Code3 Gold
The monitoring tool used by professionals

Software for DOS, Windows 95 and Windows 98 - last release avilable v 1.61

This has got to be the hottest VHF and Shortwave decoder to hit the streets. Over a year of hard development work over at our Netherlands HQ has resulted in this latest decoder product.

Code3 Gold uses the very best of software DSP filtering and detection technology (borrowed from our professional Code30) and the very latest surface mount miniaturized electronics for the hardware interface. The performance is stunning, the compactness remarkable and the price is simply unbelievable! (but still unanounced)

Stunning performance

Anyone used to using our professional package, Code30, will be amazed at how we managed to achieve such high performance from so little hardware. The method we use is identical that used with Code30.

Hoka Electronics is unique in the decoder market to put all the DSP software into PC compatible software code. This makes it much easier to fully interlace the DSP filters with the software signal detectors and system decoders making on-the-fly adjustments to the shift or baudspeed completely seamless to the decoding process.

From the initial analog to digital conversion using the latest SMD hardware, everything else from the roofing filter, the FSK detector, to the post detection filters are all done on your PC!

All optimised for every possible combination of keying speed and bandwidth. All of this filtering means your receiver does not need to have expensive additional narrow filters for RTTY.

Simply use your wideband SSB setting for Shortwave monitoring and AM or FM for VHF.

Versatile interface design

Regardless of whether you have a 9 way or 25 way serial port connector, the Code3 Gold interface is simply plugged in without any need for an adaptor.

Cleverly constructed from a fully RFI/EMI screened standard 9 way to 25 way adaptor case, both 9 and 25 pin plugs are connected internally and therefore available for use.

All 4 COM ports, 1 to 4, are all supported.

AD Micro LF5

No power supply needed
All of the interface's modest power requirements are supplied from the PC using the serial port itself. In fact, there is more than enough power available - even when using a laptop.

No Copy Protection!
That's, right! No copy protection. For the first time ever for Hoka Electronics we offer our Code3 software without any software copy protection at all. You can install the software on as many PC's as you like. The interface now includes its own special hardware security dongle making the usage of our software much more flexible and straightforward.

Automatic analysis and detection for shortwave systems
After the press of just one key [F1], Code3 Gold really starts pulling its weight. After bringing up a simplified spectrum analyzer screen showing the system's shift and baud speed, all you have to do next is press the [enter] key. Code3 Gold does the rest for you.
If it is a system installed in your version of Code3 Gold, it will immediately jump to that decoding module and lock into the system. If the system you are listening to is not supplied with your software, it will simply tell you the system name.
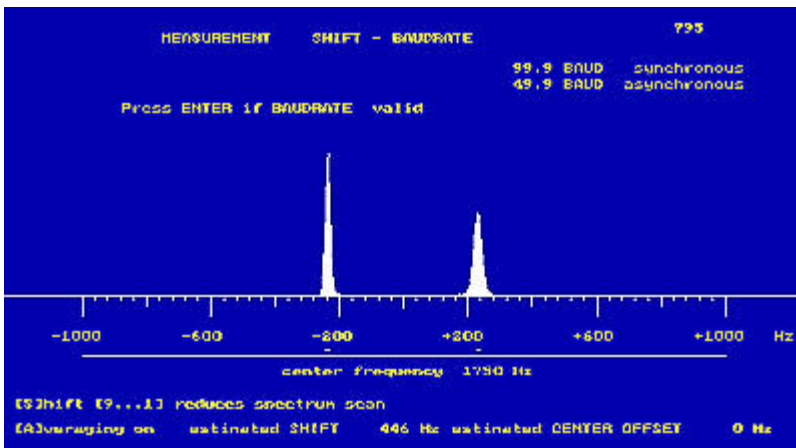
Shif Speed Measurement
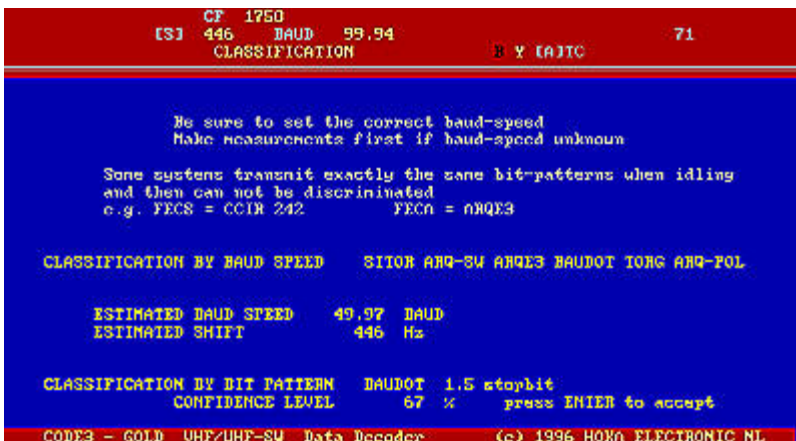
Auto-Classification

