

# YPS-M500 RADIO PROGRAMMING SOFTWARE

**Memory Types (left to right)**

- Simplex
- FM

**Memory Channel Functions (left to right)**

- Name
- Tone Mode
- CTCSS
- DCS
- RX DGID
- TX CTCSS
- Tx Power
- Skip
- Step
- Lock Step

**Primary Memory Group (PMG)**

Receive The Primary Memory Group (PMG) function displays the receive status of the registered on the face of the radio so you can see where the activity is. The programmer makes it easy to register those channels. Local repeaters or simplex channels can be selected so you never miss the action even while you are active on another channel.

The YPS-M500 Radio Programming Software is designed to make it easier to program your radio. Details of memory channels and other set menu options of your radio are in the program to access and study at your pace. No more “function key frustration” from trying to set options from the face of the radio.

Memory Channels Include:

- 999 Memory Channels
- 100 Limit Memories (50 pair)
- 6 Home A
- 6 Home B
- 10 VFO Channels

Other Menu Item Categories Include:

- Common 1
- Common 2
- FTM/Internet
- APRS
- APRS Beacon
- GM Settings

***The Radio Programmer Is for so Much More than Just Memory Management.***

The programming process begins by first installing the program then installing (and allowing) the drivers for the cable. Be sure to complete both of these steps.

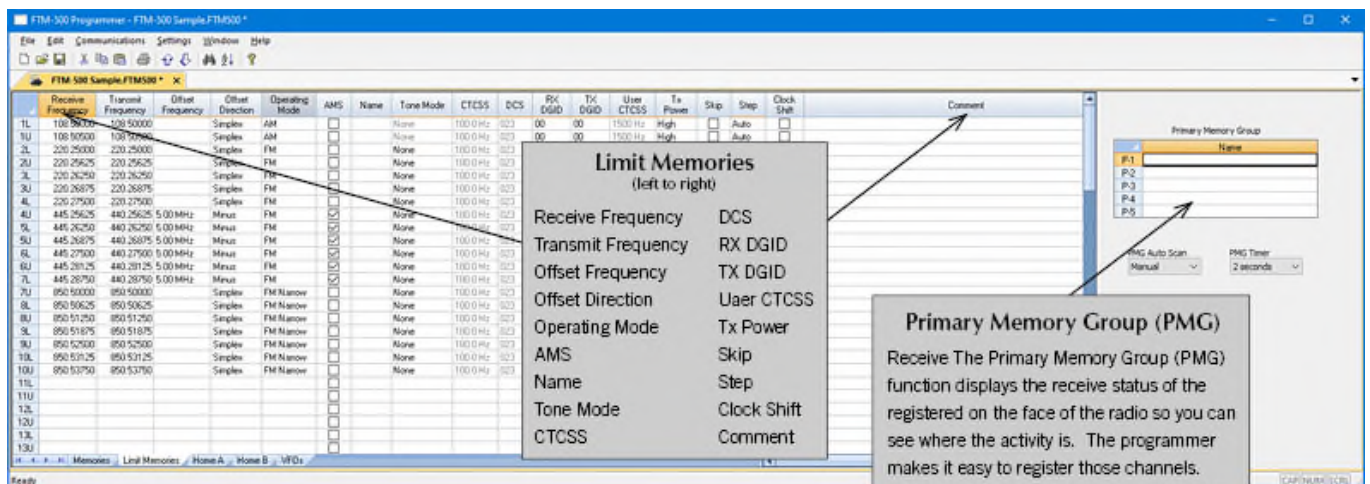


Next, make all the connections between the radio and the computer and complete Communications | Get data from radio. This “syncs” the radio and computer. Even if the radio is not yet set up with memory channels, there are details that the programmer needs to get from the radio.

Start setting up details for your radio in a “factory fresh” file (File|New) or in the file that was created when you did Communications | Get data from the radio. Begin by entering a receive frequency (that will be the frequency published for the repeater). When you press Enter or Tab to leave the Receive frequency field, the program will complete details for the channel. Then customize Name and Tone to match the details you have for that local repeaters.

