{button ,JI(`',`.intro')}   **Introduction**

{button ,JI(`',`.searching')}   **Searching the Directory**

{button ,JI(`',`.controls')}   **Using the Search Controls**

{button ,JI(`',`.lists')}   **Working with the Database List**

{button ,JI(`',`.add_edit')}   **Adding and/or Editing Callsign Data**

{button ,JI(`',`.biographies')}   **Viewing Biographies and   Pictures**

{button ,JI(`',`.notebook')}   **The Notebook Feature**

{button ,JI(`',`.preferences')}   **Setting Fonts, Colors and other Options**

{button ,JI(`',`.printing')}   **Printing Notes and Lists**

{button ,JI(`',`.setup')}   **Setup and Installation Notes**

{button ,JI(`',`.faq')}   **Frequently Asked Questions**

{button ,JI(`',`.errors')}   **Error Messages**

{button ,JI(`',`.contact')}   **How to contact QRZ**

Introduction

The World Radio Amateur Directory (*WRAD*) is the worlds largest collection of callsigns, pictures, QSL cards and personal biographies from amateur radio operators around the world. It is a publication *about radio amateurs*, their friends, their lives and their accomplishments.   This immense collection of information is made even more powerful by the exclusive *WRAD Browser* software. It features a powerful index containing over 13 million keywords so that any callsign, callsign suffix, name, street, city, PO Box, or other minute item in the entire database is instantly locatable.   Want to know how many hams named Elmer live in California? The *WRAD* index will locate this information and tell you instantly.

With the *WRAD* browser software you can:

{button ,JI(`',`.searching')}   **Search the directory**
{button ,JI(`',`.lists')}   **Create and/or edit lists of callsigns**
{button ,JI(`',`.add_edit')}   **Add and/or edit callsign data**
{button ,JI(`',`.biographies')}   **View biographies and pictures**
{button ,JI(`',`.notebook')}   **Maintain a detailed personal notebook**

Searching the Directory

Searching the *WRAD* is very easy.

First, click on the **DB List** tab
Next, enter some text into the **Search Key** box
Then, click on **Search**

A number will apear In the lower left hand corner of the screen indicating how many records matched your unique search criteria.   The first match found will automatically be shown in the database list.   If more matches are available, you can click on one of the blue or green continue buttons to list the additional entries that match your search criteria.

Search Keys

You can put just about anything into the search key box.   Commas, periods and other punctuation marks are always ignored.   Upper and lowercase letters are considered the same.   When you specify more than one keyword, the search is extended to find only those records which contain all of the items that you input into the Key box (this is also known as a logical AND operation).   Don't use the keyword *AND*, because it is automatically implied and will otherwise cause the engine to search for records which actually contain the word *AND*.

Keyword example: suppose you are looking for folks in Dallas, Texas.   According to the *WRAD* search rules, any of the following key phrases will return the same information:

Search Key: dallas tx
Search Key: tx dallas
Search Key: Dallas, TX

Note that if you use the word "**Texas**" instead of "**TX**" you will get entirely different results.   The software does not know that TX is the same as Texas and will thus look for the actual word "Texas" in all of the records.

Every single word in the callsign database is indexed.   The master index contains over 13 million search keys, each of which points to a unique occurance of that word in the callsign database.

Words and text contained in the personal biographies and in your own notebook entries are not indexed and are therefore not found by the search engine.   Email addresses are also not searchable.

Callsign Suffixes

The *WRAD* browser software is also optimized to return groups of callsigns by *suffix*. A callsign suffix consists of the letters after the number.   For example, if you search for the letters **BQ**,   the system will return 4X1BQ, AA1BQ, AA2BQ, AA3BQ, and so on.

Search Key Filters

When you search for Dallas, TX as in the example above, you will find not only people living in the city of Dallas but also folks who might live on "Dallas Street" in other Texas towns.   It might also return people whose first or last name is Dallas, living anywhere in Texas.   This is because the keyword search is literal, and it simply returns every record which contains the given search keys.   To further narrow the search to a specific *category* of information, a search *filter* is used.   In our example, if you really want only those amateurs who live in the city of Dallas, you are given two basic choices: either use search key filter or try searching for a particular zip code.

