Using SPEKTRUM DX6i with PC simulators with a simple mono cable (BY ZANTETS) v. 1.00 (8/15/2008)

Objective:

Configuring Smartpropoplus and PPJoy with the Spektrum transmitter for use with computers simulators supporting the *Joystick interface*.

What you need:

1. General SmartPropoPlus – download here:
   http://downloads.sourceforge.net/smartpropoplus/InstallSPP-335.exe
2. PPjoy (Parallel joystick) – download here: http://www.mediafire.com/?qwvq8qxnzug
3. 3.5mm audio (mono) jack as seen below:

Wiring/Soldering diagram:
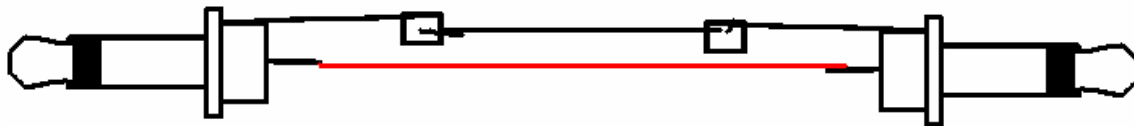
Note that "stereo" or AV jacks cables will work too. I will be using a stereo cable instead because I don't have a mono cable.
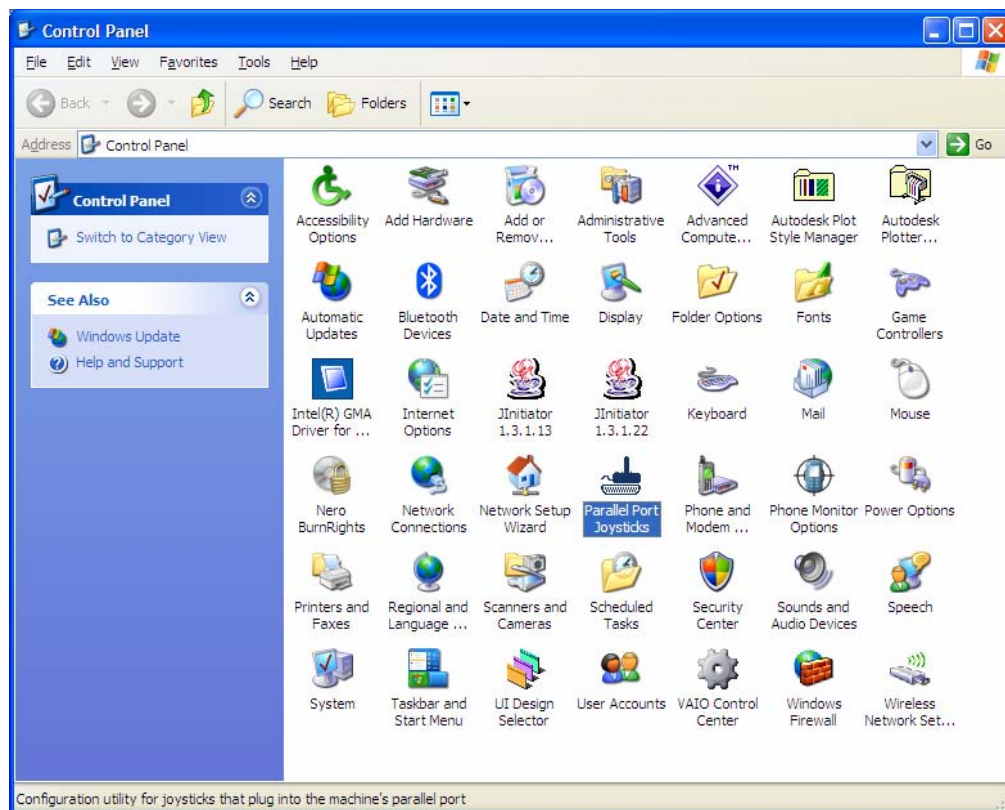
4. Spektrum DX6i 6 channel transmitter.

5. A computer with a microphone input.

6. A computer simulator with Joystick support. We will be using Aerofly Pro deluxe in this guide.

Procedures:
1. Install PPJoy.
2. Install Smartpropoplus. Select the General Option when asked.
3. Go to Windows Control Panel and double click Parallel Port Joystick.

4. Click Add.. on the dialog box and enter the following parameter:

Parallel port: virtual joysticks
Controller type: Virtual Joystick
Controller type: Virtual Joystick (IOCTL)
Controller Number: Controller 1

.

5. And press Add to continue. Found New Hardware Dialog will appear. Select No. Not this time and install software automatically to continue. Select Continue anyway afterwards and click finish. Do the same steps on other new found hardware dialog.

