

# Who needs sunspots?

CW and Contest Training Software

Uli Ann

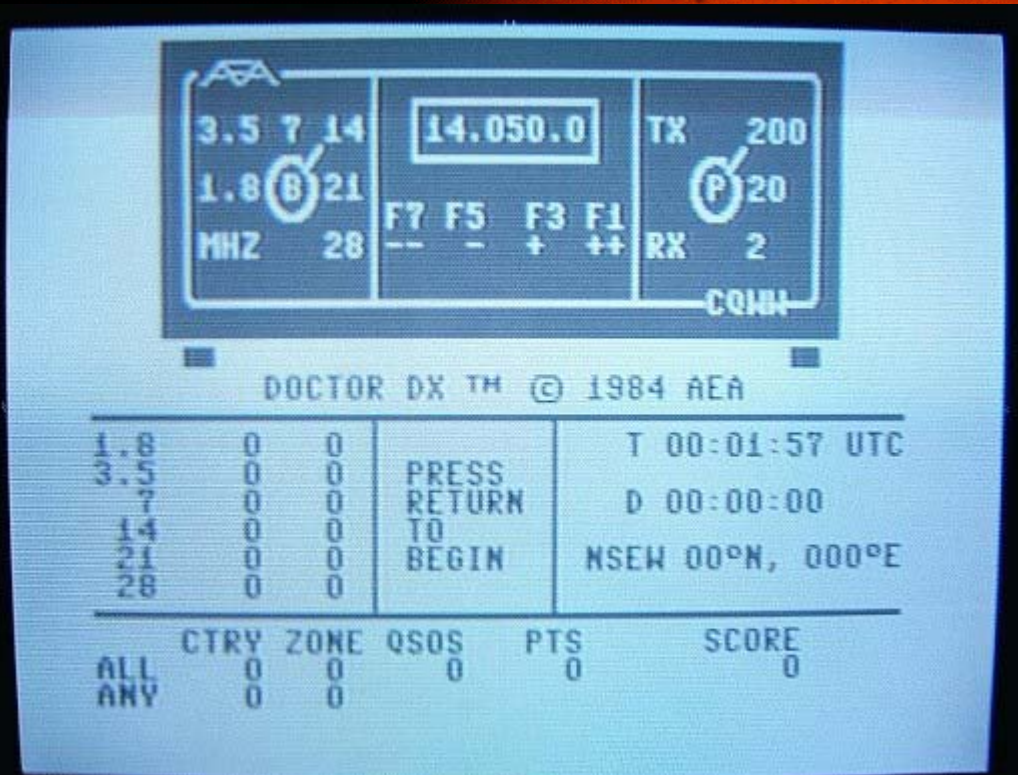
KK8I / DL2HBX



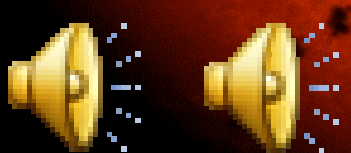
# Why use software?

- Play the `radio` almost anywhere, anytime
- No Big Gun station required
- Prepare for contests and train CW skills
- Maximize training effect
- Dodge poor conditions (the sunspot thing...)
- Compete with others and have fun

# The old days – Doctor DX C64 module, 1984



- Pre-CT era contest trainer
- Simulates entire contest, running and S&P mode
- Uses propagation model, derived from QTHs, time
- Multi rareness
- Simulates QRM and Lids
- Keyer connection



