N1MM Logger Use for CMARA Field Day

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- N1MM Overview
- Software Installation
- Hardware / Software Setup
- Database Setup
- Contest Log Setup
- Band Setup
- QSO logging
- Log Consolidation and Submittal
- User Support
- Summary

N1MM Overview

- Totally FREE ! (no license fee)
- Runs on Windows 2000, XP, Vista, Win7 (32 or 64 bit)
- Does NOT run on other operating systems (MAC, Linux)
- Nearly ALL Versions are Compatible with one another (same file format)
- Supports Almost EVERY Contest
- Used by nearly ALL big-time contesters (and small timers)
- Actively Supported, User Groups
- Stand-Alone Operation (no connection to Radio)
- Automatic Computer-Aided-Transceiver (CAT) Control
- CW Keyer with PTT (keyboard window CTRL-K)
- Voice Keyer with PTT (prerecorded phonetics & messages)
- Interface to MMTTY, MMVARI, MMSSTV and other software
- Export to ADIF and Cabrillo Format, Import from ADIF

Software Installation

- N1MM Web http://n1mm.hamdocs.com/tiki-index.php

- Select "Files"

- Download and Install "N1MM Base Install" use version 10
  Install by clicking on the self-installing .exe file

- Download and Install "Latest Update" use version 10.6.2
  Install by clicking on the self-installing .exe file

- I have the Base and Latest Update on thumb drive

- Use the default directories for everything (unless…)

- You may need to install as ADMIN on Vista or Win7
  Vista and Win7 typically use C:\N1MM Logger\ (only ADMIN can access C:\Program Files\
  Win2K and WinXP use C:\Program Files\N1MM Logger\
  Newer N1MM version ALWAYS uses C:\N1MM Logger\

- Read the manual!   There is plenty of documentation:

- N1MM Logger Manual.pdf

- N1MM Quick Start Guide.pdf

- N1MM User Guide.pdf

- N1MM References (crib sheets)

- Help Files (some are on the Internet, you need a connection)

Hardware / Software Setup (1)

- **Set the Computer Local Time / Zone (Eastern Daylight Time)**
  The N1MM Logger knows how to do UTC / GMT / Zulu time in the log
  Listen to WWV on 2.5, 5.0, 10.0, 15.0, 20.0 MHz or CHU on 3.330, 7.850, 14.670 MHz
  Extremely Important to DO !!!, Otherwise Log Data Will Be Garbage

- Config / Configure Ports, Telenet Address, Other
  Select NONE for all ports if no CAT control or CW/PTT control
  Use of CAT control, CW keying, Digital Voice Keyer is discussed in Extra Topics

- Config / Change Your Station Data
  See following slide for information to enter here
  NOTE: This information can be corrected during Log Consolidation and Submittal

Hardware / Software Setup (2)
Set Computer Clock

- Click on Desktop Clock (lower right of desktop)

- Set the Date (local time)

- Set the Time (local time)

- Set the Time Zone (eastern daylight time)
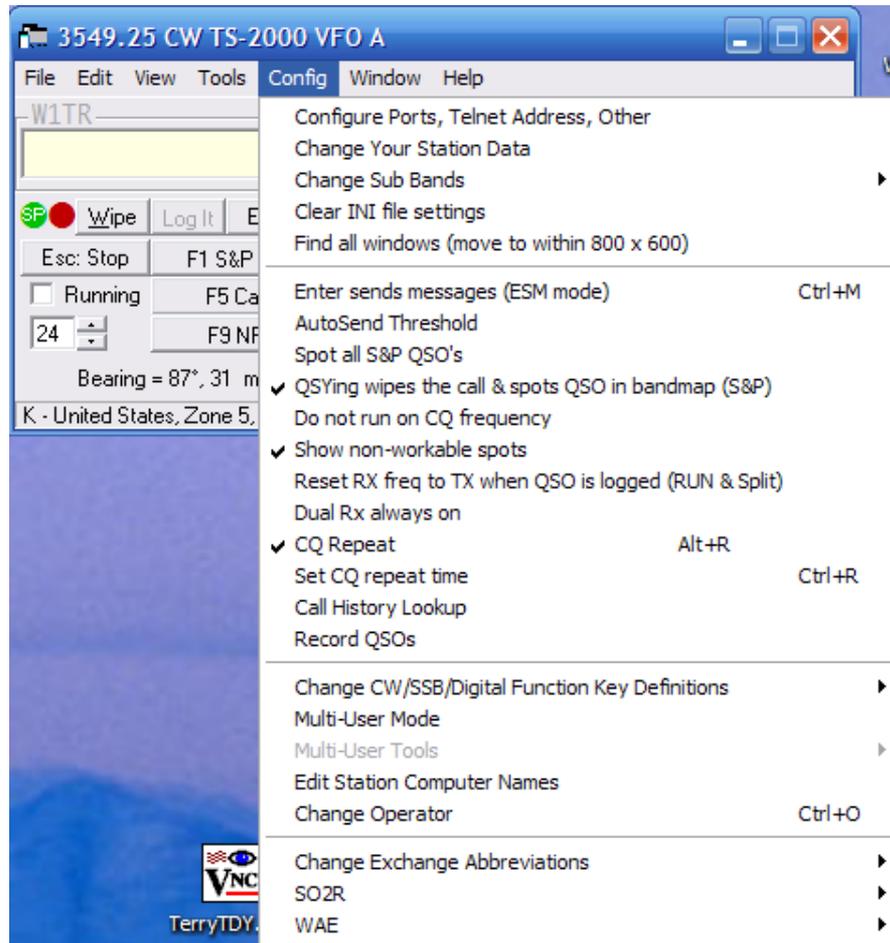
- Internet Time Will Not Work (no internet)

