Contest Logging Software

John Miller, K6MM

Contest Academy • IDXC • Visalia, CA
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What is Contest Logging Software?

- Specialized computer software for use by competitors in amateur radio contesting.
- Most contest loggers are written by individual or groups of programmers who are active radio contesters.
- The primary purpose of these applications are to record the two-way radio contacts and specific exchange information passed during the contest operation.

Contesting: Why Bother?

- Sharpen your operating skills
- Get the most out of your equipment
- Compete against your peers
- Support your local Contesting Club
- Prepare for WRTC 2014
- Become part of the contesting community
- Prepare for a DXpedition
- Have more fun with the hobby

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Logging QSOs: Paper or Logging Program?

Manual

Log QSOs Manually On Paper

Snail Mail To Contest Sponsor

Convert To Spreadsheet

eMail To Contest Sponsor

Log QSOs

Computer

Auto Log QSOs Contest Logging Program

Generate Contest Log "Cabrillo" File

eMail To Contest Sponsor

Which Contest Logger Is Best For You?

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Most Popular Contest Loggers

- N3FJP Logger
- TR4W (TR Log For Windows)
- N1MM Logger
- WriteLog
- Win-Test
- DXLOG.net
- Skookumlogger (Mac OSX)

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	Contest Logger Comparisons	DXLOG.net (9A5K)	N1MM (N1MM)	N3FJP (N3FJP)	TR4W (UA4WLI)	Win-Test (F5MZN)	WriteLog (W5XD)
1	Audio Recording						
2	Bandmap						
3	Check Callsign - Partial						
4	Check Callsign - N+1 Search						
5	Check Multipliers						
6	Contest Support - Number Supported	190	>200	70	150	100	112
7	CQ / S&P Modes						
8	Current Version	2.0.25	14.03.01	Varies by Contest	4.248	4.0	11.19
9	Current Version Date	26-Mar-2014	18-Mar-2014	Varies by Contest	12-Apr-2013	07-Jul-2009	12-Mar-2014
10	CW Keyboard Mode						
11	CW Decoder						
12	Digital Voice Support						
13	Documentation	Online	Online	Very Basic	Fragmented	Online	Fragmented
14	Dual/Multiple Monitor Support						
15	Dupe Sheet - Visible						
16	DX Cluster Support						
17	ESM = Enter Send Message Mode						
18	Continuous Improvement-Customer Support				no longer supported		
19	External Keyer Support						
20	Free Demo / Full version	n/a	n/a	30-Day	n/a	15-Day	
21	Grayline Display (Real-Time)						
22	Graphical User Interface (GUI)	Very Flexible	Very Flexible	Basic	Very Flexible	Very Flexible	Very Flexible
23	Import-Export (Cabrillo, ADIF)						
24	Instructional Video						
25	Keyboard Shortcuts						
26	Live Score Support (cqcontest.net, getscores)						
27	Macros - Programmable Messages						
28	Multi-User Support						
29	Multipliers Window						
30	Networking Support	Extensive	Extensive	Basic	Extensive	Extensive	Extensive
31	Post-Contest Statistics						
32	Price	Free	Free	$9.00 per contest or $50 for All	Free	$70	$30
33	Rate Calculations (Real-Time)						
34	Resizable and Floating Windows						
35	Rig Control						
36	Rotator Control						
37	RTTY Support	MMTTY	MMTTY		MMTTY	MMTTY	Rttyrite
38	SO2R Support	Advanced	Advanced	Basic	Advanced	Advanced	Advanced
39	Soundcard DVK Support						
40	Telnet-Packet Support						
41	User Group + Email Support						
42	WinKeyer Support						

Which Contest Logger Is Best For You?

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N3FJP Logger

by Scott Davis

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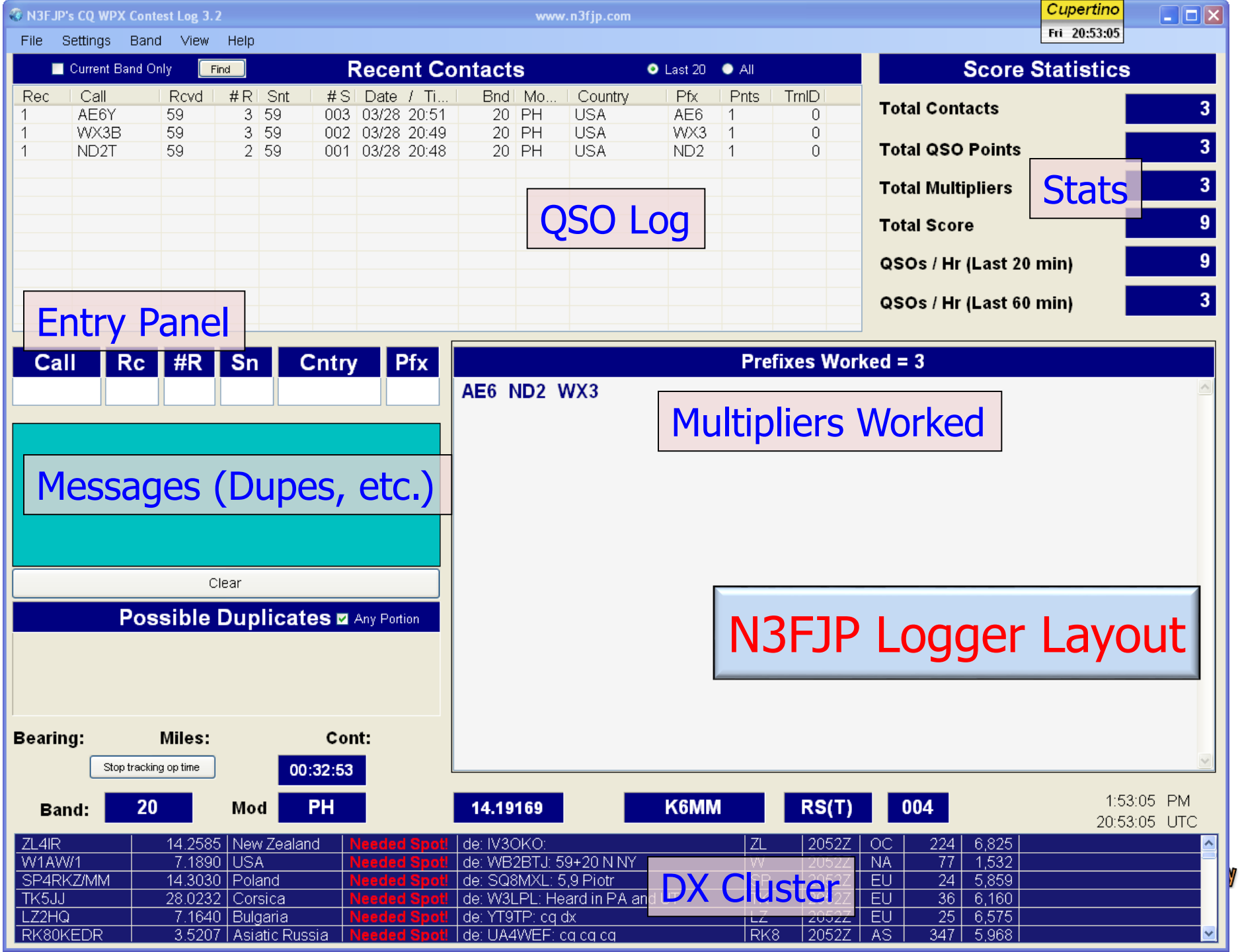
N3FJP's CQ WPX Contest Log 3.2
www.n3fjp.com
Cupertino
Fri 20:53:05
File Settings Band View Help
Current Band Only
Find
Recent Contacts
Last 20
All
Rec Call Rcvd # R Snt # S Date / Ti... Bnd Mo... Country Pfx Pnts TrnID
1 AE6Y 59 3 59 003 03/28 20:51 20 PH USA AE6 1 0
1 WX3B 59 3 59 002 03/28 20:49 20 PH USA WX3 1 0
1 ND2T 59 2 59 001 03/28 20:48 20 PH USA ND2 1 0
QSO Log
Score Statistics
Total Contacts 3
Total QSO Points 3
Total Multipliers 3
Total Score 9
QSOs / Hr (Last 20 min) 9
QSOs / Hr (Last 60 min) 3
Stats
Entry Panel
Call Rc #R Sn Cntry Pfx
Prefixes Worked = 3
AE6 ND2 WX3
Multipliers Worked
Messages (Dupes, etc.)
Clear
Possible Duplicates
Any Portion
N3FJP Logger Layout
Bearing: Miles: Cont:
Stop tracking op time
00:32:53
Band: 20 Mod PH 14.19169 K6MM RS(T) 004
1:53:05 PM
20:53:05 UTC
ZL4IR 14.2585 New Zealand Needed Spot! de: IV3OKO: ZL 2052Z OC 224 6,825
W1AW/1 7.1890 USA Needed Spot! de: WB2BTJ: 59+20 N NY W 2052Z NA 77 1,532
SP4RKZ/MM 14.3030 Poland Needed Spot! de: SQ8MXL: 5,9 Piotr EU 24 5,859
TK5JJ 28.0232 Corsica Needed Spot! de: W3LPL: Heard in PA and EU 36 6,160
LZ2HQ 7.1640 Bulgaria Needed Spot! de: YT9TP: cq dx LZ 2052Z EU 25 6,575
RK80KEDR 3.5207 Asiatic Russia Needed Spot! de: UA4WEF: cq cq cq RK8 2052Z AS 347 5,968
DX Cluster

N3FJP Target Audience

- Someone wanting to graduate from paper logging to computer logging
- No frills, basic features
- EZ learning curve
- Contest Modules integrate with AC Log = N3FJP's general logging program for daily logging
- Solid Author support
- Cost Effective: Purchase just the contest modules you want ($9 each) or all software for $50.

