# JPSKmail 2.0.3 quick start

## Intro

JPSKmail-2.0.3 is a self-contained program running on the java jvm. The java modems were taken from the fantastic fldigi program and translated from C++ to java by John, VK2ETA and Rein PA0R.

Measurements show that the modems are at least as good as the original ones, sometimes better.

The code is pre-alpha, and there are still plenty rough edges, especially regarding the timing of the ARQ protocol. But without testing we will never finish it... Pse send test results to the pskmail mailing list.

## Changes vs. jPSKmail 1

- DSP Modems (PSK, PSKxxxR, MFSK, THOR) are integrated, you don't need to install fldigi to run the client (the server will use fldigi also in future).

- jPSKmail2 uses the java audio system

- Optional floating waterfall window

- New DSP tab for setting the audio parameters

- jPSKmail uses dynamic mode switching, the mode table is set on the client.

  The mode table can be changed on the Preferences->Edit->Modes tab.

- In the modes menu only active modes are enabled

- There is a 'Connect' menu where you can set the starting TX and RX modes for a session. The server starts with those modes and follows the mode table after that.

- New rig control tab in preferences

- Rig control is now done via hamlib, using the rigctl utility program. We don't know how to run hamlib on windows yet. If you can support us with finding a simple solution for windows  pse contact us via he mailing list.