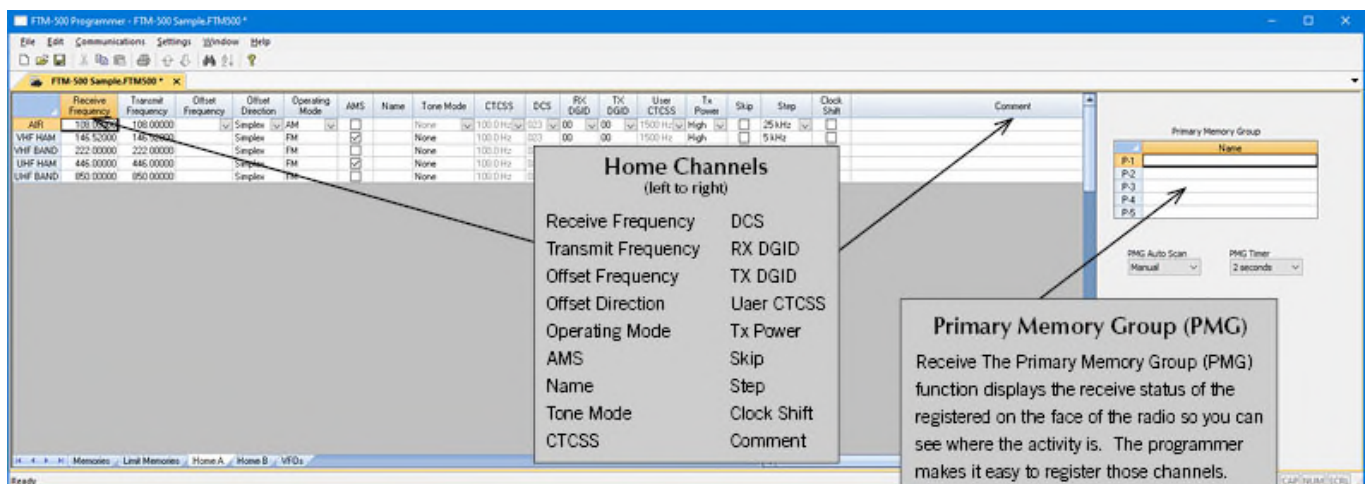
Use the links to external data sources (File | External data) built right into the programmer to access repeater details for your area or for a location you plan to visit. Then with just a few button clicks, you have a file with hundreds of entries and all you typed was your location (i.e., zip code or city).

Save your file as you work. This is a computer, after all, and you would hate to lose your work should the system fail. Actually, create and save as many files as you want or need. You could have one file for home, a different one for the vacation house, another for the trip to your son’s house, another for the yearly 3K run and picnic where you help direct traffic and want the radio to be programmed with only the frequencies for that event. Remember, radio programming is an overwrite process. Everything in the radio is replaced by everything in the file.



