

DroidPSK

These instructions are written for the layouts of cell phones; the layouts of tablets might be different. DroidPSK is an application to decode and encode Ham Radio BPSK31 & BPSK 63 with the build in microphone/speaker or wired to your radio with the WolphiLink interface or another interface. A waterfall shows the frequency spectrum of 100Hz to 2500Hz. Just slide the waterfall slider on PSK signal and DroidPSK will start decoding.

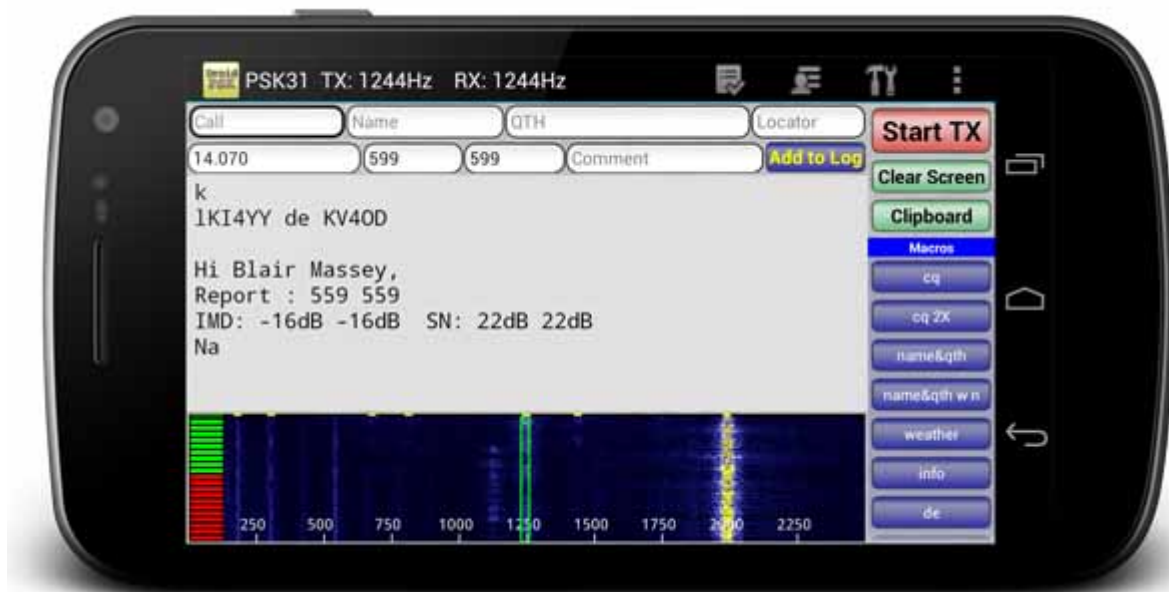
In transmitting mode characters can be entered through the keyboard. 20 Macros are also available to store standard texts like "name and qth" and "station info". Macro keywords like <my:callsign> <his:rcvd>, <stop> etc. can be used in macros.

DroidPSK now also has a logbook with ADIF export and import as well as a call search.

This manual will also be available at: <http://www.wolphi.com/droidpsk/manual/> and might include additions or updates not shown in the manual included with DroidPSK.

If you have any suggestions to improve DroidPSK or the manual please feel free to contact me at info@wolphi.com

The main screen:



Waterfall:

The waterfall shows a frequency spectrum of 0 to 2500 Hz. A PSK signal will show a white vertical line. To decode the signal the rectangular slider needs to be moved onto the signal. DroidPSK's AFC (Automatic Frequency Control) will try to find the correct frequency and will start to decode the PSK signal.

Levelbar & Squelch:

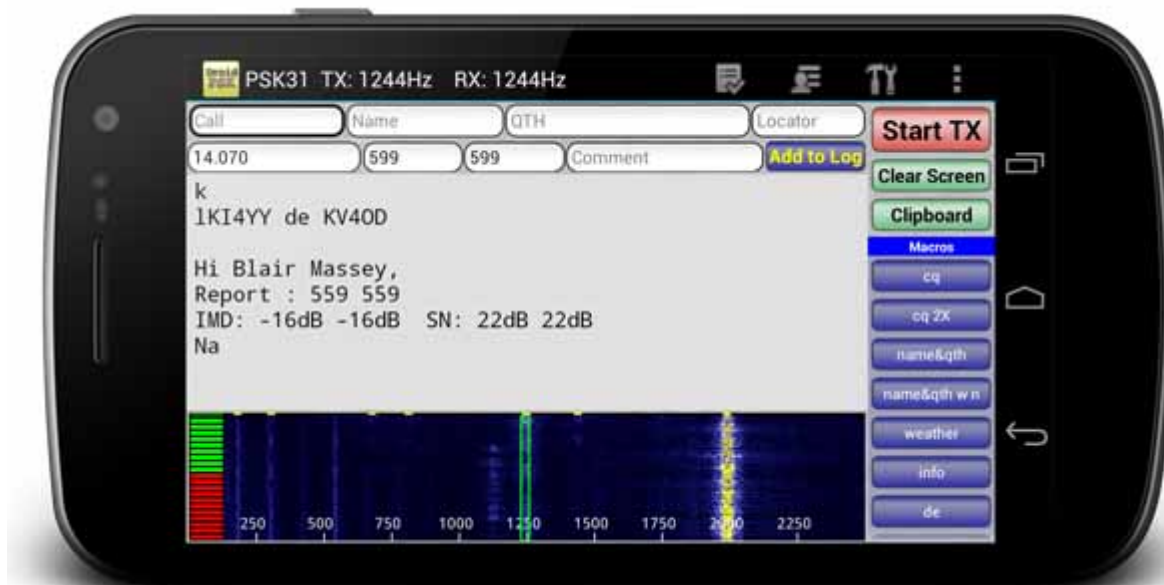
The levelbar on the left side of the waterfall shows the signal quality (not the signal strength). As more lights are illuminated as better the quality of the signal. The signal will only be decoded when the quality is good enough to illuminate the green lights. The border between the red and green lights (squelch) can be adjusted by sliding up/down on the levelbar. If all the lights are green the squelch is open

Logbook entry fields:

8 logbook fields can be populated by touching one of the fields. A keyboard will show up and the text can be entered. Another way to populate the fields is by touching a word in the receive window. The word will be highlighted. By long-clicking one of the log entry fields the highlighted text will be copied in the log entry field. (see picture below). To add the qso into the logbook press the "add to log" button. At least a callsign and a frequency need to be entered to add the qso to the logbook. The frequency needs to be entered in Mhz. A qso on 20 meters would be for example 14.070. DroidPSK needs this format for ADIF export (described later) and to calculate the correct band. The qso time and date will be taken at the time when the "Add to log" button is pressed. The time can be saved in local time (your phones time) or UTC. Please check or uncheck the UTC settings in the settings/menu.



Receiving window:



The receiving window shows the decoded text. The window can be scrolled up and down. The window will only scroll to a newly received line when the window is scrolled to the bottom otherwise it will stay at the current viewing position. The receiving window can be cleared by pressing the green "clear screen" button on the right menu.

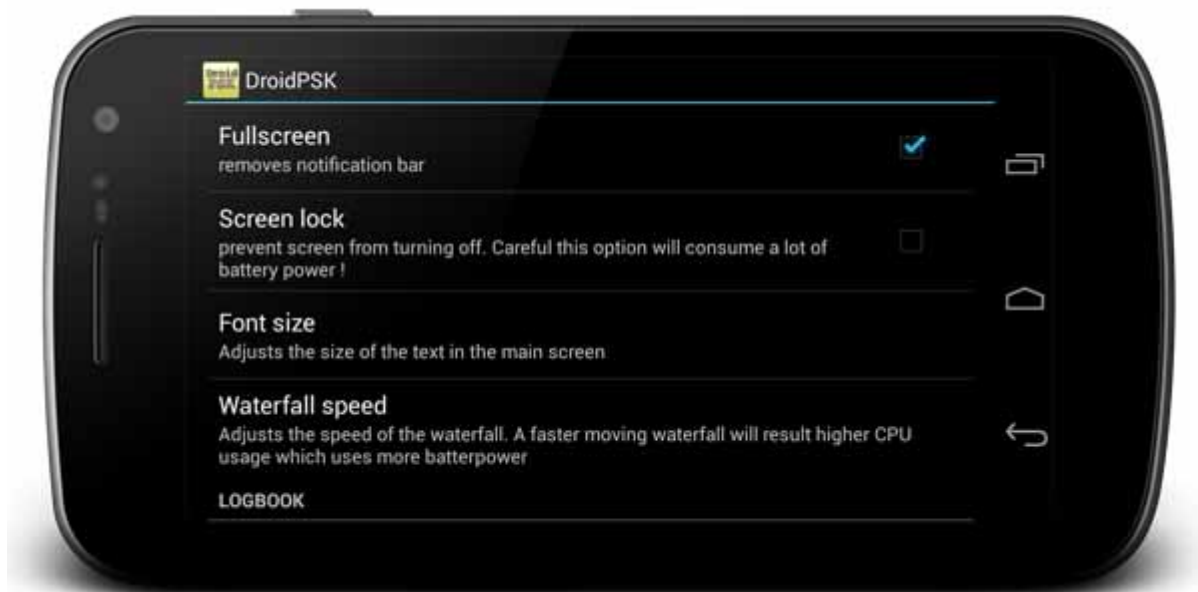
Long-clicking the receive window will open a "share dialog box". The received text can be send by email or send to other programs that are installed on the device and support text.

