INSTALLING LP-PAN2 WITH LP-BRIDGE2 AND THE FTDX3000

STEP 1. ACQUIRE THE SOFTWARE

A. Download LP-BRIDGE2 com port manager program here: http://www.telepostinc.com/LPB.html

DESCRIPTION: LPB2 serves to link the SDR rig control and display application with the radio, and creates additional com ports to allow additional programs to share information with the radio, such as logging programs, automatic antenna tuners, antenna rotators, etc. When acting to link SDR command and display applications, it supports VFO A, VFO B, Mode and TX/RX. Connections are "bidirectional"- meaning the rig affects the SDR application, and vice versa, eitehr way – adjusting one also adjusts the other. One additional application can control the rig, while up to four other apps can read data from the rig.

B. Download NaP3 SDR rig control and display software here: http://www.telepostinc.com/TRXP.html

DESCRIPTION: NaP3 is an open source panadapter display application written by Pete, F5VNB, and is based on PowerSDR/IF by WU2X, and PowerSDR v2.x by Flex Radio company.

STEP 2. INSTALL THE SOFTWARE

- A. Log onto your computer with Administratory Privileges
- B. Install the LP-BRIDGE 2 application.

Accept all offers to install ancilliary software that pop up.
 Reboot when finished.

B. Install the NaP3 SDR rig control and display application

Accept all offers to install ancilliary software that pop up.
 Reboot when finished..

STEP 3. CONFIGURE LPB2 (LP Bridge 2 Application)

- A. Log onto your computer with Administratory Privileges
- B. Turn the FTDX3000 ON
- C. Launch LPBR2

Note: Launch LPBR2 FIRST-before launching NaP3 or another SDR control app. All connected apps should be set for the same rig type and baud rate as the rig.

You will see the following Setup Screen:

Rig Pot Yaesu V COM9 V 38400 V Connect	Poling (ms) 200 AlwaysOn Top Start Minimized AutoLaunch SDF Big Port Terminal	SDR Port PowerSDR/ or NaP3 COM20 Create F Auto Create	COMPut Com Port A	COMI COMI 4800 Connect Auto Connect	Vitual Pott Application Paths Example: C:\Program Files\VI1MM Logger\VI1MM Logger.eve App 1 [Fiter Name App 2 [Fiter Name App 3 [Fiter Name App 4 [Fiter Name	TX Test Test Test Test
Vitual Com Port A COM11 Create Auto Create Al1 Al2 Auto Launch Pgm Enter Name	Virtual Com Port B CDM12 Create Auto Create Auto Create Al1 Auto Launch Pgm Enter Name	Vitual Com Port C COM13 V Create Auto Create Al1 Al2 Auto Launch Pgm Enter Name	Virtual Com Port D COM14 Create Auto Create Al1 Al2 Auto Launch Pgm Enter Name	Virtual Com Port E COM15 Create Auto Create Al1 Al2 Auto Launch Pgm Enter Name	App 5 EnterName SDR app [EnterName	TZ TZ TZ_A TZ_A TZ_A TZ_A TZ_B TZ_B TZ_B TZ_B TZ_B TZ_B TZ_B TZ_B
Port 1 Terminal	VPort 2 Te	erminal	VPort 3 Terminal	VPort 4 Ten	minal VPort 5 Terminal	
DRTerminal	Output Tei	minal #1	Output Terminal #2			

D. Set Rig COM PORT 🧕

____ Select rig type

Select comm port

(from the drop down list)

_____Select commiport

(as per the rig from the drop down list) (same as MENU 038 CAT RATE on the rig)

____ The the "Connect" button connects the rig

Notes:

- Polling Rate defaults to 200ms but can be set faster ot slower.
- The Always On Top checkbox allows LPB2 to supercede other windows on the screen.
- Start Minimized allows LPB2 to start in the Taskbar.



 AutoLaunch SDR automatically launches the SDR app (PowerSDR/IF or NaP3) when starting LPB2

E. Set NaP3 (or other) SDR Program COM PORT

____ Select Com Port Number

___ Press the "Connect" button to establishe an active link between LPBR2 and the SDR app.

Notes: Eenter the same port number and baud rate here and in the SDR control application to establish a link between the rig and SDR application. Supposedly, COM99 is the only choice, but I type "com20" into the box, and it creates a COMPort 20. The author selected Com 99 to surely avoid avoid conflicts.



Set Additional COM PORTS For Other Apps (Optional and as appropriate for your station.)

- **G. Set Virtual Port** (Optional and as appropriate for your station.)
 - _ Select comm port (as per the thrd party application from drop down list)
 - _ Select baud rate (same as per third party application)
 - _____ Set COM Port number (Pick one that is not already assigned) 0
 - ____ Pgm: Enter (type the name of your third party application to identify which program will use this port number.



