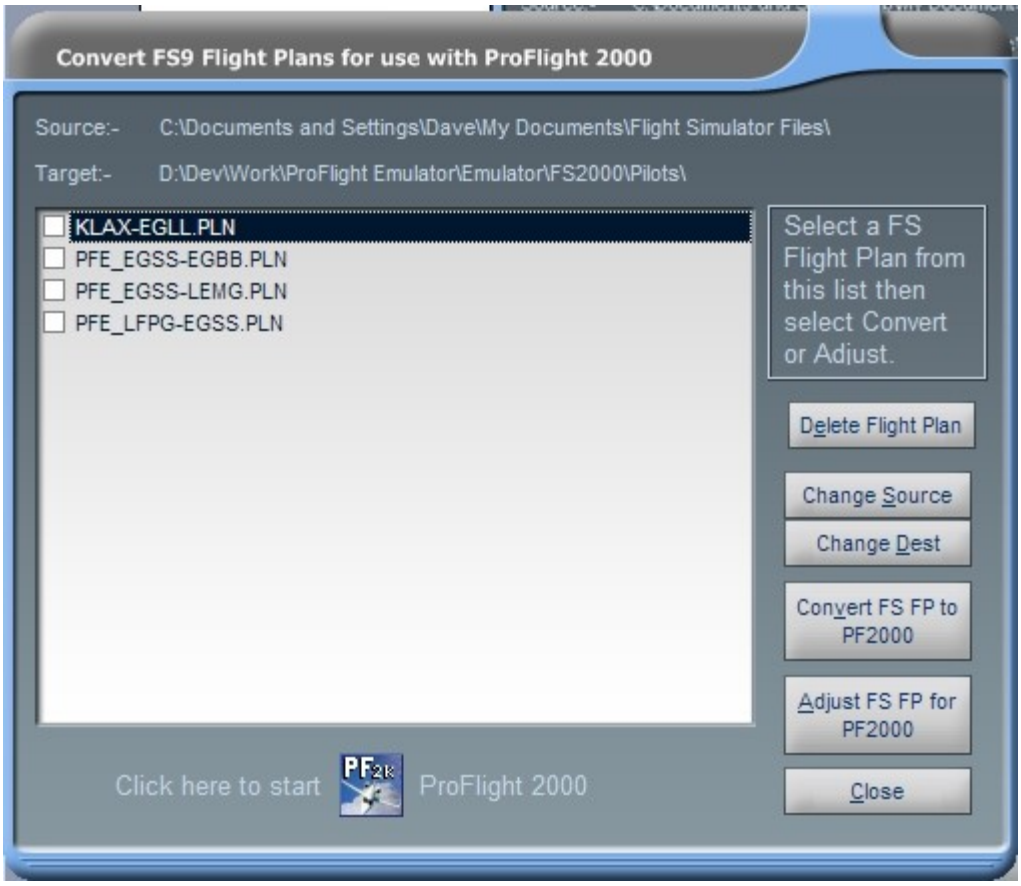
7.2.16 Even More Main Menu Options

Okay, let's go back to the main menu display now and check out some more options and features:

7.2.17 Flight Plan Converter Options

Selecting the *FS9 / FSX FP Converter* option for the very first time will prompt you to tell PFE where your FS9 or FSX flight plans are and where you would like the converted ProFlight files sent.

Just OK this message to display the following:



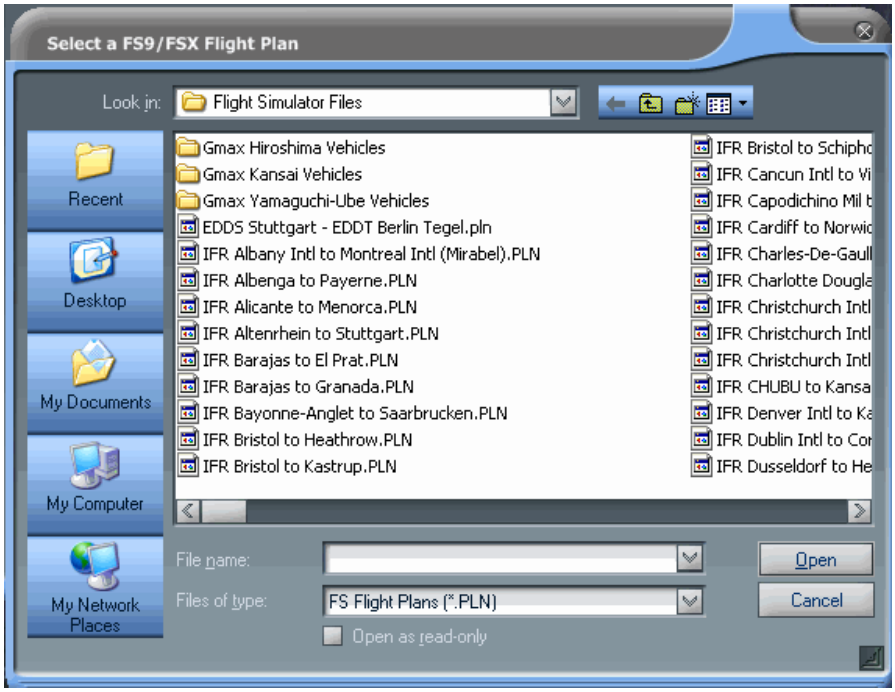
Now, the first time you run PFE it will **not** open this display into the correct folder so you will need to navigate to the folder in which all your FS flight plans are copied. For FS9 users this is normally:

C:\Documents and Settings\YourName\My Documents\Flight Simulator Files

And for FSX users:

C:\Documents and Settings\YourName\My Documents\Flight Simulator X Files

Once into the correct folder simply select any one of the files listed (it doesn't matter what file it is at this stage) then select *Open* and the location will be saved for the next time you use it. This location can be changed at any time (explained later).

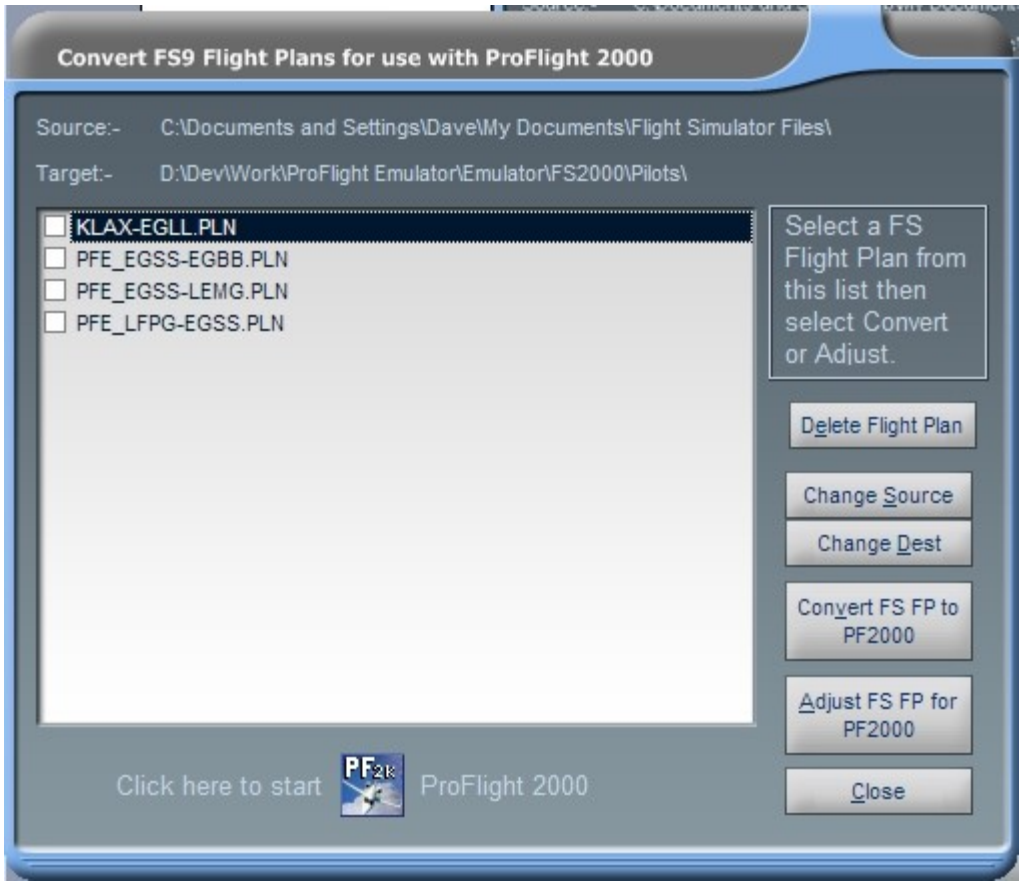


You will have to do the same for the target files and this would normally be the folder from which ProFlight normally checks for flight plans and this **must** be:

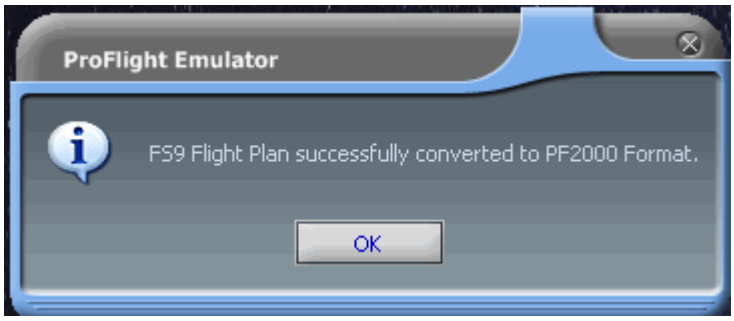
...PFE\FS2000\Pilots

Again once you navigate to the correct folder you would need to select a file (any file) and then press *Open* to ensure the location is saved.

Subsequently accessing the FS9/FSX converter option, you will be presented with the following:



This display shows all the F9 flight plan files currently on the system which were created using the FS9 flight planner (or similar). To use these for ProFlight 2000 they need to be converted to FS2000 format. To do so simply select the flight plan you want to convert and then select the *Convert FS FP to PF2000* option. The converted flight plan will be created using the same original file name but prefixed with '**PFE_**' and the following popup message will appear when complete:



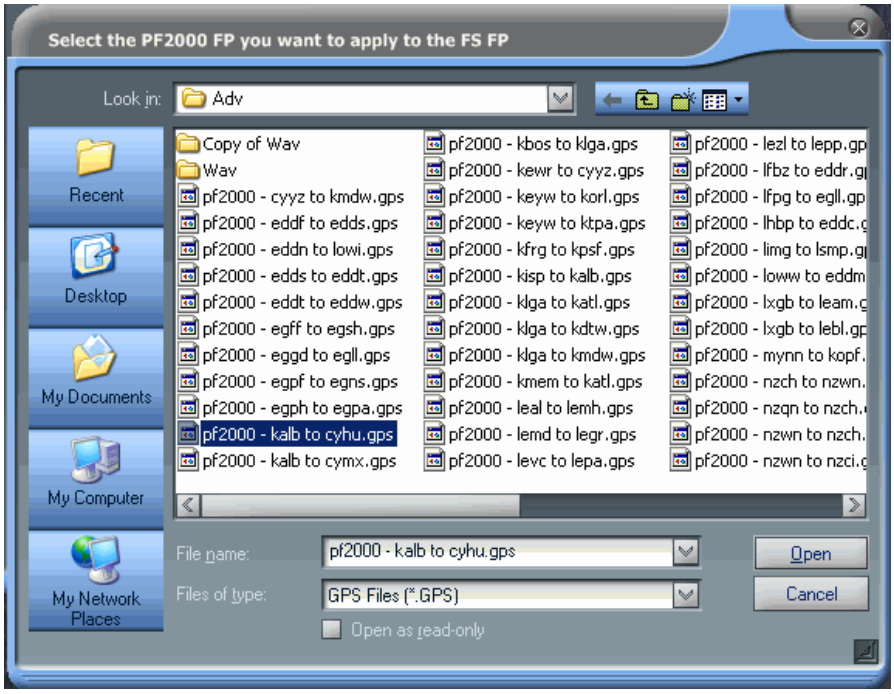
A couple of other options worth mentioning on the flight plan converter screen are *Change Source* and *Change Target.* These two allow you to change the location of your source (FS) and target (PF) files at anytime you wish.

Another *very* useful option is the *Adjust FS FP for PF2000,* but first a little more info so you understand why it is so useful.

When you create a flight plan in FS, or any other flight planner, it really doesn't care too much about the distance between waypoints or from your departure or destination airports, whereas ProFlight most certainly does. You see, waypoints which are too close together or too close to the airport can cause ProFlight a lot of problems vectoring you from one to another. So during the *compilation* stage ProFlight will drop any waypoint it determines to be too close to either airport or too close together enroute. Subsequently you could end up with an FS flight plan which you may choose to load into the FS GPS being different from ProFlight's flight plan. What I like to do is have the two completely in sync so when I load the FS GPS I know it's showing me the exact same waypoints as there are in the actual ProFlight plan. And this is where the new option button comes in.

Note: if you don't use the FS flight plan for your GPS or FMC then this step is not necessary. For instance you may program your FMC manually, in which case please ensure you print out the ProFlight flight plan and use that as the source of data to load into your FMC.

The first thing you need to do is select the flight plan you want to adjust and then select *Adjust FS FP for PF2000* (see below). *Please note: this feature doesn't actually change the original selected FS flight plan but creates a new one of the same name but with the prefix* ***PFE_.***



The next screen (shown above) will show a list of GPS files. These files are created automatically by APLC32 and contains a list of each waypoint (by name) used by ProFlight when formulating the data for the ADV Flight File. You need to select the correct GPS file for the FS flight plan you want to adjust. Unfortunately ProFlight and FS both use different default naming conventions so it's up to you to ensure the correct files are chosen. No harm is actually done as the original flight plan file is not altered in any way, but you could end up with a rather strange flight plan in your GPS.

FS normally names its flight plans with the name of the airport, for example *IFR Luton to Dublin,* whereas ProFlight uses the ICAO codes such as *PF2000-EGGW to EIDW.*

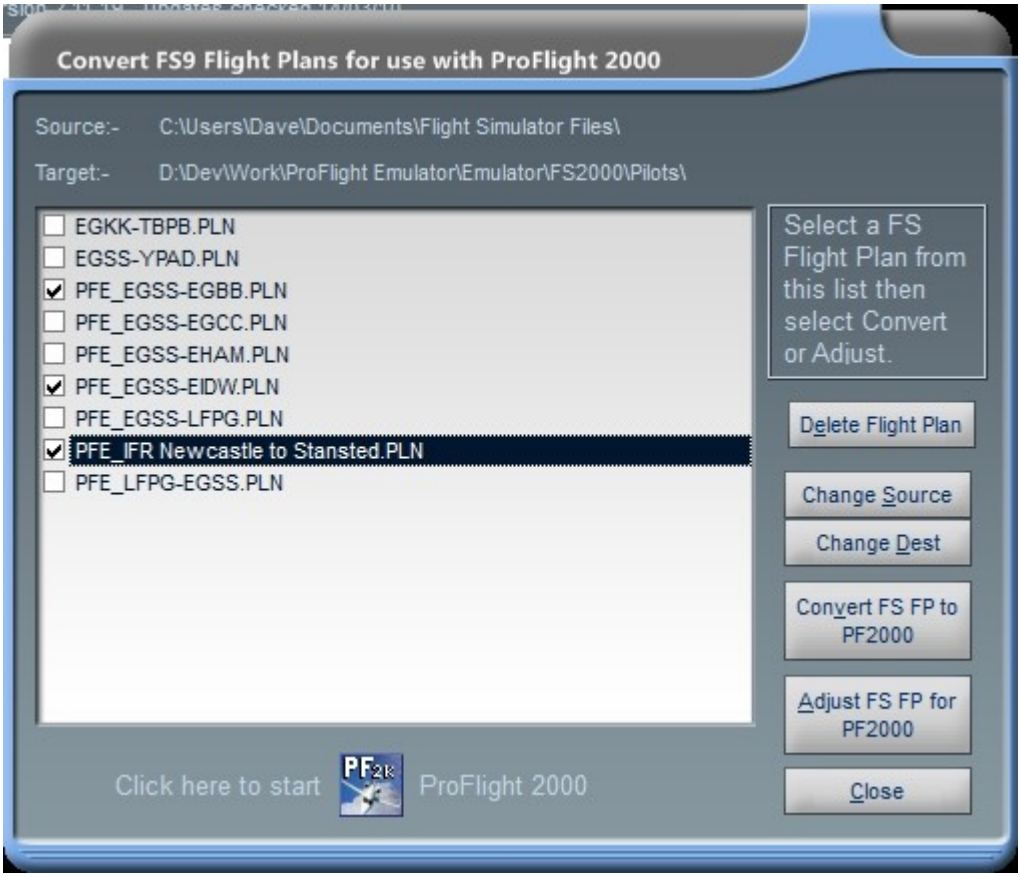
Okay, now select the correct GPS file and then select *OPEN.* You should now see the following message:

After you OK this message you will return to the FS flight plan listing and should see your newly converted file (prefixed **PFE_**) ready and waiting, and this is the file you should load into the FS GPS so you then know it will

contain the exact same waypoint data as the ADV flight file and the route which ATC will be expecting you to fly.

The last option to mention on this screen is the Delete Flight Plan button

This is part of the *PFE Housekeeping* feature and provides an easy way or removing old flight plans and their associated ProFlight files. Before using this button you must first select a flightplan, but not just by *highlighting* the filename. To select a file to delete you must double-click the file or single-click the small square immediately beside the file name. Either method is okay, provided the end result is a 'tick' mark next to the file. Using this method you can select multiple files to delete if you wish. (see example below showing three selected files)



7.2.18 … the remaining Main Menu Options

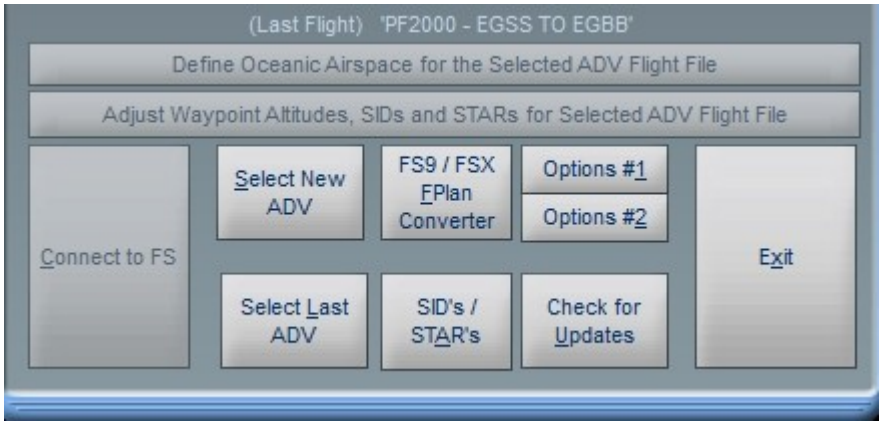
Now we go back to the main menu and the last few buttons are quite self-explanatory.

Check for Updates - does just that and this feature can either be configured to run automatically each day to check for updates or you can run it manually at any time.

Select New ADV - is used to display a list of all ADV Flight Files on your system, from which you select the one you wish to fly next.

Select Last ADV - is used as a quick route back to using the same ADV Flight File you used last time. You can actually see which one this was by checking the display just below the center picture on the main display. In the example shown you can see the last flight file used was EGSS to EGBB.

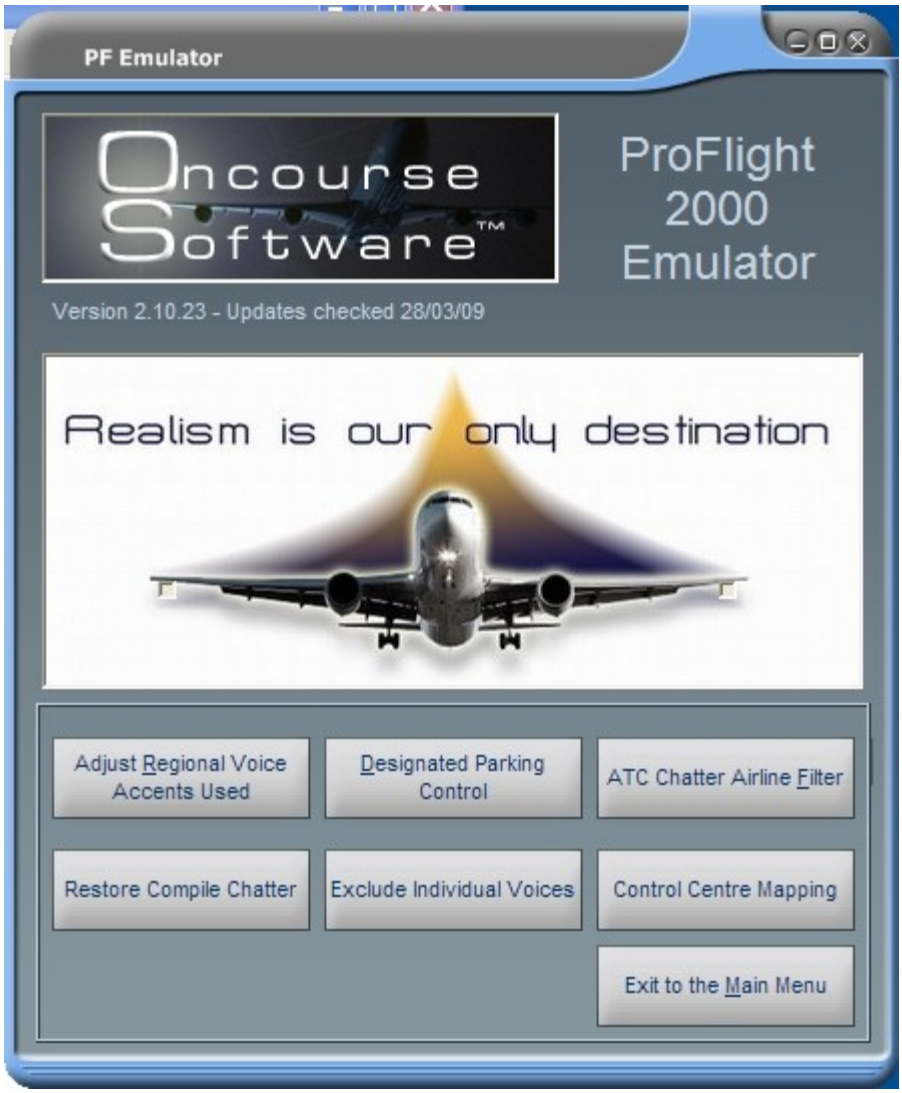
Connect to FS - Obviously once you've configured PFE the way you like you select this option to *Connect* to FS and begin your flight.



The two other buttons 'Adjust Waypoint Altitudes' and 'Define Oceanic Airspace' are describe a little later in this section.

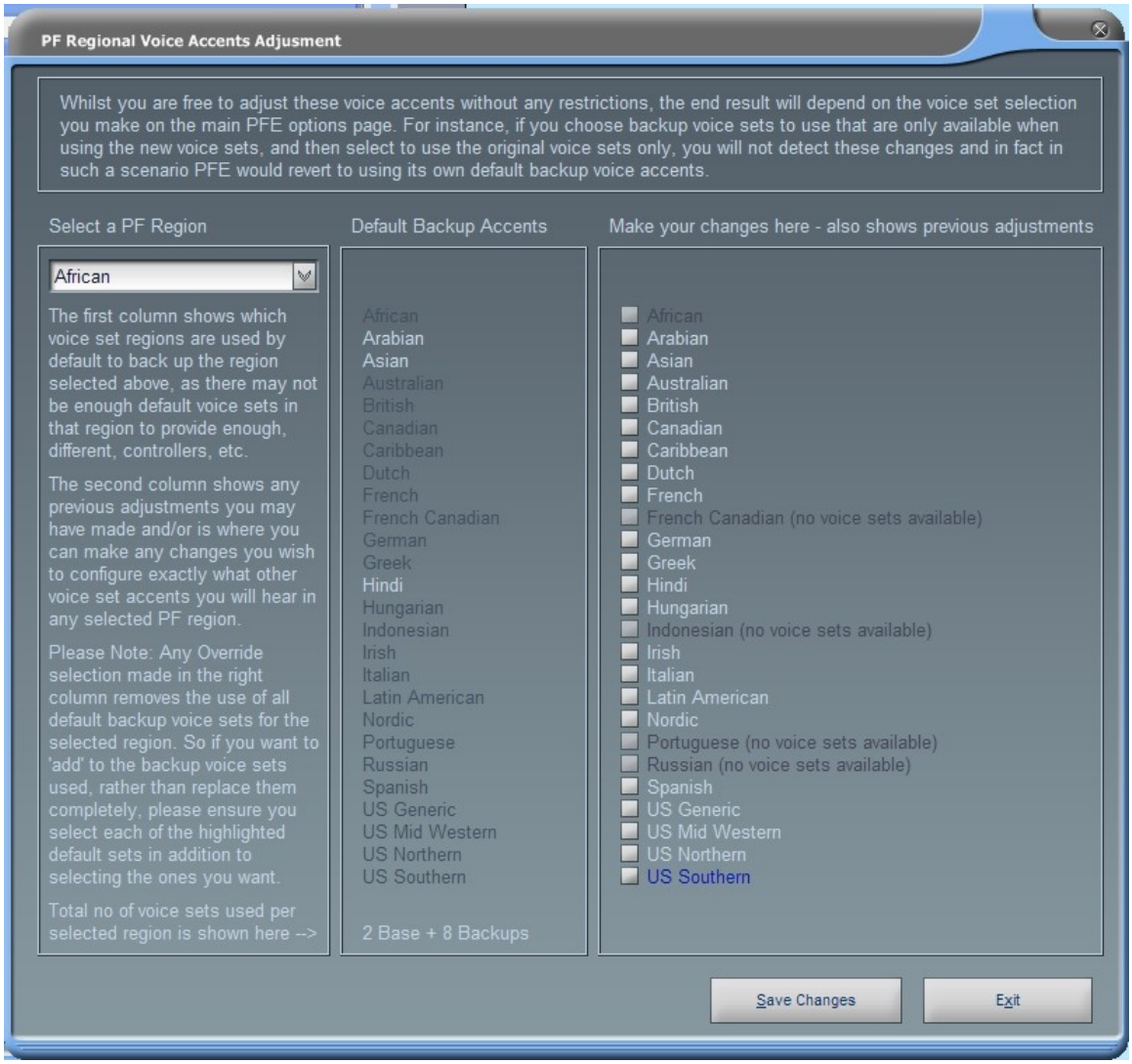
7.2.19 Options #2 Main Display

Options #2 – displays another selection of options as shown here:-



7.2.20 Adjusting the Regional Voice Accent

Select "Adjust Regional Voice Accents Used" to display the following:-



I believe there is enough explanatory text on this screen for you to see how it works. In a nutshell if PF/PFE cannot find a voice set for any particular region it uses its default backup voice set(s) instead. Equally if there are only one or two voice sets available for any region again we may have to use one of the backup sets. This new feature simply allows YOU to decide which accents you would like to hear and where. You cannot change the main default accent… e.g. The default for British will always be British but you can change which voice sets are used to back them up. For instance, the British backup voice sets are Australian and Irish but you could change this to use German voice sets as a backup for British, then at some point in your flight, once all the British voice sets have been used, you will hear a German accent. Not so realistic I know, but I just wanted to give you an example.

Again, no need for you to ever touch these settings if you are happy with the way PFE assigned voice sets now.