DroidPSK can operate in 2 different speeds: PSK31 & PSK63. The speed can be changed in the settings.

To prevent the screen from turning off, an option is programmed in the settings menu to keep the screen on (careful this will use more battery power!!) To get to the settings screen press your phones menu button and then click on the settings button. The size of the text in the receiving window can also be changed in the settings to very small, small, medium , large or extra large.

The get more space especially on smaller screens the nofication can be removed enabling "Fullscreen"

The size of the font in the receiving window can adjsted as well as the speed of the waterfall.



Transmit screen:



To transmit simply press the "Start TX" button. The button will change to "Stop TX". A new edit field will appear on the bottom and text can be entered for transmit. DroidPSK uses 20 macros for frequently used text. The macro buttons are on the right side and can be scrolled up and down (phones only – buttons are static on tablets).

Important: Before transmitting on the radio make sure that all alarms and key press clicks are disabled !!! You don't want play music or other sounds on the radio. Key clicks can be usually disabled in the Android settings under "Language & Keyboard". It is also suggested to disable all the spellcheckers and word suggestion. (This can also be done in Android's keyboard settings)

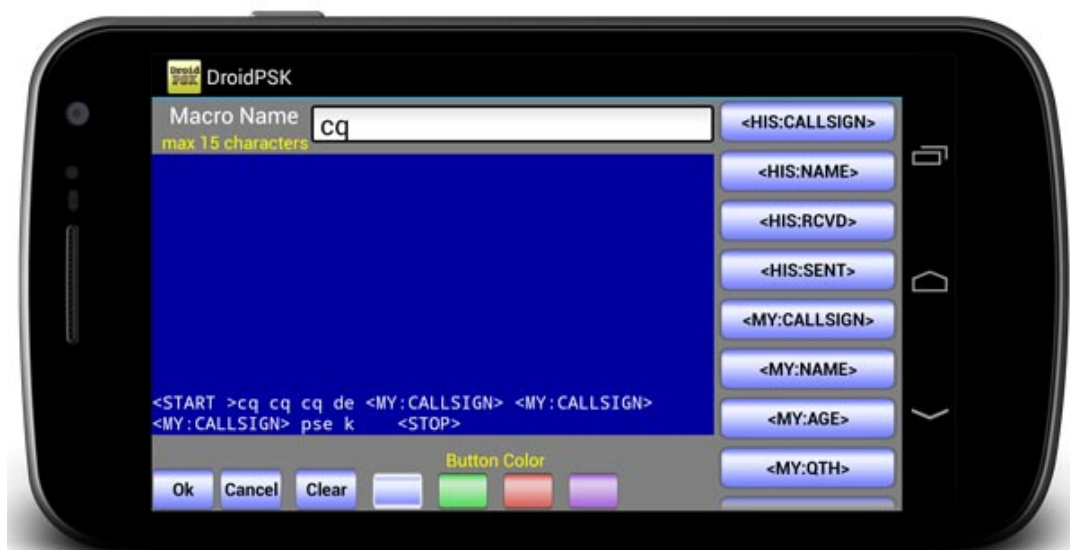
Clipboard:



When receiving a signal text can be pre-written and later transmitted. To enter/edit the text the "clipboard" button needs to be long-clicked. When transmitting the text can be transmitted by clicking on the "clipboard" button

Edit macro screen:

A macro can be edited by long-clicking a macro button and a the macro edit screen will appear.