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TR4W

By UA4WLI

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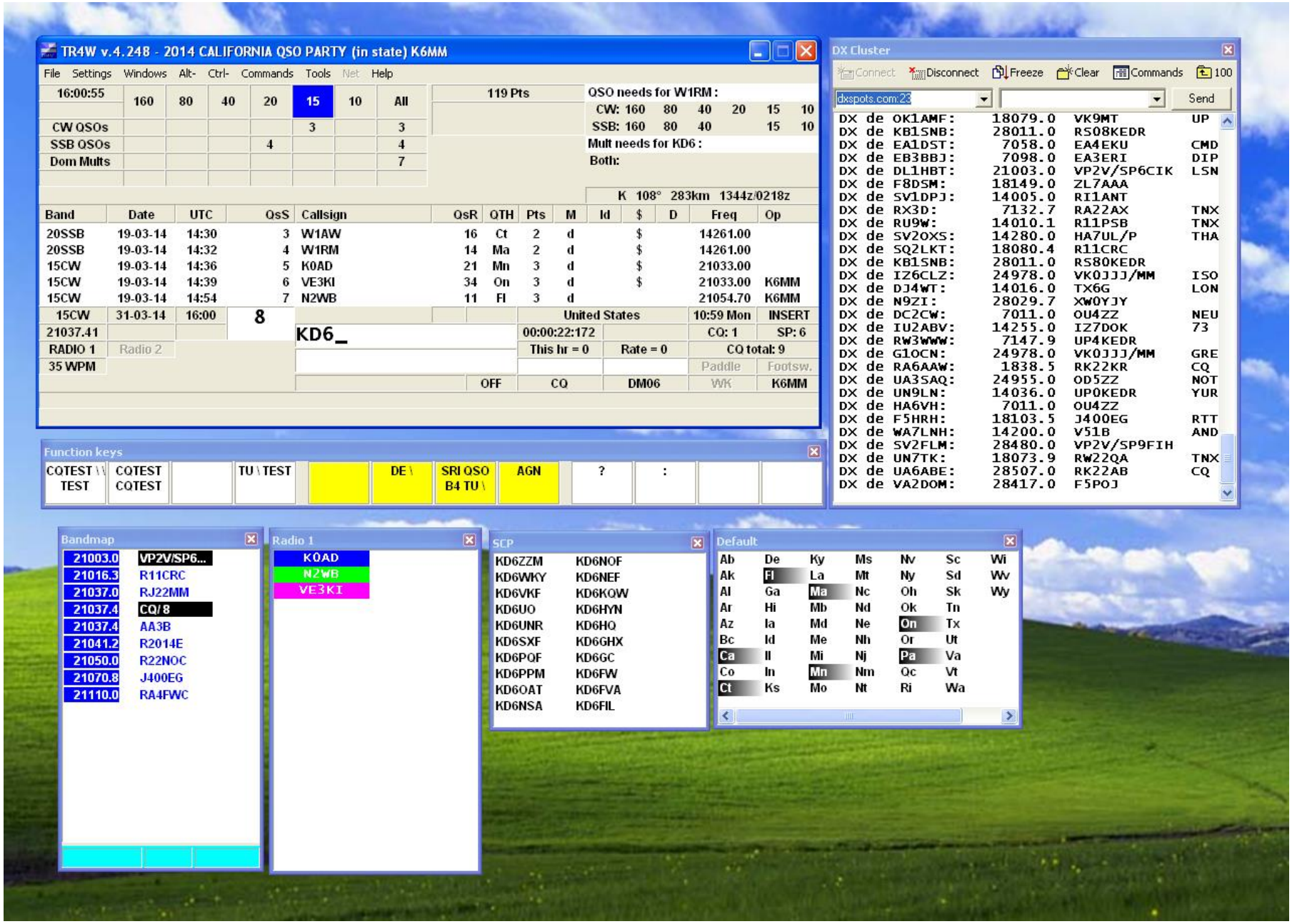
TR4W Screen Shot



TR4W: Summary

(+) It's free

(+) Supports all contests

(+) Stable

(+) Clean, Compact Interface

(+) ESM feature + many message memories

(+) Excellent SO2R implementation

(+) Multi-Op

(+) Networking Support

(-) Author (Dmitry, UA4WLI) no longer has time to support it

(-) Future updates unclear – but several US hams interested in supporting it with code updates, etc.

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N1MM Logger

By Tom, N1MM

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N1MM Target Audience

- Someone Wanting To Upgrade from DOS-Based To Windows-Based Program
- A Beginning User Wanting To “Upgrade” With More Features; Intermediate→ Advanced
- SO1V Moving Up To SO2R Capability
- Stations Needing Multi-Operator Networking Capability (M/S, M/2, M/M)

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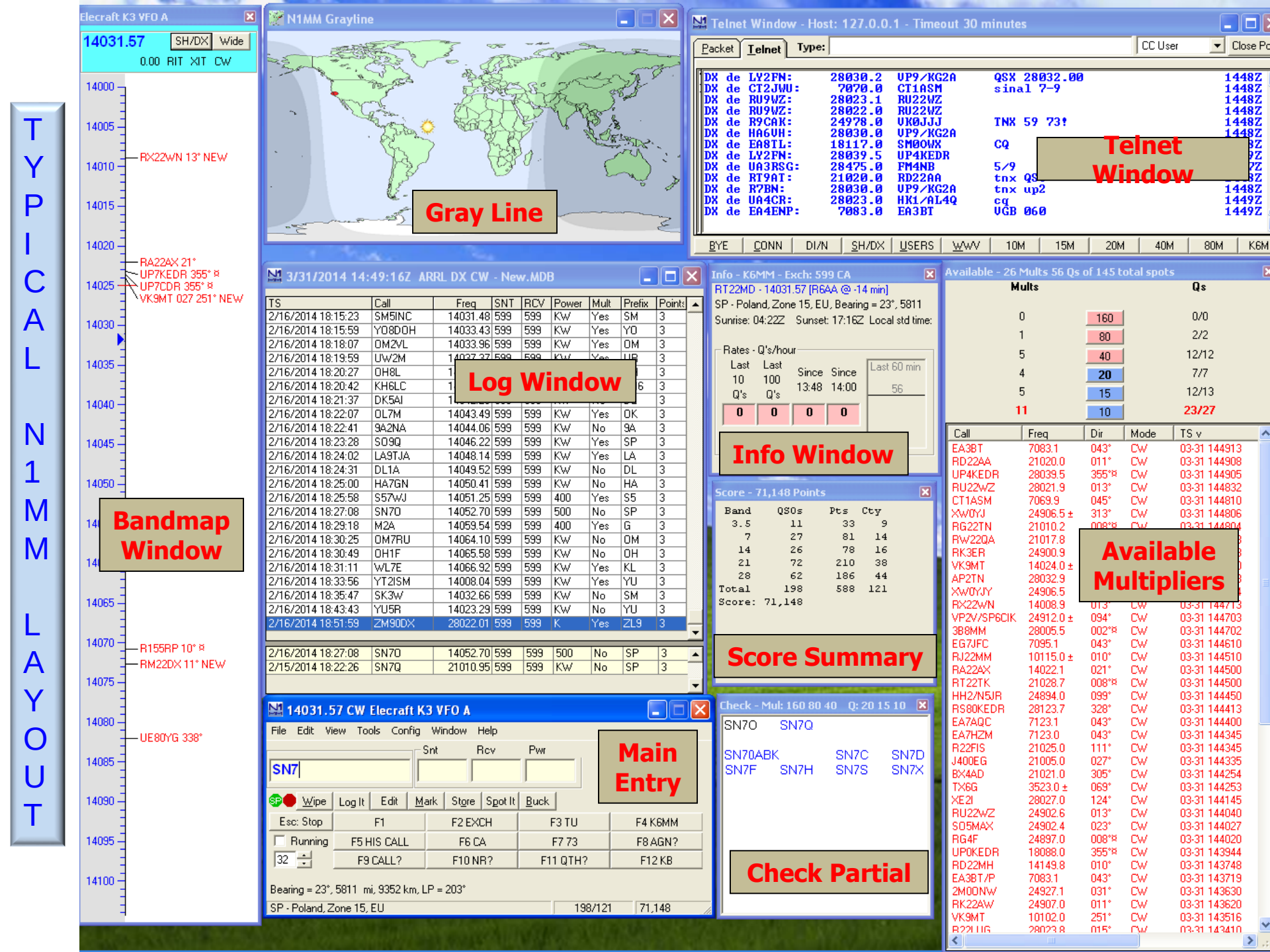
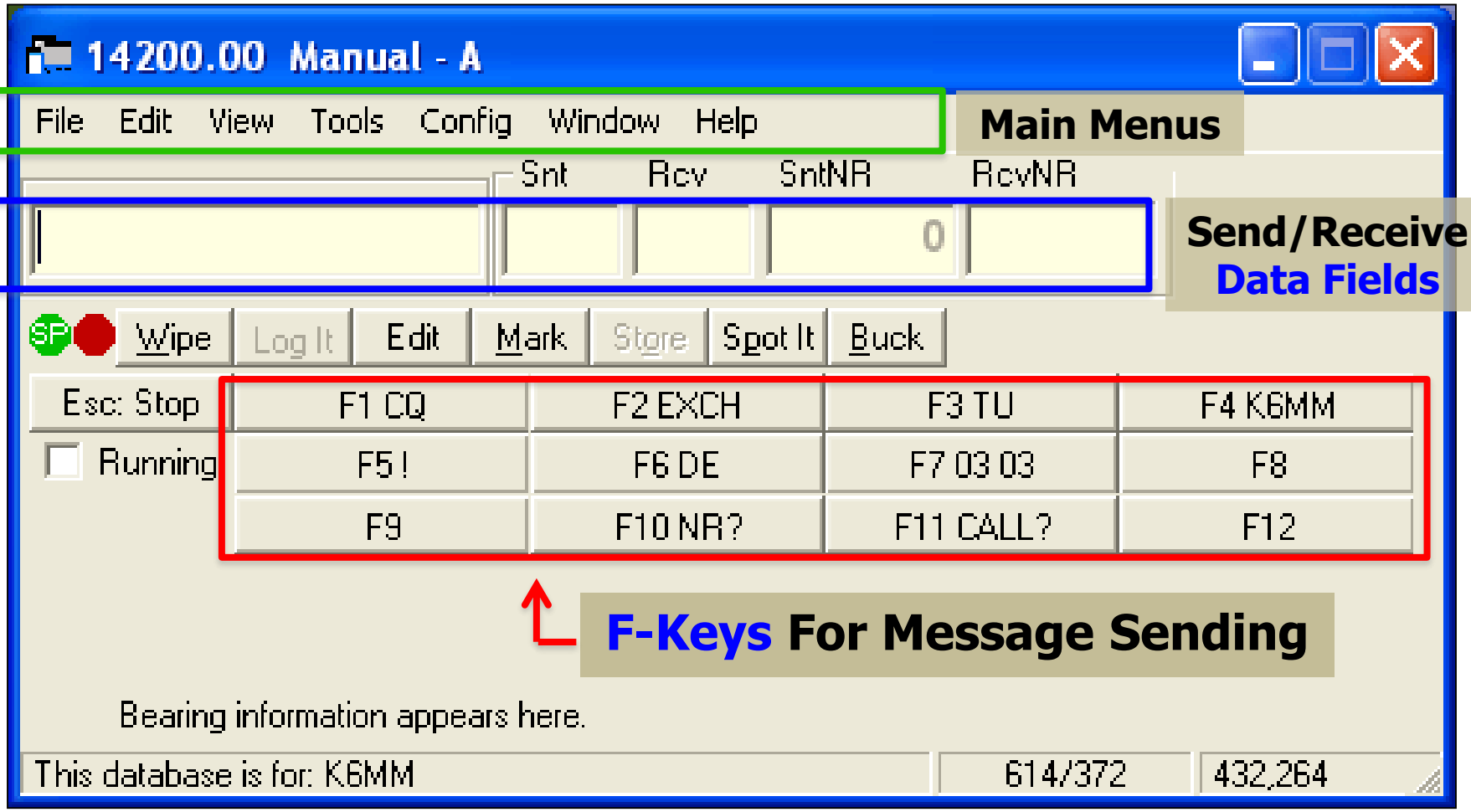
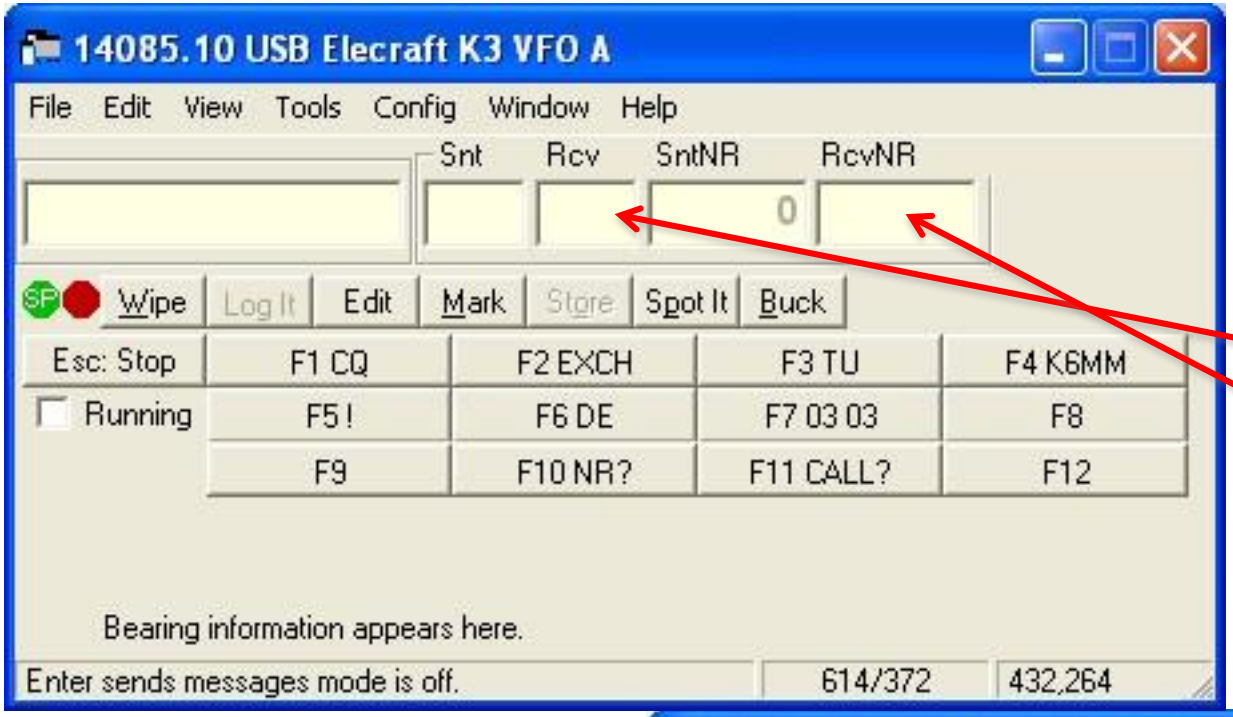