7.2.21 Reserve a Gate / Parking Location

Okay, let's close the Regional Voice Accent Adjustments display to return to the main menu then select Options #2 once more and then the "Designated Parking Control" button and you should see the following:-

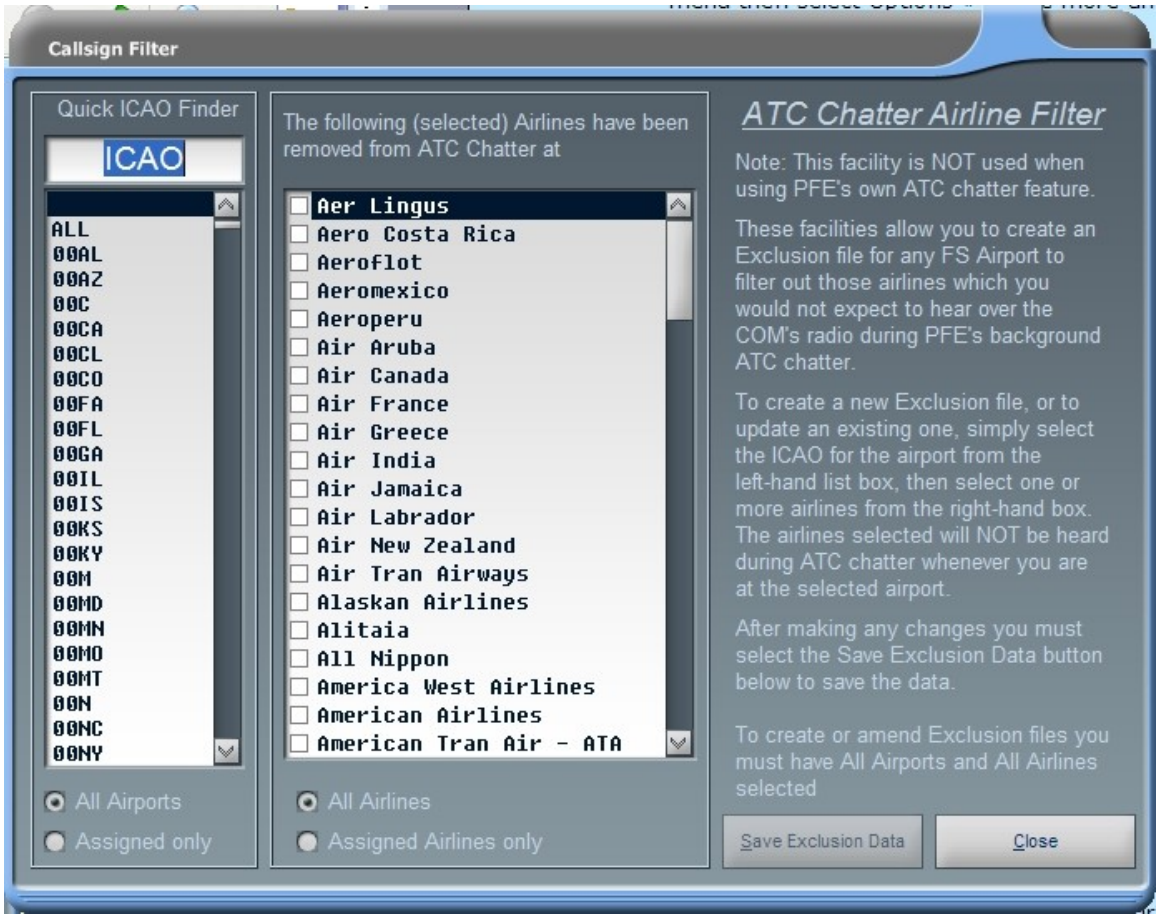
From this page you can reserve a particular terminal gate or parking area for any airport, so whenever you land at the configured airport ATC will always give you taxi instructions to that location.

Further options on this screen also provide for displaying any previously configured parking areas for all airports, plus options for deleting reservations from one airport or all airports.

Please read all the displayed instruction… they are quite simple to follow.

Right, let's close this display to go back to the main menu, then select Options #2 once more and then the "ATC Chatter Airline Filter option to display this screen:-

7.2.22 ATC Chatter Airline FIlter

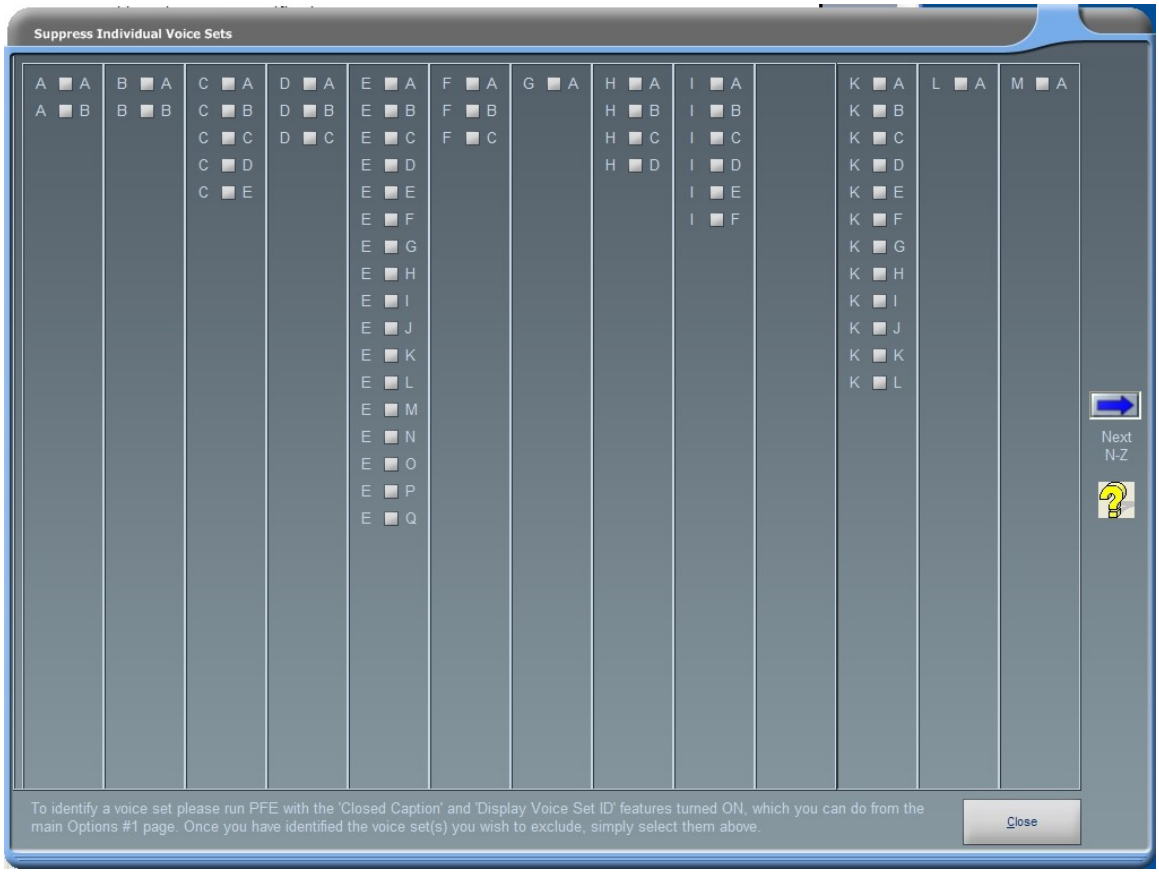


This option will only be accessible if you are **not** using PFE's own ATC chatter which is based on actual AI Traffic movements, which is highly recommended. But for those who choose to continue to use ProFlights *canned* ATC chatter this feature provides a means by which you can filter out any airlines you would not hear at a specific airport.

Once again, entirely optional and easy to use by following the displayed instructions.

7.2.23 Excluding Individual Voices

New to version 2.11 selecting this option will display the following screen



This screen displays a list of currently available voices sets from the ProFlight regions A thru M, which relate to the folder structure used under …\PFE\FS2000\Adv\Wav, although that is not really important to know at this stage.

To see a snapshot of the voice sets in the ProFlight regions held in folders N thru Z you need to click on the blue arrow icon to the right of the screen. If you try this now and then click on it again to bring you back to the above display.

Now, any voice set you select on this page will be excluded from use as either an ATC controller or AI aircraft pilot.

Why would you want to do this? Well if you've ever heard one or more controllers or AI pilots who's voice/accent you simply cannot understand or just dislike listening to, you can do something about it. But first you need to identify the actual voice set, which you can do by turning on 'closed caption' and the new 'display voice set ID' (accessed from the main Options #1 screen. With these options ‘on’ during your next flight you will see the closed caption messaging prefixed with two letters, as shown below:-

A-B Easy two one one is with you flight level two one zero

E-L Roger Easy two one one, radar contact.

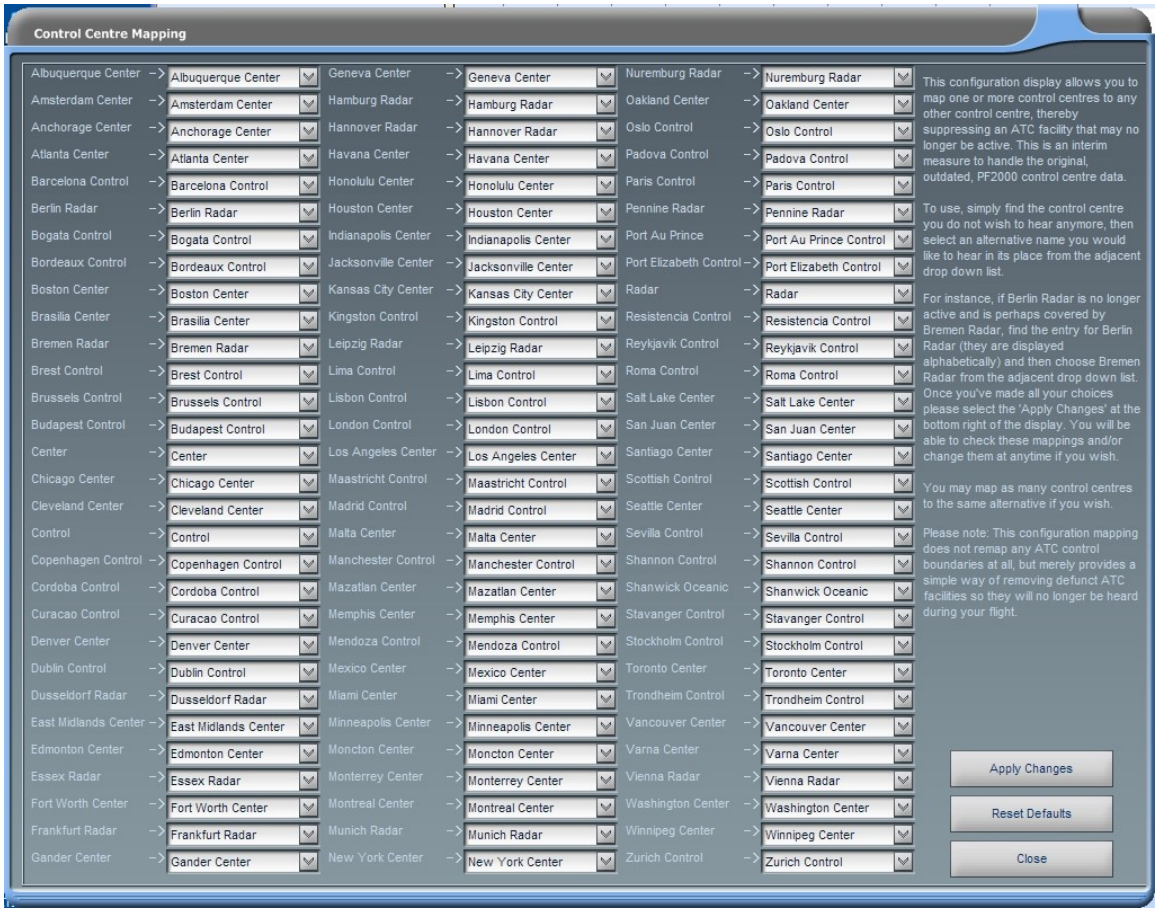
So the first transmission hear was using voice set ID A-B and the controller responding was voice set ID E-L

Once you have the voice set ID's you can now easily mark them as 'please don't use this voice set again' and you will then not hear it anymore. Please check it out... there is additional help on the selection screen but it should really be self-explanatory.

7.2.24 Control Centre Mapping

Another new feature added in version 2.11 provides a means of mapping control centre names. This is purely for those users who may hear a particular control centre name used which no longer exists and provided it is now covered by one of the other control centres already in use it may now be remapped.

Select the 'Control Centre Mapping' option to display the following display:-



As you can see in the above example screen shot, all the current PFE (PF) control centres are displayed. This configuration display allows you to map one or more control centres to any other control centre, thereby suppressing an ATC facility which may no longer be active. This is an interim measure to handle the original, outdated PF2000 control centre data.

To use, simply find the control centre you do not wish to hear anymore, then select an alternative name you would like to hear instead from the adjacent drop down list.

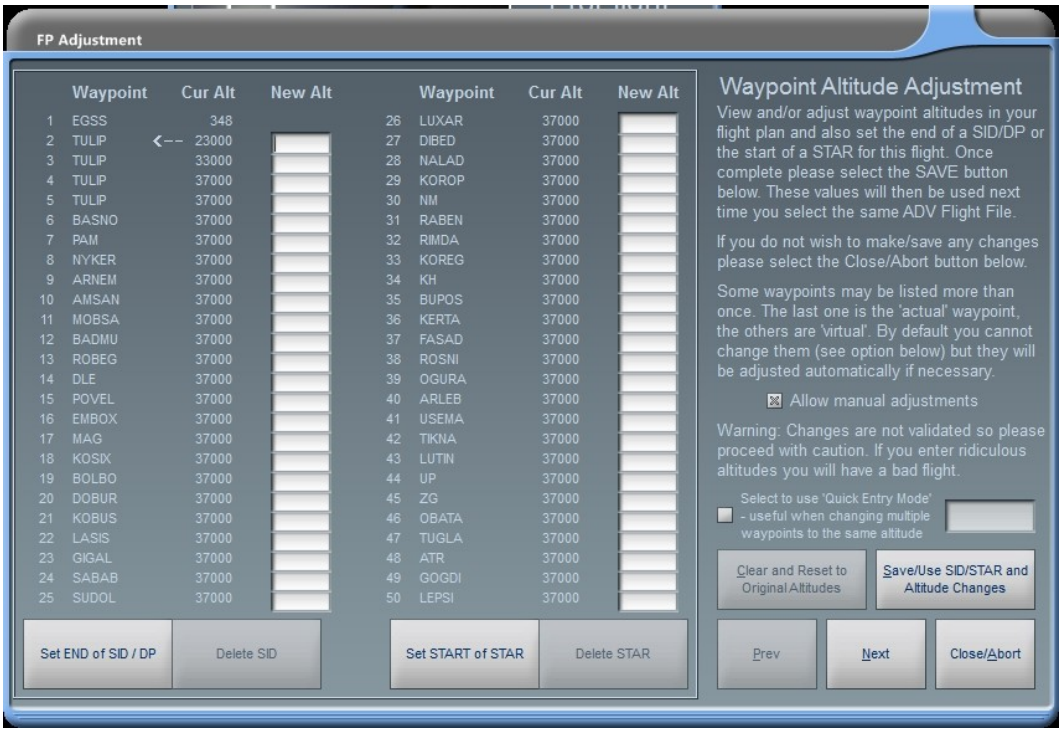
For instance, if Berlin Radar is no longer active and is perhaps covered by Bremen Radar, simply find the entry for Berlin Radar (they are displayed alphabetically) then choose Bremen Radar from the adjacent drop down list. Once you've made all you selections please select the 'Apply Changes' at the bottom right of the display to save them. You will always be able to view and/or change any of your changes at a later date if you wish.

You may map as many control centres to the same alternative if you wish.

Please note: This configuration mapping does not remap any ATC control boundaries at all, but merely provides a simple way of removing defunct ATC facilities so they will no longer be heard during your flight.

7.2.25 Waypoint Altitude Adjustments

From the main menu display, once you've selected your flight and are ready to connect, there is another option of which you should be aware. Press "Adjust Waypoint Altitudes, SIDs and STARs for Selected ADV Flight File", and you will be presented with the following:



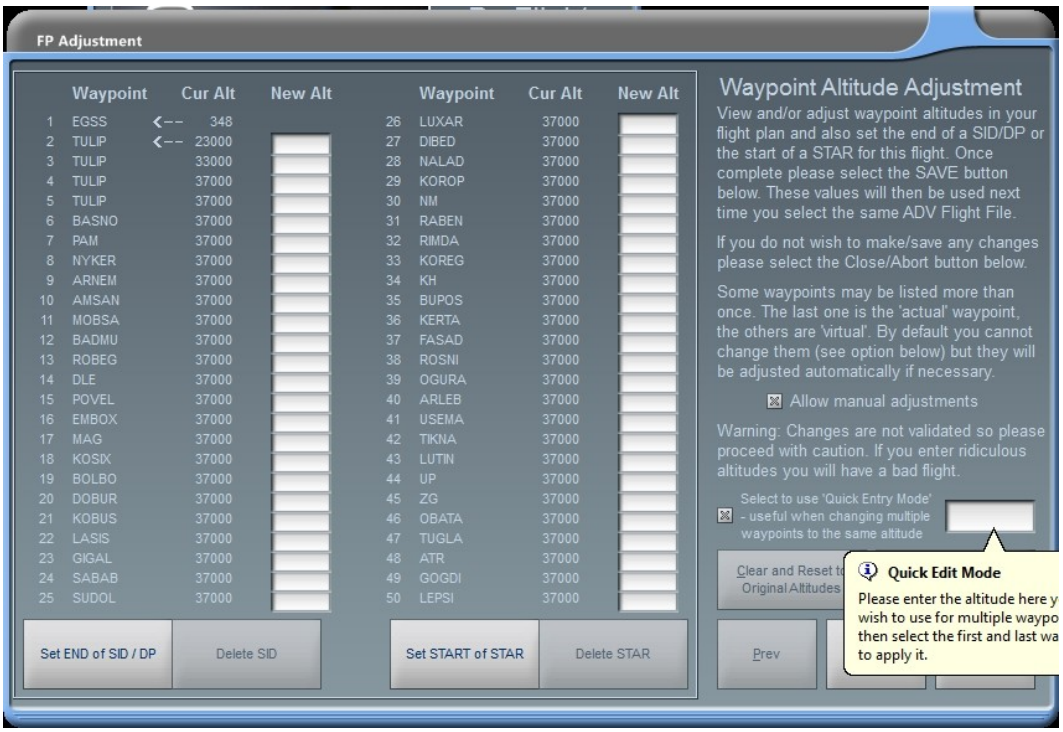
Here you see each of your waypoints in your flight. If there are more than will fit on one screen you can use the Next/Prev buttons to scroll back and forth as necessary. From this screen you may alter any of your crossing altitudes, but remain aware of the capabilities of your aircraft!

This feature has been provided to make it much easier to quickly change your climb/descent profile, rather than using the somewhat cumbersome default method in ProFlight during the *Compile* stage.

And new to version 2.6 is the waypoint altitude *Quick Entry Mode,* designed to make this job even easier for you.

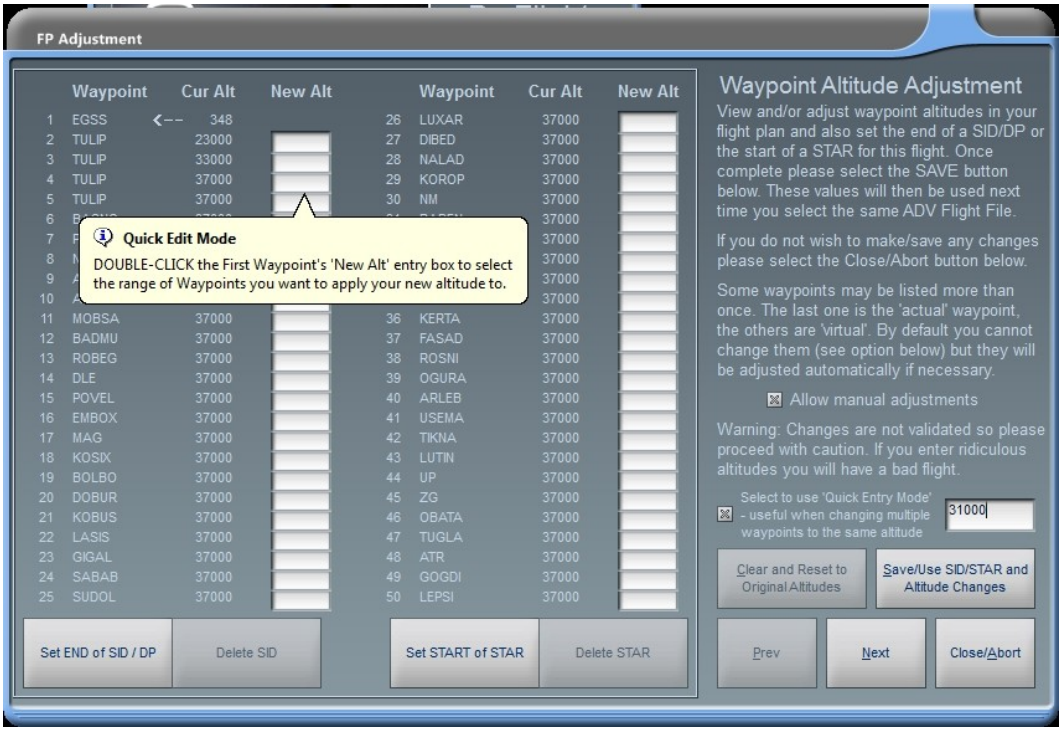
In the above screen shot you will see the cruise altitude is set at 37,000'. Let's imagine this is either incorrect or you require it to be 31,000. Rather than having to manually re-enter this for each waypoint all you now have to do is select the new option near the bottom right of the screen to turn the *Quick Entry Mode* ON.

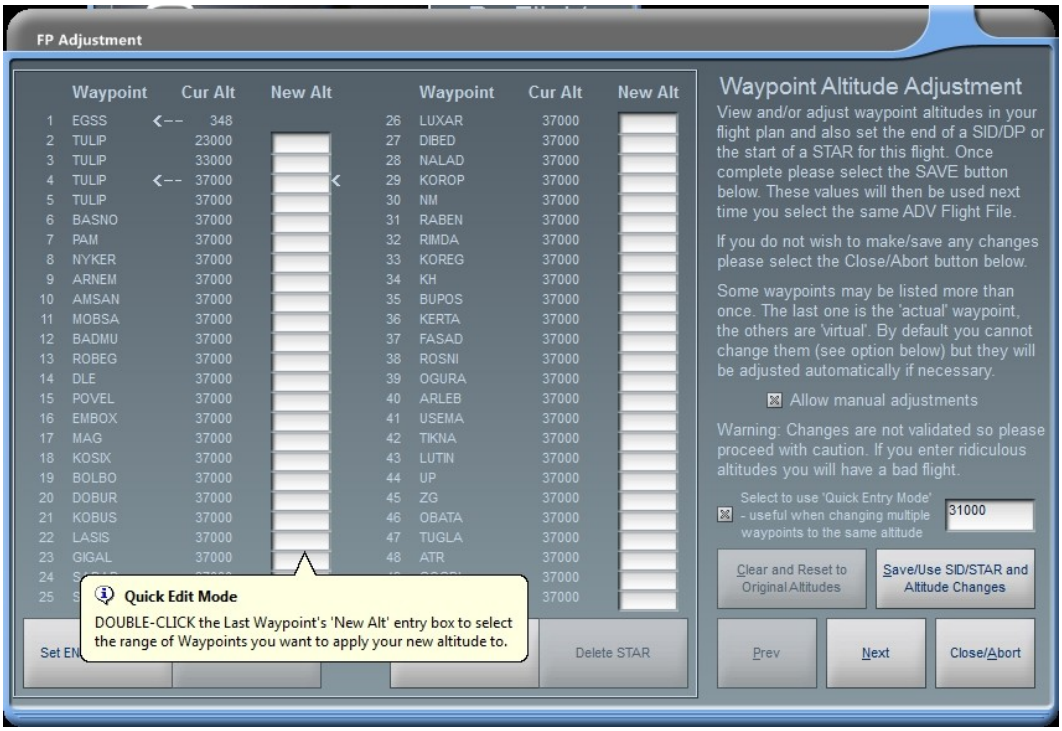
A small *Help type Balloon* will then appear, prompting you to enter the new altitude you want to apply to selected waypoints:-



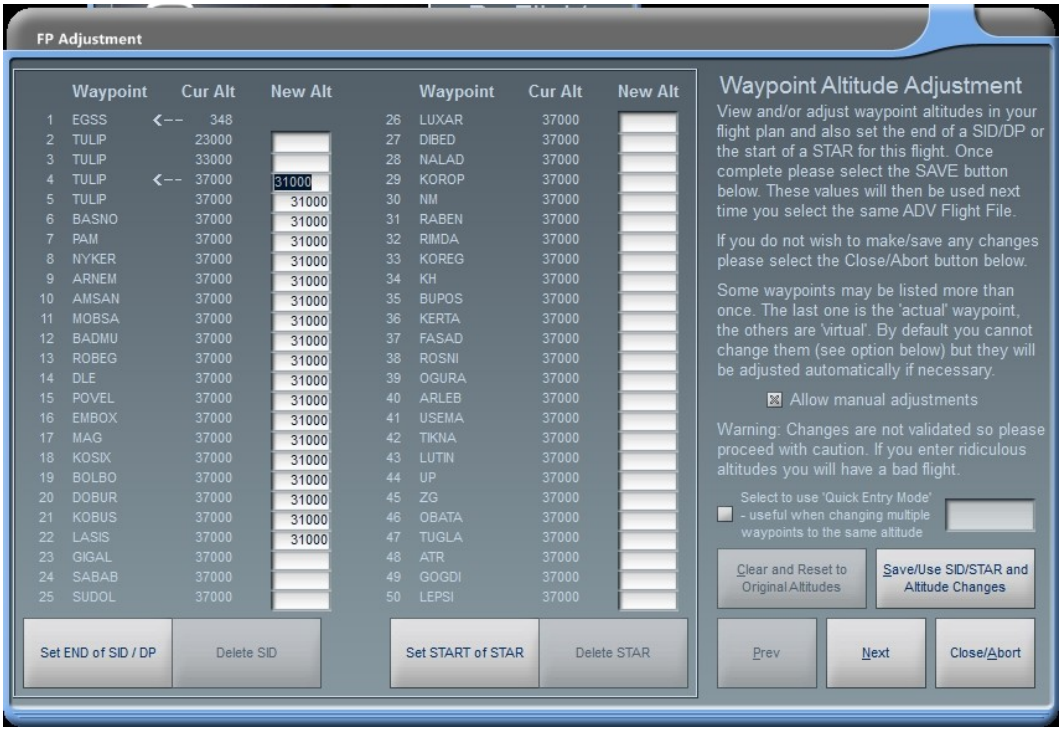
For this exercise enter 31000 for the new altitude

Now move your mouse to the left and **double-click** in the altitude box for the first waypoint you want to change… you'll see a small arrow displayed to the right of the altitude entry box when the double-click is recognized.





Now do the same for the last waypoint (see above). At which point your new altitude will be copied into each of the waypoint's *New Alt* entry boxes. (see below)



New to version 2.11 we have CHANGED the Waypoint Altitude Adjustment display screen with regard to duplicated waypoint names. Only one of the duplicated waypoint altitudes will be adjustable, the others will be locked. This is to simplify the process of changing waypoint altitudes and make it less confusing for some users. If/when you change a waypoint altitude which has duplicate entries on the screen the related altitudes will be automatically adjusted to match the change entered by the user.

Note: Duplicate waypoints are not an error, it is simply how ProFlight works and uses these waypoints for various things, amongst which is step climbs and descents. The last of duplicated waypoint is the 'actual' waypoint and the previous entries are simply 'virtual'

For example, let's say you have waypoint ABC listed three times with altitudes settings of 6,000, 8,000 and 10,000. The first two entries will be locked and you will not be able to adjust them directly. So you change the 10,000 to 8,000 (you reduce it by 2,000). PFE will then automatically change the 6,000 to 4,000 and the 8,000 to 6000. So your three listings for waypoint ABC now show, 4,000, 6,000 and 8,000 (each one being reduced by 2,000).

Also, any altitudes for your destination airport (other than the runway elevation) have also been removed.

However, for those that dislike this new display there is now a new option mid-way down on the right-hand side of the screen that allows you to unlock the locked waypoint altitudes and change them all manually.

We hope those who have found this screen to be a little confusing now find it much easier to work with and those who prefer the original layout can continue to do so.

New in version 2.12 is an extension of our SID/STAR feature, which you can now configure from this same waypoint altitude adjustment screen to complement and/or override the entries on the main SID/STAR display page.

New buttons below the waypoint listing allow you st set the end of a SID (DP) or the start of a STAR.

Now, before we all get consfused let's explain a little more. Currently, if you setup a SID you set an altitude and PFE will *assume* your published departure is complete once you reach that altitude or reach the first waypoint in your flight plan (whichever occurs first) and at which point you are under ATC control. Using the new Set END of SID/DP button, however, you may select any waypoint in your flight plan to mark the end of your published departure. Using this method will use the same altitude you may have set in the SID/STAR page and will also turn on the global SID Active option if it is currently off. Also, just like we do now, if you haven't set an altitude then PFE will automatically assign one at the time you receive clearance.