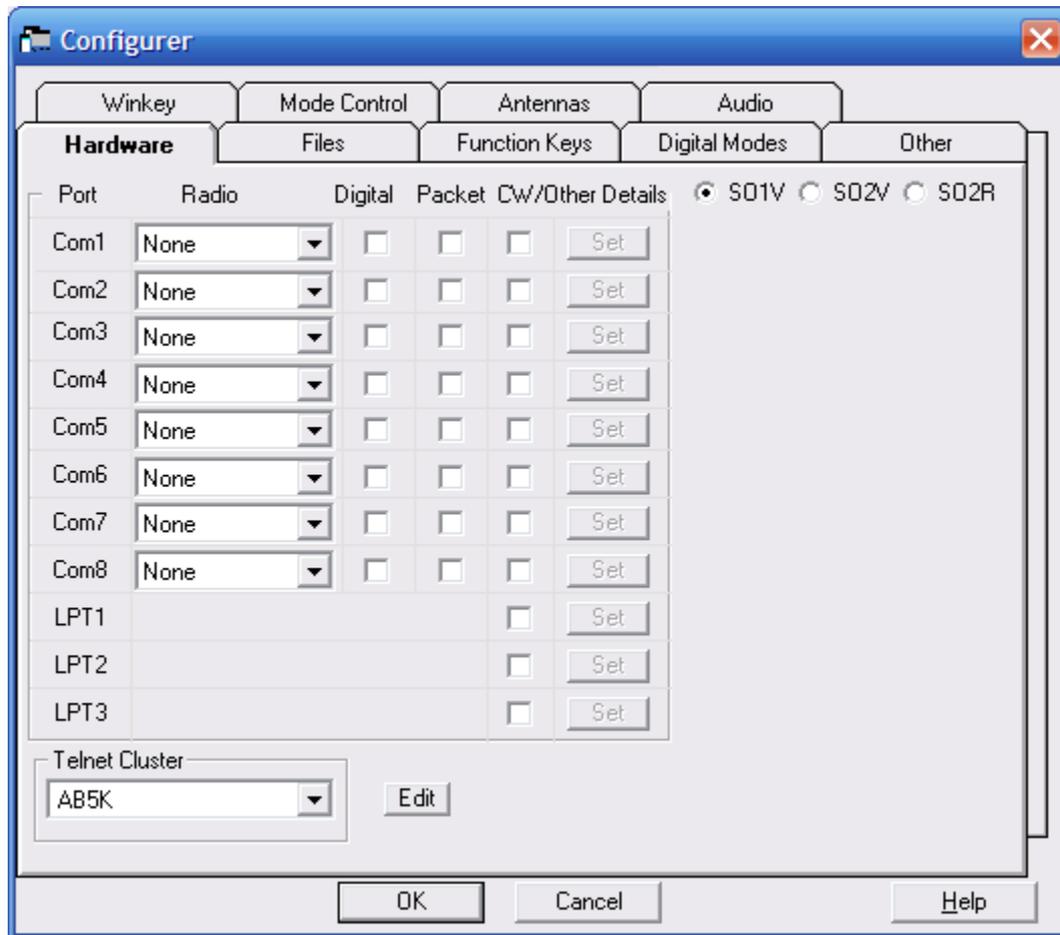# Hardware / Software Setup (3)
Set Computer Clock
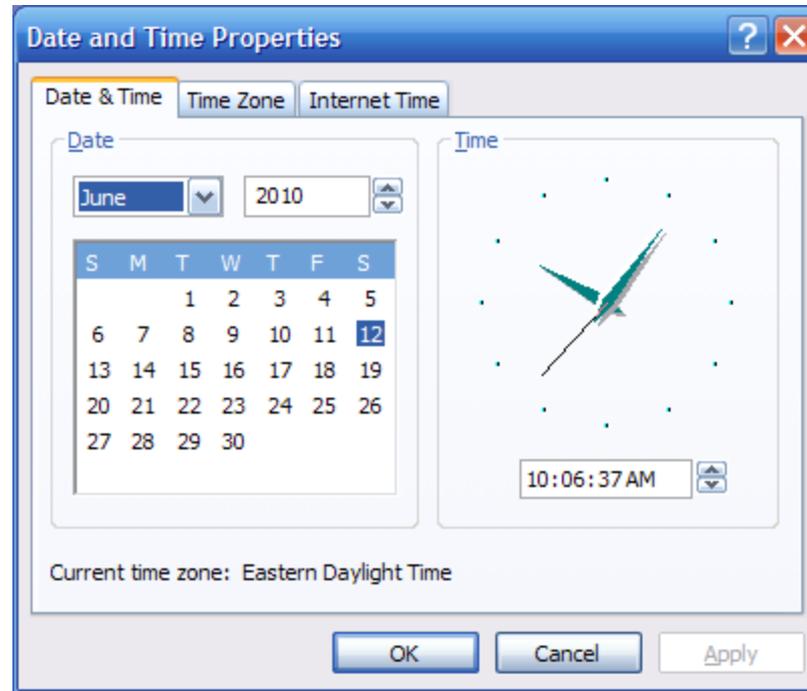
Hardware / Software Setup (4)
Select Config