System classified by Bit Analysis and Baud speed:
SITOR A in 'ISS', SITOR A in 'IRS', SITOR B FEC, CCIR 242 a 2 Ch. (ARQ-M2-242), CCIR 242 a 4 Ch. (ARQ-M4-242), CCIR 342 a 1 Ch. (ARQ- E3), CCIR 342 a 2 Ch.(ARQ-M2), CCIR 342 a 4 Ch. (ARQ-M4), ARQ-E, ARQ-E3, FEC-A, FEC-S, ARQ6-70, ARQ6-90, ARQ6-98, POL-ARQ, SWED-ARQ, TOR-G 10, TOR-G 11, ARQ-S-4, ARQ-S-5, ARQ-S-6, BAUDOT con 1, 1.5 o 2 bit di Stop.

Systems classified by Baud speed:
COQUELET MK1, PICCOLO MK6, Crowd 36, 81-81, SOVIET 84, ROU-FEC, NATO 75, AUTOSPEC, ARTRAC, ARS-GUARD e RS-ARQ.

You may not be able to lock into the signal and decode it, but at least you know what system it is! How many commercial decoders do as much as that?

PC Requirements
Any modern IBM PC clone with a 386DX40 (or better) processor although a 486 is highly recommended. MSDOS v3.2 or later, with at least 640k free DOS memory and a spare serial port (COM's 1 to 4 supported). Both VGA and SVGA up to 1024x768 (ET4000) are supported with up to 256 grey scales. Code3 Gold only needs 2MByte of free disk space!
For those who MUST run Windows, Code3 Gold will happily run in Windows 95 in DOS box and full screen. The only down side is that you need the power of a Pentium to be able do it successfully!

DOS
Minimum
386DX40. 1MB DRAM. Standard VGA Card. MSDOS v3.2. COM's 1, 2, 3 & 4 supported (with any type of UART). 2MB free Hard Disk Space.
Recommended
486DX66. 1MB DRAM. MSDOS v3.2. SVGA (Tseng ET 4000 chipset based For SSTV). COM's 1, 2, 3 & 4 supported (with any type of UART). 2MB free Hard Disk Space.

Windows 3.1x
Minimum
486DX66. 4MB DRAM. Standard VGA Card. COM's 1, 2, 3 & 4 supported (with 16550 FIFO UART). 2MB free Hard Disk Space.
Recommended
100MHz Pentium. 4MB DRAM. SVGA (Tseng ET 4000 chipset based For SSTV). COM's 1, 2, 3 & 4 supported (with 16550 FIFO UART). 2MB free Hard Disk Space.

Windows 95 (early version)
Not recommended at all. Best run from a DOS StartUp.

Windows 95 (latest OSR2 / OEM version)
Minimum
133MHz Pentium. 8MB DRAM. Standard VGA Card. COM's 1, 2, 3 & 4 supported (with 16550 FIFO UART). 2MB free Hard Disk Space.
Recommended
200MHz Pentium. 16MB DRAM. SVGA (Tseng ET 4000 chipset based For SSTV). COM's 1, 2, 3 & 4 supported (with 16550 FIFO UART). 2MB free Hard Disk Space.

Windows 98
Minimum
133MHz Pentium. 8MB DRAM. Standard VGA Card. COM's 1, 2, 3 & 4 supported (with 16550 FIFO UART). 2MB free Hard Disk Space.
Recommended
200MHz Pentium. 16MB DRAM. SVGA (Tseng ET 4000 chipset based For SSTV). COM's 1, 2, 3 & 4 supported (with 16550 FIFO UART). 2MB free Hard Disk Space.