In much the same way the way a STAR works currently is this... you are automatically cleared to finals at pilot's discretion upon reaching the last waypoint in your flight plan. Using this new feature from the waypoint altitude adjustments page enables you to select any waypoint in your flight plan to commence flying your published approach.

When you reach that waypoint ATC will clear you to continue via your STAR

"Easy 211 continue via the Sierra Tango Approach... remain on this frequency, I'll have traffic for you'.

and then, when you reach the last waypoint in the flight plan ATC will take over again and vector you to the FAF.

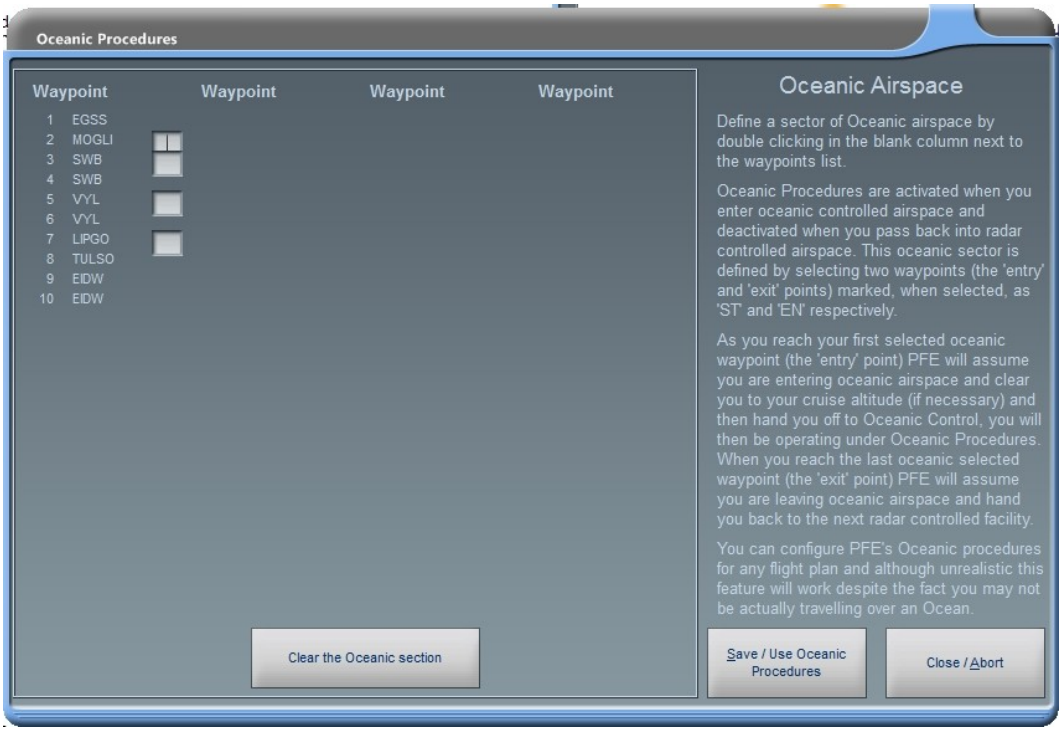
Whilst flying your published approach you may of course descend accordingly and indeed you are advised to ensure you reach the last waypoint in your flight plan at a suitable altitude in order to be able to complete your approach to the runway. If you leave your self too high please don't blame PFE.

Also, as described for SIDs, if the global STAR Active option is off then using this new feature to enter a starting point for your STAR will turn the feature on, so it's akind of override really, but one you can use to expand on the SID/STAR features already available.

One very important to remember... when you choose a waypoint to begin your STAR you will still be expected to navigate to each of the remaining waypoints in your flight plan.

7.2.26 Defining Oceanic Airspace

New to version 2.12 - From the main menu display, once you've selected your flight and are ready to connect, there is another option found just above the Waypoint Adjustment's button name *"Define Oceanic Airspace for the Selected ADV Flight File".* Selecting this button will display the following screen:-



This feature expands on our North Track Atlantic Crossing procedures between Shanwick/Gander control centrers. Following several user requests we have now provided you with a means by which you can define Oceanic Airspace to any of your flight plans and thereby operate under Oceanic Procedure Control whilst flying through that area.

This is very different to our Shanwick/Gander feature, because that works with actual control centers generated within the ADV Flight File, whereas this new feature requires the user to define the start and end points (using flight plan waypoints) as to where the oceanic airspace is. Now, this can be as realistic or unrealistic as you like. The flexibility of this new feature allows you to define oceanic airspace to ANY flight plan, so you could in fact simulate an oceanic crossing over land... but that's entirely up to you. And that is exactly how I tested this feature during developmwnt, as I obviously did not wish, nor have the time to spend, actually flying over a ocean. So my tests were always flying over the English channel from the UK to France.

You will see that this new screen is a little similar to the waypoint altitude adjustments display, in as much as it lists each waypoint in your currently selected flight plan, besides which is a new column containing open/blank text boxes.

Oceanic Procedures are activated when you enter oceanic controlled airspace and deactivated when you pass back into radar controlled airspace. This oceanic sector is defined by selecting two waypoints (the 'entry' and 'exit' points) marked, when selected, as 'ST' and 'EN' respectively. You define the sector simply by double clicking in the blank column next to the waypoints list... first to mark the starting point and then to mark the end point.

During your flight, as you reach your first selected oceanic waypoint (the 'entry' point) PFE will assume you are entering oceanic airspace and clear you to your cruise altitude (if necessary) and then hand you off to Oceanic Control, you will then be operating under Oceanic Procedures. This includes simulated HF radio transmissions using real world SELCAL sounds when ATC contact you. Your VCP will also radio through position reports at each intersection/waypoint as you progress through the flight.

See section 23 for more details on these procedures and how they work in the real world.

When you reach the last oceanic selected waypoint (the 'exit' point) PFE will assume you are leaving oceanic airspace and hand you back to the next radar controlled facility.

Obviously we don't have the necessary data for worldwide oceanic control areas, nor do we have any recorded oceanic control names (other than Gander and Shanwick) so when flying under oceanic control in any other area not covered by Gander/Shanwick the facility you tune to will simply be called 'Oceanic Control'.

7.2.27 Remove Compile Chatter

This option can be used to speed up the compile process ProFlight goes through when creating the PFE ADV Flight File. This is achieved by removing the unnecessary *'chatter'* you hear during this process. Normally it goes something like this:-

"Flight service, your call sign, I'd like to file the attached flight plan."

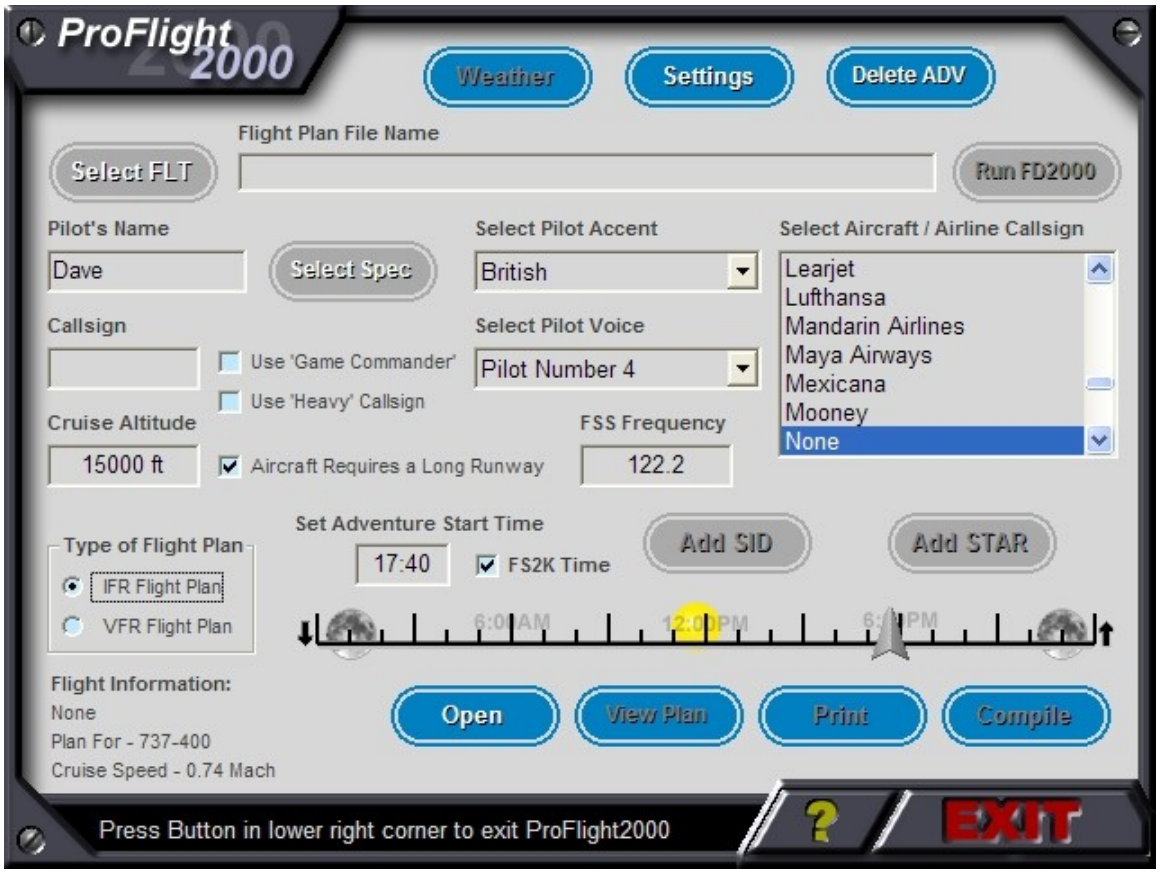
After a short while you would then hear:-

"Your call sign, Flight service, your flight plan has been filed, contact clearance on xxx.xx"

By removing this unnecessary chatter the actual time taken to complete the compile process can be reduced by approximately 50%. On our test system this process now takes just 20 seconds!

The first stage to achieve this is to select this is to select the 'Remove Compile Chatter' option and 'OK' the warning message. You will note that the caption on this button has now changed to 'Restore Compile Chatter' which obviously allows you to restores things back to how there were if you don't like the end results.

The next stage has to be performed via ProFlight 2000, so please start it now.



On this screen you must select *'None'* for the Aircraft, then British and Pilot Number 4 for the pilot accent. (Please note: this is NOT the voice you will hear in PFE, it's only the voice selection used to play various things during compilation of the ADV Flight File).

Un-tick the *'Use Heavy CallSign'* if it's selected

Delete any call sign you may have entered.

Now close ProFlight and that's it.

Next time you create a ADV Flight File you will only hear the pilot's voice say *'Flight Service'* instead of *'Flight Service, Callsign, I'd like to compile the attached flight plan'*. Then, after a short pause, you will here the controller say *'Flight Service xxx.xx'*, instead of saying *'Callsign, Flight Service, your flight plan has been filed contact clearance on xxx.xx'.* The frequency given is of course still the first frequency you need to tune to in order to make initial contact with ATC once PFE is running, but the rest of the verbiage will not be heard.

Obviously if you prefer to hear everything as it is now just leave it as it is, the choice is yours. Personally I prefer the 20 second compile time and don't need to hear all this chat.

Alternatively, should you change things but then decide you want to change them back again simply select the airline and pilot voice of your choice, add a

call sign (if required) then from PFE's Option #2 page select the 'Restore Compile Chatter' button and everything will be returned to normal.

7.3 PFE INI File Settings

The following is a list of (new to version 2.12) additional (optional) INI file settings that can be added/changes to suit your own requirements

7.3.1 Project Magenta Support

To activate support for the Project Magenta MCP you need to add/change the following setting to the **[CONFIG]** section of the PF_Emulator..INI file. See section 8.53 for more details on this feature

PMAP=1

7.3.2 Extended ACARS ATIS Report Display

To use the new ACARS ATIS display window open the PF_Emulator.INI file (in the main PFE folder) and look for the **AcarsX** entry in the **[CONFIG]** section and change it from the default

AcarsX=0

to

AcarsX=1

The next INI file entry...

AcarsDelay=30

...is the number of seconds the new display will remain on-screen before automatically closing. However, should you be reading the ACARS report and decide you do not want the display to close automatically simply select the *Hold Display* button and the report will then remain on-screen until you select the *Close* button.

This ACARS report is displayed by using the same hotkey as you use for the kneeboard ACARS display

Please see section 8.55 Extended ACARS Reporting for further details on this feature.

7.3.3 Say Again ATC Log

To use the ATC Log display you need to open the PF_Emulator.INI file (in the main PFE folder) and look for the SayAgainOp option in the **[CONFIG]** section. Please see section 8.56 'Say Again' Display for further details on this feature

By default this will be set to...

SayAgainOp=0

...which means your 'SayAgain' hotkey will work just like it does now.

Setting this to...

SayAgainOp=1

...will only display the new ATC log showing the last 10 ATC commands. In this mode you will NOT hear the normal 'Say Again' request/reply.

Setting this new option to...

SayAgain=2

...will display the new ATC log showing the last 10 ATC commands PLUS you will hear the normal 'Say Again' request/reply.

So, in summary, 0=Say Again only, 1=Display Log only, 3=Both

The new display can be positioned where you want and it will remember that position the next time it is shown. Also the display will refresh every 5 seconds whilst displayed, so if you have the window permanently displayed you will see all new ATC com's appear automatically, with the older message scrolling off the top of the display.

Three additional options are avaiable for this feature which you can ADD to the PFE INI file under the **[TWEAKS]** section

AtcSayAgainNoFontResize=1

This one will prevent the size of the text changing when/if you resize the ATC *Say Again* window. Setting it to zero or removing the line completely will put things back as they were and the text will change in size in relation to the window size.

AtcSayAgainLargeFont=1

This option allows you to choose a slightly larger font than the one set by default. Obviously you could use both of these options to show a larger font and keep it that size even when you resize the window. Or maybe you could have the larger font but have it resize when you make the window smaller to achieve *your* optimum display preference.

ShowAtcLog=1

The third option enables this new ATC 'Say Again' window to be displayed automatically as soon as you 'connect' PFE to FS. This was added because some testers liked to have this window open all the time, right from the start of their PFE session.

7.3.4 Final Approach Speeds

The following options can be found in the **[TWEAKS]** section of PFE's INI file. Further details for this feature can be found in section 8.59 Final Approach Speeds

To turn this feature off completely and use the default (pre version 2.12) values of 190 knots for jet engine aircraft and 140 for props use the following setting:-

FinalApproachSpeed=OFF

To use the *Flaps_Up_Stall_Speed* for the aircraft you're currently flying (eg. 737=142, Lear=112, Cessna=53 and rounded to 140, 110 and 50 respectively) use the following setting:-

FinalApproachSpeed=0

To use a slightly higher approach speed you may add a value that will be added to the value read from the aircraft cfg file. For instance, setting the option to '20' (as shown below)...

FinalApproachSpeed=20

...would result in approach speeds for the FS default aircrafts mentioned above of 737=160, Lear=130 and Cessna=70. (please note, whatever the result PFE will round to the nearest 10 knots, so if the value read from the aircraft cfg file, plus your adjustment, came to 164 PFE would use 160.... for a value of 166 PFE would use 170.

7.3.5 Truncate AI Traffic Callsigns

This option must be added to the **[TWEAKS]** section of PFE's INI file.. If you place it elsewhere the feature will simply not work. See section 8.60 Truncate AI Traffic Callsigns for full details on what this feature does and how it works.

TruncateChatterCallsigns=1

Turns this feature ON

TruncateChatterCallsigns=0

Turns this feature OFF. Deleteing the entry completely will also have the same effect

7.3.6 Bad Radio Reception Simulation

The option for this feature can be found in the PFE INI file under the [TWEAKS] section.

BadReception=25

This sets the probaility factor (between 1-100) of the reception from AI traffic being much lower than normal, due to bad radio reception. If you set it to 100 then all AI traffic, when tuned to a control center (not clearance, ground, tower, departure or approach), will be hard to hear.

If you don't like this feature, even when using a lower setting, then simply change it to zero to turn it off completely

BadReception=0

7.3.7 ATC Nags

The following options will be found in the PFE INI file under the [TWEAKS] section.

AltTimer=120

If you don't start your climb/descent within the time specified here (this is entered as seconds) ATC will give you a reminder to do so. If, however, you are climbing/descending but have perhaps not yet reached your target altitude ATC will not nag you at all.

Checks will start (by default) 2 minutes (AltTimer=120) after you receive the initial instruction to climb or descend... so if you don't commence your climb/descent within that time you will be reminded. The exception to this is when initially told to descend from your TOC at 'pilots discretion'... the 'delay' time is then set to double whatever the default delay is plus 60 seconds.

E.g. Unless you change it the default is 120 seconds (2 minutes) so when told to descend at pilots discretion' the time delay before checking you are actually descending is set to 120 * 2 + 60 = 300 seconds (5 minutes).

If you adjust the default time delay to be 5 minutes (AltTimer=300) then a 'pilots discretion' descent will have a time delay set of 300 * 2 + 60 or 11 minutes.

HdgTimer=60

If you don't start your turn to the required heading within the time specified here (this time is entered in seconds) and your aircraft is not actually turning/banking then ATC will remind you to do so... if you are still turning then you won't get nagged.

The default setting to start checking your heading is 1 minute (HdgTimer=60), so if you haven't started your turn within this time ATC will remind you to do so, but you can adjust this time delay if you wish.

7.3.8 ATC Errors

The following option can be found in the PFE INI file under the [TWEAKS] section.

ClrError=3

This is the probability percentage which determines if the controller giving you initial clearance makes a mistake or not. The value entered here should be between 0-100, where 1 would be a 1% chance of an error being made during clearance delivery and 100 would mean the controller will always get it wrong.

Setting this value to zero ('0') will turn the feature off so the controller would always get it right.

7.3.9 Final Distance Prompt During Taxi to the Gate

The following option can be found in the PFE INI file under the [TGS] section.

FinalPromptAt=50

This is where you can change the final 'distance prompt' used during your taxi to the gate. This option is different to the *'Distance to prompt for next turn'* which you can change from the main Options #1 page and which is used to determin when your VCP will warn you about the next directional change during your taxi. This new option, however, determines when your VCP will tell you to turn left/right into the actual gate at the completion of your taxi.

Since TGS was first added to PFE this final prompt distance has been hard coded (unchangeable) at 50 metres. This new option has been added following the request from one of our beta testers. So, if you find you don't have anough time to make your turn to the gate you can adjust this setting

accordingly. The number represents 'metres' and the higher the number the earlier you your VCP will say *'Left/right to gate'*

Please bear in mind though, the reason this distance has always been set at 50 metres is so you can be absolutely certain which gate your VCP means when he say turn 'left/right to gate'. We/I have always found this to work perfectly so you should only mess with this value if, like out beta tester, you find your VCP is telling you to make the turn too late. By the time I get to the final taxi waypoint I always ensure I am doing about 3-5 knots... that way my turn into the gate is always just right.

7.3.10 Gate Only Parking

Adding the following option to the PFE INI file, under the [TWEAKS] section will ensure when you receive taxi instruction to the terminal you will always be sent to a Gate and not to a Parking location.

GateOnlyParking=1

This option was added as a direct request from one our our beta testers.

Please note: If you already have a gate/parking location 'reserved' for any airport that will take precedence over this option. Also please remember if you add this new option to the INI file and arrive at an airport where (a) you haven't reserved a gate and (b) there are no free gates available then you will not be sent to a parking location but will instead simply receive the default taxi instructions 'Taxi to Terminal'

8. WHAT HAVE WE ADDED TO PFE THAT WAS NOT AVAILABLE IN PF2000?

8.1 Taxi Guidance System

You're going to love this and it marks a first for PFE. **With V2, you now have FULL taxi instructions from ATC, in a fashion similar to that provided by the default FS ATC.** But, as a further refinement of this feature, we've added a visual and audio system that will guide you from your start position (gate or hard spot) to the active runway, or from the runway to the gate (for arrivals). You will hear your VCP giving instructions like… "next left into delta… bear right into bravo two… straight on… gate two seven on the left…", and you will also be able to see the general direction of the next taxiway waypoint by using the (optional) TGS gauge.

The installation of this optional gauge is explained fully in David Leesley's excellent tutorial – see section 3

This is your basic TGS directional gauge. There are a couple of important features that you should know:

1. Use of this gauge is entirely optional! Should you decide not to install it, it is recommended you enable the HDG BUG option, which will always indicate the direction of the holding point for the active runway. *Be aware this feature may not work with all third party add-on aircraft*.

2. The green arrow (gauge pointer) points directly towards your next taxi waypoint. Remember you are responsible to avoid any intervening traffic or buildings!

3. Below the gauge pointer is a number that represents the remaining taxi waypoints to be crossed before reaching your holding point for the active or gate. This, naturally, is a descending number. Number 1 will always be the runway holding point or gate.

4. Down either side of the gauge pointer is 5 LED's, which illuminate to indicate the distance to the next taxiway waypoint. 5=Greater than 100 meters to go; 4=Less than 80 meters; 3=Less than 60 meters; 2=Less than 35 meters; 1=Less than 5 meters. If all the LED's are dark, you will possibly hear the audio prompt for the next turn (if you've enabled this feature). PFE will skip too many repetitive calls of the same instruction (turn left, turn left, turn left).

Once installed and the audio enabled via options, you will be guided accordingly. We cannot guarantee this to be 100% accurate but would certainly like to think we get it right 99% of the time.

Please Note: Should you wish to *deactivate* TGS at anytime, simply use the #1 hotkey. Should you hit this key by accident whilst TGS is active just hit it again to reactivate. TGS will not actually *catch up,* so if you some way into your taxi route you will have to use the new 'skip taxi waypoints' hotkey mentioned in section 15.1

8.2 Oceanic Procedures

Another first for PFE are our Oceanic Procedures when flying to/from the US (over the pond) and between Gander/Shanwick controlled areas. This includes simulated HF radio transmissions using real world SELCAL sounds when ATC contact you. Your VCP will also radio through position reports at each intersection. See section 23 for more details on these procedures and how they work in the real world plus the exciting new features offered with version 2.12 to enable Oceanic Procedures anywhere in your flight sim world.

8.3 Additional Voice Sets

PFE version 2.0 supports the optional installation of our new voice set expansion pack. Once installed there are new PFE options that allow you to use just the new voice sets, the old ones or a combination of both. The new voice sets include a much wider vocabulary and as such some of the new version 2 features will only be available when the Voice Expansion pack is installed. The new voice sets cover the following PF regions.... African, Arabian, Asian, Australian, British, Canadian, Caribbean, Dutch, French, German, Greek, Hungarian, Irish, Italian, Latin American, Spanish and US.

8.4 New Call Signs

Approximately 1,000 New call signs have now been added to the product in version 2. These include WizzJet, Air Contracts, WestJet, EasyJet, Monarch, TNT, etc, etc. These are additions and not replacements. So you should hear ATC using the full call sign rather than the three character airline ICAO or the first three letters only.

Please Note: If you wish to use one of these for your own call sign they are not available from the ProFlight settings page and have to be selected from PFE's own options.

8.5 Enhanced Traffic Advisories

Our existing traffic advisory service has been enhanced further... you will now hear the general heading of the AI aircraft plus the actual heading... as in, 'traffic at 2 o'clock, altitude 5,000, heading west two seven zero'

8.6 ATIS Frequencies

ATIS frequencies for your departure and destination airports are now written to the BRF file which can be found in the …\PFE\FS2000\ADV folder

8.7 No Speed Restriction

There is a possibility that ATC will now give you a 'no speed restriction' call, which basically lifts the maximum of 250 knots when flying below 10,000

8.8 Clearance Delivery

When contacting Clearance Delivery (or Ground Control) you will now hear the actual Gate number you're sitting at. E.g. 'Clearance, Speedbird 2686 at Gate three zero, IFR, with information Mike'

8.9 Takeoff Clearance

Take off clearance now includes wind speed and direction. This will be heard when ATC are talking to you and/or AI Traffic

8.10 Flight Plan Altitudes

We have added a new feature to PFE which will allow you to easily view and/or change any of your flight plan's waypoint altitudes rather than stepping through each one individually via the original PF options.

8.11 Force ATIS

A new user option has been added so you may choose if you wish to enforce tuning to ATIS prior to obtaining clearance.

8.12 Regional Alt Baro Calls

You can now set your preference for when ATC gives you the Alt Baro reading for each of PF's 26 regions. By default these options will default to OFF so all readings will be given in hectopascals, so you will hear 29.92 rather than 1013. But now you can configure these options so you could hear different calls at your departure and destination airports if flying from one PF region to another.

8.13 Requesting Higher/Lower Altitude

Two new hotkeys have been added to PFE (version 2.3). These are 'H' (to request a higher altitude) and 'L' (to request a lower altitude) but these can obviously be changed to your own preference (if you wish) via the PFE Hotkey options screen.

To make a request you hold down the relevant key (H or L) then press and release one of the number keys (top row of keyboard)... which must be 1 thru 9... then obviously release the H or L key.

The numbered key indicates how many 'thousands' of feet you want to climb or descend. So, if you're currently at 20,000' and wish to climb to 25,000' just hold down the 'H' key then press and release the number '5' key. Equally, if flying at 15,000' and you require an altitude of 12,000' you would hold down the 'L' key then press and release the number 3 key. There is a 10% chance your request will not be authorised.

8.14 Changing Which Accents You Hear and Where.

A new option was added to version 2.4 to allow you to change the voice set accents you will hear in each PF region. For instance, by default, when flying in the UK PFE defaults to using British accents and then, to ensure you don't here the same controller voice too often we use a system of backup voice sets. This also helps if there are no voice sets available for any particular area or maybe only one or two of them. So the default backup accents for the British voice sets are Irish and Australian. With this new option YOU can decide which accents you want to hear (in addition to the main default which cannot be changed).

So, to summarise, in the UK the British accent will always be the default and it cannot be changed but you can now choose what other accents to use. This new option can be accessed by using the 'Options #2' button from the main PFE screen.

8.15 AI Traffic Detection

Another exciting feature we've added is AI Traffic *detection*. Not quite as exciting as AI Traffic *interaction* which is basically not fully possible and will not be so until Microsoft issue an AI Traffic SDK, which is highly unlikely. Nonetheless, AI Traffic detection is without doubt a *must have* for any ATC program.

So, what exactly have we achieved...?

...at your departure...

At your departure airport, once you're on the taxiway approaching the *active* runway **PFE** will start to check the taxiing aircraft around you and any aircraft on approach to your designated runway. **PFE** will not issue instructions for you to enter the *active* runway whilst there are any aircraft close by and on final approach. The exact distance is set by default to 6 miles for Jet aircraft and 3 miles for smaller, prop, type aircraft. This, along with the many other PFE options, is user configurable.

When lining up behind other aircraft on the taxi way you will be told something like this:- *"...expect clearance in ten"*

When next in line for takeoff you will be instructed to "*Hold for traffic*" if there are any aircraft actually on the runway on finals.

When awaiting the arrival of another aircraft you will be instructed to *"taxi into position and hold"* as soon as it's safe to do so after the other aircraft has landed.

Once all other aircraft have left the active runway you will receive takeoff clearance.

...en-route...

PFE provides real-time traffic advisories en-route, just like FS2004/FSX, giving you the AI Traffic's altitude, heading and position relative to your aircraft's heading.

...during approach...

During the approach phase of your flight **PFE** will prevent any other aircraft from taxiing onto the *active* runway and should therefore prevent any annoying go-around caused by such things. **PFE** will also attempt to handle traffic separation between you and AI aircraft on route to the same airport and runway. However, due to interactive limitations with AI traffic this feature is not very elegant so we basically only deal with traffic behind you.

8.15.1 Additional Ground Control Monitoring (added in version 2.9)

Now, when taxiing to/from the runway if your route takes you over a runway you will need to obtain clearance to do so. As in the real world you should **not** cross **any** runway unless cleared to do so. New to PFE version 2.9, when reaching a runway intersection ATC will either clear you to cross or tell you to *'Hold for traffic'*

If you reach a runway intersection and hear nothing from ATC you should HOLD SHORT of the runway! You may then request clearance to continue your taxi by hitting hotkey #0 (zero), but you must be stationary and with TGS *'active'* for this new request to work.

8.16 SIDs and STARs

Another exciting feature we've added is the ability to fly a published departure. ProFlight 2000 always did allow you to fly a published approach, simply by using a hotkey to request a *"Cleared to Finals".* Now, thanks to **PFE** you can select to fly a SID (DP) of your choice. You can even give it a name (*Alpha-Two-Romeo* for instance) which will be included in the clearance and takeoff instructions you receive.