# PED by JE3MAS

MS-DOS, 1992-1998

```
STATUS
Keyer:ON Delay : 423msec Width: 1KHz Vol :53
Noise:OFF S/N :-----dB Stat1:--- Stat2:---
QSB :OFF Broken:OFF Trans:OFF FSK:OFF
CALL POINTS QSO-U+1 B H LOST%
1 KK8I 998 17 0 1 0 -4.22
2 KK8I 604 10 0 0 0 0.00
3
4
5
6

Sat May 14 12:20:46 2005 152

1 20 1218 9A5IB 599 15 _____
2 20 1218 YU1HD 599 15 _____
3 20 1219 K4AD 599 5 _____
4 20 1219 N8BJQ 599 4 _____
5 20 1219 7M4CDX 599 25 _____
6 20 1219 N2GC 599 5 _____
7 20 1220 K0HHB 599 4 _____
8 20 DK3YD 599 14 _____

RATES
Last 10 QSD Rate =
Last 100 QSD Rate =
Mult worth 0.0 minutes
Rates for all bands
Time ON: 0.0 hours
Time OFF: 0.0 hours

CW STATUS
CW speed : 36 WPM
Pitch(Hz): 500

SUMMARY
Q U+1 B H
160 0 0 0 0
80 0 0 0 0
40 0 0 0 0
20 7 0 0 0
15 0 0 0 0
10 0 0 0 0
ALL 7 0 0 0
PED Score: 0
QSO's per Hour: 242.3

xxxPED Version 5.19 by JE3MASxxx
```

- Pile-up trainer
- 1-8 (16) voices
- CT-like user interface
- Possibility to connect a keyer to LPT
- Competition mode
- BCC maintains a PED toplist for single and multi caller modes



# VPED by JE3MAS

MS-DOS, 1994/1995

```
CHECK CALL
160
80
40
2 20 1258 K9BQL 59 4
15
10
K9BQL

Sat May 14 12:59:49 2005

1 20 1258 MASIZR 59 4
2 20 1258 K9BQL 59 4
3 20          59

***VPED Version 1.06i by JE3MAS***
```

```
RATES
Last 10 QSO Rate =
Last 100 QSO Rate =
Mult worth 0.0 minutes
Rates for all bands
Time ON: 0.0 hours
Time OFF: 0.0 hours
```

```
SUMMARY
Q Z C D
160 0 0 0 0
80 0 0 0 0
40 0 0 0 0
20 2 1 1 0
15 0 0 0 0
10 0 0 0 0
ALL 2 1 1 0
VPED Score: 3
QSO's per Hour: 284.2
```

- Phone pile-up simulation
- 1-8 voices
- CT-like user interface
  
- JE3MAS is working on XPED, an XP based contest simulation for CW and SSB (inkl. Packet spots, etc.)!



