141A and ALE with UI-VIEW through MULTIPSK (4.24)

Introduction
This document explains how to use the UI-VIEW program (<u>version 2.39</u>) to transmit and receive 141A and ALE400 APRS frames (<u>position reports only, without any acknowledgment</u>) through the KISS mode of Multipsk.

<u>Notes about the help in Multipsk:</u>
  • To bring up the text help (contextual one), click on the "Help" button if available, or on the right button of the mouse, with the cursor over the mode button "KISS", for example).
  • Also use the button hints (wait a fraction of second over a button).

KISS link through a serial port
The KISS mode allows an exchange between two programs through a selected serial port. The serial link between the client program (here UI-VIEW) and Multipsk can be done either of two ways:
  • either through a "null-modem" cable between 2 PC, each PC housing one program,
  • or through a virtual "null-modem" which links two virtual serial ports. To create this link and these virtual serial ports, for example, the freeware "com0com" can be used. This is downloadable at the following WEB address:
    http://sourceforge.net/projects/com0com/ (information at   <u>http://com0com.sourceforge.net/</u>)
    Don't forget to rename the CNCA0 and CNCB0 ports in COM2 and COM3 (for example), with C:\Com0com\setupc.exe, so they appear on Multipsk and UI-VIEW. It will be selected COM2 on the Multipsk "Serial port for KISS" menu (see serial port for the GPS or KISS mode) and COM3 on UI-VIEW.
   Note for information: there is another program for virtual com port which name is « VSPE » created by Eterlogic.

The KISS mode permits a link between both programs, in both directions (RX/TX).

Diagram of the transmission
UI-VIEW(transmitted position)→Kiss→ Multipsk→141A or ALE400 transmission→Multipsk→Kiss→UI-VIEW (received position)