Hardware / Software Setup (5)
Select Configure Ports…

Hardware / Software Setup (6)
Change Your Station Data

Database Setup (1)

- Select File / New Database
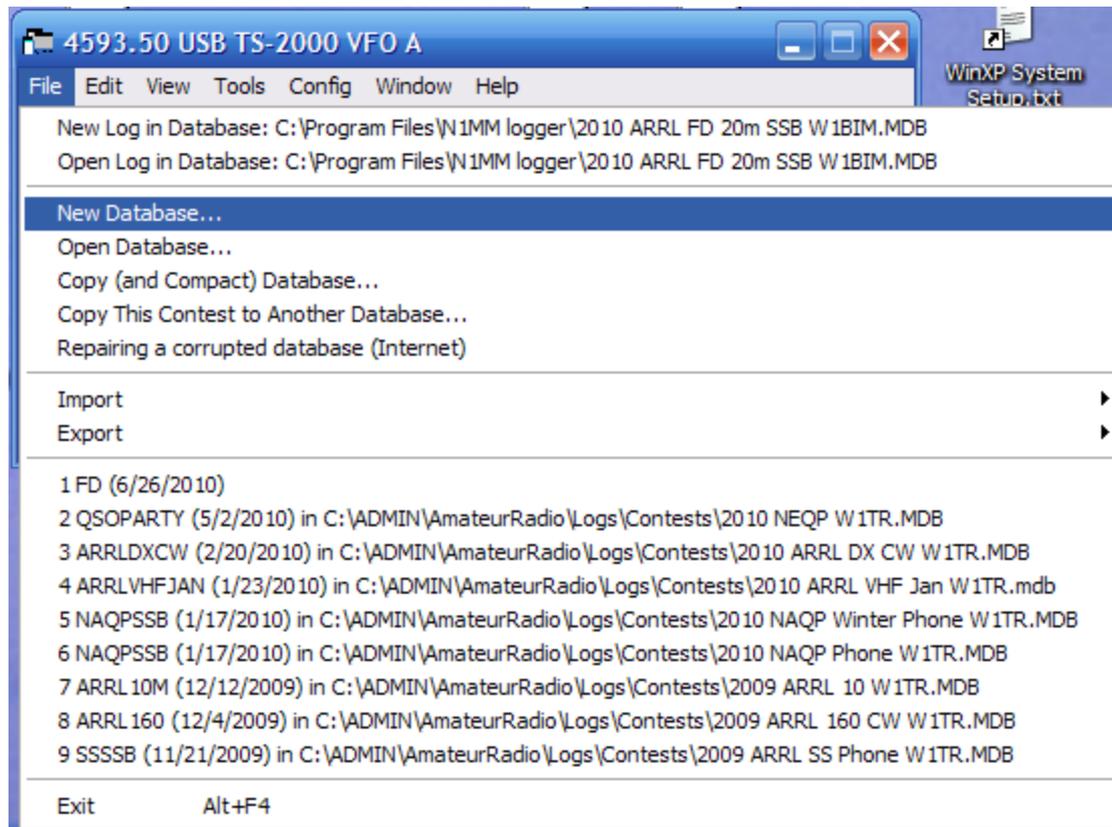 (Select File / Open Database if .MDB already exists)

