



# RELEASE NEWS



## go2DECODE 5.2

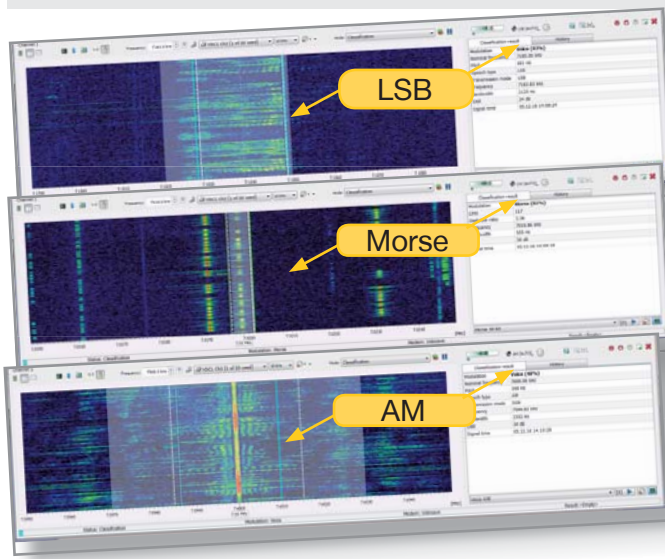
Signal analysis, demodulator configuration, decoding and decoder development in one tool. Please have a look on our highlights for this release.



## go2MONITOR 4.2

As fastest growing monitoring tool in the market, go2MONITOR is setting exceptional standards in functionality and operation. The new release offers a number of highlights regarding decoding, analysing, classifying etc.

## Monitoring features improvements



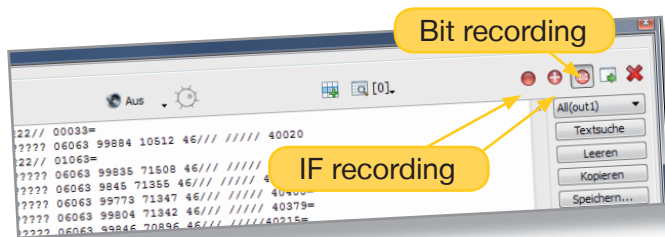
Automatic audio demodulator control added in real-time channel and in offline audio player

If you are working with changing signals you will love this feature. With the parameters from the classifier or the decoder the audio demodulator will be set automatically. Selecting a voice LSB signal, the audio demodulator changes to LSB, selecting a Morse signal, it will change to CW. Any time the correct audio demodulator is used, no matter what is received.



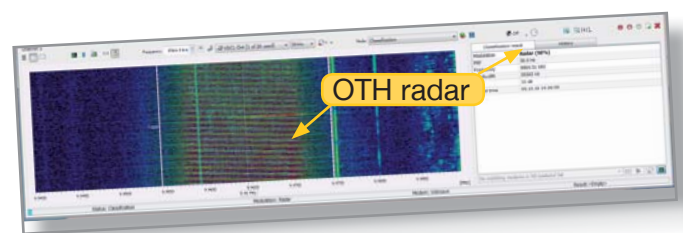
Channel bandwidth increased from 50 kHz to 300 kHz

What's better than bandwidth? More bandwidth. Now we have improved the maximum channel bandwidth from 50 kHz up to 300 kHz. Step by step, we increase the processing bandwidth of the classifiers and the decoders. This makes go2MONITOR an outstanding tool.



New channel function to store demodulated symbols in a \*.REC file during decoding

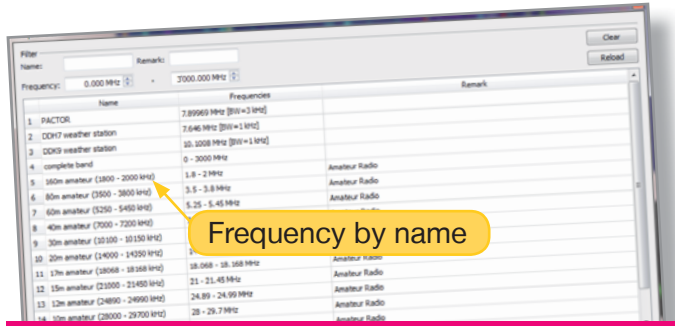
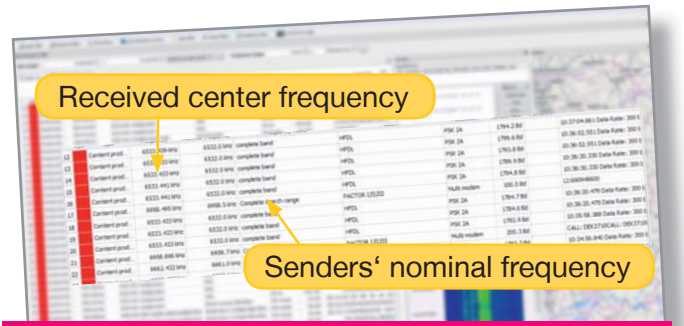
go2MONITOR is your handy interface to the signal analysis tools. Therefore, it offers different recording functions like IF recording and, brand new, recording of the demodulated bits. The bits are stored to use them as input for bit analysis tools like go2ANALYSE.