Above the Search Key box are a group of checkable filter items.   When the **None** item is checked, no filtering is performed and **all** fields are searched.   When a given filter is chosen, the search is limited to the selected filter item.   Therefore, to locate people specifically living in the city of Dallas, you may want to select the *City* filter. Note that unless you include TX with Dallas, that you'll also find towns in other states that are also named Dallas.
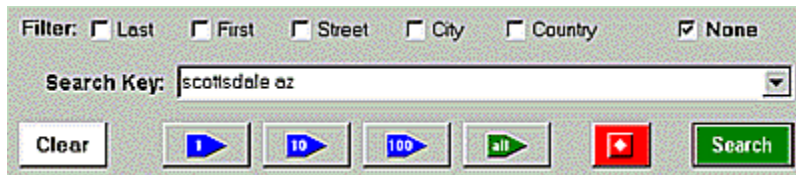
To avoid ambiguity and make the most accurate city or town search, searching by Zip Code is always a good bet. You may have to perform several searches when a metropolitan area has more than one Zip Code.

If the search key that you have input returns too many irrelevent records, you can always narrow the search by being more specific (i.e. using more keywords).   With a little practice, you should get the hang of it quickly.

Limitations

The search engine will return at most, 200,000 records on any search.   You can't locate the key 'USA' because of this (since it would return over 700,000 matches).
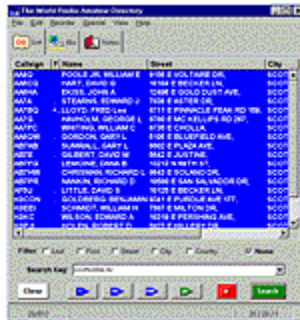
Using the Search Controls

The search controls are located at the bottom of the **DB List** screen.   The six check boxes along the top of the control area are the <u>Search Filters</u>.   They permit you to narrow the keyword search to a particular category of keys

Below the Search Filters is the **Search Key** box.   This is where you input key words that you wish to search for in the database.   Notice that the Search Key box is a drop-down control which contains a history of the most recent keys that you've searched for.   This search history is saved when the program exits so that you can always instantly recall the last few searches that you have performed.

Below the Search Key box are the **Control Buttons**.   Left to right, these are:
   The **Clear** button – erases the current Search Key
   The **1 button** – advances to the next matching record
   The **10 button** – shows the next 10 matching records
   The **100 button** – shows the next 100 matching records
   The **All button** – shows all of the matching records
   The **Red (Stop) button** – interrupts a long listing
   The **Search button** – begins a new search

Working with the Database List

The **DB List** (or database list) is where the main search results are shown.   When you click on any list item, it becomes the *selected* listing.   Once a listing is selected, you may then navigate to either the **Bio** page or to the **Notes** page for further information on that callsign.

As you continue to look up callsigns, the length of the list will grow.   Once you are satisfied with the contents of the list, you may **Save** the list by using the **File->Save** menu option.   This way, you can always reload this list whenever you restart the *WRAD* program.   Some folks will use the Save List capability to maintain a simple logbook of all their contacts (with detailed notesas well).

You can remove single list items by pressing either the **Delete** key on your keyboard, or by selecting the **Edit->Delete From List** item from the main menu.   You can quickly **clear** the entire list by choosing the **File->Clear List** menu option.

The main DB List display consists of six columns.   The width of each column is adjustable by simply clicking on the column header dividing line and dragging the column left or right.   The column widths are saved and restored each time you start the program.   One column, the **F** column, is used to display certain *flags* which indicate whether biographies, pictures and/or notes are available.   When these items are available for a given listing, you'll see one or more periods in the F column.

Once a callsign is in the list, it may be edited to your liking.   Edited (or added) callsigns are a part of a special category of records which are searchable only by callsign.   Just as easily, you can add callsigns   to the database which were not available at the time the *WRAD* CDROM was published.

Exporting Data

When you select **File->Save List** from the menu, you are given the option of saving to several different file types. The choices are:

Wradlist file (.wlf) –   the default type used for saving callsign lists
Text by Name (.txt) - a regular .TXT file, name first on each line
Text by Callsign (.txt) – a regular .TXT file, callsign first on each line
CSV Data File (.csv) – a type recognized by many other databases
QRZ Raw Data (.qrz) – Raw QRZ database records (plain text)

The list can hold an unlimited number of callsigns, depending only on the amount of memory in your system. (Note: any one search may return at most 200,000 callsigns, however, you may perform multiple searches which total more than 200,000 callsigns.   If you're going to do this then you had better have lots of memory.).