# RUFZ by DL4MM

MS-DOS, 1993-2002

```
RUFZ version 3.2 Toplist mode @DL4MM 1991-2002
max. PARIS-speed= 357 cpm / 71.4 wpm Points = 37652
min. PARIS-speed= 250 cpm / 50.0 wpm Place = 3

1 KC3XH -KC3H 18 FW0BB -FW0DD
2 F6H BK -F6DNX 19 KA5AYB -KA5YBK
3 VP2M/.....-VP2M/WA2UJH20 DF7FS -DF7FH
4 HL9FY -HL9FY 21 OH/DL6GHM -OD/DL1GBM
5 8Q7HC -8Q7DC 22 EP2HB -EP2SB
6 ES6HO -ES6DO 23 DL2BCE -DL2BCI
7 HB0CB -HD8CD
8 FP8IH -FP8DH
9 K6SSB -K6HHD
10 FT5XU -FT5XU
11 3D2JS -3D2JH
12 HL9HPT -HL9DPT
13 EA8NGV -EA7DGU
14 HK1XA -5X1XA
15 7F2.....-ZF8/ZF2UB
16 EM4AVQ -E03AVK
17 HB0/HB9ABC -HB0/F6HKA

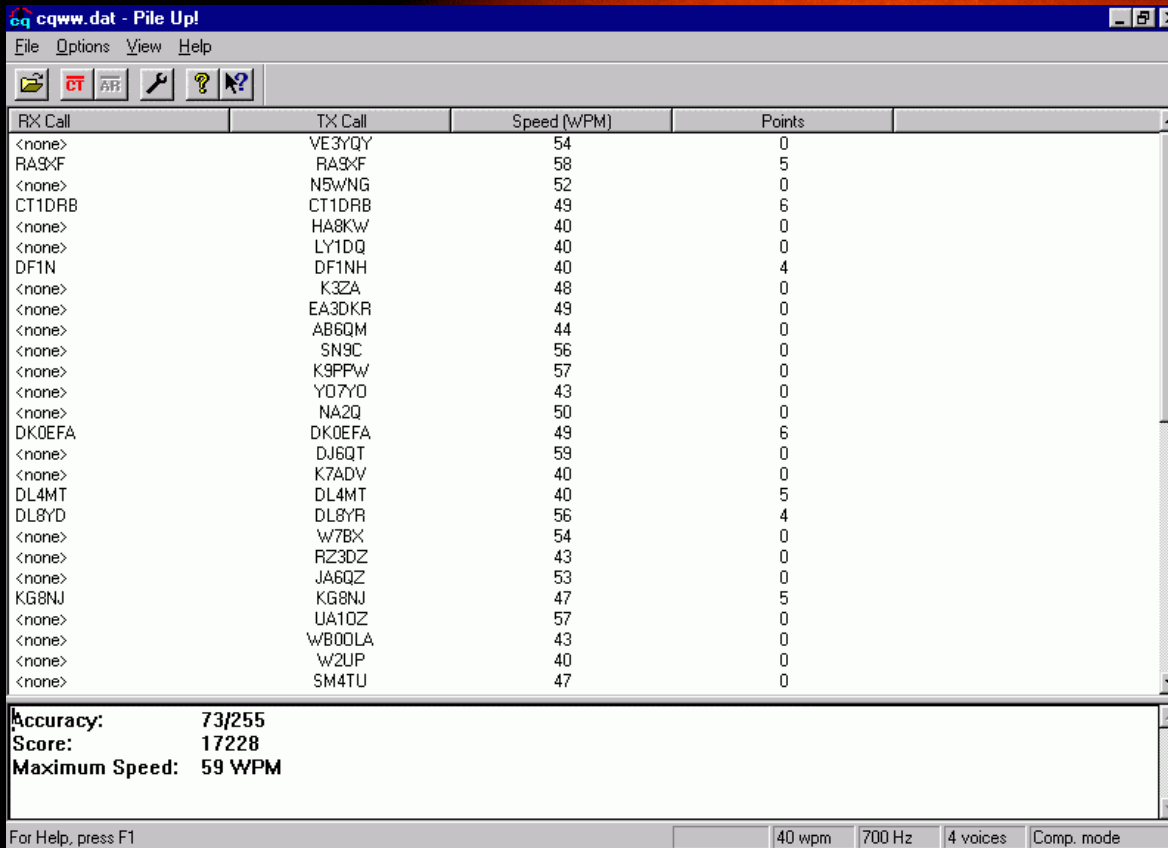
Attempt is finished .. <EHT> to continue
```



- CW speed trainer
- 1 voice
- Competition mode
- DARC maintains a RUFZ toplist with more than 700 entries
- Top speed: 147 wpm (1 YL / 6 OMs)
- Top US speeds: K7QO 109 wpm W2UP 100 wpm
- XP based RufzXP in the works

# Pile Up! by G4ZFE

Win95/98, Linux, 1997-1999



The screenshot shows the 'Pile Up!' software window with a menu bar (File, Options, View, Help) and a toolbar. The main area contains a table with columns for RX Call, TX Call, Speed (WPM), and Points. Below the table, summary statistics are displayed: Accuracy: 73/255, Score: 17228, and Maximum Speed: 59 WPM. The status bar at the bottom shows '40 wpm', '700 Hz', '4 voices', and 'Comp. mode'.