Classifier with OTH-radar detection

Processing HF signals with 20 kHz or more bandwidth is no problem with go2MONITOR. We are prepared for the future as even OTH signals are detected by our classifier.

# Advanced frequency management



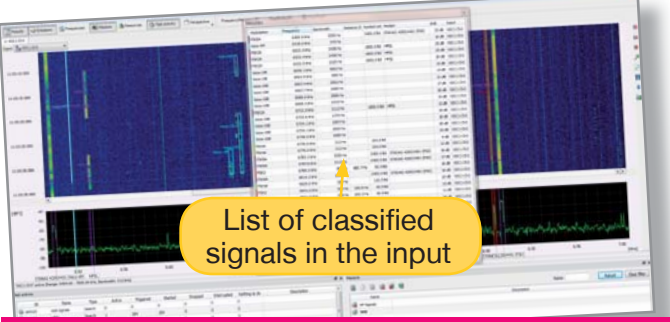
**Get senders' nominal frequency**

What's nominal frequency? Many signals are emitted with an offset between the nominal transmitter frequency and the signal center frequency. For example, if you look on a voice USB transmission, the (suppressed) transmitter frequency is 1234 kHz, but the signal starts at 1234.2 kHz with an offset of about 200 Hz. The same at HFDL transmissions, here an offset of 1.44 kHz is used. go2MONITOR offers the detection and measurement of the nominal frequency in the modem type recognition as well as in the classifier.

**Handle frequencies by name**

go2MONITOR provides the opportunity to control Matching frequencies by name makes it easy to identify already known emitters. Even lists of names using the same frequency range are mapped. Names can be set with the frequencies window and used as search or blocking frequencies.

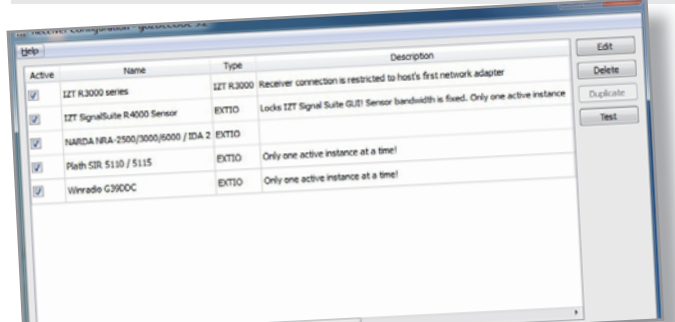
## Classifier improvements



**New modulation types and lots of improvements**

We added a new classifier for ASK2/4 modulation for the V/UHF frequency range. PACTOR-4 modulation detection was extended with additional modulation patterns and we improved the detection of OTH radar signals.

## Receiver Control

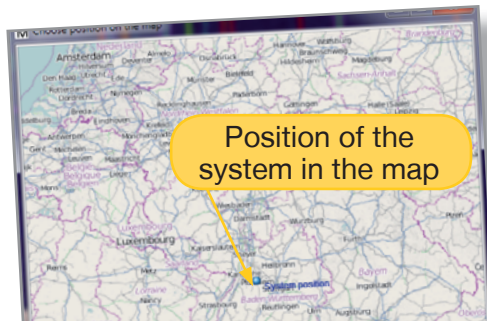


**Receiver configuration tool**

go2MONITOR (and go2DECODE) supports many different receivers/manufacturers with a universal receiver control module. To simplify receiver setup, we added an easy to handle receiver configuration tool.

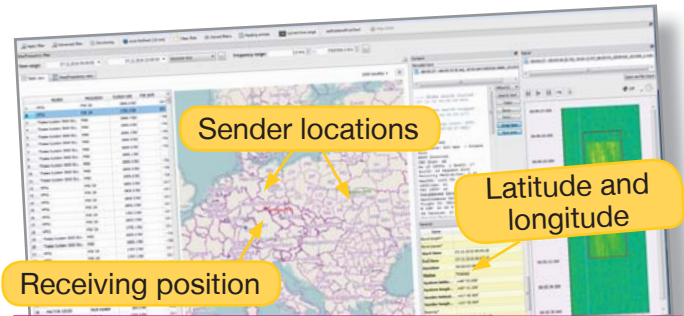
**New** in our list of supported receivers are the **IZT R4000** and **NARDA NRA-2500, NRA 3000, NRA 6000** and **IDA 2**.

## Processing of geolocation information



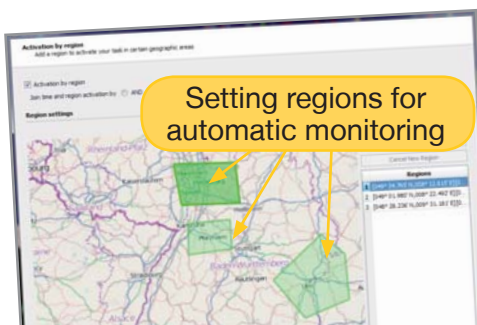
### Storing receiving position of results

We added new features to handle geolocation information. Every result in the database is combined with the systems position at the time, the signal was received. This is very important if you use the software on a mobile unit. The position can be set manually or automatically using an interface to a GPS module.



