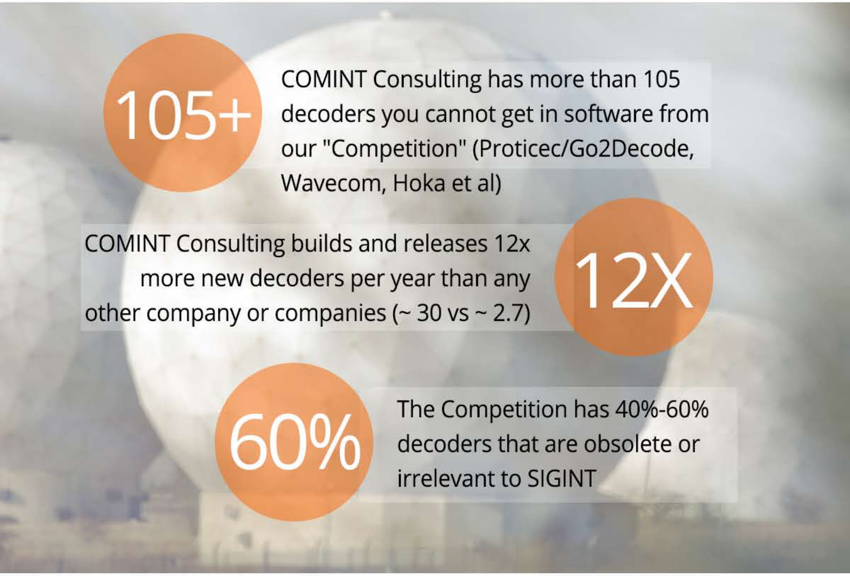
DECODER COMPARISON



105+

COMINT Consulting has more than 105 decoders you cannot get in software from our "Competition" (Proticec/Go2Decode, Wavecom, Hoka et al)

12X

COMINT Consulting builds and releases 12x more new decoders per year than any other company or companies (~ 30 vs ~ 2.7)

60%

The Competition has 40%-60% decoders that are obsolete or irrelevant to SIGINT

100%

All COMINT Consulting decoders are 100% relevant, current, and work against target modems still in use today. For example, Go2Decode currently (2017) offers 48 obsolete decoders and 20

20+

There are more than 10 specific decoders where COMINT Consulting has more complete solutions (i.e. – all waveforms are demodulated and decoded as well as decoding many more variants). The “Competition” is incomplete decoders.

often missing 2 or more waveforms of multi-waveform modems.

COMINT CONSULTING...

- has 4,000+ precision, real-time HF classifiers ("Competition": ~ 23 coarse recognizers)
- has cryptographic parsers (KG84, Citadel I/II, Azimut, etc)
- has control modules for more than 310 hardware devices (SDR, DF, receivers, capture cards, recorders and digitizers)
- has built-in cryptanalytic and collection tools
- has decryption tools (not public; only available to partner companies)
- offers parallel decoding (10x instances of Krypto500 run per key)
- does NOT require a soundcard

supports a half-dozen industry-leading file formats

supports numerous Allied Intelligence Community protocols and interfaces and is VITA-49 compliant, XMidas / MidasBlue compatible

does not charge 400 Euros for email support as does Wavecom

does not charge for bug fixes

offers free updates for 12 months

offers custom and proprietary decoder development

has nearly 500 radio fingerprinters ("Competition": zero)

has new and completely-unique visual parsers for exploitation of proforma data

can be embedded in hardware devices and run on Virtual Machines (VM)

OBSOLETE NON-TARGET AMATEUR MODES

Though COMINT Consulting does not produce demodulator-decoder-parser chains for these modes, they are ALL properly and accurately classified by its classifiers.

COMINT Consulting and its customer base have no interest in modes not used by SIGINT targets (such as radio amateur modes or modes used by innocuous agencies or those of no interest to SIGINT systems). COMINT Consulting does not deploy solutions to modes off-air for many years.

Obsolete HF modes offered by “Competition”:

- ALE-400
- ALF-RDS
- ARQ6-90
- ARQ6-98
- ARQ-M2-242
- SP-14
- SI-FEC/FEC-S
- ARQ-M4-342
- ARQ-N
- AUTOSPEC
- BULG-ASCII
- DCS SELCALL
- FEC-A
- Alcatel 801H
- BULG-ASCII
- HC-ARQ
- HNG-FEC
- FIRE / MS5
- PICCOLO
- AMOR / AMOR-96
- RUM-FEC
- TWINPLEX
- POL-ARQ
- PRESS-FAX
- ARTRAC / DUP-ARQ
- SI-ARQ
- SI-AUTO
- ARQ-M4-342 / TDM 342
- SPREAD-11/-21/-51
- SI-FEC / FEC-S / SI-AUTO
- FEC-12 / VISEL / YUG-20
- ARQ-SWE / SWED-ARQ
- FEC-100 / FEC-101 / FEC-A
- ARQ-M4-242 / TDM 242
- Arq-28 / Arq-58
- ROU-FEC / RUM-FEC / SAUD-FEC
- PICCOLO 6 / PICCOLO Mk 6 / PICCOLO Mk 12
- COQUELET-8 / COQUELET-13 / COQUELET Mk 1 / COQUELET Mk 2 / COQUELET-80 / COQUELET-100 / COQUELET-8 FEC

Incomplete Modes (Mode name and Explanation):

AK10 (aka AK10 FEC 101)

Incorrect name. A variant of CCIR476, whose solution was deployed 8 years ago by COMINT Consulting, some of whose competitors added a solution in 2016. Again, SIGINT software is kept current - radio hobby/monitoring software is not, even if you put the label 'Professional' on it - you can't hide inaccuracy, obsolescence or incompleteness.