Reordering the List

After data has been placed in the list, it may be reordered (sorted) several ways.   To reorder the list, you may use the **Reorder** menu item which offers the choices of **Callsign** (the default), **Name**, **Street**, **City** and **Country**. For example, to reorder the list by last names, simply click on **Reorder->Name**.

Note that when the list contains more than about 1000 names, it may take up to several seconds for the reordering to complete.   On a very slow machine with a large list, it might take minutes.   Please be patient. Also, note that reordering only affects callsigns which are already in the list at the time the Reorder menu item is selected.   New items which are subsequently added to the list are aalways appended in Callsign order.

Adding and/or Editing Callsign Data

Any callsign which is displayed in the **DB List** may be edited by selecting **Edit->Edit Callsign** from the main menu. Callsigns that you edit are saved on your hard disk and become part of a separate private database that you control. Similarly, if you use the **Edit->Add New Callsign** menu option to add a callsign which was not included on the *WRAD* CDROM, it too goes into your private callsign database.

An important thing to remember is that callsigns from your private database (also known as **My Listings** in the **Special** menu) are treated differently when the *WRAD* search engine is used. In summary, **the records in your private database are searchable only by callsign**. You will also notice that callsigns which were supplied by the *WRAD* CDROM and then later edited by yourself will also continue to appear in their original, unedited state whenever some other ordinary search key matches on one or more of their CDROM–listed components.

Here's an example. Suppose you have a friend whose license record shows that he lives at 1234 Main Street. Since his license was issued however, he has moved and now lives at 4567 E. Willow Street. You can record this change in your private database by using the **Edit->Edit Callsign** function to input the new Willow Street address. Later, however, when you perform a routine search for "Main Street" addresses you will notice that your friend still shows up in the listing even though you changed his address to Willow Street. This happens because the original record, which is on CDROM, cannot be removed or altered. On the other hand, when you search for your friend's callsign, it will always show the new Willow Street address since since the private database is always searched first for a callsign match.

There is a special Edit menu function called **Edit->Delete Callsign**. This menu item is used to remove a callsign from your private database. This feature does not prevent callsigns which are still in the CDROM database from being listed.

Submitting your private database to the *WRAD*

The editors of the *WRAD* are pleased to accept non-USA listings that you have entered into your private database for inclusion into the next edition. All you have to do is send us the file called `wradnew.mdb` which is located in the directory where you installed the *WRAD* browser software (typically in the same directory where `wrad.exe` is located. You can use Start->Find to locate this file.

Free upgrade offer

If you send us a `wradnew.mdb` file with at least 1000 callsigns that are not in the current edition of the *WRAD*, you may be eligible to receive a free update to the next edition of the *WRAD CDROM*! New listings must be as complete as possible, and must contain at a minimum, a callsign, a name, a mailing and/or QSL address, and a Country. We will also gladly accept files containing 100 or more callsigns as a contribution to our main collection. Your callsign will then be entered into our "valued contributors" list that will appear in the next edition of the *WRAD*.

Note that QRZ reserves the right to discontinue this offer at any time and/or not to award a free upgrade for any data file which appears to have been copied or shared from one *WRAD* user to another. There is also a limit of one free upgrade per *WRAD* user per current edition. Also, we cannot accept listings containing non-western character sets.

Please email your completed `wradnew.mdb` files to: editor@qrz.com or, send them on floppy disk to the *WRAD postal address*.

Viewing Biographies and Pictures

To view biographies and pictures you simply click on the Bio tab at the top of the screen.   Not all callsigns have biographies and pictures but the collection is constantly growing.   If a callsign has a biography and/or picture on file, you will see one, two or three dots in the **F** (flags) column of the main **DB List** window.   There is also a **Prev** and a **Next** button on the Bio page.   You can use these buttons to advance to the next biography and/or next picture in the main list.

