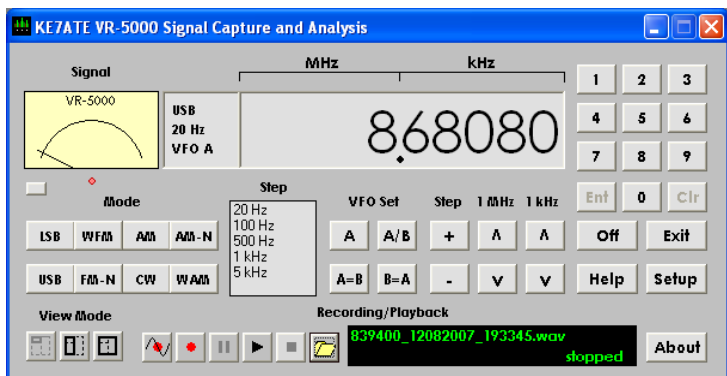# Introducing…VR-5000 Signal Capture and Analysis

Give Your VR-5000 Communications Receiver a New Face

### Experience a new way to use the VR-5000 communications receiver.

It's a new way to look at the VR-5000 receiver. In fact, it's a new way to USE the VR-5000 utilizing features that are only possible when being controlled by a PC computer. Scanning becomes more graphical and easy station logging makes using the VR-5000 more enjoyable and maybe even more fun to use. The visual aspects of this software make it unlike any other radio control software on the market. Actually see the station's signal strength and automatically log the received station as the software scans up or down the frequency spectrum. Record what you hear into .wav files. Use intermittent recording to capture two-way FM communications without the long pauses or band noise between transmissions. Oscilloscope and spectrum displays graphically relate the incoming audio to the listener.

Making a good thing even better.

This software enhances some of the already powerful features found in this wonderful radio receiver. Also, many of the features in this software were designed to remedy some of the user complaints found in many reviews of the VR-5000. The VR-5000 Signal Capture and Analysis software improves the listening experience and puts the most commonly needed listening tools into one useable package.

Memory management

Log frequencies on the fly and store them as manageable files in the computer. At the same time you are logging the station using this software, you are creating a 'bank' of stations that may be scanned or saved for later use. This type of logging is useful in all aspects of radio monitoring. Using the 'auto-population' feature can assist in searching a band for new stations and signals or revisiting a list of old favorites. The software package includes some starter lists to give users an idea of how to create their own text files with a standard text editor or simply using the software's interface.
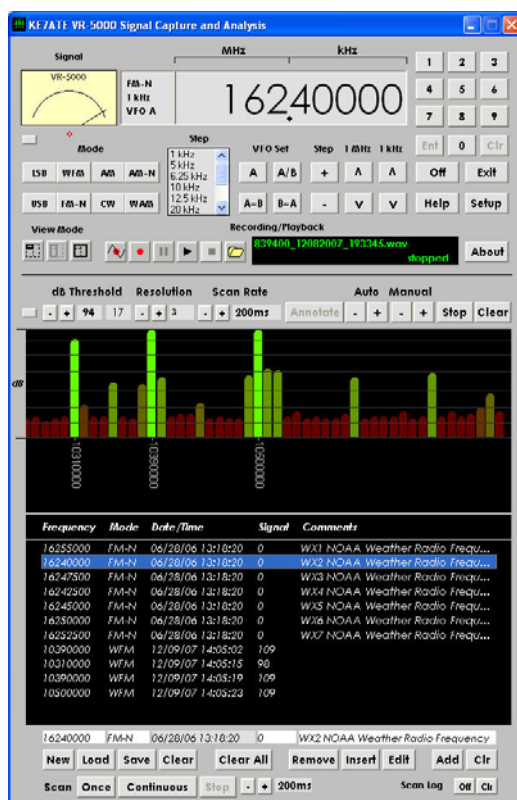

Three different viewing modes

Control, Control with Scan View and Full Window Viewing Modes
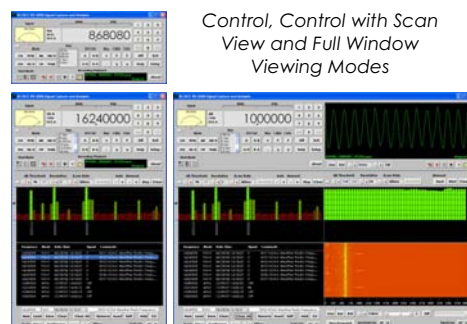
## It is the only software package designed specifically for the VR-5000.