The following macro keywords are available:

Logbook keywords –Keywords taken from "log entry" in the receive window:

<his:callsign>
<his:name>
<his:qth>
<his:locator>
<his:rcvd>
<his:sent>

Keywords taken from "my info" screen (see below):

<my:callsign>
<my:name>
<my:age>
<my:qth>
<my:locator>
<my:email>
<my:homepage>
<my:radio>
<my:power>
<my:antenna>
<my:computer>
<my:interface>
<my:weather>
<my:temperature>

Keywords taken from GPS (if available):

<my:locatorgps> (will transmit the coordinates from the GPS (if available) and convert them to a 6 character Maidenhead like : EN72gu)

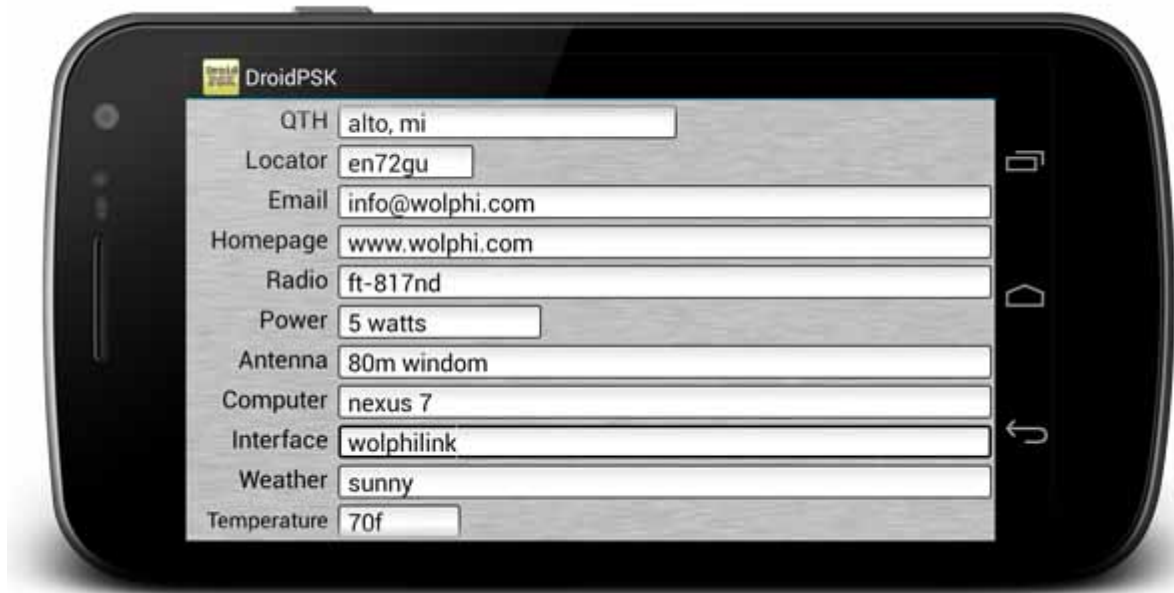
Special keywords:

<start> will start a transmission
<stop> will stop transmission and return to the receive window
<tolog> will add qso to log (At least the fields "Call" and "Frequency" need to be filled out)
<aprs> will generate a HF ARPS message including callsign, coordinates (taken from the GPS) and checksum. This macro keyword is only available in mode PSK63 Usage: "<aprs>testing DroidPSK" will generate: ".~W8DA>APSK63:=4251.40N/08527.54W&testing DroidPSKCCEA~" The 4 character at the end (CCEA in this example) is the checksum.

4 colors are available for each macro button. The color can be selected at the bottom of screen.

My Info screen:

Personal information like callsign, name, age etc can be entered here. This data will be used in the macros. For example: the value of the call field will replace <my:call> – the name field will replace <my:name> and so on.



After entering the information the "ok button" on the bottom needs to be pressed. (The phones back button will not save the information).

The logbook



The logbook stores the information entered on the receiving screen and shows them as a list on the logbook screen. Individual entries can be deleted or edited by long-clicking the entry.

The qso's can be searched by callsign and sorted by date, callsign or frequency.

ADIF import / export

ADIF files can be imported or exported by clicking the menu button and either pressing on import ADIF or Export ADIF.