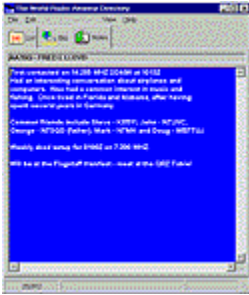**How to view All the Biographies and/or Pictures**

There is a special key that is used to fetch only those callsigns which have biographies. The key is   **~B** and it is shorthand for "has biography".   The key may be used in conjunction with other keywords.   For example, to find only biographies of Texas amateurs, use "~B TX" as the Search Key.   The Special menu item is provided to automatically insert this key into the Search Key box.

The special key for pictures is **~P** and it works the same way as the biography key.   You can also specify "~P ~B" to select only those records which have both a picture *and* a biography.

Note that the biographies may not be edited and you can not add new biographies.   You may use the <u>notebook</u> for recording this type of information.

{button ,JI(`',`.sendimage')}   **How to submit your picture to the *WRAD***

The Notebook Feature

The notebook is a valuable feature that provides the capability of keeping a virtually unlimited number of detailed notes on each and every amateur that you come into contact with. When combined with the ability to save and reload lists (from the File menu) it becomes possible to maintain a very comprehensive log of your operating activities.

A note is available for each and every callsign on the system. To access a note, simply choose a callsign from the main **DB List** and then click on the **Notes** tab at the top of the window. Once you have switched to the notes page, you may type anything that you like into it. There is no "save" command, the system just remembers everything that you type, automatically. Whenever you return to this this callsign and this page, it will be there just as you last left it.

Backing up your notes

Don't forget that *you* are responsible for backing up your notes. Backup is important because in the event of a system crash, power failure or some other unforseen problem, you may need to reload the *WRAD* from CDROM and restore your own notes file.

The notes are kept in the file called `wradnote.mdb` and this file is located in the same directory where the main program executable, `wrad.exe` is found. You can use the Start->Find command to locate this file. If you use notes a lot, you may want to backup this file once per day (when you're using it). You can keep it on a floppy or other disk device. Just be sure that you have a spare copy if these notes are important to you.

Removing notes

When you are on the notebook page, the **Edit** menu contains a special option called **Delete Note** that you can use to remove the current note from your system.

Submitting Images to the *WRAD*

Adding your image to the collection:

If you would like to see your QSL card in an upcoming edition of the *WRAD* CDROM, there are several ways you can do it.   All hams are invited to have their cards added to the collection.

Your card or picture can be of just about anything that you would like to represent you and your callsign to the world.   It can be a scanned image of your QSL card, a photo of your shack, your favorite antenna, etc.

We reserve the right to refuse to publish any image which we believe is inappropriate.

Getting your card or picture to us:

Digital Images (.JPG Files)
All digital image files must be in .JPG format and must not exceed 400x300 pixels (as landsacpe) or 300x350 (as portrait). The final file size must be less than 40KB. Images may be either color or black and white. If your system cannot create a .JPG file then you can send to us in any of the popular formats such as .GIF, .PCX, .BMP, .TIF, .PSD,   and .TGA, and we'll try and convert it for you. (Hint: to reduce a .JPG file size, select a quality factor of 2 or less).

How to submit your image file to the *WRAD*

By Email
The easiest way to send us your image is to email it to us.   Please send your picture as a regular MIME Email attachment.   DO NOT send in .HQX or .BINHEX format as we do not have the ability to decode these types. If no other method is available, we can also accept UUENCODED files.

Anonymous FTP
You may use FTP to transfer your file to us.   Use the FTP address of ftp.qrz.com . Just place the file in our /tmp directory.   Be sure and name your file after your callsign such as W1ABC.JPG.   Don't expect us to look at a photograph to try and figure out which callsign it belongs to.   We will discard any files which are not named after a callsign.

From your home page:
If you have an image already available via the World Wide Web, just drop us an e-mail and tell us where it can be found using a browser.

Regular Mail:
Floppy Disk - You can mail your favorite image on a 3 ½ inch MSDOS formatted floppy disk. Sorry but only one image per callsign is allowed.   A single floppy disk may contain images for multiple callsigns.

Actual Photo or Card
We will gladly digitize your hard copy photo or card on our color scanner. Just send it to us and we'll see what we can do.   Please allow 6 to 10 weeks for processing.
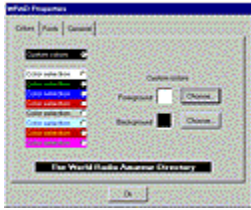
The *WRAD* mailing address is:

The World Radio Amateur Directory
8711 E. Pinnacle Peak Road #159
Scottsdale, AZ   85255   USA

If your image is accepted, it will first appear on the QRZ Web server, http://www.qrz.com.