With no SID departures in place the standard ProFlight clearance would be *"Cleared for takeoff, runway nine, fly runway heading"*

Using the new SID feature you would hear *"Cleared for takeoff, runway nine, alpha-two-romeo at five thousand departure approved".* You would then fly whatever published departure you want, with no further ATC interaction, until you reach the altitude given in the takeoff clearance, at which point ATC would kick in again and give you any altitude instructions accordingly. Please note, SID altitudes can be set in the SID/STAR options display too, but should

you choose to leave this at zero for any configured SID then PFE will work one out for you.

8.17 Transition Altitudes by Region

Yes you can now set the correct *transition altitude* for up to 26 different *(ProFlight)* geographical regions, so flying from one country to another could result in the TA changing on route.

8.18 Define Your Own Hotkeys

ProFlight 2000 is installed with several preconfigured hotkeys, most of which are supported in PFE.

However, using our Hotkey configuration feature you may choose the actual keying sequence you prefer to use for any one of the supported hotkeys. This ensures you can alleviate any possible contention issues with other programs.

We've also added a new hotkey - *Ctrl+Shift+D* - which can be used to toggle PFE's AI ground detection on/off. This is useful in certain circumstances where you may find yourself waiting for clearance to takeoff with no other (AI) aircraft in front of you or supposedly on finals. This is a rare occurrence but sometimes happens dependant on your position on the taxiway, the position of AI aircraft behind you and relative to the active runway. Should you find yourself in this situation simply use this new hotkey to deactivate ground traffic monitoring, at which point you should then be cleared for takeoff. Suffice to say, you use this hotkey at your own risk.

Should you find there are some hotkeys you would never use you can *deactivate* them completely. This frees up any unwanted hotkey slots from the somewhat limited space available within FSUIPC for hotkey configuration; an area which is shared should you be running other add-ons that use an FSUIPC hotkey feature.

8.19 Database Refresh Utility

PFE is supplied with all airport information for the 24,000+ airports found in FS2004/FSX. This data was provided to update the now somewhat out-of-date information in ProFlight's own database. To ensure **PFE's** data is in sync with your system, should you choose to install additional scenery files at any time, there is a very simple-to-use database refresh utility which you will find on the main options screen in **PFE.** Full step-by-step instructions on using this utility are actually displayed on the database refresh screen... with the next step only becoming *active* once the current stage is complete.

If you have made extensive changes to the PFE database, in the form of adding SID\STAR data, which you really do not wish to have to re-enter, you will be asked if you want to retain this information and have it automatically applied to the new database.

8.20 New Approach Vectoring

We believe **PFE's** approach vectoring offers more reliable and much tighter approach patterns... every time! So much so we have removed the default PF2000 approach vectoring and made this the default option.

8.21 Integrated ATIS

PFE provides full integrated ATIS for each of the 1200+ ATIS equipped airports in FS2004/FSX simply by tuning your COM radio to the correct frequency. Completely new voice packs have been used for this facility and when the extended ATIS voice packs are installed you will hear the full airport name announced, rather than just the ICAO code.

Please Note: *For users with the OnCourse Software publication you will need to download these extended ATIS voice packs from our website. For Aerosoft publications these extended voice packs are included in the download or CD.*

We have provided a small utility to help you determine the correct frequency for any of the supported FS airports. This utility can be found in the main PFE folder and is named **ATIS_Help.exe**. Simply run this program and type in the airport's ICAO code to display the ATIS frequencies (if available). A complete listing of all ATIS frequencies was also provided in the document named **ATIS_Listing.pdf** which you will find in the **PFE\Help** folder. Starting with PFE version 2.6 this document will no longer be updated, so your best resource for PFE ATIS frequencies is the new utility

8.22 PFE AI Chatter based ATC Chatter

The original ProFlight 2000 (developed before the introduction of Microsoft's AI Traffic) utilized a method known as *canned* chatter. Basically this was ATC chatter based on virtual flights and aircraft that simply did not exist in the FS World.

What we have done is introduced real ATC chatter based on the AI Traffic flying and maneuvering around you. When tuned to the appropriate COM frequency you will hear ATC chatting to the AI aircraft and giving taxi, landing and takeoff instructions. Enroute you will also hear other aircraft being instructed to climb, descend and turn accordingly.

Obviously this type of functionality is far from perfect because PFE does not actually control the AI traffic but merely monitors it and emulates control by giving commands *after* the fact. If you sit, watch timing issues with regard to commands/movements, especially at very busy airports and in particular those using parallel runways and when AI Traffic is set to 100%. But used as it was designed and intended, as background ambience, it does, in our humble opinion, do a remarkable job.

8.23 ATC Chatter Call Signs

We have also added an Airline ICAO feature for the PFE ATC chatter. This is for those times when we don't find a match for the AI Traffic call sign (i.e. we

don't have one recorded), so we use the Airline's ICAO code and flight number.

For instance, in the case of British Airways 1234 we use the call sign…

'Speedbird 1234'

…but if we didn't have that particular call sign we would use the British Airways ICAO and the result would be

'Bravo Alpha Whiskey one two three four'

If we still couldn't find a match to get the ICAO then we would use the first three characters of the airline name, so the result then would be

'Bravo Romeo India one two three four'

8.24 Step Climbs and Descents

PFE provides completely randomized stepped climbs and descents based on your flight plan profile. **This ensures no two flights, using the same flight plan, are ever *exactly* the same**.

8.25 En-Route Control Centres

We have added all the control center names and frequencies to the BRF file for reference purposes, which is created when you compile an ADV Flight File and can be found in the PFE\FS2000\ADV folder.

8.26 How we determine the Active Runway

ADDED some additional checks to determine the active runway on approach if, at the time of the initial checks, there is no active AI Traffic data available. New code will check periodically for several minutes and if the active runway changes due to Ai traffic usage ATC will advise you of the new runway.

E.g. 'Speedbird two six eight six... runway changed... expect vectors for....'

8.27 Regional ATC Phraseology

We have added some additional ATC instructions to reflect the differences between FAA and CAA... with many more to follow in forthcoming releases.

8.28 Designated Parking

Yet another first from PFE is the ability to reserve your own private gate/parking location at any airport you fly into. It could be a Terminal Gate or a Ramp at an executive terminal.

This new feature (*added in version 2.5*) compliments PFE's Full Taxi Guidance and Taxi Guidance Systems… so now you can configure PFE to ensure you are always sent to a particular gate/parking location at specific airports.

There are two stages to configure this new feature…. Stage #1 is **very** simple, takes only a few seconds to complete and is **mandatory**… Stage #2 is slightly less simple, takes a few minutes to complete but is **optional**.

Stage #1 ensures you will always receive ATC instruction to the gate/parking spot of your choice and Stage #2 ensures that particular location will be free from AI aircraft parking in your reserved space!

8.28.1 Stage 1

Please Note: If you want to activate PFE's Designated Parking feature, this stage is **mandatory**!

From PFE's main display page select **Option #2**, then **Designated Parking Control.**

Type in the Airport ID (ICAO code) for the airport of your choice (i.e. EGGW for London Luton) then hit enter. At this point, provided you have entered a valid ICAO code, the *'Airports Gates/Parking here…'* drop down list to the right of the ICAO will change from *'None'* to *'Select Gate/Parking here…'*

Now simply scroll down the list and highlight the gate/parking spot you wish to reserve, then select SAVE

That's it!

Next time you land at this airport ATC will give you full taxi instructions to your chosen gate…. every time! But as mentioned earlier you *may* find another aircraft already parked there when you arrive, which could be a little embarrassing! To prevent that happening please see the following instructions for Stage #2 to prevent this occurring.

8.28.2 Stage 2

Please Note: This section is entirely **optional** but it does ensure your reserved gate/parking area will be vacant when you arrive!

For this method you will need to have **AFCAD version 2.21** by Lee Swordy installed if using FS9 or AFX installed if using FSX.

AFCAD is FREE and available from AVSIM (and other good flight websites) by visiting their File Library and searching for the file name **afcad221.zip.**

AFX was available from www.flight1.com for approximately $29 at the time of writing.

There is also another free program, similar to AFCAD called Airport Design Editor, available from www.airportdesigneditor.co.uk

The following instructions pertain only to AFCAD.

Please follow AFCAD's installation instructions and do not be put off by what you see or read about this program… despite being a very powerful tool it is remarkably easy to use. So let's show you how….

For this example we will **MODIFY** an existing Parking Gate (50) at London Luton Airport… ICAO code EGGW.

1. Open AFCAD, select **File** and **Open Airport**. After AFCAD completes its initialisation search you will be able to enter the Airport ID (ICAO code)... **EGGW**... then select **OK**. The EGGW airport plan with assigned parking should then appear. You can now use your mouse scroll wheel, the +/- keys or the +/- icons on AFCAD's toolbar to zoom in/out to make the airport layout map larger/smaller.
2. Select the Parking Gate you want to modify. For this example it's Gate 50 which is the one situated furthermost to the left of the displayed map. You can make the selection in a number of ways… if you know exactly where the parking spot is on the map simply double-click it or use a left-click to highlight it then right-click and select Parking Properties… please do ensure the popup window is the 'Parking Properties' one and not the 'Link Properties' display. If you're not sure where the gate is situated on the map please use the **List** menu in AFCAD to display all the available gate/parking locations for this airport then double click the one you want, which is Gate 50 for this example.
3. Whichever method you choose/prefer please ensure you have selected the correct gate/parking spot. You can do this by checking for the gate/parking name/number under the Identification label which is midway down the properties display window. For this example it should be Gate 50.
4. Change the value displayed in the small box marked **Radius** to **10**
5. Exit AFCAD and confirm you want to save these changes when prompted to do so
6. If you haven't already configured Gate 50 at EGGW within PFE please do so now.

That's it!

What we have done is create a unique Parking Space and because of the very small radius we chose it should restrict any AI Aircraft from using this Designated Parking location. Next time you land at EGGW you will be instructed by Ground Control to *'…taxi to gate five zero…'*

Obviously AFCAD allows you to do so much more and you could even create a completely new gate/parking spot if you so wished, but that is beyond the scope of this manual.

8.29 Airport Specific Transition Altitudes

This new option provides the means by which you can set transition altitudes for specific airports, thereby overriding those settings made at *regional* level. See section **7 Options and Configuration** for full details on PFE's options and how to use them.

8.30 Designate Runways for Landing/Takeoff Only

From the SID/STAR display page you can now designate a runway for landing and takeoff use, landing only, takeoff only or mark it as a close runway so both landing and takeoff would be restricted.

Runway designation is for PFE use only and has no effect on AI traffic usage.

8.31 PFE Control Facility COM Frequencies

In the same way that PFE uses airport runway data taken direct from Flight Simulator, PFE now also uses the same frequencies for Clearance, Ground, Tower, Departure and Approach control facilities.

8.32 Radio Communication Ambience

You can now configure PFE to add background radio interference whilst ATC are talking to realistically reflect the sound of radio transmissions, which will change as you tune to a different control facility.

8.33 Resuming a Flight

Should you ever find you need to stop a flight midway through, or perhaps FS or even PFE crashes mid-flight, PFE now offers a facility for you to *resume* the flight, subject to certain conditions being met..

The first prerequisite is that you need to be able to start FS running from the point of failure, whatever that failure might have been. Basically you need a saved FS flight. If your mid-flight stoppage was planned than one would assume you will have saved the flight in question and therefore can reload it at anytime. This is the easiest method and all you need to do is follow these simple instructions:-

a) Start FS and select your saved flight, then select 'P' to PAUSE FS.

b) Start PFE and choose the 'Select Last ADV' option (if you don't do this you will lose any PFE restart data)

c) Now proceed as normal, as if just starting the flight from the ground, and if PFE discovers any restart data for the flight you will be asked if you want to 'resume' the last flight, at which point you should obviously select YES if you wish to do so.

d) Select 'P' to take FS out of PAUSE mode and the flight should continue from where it left off.

e) As the flight begins in this 'restart' mode you will here your PF/PNF make initial contact with the current controller, this is just to ensure we initialise things properly. This first communication you hear with ATC may sound *slightly* inaccurate, but things should soon return to normal.

If the cause of your mid-flight failure was not planned and it was as a result of FS crashing, but you do **not** have an FS saved flight situation file, then PFE's *resume* facility will be of little use, unless of course you are able to

restart FS and position your aircraft back at the point where the problem occurred, because PFE will always assume your flight is starting near to the same altitude and in particular the same location as when the unplanned stoppage occurred.

(Please Note: PFE does not save your FS flights periodically and to do so automatically you will need to use another utility, such as Pete Dowson's Auto Save program, which by the way is built into FSUIPC4 if you are using FSX)

If the cause of the mid-flight failure was a PFE problem then of course our *restart* data will be available, so all you would have to do in this instance would be to Pause FS, then restart PFE and follow the instructions as shown above from item (b)

A few other things to remember about this feature –

PFE only starts saving its own *restart* data after you receive initial vectoring instructions from Departure Control and it stops at point of touchdown at your destination airport. So restarting a flight on the ground is not available.

Even if you *plan* a mid-flight stoppage and then start a new ADV Flight File before *resuming* the previous flight, all of the previous flights data will be lost and you will not be able to resume that flight.

This new option is OFF by default. Please see section

8.34 New Hotkeys

Several new hotkeys have been added to PFE. Please see section 15.1 for full details

8.35 Visual Connection Indicator

There may be times when you are not sure if PFE is still running, due to the fact that everything seems to be a little quiet on the radio. One way of ensuring PFE is still *connected* and *running* is to check the new navigation lights we have added to the aircraft picture on PFE's main menu, as they will flash periodically whilst all is well.

8.36 Interactive Support for FDC users

This should prevent either program (PFE or FDC) from *stepping* on each other. New to PFE version 2.8 and FDC version 3.9 each program is now fully aware of the other. If FDC is currently playing a checklist and ATC contact YOU then the checklist will automatically pause and resume once the transmission is complete from both sides. However, if ATC is talking with another aircraft the checklist will not pause but the volume of ATC will be lowered, although that is optional and your part fully adjustable.

Also, whereas FDC only had two transition altitude settings to work with it will now use whatever you have configured in PFE. In addition to that FDC will be made aware of the cruise altitude in your PFE flight plan, which will make some of the *cruise altitude* triggered calls more accurate and easier to implement.

Various other program elements will be passed back and forth between the programs to allow for further interaction both now and for future enhancements…. So watch this space.

*Please Note: PFE and FDC do **not** have to be running on the same pc for this interaction to work. Each program could be running on different client pcs, with the main pc running FS and all connected via WideFS*

Now I am sure one of the questions we will be asked is *"Do I have to do anything special to get FDC and PFE to 'interact'?"*

The answer is, NO! Provided you are running PFE version 2.8 (or higher) and FDC version 3.9 (or higher) interaction is automatic.
However, there are a few things I think need to be explained here plus I'll show you how I've found it best to set things up for both systems to help make them 'blend' together.

Firstly, it obviously sounds much better if your FDC co-pilot and PFE pilot (which is really the PNF) sound the same.... so you have two choices....

FDC Voice set #11 and **PFE US Mid West Pilot #2** are both the same author, Rick Schaefer.

The other option is to use an all new voice set we have had recorded for FDC (see the FDC section of our website for download details) by the same author of **PFE's British Pilot 12 (New).** This new voice set has already been named as voice set #16, as that is the optional voice slot and one which may already be vacant. Should you wish to replace one of the other voice sets then you will have to rename the new one yourself. As mentioned earlier this new FDC voice set matches **PFE's British Pilot 12 (New)**, and the author is Graham Jackson. Graham has also done many other voice sets for LevelD and PMDG, to name but a few.

For the sake of simplicity let's say your FDC Voice16 folder is empty... just download and unzip the new voice set into your **…\FDC\Wav\Voice16** folder and you're ready to go.

Run the programs and select either:

FDC Voice set #11 and **PFE Mid West Pilot #2**

or

FDC Voice set #16 and **PFE British Pilot #12**

I think FDC sound sets are slightly louder than PFE's so here's how I found mine work best, but please remember these are my own personal preferences. These controls do **not** have to be set this way for FDC/PFE interaction to work.

FDC Volumes:-
Captain=10
Co-Pilot=10

PFE Volumes:-
Set the VCP Volume one notch below maximum

Set the ATC volume 1 notch lower than the VCP volume

Set the background noise four notches down from maximum

Under TGS settings set TGS volume reduction to 50%

That's it!

8.37 Additional Pause Facility

An additional option was added in version 2.8 to Pause PFE and FS at X miles from the Airport. Previously you could only pause PFE/FS at X miles from the FAF or Runway, which only became active once reaching the last waypoint in your flight plan. This new option allows you to automatically pause PFE/FS at any distance on route from your destination airport.

8.38 Housekeeping

We have added some simple housekeeping options to help with removing some of the clutter that can accumulate with regard to ADV files, flight plans, etc.

The first is for when adjusting the PF flight plan for use with the FS GPS or FMC. On completion you will have the option to delete the original flight plan so you just keep the one for use with PFE.

The next new option allows you to delete FS Flight Plans from the 'FPlan Converter' display page... simply put a 'tick' next to each plan you want to delete then click the 'delete flight plan' button.

Please Note: This also deletes the associated flight plan in ...\PFE\FS2000\Pilots folder, which is the location for PF flight plans.

As an optional addition if, like me, you use something other than Flight Simulator to build your flight plans (e.g. FSBuild) you may also create additional files in other locations for use by other programs (i.e. weather programs, moving map, etc). To remove these files automatically, when deleting your FS/PF flight plans, you may add a new file to the **...\PFE\Data** folder named **USER_DELETES.txt**. The content of this file should provide the FULL PATH to where these additional flight plans are saved, assuming of course that you do wish to delete them.

Now, there are a few VERY important points to make clear here... also a couple of assumptions we make too... so, number one, when I say the full path that is exactly what I mean... it must include the drive (can be a network drive of course) plus the full directory (folder) location... terminated with a backslash or the flight plan name prefix (if any are used - see below for further details)

Example

If you send additional flight plan files to a folder on your **X drive** named **MovingMap** then this is the entry you should have in the **User_Deletes.txt** file:-

X:\MovingMap\

With this type of entry PFE will assume the file name would be the same as the original flight plan. (eg. The name of the flight plan file **before** converting it using PFE)

Let's say you use FSBuild to create a flight plan from EGKK to EGPH... so the 'original' flight plan written to the FS folder will be called **EGKK-EGPH.pln**. When you convert this (via PFE) for use with ProFlight it will be written to the relevant ProFlight folder as **PFE_EGKK-EGPH.pln**. Then, after generating the ADV Flight File, you 'adjust' this flight plan for use with the FS GPS/FMC (using the PF generated GPS file) it will be copied back to your FS folder as **PFE_EGKK-EGPH.pln** (the same name as the PF flight plan) and you will then be given the option to delete the original (**EGKK-EGPH.pln)**, which you probably will do.

So, to recap, you now have a **PFE_EGKK-EGPH.pln** file in your FS folder and your PF flight plan folder, plus one in your moving map folder named **EGKK-EGPH.pln**.

Now when you select to delete the **PFE_EGKK-EGPH.pln** file and PFE detects your **User_Deletes.txt** file with the **X:\MovingMap** entry it will also delete the file in your moving maps folder using the example entry shown above.

However, if your MovingMaps folder flight plan was named something like **ABC_EGKK-EGPH.pln** then your **UserDeletes.txt** file entry should be this:-

X:\MovingMap\ABC_

If your moving map flight plan files are named somehing like **MM-EGKK-EGPH.pln** then the entry in the file would look like this:-

X:\MovingMap\MM-

I hope you can see the difference. In simple terms PFE will append the 'original' flight plan name.... (that's anything following the 'PFE_' prefix added to the file name when you first 'convert' and/or ‘adjust’ it for use by PF or the FS GPS, onto the entry you add in your **User_Deletes.txt** file.

In this way you could have a dozen files saved in a dozen different locations and just deleting the one FS flight plan will delete all the associated files as listed in your **User_Deletes.txt** file.

To add multiple entries to this file simply place each one on a new line.

E.g.

X:\MovingMap\MM_

D:\MovingMap\ABC_

E:\WeatherFP

X:\Backups\MM_

The last housekeeping option is available from the "Select New ADV" display. By selecting (placing a 'tick) next to any of the displayed ADV files you wish to delete will also delete all associated files such as GPS and BRF files.

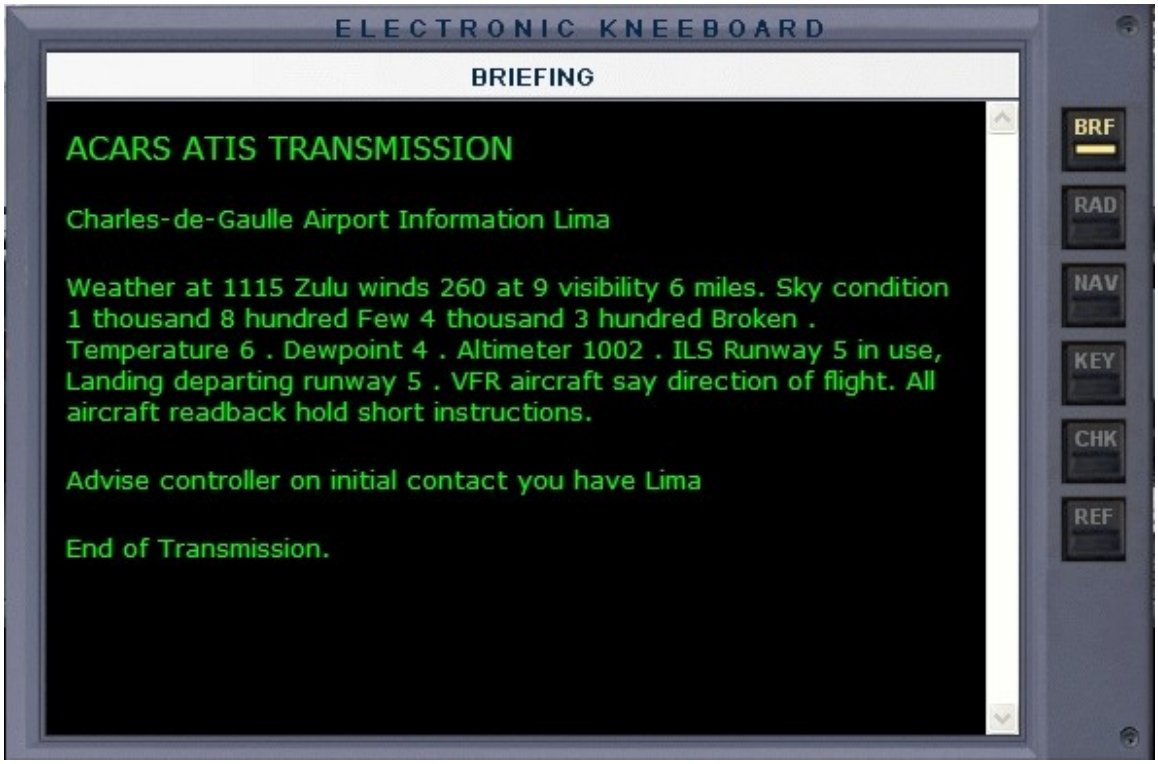
8.39 ACARS ATIS

Version 2.8 also introduces a simple ACARS ATIS data system. This uses the FS kneeboard to simulate receiving ATIS information for your destination airport via ACARS. We actually use the Nobrief.htm file found in the ...\MAINFS\UIRES folder, so if you already use one of the kneeboard browser type utilities it is quite possible this feature will overwrite it.

PFE ACARS is received by hitting Hotkey #2. This works at ANY time during your flight with the following limitations. It does NOT work if tuned to FSS, Multicom, Unicom or the destination Tower and once in contact with Approach it reverts to its normal functionality to request an instrument approach. But you would normally have perused your destination AIS long before that. Also it does NOT work whilst TGS is active (as that uses the same hotkey for skipping waypoints).

Unlike the normal ATIS you receive via your VHF radio, which is limited in PFE to a distance of around 200 miles, there is no such limitation with the digital ACARS request and display system.

Here's an example of how this appears in FS:-



8.40 Minimum FAF Altitudes

In version 2.8 you can now add a minimum FAF approach altitude to any airport if required. This altitude is entered as AGL and would mean this altitude would be the lowest that ATC would instruct you to descend to during your approach. This allows you to cater for those hazardous approaches to certain airports. Normally PFE generates this altitude itself and in most cases it works just fine. However, should you experience problems of being too low during a specific approach this new feature allows you to configure the approach altitude for your next flight.

Added in version 2.11 PFE will now use any minimum FAF altitudes entered for approach purposes during your initial clearance too, so you will never be given an initial altitude below this.

8.41 XPack II Support

New in version 2.8 and available **only** if you have the new **Voice Set Expansion Enhancement Pack** (XPack 2) installed.

Xpack 2 are specially processed voice sets which sound exactly like the voices are being transmitted through your aircrafts VHF radio. Coupled with the new independent volume controls and the background noise generator the level of realism and ambience is enhanced to an all time new!

Please Note: The PFE Voice Set Enhancement Pack (XPack 2) can only be installed if you already have the PFE Voice Set Expansion Pack (XPack 1) installed. It will not work on its own or with the original voice sets.

8.42 In-Flight Volume Adjustment

New in version 2.8 you may now adjust the volume for ATIS, background noise, ATC or your VCP at anytime during your flight, using the new overlay displayed on PFE's main menu display once you 'connect' to FS. (see screen shot below).

8.43 Descending from TOD at Pilot's Discretion

As from version 2.10 there is a possibility that the initial (TOD) command from ATC to descend could be:-

'Call-sign descend to xxxx at pilots discretion'

This means you do NOT have to commence your descent immediately and may do so at YOUR discretion. This additional feature will hopefully be useful

to those users who prefer to use their FMC's and have them programmed to commence their descent from a certain position. However, as in the real world, ATC may require you to descend earlier or later than you might be hoping for, in which case you should comply.

8.44 Variable Takeoff Clearances

As from version 2.10 you may well be given a different takeoff clearance other than always being told to 'fly runway heading'. At times you will be given another heading to fly by Tower when you're cleared for takeoff... so listen carefully.

8.45 New Calls from Tower after landing

As from version 2.10 we have added some new calls from Tower after you land. Instead of just saying 'contact ground when clear of the active' they will tell you which way to exit from the runway (left/right) dependant on where the gate is to which you will eventually be instructed to taxi to. So the new call will go something like this:-

'Easy two one one exit right at next available taxiway, contact ground when clear of the active'.

8.46 Improved Runway Detection

As from version 2.10 we have implemented new routines to detect when you or AI aircraft are actually on the runway. This is used to determine when you have completely vacated the runway and/or also when AI traffic have cleared the runway.

8.47 PFE Display Utility

New for version 2.10

Please see the new section **12 PFE Display utility program** specifically for this utility

8.48 Requesting 'Direct to...'

Yes, new to version 2.11 you may now request ATC to approve a 'direct to' any waypoint in your flight plan. This feature is activated using the same hotkey as you use to toggle ground AI traffic detection on/off (the default key being C\S\D). However, this original hotkey is only available whilst your aircraft is on the ground... once airborne this key is then used to request a 'Direct To' waypoint. Hitting this key during your flight will not display the next waypoint in your flight plan, as you should already be heading toward that one <G>, but the one following the next one. The message window display will also prompt you to select 'Y' (C\S\Y) or 'N' (C\S\N).

If you choose No then the next waypoint in the flight plan will be displayed with the same options.

Choosing yes you will hear *"Call sign requesting direct to XXX"* and ATC will reply accordingly.

This feature is subject to a few conditions.

(a) It is only available when you're airborne

(b) It is only available until you're actually on route to the last waypoint in your flight plan (not the airport)

(c) It is not available until after you receive your final vector from Departure and a 'Resume own navigation'

(d) It is not available during Oceanic procedures

8.49 2-Way Traffic Advisories

New to version 2.11 you will now here two-way traffic advisories during your flight. So when you are advised of nearby traffic they will be advised of you position, provided of course you are not directly behind them.

8.50 New Game Commander Hotkey

Version 2.11 introduces a new hotkey (the Escape key) specifically for those users who prefer to use Game Commander (or similar voice recognition software) whilst using PFE.