TYPICAL N1MM LAYOUT
Elecraft K3 VFO A
14031.57
SH/DX
Wide
0.00 RIT XIT CW
RX22WN 13° NEW
RA22AX 21°
UP7KEDR 355°
UP7CDR 355°
VK9MT 027 251° NEW
R155RP 10°
RM22DX 11° NEW
UE80YG 338°
Bandmap Window
N1MM Grayline
Gray Line
Telnet Window - Host: 127.0.0.1 - Timeout 30 minutes
Packet
Telnet
Type:
CC User
Close Po
DX de LY2FN: 28030.2 VP9/KG2A QSX 28032.00 1448Z
DX de CT2JWU: 7070.0 CT1ASM sinal 7-9 1448Z
DX de RU9WZ: 28023.1 RU22WZ 1448Z
DX de RU9WZ: 28022.0 RU22WZ 1448Z
DX de R9CAK: 24978.0 VK0JJJ TNX 59 73! 1448Z
DX de HA6VH: 28030.0 VP9/KG2A 1448Z
DX de EA8TL: 18117.0 SM0OWX CQ
DX de LY2FN: 28039.5 UP4KEDR
DX de UA3RSG: 28475.0 FM4NB 5/9
DX de RT9AT: 21020.0 RD22AA tnx QS
DX de R7BN: 28030.0 VP9/KG2A tnx up2 1448Z
DX de UA4CR: 28023.0 HK1/AL4Q cq 1449Z
DX de EA4ENP: 7083.0 EA3BT VGB 060 1449Z
Telnet Window
BYE
CONN
DI/N
SH/DX
USERS
WWV
10M
15M
20M
40M
80M
K6M
3/31/2014 14:49:16Z ARRL DX CW - New.MDB
TS Call Freq SNT RCV Power Mult Prefix Points
2/16/2014 18:15:23 SM5INC 14031.48 599 599 KW Yes SM 3
2/16/2014 18:15:59 YO8DOH 14033.43 599 599 KW Yes YO 3
2/16/2014 18:18:07 OM2VL 14033.96 599 599 KW Yes OM 3
2/16/2014 18:19:59 UW2M 3
2/16/2014 18:20:27 OH8L 3
2/16/2014 18:20:42 KH6LC 3
2/16/2014 18:21:37 DK5AI 3
2/16/2014 18:22:07 OL7M 14043.49 599 599 KW Yes OK 3
2/16/2014 18:22:41 9A2NA 14044.06 599 599 KW No 9A 3
2/16/2014 18:23:28 SO9Q 14046.22 599 599 KW Yes SP 3
2/16/2014 18:24:02 LA9TJA 14048.14 599 599 KW Yes LA 3
2/16/2014 18:24:31 DL1A 14049.52 599 599 KW No DL 3
2/16/2014 18:25:00 HA7GN 14050.41 599 599 KW No HA 3
2/16/2014 18:25:58 S57WJ 14051.25 599 599 400 Yes S5 3
2/16/2014 18:27:08 SN7O 14052.70 599 599 500 No SP 3
2/16/2014 18:29:18 M2A 14059.54 599 599 400 Yes G 3
2/16/2014 18:30:25 OM7RU 14064.10 599 599 KW No OM 3
2/16/2014 18:30:49 OH1F 14065.58 599 599 KW No OH 3
2/16/2014 18:31:11 WL7E 14066.92 599 599 KW Yes KL 3
2/16/2014 18:33:56 YT2ISM 14008.04 599 599 KW Yes YU 3
2/16/2014 18:35:47 SK3W 14032.66 599 599 KW No SM 3
2/16/2014 18:43:43 YU5R 14023.29 599 599 KW No YU 3
2/16/2014 18:51:59 ZM90DX 28022.01 599 599 K Yes ZL9 3
2/16/2014 18:27:08 SN7O 14052.70 599 599 500 No SP 3
2/15/2014 18:22:26 SN7Q 21010.95 599 599 KW No SP 3
Log Window
Info - K6MM - Exch: 599 CA
RT22MD - 14031.57 [R6AA @ -14 min]
SP - Poland, Zone 15, EU, Bearing = 23°, 5811
Sunrise: 04:22Z Sunset: 17:16Z Local std time:
Rates - Q's/hour
Last 10 Q's
Last 100 Q's
Since 13:48
Since 14:00
Last 60 min
56
0 0 0 0
Info Window
Score - 71,148 Points
Band QSOs Pts Cty
3.5 11 33 9
7 27 81 14
14 26 78 16
21 72 210 38
28 62 186 44
Total 198 588 121
Score: 71,148
Score Summary
Available - 26 Mults 56 Qs of 145 total spots
Mults
Qs
0 160 0/0
1 80 2/2
5 40 12/12
4 20 7/7
5 15 12/13
11 10 23/27
Call Freq Dir Mode TS v
EA3BT 7083.1 043° CW 03-31 144913
RD22AA 21020.0 011° CW 03-31 144908
UP4KEDR 28039.5 355° CW 03-31 144905
RU22WZ 28021.9 013° CW 03-31 144832
CT1ASM 7069.9 045° CW 03-31 144810
XW0YJ 24906.5 313° CW 03-31 144806
RG22TN 21010.2
RW22QA 21017.8
RK3ER 24900.9
VK9MT 14024.0
AP2TN 28032.9
XW0YJY 24906.5
RX22WN 14008.9
VP2V/SP6CIK 24912.0
3B8MM 28005.5 002° CW 03-31 144702
EG7JFC 7095.1 043° CW 03-31 144610
RJ22MM 10115.0 010° CW 03-31 144510
RA22AX 14022.1 021° CW 03-31 144500
RT22TK 21028.7 008° CW 03-31 144500
HH2/N5JR 24894.0 099° CW 03-31 144450
RS80KEDR 28123.7 328° CW 03-31 144413
EA7AQC 7123.1 043° CW 03-31 144400
EA7HZM 7123.0 043° CW 03-31 144345
R22FIS 21025.0 111° CW 03-31 144345
J400EG 21005.0 027° CW 03-31 144335
BX4AD 21021.0 305° CW 03-31 144254
TX6G 3523.0 069° CW 03-31 144253
XE2I 28027.0 124° CW 03-31 144145
RU22WZ 24902.6 013° CW 03-31 144040
SO5MAX 24902.4 023° CW 03-31 144027
RG4F 24897.0 008° CW 03-31 144020
UP0KEDR 18088.0 355° CW 03-31 143944
RD22MH 14149.8 010° CW 03-31 143748
EA3BT/P 7083.1 043° CW 03-31 143719
2M0ONW 24927.1 031° CW 03-31 143630
RK22AW 24907.0 011° CW 03-31 143620
VK9MT 10102.0 251° CW 03-31 143516
Available Multipliers
14031.57 CW Elecraft K3 VFO A
File Edit View Tools Config Window Help
Snt Rcv Pwr
SN7
Wipe Log It Edit Mark Store Spot It Buck
Esc: Stop F1 F2 EXCH F3 TU F4 K6MM
Running F5 HIS CALL F6 CA F7 73 F8 AGN?
32 F9 CALL? F10 NR? F11 QTH? F12 KB
Bearing = 23°, 5811 mi, 9352 km, LP = 203°
SP - Poland, Zone 15, EU 198/121 71,148
Main Entry
Check - Mul: 160 80 40 Q: 20 15 10
SN7O SN7Q
SN70ABK SN7C SN7D
SN7F SN7H SN7S SN7X
Check Partial

Main Entry Window - N1MM's "Dashboard"



The Send/Receive Data Fields Are Configured Automatically When Contest Is First Selected

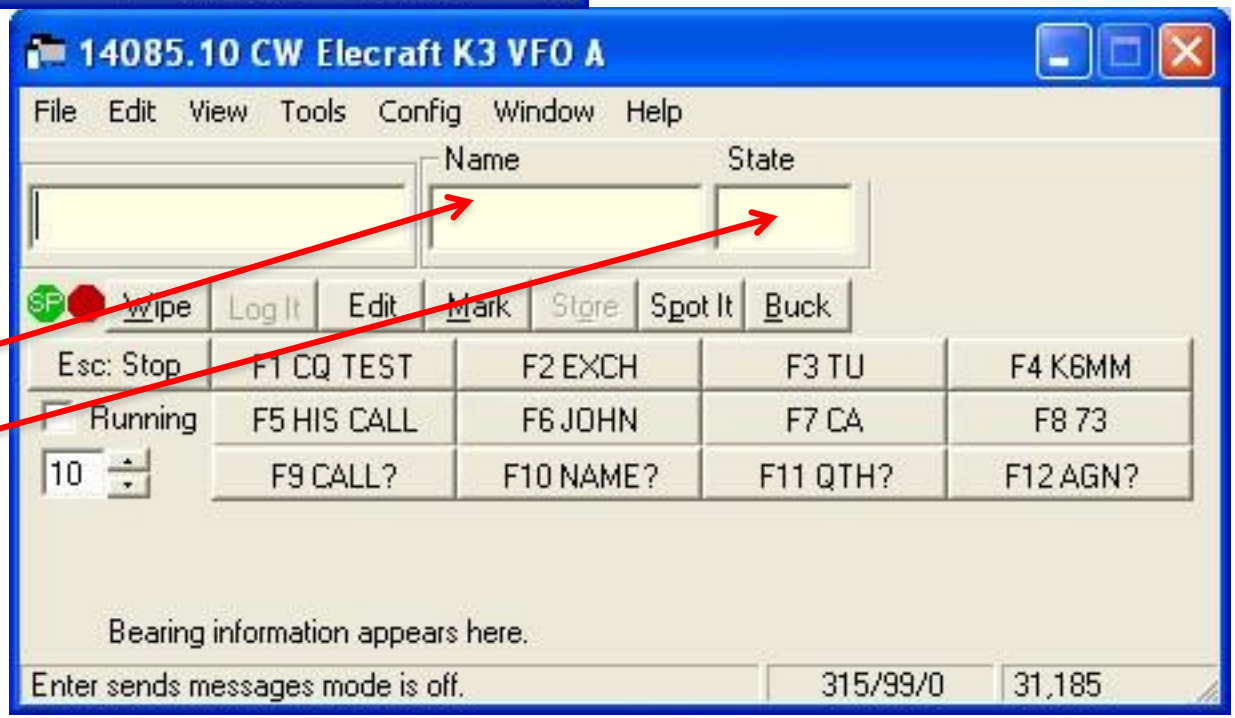


CQ WW WPX
(CW, PH, RTTY)