ALIS, ALIS-2

COMINT Consulting offers solutions to the six variants of ALIS (v10, v30, v40, v50H, v50A+H and ALIS-2000). These are variations in addressing, capability like hopping, adaptiveness, or in the case of v30, unique to a particular R&S customer. COMINT Consulting customers demand this very important difference – and NO other software offers this.

AQUARIUS 200 (aka ACQUARIUS 200)

Correct name Artek-1HF. There are two users and two variants of the modem incorporated in this transceiver system, one of which is simple, unecrypted FSK radioteletype. Listing it as a unique modem is false and misleading, just as using a made-up name is unhelpful and shows you our Competition does not have insight into the actual target systems. Furether, even the unencrypted version of this system has a second waveform, absent from our competitors' software offerings.

COMINT Consulting handles BOTH variant waveforms and traffic types used by the military and intelligence services that use this transmission method. Know the difference - SIGINT software is by necessity more complete, accurate and current than radio hobby / monitoring software.

AUM-13, NUM-13

COMINT Consulting offers solutions to this as well as its two follow-on variants. Also, AUM-13 (incorrect name) has fallen into disuse in recent years.

BR6028

More correctly and more commonly used is BR6029C. COMINT Consulting has, but does not deploy a solution since the only remaining on-air user is NATO/Allied.

G-TOR

COMINT Consulting offers a solution that includes decoder/parser chains for two known variants of this system; though the two variants are now largely in disuse in Asia and S. America.

CHN 4+4

COMINT Consulting offers a solution to both variations of this modem and are unique in this.

CIS-11, CIS-14, CIS-36, CIS 36-50, CIS 50-50

COMINT Consulting offers full and correct automatic classification and demodulation to all of the actual and current modems. The correct names are T-206, T-206 MT, T-206 2MT, T-206 3M, T-206 3M1, T-207, T-208, T-222, T-226, T-310, T-310/50, T-310/51, T-352/353 – and automatically detect the various variants (Army, AF, PVO, FSB, MVD, Railway Forces, etc) , and T-600 (both Naval and VGK versions). For example, CIS-11 decoder offered by The Competition handles only one of two on-air variants. COMINT Consulting handles both, automatically, and uses the correct modem name (T-310/50 Adria).

CIS-12 (aka MS5, FIRE, PSK12, etc.)

The correct name is AT-3004D - it is about 30 years old, and has two waveforms (BPSK and QPSK). It used to contain what was referenced as MS5 as one of many inputs, but has not for decades. MS5 = Maskirovka5 = T-230-1A vocoder - no longer in service...it has been replaced by something else. So, “the competition” (et al) decoders demodulate and decode a vocoder no longer in use. The current situation: the modem is used by 5 users and has 13 possible inputs...no one except COMINT Consulting processes them all.

Worse, the AT-3004D has been replaced by some users with a newer modem called the AT- 3104D. It has 4 waveforms and again, COMINT Consulting is the only company with a complete solution to all waveforms and inputs.

Since the Ukraine incursion, yet another new modem, called Efir-HV, has come to the forefront - it has 4 waveforms, and again, COMINT Consulting is the only company with a complete solution to all waveforms and inputs.

More recently (2015), the Russian military has begun experimenting with a replacement to the Efir-HV modem that uses several burst BPSK waveforms. COMINT Consulting suspects there are 4 waveforms in it, but are aware of only three so far. COMINT Consulting has a solution for all three of them...again, COMINT Consulting is the only company with a complete, current and released solution to all of the above.

Codan Selcall

Actually the correct name is CCIR493-4. The COMINT Consulting version of the CCIR493-4 Selcall decoder automatically and correctly decodes all 6 submodes and 12 variants of this calling system made by various OEMs (Datron, Codan, Barrett, etc).

DGPS

COMINT Consulting handles several variants of DGPS used by targets for military purposes that vary from the standard.

GW-FSK, GW-PSK, GW-OFDM

Correct name GL-5100 modem. Being replaced by a pseudo-random 11FSK modem made in Israel.

MFSK-16

COMINT Consulting does not offer a solution to the amateur mode, but does offer a solution to the two variants used by a SIGINT target.