This is a 'Press to Talk' key which will put PFE into 'quiet mode' whilst you talk to ATC for a user defined set number of seconds. This new key is set to 'inactive' by default so those wishing to use it must first 'activate' it via the PFE Options #1/Hotkeys. Then you will have to set a timeout value of your choice (in seconds) by editing the PF_Emulator.INI file. Look for the new GCTimeout entry under the [Config] section and add the number of seconds here you want to initiate. For instance, for a 10 second pause the entry would look like this:-

GCTimeout=10

Using this setting, whenever you hit the Escape key (remember you can change this to use whatever key you want) PFE will go silent for that amount of time.

8.51 Excluding Specific Voice Sets

Using the new option via PFE's Option #2 button you can now exclude specific voice sets from being used for either ATC control or AI aircraft. This new feature is accessed via the Options #2 button and full details of using it can be found in section 7.2.23

8.52 Control Centre Mapping

Allows you to basically remove any defunct ATC facilities so you no longer hear a particular control centre being used.

This facility does not change the actual ATC boundaries' in use but merely the name called you hear. For instance, I'm told Berlin Radar is no longer used and that Bremen Radar handles all such traffic. By using this new feature to map Berlin Radar to Bremen Radar you would no longer be told to contact Berlin but instead you would hear 'Contact Bremen Radar on xxxx

This new feature is accessed via the Options #2 button and full details on how to use it can be found in section 7.2.24

8.53 Project Magenta Support

New in version 2.12 is full support for the Project Magenta Boeing type MCP (should also work with the Airbus type but this has not been tested). This allows PFE the same control over the PM MCP as we have when using standard MS autopilots. To use this feature you need to configure the PFE INI file. See section 7.3.1 Project Magenta Support for further details

8.54 Defining Oceanic Airspace

A new feature in version 2.12 to enable you to define Oceanic Airspace to any flight plan and thereby enjoy PFE's Oceanic Procedural features currently only available when flying within Shanwick/Gander controlled areas. Please see section 7.2.26 Defining Oceanic Airspace for full details about this exciting new feature.

8.55 Extended ACARS Reporting

Version 2.12 brings you an additional way for displaying the ACARS report rather than the FS kneeboard (as described in section 8.39 ACARS ATIS) , which can sometimes cause FS to do some strange things especially when running in full screen mode.

This new extended feature will be of no use at all if you only have the one monitor screen and run in fullscreen mode. The mnimum requirements for using this new feature is two monitors, which can either be on the same pc or different pc's. We call this new feature AcarsX and as it's part of the PFE process the new display can only be shown on a monitor connected to the pc on which PFE is running. Personally I run PFE on a separate PC to FS and so have my ACARS report displayed on a different PC to FS.

The new ACARS window can be positioned anywhere on the screen you wish and it will remember the last position when displayed again. You can also configure the number of seconds you want the ACARS window to display, after which it will then close automatically.

To use AcarsX you need to configure the PFE INI file. See section 7.3.2 Extended ACARS ATIS Report Display for further details

This ACARS report is displayed by using the same hotkey as you use for the kneeboard ACARS display. It will be displayed for a set number of seconds (configurable in the INI file), after which time it will close automatically.

However, should you be reading the ACARS report and decide you do not want the display to close automatically simply select the *Hold Display* button and the report will then remain on-screen until you select the *Close* button.

8.56 'Say Again' Display

Version 2.12 adds another new feature to display a log showing the last 10 ATC com's to you. This new feature is used in conjunction with, or instead of, the 'Say Again' option. We call this the 'ATC Say Again' window

This new feature will be of no use at all if you only have the one monitor screen and run in fullscreen mode. The minimum requirements for using this new feature are two monitors, which can either be on the same pc or two different pc's. This new display is part of the PFE process and so can only be shown on a monitor connected to the pc on which PFE is running.

To activate the 'Say Again' ATC window you need to configure the PFE INI file. See section 7.3.3 Say Again ATC Log for further details

8.57 Additional and Extended SID/STAR Configuration

New options have been added in version 2.12 for configuring SIDs/STARs from the Waypoint Altitude Adjustments display. Please see section 7.2.25 Waypoint Altitude Adjustments for further details about using these new features.

8.58 Clearer Taxi Instructions

We have attempted to make the taxi instructions given by ATC clearer so you can distinguish more easily each taxiway. For instance... if you're given taxiways A, AC, AB the instructions can currently sound like 5 different taxiways...

"Using Alpha Alpha Charlie Alpha Bravo"

The changes we've made remove the 250 millisecond pause between those names forming one taxiway name so it sounds like...

"Using Alpha AlphaCharlie, AlphaBravo"

8.59 Final Approach Speeds

Version 2.12 brings with it more accurate final approach speed calls from ATC based on the actual aircraft you're using and reading the relevant aircraft.cfg file.

We've also included additional (optional) INI file settings to allow you to change or turn off this new approach speed feature should you wish to do so.

PFE now uses the Flaps_Up_Stall_Speed for the aircraft you're flying to determing the final approach speed ATC will give you just prior to turning to intercept the LOC.

For full details on the additional INI file entries available to fine tune this feature please see section 7.3.4 Final Approach Speeds

8.60 Truncate AI Traffic Callsigns

Added in version 2.12 to make the AI traffic callsigns shorter in effect the AI transmission appear faster.

Here's how it works...

If the callsign includes the airline name/callsign and the numeric part of the callsign is more than 3 digits, only the last three are used. If the Airline is not recognised, where PFE would then use the first three characters of the Airline ICAO, when using this feature only the first character is used and again only the last three digits of the numeric part if that is longer than 3 digits.

Here's some examples with this feature turned ON:-

Original	**Truncated**
Pacific Express 791	-> Pacific Express 791
Pacific Express 29791	-> Pacific Express 791
N79362	-> November 362
Echo Golf Hotel 39224	-> Echo 224

Now, before anyone emails me or posts on our support forum telling me how unrealistic this is and how it would never happen in the real world... I KNOW !!! This is something that I have added FOR ME because it's how I like it. I dislike listening to those long, drawn out callsigns, especially for GA aircraft, so I decided to truncate them. That is why this is an OPTIONAL Tweak and not included on any of the PFE option pages. If you don't like it DON'T USE IT.

This feature is OFF by default and you have to add the INI file entry to try it. If you try it and don't like it then remove the line completely or simply change it as shown in section 7.3.5 Truncate AI Traffic Callsigns

8.61 Bad Radio Reception Simulation

Another *first* for PFE where we simulate bad radio reception when listening to AI traffic during your cruise and when in contact with a control centre. You have to option to turn this feature off if you wish and to adjust the probaility of it occurring. When it does you will have problems hearing some of the AI traffic on your frequency. ATC control will still be audible as this feature simulates traffic being at such a distance that their transmissions are weak.

Please see section 7.3.6 Bad Radio Reception Simulation for full details on configuring this new feature.

8.62 ATC Nags

PFE will now monitor and 'nag' you if you don't (a) commence a climb/descent and/or (b) start a turn to a new heading within a configurable time.

If you are actually climbing/descending/turning then PFE will not issue any 'reminders', but if not then you will be prompted to comply with the last ATC instruction.

Please see section 7.3.7 ATC Nags for full details on configuring this new feature.

8.63 PFE Initial 'Connect' Message

The initial message, shown shortly after you 'connect' PFE to FS has been slightly modified to show additional information. After the normal 'Initialising' message you will see a message similar to the following (dependant of course on which of the options you have set to on/off)

Loaded ADV: EGSS to EGPF (Oceanic Ctrl Active) - Closed Captions ON - VCP Mode 1 - TAs: 18000 / 6000

This message has five parts, the flight plan departure/destination, followed by an indicator showing if the flight selected has been configured to use the 'Oceanic Control' feature, then whether you have the closed captions feature on/off, the VCP Mode and finally the transition altitudes for this flight showing the depature and arrival altitudes.

8.64 ATC Errors

ADDED some more variable calls and replies to ATC com's, among which is your initial clearance. The first time you run version 2.12 you will hear the Clearance controller get your destination wrong and then correct himself/herself. After that the next time you run PFE there will be a 3% chance the controller will make a mistake. This default setting can be changed in the PFE INI file. Please see section 7.3.8 ATC Errors for full details on configuring this new feature

8.65 Additional INI File Settings

Please check the section 7.3 PFE INI File Settings for details on some additional INI file settings that can be changed/added. Eg. Ensuring you are always directed to a Gate and not Parking – How to make your VCP tell you earlier that you have reached the gate at the end of your taxi from the active, etc., etc.

9. REMOTE RADIO STACK PROGRAM

Our new Remote Radio Stack program has nothing to do with PFE and can be used even if PFE is not running. The idea for this simple program came about when I expanded my flight sim system by adding a TripleHead2Go, Project Magenta Software and several monitors. I then found a need to be able to easily view/change my radios and preferred not to invest in any further hardware.

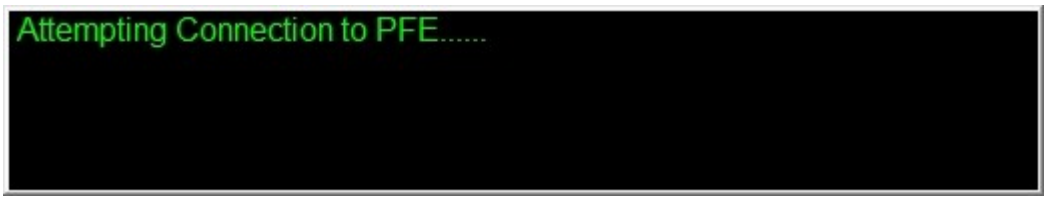
Remote Radio Stack can be installed on any pc and is designed to be run on a client pc running WideFS.

Just install It and run it... that's it!

10. REMOTE TEXT PROGRAM

10.1 General

Version 2.12 provides support for a new FREE utility call Remote Text. After installing PFE version 2.12 you will find this new program in your ...\PFE\PFE_Displayer folder.



This program is very much like the utility called *Show Text* by *Rob van der Wiele*. However, developing our own utility allows us to add whatever features we want and to tailor it specifically for use with PFE. So, you will find RemoteText has some additional PFE specific added features. In fact, unlike the *Show Text* utility RemoteText can only be used with PFE.

10.2 Installation

RemoteText can be installed on any PC which is on the same Network as PFE. It does not require WideFS. When you first run the program it will ask you to enter the name or the IP address of the PC where PFE is installed.

To ensure emoteText functions correctly you will also have to tunr Closed Captions ON in the main Options #1 page of PFE.

Also, you need to open the PF_Emulator.INI file in your main PFE folder (using Notepad or similar) and scroll down toward the end where you will find a section named

[RemoteText]

The first entry in that section is

RTActive=0

which you need to change to

RTActive=1

That's it!

10.3 Features

Here's a few of the available features. The main noticeable change is there is no limit to the amount of text (within reason) you can have displayed., unlike *Show Text* which was limited to the FSUIPC buffer of about 128 characters, which is why long messages (or ATIS) had to be displayed on two of more cycles.

With RemoteText you can Move and resize the window in the nowmal way plus use Shift + arrow keys for minor movement or Ctrl+Arrow keys for minor resizing. You can change the main font... text colour and background colour... toggle the window border off/on... add highlighted text/background colours which are displayed only when ATC are talking to you... show all atc com's or only show ATC com's between you and ATC... choose to suppress your com's and only show ATC coms.

For instance, you may decide you don't want to see closed caption text from ATC when they are talking to other aircraft, or you may decide to see all atc chatter but then have the display suddenly change from green on black to yellow on red to signify the message is for you (so pay attention). Other options allow you to select that the last message from ATC to you remains on the display until removed by another message. You can also configure how many seconds to allow any other messages to remain displayed.

RemoteText can be installed on any PC which is on the same Network as PFE. It does not require WideFS. When you first run the program it will ask you to enter the name or the IP address of the PC where PFE is installed.... that's it!

Obviously this utility is only of use to those running more than one PC although it could be used on a second monitor connected to your FS PC.

11. TGS GAUGE REPLACEMENT PROGRAM

ADDED in version 2.12 is a replacement for the TGS Gauge.

I have always found the TGS Gauge a little temperamental, and since I'm not a gauge programmer and had to reply on others I became increasingly frustrated with the damn thing and decided to write a small app to replace it.

The TGS Display is ideally suited when running more than one pc or multiple monitors. It is a standalone program and therefore can be run on any pc provided you have WideFS installed if running on a client.

It does not have to run on the same PC as FS nor PFE.... it is standalone.

The display can be resized to suit your own particular requirements and mine sits nicely beside the Project Magenta MCP on a client pc.

Install it wherever you want.

You'll find this new program in the TGS_Gauge folder (after installing PFE version 2.12) and is named TGS_Display.exe

Oh yes, this display shows a little more than the previous gauge. Eg. Above the little aircraft symbol is the name of the taxiway you are actually on or about to turn onto. Also you can configure the display to show when you're braking or have the parking brakes on... rather than the annoying read/white signs displayed in FS. To use this feature, after you've run the TGS Display at least once, open the TGS_Display.INI file and add...

ShowBrakes=1

...to the **[CONFIG]** section. Once configured you will see BR for Brakes and PB for Parking Brakes displayed at the top left/right of the display when brakes are applied. There are of course files available for download which enable you to turn the FS message for brakes off.

Just beneath the aircraft symbol is the name of the last taxiway you taxied along.

That's it, you don't have to do anything else, other than remove the TGS gauge from your panel.cfg files should you decide to use this replacement.

PFE is configured to use the TGS in exactly the same way as you did for the TGS gauge. This is basically a replacement so nothing else changes.

For fine tuning the position and size of the TGS Display you can use Shift + Arrow Keys to move it and Ctrl + Arror Keys to resize it.

12. PFE DISPLAY UTILITY PROGRAM

12.1 General

Added in version 2.10 this little program will display all the relevant PFE hotkey commands dependant on which ATC facility you are currently tuned to (eg. ground, tower, etc). The utility will probably be more useful to those users running more than one pc or multiple monitors, but it can also be used on a single pc running FS/PFE.

After installing the version 2.10 update you will notice a new folder under your main PFE folder named **PFE_Displayer**. Inside this new folder you will see two files. One named **PFE_Display.exe** (the program) and one name **PFE_Disp.dat**

To run PFE_Display simply *double-click* on it.

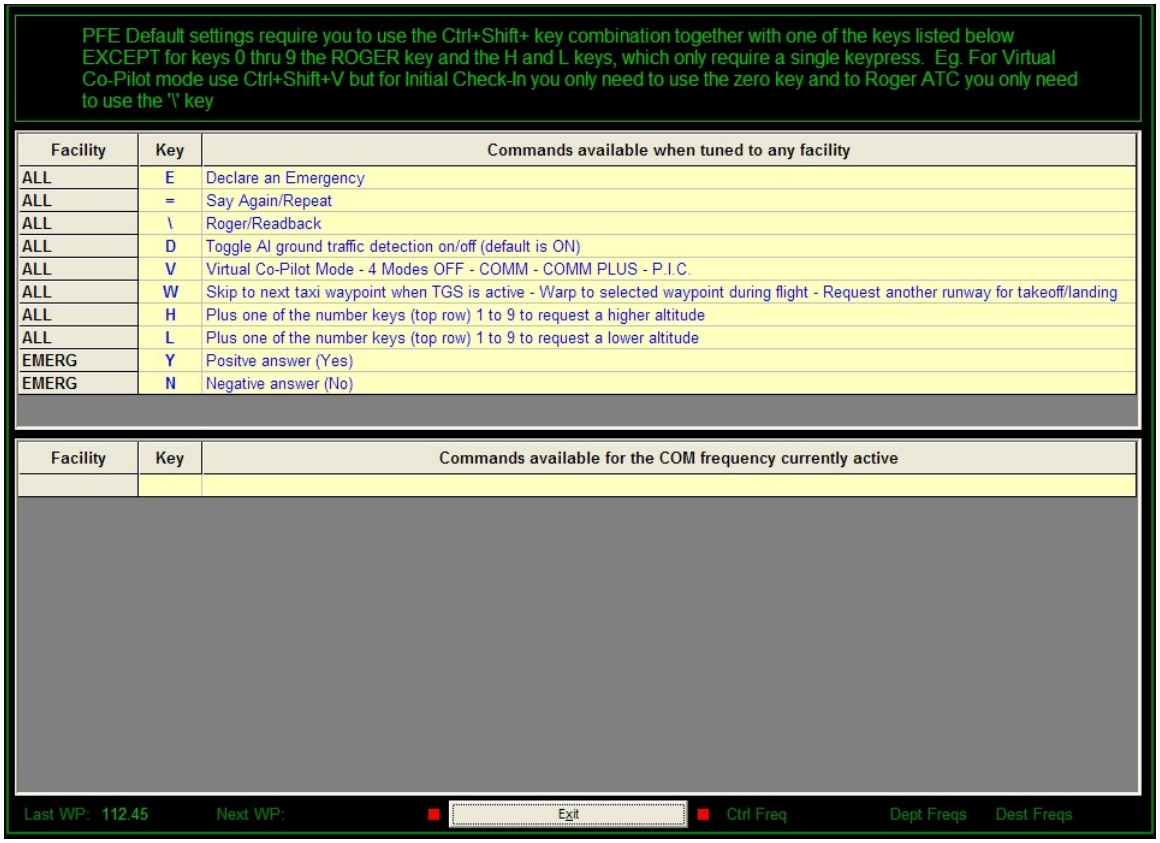
You may run this utility from any client PC running WideFS if you wish, just copy the two files from the PFE_Display folder (or the complete folder) to any location on the client and run it from there. It will run from any location, provided the two supplied files are in the same folder.

One small point that needs mentioning for those running this application and/or PFE on a client machine or machines:-

PFE needs to create one folder under the main FS folder named **PFE_Display**, into which it will write a small text file when connected to flight simulator. This file (named **PFE_Freqs.dat**) contains various facility frequency information used by the PFE Display program. Consequently, if running PFE and/or the PFE Display utility they will need access to the main flight simulator folder. Therefore your FS folder requires *sharing* and also the option to '*Allow network users to change my files'* must be turned ON.

12.2 The Program

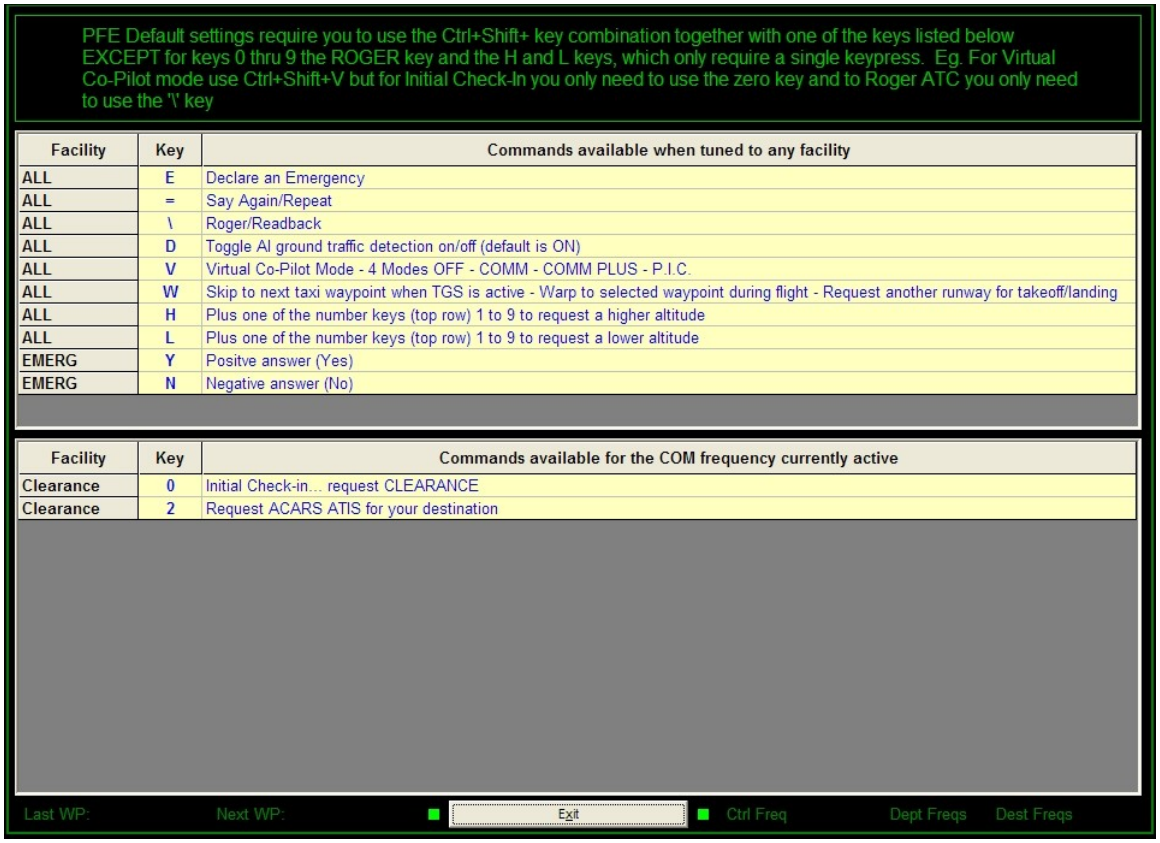
After you run it you should see the following:-



As you can see the main screen is split into two main sections. The top half shows those general keys which remain unchanged throughout your flight, whereas the lower section is reserved for those hotkeys that changed dependant on the facility you are currently tune to. In the above example you will notice two small red lights either side of the 'exit' button, these indicate that the PFE_Display program has not yet 'connected' to flight simulator.

Once flight simulator is running these lights will turn green.

The next change you will notice is when you run PFE and tune to the Clearance frequency… the display will then look something like this:-



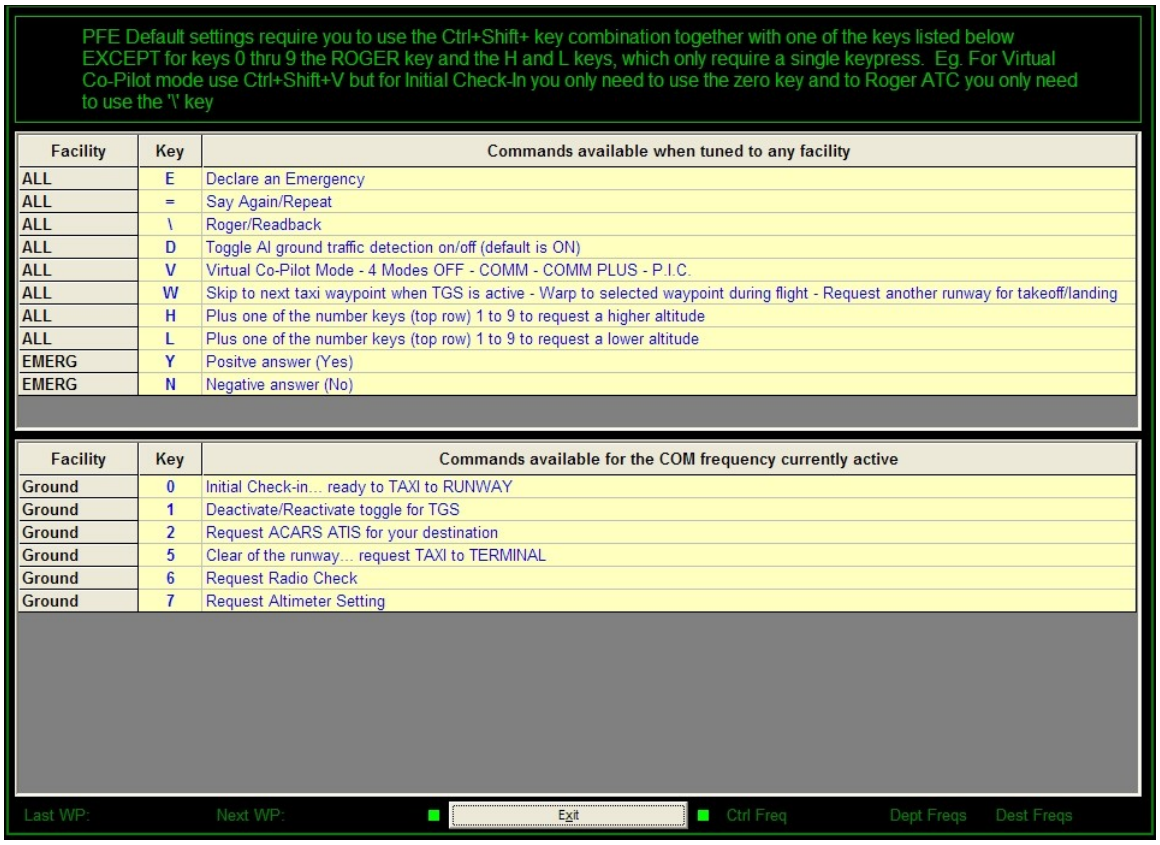
PFE Default settings require you to use the Ctrl+Shift+ key combination together with one of the keys listed below EXCEPT for keys 0 thru 9 the ROGER key and the H and L keys, which only require a single keypress. Eg. For Virtual Co-Pilot mode use Ctrl+Shift+V but for Initial Check-In you only need to use the zero key and to Roger ATC you only need to use the '\' key

Facility	Key	Commands available when tuned to any facility
ALL	E	Declare an Emergency
ALL	=	Say Again/Repeat
ALL	\	Roger/Readback
ALL	D	Toggle AI ground traffic detection on/off (default is ON)
ALL	V	Virtual Co-Pilot Mode - 4 Modes OFF - COMM - COMM PLUS - P.I.C.
ALL	W	Skip to next taxi waypoint when TGS is active - Warp to selected waypoint during flight - Request another runway for takeoff/landing
ALL	H	Plus one of the number keys (top row) 1 to 9 to request a higher altitude
ALL	L	Plus one of the number keys (top row) 1 to 9 to request a lower altitude
EMERG	Y	Positve answer (Yes)
EMERG	N	Negative answer (No)

Facility	Key	Commands available for the COM frequency currently active
Clearance	0	Initial Check-in... request CLEARANCE
Clearance	2	Request ACARS ATIS for your destination

Last WP: Next WP: Exit Ctrl Freq Dept Freqs Dest Freqs

As you can see the lower section of the display now shows those keys which are active when tunes to Clearance and what each of them is used for. For contacting Clearance Delivery there are only two active PFE hotkeys, but when you tune to Ground there are more, as the following screen shot depicts:-



PFE Default settings require you to use the Ctrl+Shift+ key combination together with one of the keys listed below EXCEPT for keys 0 thru 9 the ROGER key and the H and L keys, which only require a single keypress. Eg. For Virtual Co-Pilot mode use Ctrl+Shift+V but for Initial Check-In you only need to use the zero key and to Roger ATC you only need to use the '\' key

Facility	Key	Commands available when tuned to any facility
ALL	E	Declare an Emergency
ALL	=	Say Again/Repeat
ALL	\	Roger/Readback
ALL	D	Toggle AI ground traffic detection on/off (default is ON)
ALL	V	Virtual Co-Pilot Mode - 4 Modes OFF - COMM - COMM PLUS - P.I.C.
ALL	W	Skip to next taxi waypoint when TGS is active - Warp to selected waypoint during flight - Request another runway for takeoff/landing
ALL	H	Plus one of the number keys (top row) 1 to 9 to request a higher altitude
ALL	L	Plus one of the number keys (top row) 1 to 9 to request a lower altitude
EMERG	Y	Positve answer (Yes)
EMERG	N	Negative answer (No)

Facility	Key	Commands available for the COM frequency currently active
Ground	0	Initial Check-in... ready to TAXI to RUNWAY
Ground	1	Deactivate/Reactivate toggle for TGS
Ground	2	Request ACARS ATIS for your destination
Ground	5	Clear of the runway... request TAXI to TERMINAL
Ground	6	Request Radio Check
Ground	7	Request Altimeter Setting

Last WP: Next WP: Exit Ctrl Freq Dept Freqs Dest Freqs

Each time you change your COM radio to a valid frequency the lower part of the display will change accordingly. The following shot shows you the display after turning to the Tower:-

Facility	Key	Commands available for the COM frequency currently active
Tower	0	Initial Check-in... ready to TAXI to RUNWAY
Tower	1	Initial Check-in for LANDING
Tower	2	Report entering DOWNWIND
Tower	3	Report turning BASE
Tower	4	Report turning FINAL
Tower	5	Request the Option (Touch 'n Go)
Tower	6	Initial Check-in... ready for TAKEOFF
Tower	7	Request Field Advisories
Tower	8	Report going to ALTERNATE Airport
Tower	9	Report Go-Around/Missed-Approach
Tower	W	Request other Runway
Tower	N	Show another Runway
Tower	Y	Accept that Runway

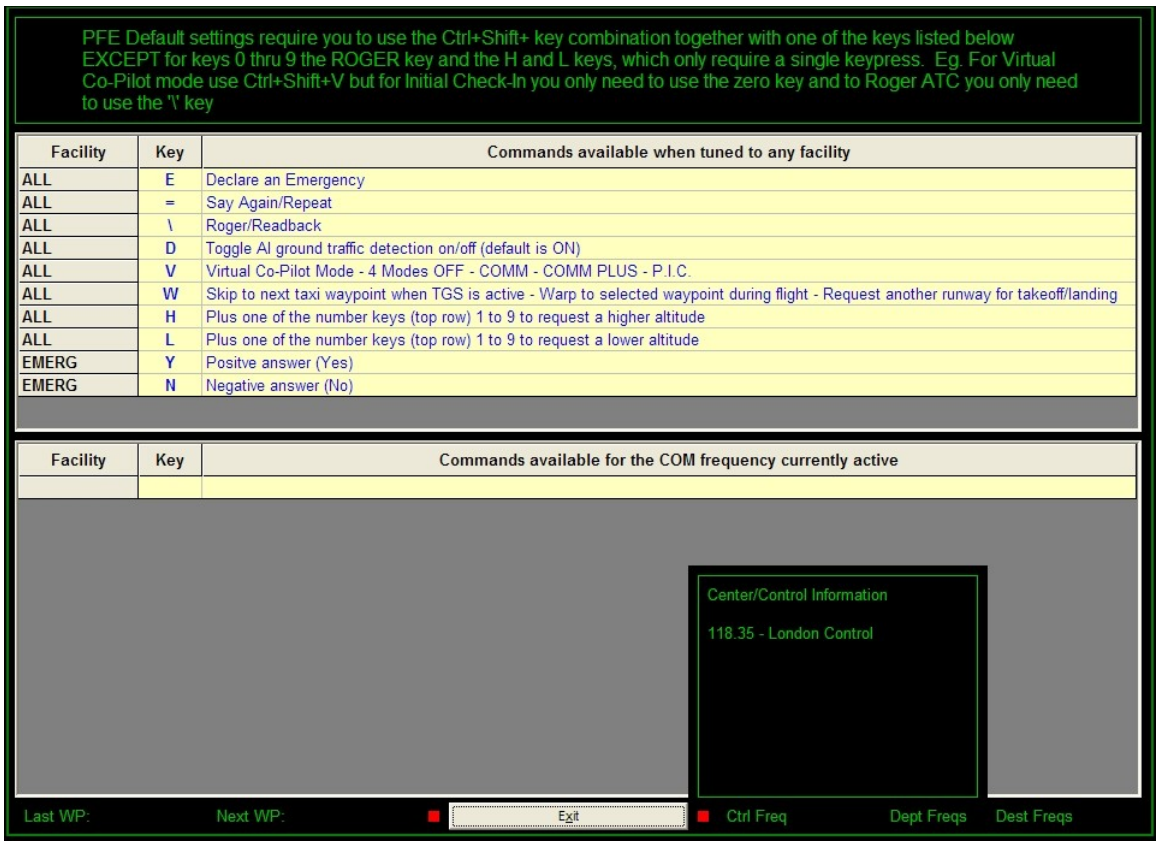
At the bottom of the display you will see some additional data:-

When you first start the program (and PFE) there will be no additional data next to each of the labels. However, as your flight progresses so will the information displayed in this area.