We do not normally return cards or photos submitted by regular mail.   If you must have your card or photo returned, please include a self-addressed stamped envelope along with your letter.

Please do not send us any image or photo that contains copyrighted material.

Setting Fonts, Colors and other Options

To setup desired fonts, font sizes, colors and other options, use the **Edit->Preferences** item on the main menu. From here you can make settings to a wide variety of preferences to further customize your copy of the *WRAD*.

All color and font settings are remembered when you exit and restart the *WRAD*.

Printing Notes and Lists

The *WRAD* browser software is capable of printing lists of callsigns that you assemble in the DB List screen, and Notes that you create using the <u>notebook</u> feature.   To print, simply choose **File->Print** from the main menu.   You may also want to choose **File->Print Setup** to have better control of which printer is used, paper layout, etc.

The numbers at the bottom right of the DB List screen indicate what line you're currently on and how many pages of text would be printed if the main list were sent to the printer.

Creating Mailing Labels

There is no builtin feature for creating mailing labels however the *WRAD* Browser software creates a type of file which is easily imported into most word processors.   Once you have assembled a list in the DB List screen, choose the **File->Save** menu option and select a file type of **CSV File (.csv)**,   enter a file name and click Save.

Most word processors, database programs and spread sheets work well with the CSV file format.   Just choose the data import feature of your software and proceed as normal to create a mailing list and/or print to labels.

Please consult your program's documentation for specific instructions on how to create mailing labels by importing CSV files.

Frequently Asked Questions

Q. Where are the *WRAD* browser data files located?

A.   See the section on <u>Setup Information</u>

Q. Where is the County, Grid Square and/or Lat/Lon information?

A.   The *WRAD* database does not support this information at this time.   Presently, there is no known method of mapping an individual amateur's street address to a County and/or set of Lat/Lon coordinates.   You say that o*ther CDROMS do it?*   Not really, they're guessing.   If you look carefully at those products you'll notice that everybody in the same zip code has the same Lat/Lon coordinates.   While the *WRAD* home page at **http://www.qrz.com** does take a stab at it, it's not yet accurate enough for publication in the CDROM – we'd rather not publish it if it's not correct.

Q. How can I generate a list of email addresses?

A.   You can't.   QRZ does not authorize the use of its data for the purpose of generating mass email postings.   QRZ protects its email database to prevent so-called "*spam*" operators from taking advantage of the amateur community.   QRZ will not furnish or sell its email lists to any party.

Q. Why isn't my callsign in the database?

.   It takes about two months to produce the *WRAD* CDROM. Your callsign or upgrade may have not reached the *WRAD* in time to make the most recent edition. The date on the most recent edition is the date that it was released, not the date of the last database update which may have been several weeks before. In addition, there can also be errors or omissions in the FCC's master copy of the database. The QRZ Callsign database is as complete as we can make it at the time it is published, but we cannot guarantee that it is free of errors.

Q. Why aren't there more foreign (i.e. non-USA) callsigns?

.   In many countries, the callsign data is copyrighted or otherwise restricted on privacy grounds. In some countries, the exclusive rights to the data has been sold to private companies and/or to radio clubs. When this is the case, it is impossible for us to obtain legal copies of the information since others (competing callbooks) already hold the exclusive rights. In some countries, no computer readable form of the data exists anywhere and may well be nothing more than an old notebook in some remote government communications office.   We cannot make use of printed lists either since we have no typing staff to convert the stuff into machine readable form.   Similarly, we have not found an acceptable OCR program that works well enough for this purpose.

At QRZ we're always looking for more (free) callsign data.   See our section on <u>Adding and Editing Data</u> on how you can submit new callsigns to the *WRAD* and earn a free upgrade to the next   editon of the CDROM.

Q. The data shown for may USA callsign is incorrect. Will you please correct it?

.   No, sorry, we can't.   We receive all of our USA data directly from the FCC.   If any part of your data (except for your email address) is incorrect, you must submit a 610 from to the FCC.   You can download the appropriate FCC forms online at <u>http://www.fcc.gov</u> .

