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SURROUND SOUND IN YOUR COCKPIT

PMDG

SQUAWKBOX
AS6
FDC Live Cockpit !
Wide FS
Wide FS
Flight Simulator

AUX /2CH   5.1CH INPUT
L   V   RL   FL
R   C   RR   FR

SPEAKER OUTPUT

A
B
C
D
E

WOOFER

A + B + C + D + E = TOTAL SOUND
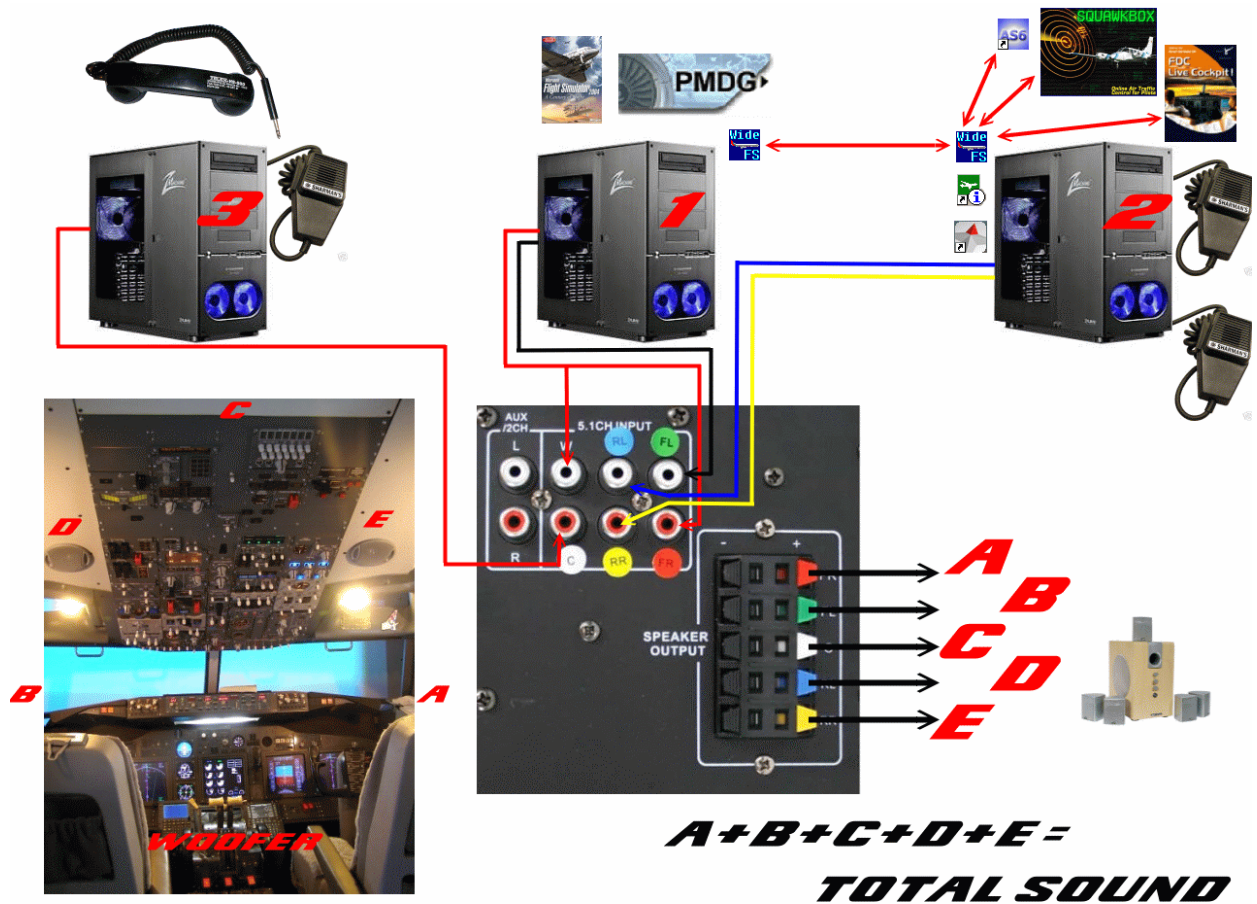
Visitors always comment on the sound envelope I use and I have also been in detailed conversations with several friends via e-mail about how to achieve a better atmosphere where sound is concerned.
So here we go, lets see if I can explain how I achieve quite a reasonable distribution of the decibels :o))

In the above illustration, there are 3 computers:
First (1) is my main cockpit computer running FS9.1 and the PMDG 737.
Second (2) is what I call my 'Services' computer running Active Sky, Squawkbox and FDC along with all the other utilities like Navigraph Charts and servinfo.
Third (3) is one of my Wideview computers.