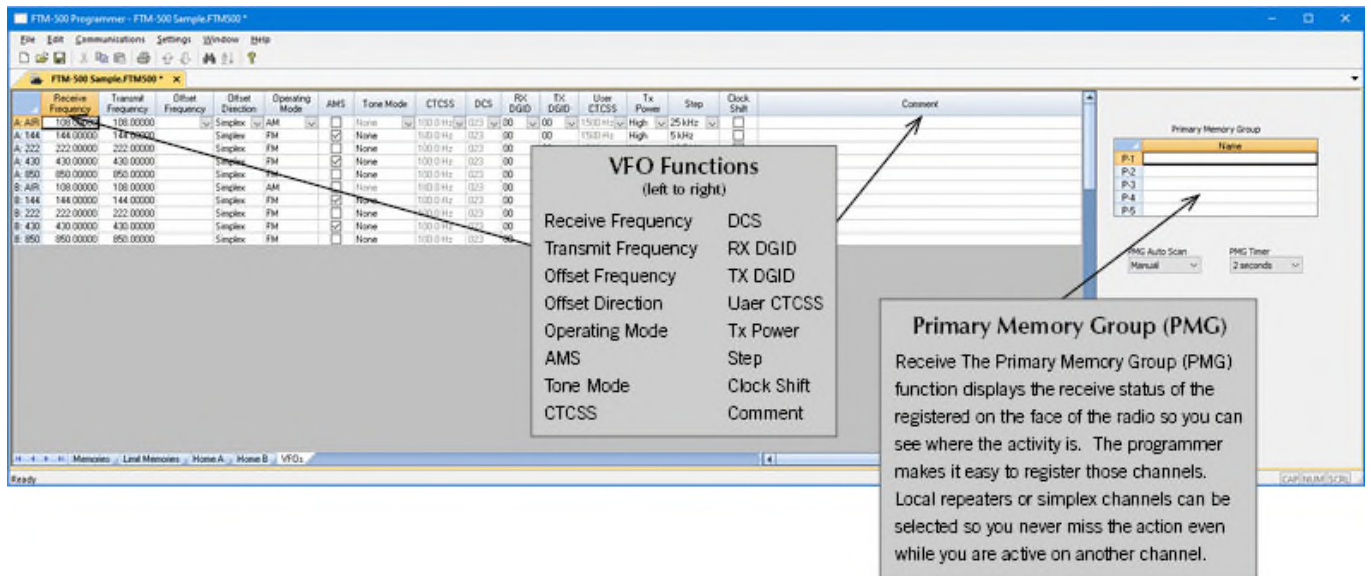
## Limit Memories

Limit Memories are used by the radio for Program Scan. Program the same details for Limit Memories as for regular memory channels. Many of the Limit Memories are preprogrammed in the radio and while the frequency can be changed to another within the band, they cannot be left blank.



## Home A and Home B

Home/Call channels are special memories accessed through one button recall on the radio. These channels are preprogrammed in the radio and while the frequency can be changed to another within the band, they cannot be left blank.



## VFO Channels

The program makes available the same VFO's as in the radio (usually one per band). Remember these are not real memory channels since the details are lost as soon as you tune the radio manually. There is no one button recall for these. You do not need to program into VFO before programming details into a memory channel. These channels are preprogrammed in the radio and while the frequency can be changed to another within the band, they cannot be left blank.

# Radio Menu Settings

Use these screens to customize many set menu features of the radio. Check boxes toggle features on or off, use drop down menus list all selections and blank boxes for personalized entry add to the ease of setting up your radio exactly like you want it.



The entries on the Settings screens are made for you to "Set and Forget". Once settings are customized, you are prompted to save before exiting. The saved settings will be there every time you create a new frequency file.

## Common 1 and Common 2

Use this screen to customize other set menu features of the radio. Check boxes toggle features on or off, drop down menus list all selections and blank boxes for personalized entry add to the ease of setting up your radio exactly like you want it.

Menu Settings for

Close External Setting Files Tabs Help

Common 1 Common 2 DTMF / Internet APRS APRS Beacon GM Settings

**Config**

Band A: ☒ Auto Repeater Shift, Band Skip, ☒ VHF, ☒ UHF, ☐ Other, Dual Watch Time: 5 seconds

Band B: ☒ Auto Repeater Shift, Band Skip, ☒ VHF, ☒ UHF, ☐ Other, Dual Watch Time: 5 seconds

Auto Power Off: Off, Beep: Low, Date Format: yyyy-MM-dd, Time Format: 24 Hour, Time Zone: 000

GPS Device: Internal, GPS Datum: WGS-84, GPS Log: Off, Time Out Timer: 5 minutes, Unit: Inch

Callign: AAA, Scan Resume: Band A: Busy, Band B: Busy

**Display**

Compass: Heading Up, LCD Brightness: Max, A-Band Scope: Wide, Location Info: Compass, Display Mode: Backtrack, Frequency Color: White, B-Band Scope: Wide

**GPS Device**

GPS Device: Internal, GPS Datum: WGS-84, GPS Log: Off, Time Out Timer: 5 minutes, Unit: Inch