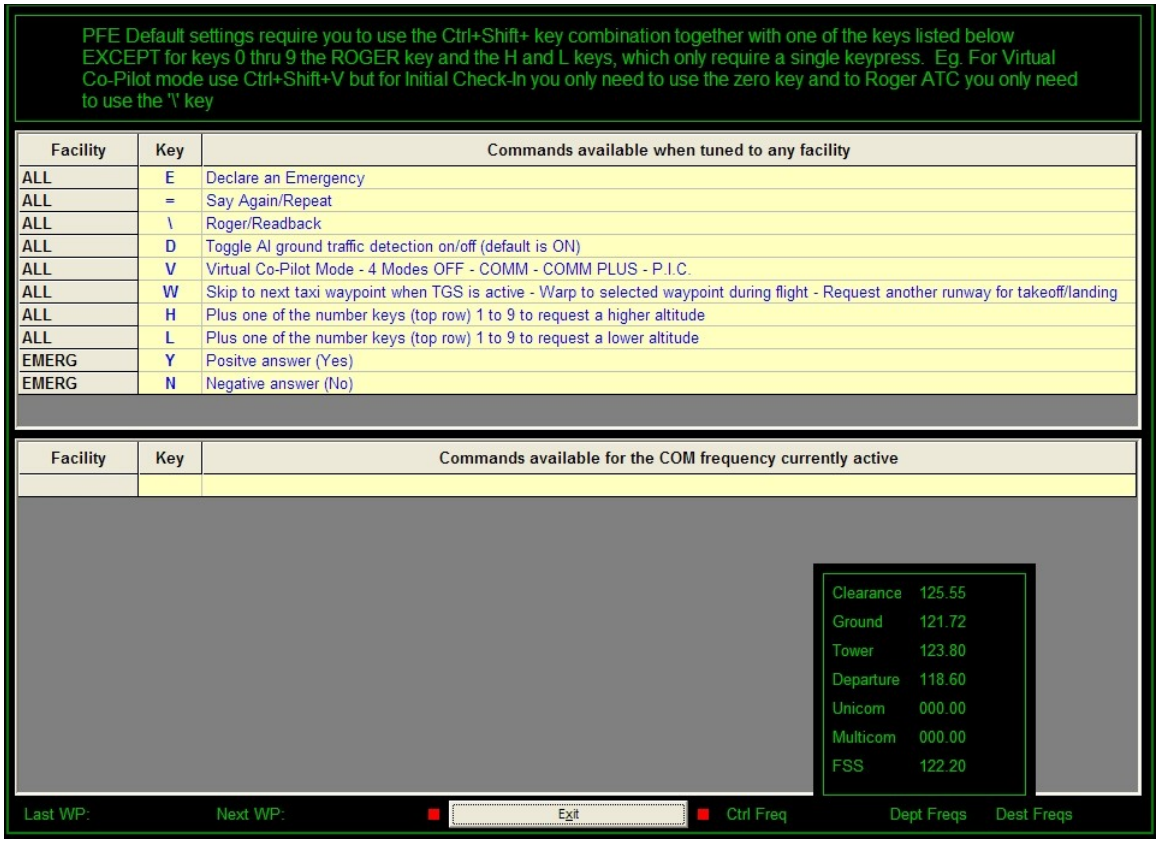
Last WP – will show the ICAO of the last waypoint in your flight plan

Next WP – will show the next waypoint in your flight plan

Ctrl Freq - will show the Control Centre frequency you are either currently tuned to or should be tuned to. Also if you *right-click* or *left-click* the 'Ctrl Freq' label you will see a small popup window showing all the control centres and their frequencies to which you will be in contact with during your flight.



Dept Freq – Nothing is actually displayed against this label at anytime during your flight. However, if you *right-click* or *left-click* on the label you will be presented with a small popup window showing all the relevant frequencies for your departure airport.



PFE Default settings require you to use the Ctrl+Shift+ key combination together with one of the keys listed below EXCEPT for keys 0 thru 9 the ROGER key and the H and L keys, which only require a single keypress. Eg. For Virtual Co-Pilot mode use Ctrl+Shift+V but for Initial Check-In you only need to use the zero key and to Roger ATC you only need to use the '\' key

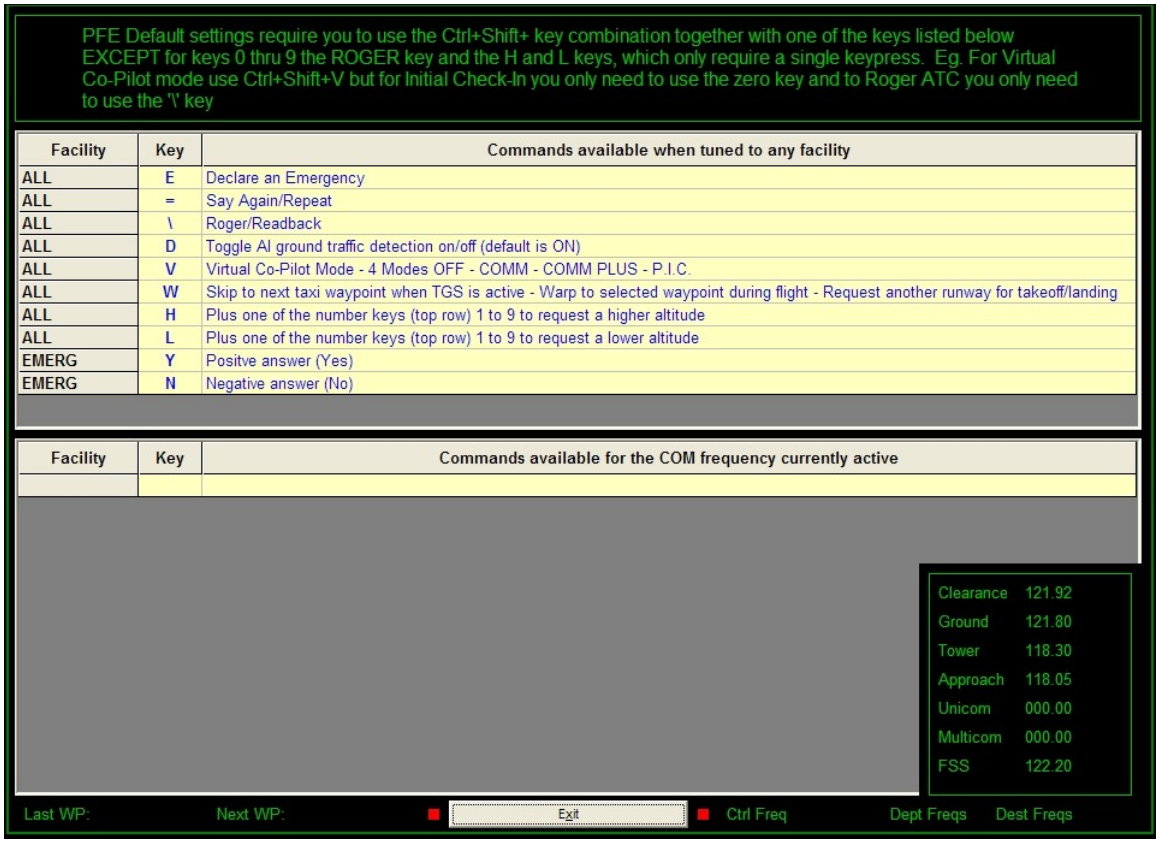
Facility	Key	Commands available when tuned to any facility
ALL	E	Declare an Emergency
ALL	=	Say Again/Repeat
ALL	\	Roger/Readback
ALL	D	Toggle AI ground traffic detection on/off (default is ON)
ALL	V	Virtual Co-Pilot Mode - 4 Modes OFF - COMM - COMM PLUS - P.I.C.
ALL	W	Skip to next taxi waypoint when TGS is active - Warp to selected waypoint during flight - Request another runway for takeoff/landing
ALL	H	Plus one of the number keys (top row) 1 to 9 to request a higher altitude
ALL	L	Plus one of the number keys (top row) 1 to 9 to request a lower altitude
EMERG	Y	Positve answer (Yes)
EMERG	N	Negative answer (No)

Facility	Key	Commands available for the COM frequency currently active

Clearance	125.55
Ground	121.72
Tower	123.80
Departure	118.60
Unicom	000.00
Multicom	000.00
FSS	122.20

Last WP: Next WP: Exit Ctrl Freq Dept Freqs Dest Freqs

Dest Freq – Nothing is actually displayed against this label at anytime during your flight. However, if you *right-click* or *left-click* on the label you will be presented with a small popup window showing all the relevant frequencies for your destination airport.



12.3 Customising the Data File

If you have chosen to change any of your PFE hotkeys for different keying sequences you will notice that the PFE display utility does not reflect those changes. However, it is fairly simply to change this display by editing the **PFE_Disp.dat** file.

The default content of this file is shown in section 12.3.2 below

12.3.1 Changing the date

Let's imaging you have changed the default hotkey #1 to use the Z. I know, I know, highly unlikely, but this is just an example to show you what to change in the file and what not to change.

For all those places where the hotkey #1 is shown (i.e. all facilities except Clearance) you would need to change the '1' to a 'Z'

The line -→ Ground,**1**,Deactivate/Reactivate toggle for TGS

Would be come -→ Ground,**Z**,Deactivate/Reactivate toggle for TGS

The line -→ FSS,**1**,Request to Close Flight Plan

Would become -→ FSS,**Z**,Request to Close Flight Plan

..and so on.

Remember, if you add the wrong character it will make no difference to PFE, this is purely for display purposes only and nothing else.

Important Note:

There are two comma characters on each of the (facility) data lines within this file and they must NOT be removed or moved. They delimit the hotkey from the facility name and hotkey description.

If you change the hotkey usage do NOT… and I repeat DO NOT include **any** comma characters within the description. If you do the PFE Display utility will simply not work as it will not be able to read the data file correctly.

12.3.2 Data File Content (default)

Please Note: Do NOT change anything marked in RED

Header:PFE Default settings require you to use the Ctrl+Shift+ key combination together with one of the keys listed below EXCEPT for keys 0 thru 9 the ROGER key and the H and L keys, which only require a single keypress. Eg. For Virtual Co-Pilot mode use Ctrl+Shift+V but for Initial Check-In you only need to use the zero key and to Roger ATC you only need to use the '\' key

ALL,E,Declare an Emergency

ALL,=,Say Again/Repeat

ALL,\,Roger/Readback

ALL,D,Toggle AI ground traffic detection on/off (default is ON)

ALL,V,Virtual Co-Pilot Mode - 4 Modes OFF - COMM - COMM PLUS - P.I.C.

ALL,W,Skip to next taxi waypoint when TGS is active - Warp to selected waypoint during flight - Request another runway for takeoff/landing

ALL,H,Plus one of the number keys (top row) 1 to 9 to request a higher altitude

ALL,L,Plus one of the number keys (top row) 1 to 9 to request a lower altitude

EMERG,Y,Positve answer (Yes)

EMERG,N,Negative answer (No)

Clearance,0,Initial Check-in... request CLEARANCE

Clearance,2,Request ACARS ATIS for your destination

Ground,0,Initial Check-in... ready to TAXI to RUNWAY
Ground,1,Deactivate/Reactivate toggle for TGS
Ground,2,Request ACARS ATIS for your destination
Ground,5,Clear of the runway... request TAXI to TERMINAL
Ground,6,Request Radio Check
Ground,7,Request Altimeter Setting

FSS,0,Request to Open Flight Plan
FSS,1,Request to Close Flight Plan
FSS,2,Extend ETA by 30 minutes
FSS,3,Request Weather Advisories
FSS,4,Request Center Frequency
FSS,6,Change Flight Plan to IFR/VFR (toggle)
FSS,7,Request Airport Advisories
FSS,8,Amend Flight Plan to land at next available airport
FSS,9,Report Position

Multicom,0,Initial Check-in (in the air only)
Multicom,2,Announce entering DOWNWIND
Multicom,3,Announce turning BASE
Multicom,4,Announce turning FINAL
Multicom,5,Announce CLEAR of the RUNWAY
Multicom,6,Announce TAKING the RUNWAY
Multicom,8,Announce DEPARTING the AREA

Unicom,0,Initial Check-in (in the air only)
Unicom,2,Announce entering DOWNWIND
Unicom,3,Announce turning BASE
Unicom,4,Announce turning FINAL
Unicom,5,Announce CLEAR of the RUNWAY
Unicom,6,Announce TAKING the RUNWAY
Unicom,7,Request Field Advisories
Unicom,8,Announce DEPARTING the AREA

Tower,0,Initial Check-in... ready to TAXI to RUNWAY
Tower,1,Initial Check-in for LANDING
Tower,2,Report entering DOWNWIND
Tower,3,Report turning BASE
Tower,4,Report turning FINAL
Tower,5,Request the Option (Touch 'n Go)

Tower,6,Initial Check-in... ready for TAKEOFF
Tower,7,Request Field Advisories
Tower,8,Report going to ALTERNATE Airport
Tower,9,Report Go-Around/Missed-Approach
Tower,W,Request other Runway
Tower,N,Show another Runway
Tower,Y,Accept that Runway

Departure,0,Initial Check-in (if VFR request Flight Following)
Departure,1,Request Cleared To Final At Pilot's Discretion
Departure,2,Request ACARS ATIS for your destination
Departure,3,Request lower altitude due to clouds
Departure,4,Request higher altitude due to clouds
Departure,5,Request lower altitude due to turbulence
Departure,6,Request higher altitude due to turbulence
Departure,7,Request vectors
Departure,9,Report position

Center,0,Initial Check-in (if VFR request Flight Following)
Center,1,Request Cleared To Final At Pilot's Discretion
Center,2,Request ACARS ATIS for your destination
Center,3,Request lower altitude due to clouds
Center,4,Request higher altitude due to clouds
Center,5,Request lower altitude due to turbulence
Center,6,Request higher altitude due to turbulence
Center,7,Request vectors
Center,8,Report airport in sight if VFR/VFR Approach
Center,9,Report position

Approach,0,Initial Check-in (if VFR request Flight Following)
Approach,1,Request Cleared To Final At Pilot's Discretion
Approach,2,Request an instrument approach
Approach,3,Request lower altitude due to clouds
Approach,4,Request higher altitude due to clouds
Approach,5,Request lower altitude due to turbulence
Approach,6,Request higher altitude due to turbulence
Approach,7,Request vectors
Approach,8,Report airport in sight if VFR/VFR Approach
Approach,9,Report position

13. WHAT HAVE WE REMOVED FROM PFE THAT WAS AVAILABLE IN PF2000?

1. Pushback
2. CoPilot mode 4
3. Modules

14. WHAT DOES NOT WORK THAT USED TO WORK IN PF2000?

Obviously there some features of ProFlight 2000 that no longer function correctly with the later versions of Flight Simulator.

1. Writing flight plan data to the FS GPS does **not** work.

2. Choosing to start your ADV Flight at a certain point does **not** work.

3. Choosing to start the ADV Flight with engines running or not running does **not** work.

4. Generating ProFlight weather does **not** work.

15. WHAT HAVE WE CHANGED IN PFE FROM THE WAY IT USED TO WORK IN PF2000?

15.1 Original Hotkeys

The following default hotkeys are used to interact with **PFE:**

The original ProFlight 2000 program required you to use the Ctrl+Shift key combination for all hotkeys (communication keys) and we have retained this requirement with the exception of 0 thru 9 and the *Roger* keys, where you only need to use a single key press.

0 thru **9** has been used to replace ProFlight's Control+Shift+0 thru Control+Shift+9

*We used these as they are normally used to interact with FS ATC, and since you won't be using that we thought these keys would be best suited to use in **PFE** without causing any contention issues with FS.*

**** has been used to replace ProFlight's Ctrl+Shift+'

So, to contact Clearance Delivery simply hit the **0** (ZERO key) whereas to change the CP mode you would use Control+Shift+V

To *Roger* back to ATC just use the **** *(backslash)* key

All other keys are as described in the ProFlight documentation... a listing of these keys is also provided in the file named **ProFlight 2000 Commands.htm** which can be found in the **PFE\Help** folder. These details are also available in Appendix A, section 27

15.2 New Hotkeys and/or Functionality

The following keys have been added to PFE

15.2.1 Hotkey Ctrl + Shift + D

This is a multi-functional hotkey, dependant on the current mode of your flight.

Whilst on the ground this will toggle PFE's AI ground traffic detection on/off. It's ON by default but if you ever find yourself in the situation where PFE believes there is an aircraft in front of you, and therefore will not clear you for takeoff, you can use this keying sequence to clear your way.

Once airborne this hotkey is used to request a 'Direct to….' A particular waypoint in your flightplan. Full details about this feature can be found in section 8.48

15.2.2 Hotkey Ctrl + Shift + W

This is a multi-functional hotkey dependant on the current mode of your flight.

When TGS is active (during your taxi to/from) the runway this hotkey provides the means to *skip* the next taxi waypoint. This was primarily provided for those rare occasions where you may find your first or subsequent taxi waypoints are behind you. Use of this hotkey alleviates the problem of having to do a 180 degree turn at the start of your taxi.

At your departure airport, after ATC has told you which runway to taxi to, you can use this hotkey to *request* another runway.

During the approach to your destination airport, immediately after ATC has told you which runway to expect for landing, you can use this hotkey to *request* an alternative runway.

During you flight this hotkey can be used to *Warp* your aircraft to any waypoint in your flight plan. This is useful for those times when you don't want to fly a long haul trip in real time.

15.2.3 Hotkey 'H'

This key is used to request a higher altitude during your flight.

Press and hold the **H** key then press and release one of the top row numeric keys (0 thru9) to request a higher altitude. So if you are currently cruising at 25,000' and wish to climb to 30,000' you would press and hold done the **H** key then press and release the number **5** key (top row) to request 30,000' (eg. 25,000' + 5 * 1,000' = 30,000')

15.2.4 Hotkey 'L'

This key is used to request a lower altitude during your flight.

Press and hold the **L** key then press and release one of the top row numeric keys (0 thru9) to request a lower altitude. So if you are currently cruising at 25,000' and wish to descend to 22,000' you would press and hold done the **L** key then press and release the number **3** key (top row) to request 22,000' (eg. 25,000 – 3 x 1,000' = 22,000'

15.2.5 Hotkey '1'

When tuned to Ground Control and if TGS is active this hotkey is used to turn TGS off. Also, should you hit this key accidentally you may hit it again to toggle TGS back on again, although if mid-way through your taxi you would have to use the Ctrl+Shift+W hotkey to skip those taxi waypoints you have already passed because TGS will not play *catch up.*

15.2.6 Hotkey '2'

Use of this key sends an automatic request for an ACARS ATIS report for your destination airport. However, this hotkey will not be active when tuned to FSS, Multicom, Unicom or the destination airport's Tower frequencies. Also,

once you are talking aith Approach this hotkey will revert back to its normal functionality of requesting an instrument approach.

16. FIRST STEPS

16.1 First Steps... only steps...

Here a very brief *bulleted* summary of how I use PFE/ProFlight/FS, followed by more detailed instructions on how to do so. *(For even more detailed information please checkout the full tutorial in section **21 THE PFE TUTORIAL – time to fly***

1. Start FS.
2. Create a Flight Plan.
3. Start PFE.
4. Select *Convert a Flight Plan* to convert it/prepare it for ProFlight 2000.
5. Start ProFlight 2000, select the *converted* FS Flight Plan, and then *Compile* it.
6. From PFE select the ADV Flight File just created in step #5.
7. From PFE select *Connect to FS.*
8. Enjoy your flight.

...And now with a little more detail thrown in

The very first step is to *remember* how you used to use ProFlight 2000 and then do so again in exactly the same way as you did in the past. If, like me, your memory is not quite what it used to be, or perhaps you are completely new to ProFLight, then please refer to the ProFlight 2000 user manual. If you can't find the printed manual there will be an electronic one available from the *Start* menu after the installation is completed.

Basically you need to create a flight plan. This obviously has to be in FS2000 format so you will have to use a flight planner capable of producing such a flight plan. During testing we used FSBuild (my personal favorite), by selecting the FS2004/FSX export option which in fact creates a file in FS2000 format. *(Note: FS2004 and FSX can both read FS2000 flight plans).*

Some of our testers also used Ultimate Airlines, FSNav, NAV3 and Flight Sim Commander and I'm sure there will be many other flight planners you could use too.

Please Note: This restriction to use an FS2000 flight plan format is obviously due to ProFlight 2000 itself, as this program has not be altered in any way - furthermore it was never our intention to do so nor will we attempt to do so in the future.

For those of you who prefer to use the FS flight planner we have provided a utility as part of **PFE** to convert FS2004 or FSX flight plans for use with ProFlight

2000. When you first select this feature you will have to select the source (FS files) and target (PF files) folders for this process. Obviously the source folder will be the folder into which Flight Simulator saves its flight plans - normally *C:\Documents and Settings\Your Name\My Documents\Flight Simulator Files (or Flight Simulator X Files).* The target folder would be the folder that ProFlight defaults to when you select a flight plan - normally *PFE\FS2000\Pilots folder.*

A very important point to remember here is your flight will only be as good as your flight plan. Just as it is in real life good planning is essential!

A good flight plan = A great flight.

A bad flight plan = A flight best forgotten.

Once you have configured ProFlight 2000 to your own particular requirements simply load your flight plan then hit the *compile* button. Your flight plan data will now be generated for use by **PFE**, which should only take a short time to complete and which you will notice is very, very much quicker than it used to be (maximum 30 seconds). This increase in compilation time is achieved by our own version of APLC32 which doesn't actually produce a compiled adventure but simply extracts the data required by **PFE.**

The original ProFlight 2000 Adventure files were approximately 18 MB in size whereas the **PFE** ADV Flight Files are less than 15 kb.

Once complete you may now close ProFlight 2000 and start **PFE.** Then, from the **PFE** main menu use the *Select New ADV* button and browse to the newly created *ADV Flight Files*. Choose the one you require then click *Load.*

PFE will now be running, in much the same way as a ProFlight 2000 Adventure. However, **PFE** is written using both Visual Basic 6 and VB.NET functionality so performance is much more fluid, stable and responsive.

If you haven't already done so you should now start FS. Personally I find it useful to load the flight plan used to create our selected ADV Flight File into the FS flight planner... confirming *Yes* to the prompt about moving to the departure airport. This allows me to use the FS GPS to ensure I keep to the correct flight plan route expected by **PFE.**

Once you're *ready to go* you need to *Connect* **PFE** to FS, which you can do using one of two methods. The first and probably easiest method is to open the *Add-on* menu from the FS menu bar and select *START PFE.* You may also use the *Connect to FS* button from **PFE**'s main menu display.

You will see a message in the FS message window to indicate **PFE** is now active and you need to tune the Clearance frequency and use the appropriate **PFE** hotkeys to contact Clearance Delivery, just as you did with ProFlight 2000. If you don't recall the frequency, hitting the default '0' (zero) key will display your currently tuned frequency, and the correct frequency needed to contact Clearance.

The rest, as they say, should be *history*...

16.2 A Note about the FS Message Window

To get the best possible message display from PFE we recommend you use our Remote Text program (see section 10 Remote Text program) if you happen to have another pc running WideClient or setup the FS message window as follows:

From the Add-ons menu select FSUIPC and on the main display page.....

1. Select *'FSUIPC Multi-line Display Window'.*

2. Deselect *'Hide all Single line messages'.*

3. I also select the Misc. options tab and then select *'Scrolling message to be in white'* (but that's my own preference).

For even more detailed information please checkout the full tutorial, which you will find in section **21.**

17. A BETA TESTER'S GUIDE TO USING PFE

By Ray Lunning

17.1 Introduction

PFE utilizes ProFlight2000 for use in FS2004 and FSX.

PF2000 is a Flight Planning and ATC program that simulates ATC communications and navigation. It is an interactive program which allows the Pilot to respond to ATC voice commands.

17.2 The Pilot

To use this program the *Pilot* should have *some* knowledge of navigation and IFR/VFR Flight procedures. A successful flight will depend on the Pilots ability.

17.3 Flight Preparation

Prior to flight, the Pilot should have a printed ProFlight2000 Flight Plan. It will also be useful to have a print of the Flight Plan's ***.brf** file found in the PFE\ADV folder. These two items will provide you with most of the runway information and enroute frequencies needed to make the flight...

To do things *by-the-book* the pilot should ideally have a printed ILS or VOR Approach procedure published for the destination airport, although this is not absolutely necessary.

Approach Plates can be downloaded from several web sties such as:

www.airnav.com/airports/

17.4 Flight Plans

A good flight plan is **the** most important part of making a good flight.

ProFlight's compilation process to create an ADVenture file is now intercepted by **PFE** to create a much more compact ADV Flight File.

Flight Plans can be created using the FS9 or FSX Flight Planner. However they need to be converted to FS2000 format for use with ProFlight 2000. At the time of writing they can be converted the ConvertFS9FP.exe tool provided by OnCourse Software. However, this may find itself as an integral part of **PFE** by the time the program is released.

Flight plans can also be created using FSBuild (selecting the FS2004 export option to create it in FS2000 format) or FSNAV, to name but a few.

These Flight Plans need to be exported to the PFE\FS2000\Pilots folder.

When you open ProFlight 2000 you may wish to set various options before selecting *Compile*.

In this guide to using **PFE** I will assume you have created an **IFR** Flight Plan.

