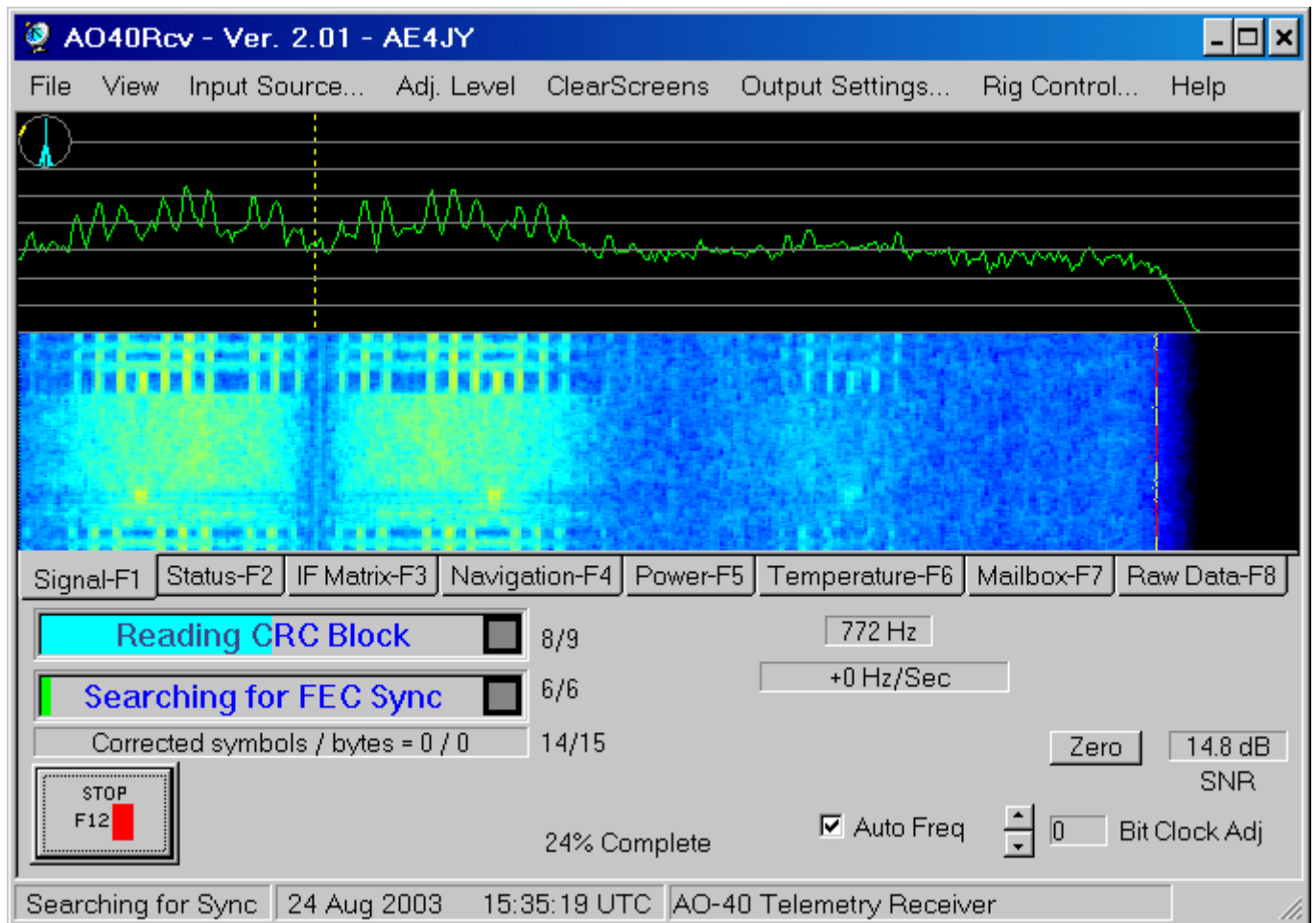


AO-40 Telemetry Decoder Project



This Program is made available free of charge. A donation to AMSAT would certainly be appreciated though if you feel compelled to part with your money.