6. Go back to the Parallel Joystick dialog box and highlight Controller 1 and click Mapping.
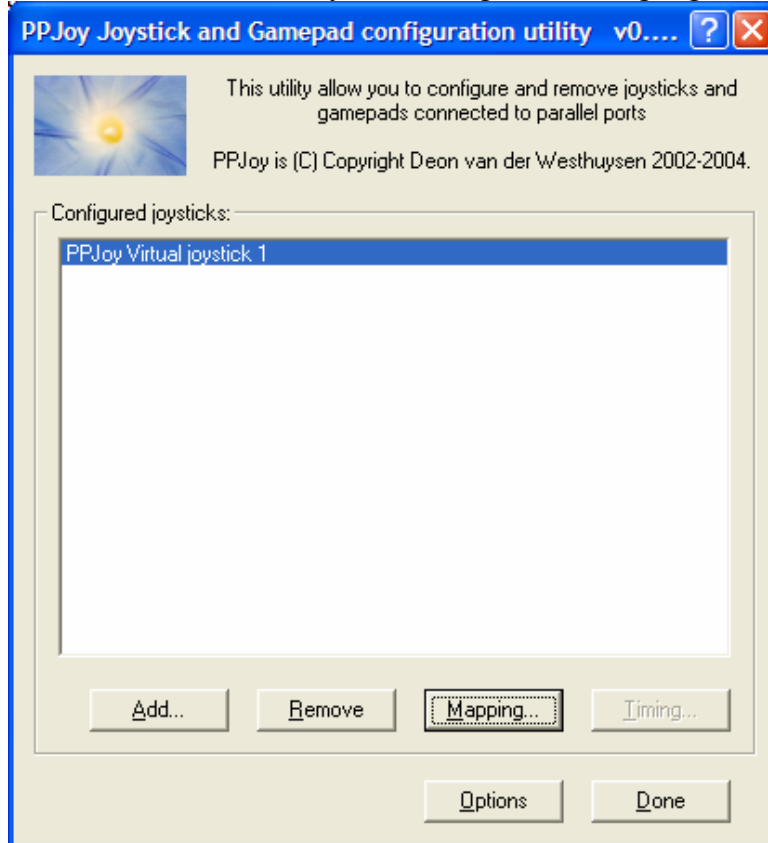
7. Select Modify mapping for this controller and click next.

Welcome to the Joystick/Pad mapping wizard

The controller you selected uses the Virtual joystick (IOCTL) Virtual joystick interface. The options below will change the default mapping for all controllers that use this interface

○ Set a custom mapping for this interface type
○ Modify the mapping for this interface type
○ Delete mapping for this interface type

The options below allows you to override the default mapping of the PPJoy Virtual joystick 1 controller

○ Set a custom mapping for this controller
● Modify the mapping for this controller
○ Delete mapping for this controller

These options allows you to change the way buttons and axes are mapped for controllers. You can either change the mapping for all controllers on an interface type or for a specific controller only.

< Back   Next >   Cancel

8. Copy the parameters below and click next:

Define the number and type of axes, buttons and POV hats

6 ▼ Axes   0 ▼ Buttons   0 ▼ POV hats

Axis 1: X Axis ▼
Axis 2: Y Axis ▼
Axis 3: Dial ▼
Axis 4: X Rotation ▼
Axis 5: Y Rotation ▼
Axis 6: Z Rotation ▼
Axis 7: ▼
Axis 8: ▼

Select the number of axes and buttons.

Also select the axis type to be reported for each axis.

< Back   Next >   Cancel

9. Copy the parameters below again and click next:

Configure mapping for axes

	Min		Max	
X Axis	Analog 0 ▼	Scan	▼	Scan
Y Axis	Analog 1 ▼	Scan	▼	Scan
Dial	Analog 2 ▼	Scan	▼	Scan
X Rotation	Analog 3 ▼	Scan	▼	Scan
Y Rotation	Analog 4 ▼	Scan	▼	Scan
Z Rotation	Analog 5 ▼	Scan	▼	Scan
	nothing ▼	Scan	nothing ▼	Scan
	nothing ▼	Scan	nothing ▼	Scan

Select the analog or digital values that will be reported as axis movements.

You can also click on SCAN next to the corresponding button and then perform the action you want reported as axis movements.