Multipsk has these communication parameters: 9600 bauds, 8 data bits, 1 stop bit, no parity.
These parameters must be set in UI-VIEW (« Setup » menu, « Comms setup » option).
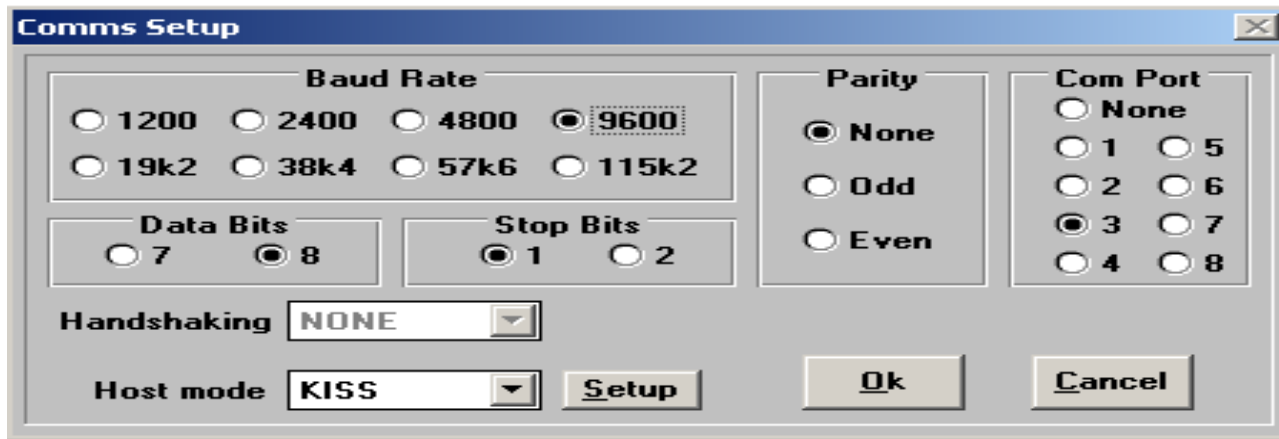
The UI-VIEW station setup must be done (« Setup » menu, « Station setup » option).
An Unproto address ("APRS" here) is compulsory for UI-VIEW but it is not used by Multipsk.
 A comment (in general 33 characters max depending on the complexity of the position) can accompany the position (here : « Hello!
My position ALE400 »).
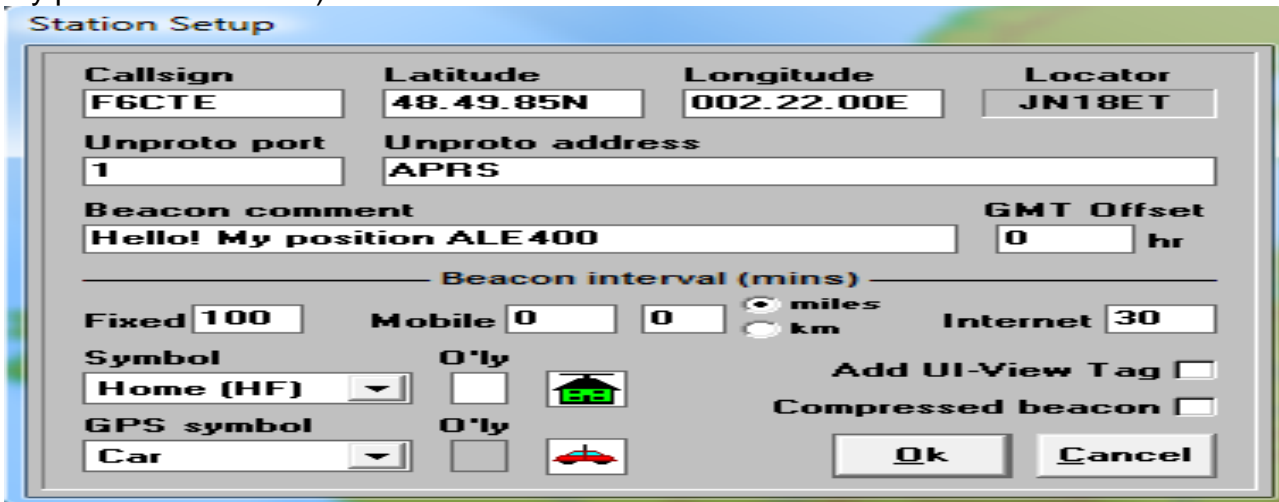
The Configuration in Multipsk must be the following :
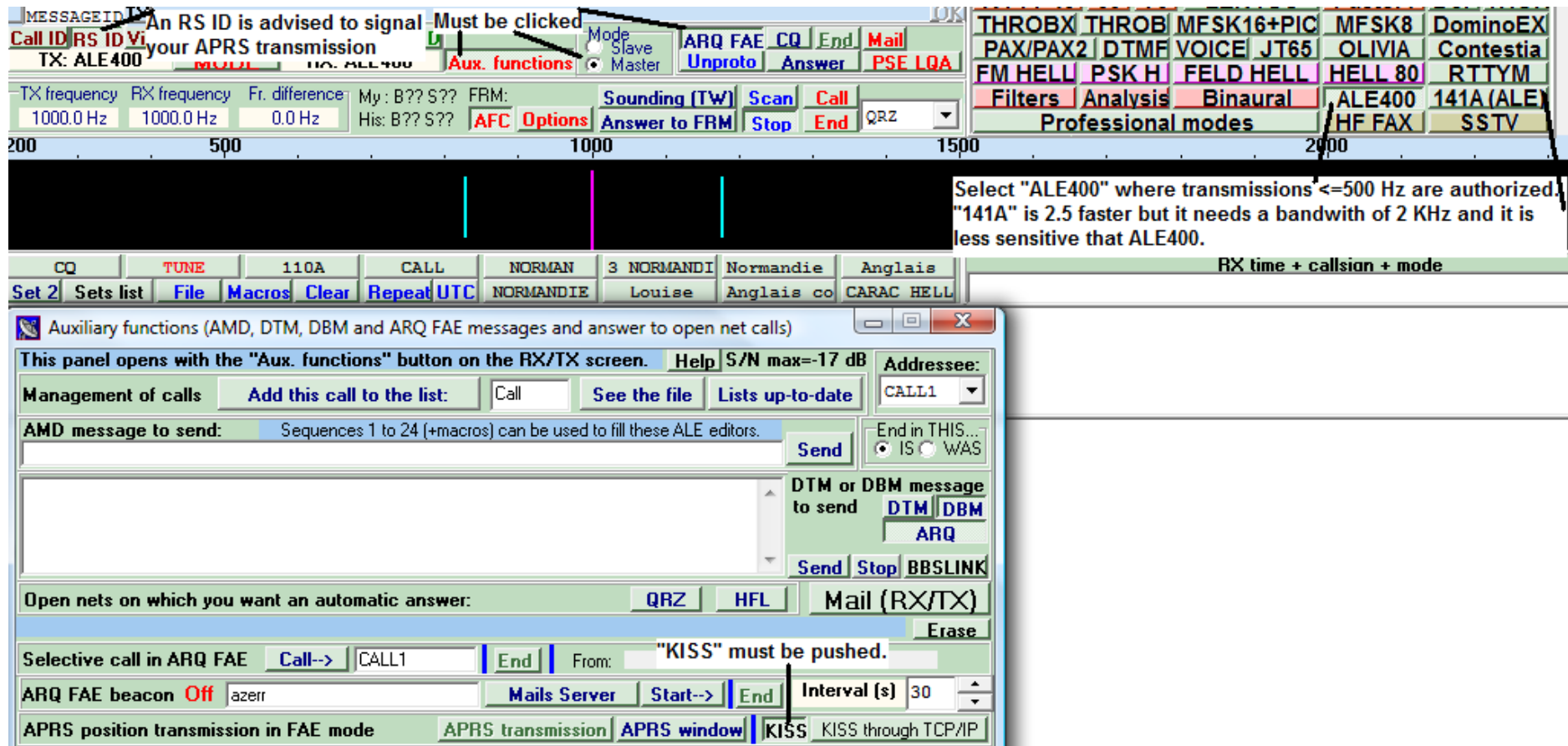
The "KISS" button allows the working in KISS mode with UI-VIEW, through a transformation of the Packet UI frames in 141A or ALE frames (and reversely).