Executable, readme.txt, help, and DLL files-- (859K): [Ao40Rcv204.zip](#)

Here are the Microsoft Visual C++ 6.0 project source files for both the application program and the low level BPSK decoder dll. It is released under the GPL so you are free to mess with it for your own uses. I would appreciate that you notify me of any bug fixes or improvements so that I can incorporate them in my versions. If you decide to use this code as a basis for your own projects PLEASE rename it so that it does not get mutated in with the AO40Rcv program that I have to maintain.

All of the FEC decoding algorithms are from KA9Q, Phil Karn's work. All I did was C++/Windozafy his code. The bugs are do to me. If it works it is due to his great contribution to this endeavor.

There is no documentation with the source and it is poorly commented, so you are on your own. My support for this source will be very limited due to time constraints.

Workspace contains two projects, the application and a dll project-- (158K): [Ao40RcvSource204.zip](#)

Revision History(from latest back to first release):

Ver. 2.04 Release 09-25-03

Bug Fixes:

Changed Status display functions.

Ver. 2.03 Release 09-11-03

Bug Fixes:

Fixed wave file output.

Fixed auto status.

Ver. 2.02 Release 08-24-03

Functional Changes:

Added FEC block decoding.

Changed a bunch of GUI stuff.

Ver. 1.40 Release 06-16-01

Functional Changes:

Added ability to append audio data to output wave log file.

Added ability to specify a time offset into an input wave file for decoding.

Bug Fixes:

Removed "Beep" command when blocks are received.

Removed 30Hz Doppler correction dead zone.

Ver. 1.34 Release 06-10-01

Bug Fixes:

Tweaked decoder algorithm and bit filter.

Ver. 1.33 Release 05-20-01

Functional Changes:

Added ability to select doppler compensation step size(10 to 100Hz). Greater than 20Hz is experimental and untested.

Ver. 1.32 Release 05-12-01

Functional Changes:

None.

Bug fixes:

Fixed IF Matrix display bug.

Ver. 1.31 Release 05-06-01

Functional Changes:

Added 30 second Doppler correction timeout if signal is lost

Minor reordering of status message screen

Bug fixes:

Display Window scroll bar is now restored correctly

Ver. 1.30 Release 04-29-01

Functional Changes:

None.

Bug fixes:

Fixed some decoded data display bugs

Ver. 1.24 Release 04-26-01

Functional Changes:

None.

Bug fixes:

Fixed the Minimization crash bug

Ver. 1.23 Release 04-21-01

Functional Changes:

None.

Bug fixes:

Fixed Serial rig command bug where the DN command was screwed up(Thanks to Howard, G6LVB.)

Ver. 1.22 Release 04-15-01

Functional Changes:

Added Network Frequency data output mode.

Ver. 1.21 Release 04-07-01

Functional Changes:

Added Serial port command option for Doppler frequency control

Added an automatic view toggle function to view status and signal views.

Added Function key links to view tabs.

Bug fixes:

Fixed FFT display offset bug.

Ver. 1.10 Release 04-01-01

Functional Changes:

Added Better Rig Frequency control

Changed a bunch of GUI stuff.

Added a wave capture pause/resume button.

Added a frequency error display to waterfall.

Bug fixes:

Hopefully beefed up the overall AFC/capture algorithm

Ver. 1.00 Release 02-18-01

Functional Changes:

Added Help file

Added decoded text screens

Changed some GUI items

Bug fixes:

Fixed a few, created a few.

Ver. 0.4 Beta release 02-07-01

Functional Changes:

Added Network server function

Added logging to wave file function

Enabled reading .raw file function

Some GUI changes

Ver. 0.3 Alpha release 01-15-01

Bug fixes:

Changed raw/tlm filenames format to conform to current archive method

Functional Changes:

Added wave file input option(8000HZ sample rate files only)

Made AFC tracking faster

Added serial port RTS/DTR ,Up/Down frequency control

General GUI interface changes

Ver. 0.21 Alpha release 12-30-00

Bug fixes:

Fixed crash on exit problem with dll file only.

Ver. 0.2 Alpha release 12-16-00

Bug fixes:

Fixed false lock problem +/-400Hz from center frequency.

Functional Changes:

Changed raw data file name to include date.

Added separate raw data file for bad CRC data and now also set bit7, byte0 to flag blocks as bad.

Ver. 0.1 Initial Alpha release 12-15-00

Early Alpha release just to use the signal display/capture capabilities.

[Back to Main](#)