PACTORs

COMINT Consulting offers many more unique CRC and other variant (Kantronics, etc) solutions to military targets on-air - several dozen more! Krypt0500 v1.258, for example contains over 30 more Pactor variant solutions than ANY competitor.
Unlike our "The Competition", Krypto500 AUTOMATICALLY handles several variants of Pactor used throughout the world, namely these:

SCS Pactor
Schuemperlin Pactor (aka Swisscom Pactor)
DSP-QUIC
DSP-QUIC-II
Datron DT5200 X-Tor
Datron DT5300 X-Tor
Datron DT5300 X-Tor Maritime
Kantronics Packet
Over 20 Proprietary Pactor customer variants

All of the above are decoded automatically in the Pactor modules contained in Krypto500. This includes decoders for Pactor Selcalls, markers and availability signaling (aka Pactor-Free) as well as all data waveforms - many of which are also not a complete part of our competitors' decoders.

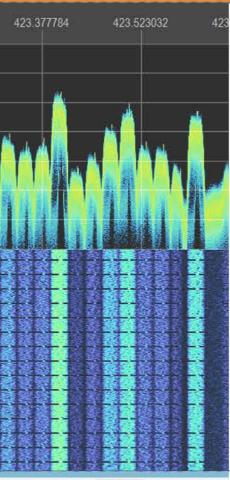
Additionally, the Pactor decoder modules produced by COMINT Consulting also automatically some 20+ more proprietary variants used in Europe, Asia, S. Asia and S. America. As Krypto500 is SIGINT software, there is also a special, built-in tool to allow users to extract content from ANY proprietary version using complex CRC and/or XOR Swap Algorithms. - on the fly, in real-time, when the entity is first encountered!

Globe Wireless GL-5100 FSK and PSK waveforms, are partially based on Pactor, but referred to incorrectly by hobby companies and competitors as GW-Pactor.

RFSM (Radio Frequency Software Modem)

Made by the Russian IDE Group and in use by several diverse, military and non-military entities in Europe, Asia and S. America. The modem contains derivations of the waveforms found in Mil-Std 188-110A and Mil-Std 188-110B standards - as well as - several unique waveforms and data rates up to 8000 bps using PSK and QAM modulations. Further, there are proprietary waveforms and a proprietary, unique masking (encryption) system built in to this modem.

COMINT Consulting is unique in offering a complete decoder for ALL of the waveforms contained in RFSM, standard and proprietary AND a real-time, automatic solution to the masking system.



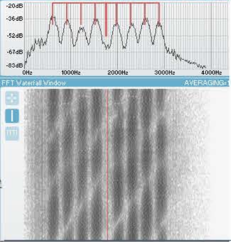
Complete HF FSK modem solutions (all waveforms) unique to COMINT Consulting:

Akula
Artek-0.5
Artek-1HF
Artek-OTAR
Bozon-2M
Chayka
Cosmos
ICS v4
IVSU
Kan X.25
KL-43
M150
MIR
MSTC x.25
PBO-PAGE
Rockwell URG-III
Selex HF AIS
Selex H700 FSK ARQ
Siemens CHP-200
T-206
T-206 MT
T-206 2MT
T-206 3M
T-206 3M1
T-222
T-310
T-310/50
T-310/51
T-325/353
SSTV
XMP-A
XMP-B
T-207
Racal MEROD (MA-4420 & MA-4450)
GRU448
R-785 OTAR
GRU-448

1000Hz
2000Hz
FFT RATE
199. 82 Bd
PLL RATE
199. 77 Bd
AFC TYPE
QPSK+
Phase plane
I/Q - Scope
ACF Analyzer
0.25x
0.5x
1x
2x
5x
Zoom Y
0.1x

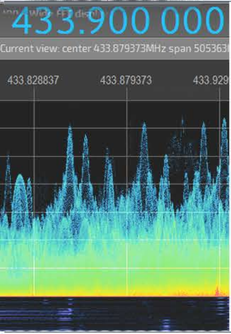
Complete HF MFSK modem solutions (all waveforms) unique to COMINT Consulting:

CIS MFSK16 v1
CIS MFSK16 v2
CIS MFSK20
MAFF
Serdolik Carnelian Sarah
TE-204
TEAC KV-7
TEAC KV-8
TEAC KV-11
TEAC KV-11W
TEAC KV-11v2
CIS MFSK v1 / v2



Complete HF PSK and QAM modem solutions (all waveforms) unique to us:

Akula-II
DBPSK Burst
DBPSK 125/250
AT-3004D
PIRS PEARCE
GRU-448
AT-3104D
RFSM Chat
Efir-HV
RFSM



Complete HF Calling modem solutions (all waveforms) unique to COMINT Consulting:

ACS-C
ALIS v50H
AN/PRC-525
Pactor-I Selcall
Necode 322ARX
Alcatel 510 DART ALE
ALIS v10
ALISv50A+H
Bikini
GJB2077-94 2G
Harris ANW2 3G ALE
ALIS v30
ALIS-2000
ChirpCall
Harris RF-3560
Selex Elsag HF2000 ALE
ALIS v40
AN/PRC-138
Datron S3
Necode 321 ARX
Siemens CHP-200

FOR MORE INORMATION VISIT US AT
WWW.COMINTCONSULTING.COM

COMINT consulting