If you are a non-US amateur, you may update your information using our online server at:

<u>http://www.qrz.com/cgi-bin/web_add</u>

Q. One or more of the callsigns listed belonged to a Silent Key.   Why are these callsigns still in the database?

A.   When an amateur passes away, the FCC rarely hears about it.   They must be notified so that the record can be removed from the database. Sometimes it can take several months or perhaps a year or more depending on whether the family formally notifies them. Typically, the FCC will not accept notification from non-family members, however, we have been told that they will accept a newspaper obituary as evidence of death.

Q. When I run the *WRAD* software, my system crashes with an Access Violation, Illegal instruction or some

other fault.   What's wrong and is there a fix for it?

. The most common cause for these sorts of problems are incompatible versions of DLL's and OCX files which have been installed on your system since you first installed Windows.   Every time you install a new piece of software (including *WRAD*), new versions of existing DLL's and OCX's usually get installed. The *WRAD* installation program will not install an older version of the same DLL (or OCX) over a new one, however, there is no guarantee that we will work with the new one either.

Microsoft has released so many different versions of DLL's that it is sometimes impossible to get a set that is compatible with all of the programs you have loaded on your system.   You may, for instance, get one program running well at the expense of causing some others (possibly *WRAD*) to fail.   At present, there is no known solution to this problem and Microsoft, more than anybody, knows all about it.

For example, It is nearly always possible to install new software (like *WRAD*) on a system upon which Windows was just loaded.   Sadly, however, as you add more and more programs, things will eventually start going downhill. As Windows systems go, they tend to deteriorate with age and nearly every system gets corrupted if it's used long enough.   Eventually, you will always have to reinstall Windows, and most people usually wait until they buy another computer before doing this, thereby "solving" the problem.

The folks here at the *WRAD* cannot ever hope to solve this problem.   If you simply cannot get *WRAD* to run on your system then please, by all means, exercise your right to return the product and utilize our money-back staisfaction guarantee.   We don't want you to own it if it doesn't work on your system.

All of that being said however, we realize that we're not perfect and that there are probably some problems with the software that we didn't uncover during testing and need to fix.   We welcome your bug reports, suggestions and other operating observations that help us make a better product.   Please feel free to send email anytime to our developer,   aa7bq@qrz.com   Try and be as descriptive as possible about the nature of your problem, the configuration of your system, etc..

From time to time, we will post fixes and updates to the *WRAD* software on our Internet server (free for downloading) at ftp://ftp.qrz.com

Q.   When will the *WRAD* software be available for the Macintosh?

. Most likely, never.   The cost of developing a Mac version of this software could not possibly be offset by any forseeable sales due to the limited number of amateur radio Mac users.   Mac users can still enjoy the benefits of our online version of the *WRAD* at http://www.qrz.com

Q.   When will the *WRAD* software be available for the DOS and Windows 3.1?

. Most definately never.   If you're reading this help file then you've already solved the problem.

Setup and Installation Notes

Here are the data files used by the *WRAD* and where they should reside on your system:

The *WRAD* browser software uses the following data files (for example if D: is your CDROM):

Filename	Default Location	Purpose
wraddata.qrz	D:\	The main *WRAD* database
wradkeys.qrz	D:\	The main *WRAD* index
wradbios.mdb	D:\	The *WRAD* Biographies
netaddr.qrz	D:\	*WRAD* email support file*
\Pictures	D:\Pictures\	*WRAD* Biography Photos
wradnew.mdb	<install dir>	Added/edited callsigns
wradnote.mdb	<install dir>	Your personal notes

*This file is encrypted.   No technical details are available.

<install dir> is the directory where *WRAD* was installed during the Setup procedure.

How to setup the *WRAD* to run entirely off of your hard drive:
If you didn't elect to copy the files to your hard disk when you installed the *WRAD* browser, you can do so at any time by running the **HARDCOPY.EXE** program on the CDROM.   We highly recommend that you accept the directory that it chooses for you, however, it will still work if you choose your own disk and directory.   At a minimum, we recommend that you write down the location of the WRAD data files in case you need to find them again later.   *Also note that if you should uninstall the WRAD browser that the uninstall program will not remove the datafiles – you must do this yourself.*

If you really need to save space, the only two files which are required are wraddata.qrz and wradkeys.qrz. The software will work with reduced functionality without the other files.