Exchange
1. RST
2. Serial #

NA QSO Party
(CW, PH, RTTY)

Exchange
1. Name
2. State



RUN versus SEARCH/POUNCE MODE

Main Entry Window

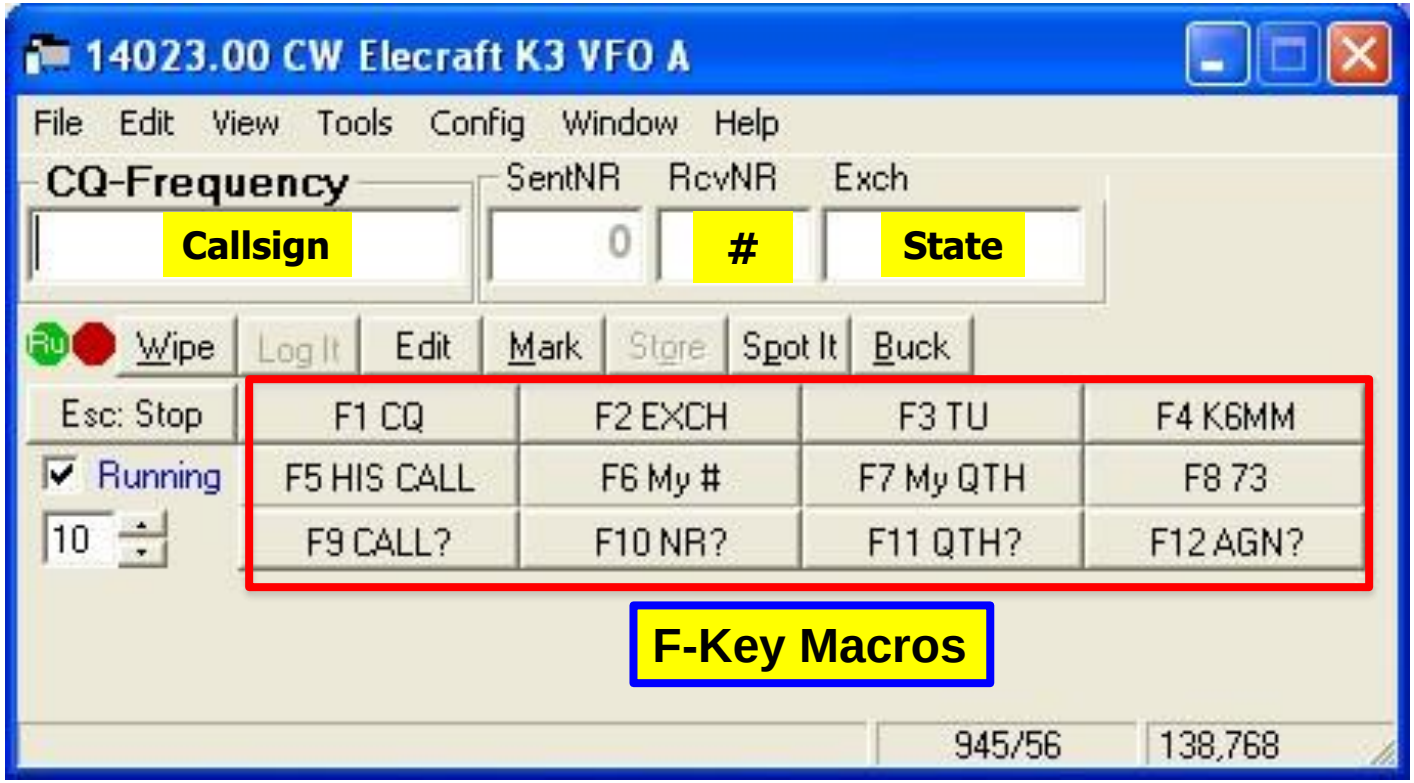
CQ (Run) Mode

S&P Mode

F-Keys: Automatic CW Generation

Pre-Programmed Exchange Messages

Example: California QSO Party (CQP)



Copy

1. Callsign
2. Number
3. State

(or County)

Send

1. My Number
2. My County

Options

1. Send Serial #/County manually via keyer
2. Automate using the F-keys

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N1MM F-Key Macros (CQP)

Button Caption Run Mode	N1MM Macro Run Mode
F1 CQ	CQ TEST * * CQ
F2 Exch	# SCLA
F3 TU	TU CQ DE *
F4 My Call	*
F5 His Call	!
F6 My #	#
F7 My QTH	SCLA
F8 Agn?	AGN?
F9 Call?	CALL?
F10 #?	NR?
F11 QTH?	QTH?
F12 73	73

Button Caption S&P Mode	N1MM Macro S&P Mode
F1 K6MM	K6MM
F2 Exch	# SCLA
F3 TU	TU
F4 My Call	*
F5 His Call	!
F6 My #	#
F7 My QTH	SCLA
F8 Agn?	AGN?
F9 Call?	CALL?
F10 #?	NR?
F11 QTH?	QTH?
F12 73	73

F-Keys Easily Be Customized And Saved
For Each Contest And For Each Mode (CW, SSB, Digital)

Automatic CW Generation
California QSO Party

Sending Choices:

Option 1: Send each F-Key message manually

Option 2: Automate Process with ESM

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ESM = Enter Sends Message)

Example: CA QSO Party

Color-Code: Tells you what happens when you hit the Enter Key

"ENTER" Sends F1 Macro:

F1 (CQ Test K6MM K6MM)

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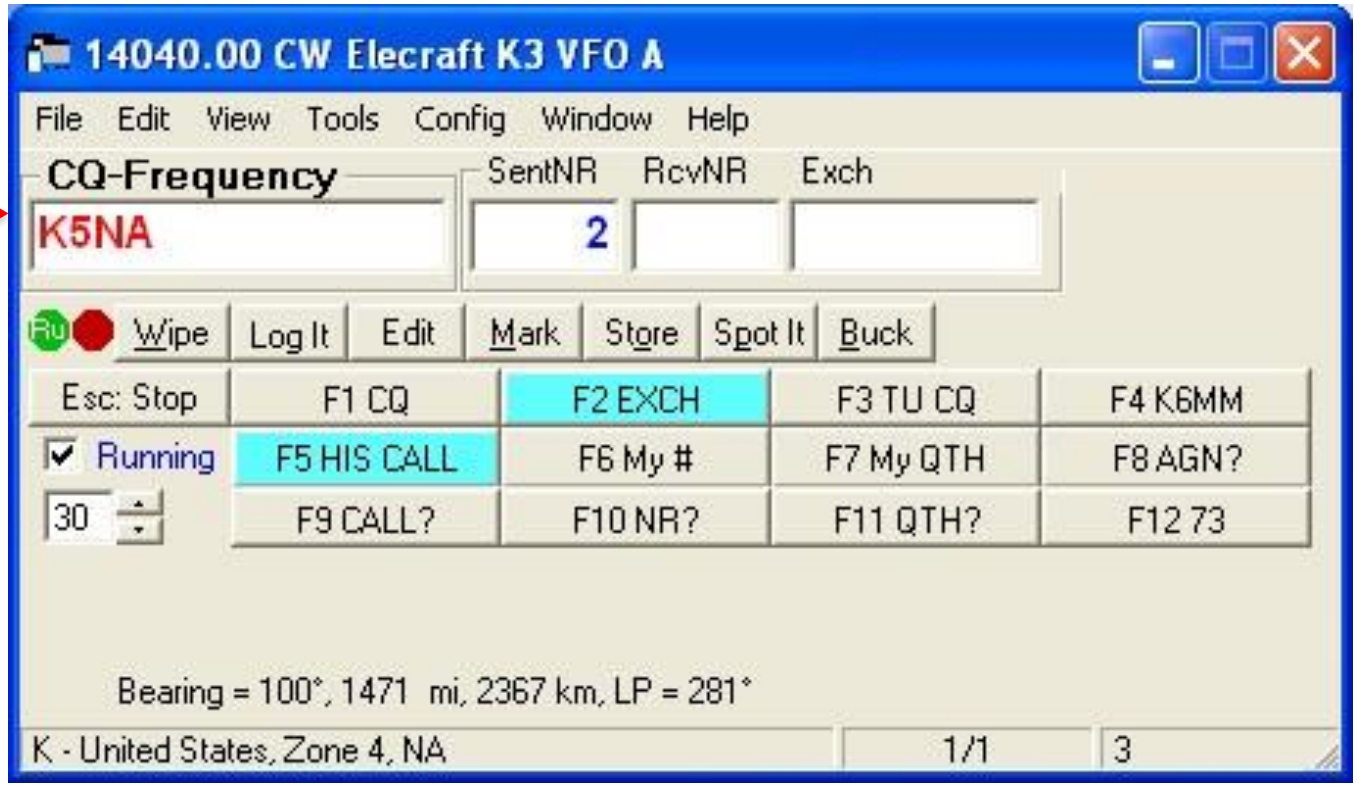
ESM = Enter Sends Message)

K5NA
Answers
My CQ



- Type in **K5NA**
- **F5** + **F2** Keys Change Color To Aqua
- "**ENTER**" Sends: **F5** (K5NA) + **F2** (002 SCLA)
- Cursor automatically moves to **RcvNR** field

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ESM = Enter Sends Message)

- **K5NA** Sends His Exchange: Type in **6 TX**
- **F3** + **Log-It** Keys Change Color
- "**ENTER**" Sends: **F3** (TU CQ) + **Logs** The QSO
- Returns to **RUN CQ** Mode

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Powerful N1MM Feature
ESM (Enter Sends Message)

- Automated 3-Step QSO Process
- F-Keys Change Color Automatically
- F-Key Macros:
  - CW = CW messages
  - Phone = WAV files
  - RTTY = RTTY macros
- Use ESM For Both Run and S&P Mode
- Saves Keystrokes and Time
- A Bit Of A Learning Curve, But Worth It

