CPFlight MCP737 & the PMDG737

(without using the FLIGHTSIM Labs Driver)

There are two ways to get your CPFlight MCP737 working with the PMDG737. During 2008, CPFlight entered into a programming arrangement with Flightsim Labs whereby all new CPFlight MCP's with Firmware v3.(nn) require the use of the Flightsim Labs driver to communicate with the PMDG737.
But, I ask myself what was wrong with the old method. The PMDG737 can't be used in FSX because it's not DX10 compatible.   OK, so the 747 is and is available for FSX. Fine.   That's the 747 taken care of.

The second method is the use of Firmware v2.08 and FS_COM v3.06.   These are the last Firmware/Software combinations which work with the PMDG prior to having to buy the Flightsim Labs interface program.   The system works, it works well and is controlling in my sim, the MCP737, MIP737 board, MCPEX expansion and CPFlight Radios.

So my thinking is 'If it ain't broke, don't pay out to fix it'. With the NG V2 coming, what's the point.

Several people have mentioned this to me, so I thought maybe I'd run thru using the v2.08 Firmware and the V3.06 version of CPFlightTools.

On my website on both the CPFlight MCP and the Technical page, you will find 3 images like above. These are linked to the files you need. These are CPFlightTools v3.03,   the v3.06 of FS_COM and the v2.08 Firmware zip files. Download the three zip files.   You may also want to download the MCP737 Manual from:
http://www.cpflight.com/sito/downloads/

The first thing that needs to be done is to ensure the MCP has a Firmware version at V2.08 or below. V2.05 or v2.06 is acceptable as well.

Connect the MCP power supply to the unit and then to the mains power source. As the MCP powers up, the firmware version will be displayed in the ALT (rel) and Right CRS windows (e.g. 2.06). If the MCP does indeed have a useable firmware , great.   If not, read the section in the MCP737 Manual which details how to change the firmware.
You'll need the mcpfw208.zip file from my website to install (technical or MCP page).

Ok, so we now have v2.08 firmware installed.   The next step is to download and install the USB Drivers if you have a USB version of the MCP737 (the Serial version works on the Com1 serial port so you don't need the driver). You can get it at the CPFlight website here: http://www.cpflight.com/sito/downloads/
Unzip the driver file to a temp folder, power up the MCP and connect it to a spare USB socket on your computer. You will be told New Hardware Found and asked for the drivers. Install the downloaded drivers.
What the driver also does is create another com port on your machine. You need to look in the control panel to see what number it has been allocated. Make a note of this number.
With the serial version, it's just a matter of connecting a 9 pin serial lead from the MCP to the serial port on the computer. This is going to work on Com 1.

Now the firmware is sorted and the MCP is hooked up to your machine, the next thing to do is download and install the v3.03 CPFlightToools program. It's on my Technical or MCP page at www.737ng.co.uk

Unzip the file and in it you will see a folder called disk 1. Open disk 1 and locate the SETUP.EXE file.   Run the setup program and CPFlight Tools will be installed on your machine in (maindrive)/Program Files/CPFlight/CPFlightTools.

disk1

Finally download the v3.06 update (contains 3 files, FS_COM v3.06, the most uptodate version of the TestCpFlight Hardware program and a new cpf.dll) and unzip it into the CPFlightTools folder overwriting existing files where prompted.

SETUP.EXE

In the CPFlight Folder you will see an icon like that on the left for MCP_CONF.   This is the program that allows you to configure your MCP.   The first time you run it you will be presented with several messages telling you that certain files have not been found and new ones will be created for you. Run MCP_COMF and when running you will need to tell it which Com Port to use to communicate with the MCP.

Top left of window is a menu item Setting Com ? Now remember we needed to look in the control panel to see what com port had been added?   Select the setting com ? menu item and tell MCP_CONF what port to use by selecting it.   Save your settings and exit.

Run MCP_CONF again and what should happen if all has gone to plan is that your MCP will start up and the readings in the displays will be 'mirrored' on the software MCP in MCP_CONF.   As you change a value in any of the windows of the hardware MCP, this also should change in the software MCP.   It does, great. That means your hardware MCP is communicating just fine with your computer. If it doesn't happen, go back and check each stage of the process because something did not happen or was done in the wrong sequence. Let's assume it's working. Shutdown MCP_CONF and move on.

Now the MCP has been installed and tested, it's time to get it working with the PMDG737. The PMDG uses keystrokes for control of the MCP.   What the CPFlight MCP and it's programming does is send these keys to the software MCP and read back values, keeping the software and hardware MCP's synchronised.   But to do that, the CPFlight programming needs to know what keys control what function to be able to send the correct keys forward. To allow it to do that, you have to copy your 737kbd.ini file into the CPFlightTools folder. The 737kbd.ini file contains all the saved keystrokes that have been assigned to the PMDG737 including those for the MCP.

Look in your FS folder and you will se another folder called PMDG.   In this folder is the 737kbd.ini file.   Remember to copy this file into your CPFlightTools folder.   Once that's completed, your all set up.

PMDG

737Kbd.ini
Configuration Settings
3 KB

Start FS and then load the PMDG737.   You then need to start to program that communicates between the MCP and the PMDG.   This is FS_COM. You can find it in the CPFlightTools folder where you unzipped it to. Run FS_COM, as it loads, your hardware MCP will power up and once loaded will allow you to control the PMDG from the hardware.

FS_COM.EXE
CPFLIGHT

Just a couple of tips here. Create desktop Shortcuts for MCP_CONF and FS_COM to make life easy. And regularly backup the 5 .txt files which contain the information you input in MCP_CONF. These are the analog in and out, the digital in and out and the preferences .txt files from the CPFlight folder. Makes life easy if you ever have to re-install.

Hope that helped you out and my thanks to Brian Hiller and John Perrin who galvanised my into action here.

Have a great day captains and good luck. Regards … ian

ian@737ng.co.uk

www.737ng.co.uk

www.cpflight.com

www.flightsimlabs.com