**Mic Keys**

P1: 2nd PTT, P2: Home, P3: D\_X, P4: Wx

**Function List**

Expanded	None
Scans	Tx Power
S-d Type	RPT APRS
RPT Reverse	Tone / DCS
DTMF	APRS

Menu Settings for

Close External Setting Files Tabs Help

Common 1 Common 2 DTMF / Internet APRS APRS Beacon GM Settings

**Band A/B**

Band A: Squelch: 1, S-d Expansion, Bell Ringer: Off, Weather Alert: Active Channel, Priority Scan, Priority Repeat, Sub-Band Display

Band B: Squelch: 1, S-d Expansion, Bell Ringer: Off, Weather Alert: Active Channel, Priority Scan, Priority Repeat, Sub-Band Display

**Tx / Rx**

Digital: ☒ Location Service, ☒ Standby Beep, ☐ Digital Vw, AMS Tx Mode: Auto, Pttup Time: BND 10 sec

**Audio**

Sub-Band Mute, Front SP Mute, Recording: Band: Main, Mic: Off, VEDC: Enable, Delay: 0.5s, Speaker: Front

**Voice Memory**

Play/Pac: Last 30 sec, Announce: Auto, Language: English, Volume: High, Audio Equalizer: Front Tone: Off, Rear Tone: Flat, AES5 Phase: 10 Dns, Rear Out: 100%

**Bluetooth**

On

Name	ID
1	
2	
3	
4	
5	
6	

## DTMF/Internet

Enter DTMF and Internet (wires) memory details to customize options for the functions of the radio.

Menu Settings for

Close External Setting Files Tabs Help

Common 1 Common 2 DTMF / Internet APRS APRS Beacon GM Settings

**DTMF Settings**

Auto Dater: Manual, Band A Channel: 1, Band B Channel: 1

Code
1
2
3
4
5
6
7
8
9

**Internet (Wires) Settings**

Category Tag 1		Category Tag 2	
ID	Name	ID	Name
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

**Search Setup**

History, Rpt/Wires Freq: Manual, Preset Frequency: VHF: 146.50000, UHF: 446.50000, D/G ID: Auto

## APRS

Use this screen to enter APRS functions of the radio.

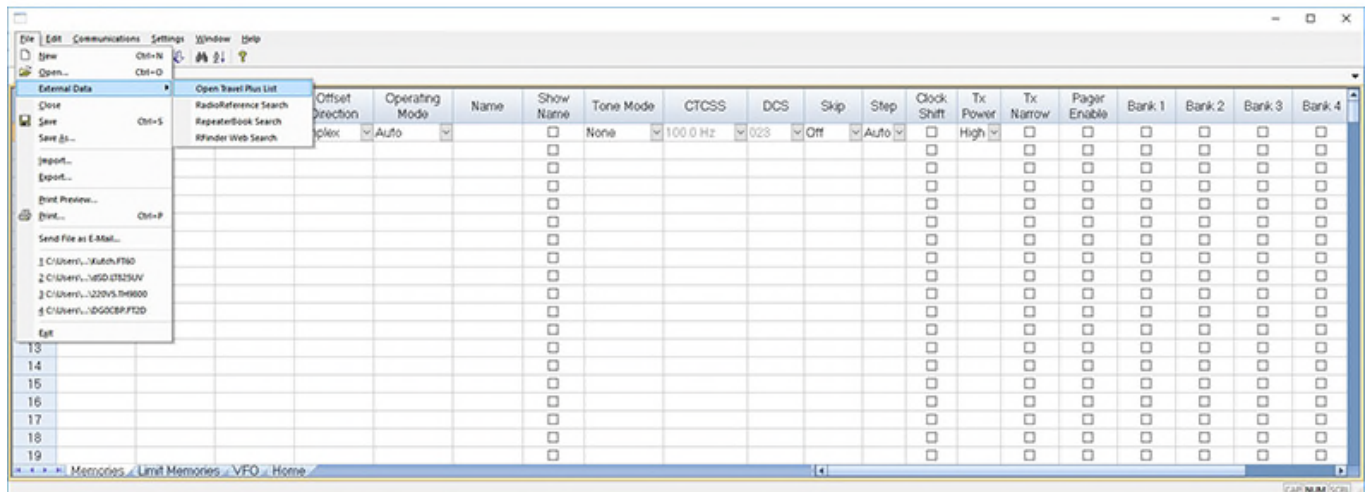
## APRS Beacon

Use this screen to enter APRS functions of the radio.