- Set the Filename: "2010 ARRL FD 20m SSB W1BIM.MDB"
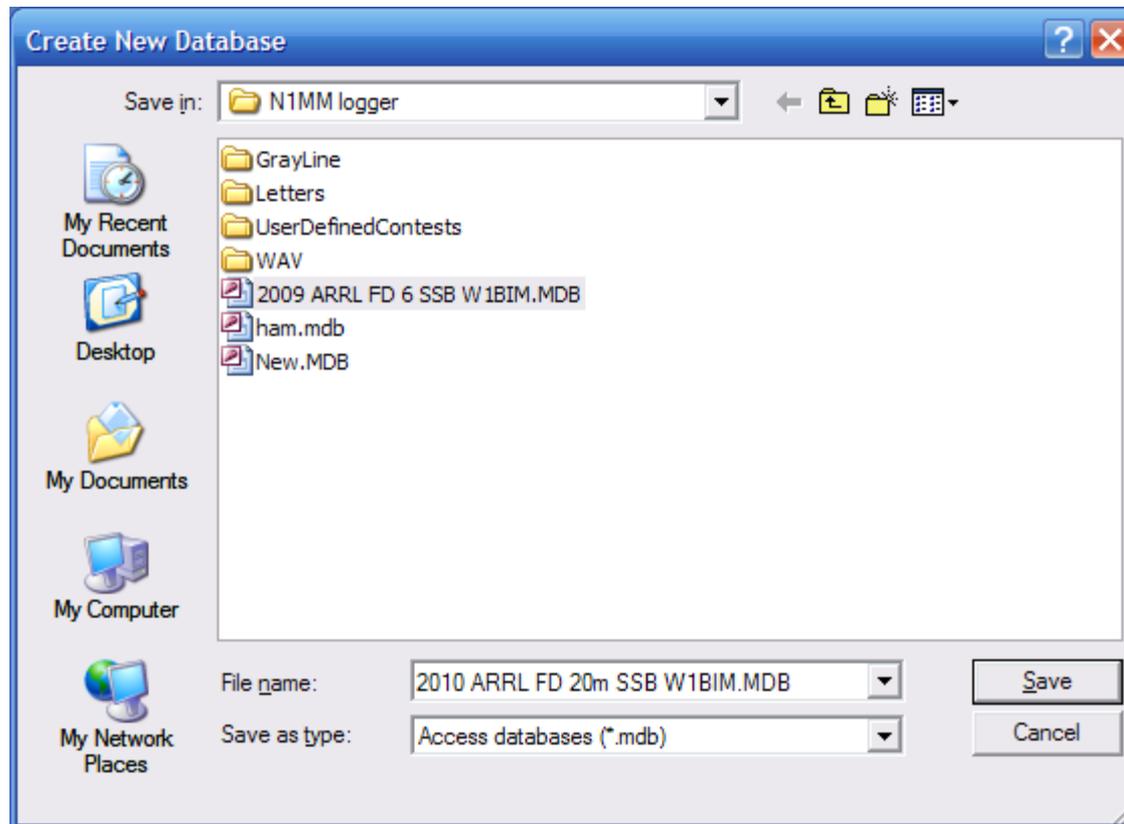 Note: use your particular band and mode instead of "20m SSB"
  Leave the directory name as the default (N1MM Logger)
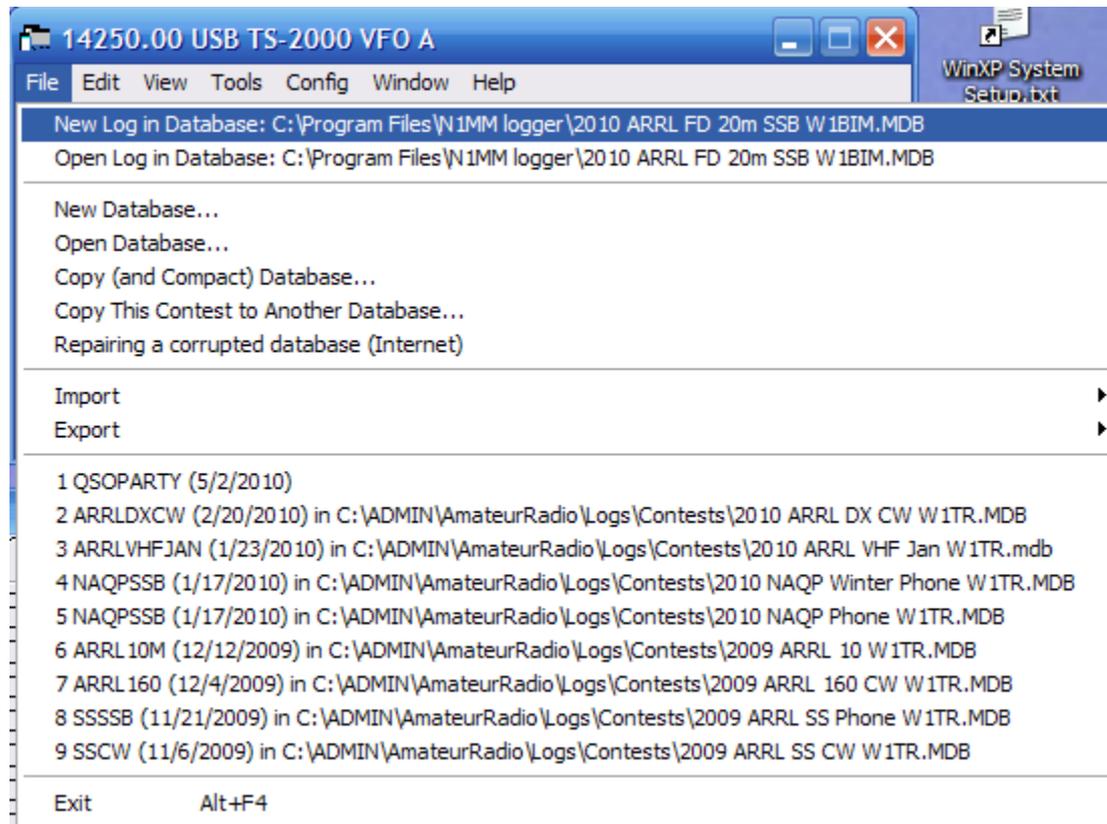
- Click the "Save" button