Basic Version

HF Systems

- Baudot
- ASCII
- Morse CW
- Sitor A/B with autodetect Mode A and B Sitor A Sitor B
- Pactor 1-4 HAM ICRC UN Mil
- Packet Radio AX 25 HF 300 Baud e VHF/UHF 1200 Baud
- Hellschreiber
- Facsimile AM/FM
- SSTV Martin mode Slow Scan TeleVision Martin 1
- ACARS VHF Aircraft Communications Addressing and Reporting System
- Annex 10 sistema Selcall Aeronautici in HF
- GMDSS (DSC) Global Marittime Distress Safety System FEC CCIR 476
- Baudot (wx decoder) Meto SYNOP AAXX and BBXX decoder

VHF / UHF Systems

- Pocsag Pager 512 1200 2400 Baud
- DTMF Decoder
- BOS-FMS 1200 Baud
- ATIS 1200 Baud
- ERMES Pager
- ZVEI 2 selcall 5 tone
- CTCSS sub-tone

Alphabets

- International ITA 2
- US MIL
- National Scandinavian
- GREEK 3 Shift
- M19 Cyrillic
- M19 Latin
- M2 3 Shift Cyrillic
- M2 3 Shift Latin
- Amateur Upper/Lower

ACARS

For VHF Scanner enthusiasts, one of the most annoying features of modern life is the recent introduction of data to many VHF frequencies. Aircraft followers have enjoyed listening to aircraft giving their positional reports and allowing listeners on the ground to plot the pilot's flying route from the comfort of their armchair. But a new threat has arrived in the form of ACARS. This 2400 bps data system has been around for some years but only recently has it really increased in popularity with airline companies. Air traffic control centres no longer need to speak by voice to pilots. The pilots can communicate directly with the ATC computers thus alleviating the radio congestion of the normal ATC frequencies. Code3 Gold allows you to regain the edge. Watch the pilots send positional data about their aircraft, see engineers' reports on aircraft engine performance, fuel levels, oil pressures, special passenger requirements (such as wheel chairs or VIP treatment) and lots more.

POCSAG

By far the most popular paging system here and in in Europe. Watch the messages being sent to bleepers, read the messages. Open your eyes to the fascinating world of numeric and alphanumeric pagers.

DTMF

Anyone with a modern telephone has heard this system. Used on many VHF channels to dial numbers, access voicemail or remotely control answerphones. PLUS, If you've heard these tones on HF Aircraft bands, you'll now be able to decode their 'selcal' systems used by transoceanic flights.

PACKET

Amateur radio operators use this system to interconnect computers on VHF and UHF. 300 bps is used on shortwave, 1200 bps on VHF/UHF.

BAUDOT

This is used all over the world by Russian Maritime fleets, Military, Press, Diplomatic and Utility stations. All baud speeds and shifts.

ASCII

Mainly used by amateurs, but some Diplomatic and Utility usage.

SITOR

The mode used by ships for sending telegrams and telex calls on shortwave. Also used by Coast stations to send maritime navigational safety messages (NAVTEX), Diplomatic and Utility stations.

PACTOR

100/200bps packet like data system mainly used by amateurs but also by the Swiss Red Cross and United Nations for their links into the world's trouble spots.

FAX

Used by meteorological stations to send weather charts and satellite pictures. On VHF polar orbiting and some geostationary satellites (e.g. Meteosat) use a special 2400Hz modulated tone system. This special "AM" mode is also fully supported by Code3 Gold.

SSTV

Code3 Gold supports Martin 1 in full colour if you have a video card that is based on the Tseng ET4000 chipset.

Standard Version

Optional systems If you want to really catch ALL the action on shortwave, you need the "Standard Version". Watch Diplomatic stations, Customs, Police, Military, decode weather stations sending 5 figure groups and many more unusual stations. This adds nearly every decodeable system there is to find on shortwave.