< Back   Next >   Cancel

10. Click Next again and Finish.

11. Exit the Parallel Joystick control panel.

12. Add a new heli default model on your Spektrum transmitter. See User Manual on how to do this. (Note to leave all default heli settings. Swash type must be left at 1SERVO90°)

13. Start SmartPropoPlus Console on your computer. Copy the following parameters:
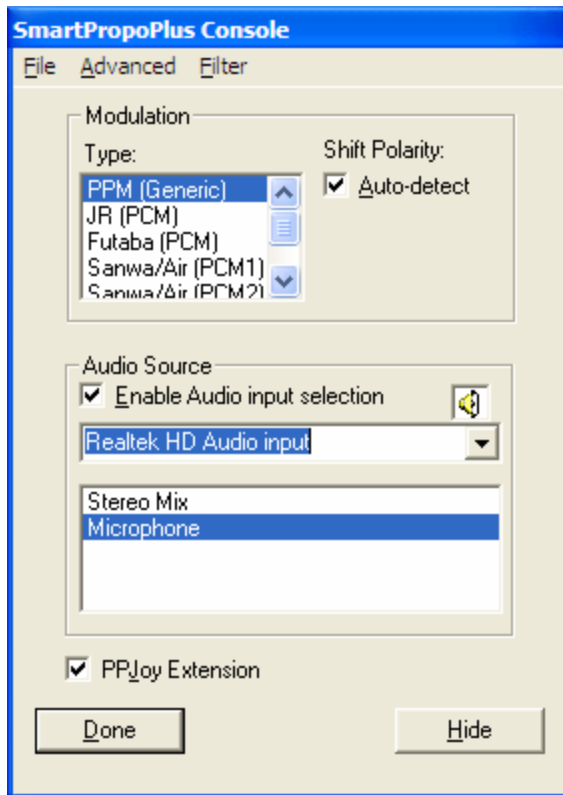
You must select PPM (Generic) and Auto-detect shift polarity.
Note that in the audio source select your appropriate primary soundcard input device. Select microphone or mic in the list of your device inputs.

14. Click Advanced and Default input levels. Set the levels to 10. Click Advanced and Audio source and set it to about 10-20%.
15. Connect one end of the audio cable to the mic input of your computer and the other end to your transmitter "trainer port" at the back. Make sure the transmitter is off before plugging in. The transmitter will power on automatically. This is normal, leave the transmitter's power switch to off and proceed to the next step.
16. Go to the Windows control panel. Double click game controllers and click the properties-test tab for the PPJoy Virtual Joystick 1.
17. Move your transmitters sticks and verify actual movement on the gauges and axis for all 6 channels.
18. Proceed to calibrate the controller on the settings tab and your done configuring PPJoy and SmartPropoPlus. Start your favorite Simulator and set it accordingly. Exit SmarPropoPlus after using the simulator.

USING AEROFLY PROFESSIONAL DELUXE

1. On Aerofly's Main menu click Controls and select Joystick for Aircraft 1. Click Properties.
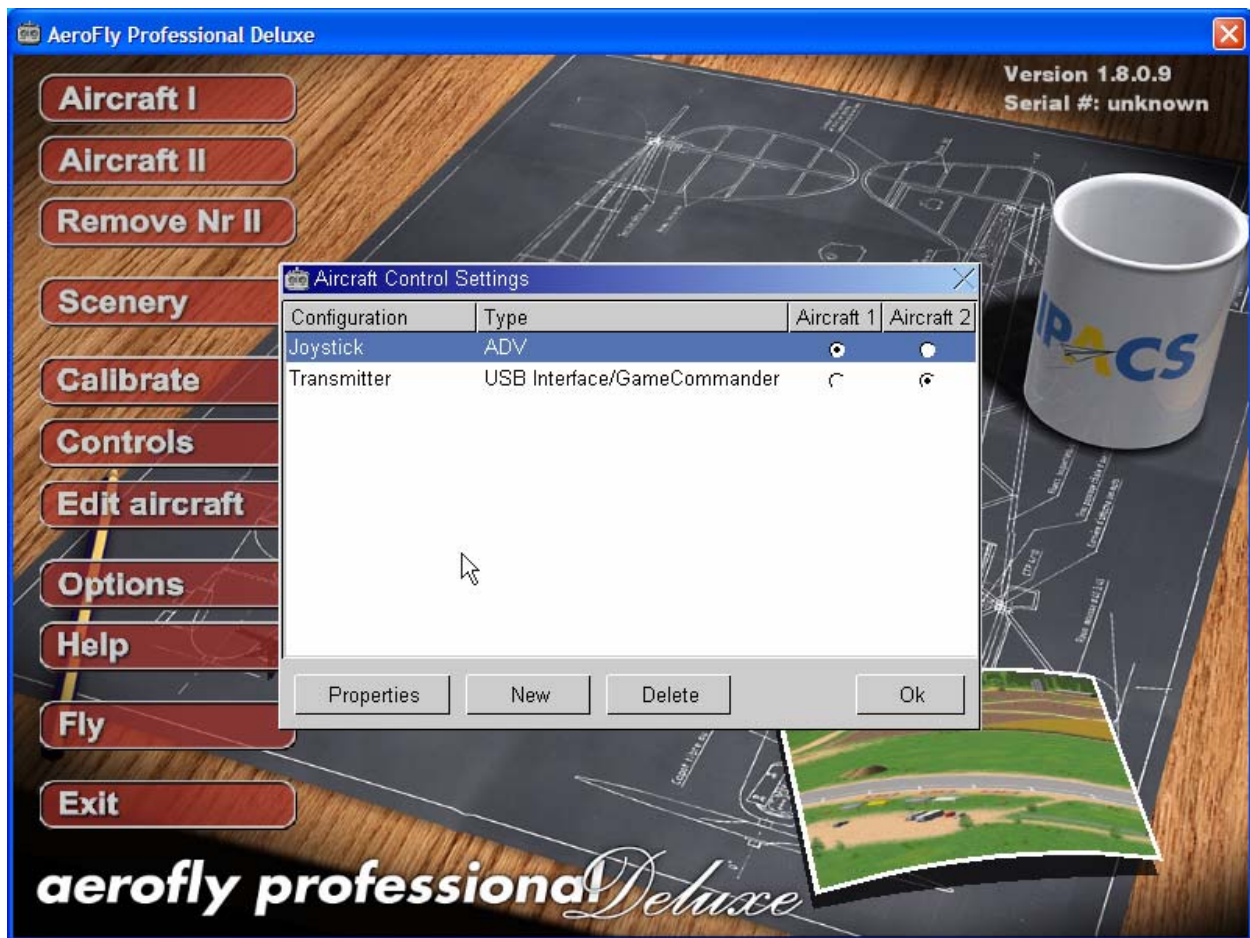
2. Copy the following channel mappings:

AeroFly Professional Deluxe

Version 1.8.0.9
Serial #: unknown

Joystick

Function	Input	Travel	Expo	Rev	Channel
Engine 1		100	0	☐	Joystick #1 - Channel 2
Engine 2		100	0	☐	Joystick #1 - Channel 2
Engine 3		100	0	☐	Joystick #1 - Channel 2
Engine 4		100	0	☐	Joystick #1 - Channel 2
Elevator 1 (left)	▮	100	0	☐	Joystick #1 - Channel 1
Elevator 2 (right)	▮	100	0	☐	Joystick #1 - Channel 1
V-Tail 1 (left)	▮	100	0	☐	MIX VTail left
V-Tail 2 (right)	▮	100	0	☐	MIX VTail right
Rudder 1 (left)	▮	100	0	☑	Joystick #1 - Channel 4
Rudder 2 (right)	▮	100	0	☑	Joystick #1 - Channel 4
Aileron 1 (left)	▮	100	0	☑	Joystick #1 - Channel 7
Aileron 2 (right)	▮	100	0	☑	Joystick #1 - Channel 7
Flap 1 (left)	▮	100	0	☐	Keyboard - NUM 2/8
Flap 2 (right)	▮	100	0	☐	Keyboard - NUM 2/8
Taileron 1 (left)	▮	100	0	☐	MIX Taileron left
Taileron 2 (right)	▮	100	0	☐	MIX Taileron right
Collective Pitch	▮	100	0	☑	Joystick #1 - Channel 6

Configuration: Joystick

Ok   Cancel

aerofly professionaDeluxe

AeroFly Professional Deluxe

Version 1.8.0.9
Serial #: unknown

Joystick

Function	Input	Travel	Expo	Rev	Channel
	▮	100	0	☐	MIX Taileron left
Taileron 2 (right)	▮	100	0	☐	MIX Taileron right
Collective Pitch	▮	100	0	☑	Joystick #1 - Channel 6
Cyclic Pitch	▮	100	0	☐	Joystick #1 - Channel 1
Roll	▮	100	0	☑	Joystick #1 - Channel 7
Tailrotor	▮	100	0	☑	Joystick #1 - Channel 4
Engine		100	0	☐	Joystick #1 - Channel 2
	▮	100	0	☐	not assigned
	▮	100	0	☐	not assigned
Wheel Brake		100	0	☐	Keyboard - NUM 3
Retractable Gear		100	0	☐	Keyboard - NUM 1
Hook		100	0	☐	Keyboard - NUM 7
Wingsweep		100	0	☐	Keyboard - NUM 3
Nozzle Rotation		100	0	☐	Keyboard - NUM 3
		100	0	☐	Keyboard - NUM 7
	▮	100	0	☐	not assigned
	▮	100	0	☐	not assigned
	▮	100	0	☐	not assigned

Configuration: Joystick

Ok   Cancel

aerofly professionaDeluxe

3. Click OK.
4. Go to calibrate screen and calibrate the Joystick.
5. Set the following pitch/throttle curves on your transmitter as your starting point:
    Normal Throttle: 0, 50, 80, 90, 100
    Normal Pitch: 44, 50, 75, 100
    Idle-up Throttle: 100, 95, 90, 95, 100
    Idle-up pitch: 0, 25, 50, 75, 100
6. Fly!!