Database Setup (2)

Database Setup (3)

Contest Log Setup (1)

- Select File / New Log in Database
  (select File / Open Log in Database if it already exists)

- Select "FD" for Log Type

- Set Start Date to "2010-06-26"

- Set Operator Category to "MULTI-MULTI"

- Set Power Category to "LOW"

- **Set Sent Exchange to "6A WMA"** **(will be announced Sat at FD Site)**

- Set Other Parameters as Shown

- Click "OK"

- Close all windows except Main Window

- Select Window / Log

- Select Window / Score Summary

- See manual for any other items you want to display

Contest Log Setup (2)

Contest Log Setup (3)

Band Setup (1)

- ## Set Frequency

  Type Frequency in KHz (e.g. 3550) into callsign field
  Extremely Important to DO !!!, Otherwise Log Data Will Be Garbage
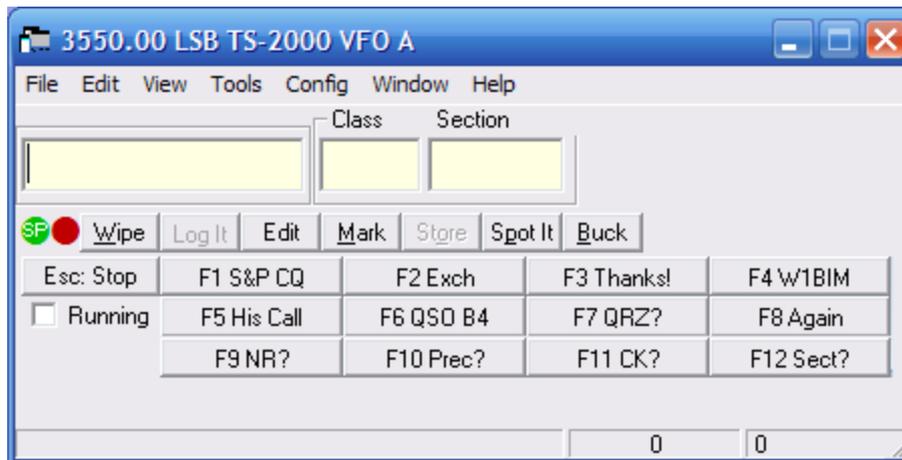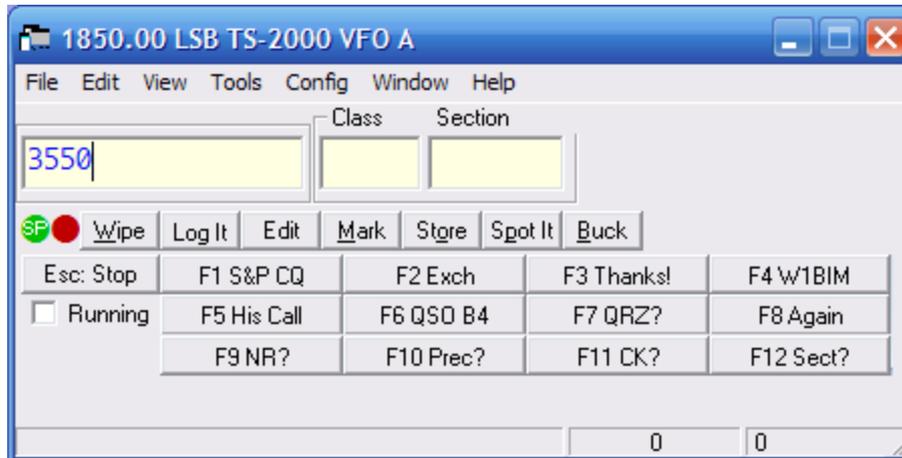
- ## Set Mode