RX Call	TX Call	Speed (WPM)	Points
<none>	VE3YQY	54	0
RA9XF	RA9XF	58	5
<none>	N5WNG	52	0
CT1DRB	CT1DRB	49	6
<none>	H88KW	40	0
<none>	LY1DQ	40	0
DF1N	DF1NH	40	4
<none>	K3ZA	48	0
<none>	EA3DKR	49	0
<none>	AB6QM	44	0
<none>	SN9C	56	0
<none>	K9PPW	57	0
<none>	Y07YD	43	0
<none>	NA2Q	50	0
DK0EFA	DK0EFA	49	6
<none>	DJ6QT	59	0
<none>	K7ADV	40	0
DL4MT	DL4MT	40	5
DL8YD	DL8YR	56	4
<none>	W7BX	54	0
<none>	RZ3DZ	43	0
<none>	JA6QZ	53	0
KG8NJ	KG8NJ	47	5
<none>	UA1OZ	57	0
<none>	WB00LA	43	0
<none>	W2UP	40	0
<none>	SM4TU	47	0

Accuracy: 73/255  
Score: 17228  
Maximum Speed: 59 WPM

For Help, press F1 | 40 wpm | 700 Hz | 4 voices | Comp. mode

- Pile-up trainer
- 1-9 voices
- Requires ISA sound board
- Competition mode
- G4ZFE maintains a Pile Up! toplist
- Non-GUI version for Linux available
- Source code available



# CW Freak by JI0VWL

Windows, 2004

The screenshot shows the CW Freak software interface. At the top, there is a menu bar with 'File', 'Ranking', and 'Help'. Below the menu bar is a table with the following columns: 'No.', 'True Call', 'Your Answer', 'WPM', 'pts.', and 'Evaluation'. The table contains five rows of data, with the fifth row highlighted in blue. To the right of the table is a 'Mode Select' section with four radio buttons: 'Practice A', 'Practice B', 'Trial (20QSOs)', and 'Trial (50QSOs)'. Below the mode select is a 'Score Board' section displaying 'KK8I' and '105726 pts.'. At the bottom of the interface, there is a volume control slider, a large pink 'SO-SO' text, an 'Exit' button, a '-2 WPM...' button, a 'GO' button, a 'Stop' button, and a 'Your Callsign' field containing 'KK8I'.

No.	True Call	Your Answer	WPM	pts.	Evaluation
17	DL1TPY	DL1TPY			57
18	W3BGN	W3BGN			59
19	DL5AYI	DL5AYI			61
20	SM5CLE	SM5CRE			63
		0000X0			

Mode Select

- Practice A
- Practice B
- Trial (20QSOs)
- Trial (50QSOs)

Score Board

**KK8I**

**105726 pts.**

Vol. [Slider]

**SO-SO**

Exit -2 WPM... [Input] [GO] [Stop]

Your Callsign **KK8I**

- CW speed trainer
- Similar to RUFZ, but simpler
- 1 voice
- Competition mode
- Fixed start speed 25 wpm in competition mode
- JI0VWL maintains toplist (20 / 50 QSO)





# Cyber CW Contest by N5RR Windows, 1997-2004

CyberCWContest, Version 1.51, B&B Cyber Software

Cyber CW Contest MUTE **07.027.25** RX 14.05.2005 20:16

- Callsign -  
KK8I

- Lat - - Long -  
42,00 83,00

- Pitch - - Speed -

TEST 7,000 Wide Medium Narrow 7,050

- Band(MHz) -  
1.8 3.5 **7**  
14 21 28

- IF Filter(Hz) -  
50 100 **200**  
500 750 1.0k

OFF

Help Setup Countries Zones View Log CQ (F1) Rpt (F2) QSL (F3) Call (F4) ? (F6)

Last QSO: 05-14-2005 20:15:30 07027,26 UR3PSE Ukraine 262 16 Eu DX Call:

Start: 14.05.2005 End: 15.05.2005 Elapsed Time: 00:14:53 Remaining Time: 03:45:07

	160	80	40	20	15	10	All Band
QSOs	0	0	2	4	7	2	15
Points	0	0	6	10	16	5	37
Countries	0	0	2	4	7	2	15
Zones	0	0	2	4	5	2	13
Score	0	0	24	80	192	20	1036

- Contest trainer
- Simulates entire contest, running pile-ups, S&P
- Uses propagation model derived from QTHs, time
- Multi rareness
- Simulates noise, QRM, Lids, Cops
- Competition mode
- N5RR maintains a toplist
- Software is not freeware, free demo version



# Morse Runner by VE3NEA Windows, 2004/2005

The screenshot shows the Morse Runner software interface. At the top is a menu bar with 'File', 'Run', 'Send', and 'Help'. Below the menu is a list of stations with columns for time, call sign, and other identifiers. To the right of the list are control panels for 'Station' settings (Call, QSK, CW Speed, CW Pitch, RX Bandwidth) and 'Band Conditions' (QRN, QRM, QSB, Flutter, LID's, Activity). At the bottom left is a control panel for 'Call', 'RST', and 'Nr.' with function keys F1-F8. At the bottom right is a 'COMPETITION' panel showing '168 qso/hr.', a timer '00:32:59', and a table of statistics.

Time	Call	...	...	...	...
00:27:51	OM3JA	599 008	599 083	OM3	
00:28:10	DK1II	599 011	599 084	DK1	
00:28:28	K7OVW	599 035	599 085	K7	
00:29:01	DL1SCZ	599 023	599 086	DL1	
00:29:16	HR1CP	599 013	599 087	HR1	
00:29:28	N5XU	599 012	599 088	N5	
00:29:45	4Z5GV	599 067	599 089	4Z5	
00:30:02	UA6LAM	599 050	599 090	UA6	
00:30:29	JG1WRT	599 059	599 091	JG1	
00:30:50	IK3UMT	599 014	599 092	IK3	
00:31:05	DH8WR	599 010	599 093	DH8	
00:31:23	JF1MWQ	599 050	599 094	JF1	
00:31:33	W6ISO	599 035	599 095	W6	
00:31:46	DL2MM	599 037	599 096	DL2	
00:31:58	RZ6APF	599 039	599 097	RZ6	

Station: Call   QSK  
CW Speed:  WPM  
CW Pitch:   
RX Bandwidth:

Band Conditions:  
 QRN  Flutter   
 QRM  LID's   
 QSB

Run for  minutes

Call:  RST:  Nr.:   
F1 CQ F2 <#> F3 TU F4 <my>  
F5 <his> F6 B4 F7 ? F8 AGN

COMPETITION 168 qso/hr. 00:32:59

	Raw	Verified
Pts	97	93
Mult	85	82
Score	8245	7626

- Pile-up trainer
- Multiple voices
- Realistic simulation of QRN/QRM/QSB, Lids and noise
- Competition mode (1 hour)
- VE3NEA maintains a toplist with more than 600 entries already
- Topscores at 270 QSO / 1h
- Updates in the works



# Other Programs

- CTMODOKI by AH0K: CT training (DOS, 1992)
- TR Log by N6TR: TR training (DOS)
- HSTT by JE3MAS: Highspeed CW training (DOS, 1998)
- PileMania by JA1DYB: Pile-up (Win, 2004)
- VDMSound: Making DOS sound applications run under WindowsNT, XP

# Final Score

- CW and pile-up training programs help to prepare for a Contest / DXpedition – anytime, anywhere!
- Several interesting programs exist, most are Freeware
- Toplists are a good incentive to practice
- CW Speed training ☞ RUFZ
- Pile-up training ☞ Morse Runner
- Contest training ☞ Cyber CW Contest
- There are more exciting programs to come!
- Link to this presentation on QRZ.COM (KK8I)

TU!