Notes:

- Select any unused port number to enable communication between the rig, NaP3 and a third party logging, rig control, or external accessory (e.g. antenna rotator) application. The Connect/Disconnect button and Auto Connect check boxes work the same as for above.
- AI1 or AI2... used to emulate the Kenwood Auto Information modes which are required for apps which do not poll.
- Virtual Port #1 provides full bidirectional comms with the rig.
- VPorts #2-5 have limited support and would normally be used for a simple logger or something like CW Skimmer ot MixW

H. Set Output Port Com Port (Optional and as appropriate for your station.)

- Select comm port

 (as per the thrd party application or hardware device,
 e.g, antenna rotator, antenna tuner, etc., from the
 drop down list)
- Select baud rate
 (Currently fixed at 4800 baud, not adjustable.
 Set the thrd party device to this value.)



____ Connect/Disconnect Us this to activate the hardware connection

_____ Auto Connect Use this AFTER you know it works as it should.

I. Optional Final Step - Set "Auto Connect" for all ports

Do this AFTER LP Bridge 2 is fully configured and working properly, so the process is automated during future startups. The program will open each application in the proper order. When shutting down, reverse the order, and close the various rig control applications before closing LPBR2.

J. Modify Program Start Icon (located on the Win OS START MENU)

Right Click on the LPBR2 program start icon, and select Properties, and check the box to have it open with Administrator Privileges - and this should prevent a problem opening the application on newer Windows operating systems. This should not be necessary on Windows 7 64 bit, but on my system, LBPR2 would not open unless I did this. Rather than figure it out or fight City Hall... I simply marked the box and moved on without further incident. Life is not always logical... I just do what works.

K. Reboot (optional step) I do this after installing any new application.

STEP 3. CONFIGURE NaP3 SDR Control Application (or other control app)

- A. Log onto your computer with Administratory Privileges
- B. Turn the FTDX3000 ON
- C. Open LPBR2 before launching NaP3 or another SDR control app. All connected apps should be set for the same rig type and baud rate as the rig.

You will see this Setup Screen:

NaP3 Setup	_ 0 ×
Input Rig Display Options DSP Colours	Keyboard VAC
Device	Sound Card
Sound Card 🗸	Driver : MME
Configure	Input : Line In (ASUS Xonar DSX AL -
Sample Rate :	Output : Speakers (ASUS Xonar DSX V
Swap IQ Calibrate	Add latency mSec 25
	DC Block Sample offset:
Reset Database Import Database Export Database	OK Cancel Apply

D. INPUT Selection

Select the type of sound card or donngle thing on the left, and select appropriate input and output device selections for your sound card on the right. This will vary according to your sound card, but this is what works for my ASUS Xonar DXS card with 192 MHz recording and playback sampling rate capability.

E. Rig Selection

		Colouis	Neyboard VAC	
lig Type	IF Frequenc	y Offsets (Hz)	Frequency Offset (Hz)	
Yaesu FT-5000 👻	LSB: 1420		Global Offset: -6000 🜩	
in Serial Connection	USB: 1420 🚔		Frequency Limits (Mhz)	
Port: COM20 V	CWL:	700 ≑	Minimum: 0.030000 🜩	
Paud: 38400 -	CWU:	700 🚔	Maximum: 56.000000	
Baud. 30400 +	AM:	0 🜲	Dia Tinta (m)	
AT Polling	FM:	0 🌲	Rig Timing (ms)	
VFO-B	FSKL:	0 🌲		
IF Frequency	FSKU:	0 🌲	Tuning Polling Interval: 50	
Filter Width	PKTL:	0	Tuning CAT Interval: 200 Polling Lockout Time: 500	
7 Filter Shift	PKTU-	0		

- Set Rig COM PORT in NaP3 to the same port number as selected in the SDR Port section of LPBR2
- _____ Set the Baud Rate the same as you did in LPBR2
- _____ Set the Global Offset to -6000 (as per instrucitons on the LP-Pan2 web pages)
- Set the LSB and USB offsets to 1420 and -1420, respectively. These values work for my rig in my shack, but you may need to adjust each value higher or lower to match your rig. Listen to a live QSO and tune for best results, as if you were tuning the rig, itself. You can fine tune this later, and it may require minor when operating on different bands.
- _____ Set the other parameters as you wish, at your own risk, as I don't understand them and they do not seem to requie tweaking. Your mileage may, of course, vary.
- E. ____ Set the options in the Dislpay, Options, DSP, Colours, Keyboard, and VAC sub menu screens as you think best. I may expand these instructions later, as I gain greater knowledge and experience with these other settings, and as others provide suggestions based on their experience with the same over time.

K8JHR

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