Other receiver control software products are designed with generic controls and setups to control a general population of various radios. Using this development strategy spreads the capabilities of radio control software too thin, limiting the amount of control the user actually has over a radio. The VR-5000 Signal Capture and Analysis Software accesses nearly all of the features that may be controlled via the 9-pin serial port on the back of the VR-5000 and a user supplied 9-pin null modem cable.

Customize your start up settings using the visual controls in the Setup dialog box.
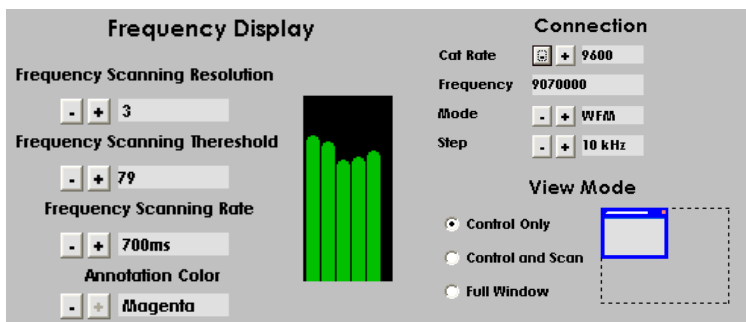
An easy to use graphical setup box allows the user to customize the many settings this software uses to enhance the VR-5000's capabilities. This provides a default starting point for all your listening activities.
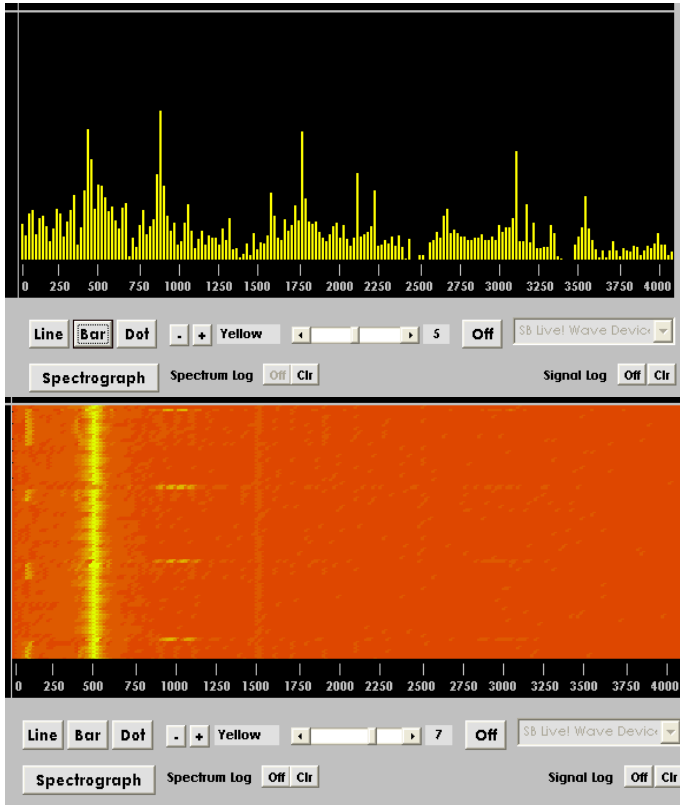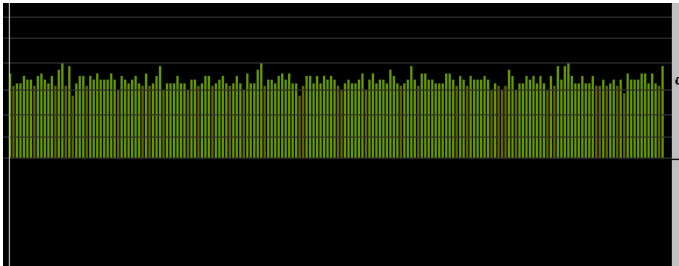
Scan, Log and Record…
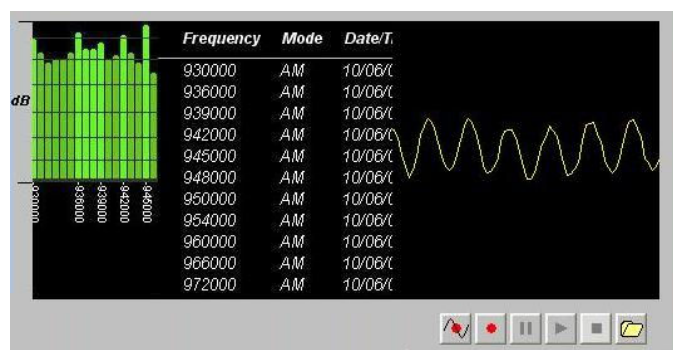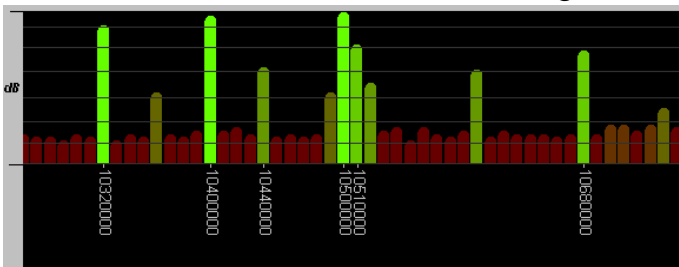
Audio Displays to Suit Your Listening Needs.