COMPUTER 1   This machine generates all the Engine, Cockpit, Control and Environment Sounds.

COMPUTER 2   This machine generates all the Squawkbox Radio Traffic and Active Sky spoken ATIS

COMPUTER 3   This machine is used for the P.A. and Pedestal Handset to scream at the passengers.

Sound Amplifier 5.1 Channel I got a 5.1 'Surround Sound' system which has 6 x RCA inputs on it.
FRONT L & R   CENTRE   SUBWOOFER   REAR L & R.   So that allowed me to input 3 pairs of sound sources.

COMPUTER 1 Ok, being the main FS computer this generates all the engine, cockpit, environmental and control sounds in a (sort of) stereo. It can be any aircraft from the 'stock' Cessna 172 right thru to the most sophisticated add-on aircraft you can think of, it really doesn't matter. The aircraft is going to generate sound and that's what we want.
Connect your FS Machine sound card speaker output to the Front Left and Front Right inputs on the 5.1 system.   This sound will be played out on the Front Left and Front Right Speakers **A + B**. I've positioned mine outside the cockpit just behind and above head level.   I've also used a slitter cable so I can also connect one channel to the Subwoofer for Ground and Spoiler 'Rumble'.   The Sub is positioned under the MIP stand just in front of the TQ so it resonates thru the Throttle and the Pedestal to add a bit of vibration when things are going on.

COMPUTER 2   is running Squawkbox, FDC and Active Sky using WideFS and Wideclient as the communication.
WideFS is instructing Active Sky where it is, so you have the exact weather at that location based on the latest report.   Active Sky not only builds the weather within the sim, but it will give you a spoken ATIS from the nearest reporting airport to your location if you select it in the options (122.00). That's one sound source from computer 2.
Now I also run Squawkbox on this machine. So when tuned to an Active ATC frequency, Computer 2 is generating the voice transmissions.   This is the second sound source from computer 2.
Both Pilots have a Hand Microphone which can be selected as the input Mike for Squawkbox. The PTT switches are connected to one of the button inputs on a BU0836X card and assigned in FSUIPC as the SB PTT.
The third program running on this machine is FDC Live Cockpit.   I only use this program to deliver ATC chatter in the background and Cabin Crew Messages. FDC delivers specific files based on the phase of flight you are in. For example it knows (thru WideFS) when you are taxiing, in the climb or on the approach, so specific chatter files for that phase only are played. This is the third sound source from computer 2.
Connect the second computer soundcard speaker output to the Rear Left and Rear Right inputs on the 5.1 system.   The sound from computer 2 will be played out on the Rear Left and Rear Right Speakers **D + E**.
I have these in the roof of the cockpit as the Overhead Speakers.

COMPUTER 3   This is one of my Wideview Computers that is not inputting anything to the overall sound scheme, so the sound card in it was free.   Now this is just a bit of fun which really makes people laugh.   I have a P.A. Microphone and a Pedestal Handset from a 737.   Either of these can be selected as the input microphone to computer 3.   Because they are MONO, I simply connected them to the Left Channel input and then connected that output from the sound card to the Centre Input on the 5.1 system. I positioned the speaker **C** above the Rear Overhead.   Now I can scream abuse at the passengers over the P.A. as well :o))

It's quite rewarding having the sound coming at you from several different directions and certainly adds to the realism. And of course the Subwoofer adds vibration as well. Hope I answered a few question of how to get it working.   Have a great day and you can get a full scale version of the above diagram at :

www.737ng.co.uk/sound.gif

Regards from the Welsh Borders ….. Ian.

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