  Type Mode (e.g. CW, USB, LSB, AM, FM, RTTY, PSK31) into callsign field
  Extremely Important to DO !!!, Otherwise Log Data Will Be Garbage

- ## Very Important to Set These Two Items

  Possible to correct other items except Date/Time, Freq, Mode

Band Setup (2)

Band Setup (3)

QSO Logging (1)

- Enter Callsign, Class, Section
- Dupes will be Indicated

QSO Logging (2)

QSO Logging (3)

Log Consolidation and Submittal

User Support

- ## N1MM Web

  http://n1mm.hamdocs.com/tiki-index.php

  Home source of information about N1MM, downloads, documentation, etc.

- ## N1MM Email User Groups

  http://n1mm.hamdocs.com/tiki-index.php?page=Overview#N1MM_Logger_Discussion_Groups

  Get notification of bugs and hints & kinks on how to use N1MM

  Post questions, comments, and report BUGS to the developers

Summary

- Free !! ☺ ☺
- Widely Used and Supported ☺
- Works on Microsoft Windows (only) ☹
- Supports nearly EVERY contest ☺
- Works with most radios, or stand alone ☺
- CW automatic keying
- Digital Voice Keying (uses computer sound card)
- Digital modes supported: MMTTY, MMVARI
- Easy to setup
- Easy to use
- Remember to setup Date/Time, Frequency, Mode

Extra Topics

- W1TR Go-Kit Diagram
- CAT Control
- CW Keying
- Digital Voice Keying (DVK)
- Audio Files
- Audacity Audio Editor
- Digital Modes (RTTY, PSK, Etc.)

W1TR Go-Kit Diagram

110 vac Power Strip

Keyer Paddle

Headset with Boom Microphone

12 vdc Power Supply

RigBlaster USB

Portable XCVR (IC-7000)