## GM Settings

Group Monitor/Messaging. Set options for Fusion operations including the DP-ID list of your favorite contacts. Edit the list as needed as folks come and go from your group. Enter messages without having to turn the knob for each letter.

# External Data



RT Systems Programmers interface with four sources of data to make it easy for you to find repeater information. Some of these sources even include information for repeaters outside the US. Your existing subscription to a service (where required) works in the programmer.

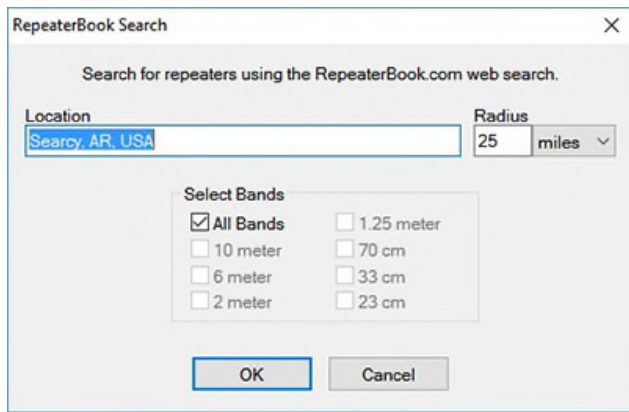
- **Open Travel Plus List** – This is a great source for those of you who still have the TravelPlus CDs (now discontinued) from ARRL since it does not require an Internet connection. Use it with TravelPlus from 2009 to 2015. For more details about using TravelPlus [see our video](#).
- **RadioReference Search** – This database has commercial and amateur repeaters. A subscription through RadioReference is required to access this data.
- **RepeaterBook Search** – This database contains domestic and international repeater listings. It is free to use from within the programmer.
- **RFinder Web Search** – This database has both domestic and international repeater listings. RFinder offers the best search abilities with single location or routing options. A subscription through RFinder is required to access this data.

The 'RadioReference Search' dialog box is shown. It has a title bar with a close button. The main text says 'Not registered for the RadioReference Service?' with a blue link 'Click here' below it. There are two dropdown menus: 'State/Province' with 'Georgia' selected and 'County' with 'Meriwether' selected. Below these are two text input fields: 'User ID' with 'rtsystems' and 'Password' with a masked password '\*\*\*\*\*'. At the bottom are 'OK' and 'Cancel' buttons.

## Radio Reference Search

An internet connection and subscription to the service are required for this search.

Enter the user e-mail and Password that you established when you purchased your subscription from RadioReference. Then select the **State**– Select the state from the list and **County**– Select the state from the list to get repeaters for that area. Click OK.



RepeaterBook Search

Search for repeaters using the RepeaterBook.com web search.

Location:

Radius:  miles

Select Bands

<input checked="" type="checkbox"/> All Bands	<input type="checkbox"/> 1.25 meter
<input type="checkbox"/> 10 meter	<input type="checkbox"/> 70 cm
<input type="checkbox"/> 6 meter	<input type="checkbox"/> 33 cm
<input type="checkbox"/> 2 meter	<input type="checkbox"/> 23 cm