Once Multipsk and Ui-VIEW started, to send APRS position, in beacon mode, from UI-VIEW :
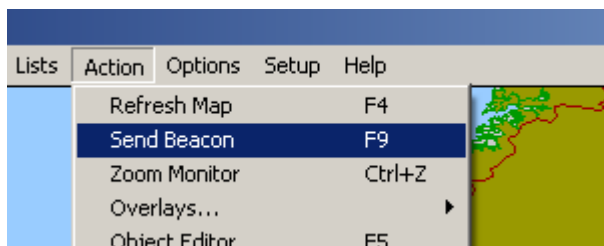
Here is part of the Multipsk screen, after reception of the position sent by UI-VIEW through the Kiss link, conversion of this Packet frame in APRS FAE protocol and re-transmission of this frame in 141A or ALE400.

| Set 2 | Sets list | File | Macros | Clear | Repeat | UTC | NORMANDIE | Louise | Anglais co | CARAC HELL | 08:12:41 F6CTE | ALE400 (France) |

APU16N de F6CTE Ctl C UI Pid=F0>
=4849.85N\00222.00E-Hello! My position through ALE400
F6CTE   =4849.85N\00222.00E-Hello! My position through ALE400[End of TX] FAE APRS frame

On next pages, we are on the reception side, the Ham or SWL receiving APRS frames and forwarding them to UI-VIEW.

Here is given the previous RS ID configuration which must be done by the one receiving APRS transmissions.
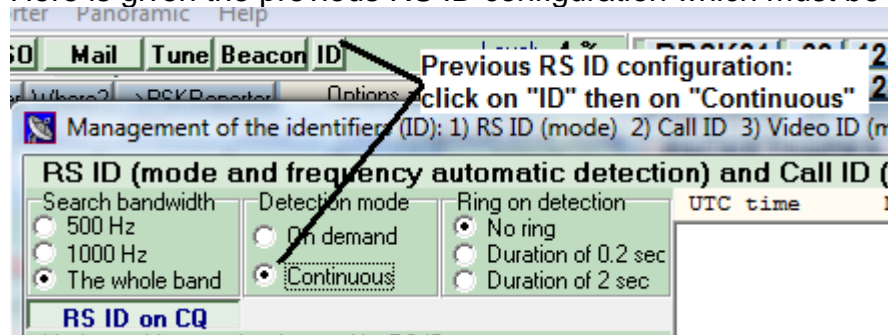
After clicking on the "Aux. functions" button, select the "KISS" button to allow the working in KISS mode with UI-VIEW, through a transformation of FAE 141A or ALE frames to Packet UI frames.
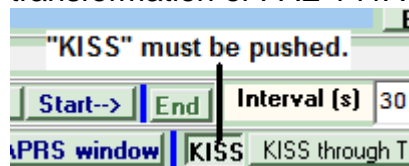
On the spectrum below, it can be seen the RS ID transmitted first, followed by the ALE400 APRS transmission, after reception of the position transmitted by the other Multipsk (previous screens) and repetition towards UI-VIEW in Kiss mode:
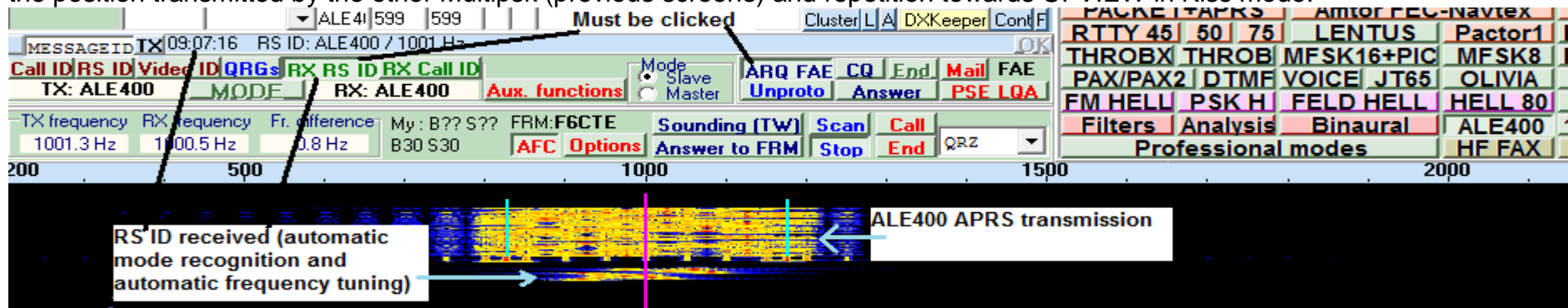
Here is part of the global Multipsk screen after reception of the APRS position.

F6CTE   /070957z4849.85N\00222.00E-Hello! My position ALE400 [FAE APRS]
...KISS frame repeated

Here is the UI-VIEW screen, after reception of the position transmitted by Multipsk to UI-VIEW in Kiss mode.
Note: to get details ("Home (HF) F6CTE" window), click right over the house symbol and then click on "Show details".