RJ-45 to mini-phono

NetBook or LapTop Computer

Automatic Antenne Tuner Unit (ATU) AT-7000 / IT-100

Antenna System

Carrying Case
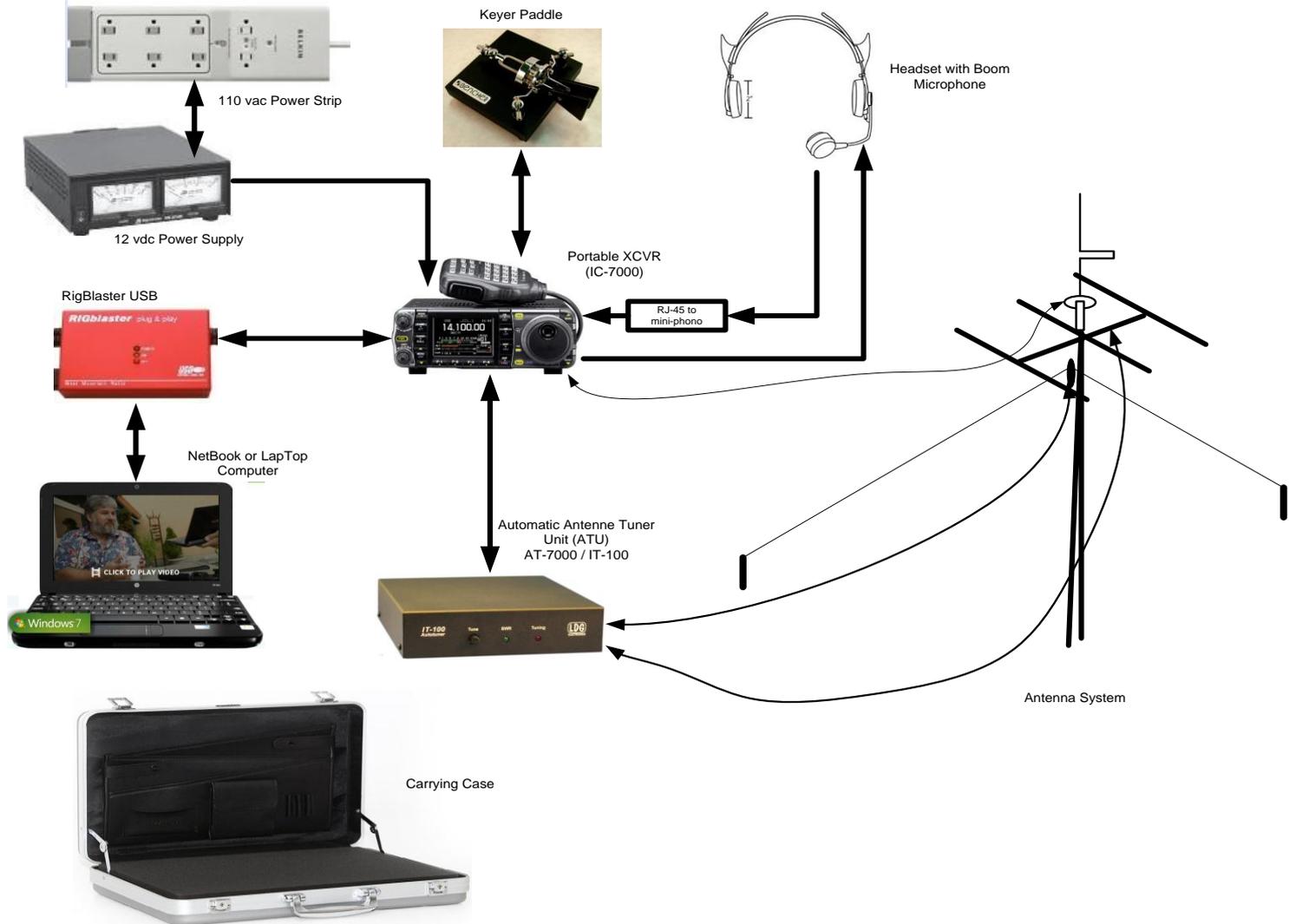
CAT Control

- USB or RS-232 to CI-V translator to Rig (ICOM)

- RS-232 directly to Rig (Kenwood)

- USB to RS-232 converter may be needed
  Most USB to RS-232 converters work OK for CAT control
  (maybe NOT for FSK RTTY)

- CAT Control Monitors Rig Data (freq, mode)

- CAT Control Can Control Rig Data (freq, mode)

- Other items can be Monitored / Controlled
  Mic Gain, CW Speed, RF Gain

CW Keying

- RS-232 or LPT used

- USB to RS-232 may be needed

- RS-232 DTR for CW Keying

- RS-232 RTS for PTT

- RS-232 TXD for RTTY FSK

- Need RS-232 (± 12 vdc) to TTL (0/+5 vdc)
Level Converter (RigBlaster Provides This)