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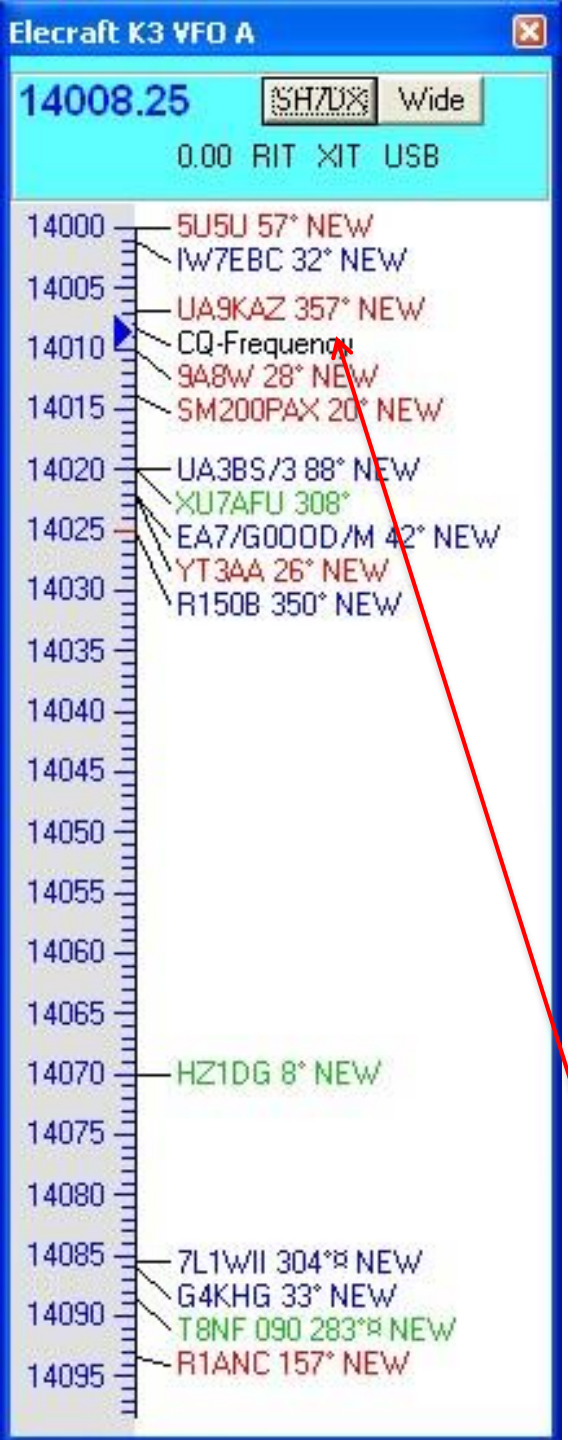
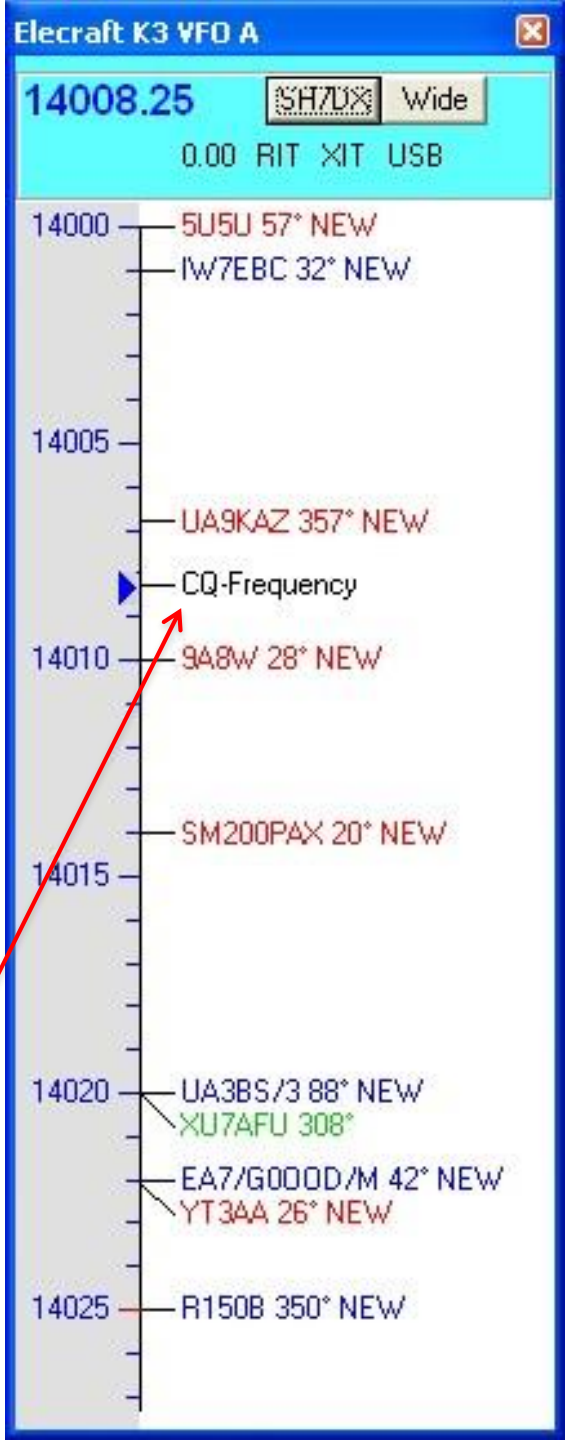
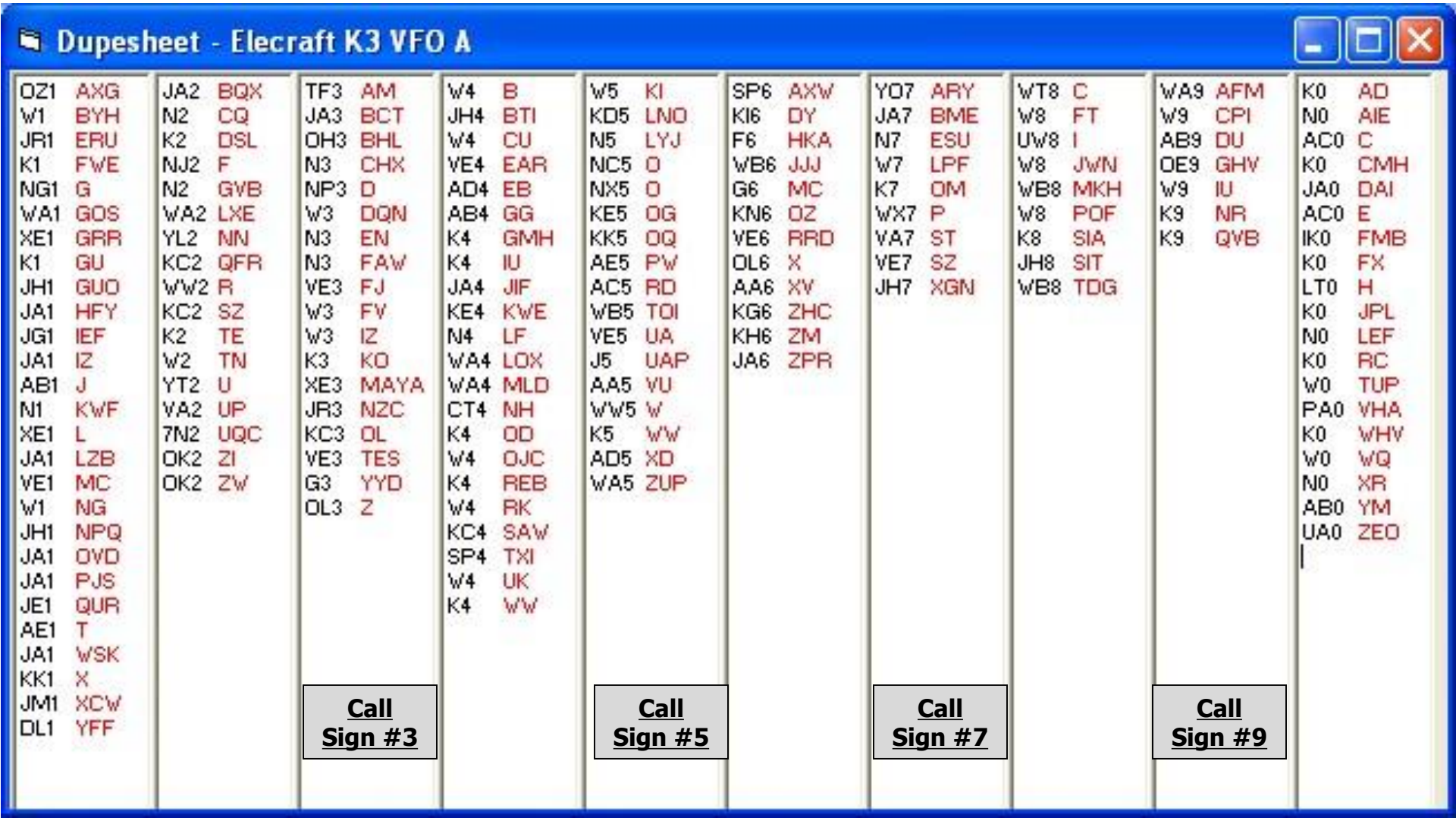
Band Maps

- Dual Band Maps: (2 VFOs or 2 Radios)
- Frequency readout
- Easily Zoom In/Out (Keyboard or Mouse Wheel)
- CTRL+Down Arrow: Get Next Spot
- Show Dupes On/Off
- Color-Coded Multipliers
- Marks CQ Frequency





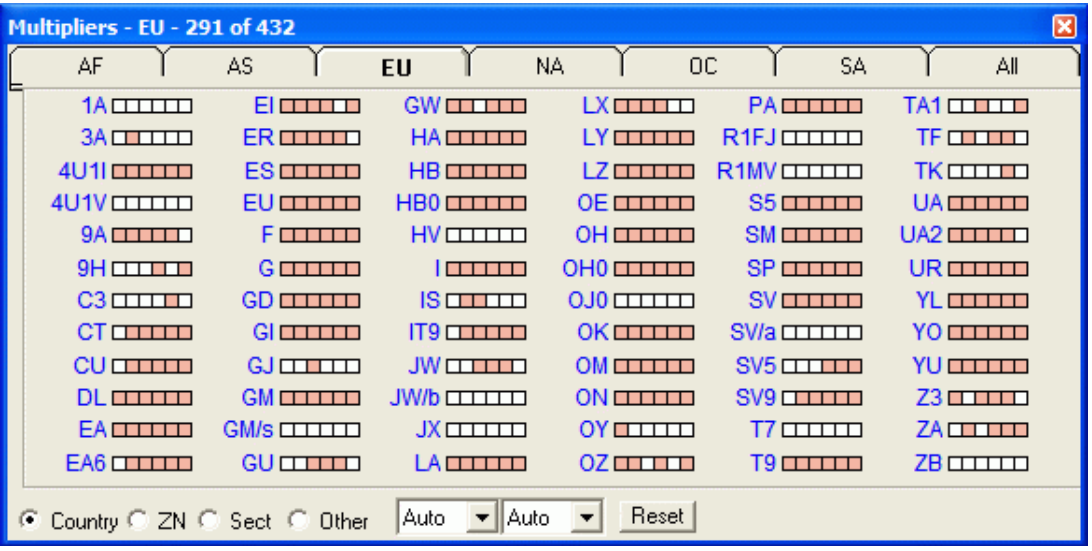
Visible Dupe Sheet



- Quick Visual Dupe Check – No Key Entry Needed
- Separate Dupe Sheets For VFO (A) and VFO (B)