The Oscilloscope and Spectrum displays offer different configurations to assist in finding that difficult to hear station.

839400_12082007_193345.wav   *stopped*

Line | Dot | - | + | Green | - | + | 128

Line | Bar | Dot | - | + | Yellow | ← | → | 5 | Off | SB Live! Wave Device

Spectrograph | Spectrum Log | Off | Clr | Signal Log | Off | Clr

Line | Bar | Dot | - | + | Yellow | ← | → | 7 | Off | SB Live! Wave Device

Spectrograph | Spectrum Log | Off | Clr | Signal Log | Off | Clr

Signal display to 'see' the signal as it is graphed in real time.

Line | Bar | Dot | - | + | Yellow | ← | → | 3 | Off | SB Live! Wave Device

Spectrograph | Spectrum Log | Off | Clr | Signal Log | Off | Clr

Recording controls when you are in collapsed view mode is terrific for low screen resolutions.

Once you change the view mode to full window mode, the recording and playback controls are located underneath the oscilloscope display. Along with the normal continuous recording mode, this software has a special feature called 'intermittent recording' based on signal strength and may be set using the dB Threshold control. This feature is especially useful for VHF and UHF recording you normally must squelch to remove the static between transmissions, but are unfortunately left with large gaps between transmissions. Intermittent recording removes the gaps.

Recording/Playback

839400_12082007_193345.wav
stopped

Scan the airwaves using advanced and unique scanning features.

Frequency	Mode	Date/Time	Signal	Comments
10320000	WFM	12/09/07 14:42:50	98	
10400000	WFM	12/09/07 14:42:52	106	
10440000	WFM	12/09/07 14:42:53	65	
10500000	WFM	12/09/07 14:42:55	109	
10510000	WFM	12/09/07 14:42:55	82	
10680000	WFM	12/09/07 14:42:59	77	