Most flight planners do about the same thing. First you select a Departure Airport and Runway then you select a Destination Airport and Runway. Second you select a cruise altitude. Here in the USA we observe the east / west rule... Odd thousands when easterly and even thousands when westerly.

PFE does not detect terrain efficiently enough to be able to successfully vector you around hazards. Therefore it is important to select a cruise altitude that will clear all terrain and such hazards on route.

And last you must select a route. Again, here in the USA we fly Low Enroute Airways (V186) below 18000 ft. and High Enroute Airways (J24) above 18000 ft.

FSBuild has an Auto Generate feature which will select and build your Route. You can also manually select the route using the airways, VORs and intersections. FS9/FSX Flight Planners allow you to choose IFR or VFR, then select Low or High altitude airways or even VOR to VOR.

Once it generates a flight plan you can edit it and add or delete waypoints.

When creating a flight plan in FS9/FSX it is important to include co-located or the nearest VOR to the Departure and Destination airport. These are needed to define enroute waypoints. They can be added by using the edit feature..

ProFlight 2000 will drop VORs and waypoints near the airports (10 miles from Departure, 15 miles from Destination) and they will not appear on the ProFlight 2000 Flight Plan. It is a good practice to make a copy of the FS9/FSX flight plan as it will show those VOR frequencies for navigation.

17.5 Important Notes

The flight plan route should be to the IAF (Initial Approach Fix) it is from this point that you will be cleared or vectored. This IAF can be found on the Approach Plate for the runway in use. If the IAF is not available make your route to the nearest VOR.

It is best to assign altitudes to your waypoints. When compiling the flight plan ProFlight 2000 will give you the option to do so. Here are some guidelines which I have found work best for me:-

- Set the TOD waypoint the same as the "Previous waypoint"

- Step down your decent by select two or three waypoints before the destination and progressively lower your altitude. This will make for a smoother decent.

- Set your last waypoint at 4000 ft. AGL. If you don't do this you may find yourself too low too far out.

- With some Departures it may be better if you also step your climb..

- Prior to compiling your flight plan, be sure you have set the "Contact Center Altitude".

- This is the altitude that Departure will hand you off to Center.. Here in the USA that altitude is usually 5000 ft AGL

-

17.6 IFR Flight: VOR Approach

On arrival at the IAF, or final waypoint, **PFE** will not detect an ILS at your destination airport and Approach Control will clear you as follows:

"(Aircraft) turn left (or right) heading 123. Cleared to final for runway 12 at Pilot's Discretion. Contact the tower on 123.4 when established.."

The pilot may now fly the published VOR approach using his chart. If a chart is not available the GPS is a good option to navigate to the airport.

A **PFE** option after "cleared" is to use the "Request Vectors" option using the # 7 key.

When nearing the airport CP Mode 2 will connect you to the tower, otherwise with the airport in sight you can manually contact the tower using the # 1 key..

17.7 IFR Flight: ILS Approach

On arrival at the IAF, or final waypoint, **PFE** will detect an ILS at your destination airport and Approach Control will then clear you as follows:

"(Aircraft) turn left (or right) heading 123 for vectors to the ILS runway 12 approach"

Depending on your position and the wind direction, Approach will try to vector you directly to the ILS or vector you into a downwind entry then turn to base and vectors to the ILS. When **PFE** detects your ILS intercept, Approach will clear you for the ILS and to *"contact the tower on 123.4"...*

A **PFE** option while being vectored to the ILS is to use "Request Cleared to Final at Pilot's Discretion" by using the # 1 key. The pilot would then fly the

published ILS approach using his chart. If a chart is not available the GPS is a good option to navigate to the airport localizer course.

17.8 VFR Flight Plan

For VFR flights it is best to avoid Airway routes. **PFE** may determine that you are "off" the airway.

A VFR flight plan is most often a straight line between airports. VOR navigation can be helpful. **PFE** does provide flight following and the Pilot can also request vectors using the # 7 key.

You will need to select VFR when creating the flight plan.

VFR altitudes use the east / west rule similar to IFR except that it is +500 ft. (6500)

17.9 PFE and WIND

During a flight **PFE** will determine the runway to use at your destination. It does this by first checking to see which runway is currently being used by AI traffic. If there is no AI traffic currently taking off, landing or on route to your destination airport **PFE** will assign a runway determined by wind direction. The Pilot can help predetermine his intended runway by selecting the wind direction in the Weather menu prior to starting PFE. For those using "real Weather" or some other weather generating program, they will be subject to the "actual" wind direction.

18. PFE HOTKEY COMMANDS

Please see the Appendix for a list of all commands. Note this list may also be found as an HTML file in the PFE/Help folder.

19. PFE GENERAL FAQ SECTION

If you don't find the answer to your problem here please ensure you check the PFE section on our website for more up to date information:

http://www.oncourse-software.co.uk/pfe_faqs.htm

Q: *I'm using Vista and when adjusting the FP altitudes after saving them I get an ok then I get a runtime error 91 box popping up. "Object variable or With block variable not set" then it shuts down.*

A: Sounds like you may have had a installation problem. Go to your main PFE folder and double click on the file named **XInstall3.exe**

Q: *Sometimes PFE ATC splls out the entire airline name rather than use the call sign.... other times it's correct.*

A: The problem can occur when using Super Traffic Board and telling the aircraft to 'depart now'. If you leave aircraft to depart at their correct times this problem does not occur.

Q: *Few seconds after starting PFE it locks up and doesn't respond to anything, i have to close it via task manager.*

A: (1) Go to the main PFE folder (2) Open the **PF_Emulator.ini** file (3) Look for **AutoUpdates=1** and change it to **AutoUpdates=0** (4) Save the file.

Q: *PFE has started to lock up on me and/or it takes an unusually long time to respond.*

A: If you are using multiple security protection program try disabling the default Windows Firewall. If that doesn't work try disabling the others one by one, simply as process of elimination. Whatever system you use you must ensure that the PF_Emulator.exe and Updates.exe programs have access to the internet, which is required for the auto updates feature to work.

Q: *Can PFE be used on a networked pc?*

A: Yes it can by using Pete Dowson's WideFS utility... available from http://www.schiratti.com/dowson.html . When using PFE on a networked PC please remember to use the client's keyboard when making any changes to PFE's options but use the main FS keyboard to communicate with ATC when PFE is connected to FS during your flight

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Q: *After I create my flight plan and compile it PFE will not load it and complains about it NOT being a valid ADV file!*

A: It would appear that some regional settings can cause this problem. Recent correspondence from a Japanese user resulted in him changing the Unicode setting (Control Panel\Regional Settings) to English, which cured the problem. To the best of our knowledge most regional settings are valid and PF2K/PFE work just fine.

Q: *Every time I try to start ProFlight it give me an Error 13 message! What can I do.*

A: We are unsure why this occasionally happens to some users, but here's a simply workaround. Please download this small utility from here

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http://www.oncourse-software.co.uk/pfe_updates/pf2k_repair.zip .... unzip it into your MAIN PFE Folder then run it. Once complete you should be able to start ProFlight 2000

Q: *Why do I hear ATC calling the aircraft make rather than the actual airline call sign?*

A: Please check under the Technical Tab in FSUIPC (or look under the GENERAL section the FSUIPC.INI file) and set the TCASid entry to FLIGHT. Programs such as AIBlast and FSHotSeat appear to change these settings which make them incompatible with PFE

Q: *I tune to ATIS but all I hear is static noise... what's wrong?*

A: One user found that this only occurred when using a particular aircraft. Try the same frequency using another aircraft and if that does not help please email support at pfe@oncourse-software.co.uk

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Q: *When running Spyware Terminator it identifies and removes a file named SCLabel.ocx. After that PFE will not run!*

A: Do NOT remove this file. It is NOT spyware and is an ActiveX control for display most of the text that appears on the PFE screens. Without it PFE will NOT run! You can configure Spyware Terminator to ignore it rather than remove it. If you have removed it you will need to reinstall PFE.

Q: *When I select one of the new call signs to use as my own call sign a message pops up telling me to select one of the new voices for my VCP. WHY? I want to use one of my old favourite voices from the original set.*

A: The reason is quite simple... only the new expanded voice sets include the newly recorded 1000+ additional call signs. So if you have an original voice set selected it couldn't possible use a new call sign because the recorded wav file simply isn't there to use. So if you want to use an original voice set for your pilot's voice you have to also use one of the original airline call signs. If you want to use one of the new airline call signs you have to use one of the new voice sets for your pilots voice.

Q: *I've just downloaded and installed PFE version 2.0 from Aerosoft but I can't here any ATC chatter. What's wrong?*

A: If you downloaded PFE version from Aerosoft between 27th June 2008 and 1st July 2008 please go to your Aerosoft account and download it again. Uninstall PFE from your system then reinstall using the new download. Unfortunately there were a number of files missed from the install install pack. If you have the new expanded voice pack install you do not need to uninstall that.

Q: *I've just downloaded and installed PFE version 2.0 from Aerosoft but have some strange problems. I can't hear any ATIS even though I'm tuned to the correct frequency.*

A: If you downloaded PFE version from Aerosoft between 27th June 2008 and 1st July 2008 please go to your Aerosoft account and download it again. Uninstall PFE from your system then reinstall using the new download. Unfortunately there were a number of files missed from the install install pack. If you have the new expanded voice pack install you do not need to uninstall that.

Q: *I've just installed the new PFE voice set expansion pack but I still hear ATC using the three character airline ICAO instead of the full call sign*

A: This can happen for a number of reasons... (1) you are using the original and new voice sets together, so if the current controller's voice set is using one of the original voice sets the number of full call signs is restricted to approximately 150 call signs. When only using the new voice sets the number of call signs available is over 1,000.

Q: *Do I have to buy and install the new PFE voice set expansion pack*

A: Certainly not. PFE version 2.0 will work quite happily using the 44 original voice sets. However, the new voice sets have a much wider vocabulary and therefore offer enhanced capabilities. Amongst other things they offer an additional 1,000 airline call signs so you will hear the full call sign being used by ATC rather than the three character airline ICAO code

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Q: *I've just installed the new PFE voice set expansion pack and now I can't see any pilot voices to select from the PFE options screen*

A: You must start/stop ProFlight 2000 after installing the new voice sets and before you run PFE. This was the last instruction displayed after you installed the new voice sets. If PFE is still running, please stop it. Then start ProFlight 2000... exit from it.... now start PFE and all should be well

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Q: *I've just updated PFE to version 2.0 but I can't hear any of the new call signs mentioned.*

A: You need to purchase the PFE voice set expansion pack from http://www.aerosoft.com which provides version 2.0 users with an additional 59 newly recorded voice sets

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Q: *PFE used to work but now it won't compile a flight plan. Even the Compile button works and is not grayed out.*

A: Two things to check in ProFlight Settings... please ensure you have your Cruise Altitude set to at least the same altitude as that in your flight plan and second, ensure the Center Altitude is not too low (you may need to experiment with this one but tests have shown it can be too low which can prevent PF compiling the flight plan.... the default is 14,500).

Q: *Whenever I create an ADV Flight File the cruise altitude is always wrong (too low) and the cruise speed is showing a ridiculously high value.*

A: Start ProFlight and select the **Select Spec** option to check the cruise speed set for your aircraft. Check the MACH setting is valid. i.e. Mach .74 should be entered as **.74** and not **74** (If you have a missing decimal point your ADV Flight File will be wrong).

Q: *I can't see any of the new call signs in ProFlight.*

A: New call signs will not be selectable or displayed in ProFlight settings. To use one of the new call signs you must select it from the PFE main options page.

Q: *ProFlight 2000 won't start. All I get is an Overflow Error 6 message.*

A: Somehow ProFlight has allowed a change to one of the following settings to an incorrect value, resulting in the overflow error message. If you open the PF2000.CFG file and scroll down to the FlightInfo section (almost at the end of the file) you will see three entries as follows:

CruiseSpeedIAS=238
CruiseSpeedMACH=0.74
CruiseSpeedTAS=420

If you check these you will probably find one or more of the values to be very high... i.e. A cruise speed of 4000 would obviously be incorrect. To correct the problem simply enter a correct value and resave the CFG file, and then restart PF2000. We are currently unsure as to how these values get changed. PFE most certainly does not change any of them, so if you discover how to recreate the problem please tell us!

Q: *The ProFlight 2000 Compile button is grayed out so I can't compile an ADV Flight File*.

A: There are a couple of reasons why this may occur. Firstly, the flight plan you are attempting to load is not in the correct format. Remember ProFlight requires FS2000 format flight plans so FS9 and/or FSX flight plans require converting, which you can do from within PFE. Secondly you need to select the Use Real Weather option in the ProFlight Settings page as turning that option off makes the Compile button inactive. So, please ensure it is on.

Q: *I'm using Copilot Mode 2 but* ***PFE*** *doesn't detect when I get near to the active and so doesn't tell me to switch to the Tower.*

A: PFE waits for you to be within 700' feet of the active runway before issuing a 'Contact Tower on...' command. If you happen to be taking off from a position other than the end of the active runway you may well be more than 700' away from that detection point. Should this be the case you would need to manually switch to the Tower frequency and then use Hotkey 6 to contact Tower and request takeoff clearance.

Q: *I'm using FS2004/FSX to create a flight plan for PFE but I get errors when trying to compile it.*

A: ProFlight requires the flight plan to be created in FS2000 format; after all, it was developed back in FS2000 days. Flight planners used during testing for this purpose included FSBuild, Ultimate Airlines, FSNav and NAV3. We have also provided a means to convert FS9/FSX Flight Plans for use with ProFlight 2000.

Q: PFE *ATC routed me to fly right into a mountain.*

A: In such hazardous areas it is vitally important to create a good flight plan to ensure **PFE** delivers safe approach vectoring. ***PFE is not aware of mountains or obstacles on your approach route*** **so you, as the pilot, must ensure you plan your flights correctly.** Remember also that YOU are the Captain in charge and if, during approach vectoring, you consider ATC to be issuing a bad and dangerous turn you should ignore it and **use the #1 hotkey to request a *'Cleared to Final Approach'*.**

Q: *I had to reinstall ProFlight 2000 and now PFE will not work.*

A: If you have the **PFE Standard Edition** you cannot reinstall ProFlight 2000 without reinstalling **PFE**. Should you ever need to reinstall ProFlight you must then run the PFE_1 and PFE_2 installers. You may run the **PFE** installers at anytime without having to reinstall ProFlight but you cannot do it the other way around.

Q: *I never got handed over to any Centre facilities during my flight.*

A: PFE (ProFlight) determines which control centers to hand you to dependant on your altitude. If you don't reach a center's specified *altitude* you will remain under the control of a Departure or Approach controller. **This altitude setting can be changed within ProFlight's *settings* page, and defaults to 14,500'**.

Q: *PFE is working and I can hear the controllers talking to me but I can't hear the pilot's voice.*

A: Check the *Game Commander* option in ProFlight and ensure it is ***unchecked***.

Q: *When compiling my flight plan I chose the option to write the flight plan data to the GPS. However, when loading the GPS I don't see any flight plan data.*

A: Please remember ProFlight 2000 was written for use in FS2000, consequently certain options (like writing to the FS GPS) are no longer functional. Please see *the section "What does not work that used to work in ProFlight"* for more details on what ProFlight features do and do not work. **Also please see the section *"First steps... only steps..."* for details on using flight plans with the FS GPS**.

Q: *I have been trying to generate weather in ProFlight but it doesn't seem to work!*

A: That's because it doesn't work! Please see *the section "What does not work that used to work in ProFlight"* for more details.

Q: *I'm using ActiveSky. ATC vectors me to land VFR on runway 21. At the same time all AI were landing and departing runway 03, the opposite end. Why?*

A: This can happen when using an external weather programs such as ActiveSky. Pro Flight ATC reads the weather and chooses the correct runway, but ASV6 may update the weather forcing a change of the active runway. FS9/FSX ATC will change the active runway, but PFE has already made its choice, hence the incursion. **To avoid this, it is necessary to use the "suppression" options according to the type of flight/aircraft**.

Using the New Route and Navigation Log will be helpful too. Please see your ActiveSky manual for details and how to use these powerful features. It is usually located (Windows XP) at:

C:\Program Files\Microsoft Games\Flight Simulator 9\Modules\ASv6\User Guide

If one chooses not to take these extra steps in ActiveSky, then using the default FS9/FSX real weather instead of ActiveSky will prevent this issue from happening while using PF ATC.

***Q:** I changed my call sign in ProFlight, recompiled the ADV Flight File, but I'm still hearing my old call sign.*

A: Check to see if you have a call sign set in the **PFE** option. **If you do then you must delete it**. Pilot's Voice, Airline and Call sign each override the same settings in ProFlight but can be useful if you always want to use the same call sign even if using an ADV Flight File created by another user with *their* embedded call sign.

Q: *The approach to my destination was rubbish. I was far too high when cleared for the approach!*

A: Adjust you flight plan descent profile during compilation.
Remember, your flight will only be as good as your flight planning, just as in the real world.

Q: *I found a bug whilst using ProFlight. How do I report it and when will you fix it?*

A: The actual ProFlight 2000 program has not been changed by us nor will it ever be. ProFlight 2000 was developed by Tom Main and Robert Mackay and released in 2000. It is not our program, we do not have the source code and there will be no fixes for any problems found.

Q: *After PFE had a problem and crashed my Regional Settings appear to be wrong and numbers are not being displayed correctly?*

A: Restart PFE then immediately close it using the *Exit* button - That should reset your numeric regional settings to their original state.

---

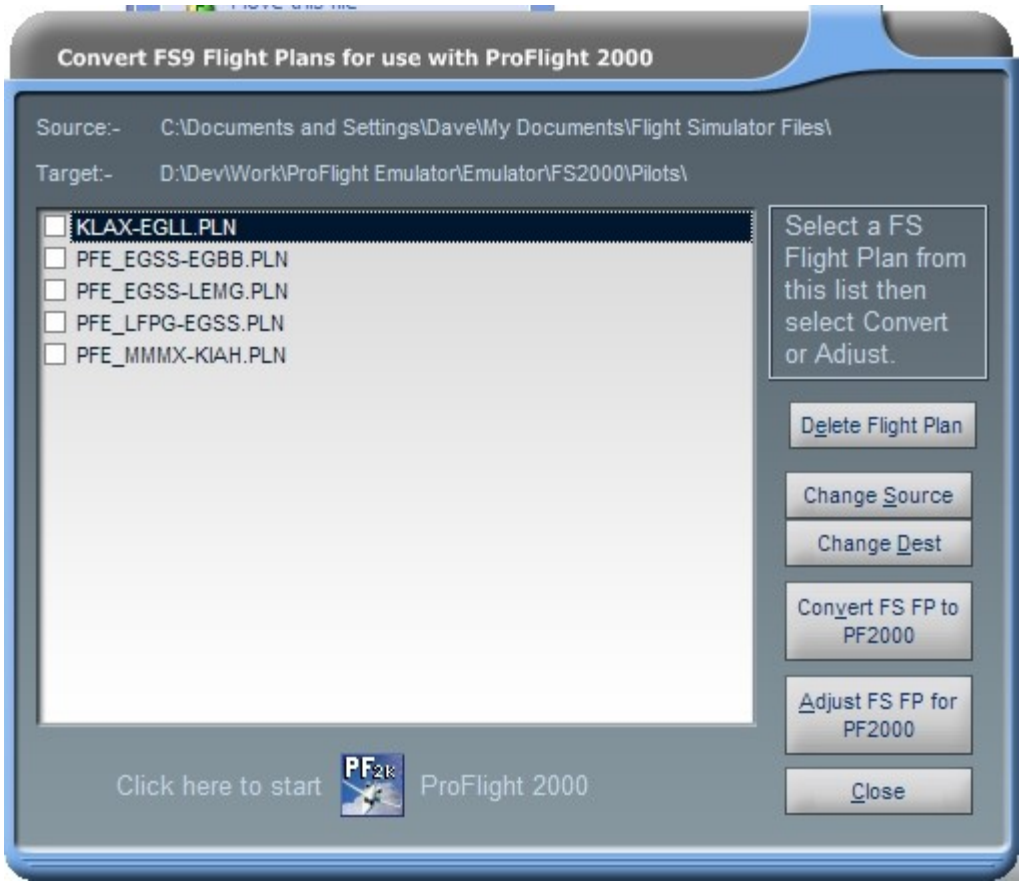
20. ADJUSTING FLIGHT PLANS FOR THE GPS

Please Note: This step is entirely optional

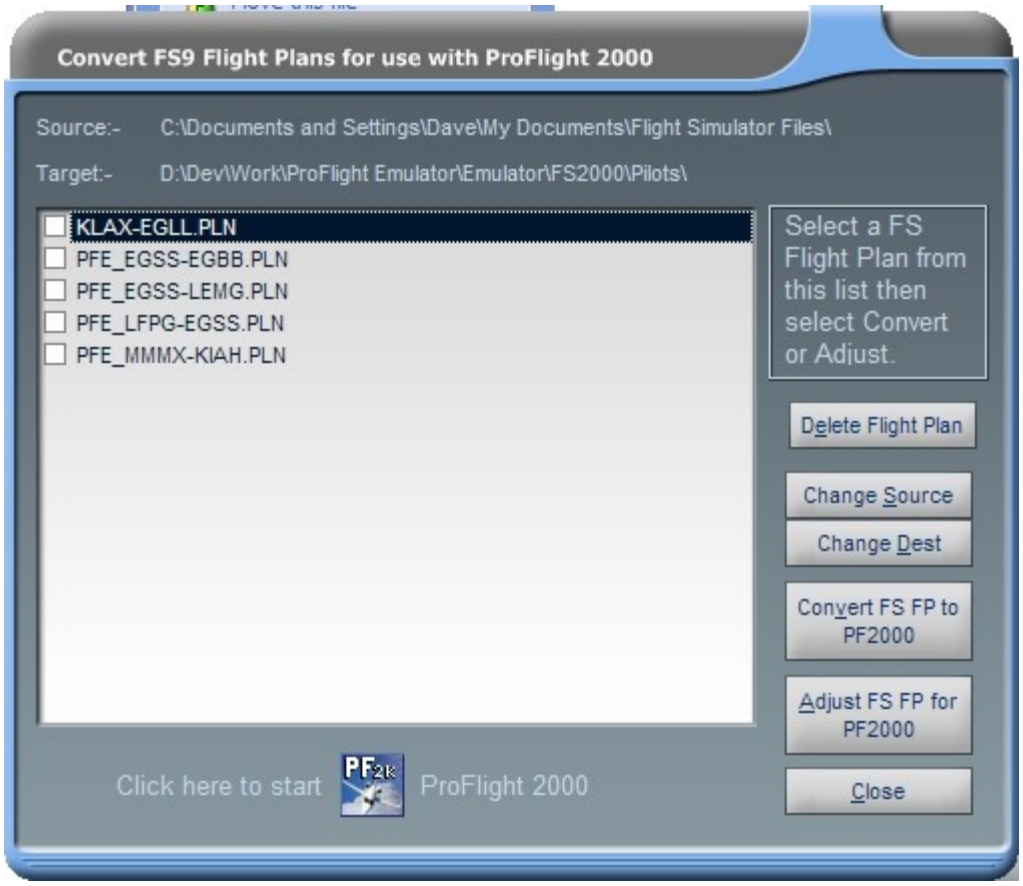
Once you have created your flight plan a very useful feature is the *Adjust FS FP for PF2000* option, available from the PFE main menu - but first a little more info so you understand why this can be so useful.

When you create a flight plan in FS, or any other flight planner, it really doesn't care too much about the distance between waypoints or from your departure and destination airports, whereas ProFlight most certainly does. You see any waypoints that are too close together or too close to the airport can cause PFE a lot of problems when vectoring you from one to another. So during the *compilation* stage ProFlight will drop any waypoints it determines to be too close to either airport or too close together en-route. Consequently if you load the FS flight plan into the GPS it *could* and most probably *will be* very different (in terms of waypoints) to the one generated by ProFlight and used by PFE. What I like to do is have the two completely in sync so when I load the FS GPS I know it's showing me the exact same waypoints as there are in the actual ProFlight plan. And this is where the new option button comes in.

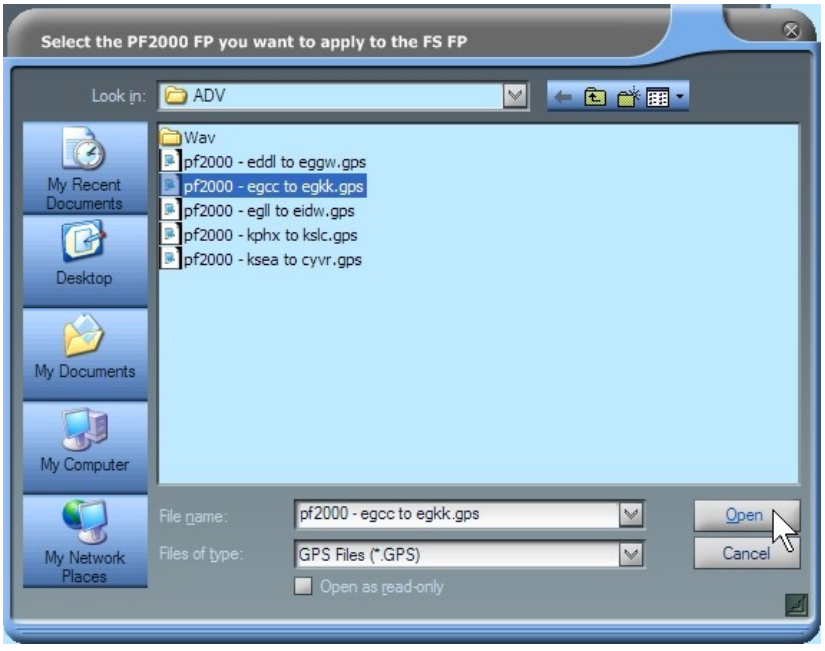
The first thing you need to do is go back into the flight plan convert section of PFE by selecting the 'FS9/FSX FPlan Converter' option from the main menu.



From here you have to select the FS flight plan you want to *adjust* and then select *Adjust FS FP for PF2000* (see screen shot below) - Please Note: this feature doesn't actually change the original selected FS flight plan but creates a new one of the same name in the source folder but with the prefix ***PFE_***



In this example we have chosen the EGCC to EGKK flight plan, and after selecting the *Adjust* button the following display will appear:



This Windows *File Browser* navigation screen will show a list of **GPS** files. These files are created automatically by APLC32 and contain a list of each

waypoint (by name) used by ProFlight when formulating the data for the ADV Flight File. You need to select the correct GPS file for the FS flight plan you just selected in the previous screen, then click on *Open.* Unfortunately ProFlight and FS both use different default naming conventions so it is up to you to ensure the correct files are chosen. No harm is actually done as the original flight plan file is not altered in any way but you could end up with a rather strange flight plan in your GPS.

Once you are happy you have made the correct choice just select Open to complete the process. PFE will now create the new flight plan in the FS source folder with the *exact* same data as the ProFlight flight plan. When you see the following popup screen the process is complete.

Just OK this message and close the Converter window and that's this section complete.