OK Cancel

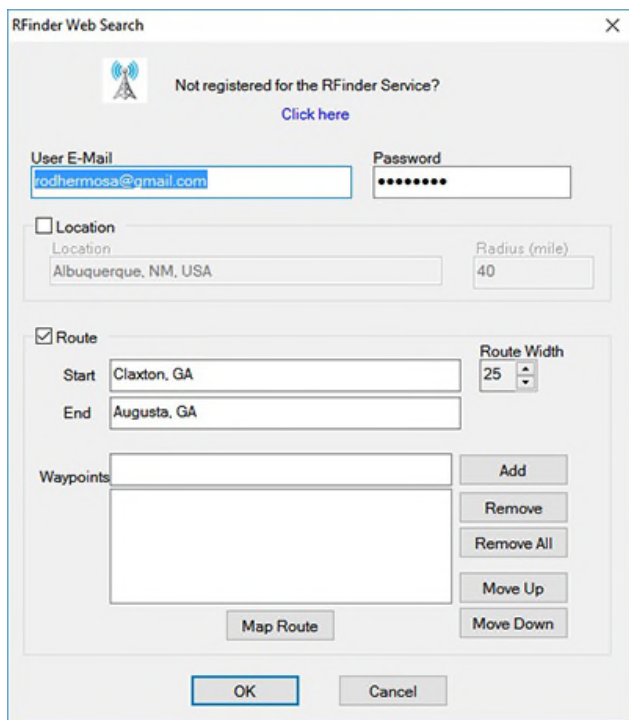
## Repeater Book Search

An Internet connection is required for this search.

**Location** – Enter City, State, Country (if not in the US).

**Radius** – Enter how many miles (up to 90 maximum) around this location.

**Select Bands** – This is not terribly important since it can be done on the next screen; however, you might want to limit the selection to reduce the number of repeaters in the results. Uncheck All Bands to make the individual bands active. Click OK.



RFinder Web Search

Not registered for the RFinder Service?  
[Click here](#)

User E-Mail:

Password:

☐ Location

Location:

Radius (mile):

☒ Route

Start:

End:

Route Width:

Waypoints:

Add Remove Remove All Move Up Move Down

Map Route

OK Cancel

## RFinder Search

An internet connection and subscription to the service are required for this search.

Enter the User E-mail and Password that you established when you purchased your subscription from RFinder.

**Location** - Search around a specific city. Enter City, State and Country (if not US). Enter Radius up to 90 miles.

**Route** - Search along the route of a trip you're planning. Enter the Start and End cities, a width (remember to limit this since you can't hear repeaters that are too far away), and waypoints (other cities along the way). The search will travel along major interstate highways between the two cities. If the result is not along the route you plan to take, enter other waypoints on your route.

**Map Route** – Use this option to see the route the search will take. Close the map to return to the search screen.

Click OK.



The information is returned on a screen that is not yet ready for radio programming, this screen lets you examine the data to see if the results are about what you expected. You might find that you spelled the city name wrong which resulted in nothing being returned; or that you want to pull repeaters from further away; or you want to get repeaters for different bands.

