

Getting Started with Digipan

1. Download a copy of Digipan from the web. URL: <http://www.digipan.net/>
2. Install Digipan on your computer
 - Click on the downloaded *digipan6* file to start the installation process
 - Follow the installation procedure
 - Specify the target directory as *c:\Program Files\Digipan*
 - Installation will put the files in the target directory
 - Installation is complete
3. Configure Digipan
 - 3.1 Start Digipan by selecting it in *Start/Programs/Digipan*
 - 3.2 Configure the serial port
 - Select *Configure/Serial Port* from the drop down menu
 - Select the port number that you have plugged your interface into
 - Click the boxes “RTS as PTT” and “DTR as PTT”
 - Click OK
 - 3.3 Configure the Personal Data
 - Select *Configure/Personal Data* from the drop down menu
 - Enter your callsign in the Call field
 - Enter your name in the Name field
 - Enter your QTH in the QTH field
 - Do not click Use CWID
 - Click OK

3.4 Set Up and Modify Macros

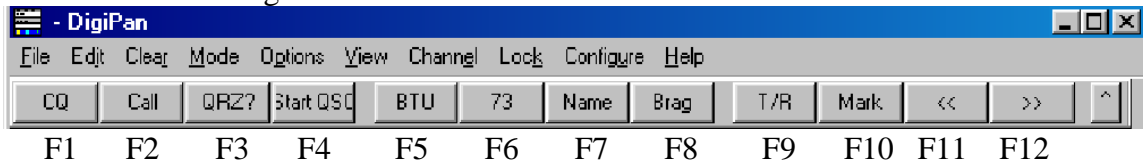
The Macros as supplied by Digipan are not as well laid out as they should be. Also, they do not take advantage of being able to turn on the TX automatically when necessary, nor turning back to RX automatically at the end. These macros should be modified as shown below.

In the examples below, the term “right click” refers to the right hand mouse button. Right clicking brings up the Edit Macro function. Left clicking executes the Macro.

Originally, the macro buttons are:

Call1	CQ	Call3	Call	BTU	Signoff	File	Swap	T/R	Mark	<<	>>
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12

we will change the order to look like this:



Modify the fourth button (F4) macro

Right click on *CALL* button change text to:

<CLEARTX>

<TX>

<CALL> (<NAME>) de <MYCALL> (<MYNAME>) fb <NAME> ...

Change label to: **Start QSO**

Click OK

Modify the second button (F2) macro

Right click on *CQ* button change text to:

<CLEARTX>

<TX>

<CALL> <CALL> de <MYCALL> <MYCALL> <MYCALL> pse -k-

<RXANDCLEAR>

Change label to: **CALL**

Click OK

Modify the first button (F1) macro

Right click on *CALLI* button change text to:

<TX>

CQ CQ CQ de <MYCALL> <MYCALL> <MYCALL> **CQ** pse -k-

<RXANDCLEAR>

Change the Label to: **CQ**

Click OK

Modify the third button (F3) macro

Right click on *CALL3* button change text to:

<CLEARTX>

<TX>

QRZ? QRZ? QRZ? de <MYCALL> <MYCALL> again pse -k-

<RXANDCLEAR>

Change Label to: **QRZ?**

Click OK

Modify the fifth (F5) macro

Right click on *BTU* button change text to:

btu <NAME> <CALL> de <MYCALL> -k-

<RXANDCLEAR>

Click OK

Modify sixth (F6) macro

Right click on *Signoff* button change text to:

73 and best wishes, <NAME> <CALL> de <MYCALL> sk sk

<RXANDCLEAR>

Change label to: **73**

Click OK

Modify seventh (F7) macro

Right click on *File* button, change text to:

name is Clint Clint, qth is Port Townsend WA Port Townsend WA

Change label to: **Name**

Click OK

(Modify above example to suit you)

Modify eighth (F8) macro

Right click on *Swap* button, change text to:

Equipment at <MYCALL>:

TxRx: Ten Tec Pegasus Antenna: G5RV up 7m

Interface: KK7UQ kit Software: Digipan 1.6d

PC: Pentium 133 MHz

Change label to: **Brag**

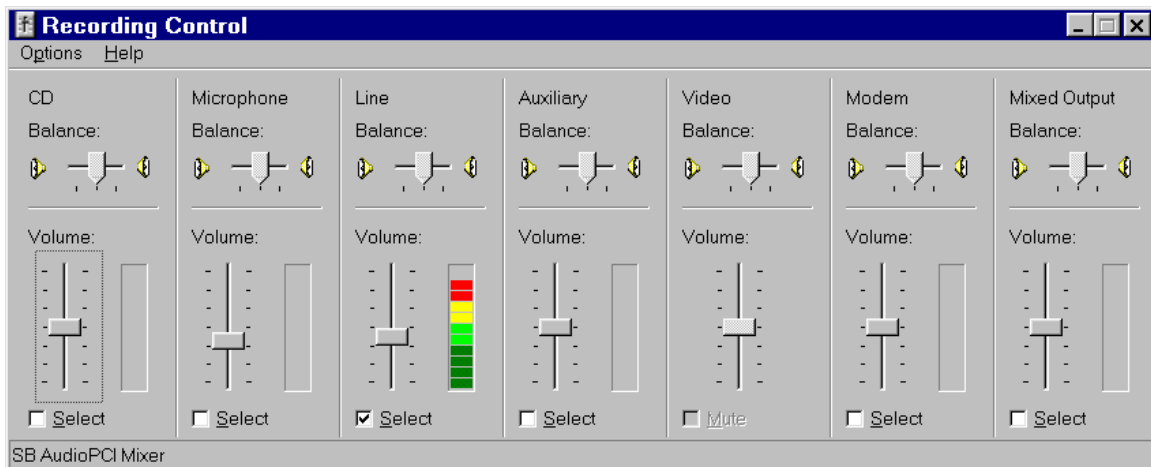
Click OK

(*Modify above to suit your station*)

3.5 Leave T/R, Mark, <<, >> buttons as they are

3.6 If you need additional macros, hold down the CTRL key and another set of buttons will appear. Program these buttons as you need.

- 4 Configure Channel
 - Select **Channel** from the pull down menu
 - Check **Dual channel mode** and **Transmit A**
- 5 Configure View
 - Check all items except **Show Frequencies** and **Underline Sent Text**
- 6 Configure Options
 - Check **AFC, Snap, Squelch, Rx**
 - Leave the rest unchecked
- 7 Configure Mode
 - Check **BPSK** (this is the most used mode)
- 8 Configure Band (setup for 20m shown below)
 - Select **Configure/Band** from pull down menu
 - Click on Activate button for 20m
 - Set Spectrum start for 20m to 14070
 - Click on USB
 - Click OK
- 9 Configure Sound History
 - Select **Configure/Sound History** from pull down menu
 - Enter 20 in seconds field
 - Click OK
- 10 Configure Waterfall Drive
 - Select **Configure/Waterfall Drive** from the pull down menu
 - This will bring up the Recording Control from the PC it should look like this:



This panel assumes that you connected your interface to the Line input. If you connected to the Microphone input instead, then select Microphone instead of Microphone on this panel. The slider should be in the middle position.

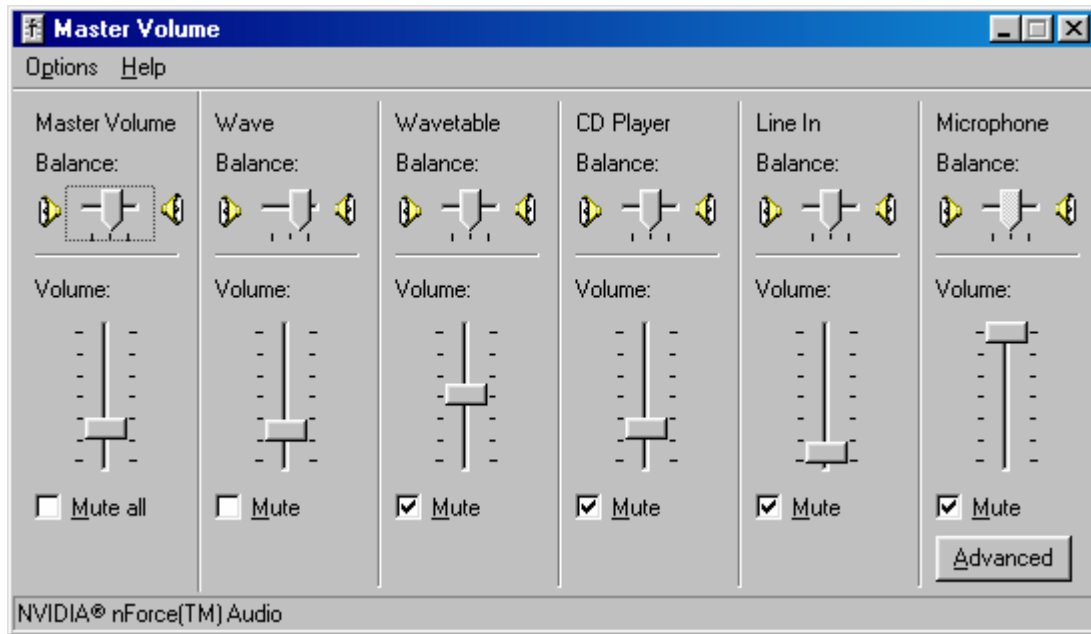
Click the X on the panel to make it go away.

You should now be seeing signals on the waterfall display on Digipan.

11 Configure the Transmitter Drive

Select *Configure/Transmitter Drive* from the pull down menu

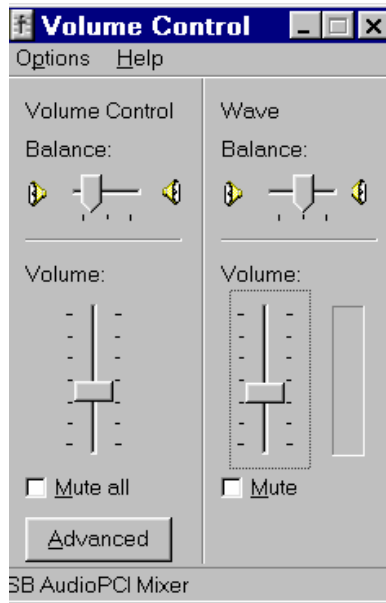
This will bring up the Volume Control panel from the PC. It should look like this:



If it doesn't look like this, go to *Options/Properties* on the Transmitter Drive panel and select (check) all items to get this display.