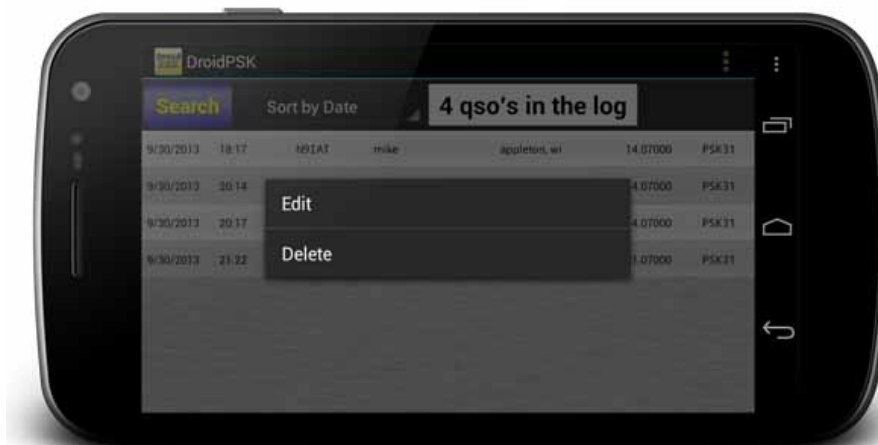


How to import/export ADIF files? DroidPSK will create a directory "DroidPsk" on the SD card. By clicking the export button DroidPSK will create a file named "log.adi" in the directory "DroidPsk". This file can be copied to a PC and imported in a logging program. Import ADIF has been tested with ADIF log files of the Ham Radio Deluxe software DM780 but ADIF files created by other programs should import correctly also. To import an ADIF file copy an ADIF file with the name "log.adi" into the directory "DroidPsk" on your SD card and press the Import ADIF button. A window will show up which shows the process of the import.

The logfile can also be shared by pressing the "Share ADIF" button. The ADIF file can be send by email or send to other programs that are installed (email, dropbox etc...).

The logbook edit window

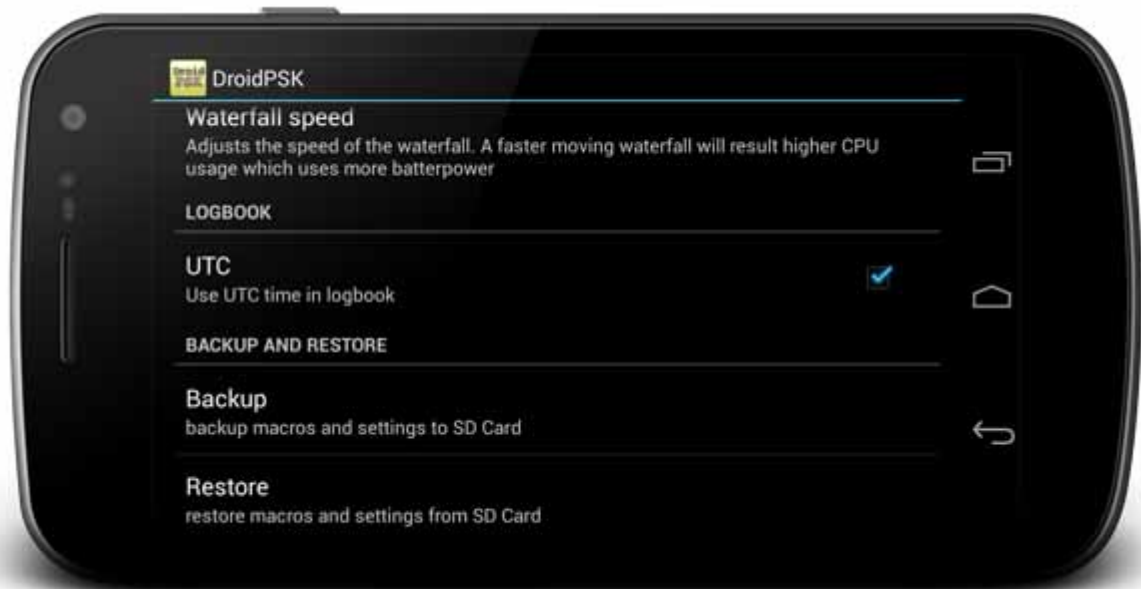
By long-clicking a qso in the logbook window a context menu will show up. Select "Edit" to open the logedit window.





In the logedit window the data of an individual qso can be edited. After entering /changing the data the ok button on the bottom needs to be pressed to save the data. (the phones back button will not save the information).

Backup and Restore



The backup button in menu/settings will backup the logbook as well as all the settings to the SD card. Two files will be created on the SD Card in the directory DroidPSK. The filename of the logbook file is logbackup.dat and the filename of the settings is backup.xml. Both files can be transferred to a different phone and imported again.

By pressing the restore button DroidPSK will look for the previously backed up files logbackup.dat and backup.xml in the folder DroidPsk on the SD card and overwrite the logbook and DroidPSK's settings.