- PFK Macros Automatically Send CW

- Ctrl-K Keyboard Window
Eliminates Need for Keyer Paddle
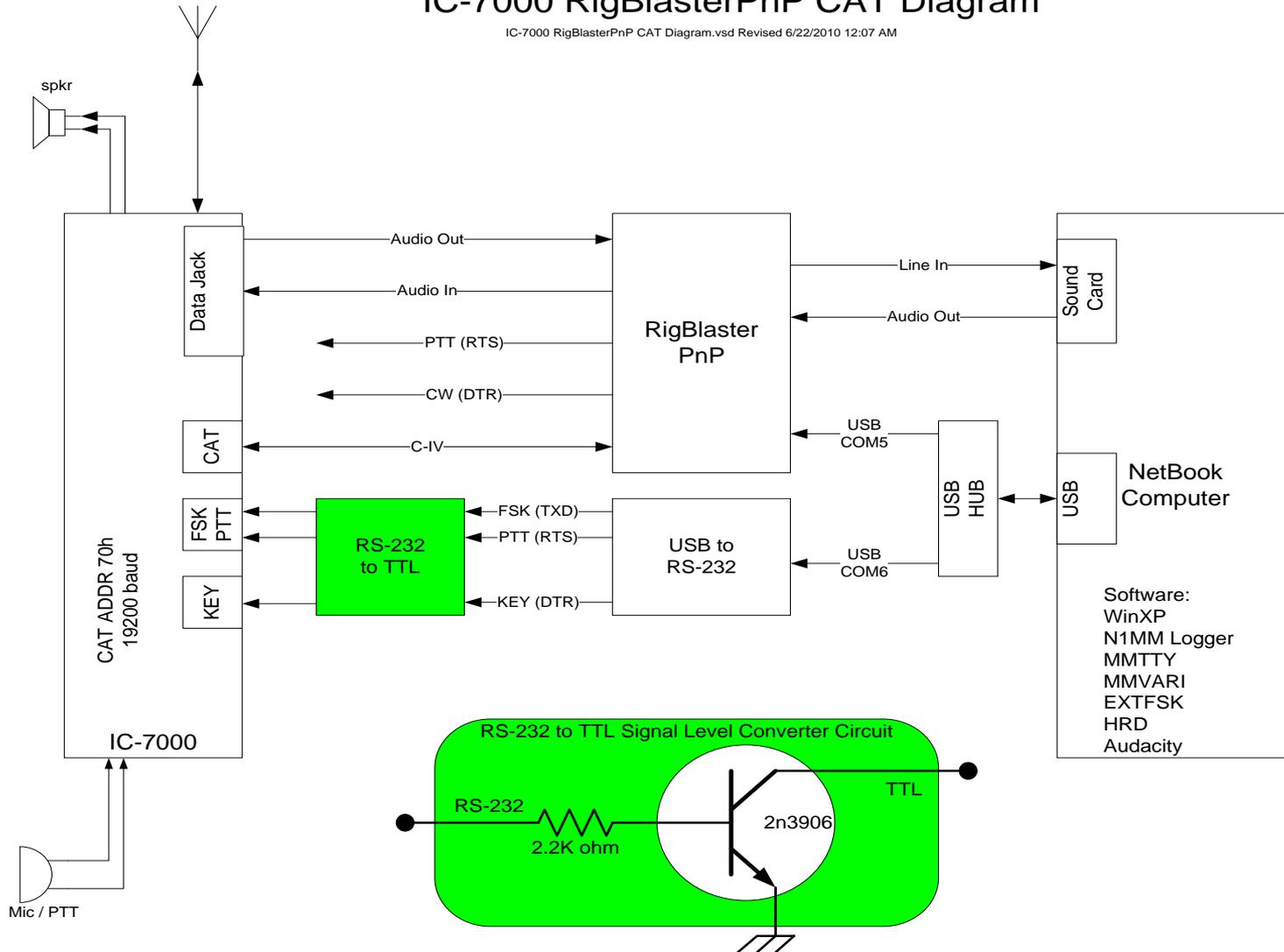Most Operators Keep the Keyer Paddle Anyway, Just In Case !!

Digital Voice Keying

- Use Computer Sound Card

- Computer Mic to Rig Speaker Output

- Computer Speaker Out to Rig Mic Input

- Isolation Transformer for Both
(RigBlaster Provides This)

- All Modulation and Demodulation in Software

Digital Modes Equipment Interconnect

IC-7000 RigBlasterPnP CAT Diagram

IC-7000 RigBlasterPnP CAT Diagram.vsd Revised 6/22/2010 12:07 AM

spkr

Data Jack

CAT

FSK PTT

KEY

CAT ADDR 70h 19200 baud

IC-7000

Mic / PTT

—Audio Out—

—Audio In—

—PTT (RTS)—

—CW (DTR)—

—C-IV—

RS-232 to TTL

—FSK (TXD)—

—PTT (RTS)—

—KEY (DTR)—

RigBlaster PnP

USB to RS-232

—Line In—

—Audio Out—

USB COM5

USB COM6

Sound Card

USB HUB

USB

NetBook Computer

Software:
WinXP
N1MM Logger
MMTTY
MMVARI
EXTFSK
HRD
Audacity

RS-232 to TTL Signal Level Converter Circuit

RS-232

2.2K ohm

2n3906

TTL

Audio Files

- Pre-Recorded Messages (CQ, This Is…, etc)

- Letters and Numbers Phonetics

- N1MM can play back messages
as defined in macro files associated with program function keys (PFKs)

- N1MM can play back internal data items
Like callsign of other station, your callsign, signal report, contest exchange, using letters and numbers phonetics

- It is possible to work a phone contest without ever saying a word into the microphone

Audacity Audio Editor

- Audacity Web Site
  http://audacity.sourceforge.net/download/

Digital Modes (RTTY, PSK, Etc.)

- N1MM does NOT do Digital Modes by Itself

- N1MM works with MMTTY for RTTY (FSK)
  Use of USB to Serial Device for FSK MAY need EXTFSK driver (software)

- N1MM works with MMVARI for Digital Modes

- N1MM works with MMSSTV for SSTV

- MM HamSoft WEB Site
  http://mmhamsoft.amateur-radio.ca/