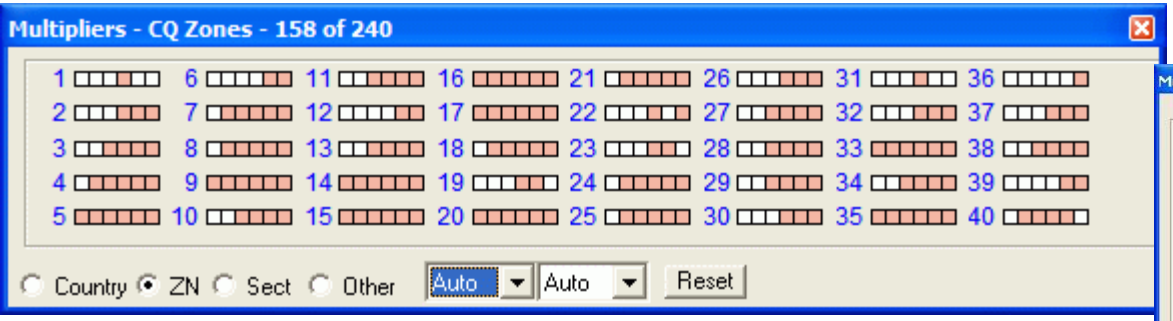
Multiplier Map Examples

Countries Worked

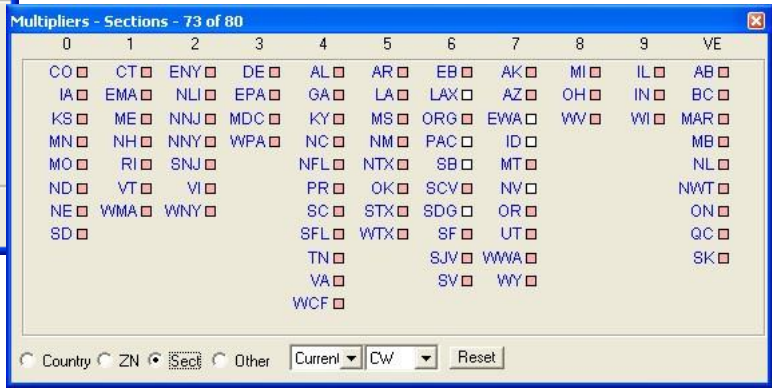


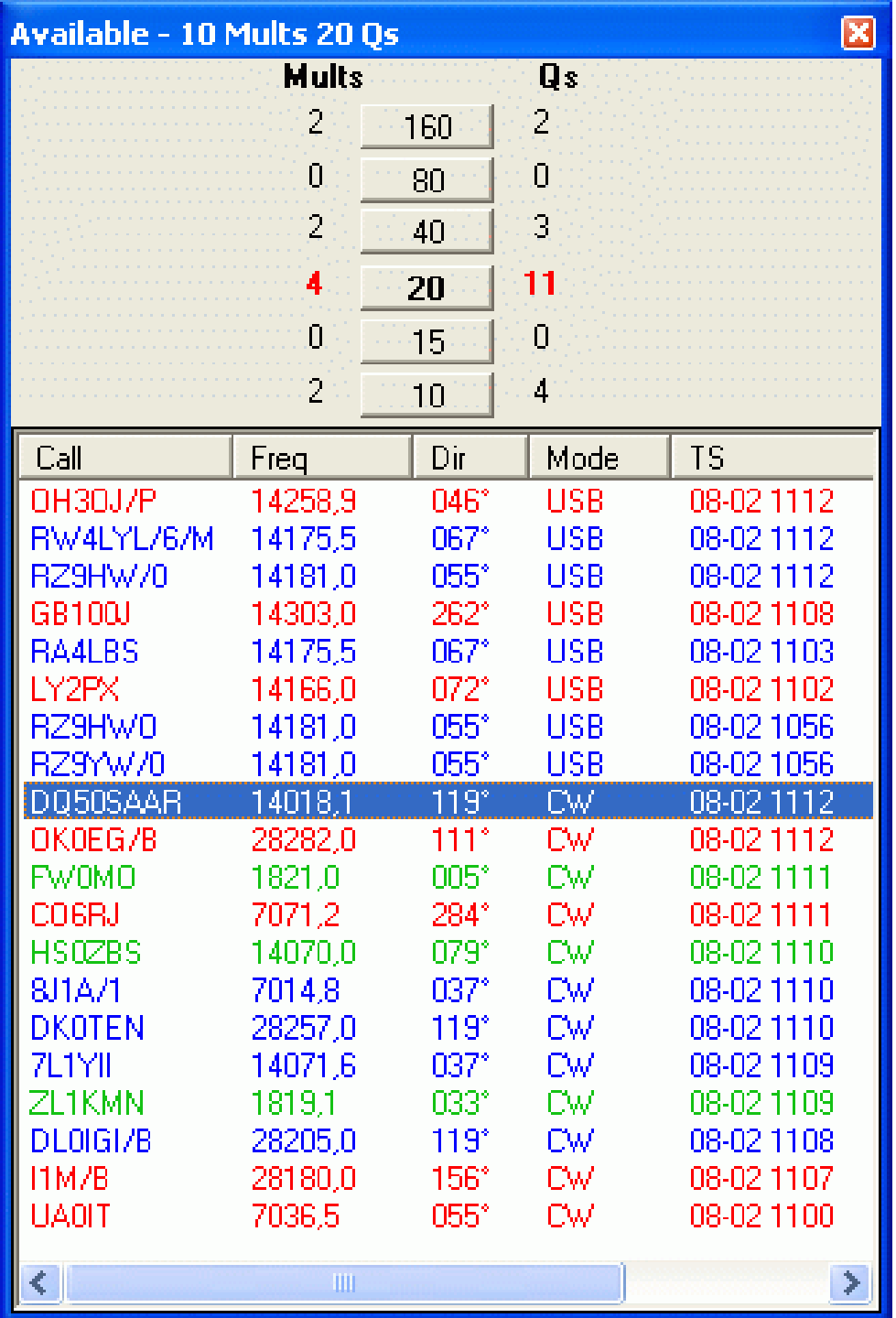
CA Counties Worked

Zones Worked



ARRL Sections Worked





Available Multipliers & QSOs Window

- Checks Call & Country
- Display All Bands or Single Band
- Bands Show Needed Multipliers or QSOs
- Needed Multipliers or QSOs Color Coded
- Sort Any On Column
- Powerful For:
  - Search & Pounce
  - Check Band Openings
  - Recent Packet Spots

N1MM Shortfalls?

- Lots of developers - software a bit "bloated"
- Lots of updates
- Too many bells and whistles?
- Steeper learning curve than other loggers

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My Top 10 Reasons For Using N1MM

① Us "MM's" Have To Stick Together ☺

② Powerful Windows (Entry, Bandmap, Check Partial, Dupesheet, Grayline, Mults Available, Mults Worked, Score Summary, Telnet)

③ F-Key Macros

④ SO1V, SO2V, SO2R, Multi-Modes

⑤ Post-Contest Statistics

⑥ All Major US, DX Contests & QSO Parties Supported

⑦ Enter-Sends-Message (ESM) Mode

⑧ Extensive Support for CW, Phone, Digital

⑨ Creative User Interface

⑩ Excellent Customer Support – Continuous Improvement

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N1MM Logger
Contest Software

It May Be Free, But It Is A *Serious* Piece Of Contest Software

Tom Wagner, N1MM

www.n1mm.com

Developers:

- Nick, NA3M
- Steve, N2IC
- Eric, N2AMG
- John, K3CT
- Larry, K8UT

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WriteLog

by W5XD

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WriteLog Highlights

- One of the oldest loggers
- Reliable; does not lose data; rarely goes down
- Supports all popular contests
- Supports most radios and accessories
- Excellent RTTY support
- Multiple RTTY decoder windows per radio
- SO1R, SO2R, SO3R, and SO4R on single computer, or multiple networked computers
- Very good Multi-op and Multi-multi support
- Contest recording and playback of individual QSOs
- Built-in CW Decoder window

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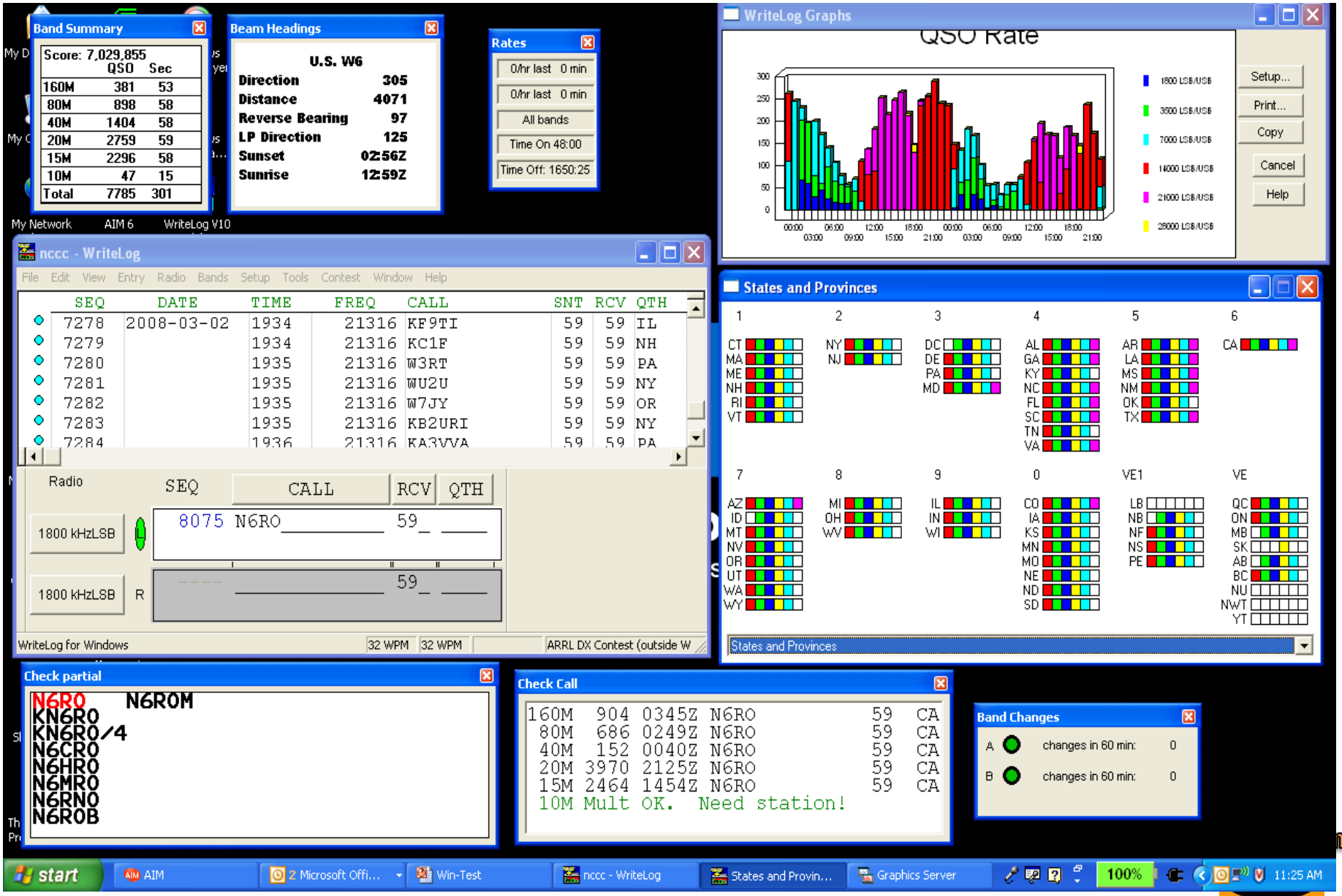
WriteLog Floating Window Interface



WriteLog Shortfalls

- Very “mature” application; Current Version: 11.11
- Interface not as “sexy” as other loggers
- First Windows version: Version 6.0, 1993
- $30 licensing fee (includes 12 months of updates)
- Disjointed documentation from multi-sources
- Lacks some features (N+1 call checking, dupe sheet, etc.)
- Steep learning curve
  - it takes time to solve config problems
  - it takes time to become proficient

Win-Test

By F5MZN and F6FVY

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Win-Test: Type Of User?