	Output Frequency	Input Frequency	Offset Direction	Callsign (Name)	CTCSS	DCS	City	State	Region	Repeater Notes (Comment)	Sponsor
1	145.11000		Minus	WCSDH	67.0		Dayton	OHIO	MONTGOMERY	o 67.0 (CA)sk	WCOAR
2	146.64000		Minus	K8MCA			Dayton	OHIO	MONTGOMERY	o 67.0 (CA)sk	MoCoAP
3	146.82000		Minus	W8PLZ	77.0		Dayton	OHIO	MONTGOMERY	o 77.0e	MWA
4	146.94000		Minus	W8BI	123.0		Dayton	OHIO	MONTGOMERY	o 123.0a	DARA
5	146.96500		Minus	W8FM	123.0		Dayton	OHIO	MONTGOMERY	o 123.0i	MVRFG
6	147.13500		Plus	W8SSMC			Dayton	OHIO	MONTGOMERY	o (CA)z	FarcuAI
7	147.36000		Plus	W8PLZ	77.0		Dayton	OHIO	MONTGOMERY	o 77.0e	MWA
8	145.33000		Minus	W8DYY			Miamisburg	OHIO	MONTGOMERY	o (CA)e	MoundA
9	146.77500		Minus	W6CDR	77.0		Miamisburg	OHIO	MONTGOMERY	o 77.0	W6CDR
10	147.01500		Plus	W8NCI	77.0		Miamisburg	OHIO	MONTGOMERY	o 77.0	W8NCI
11	147.07500		Plus	W8KMC	67.0		Miamisburg	OHIO	MONTGOMERY	o 67.0	KMCN
12	147.19500		Plus	W8DYY			Miamisburg	OHIO	MONTGOMERY	o (CA)wX	MoundA
13	146.91000		Minus	W8GCA			Bellbrook	OHIO	GREENE	o 67.0	GCARE
14	147.04500		Plus	W8DGN			Bellbrook	OHIO	GREENE	o 67.0	BARC
15	145.43000		Minus	W8ART	88.5		Clearcreek Twp	OHIO	WARREN	o 88.5e	CtrvAR
16	145.41000		Minus	K8FBN	118.8		Fairborn	OHIO	GREENE	o 118.8e	UpVlyAP
17	145.29000		Minus	W8ZVL	118.8		Franklin	OHIO	WARREN	o 118.8 (CA)r	W8ZVL
18	145.49000		Minus	W8CYE	77.0		Springboro	OHIO	WARREN	o 77.0e	DRAKE
19	147.24000		Plus	K8KID			Tippecanoe	OHIO	MIAMI	o 77.0	84/24FM
20	147.16500		Plus	N8JFA			Xenia	OHIO	GREENE	o (CA)e	XeniaAR
21	146.61000		Minus	W8BLV	77.0		Middletown	OHIO	BUTLER	o 77.0 Ttel	Dial ARC
22	147.31500		Plus	W8JEU	77.0		Middletown	OHIO	BUTLER	o 77.0 Ttel	Dial ARC
23	146.86500		Minus	W8EMA	118.8		Lebanon	OHIO	WARREN	o 118.8a (CA)sk	WarrenE

**Make selections for Name and Comment**

Modules: [Select a Module] Name: [Callsign] Comment: [Repeater Notes] Select All: [ ] Unselect All: [ ]

Select what the radio uses as the Name display. You can select the Callsign (default), City, State, Region, Repeater Notes or Sponsor. Notice that each of these categories is a column of information in the grid. You will see those names at the top of the screen. You are selecting the information in that column for the Programmer to set up for the Name field. NOTE: The radio will truncate (cut off) the information in the field at the maximum number of characters it can use for the Alpha/numeric display. You might end up with only the first four or six characters of the information in the column. Consider this when selecting the information.

Select what the Programmer will use in the Comment field. This information does not go to the radio but can be very helpful for identifying a channel as you work with it on the spreadsheet. You can print this information along with other details for the channels to have it on hand as you travel. Again, select Callsign, City, State, Region, Repeater Notes or Sponsor.

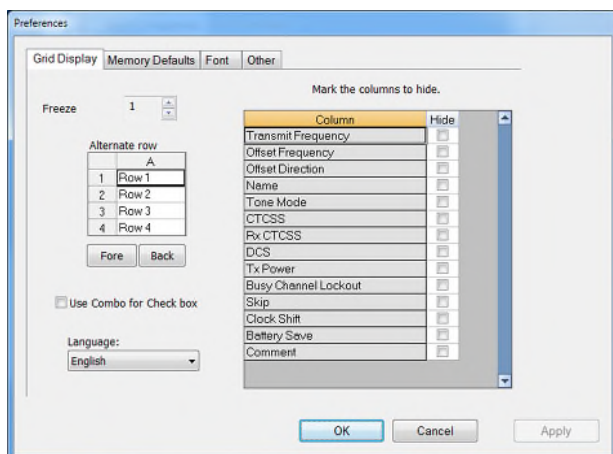


## Resulting File

After clicking Create File for (Your radio) the programmer creates the file that you use to program your radio. Notice that all the Tones are set up with the tone frequencies. All done automatically.