HF Systems

- Baudot
- ASCII ITA5, 45 - 600 Baud
- Morse CW
- Sitor Auto A/B Sitor with autodetection Mode A and Mode B
- Pactor variant HAM, ICRC, UN, IFRC, Mode [5]
- Packet Radio AX 25 HF 300 Baud e VHF/UHF 1200 Baud
- Hellscreiber
- Facsimile AM/FM
- SSTV Martin mode Slow Scan TeleVision Martin 1
- Annex 10 HF Aereo Selcall
- AUTOSPEC FEC system 68.5 Baud e 137 Baud Bauer

- SPREAD 11, 21, 51
- ARQ 6 70 CCIR 476 Variant, ARQ Simplex aphabet ITA3
- ARQ 6 90 / ARQ 6 98 CCIR 476 Variant, ARQ Simplex alphabet CCIR 476
- ARQ E
- ARQ N
- ARQ E3 CCIR 519
- ARQ S / ARQ 1000 S
- ARQ SWE Simplex ARQ with 3 9 22 char. alphabet CCIR476
- ARQ POL
- DUP ARQ Artrac Semi-Duplex ARQ alphabet ITA2
- ARQ CCIR 625 A
- HC ARQ Simplex ARQ alphabet ITA2
- TOR G10/11 Cis System Duplex ITA2 alphabet with additional bit
- GTOR GOLAY system with error correction FEC
- GMDSS (DSC) Global Marittime Distress Safety System, FEC CCIR 476
- Baudot (wx decoder) Meteo decoder for SYNOP AAXX and BBXX
- Baudot F7B Baudot ITA2 F7b two channels
- TWINPLEX Simplex ARQ F7b1 - F7b6 alphabet CCIR 476
- FEC CCIR 625 B
- FEC A / FEC 100
- FEC S / FEC 1000 S
- HNG FEC Ungarian FEC system
- ROU FEC Roumenian FEC system with bit inversion
- PICCOLO MK VI MFSK 6 tones
- COQUELET 8 MFSK 8 tones
- COQUELET 13 MFSK 13 tones
- TDM ARQ 342 Duplex TDM 342, 1 Ch, 2 Ch., 4 Ch.
- TDM ARQ 242 Duplex TDM 242, 1 Ch, 2 Ch., 4 Ch.
- DCF 77 Time Signal

VHF / UHF Systems

- ACARS VHF Aircraft Communications Addressing and Reporting System
- Pocsag Pager 512 1200 2400 Baud
- DTMF Decoder
- BOS-FMS 1200 Baud
- ATIS 1200 Baud
- ERMES Pager
- ZVEI 2 selcall 5 tones
- CTCSS sub-tones
- FLEX Pager

Alphabet available

- International ITA 2
- US MIL
- National Scandinavian
- GREEK 3 Shift
- M19 Cyrillic
- M19 Latin
- M2 3 Shift Cyrillic
- M2 3 Shift Latin
- Amateur Upper/Lower

FAQ

Who use all these strange systems on shortwave?
Besides the usage of simple systems, such as SITOR and RTTY the Australian, Dutch, Danish, Norwegian, Spanish and Pakistani Diplomatic services also use Twinplex. The French Diplomatic also use ARQ6-70, ARQ6-90 and ARQ6-98, the Italian and Polish Diplomatic services also use POL-ARQ, the Algerian Diplomatic Corps use Coquelet and the Rumanian Diplomatic Corps use ROU-FEC and Autospec. Interested in the military action going on in the world's trouble spots? Then without Code 3 Gold, you're still missing out! The Swiss Red Cross and UN Peace keeping Forces use non-standard, modified PACTOR units which unlike the normal Amateur PACTOR TNC units, Code3 Gold has no problems in decoding. Belgian UN Forces are using Coquelet13. Only one or two of the above systems are available on hardware only units - just think of all the action you are potentially missing!

But all military RTTY is encrypted
No! It is not ALL encrypted. This is the biggest misconception. If you're dedicated to monitoring these systems, then you will quickly realise some of the best catches are to be found on these 'stranger' systems. Find out what is happening in the world long before the National news service do!

So what can Code3 Gold NOT do! ?
Despite the much wider number of systems decodeable with Code3 Gold, there are obviously some systems that are designed so that even with the right decryption equipment it is undecodeable without the right "key". Also for deeper Bit Analysis and a wider range of demodulators you'll need our even more powerful unit that Code3 Gold Professional or Code30-A. For more details see the decoder compare table.

What about after sales service ?
Anytime up to 1 year after purchase you can request a free update to the latest version of the software. The Guarantee lasts a full year too, and this applies to both the disc becoming damaged or the hardware failing in some way.

If, at a later stage, you want to upgrade to our Code30-A product we can even give you a very attractive upgrade offer that means your money has been well invested.