- Any serious – advanced contester
- A multi-multi operator
- An advanced SO2R station
- A simpler station *without* any DVK or external WinKeyer hardware
  - Great CW sent via LPT port (including PTT)
  - Good DVK using Windows Sound card
- A DXpedition operator
  - VP6DX logged 183,000 QSOs with Win-Test

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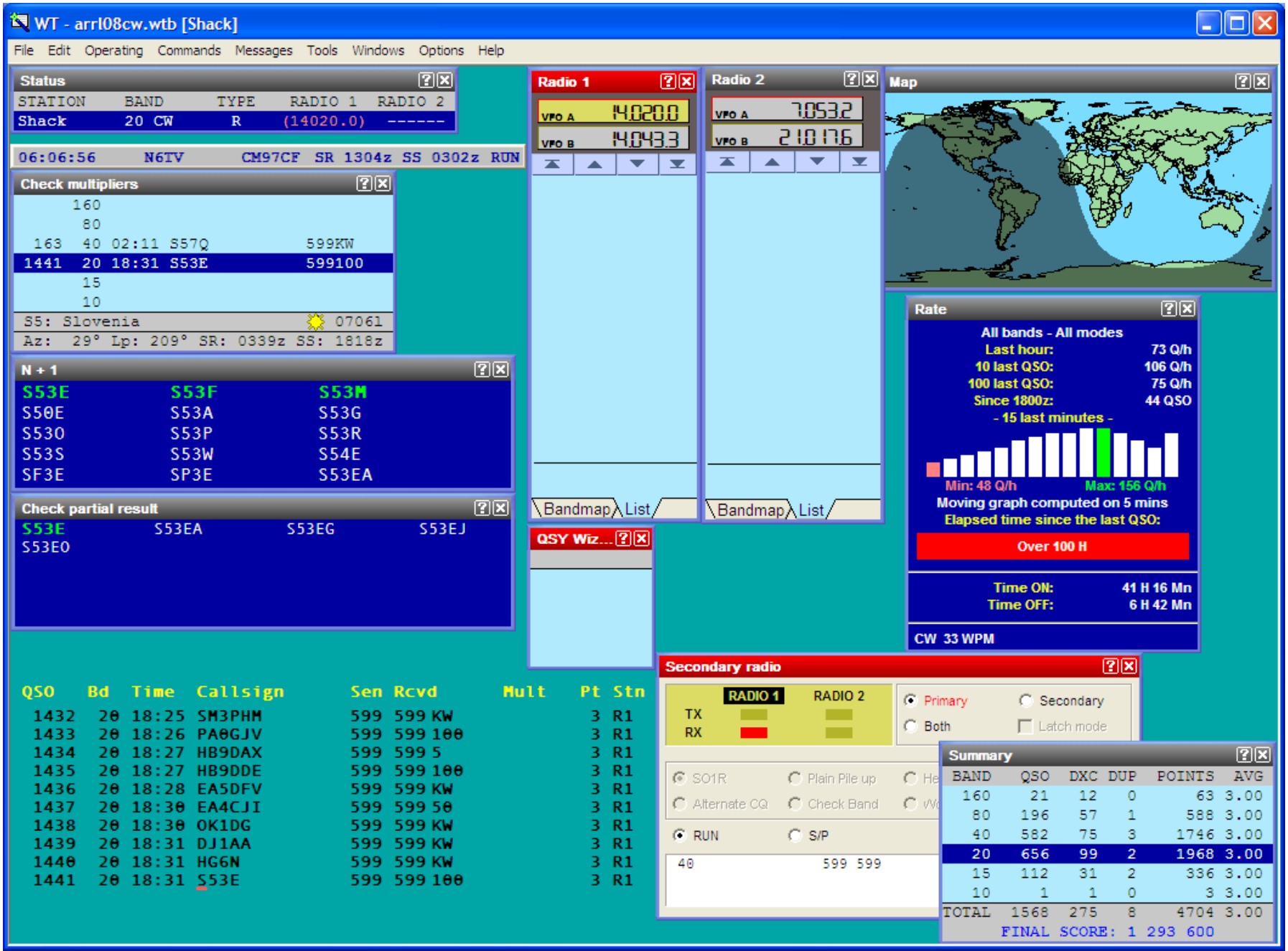
Win-Test Screen Shot



Win-Test: Distinguishing Features

1. Clean look and feel
   - Keyboard remapping via DEFINEKEYS command
   - Data entry done right
   - Right click for appropriate context menu
2. Bullet-proof networking
   - Important for any multi-multi
3. Advanced features
   - Super Check Partial N+1
   - Gray line map
   - Integration with Ham CAP propagation SW (QSY Wizard)
   - SO2R support, secondary radio window
   - Advanced rate charts / real-time statistics
4. Good documentation and User's Groups

Shortfalls of Win-Test

1. Euro-Centric – (popular with top European contesters)
2. Lacks support for most State QSO Party contests -- including the California QSO Party ☺
3. 50 Euros = $70.00
4. Has not been updated for over one year

DXLOG.net

By 9A5K

The new “Win-Test” Clone

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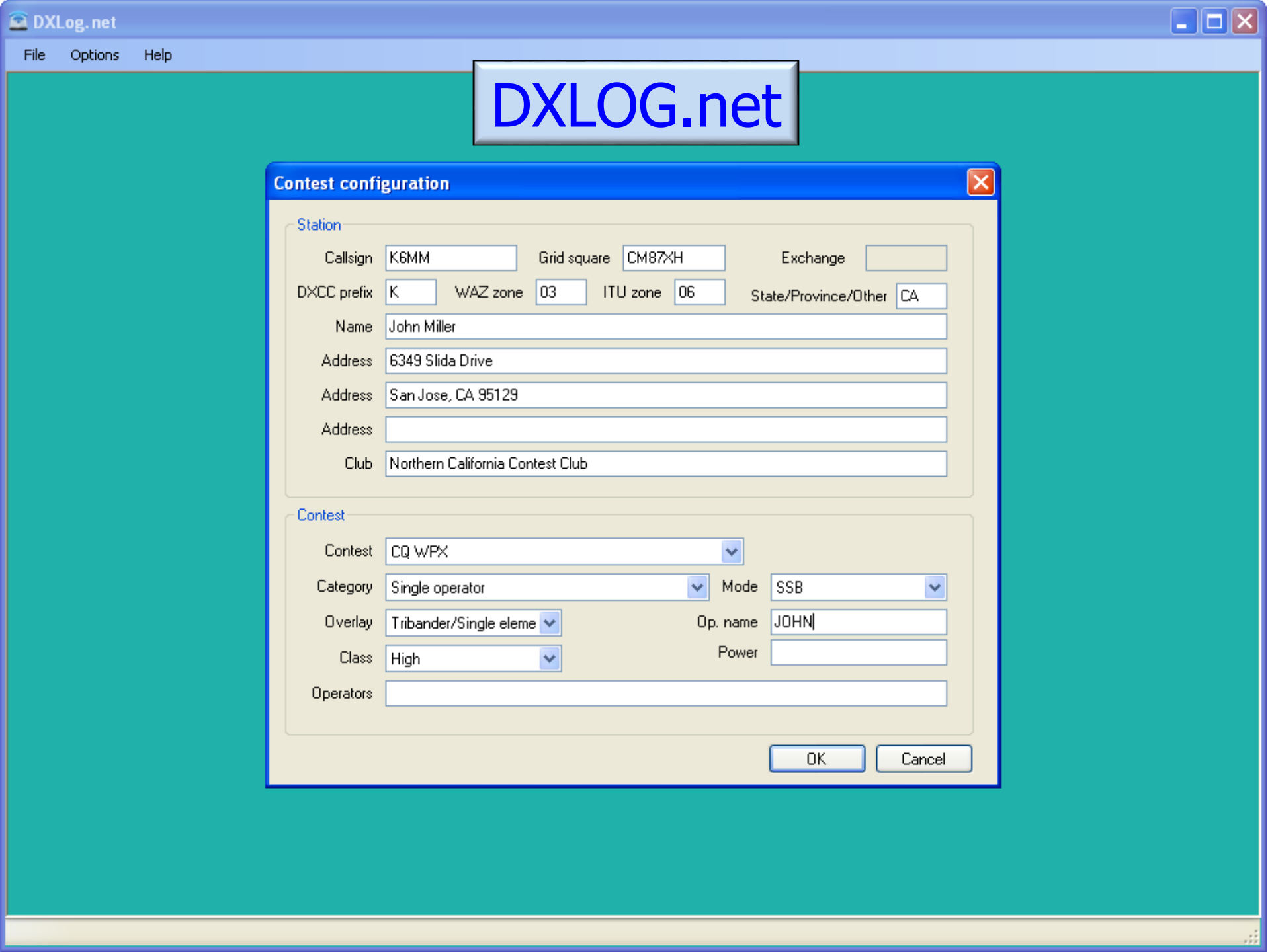
DXLog.net
File
Options
Help
DXLOG.net
Contest configuration
Station
Callsign
K6MM
Grid square
CM87XH
Exchange
DXCC prefix
K
WAZ zone
03
ITU zone
06
State/Province/Other
CA
Name
John Miller
Address
6349 Slida Drive
Address
San Jose, CA 95129
Address
Club
Northern California Contest Club
Contest
Contest
CQ WPX
Category
Single operator
Mode
SSB
Overlay
Tribander/Single eleme
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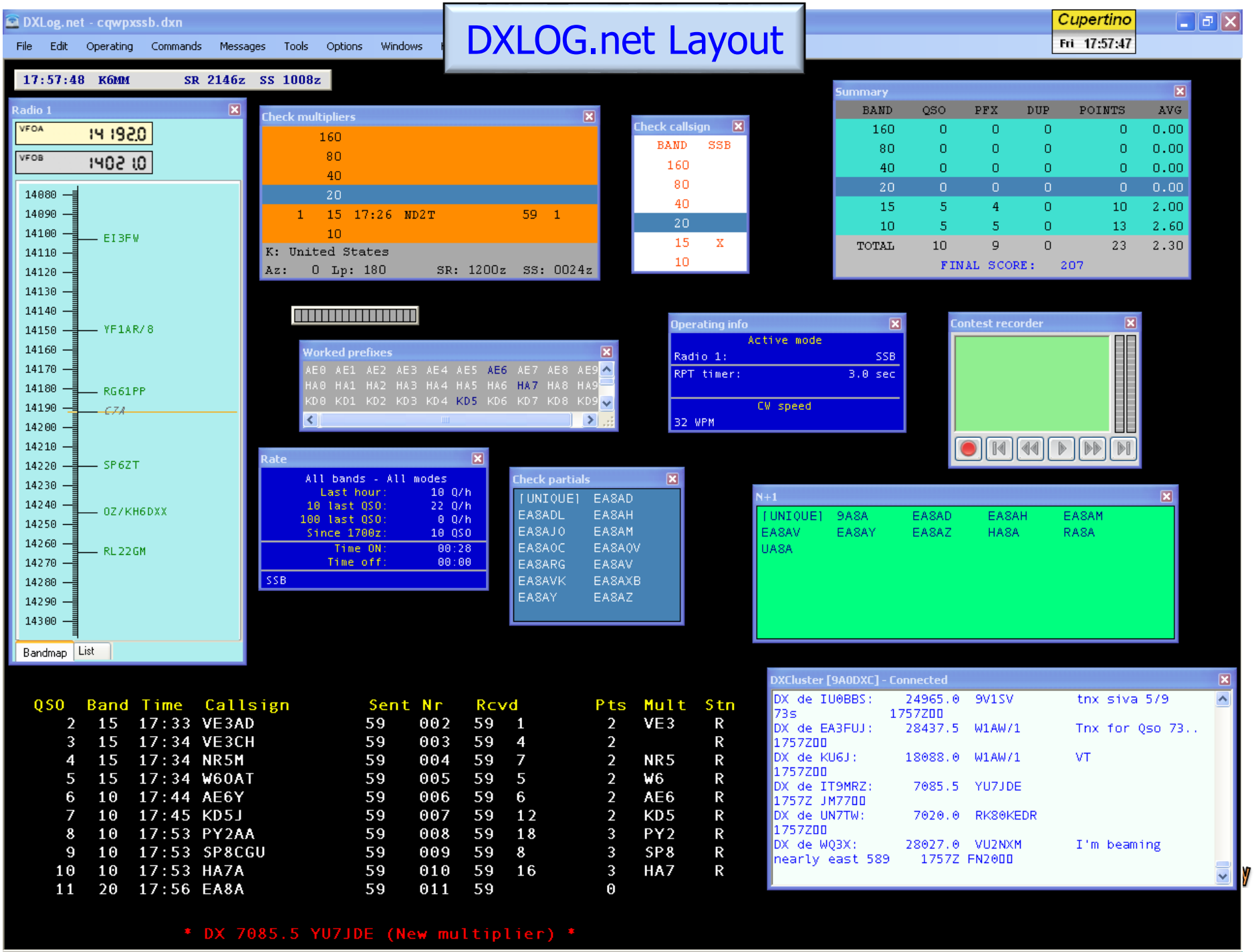
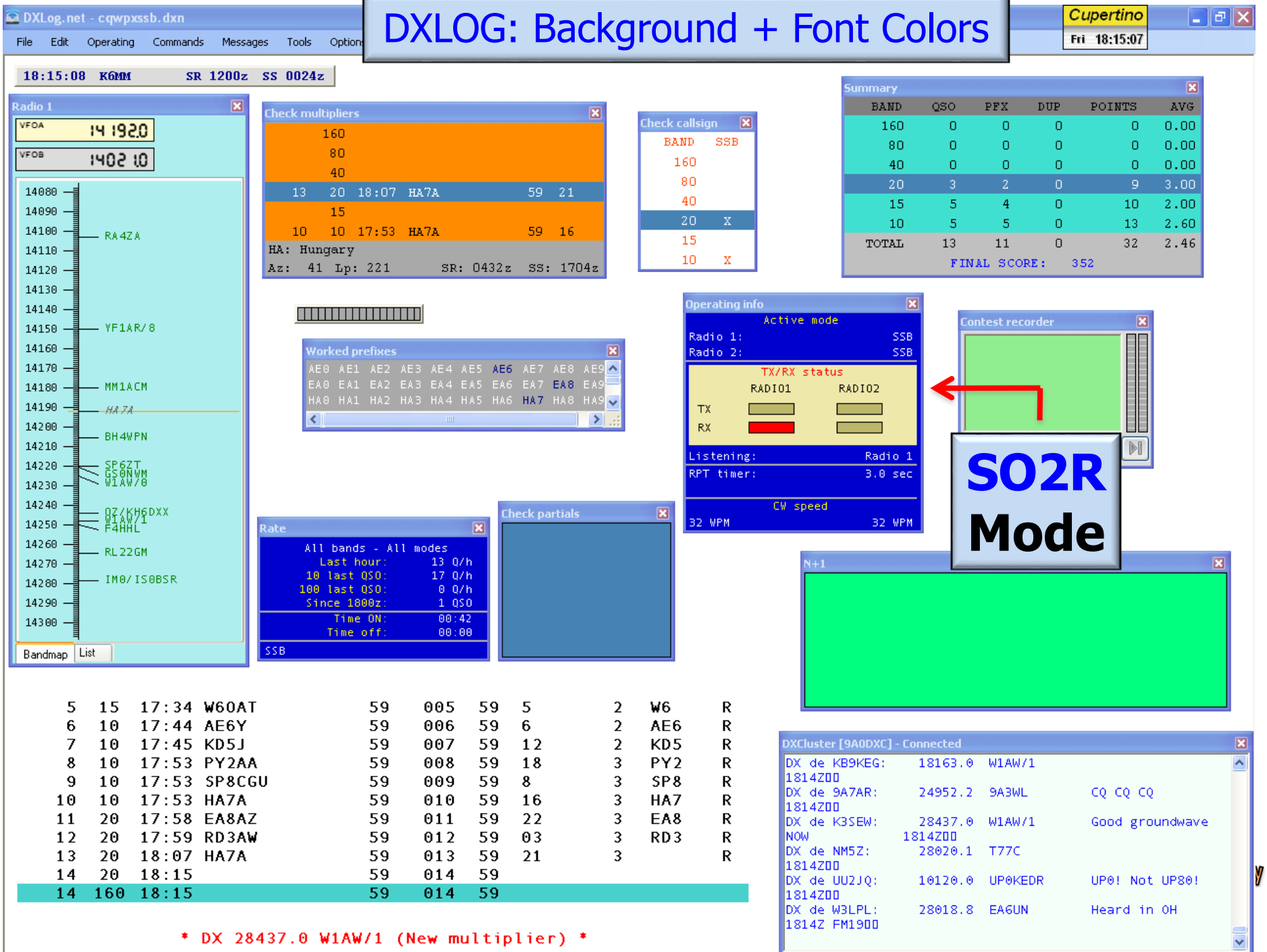
JOHN
Class
High
Power
Operators
OK
Cancel