Select Mute on all items except Volume Control and WAVE. This will disable any other sources of audio from reaching your interface and rig.

Now, go to *Options/Properties* again and check only Volume Control and WAVE. Your panel should now look like this:



Set the sliders to the middle, as shown above. You are now ready to adjust the transmit levels on your rig. Do not click the X on this panel yet. You will have to come back to it for further adjustment.

12 Adjusting the Transmit Audio Drive

12.1 Checking the PTT control

Put the switch on the interface in the straight up position.

Go to the Digipan screen and click on T/R. The PTT LED on the should go ON.

If it doesn't, check that the correct serial port has been configured (step 3.2)

Click the T/R button on the Digipan screen to make the light go off.

12.2 Adjust the rig Mic Gain.

Normally, the rig mic gain should be left where it is set for SSB voice operation

12.3 Connect the rig to a dummy load, if you have one.

Otherwise, select an area of the 20m band where there is no signal.

Check that any speech processor or compressor is turned OFF on the rig.

Turn the Tx Level knob on the interface to the full CCW position

Flip the switch on the interface to the Auto position

Click the T/R button on the Digipan screen the PTT light should go ON.

You are now transmitting, hopefully with no signal going out yet.

Monitor the power level of your rig.

Slowly adjust the Tx Level Knob on the interface until you see some power

Adjust it until you have about half of the normal CW rated power.

Ideally, the Tx Level Knob should be in the center up position.

If it isn't, go to the Volume Control Panel and move the WAVE slider up or down until the Tx Level Knob is in the center up position and you have 50% power.

Click the T/R button on the Digipan screen to stop transmitting.

Your transmitter is now adjusted for operation.

If there is a problem in the procedure above, and you are putting out too much power, move the Interface switch to the straight up (OFF) position to kill PTT, then hit the T/R button to go back to Receive mode.

13 Try a QSO

Look for a signal calling CQ.

Double click on his call sign. The call sign should appear in the Call field.

When he stops transmitting, click on the Call button.

Your rig should start transmitting, sending the Call macro and then turn back to receive.

When he comes back to you, he will likely give you his name and qth.

When you see the name, double click on it and it will go into the Name field. When you see the QTH, hold the SHIFT key down and double click on the QTH and it will go into the QTH field. It actually sends only the first word of the QTH, if you then hold down SHIFT and click on the second word, it will add it on and so forth.

Enter the RST and notes in the appropriate fields.

Log the contact by clicking on the “Floppy Disk” icon. The asterisk should go off. Ask for an IMD check on your signal.

You will have to provide some IDLE signal for the other station to get your IMD. Stop typing, and let the transmit buffer empty, then stay idle for about 10 seconds.

Your IMD should be about -24db or better. If it is below -20db, then you should reduce your transmitter drive level a bit by turning down the Tx level knob.

14 Other features

Try some of these other features on Digipan

Sound History - Hold the SHIFT key down when clicking on a signal the last 20 seconds of data will be displayed on the screen

Second receive window - if you right click on a signal, a triangle will appear and the data from that signal will show up in the second receive window. This lets you monitor another station while you are in qso in the first window.

Swap the windows - if you click on the Swap button at the bottom, focus shifts to the second window as the “transmit window”. In other words, if you transmit, you will be on the frequency of the second window.

Use the << or >> buttons to shift the tuning of the primary window. Instead of having to click with the mouse.

Use the MARK button to mark a frequency with a number. Useful for keeping track of where stations are on the screen. Click Mark again to

make it go away.

Log functions - the “sheet of paper” icon clears the fields of the log entry. The “eyeglasses” icon lets you look at the log. You can either search for a particular call sign, or can view the entire log.

Tune - you can generate a pure tone instead of the psk signal by selecting Mode/Tune. This turns on the transmitter with a pure tone. Hit ESC to stop it.

15 Things at the bottom of the screen

There are buttons and displays across the bottom of the screen.

TX and RX show you whether you are in Transmit or Receive mode.

Swap moves focus from the primary window to the secondary window.

IMD tells you what the IMD of the station under the “flag” is when he is in IDLE

Sq is the squelch mode. You can turn it off by clicking on it. If it turns red, the signal is below threshold. You can adjust the threshold level by selecting Options/Squelch Threshold.

AFC turns the Automatic Frequency Control off or on. Leave it ON.

Snap activates the Snap to Frequency. Normally left ON.

BPSK shows you what mode you are in. Clicking on the field will change the mode to QPSK, FSK31 or back to BPSK. Normally use BPSK

Date and Time are also shown, in UTC.