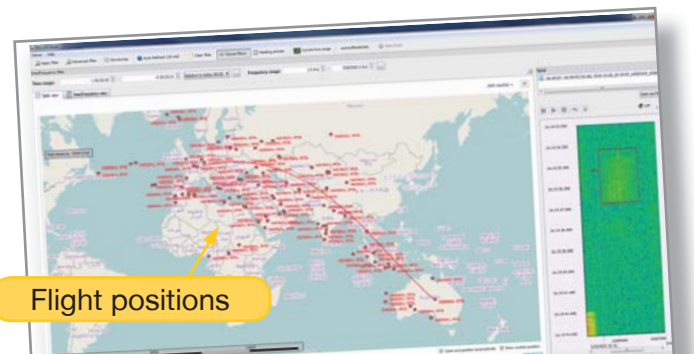
### Adding location information to a signal

Now you can use go2MONITOR in combination with a location system or a direction finder system. The signal location information - automatically received from a location system by using the python interface for a data-pull or manually set by the operator - is stored in combination with all other signal information and parameter.



### Automatic monitoring entering a region

Automatic monitoring can be started or stopped, entering or leaving a region (GPS based). Every monitoring task can be combined with a set of regions. Entering one of these regions, the monitoring task starts with automatic monitoring e.g. recording special modem.

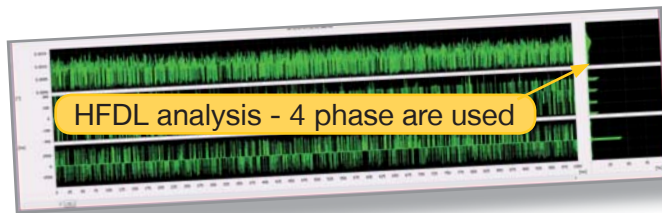


### Result postprocessing and filtering

go2MONITOR has many outstanding features for result postprocessing. For example position data from HFDL ACARS is used to show flight positions all over the world. With its integrated map results can be displayed and filtered for later export. Using python scripting, all postprocessing features can be adapted by the user for his needs.

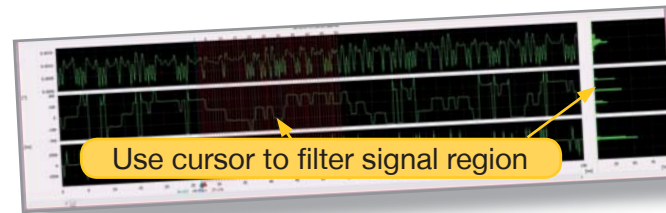


## New analysis features



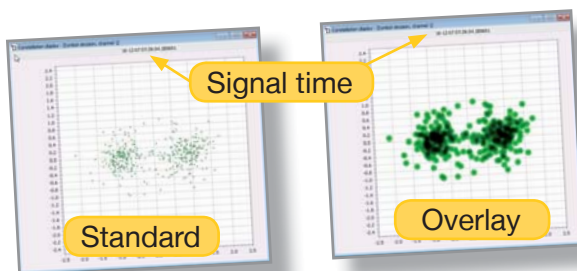
### Analysis display with additional histogram

We added a histogram to the analysis display (amplitude, phase and frequency). In the histogram you can detect easily if some values are more frequent represented than other ones.



### Harmonic cursor and histogram

Something special is the combination of the histogram and the harmonic cursor. Only values marked with the cursors are shown in the histogram.



### Constellation display with overlay function and absolute time

go2DECODE stores the time of every sample of a received signal. These timestamps should be added at the receiver to be as exact as possible and corrected with every signal processing step if there are changes (e.g. delays). Timestamps are used to stamp the exact receiving time of the signal in analysis, demodulation and decoding.

Overlay is a new way to display signals in the constellation display. It shows better results on very noisy or distorted signals. The graphic above shows the difference between a standard and overlay display.

## News on demodulators and decoders

### Additional modes

go2DECODE and go2MONITOR is delivered with more than 300 modems (incl. derivatives). This release contains 8 new modes of Contestia and CIS FSK 200/500. Please have a look on our decoder list to see the complete list. Important to know: With the integrated Decoder Development Language a customer can easily enhance the list of decoders on its own – that's outstanding in the market.

### Demodulator and decoder improvements

With go2DECODE you are one step ahead with new technologies and the changing signal world. See the list of our improvements:

- New, variable FSK asynchrony demodulation
- PACTOR FEC, no repetition in output
- MSK demodulation improved
- DMR voice decoding improved
- POCSAG non-standard decoding included
- CODAN chirp demodulator implemented
- ...



... monitoring a connected world



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