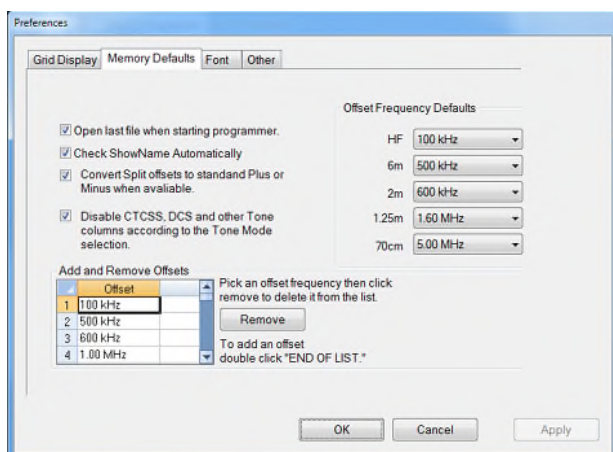
What a list and all you did was enter a location!

## Preferences Customize the Programmer



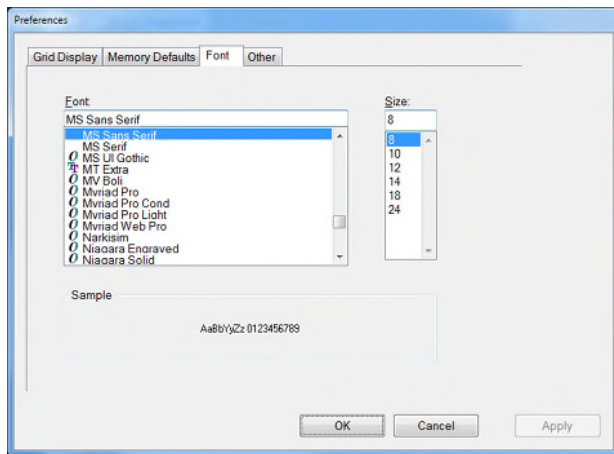
### Grid Display

- RT Systems now available in English, French, German, Italian, Spanish, Portuguese and Japanese.
- Set colors for text (Fore) or background (Back) of alternate rows for easier viewing across the columns.
- Freeze columns to keep information on the screen as you scroll to the right of the page.
- Hide columns you don't use. Customize your printout: hidden columns do not print.
- Use Combo for Check boxes – changes the grid to eliminate check box selections that are disabled on some systems.



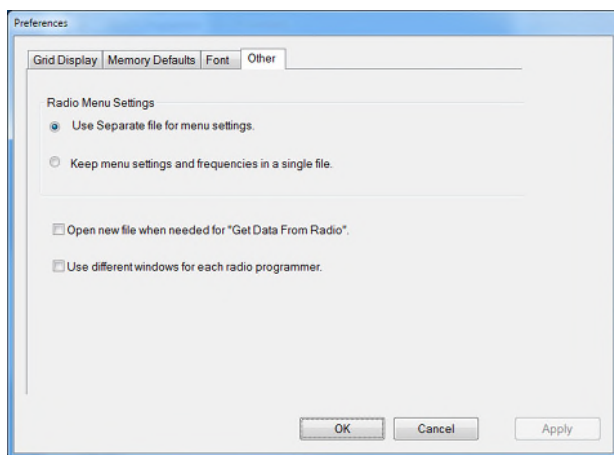
### Memory Defaults

- Set options to control auto fill information for memory channel entries.



## Font

- Set options to control the font in the column headers of the channel entry screens. Select any font and font size available on your computer.



## Other

- Set options to control how the programmer handles the global Radio Menu Settings file.
  - Separate (default) handles the global settings of the radio in a “set and forget” fashion. Once you set these up and save the file you won’t have to reset them for a new frequency file.
  - Together as one gives you the ability to create files that are complete with frequencies and customized global settings. In this mode, each file begins with factory defaults for every option of the radio.
- Check “Get data from Radio” new file option to prevent data loss when you read from your radio into the programmer.
- Check “different window” option to make the programmer for a different radio run in a completely separate window rather than in a separate tab of the same window.