The scan display reveal stations with strong signals and marks their frequency in real time. At the same time, the these stations are automatically logged in the browser display for further listening and closer examination. The browser display is scrollable using the mouse and the up/down keys on the keyboard and each logged frequency may be edited using the editing controls.
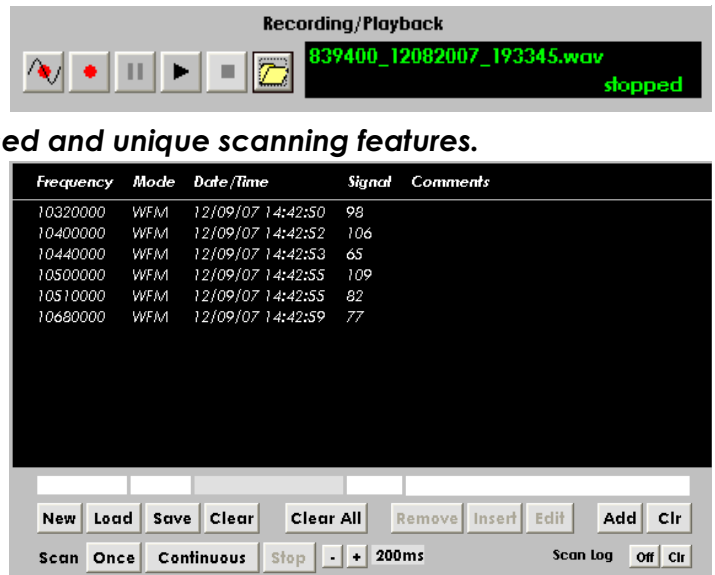
New | Load | Save | Clear | Clear All | Remove | Insert | Edit | Add | Clr

Scan | Once | Continuous | Stop | - | + | 200ms | Scan Log | Off | Clr

Real time displays and on the fly control of the scan rates, modes and much more.

Almost everything in this software may be controlled in real time and with the expanded settings window, you can create a default startup that suits your own monitoring style.

Signal Forensics

Specifications and Features

Version 1.2

System Requirements

Yaesu VR-5000 all mode communications receiver
Microsoft Windows XP Home or Windows XP Professional
Sound Blaster or Compatible sound card
1280x1024 screen resolution (expanded view mode)
800x600 (collapsed view mode only)
128 Megabytes of RAM
9-Pin serial port
9-Pin Null Modem Cable
USB Numerical Keypad (Optional)

General Features

Frequency scanning and browsing
Audio recording
Signal graphing
User defined startup settings (Expanded)
Adjustable view settings for various listening situations
Real-time capture of signal characteristics and audio information
Auto logging of scanning and received signals
Numeric keypad control of frequency entry, scanning and step increment/decrement
Calibrated displays
Real time control while scanning
Visual settings dialog box
Signal, scan and spectrum data logging capabilities

Control

Large frequency display with mode/step and VFO selection display
Two selectable S-Meter types
VFO A/B selection
+/- step frequency increment and decrement
+/- 1 MHz frequency increment and decrement
+/- 1 kHz frequency increment and decrement
Frequency entry via the keyboard
Frequency entry via an on screen keypad
Multi-button mode selection
Step selection via on screen list
Recording and playback controls

Scanning

Automatic and manual up/down scanning
Automatic and Manual date/time annotation of scanned signal
Adjustable signal threshold
Incremental display showing signal strength
22 scan rates
6 display resolutions
Manual increment
Calibrated display

Frequency Browser

Auto-population while scanning
Mouse selectable listings
User editing capabilities including the ability to add comments - listings stored as text files and may be edited
Can function as a radio log as well as bank storage
Continuous and single pass scanning
33 scan rates

Oscilloscope Display

Line or dot display settings
7 color settings
Zoom in/out of real-time audio
Continuous audio recording
Signal threshold recording (works well for intermittent FM communications)
Audio playback
Automatic Frequency/Date/Time stamping of audio recordings
Capability of changing the recording sample, bits per sec and stereo or mono

Signal Scan Display

Real-time graphing of received signal strength
Adjustable signal threshold
10 display resolutions
33 scanning rates
Automatic and manual date/time annotation
Manual increment
Calibrated display

Spectral Display

Line/Bar/Dot display settings
7 color settings
10 level input adjustment
Display on/off
Calibrated display
Spectrograph display
Spectrum Logging of incoming audio data

Audio Spectrograph Display

Calibrated display
Spectrum Logging of incoming audio data
Depth adjusted with input level control

Signal Forensics