## Program setup

## Soundcard
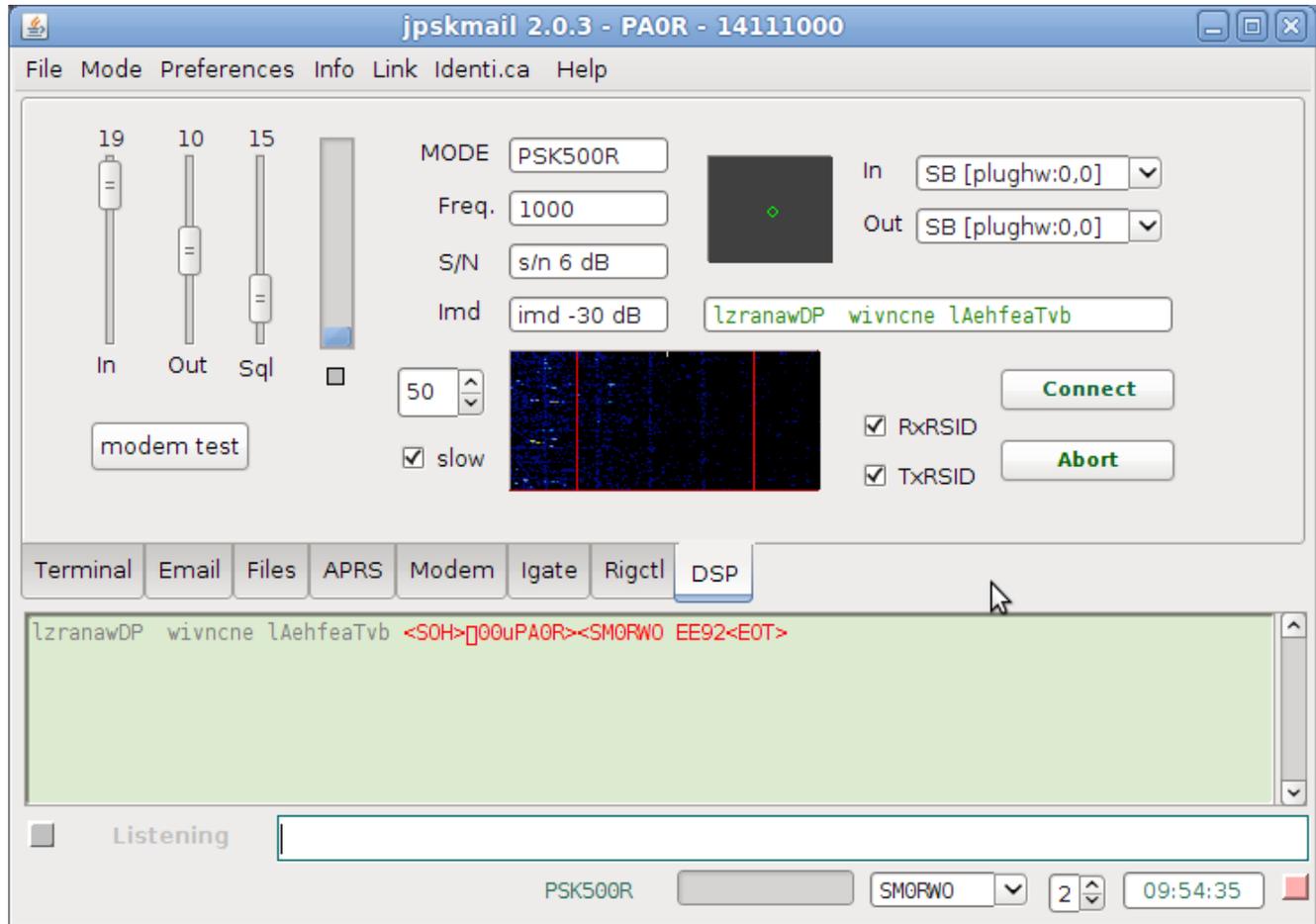


- First, choose the input and output mixers with the combo boxes top right. Java lists the available mixers, and lets you choose the one that works. You may have to use the alsamixer utility to switch the in- and output on and set the audio in and out levels. The level controls top left are separate, leave them at the center position initially so you can use them to fine adjust the level during operation.

- To write the in- and output mixer ports into the config file, quit and restart the program. The chosen ports should now be fixed.

- The sensitivity of the waterfall can be set with the spinner to the right of the waterfall window. Normal value is 5. Adjust the input level so the waterfall background is dark blue with some yellow dots representing noise.

## Rig control, PTT
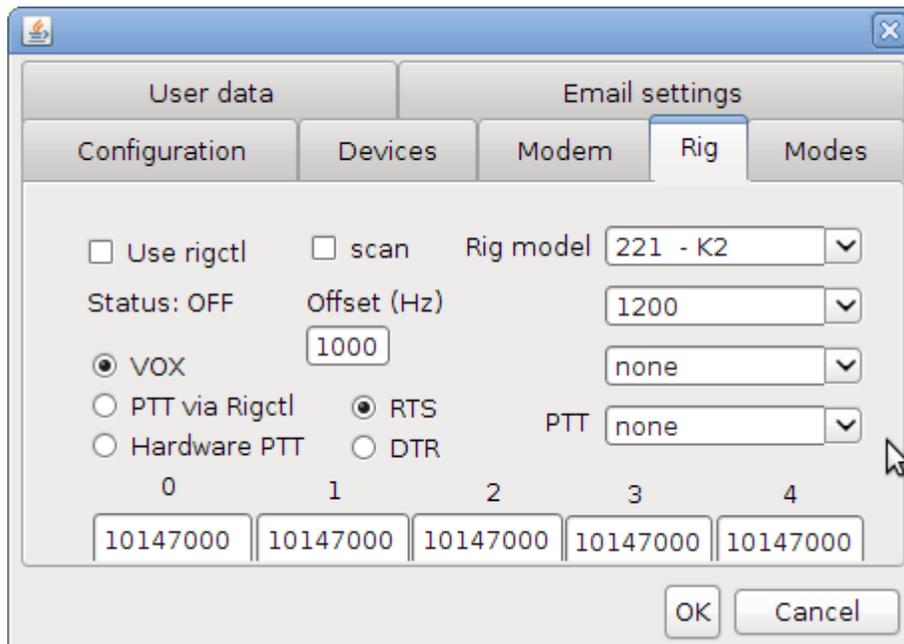


- Set the PTT mode to VOX if your TRX supports it. The pskmail arq protocol supports VOX.

- Alternatively you can use hardware PTT using a COM or /dev/ttyUSBx port.

- For Hardware PTT you can set the output pin (RTS or DTR) and the RS232 port.

- Linux users can use software PTT via hamlib rig control.

- The hardware PTT uses the java RXTX driver. I have not tested if it works...

## Rig control, Frequency

Frequency control is only available for Linux at the moment, as we are using the hamlib library.

This should also be working on windows, but we need a simple procedure to get it running. Windows experts, pse advise...

On Linux, rig control is simple. Set the rig model, set the baud rate and the RS232 port.

JPSKmail does not read the actual frequency of the rig, but it sends 'set frequency' commands. Check if your rig changes frequency by setting it to a random frequency and hitting the **CAT test** button on the Rig Control tab. The rig should jump to 10148 kHz (minus offset).