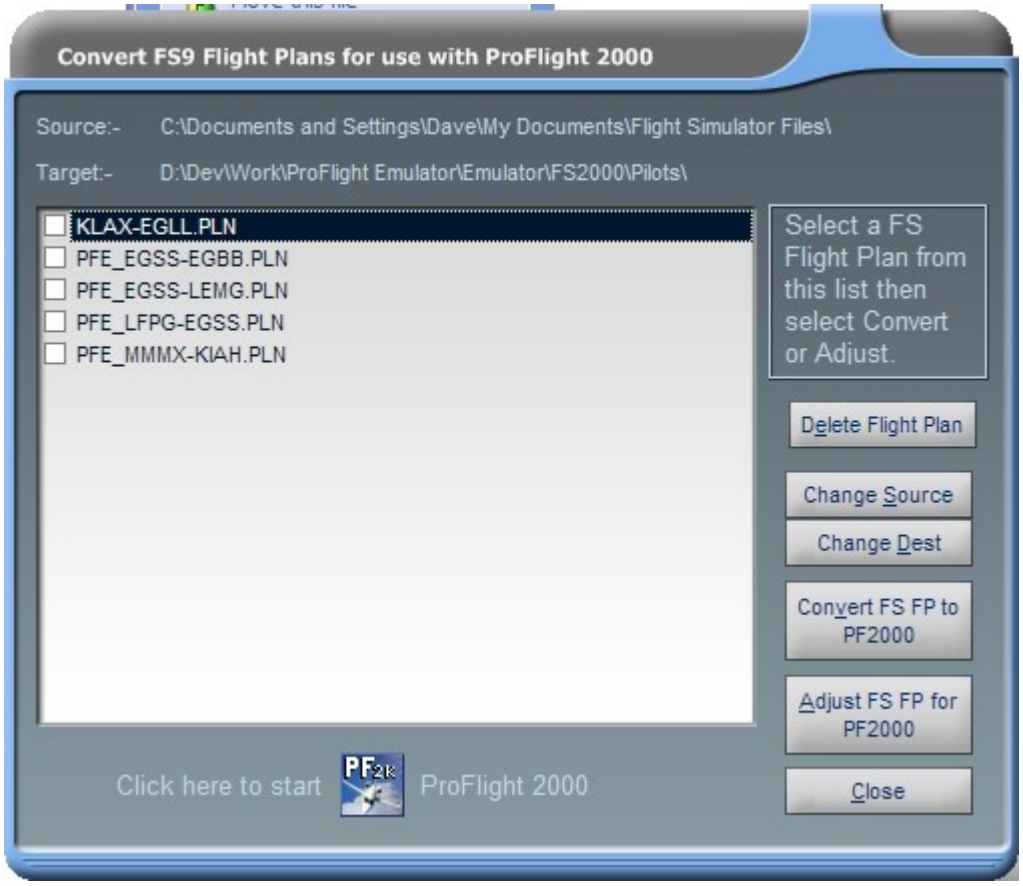
Summary so far...
...you have created flight plan identical to the one used by ProFlight ready to be loaded into your GPS

21. THE PFE TUTORIAL – TIME TO FLY

If you closed Flight Simulator after creating your flight plan please restart it now.

From the PFE main menu you now need to select the ADV Flight File just created by hitting the button marked *Select New ADV.* This will present you with a display list of all the ADV files you currently have on your system. You will also note just below this button there is one named *Select Last ADV* which, as the name implies, is a shortcut to use the last ADV file you used, rather than having to select it from a list. Seeing as this is your first time and your first ADV file then this button will not be active.

The next display shows the list of ADV files found from which you need to choose the one you want, or in your case the only one in the list probably. Once you have made your choice please select *Load* to continue.



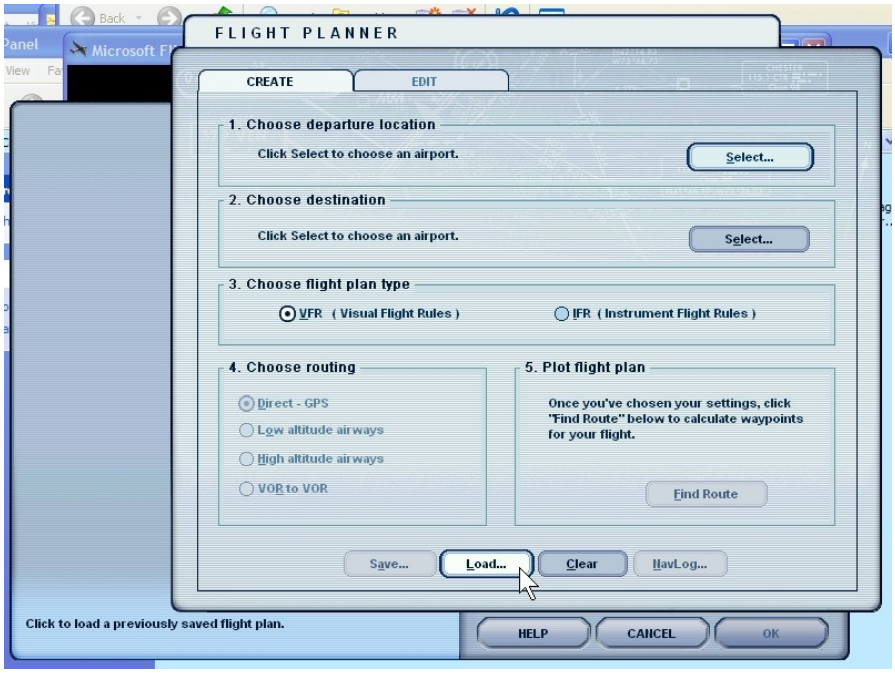
At this point PFE loads your flight plan *(instantly)* and you will notice the *Connect to FS* button suddenly becomes active as PFE is primed correctly and ready to go and you are now ready to get underway.

At this point, just prior to connecting to Flight Simulator, I would usually load the flight plan into the GPS… remember this is the one you recently sync'd *(Adjusted)* to ProFlight's flight plan. The file will be listed with the **PFE_** prefix so you know which one to load into the GPS.

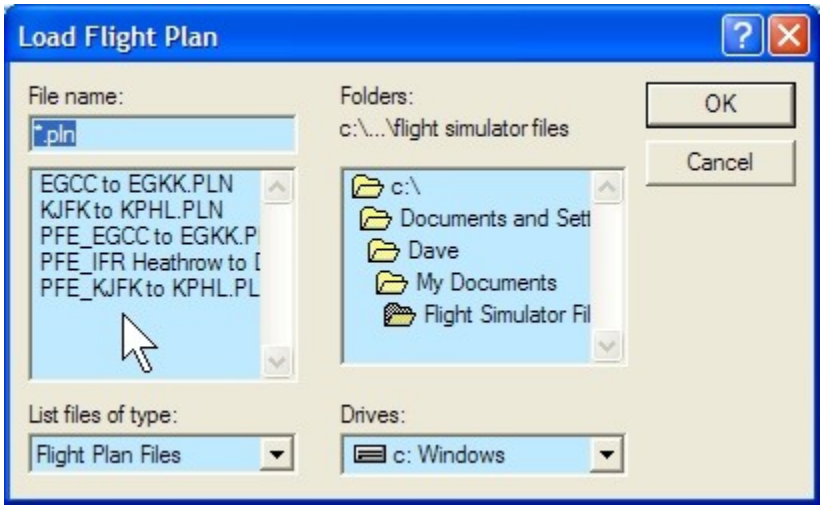
I'm sure you already know how to do this but just in case….

From the FS File menu select Flight Planner... *you do remember being here before I hope…*

From the next screen you need to select *Load*



And finally from the next window you select the flight plan to load into the GPS



At this point you obviously hit the OK button and then answer Yes or No to the *"Do you want FS to move you to this airport, etc",* but for this tutorial I will assume you are already positioned at the correct airport of departure.

So now on to linking *(connecting)* PFE to Flight Simulator by using the *Connect* button on the main menu.

So let's go ahead and select *START PFE*

As soon as PFE has successfully connected to FS you will see confirmation of this in one of two ways, either on the default FS text window as shown below or by using the FSUIPC multi line display window.

Right, now you are in the driving seat and ready to go.

For your first flight with ProFlight we decided to leave the PFE settings in their default state, which means your friendly virtual co-pilot (VCP) will be handling all radio communications, changing COM frequencies and auto pilot settings too. So it's very much a case of sitting back to watch and learn. You will have to get the aircraft off the ground of course but once in the air you could, if you wish, turn the auto pilot on and let the VCP do the rest.

The very first thing you need to do though is to tune your COM radio into the correct frequency to contact Clearance Delivery. How do you know what this frequency is? Well there are a number of ways. First, when the ADV Flight File was created you might have heard ProFlight's background audio as your flight plan was supposedly filed. But if you had your sound volume turned down and missed it all is not lost. Remember the **BRF** file mentioned earlier, well all the frequencies are in there. But if you don't fancy the idea of looking for the file at this point you could just attempt to make contact with Clearance Delivery and let PFE tell you. Here's how…

If you haven't changed any of the PFE default settings your communication keys are set to the numeric keys 0 thru 9, with 0 being the primary contact hotkey for most scenarios throughout your flight.

*Please see the ProFlight key commands.htm file in the PFE\\Help folder, the Appendix or the **Getting Started** section in the PFE manual, for a complete list of all these commands. Please note that you have to use Control+Shift combination together with the key you require for all hotkeys except the keys 0 thru 9, where you only need a single key press. Also remember you can use the PFE Hotkey function to change the keying sequence for any key(s) you wish.*

E.g. To contact Clearance you would hit the ZERO key. To change the CP Mode you would use Control+Shift+V key combination.

So let's hit the ZERO key NOW and see what happens in FS.

If you check the message shown in the green FS message window in this example shot you will see PFE is telling you your COM is currently set to 135.05 but the correct frequency for Clearance is actually 121.75. So let's now tune our COM to the correct frequency and then hit the ZERO key again.

You should now hear your pilots voice checking in with Clearance, who in turn will respond with various instructions similar to the following transcript:-

"Clearance Speedbird Two Six Eight Six ...at the terminal IFR with information... Mike"

"Roger Speedbird Two Six Eight Six Cleared as filed. Fly runway heading… climb and maintain 5,000, expect 12,000' in ten. Squawk Seven Six Zero Four. Departure frequency One One Eight point Six"

However, if you happened to be using the PFE's SID feature, Clearance may have replied like this.

"Roger Speedbird Two Six Eight Six Cleared as filed. Squawk Seven Six Zero Four Delta Papa at Four Thousand departure approved. Departure frequency One One Eight point Six"

Here you're being informed which published departure you should use and to what altitude you have been initially cleared. But this is not what you will hear at this point, but if you would like to learn more about the SID and STAR support in PFE please check the relevant section in the PF_Emulator help file.

Your pilots voice would then roger back these instructions and Clearance would then say:-

"Speedbird Two Six Eight Six Readback correct. Contact Ground on... One Two One point Seven"

At this point your VCP would retune the COM radio *(you can obviously choose to do this yourself if you wish, but for this tutorial we will leave it in VCP mode)* and then the conversation with Ground Control would be:-

"Ground (Control) Speedbird Two Six Eight Six ...at the terminal IFR with information Mike… Ready to taxi."

"Speedbird Two Six Eight Six Taxi to runway Two Four Left "

"Roger. Taxi to runway Two Four left. Speedbird Two Six Eight Six"

As you get close to the active runway Ground will hand you off to Tower. At this point your VCP will tune the COM and contact Tower and there could subsequently be one of many responses, largely dependant on where you are in relation to the active runway and other traffic, but for this example let's say there are no other aircraft in front of you and you are first in line to go.

"Tower Speedbird Two Six Eight Six runway Two Four left ready for takeof. "

"Speedbird Two Six Eight Six runway Two Four Left Cleared for immediate takeoff. "

"Roger cleared for takeoff Speedbird two six eight six"

Okay so let's get this bird in the air.

Shortly after takeoff Tower will hand you off to Departure:-

"Speedbird Two Six Eight Six Contact departure on... One One Eight point Six "

"Roger One One Eight point Six Speedbird Two Six Eight Six Good day."

"Departure... Speedbird Two Six Eight Six Out of Two Thousand for Four Thousand "

"Roger Speedbird Two Six Eight Six Radar contact. Altimeter is One Zero One Three"

You are now on your way. ATC will initially vector you onto the correct airway for your flight plan and then instruct you to "*Resume Own Navigation".* For the purposes of this exercise I would suggest you switch to GPS navigation with AP, HDG and ALT ON so the VCP will basically fly the aircraft for you. This will allow you the freedom to listen to the various ATC calls as you climb to your cruise altitude and get handed off from Departure to various Centres en-route.

As you near your destination ATC will again take control and start you on your descent and probably change your heading in order to slot you into the approach pattern. Eventually you will be handed to Approach where you will be given details about the active runway in use, etc.

"*Speedbird two six eight six turn left heading two seven five, expect vectors for runway eight left approach"*

Once you have been vectored into position to make your final approach you will receive similar instructions to this:-

"Speedbird Two Six Eight Six Turn right heading One Seven Five, maintain 3000,. Cleared for the ILS runway Eight Left Contact Tower on One Two Four point Two Two when established."

"Roger Turn right heading One Seven Five, maintain 3,000 until established on the ILS runway Eight Left Speedbird Two Six Eight Six"

Once established on the ILS your VCP will make contact with the Tower:-

"Tower Speedbird Two Six Eight Six at Seven Miles ...to the west at... Two Thousand for Landing. "

"Speedbird Two Six Eight Six Winds. Three Six Zero at Five. Altimeter is One Zero One Three Cleared to land runway Eight Left "

"Roger Cleared to land. Speedbird Two Six Eight Six"

Of course after you land Tower will hand you over to Ground Control for taxi instructions and a short time after contacting Ground control PFE will automatically disconnect from FS. Should you ever need to disconnect PFE before this point you can do so in much the same way as you *connected*, either from the PFE main menu of the FS modules/add-ons menu.

So that's about it… but we have only scratched the surface here and of course using PFE in this VCP mode makes your life a lot easier. If you later decide to

action all ATC communications yourself you will have to remember to listen out to all ATC instructions to ensure you don't miss one meant for you. Also you will have to get used to *Rogering* all communications from ATC. It's also worth pointing out here that just as in the real world do not expect an instant response from ATC… they are busy guys *(and gals)* and have more to worry about than just you!

SUMMARY…

To summarize the process of creating a new flight in the future, all you would have to do is to follow these simple steps:-

1. Start FS
2. Create a Flight Plan
3. Start PFE
4. If necessary use PFE to *Convert* the Flight Plan for ProFlight 2000 *(not required if you use a flight planner like FSBuild)*
5. Start ProFlight 2000, select your Flight Plan and *Compile* it
6. Close ProFlight
7. From PFE select the ADV Flight File just created in step #5
8. From PFE select *Connect to FS*
9. Enjoy your flight

…AND FINALLY

I hope you found this tutorial useful and that it has assisted you in gaining a better understanding of how all the components fit together with regard to PFE and ProFlight 2000. Hopefully it has helped you onto the first step of the ladder to discovering the exciting world of ProFlight 2000 - courtesy of PFE.

THANKS

My thanks to Johnan for his original request to me to produce tutorial and for reading it through.

My thanks also to Paul J for reading the manual through and for his corrections and additions to various sections.

22. A WORD ABOUT NAVIGATION

The purpose of this section is not to offer a lesson on VOR navigation! There are countless resources on the web that provide instruction, and I encourage you to take advantage of all that is offered. The purpose is simply to familiarize you with a sample of ATC instruction that you will encounter, and how to deal with it.

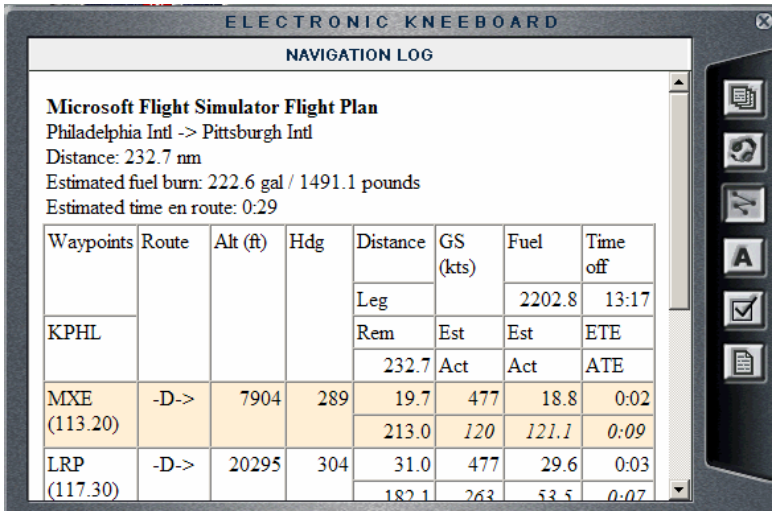
You may have noticed in the Options section the opportunity to choose either standard or "Hand Holding" ATC instructions. Don't let this fool you! The Hand Holding has some very specific instructions that, while indeed giving the pilot almost step-by-step directions regarding the flight plan, initially sound confusing and not a little bit scary. There is no need to be intimidated! Here, briefly, is what the controller is asking you to do, and how to do it.

When you find yourself approaching a VOR on your flight plan, if you've decided to use the "Easy" controlling option, you may hear/see something like this:

> Falcon 022 Turn left heading 300 to join the 065 radial inbound to Mike X-Ray Echo resume own navigation

Here is what you are seeing: Falcon 022 is my aircraft's call sign. Mike X-Ray Echo refers to the Modena VORTAC (113.20) (a VOR with a DME is a VORTAC) on our flight plan. The controller is asking us to turn left to heading 300, and join (intercept and follow) the 065 radial of MXE, at which point we are to continue inbound on the reciprocal of 065 (245) and proceed towards the MXE VORTAC. From there, we "resume own navigation", which in pilot speak means "fly your flightplan". Got it? I didn't either.

Here's how you do this. First, be certain you've obtained the frequency of the MXE VORTAC. Enter 113.20 into the NAV 1 radio. The frequency may be found in the Kneeboard window of FS (default is F10), under the flightplan button.



With the frequency added, you will see something similar to the below:

Course is set to 245 (the CDI needle is pointing 245/065)

MXE is the referenced VORTAC

Frequency entered is 113.20

MXE is listed as the referenced VORTAC. We are lined up and ready to depart. So far, so good.

Using the Course knob, we've turned the course indicator to 245 (reciprocal of 065-notice the "tail" of the CDI needle points to 065), the outbound radial of the MXE VORTAC to which the controller wants you to fly.

Here, we've departed and are flying runway heading (086), climbing to our assigned altitude of 3000.

Falcon 022 Turn left heading 300 to join the 065 radial inbound to Mike X-Ray Echo resume own navigation

Now, note that as directed, we're turning left to heading 300 which takes us to the "065 inbound" radial from the MXE VORTAC.

White CDI needle pointing to heading 245/065

As we continue to approach the heading as instructed, you will notice the white CDI lines will merge into one solid line, telling you that you are approaching and then on the 065 inbound radial towards MXE. We must then turn to heading 245, the reciprocal of 065. Deviating from this course will cause the CDI line to shift left or right. Minor course corrections will keep the needle in place, assuring your heading.

Ok, we've intercepted the 065 inbound radial to MXE, and we know this as the CDI is dialled to 245 (the reciprocal of 065) and the CDI indicator is one single line. We're on heading 248, and this heading takes us directly to the MXE VORTAC, at which point we are instructed to resume our flight plan. According to the plan, the heading we must take from MXE in order to reach the next waypoint (LRP VOR) is 289.

Remember the CDI course only "dials in" a radial of the VOR whose frequency you have entered into the NAV radio, manipulating it will not alter your aircraft's heading.

Please recall a few things. Most importantly, and to quote Ray Lunning, **you** are the pilot in command and are responsible for your aircraft. "Real world" controllers do, on very rare occasion, provide incorrect headings. The same rule applies for PFE. If the heading given to you by ATC seems incorrect, fly the flightplan route. Ultimately, PFE will correct itself and your flight will continue.

Also, you may always use the hotkey for "Fly via own navigation". This request presupposes a working knowledge of navigation, and so think twice before resorting to this alternative as you'll be on your own!

23. OCEANIC PROCEDURES

23.1 ABOUT

Regular VHF COM Frequencies are only usable while line of sight. Over the ocean aircraft will lose line of sight from the coast quickly and have to move over to HF frequencies which do not have a line of sight limitation. HF radio bounces off of the ionosphere therefore the only limitation on the distance that an HF can travel is in the power of the radio transmitter. Therefore, once out of line of site from any of the oceanic FIR's HF is only used.

To couple that limitation, radar is also line of sight only. Once the aircraft is out of line of site positive control ATC is no longer possible, therefore there is no ATC over the Atlantic or Pacific flight routes. To ensure that traffic is managed properly NATs and PATs are used to ensure that traffic is managed by direction and altitude. However, each aircraft is responsible for maintaining vertical and horizontal separation and advising the Oceanic FIR on their position at regular intervals via HF.

HF radio is very noisy with white-noise always audible in the background and will drive everyone crazy if they had to listen to that noise for countless hours on end. The pilot can squelch the noise but in the same token will silence the voice also so that neither voice nor noise will be heard. Enter SELCAL.

SELCAL is a 4 letter code (two pairs) identifier that is slaved to every single SELCAL equipped aircraft and the code stays the same until the aircraft is sold and a new SELCAL code is acquired. Imbedded in the SELCAL code is the aircrafts registration and airline. SELCAL is directly connected to the aircraft's HF radio and will turn down the squelch on the pilot’s radio and allow oceanic radio to contact the pilot directly. Since each aircraft will have a different SELCAL code, the communication is heard by the targeted aircraft ONLY and other aircraft will NOT hear the communication... therefore there is very little radio chatter over the oceans.

23.2 COM PROCEDURES

SELCAL and HF is only used with the Oceanic FIRs. For instance on an aircraft flying a typical NAT from KJFK to EGKK will use SELCAL and HF procedures with Gander Oceanic and Shanwick Oceanic (also known as Gander and Shanwick Radio). As a rule, all of the FIRs with an "Oceanic" suffix are "radio" and it is a safe bet that they use HF and SELCAL because they are out of line of sight and control only oceanic flights. So, for instance, Gander Center will instruct the aircraft to contact Gander Oceanic on HF radio frequency on xxxx.x or xxxxx.x

Once contact is made with Oceanic, make contact with airline call sign, SELCAL code (i.e. AB-CD), Departure, Destination and registration number.

Oceanic will then read back and roger and then give the HF frequencies for the route of flight which is typically a NAT or PAT. Oceanic will NOT handoff the aircraft as done over land therefore the pilot is responsible for changing frequencies and advising the previous Oceanic that they are moving on.

During the time between changing frequencies, aircraft MUST contact Oceanic during the following:

1 - Crossing a waypoint:

So it should sound like this

- Continental 50 Gander Oceanic, position report.
(series of beeps)
- Gander Oceanic Continental 50 go ahead
- Gander Oceanic Continental 50 at 20 North 30 West, FL 350, speed mach . 83, expect 50 North 30 West at 2351Z, 50 North 40 West next.
(series of beeps)
- Continental 50 Gander Oceanic (reads back), roger.

2 - If over 45 minutes since last contact and have not reached next waypoint.
3 - Changing flight level
4 - Deviating from flight path

This will all continue all the way across the pond until hitting Shanwick CENTER, where normal ATC will resume.

24. SUPPORT

The latest support information can be found on our website:

http://www.oncourse-software.co.uk/contactus.htm

Should you experience problems installing or using **PFE** please ensure you are using the most recent version before asking for assistance. You can easily check you have the current release of **PFE** by using the *Check for Updates* button on the main menu.

Please Note: We only offer support for the latest released version of our software and any requests for support for earlier versions will be ignored.

Our support extends only to **PFE** and its supporting files and applications (e.g. databases, APLC32, etc). We do not and cannot support the actual ProFlight 2000 flight planning application.

ProFlight 2000 is licensed to us for distribution only and is no longer a supported application.

The original Publisher of ProFlight cannot offer any support at all and the ProFlight development team have long been disbanded.

Any issues you may have with the ProFlight flight planning program can of course be raised on our support forum for discussion and/or workaround suggestions, but there will be no further updates, fixes or patches for the actual ProFlight 2000 flight planning application itself. **PFE** however will be an ongoing project to which we plan many more exciting enhancements.

All PFE support will be via the support forum only, we do not offer support by email.

For support with **PFE** please visit our support forum at:

http://www.ocs-support.co.uk/forums

The latest support information (with links to our forum) can always be found by visiting our website:

http://www.oncourse-software.co.uk/contactus.htm

25. CREDITS

I would like to thank the following for their help and support during the development, testing and production of this product. If I've missed anyone it was not intentional.

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'DenKar' & Mike B. - Taxi route path finder programming

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Rick Schaefer for the design and development of PFE's FS9/FSX runways database and tools.

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Almost Last:

My thanks to the creative genius and development talents of the original authors of ProFlight 2000, Robert Mackay and Tom Main.

Thanks also to Tom Main, Robert Mackay and Marty Arant for their kind permission for us to re-publish ProFlight 2000 with the **PFE Deluxe Edtion.**

Last but not Least:

To my dear wife, Hazel, for all your help and support during this, my latest journey.

At the height of this project we became like passing ships in the night but you knew how important it was for me to spend as much time as possible in an attempt to get things just right.

Never a complaint, never negative, only your constant support and love as always.

Thank you darling. X

26. COPYRIGHT AND LICENSING

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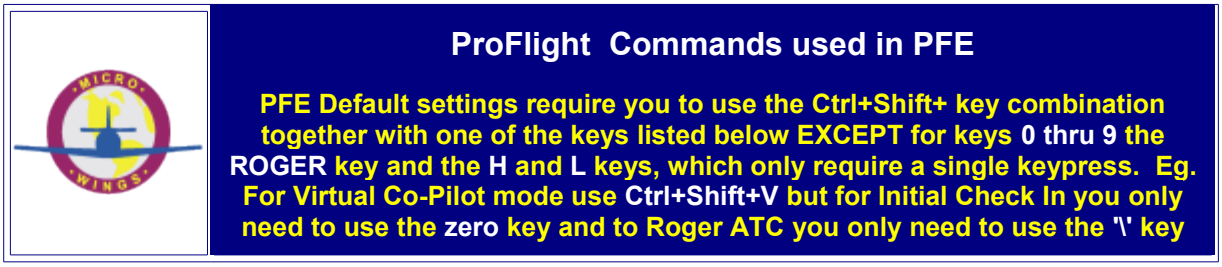
27. APPENDIX A

PFE COMMANDS

Please note these commands are also available in a separate HTML document which can be found in the PFE\Help folder, named ProFlight 2000 Commands



Facility	Key	Pilot Command/Message	Game Commander
- ALL -	E	Declare an Emergency	*"Mayday, Mayday, Mayday"*
- ALL -	=	Say Again/Repeat	*"Say Again"*
- ALL -	\	Roger/Readback	***"Roger"***
- ALL -	D	Toggle AI ground traffic detection on/off (default is ON) on the ground – Request 'Direct to…' when airborne	N/A
- ALL -	V	Virtual Co-Pilot Mode - 4 Modes OFF, COMM, COMM PLUS, P.I.C.	N/A
- ALL -	W	Multi-functional. Skip to next taxi waypoint when TGS is active - Warp to selected waypoint during flight - Request another runway for takeoff/landing	N/A
- ALL -	H	Plus one of the number keys (top row) 1 to 9 to request a higher altitude	
- ALL -	L	Plus one of the number keys (top row) 1 to 9 to request a lower altitude	
EMERG	Y	Positive answer (Yes)	*"Yes"*
EMERG	N	Negative answer (No)	*"No"*
Clearance	0	Initial Checkin, request CLEARANCE	***"Checking in"***
Clearance	2	Request ACARS ATIS for your destination	
Ground	0	Initial Checkin, ready to TAXI to RUNWAY	***"Checking in"***
Ground	1	Deactivate/Reactivate toggle for TGS	
Ground	2	Request ACARS ATIS for your destination	
Ground	5	Clear of the runway, request TAXI to TERMINAL	***"Request Taxi to Parking"***
Ground	6	Request Radio Check	*"Request Radio Check"*
Ground	7	Request Altimeter Setting	*"Request Altimeter Setting"*
FSS	0	Request to Open Flight Plan	*"Open my Flight Plan"*
FSS	1	Request to Close Flight Plan	*"Close my Flight Plan"*
FSS	2	Extend ETA by 30 minutes	*"Extend my E.T.A."*
FSS	3	Request Weather Advisories	*"Request Airport Advisories"*
FSS	4	Request Center Frequency	*"Request Center Frequency"*
FSS	6	Change Flight Plan to IFR/VFR (toggle)	*"Change my Flight Plan"*
FSS	7	Request Airport Advisories	*"Request Airport Advisories"*
FSS	8	Amend Flight Plan to land at next available airport	*"Amend my Flight Plan"*
FSS	9	Report Position	*"Report Position"*
Multicom	0	Initial Checkin (in the air only)	*"Checking in"*
Multicom	2	Announce entering DOWNWIND	*"Entering Downwind"*
Multicom	3	Announce turning BASE	*"Turning Base"*
Multicom	4	Announce turning FINAL	*"Turning Final"*
Multicom	5	Announce CLEAR of the RUNWAY	*"Request Taxi to Parking"*
Multicom	6	Announce TAKING the RUNWAY	*"Taking the Runway"*
Multicom	8	Announce DEPARTING the AREA	*"Departing the Area"*
Unicom	0	Initial Checkin (in the air only)	*"Checking in"*
Unicom	2	Announce entering DOWNWIND	*"Entering Downwind"*
Unicom	3	Announce turning BASE	*"Turning Base"*
Unicom	4	Announce turning FINAL	*"Turning Final"*
Unicom	5	Announce CLEAR of the RUNWAY	*"Request Taxi to Parking"*
Unicom	6	Announce TAKING the RUNWAY	*"Taking the Runway"*