DXLOG.net Layout



DXLOG: Background + Font Colors



DXLOG.net: Highlights

1. It's currently Free
2. Covers all popular contests plus you can add your own
3. ESM feature
4. Overall Layout Options
5. Strong author support
6. Speed
7. No Winkey required
8. Win-Test compatibility (= easy to switch)
9. DEFINEKEYS dialog (remap keys to your preference, like PageUp/Down for CW speed)
10. Advanced SO2R scenarios

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DXLOG.net: Shortcomings

1. "New" – Introduced on Sept. 2013
2. Learning curve
3. SO2R not as clean as N1MM
4. Multi-Op and Networking (implemented but not stress tested)
5. Every release seems to fix some bugs, but adds others (however quickly fixed when reported)
6. Euro-Centric – (popular with top European contesters)

Bottom Line: Work-in-Progress but definitely worth a look

SkookumLogger

Mac OSX Users

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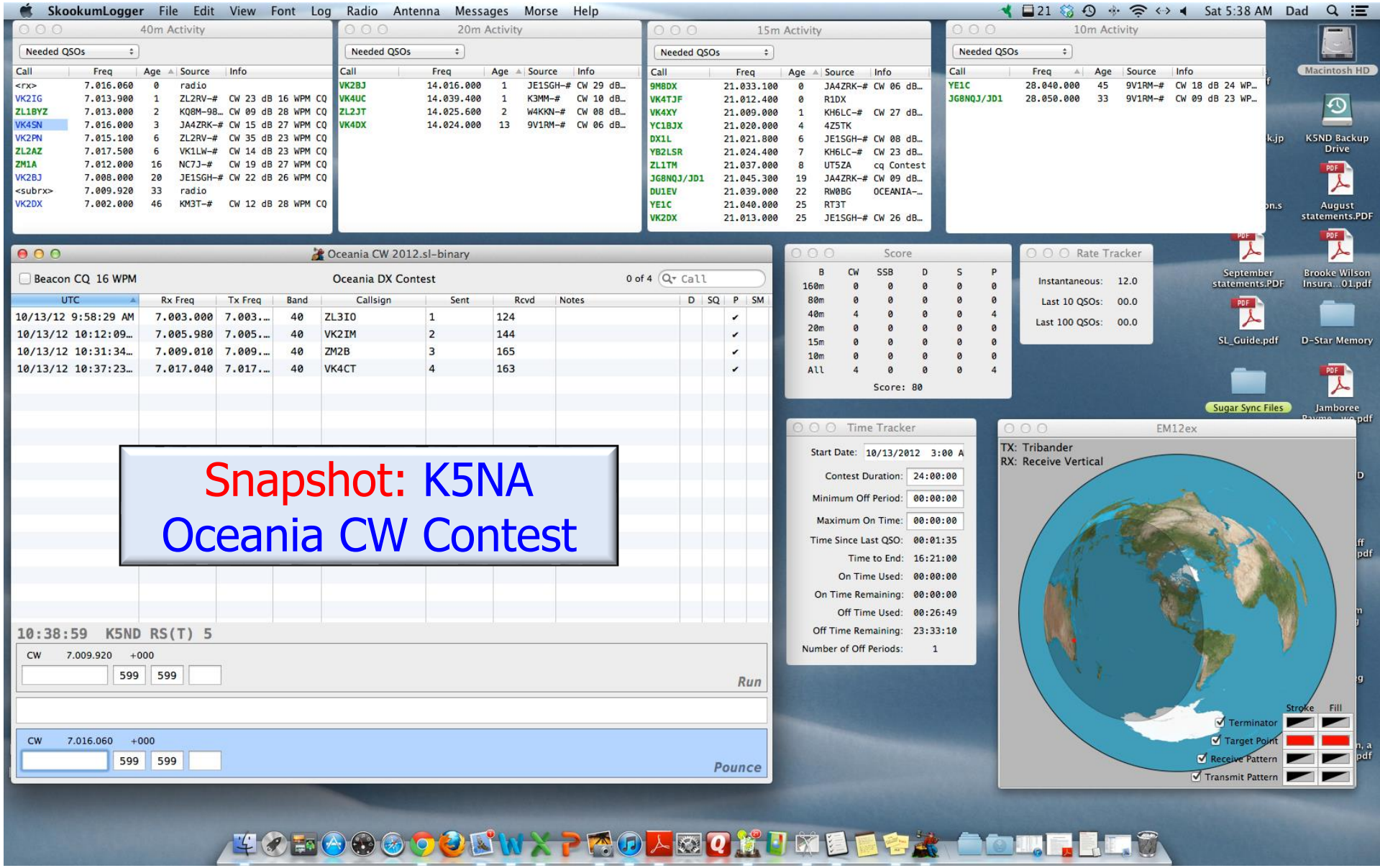
SkookumLogger: For Mac OSX Users



Snapshot: K5NA Oceania CW Contest

SkookumLogger
Mac OSX Users

(+) Newer application but gaining support

(+) Beautiful Interface

(+) Handles most popular contests

(+) Uses Winkeyer to send CW

(+) Excellent documentation

(-) No Network, Muti-Op or RTTY support – yet

(-) No email reflector or user's group

(-) No other choice ☺

Summary

- Several great *Contest Logger* choices today for all levels: **Beginner** – **Intermediate** – **Advanced**
- **N3FJP** – Great for Beginners; $
- **TR4W**: Future cloudy; solid current version; Free
- **N1MM**: Feature-rich; Free; Advanced Users
- **WriteLog** – Long-in-tooth; $$; good choice for Intermediate/Advanced Users
- **Win-Test**: Advanced Users; Not updated often; $$
- **DXLog.net**: Work-In-Progress but promising; Free
- **Skookumlogger**: Only practical OSX choice; Free

My Advice

1. Don’t be intimidated by this type of software
2. Download and try a few loggers
3. Find the user interface you like the best
4. Stick with it for a few contests
5. Join a local contesting club for more support

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Questions? Discussion?

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