## *Setting the mode table*
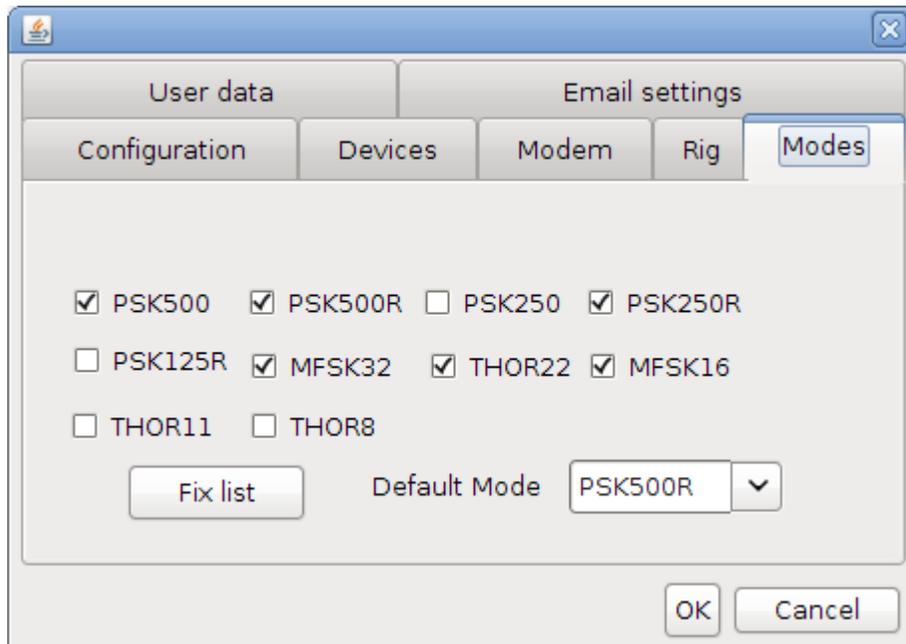


- Choose the modes you want to use (max. 7).

- Use the **Fix list** button to fix it.

- Choose the Default mode (mode used on the channel, PSK500R for EU and PSK250 for USA)

- Leave the screen with the **OK** button. The mode list and the default mode are stored in the config file.

- In the Modes menu only the modes in the table will be enabled.
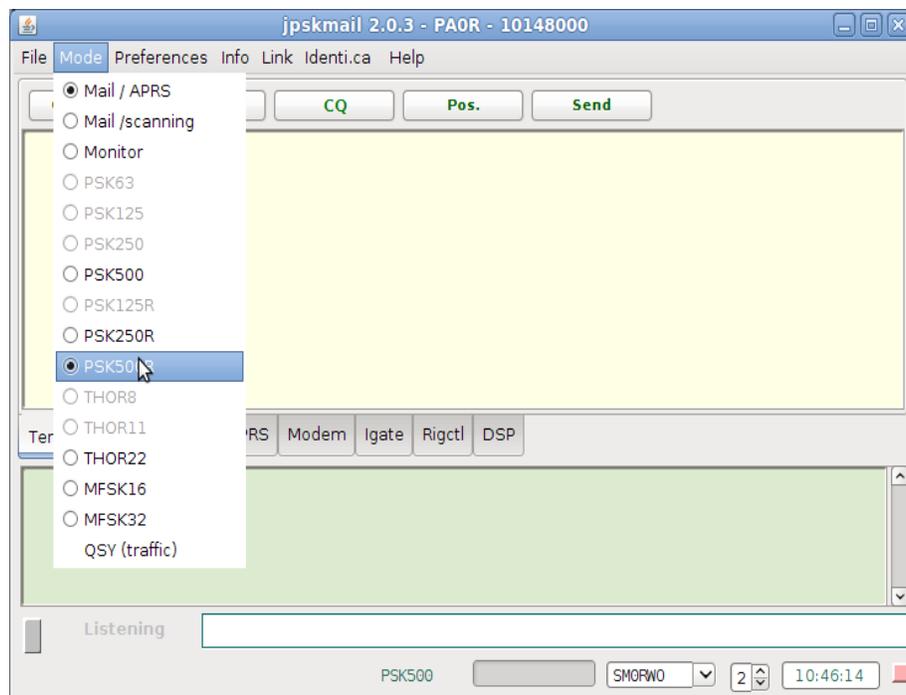
## *Connect window*



The connect buttons now open a window where you can set the TX and RX modes for the session.

On a good channel you can normally leave both RX and TX modes on the default.

If you run QRP you may want to call the server in a more sensitive mode like MFSK32 (set TX to MFSK32).

If you have a lot of local noise, you can ask the server to TX in e.g. MFSK16 (set RX to MFSK16)

If you are QRP and have a lot of local noise, set both to a sensitive mode.

## *Known bugs*

There are still a lot of rough edges, especially with timing.

The THOR11 and THOR8 modes have problems @PA0R, but they work fine @VK2ETA.

The summoning button does not open a connect window yet.

We need lots of reports... send them to the **pskmail list on freelists.org.**


http://www.pskmail.org


PA0R, December 6, 2011