Next, remove the CDROM disc from the drive and run the *WRAD* program.   The program, after not finding the CDROM disc, will put up a prompt asking you to specifiy the new data file location.   After the first time, the system will remember the new file location.   Later, if you decide to use the CDROM again, simply re-insert it into the drive where it will be recognized (and take precedence) over the hard disk files.

How the *WRAD* browser searches for its data files (technical info):
When the *WRAD* browser is started, it looks at to see if the startup command (Target) contains anything after the ..\wrad.exe.   If a string is specified, it is assumed to be the full path name pointing to where the *WRAD* data files are located.   In most cases, this argument should be set to the drive letter of the CDROM drive (such as D:).   The given path should not have a trailing backslash character at the end.

You can set this value to some other path by going into the C:\Windows\StartMenu\Programs   folder and adjusting the **Shortcut Properties** for the *WRAD* CDROM icon.   You should only alter the **Target** property.   If you really need to alter the **Start In** property, remember that you must relocate (move) any wradnew.mdb or wradnote.mdb files from their existing location to the new **Start In** location that you specify or risk losing your notes and/or your edited callsigns.

If no *.qrz data files are found at the location specified on the command line, the *WRAD* browser will then attempt to use the last known successful data file location (other than the one mentioned on the command line). Next, it will try the directory where the *WRAD* browser was originally installed.   Finally, if the data files are *still* not found, the browser will try the current working directory (i.e. the **Start In** directory).   Finally, if all of these attempts to locate the data files fail, a file open dialog box will pop up and prompt you to browse to the correct location of the data files.

If any of the strategies above are successful, the path name will be stored and reused the next time the *WRAD* software is run (command line overrides not withstanding).

To summarize, the data file path search order is:

    The path specified on the command line (the *Target* in Shortcut Properties)
    The last known good location

The the original install directory
The current **Start In** directory
A path specified in the Not Found dialog box

If you select Cancel from the Not Found dialog box, the program will exit.   After all, it did try its best.

Which data source is currently in use?
If you are wondering where the *WRAD* browser found its data files when it started, look in the Help->About menu.
The About box shows the current Data Path as well as the current command line parameters.

How WRAD uses the Registry
The WRAD browser software stores all of its current operating parameters, fonts, colors, most recently used files, data paths, etc., in the **Windows Registry**.   Unless you are familiar with the Registry then you should probably avoid touching it.   If on the other hand, you're a die hard `regedit` user, then you can find all of the WRAD's parameters under:

`HKEY_CURRENT_USER\Software\VB and VBA Program Settings\WRAD`

If you uninstall the *WRAD* browser, it does the good citizen thing and removes all traces of itself from the Registry.   Uninstall **does not** remove important stuff like your `wradnew.mdb` and `wradnote.mdb` files.

Error Messages

Below are some error messages which might show up while running the *WRAD* browser:

QRZ Text Library: Too many hits. Please narrow your search.
>The search key that you gave returned more than 200,000 records.   You must choose a key or combination of keys that return fewer records.   Searching for the keyword 'USA' will return this error since there are over 700,000 such callsigns.

WRAD: wradnote.mdb – **Your personal notes file was not found, …**
>This means that the file used to store your *WRAD* Notes, **wradnote.mdb** was not found during initialization. If you answer NO to the question, *WRAD* will exit so that you can locate and possibly restore the file.   This file should be located in the directory where the *WRAD* software was installed, which is where the **wrad.exe** file is located (you can use Start->Find to locate wrad.exe).   Typically, it would be located in:

>C:\Program Files\QRZ Ham Radio\World Radio Amateur Directory\wradnote.mdb

>If your notes are important to you, you should make it a point to back up this file on a regular basis. A simple backup strategy would be to occasionally copy it to a floppy disk.   If it's too large for a floppy, you can always use a ZIP drive or perhaps just a separate copy on a second hard disk. Depending on how often you change your notes, you may want to back up this file as often as once a day.

WRAD: wradnew.mdb – **Your personal callsign file was not found, …**
>This means that the file used to store the callsigns that you edit and/or add to the database **wradnew.mdb** were not found during initialization. If you answer NO to the question, *WRAD* will exit so that you can locate and possibly restore the file. This file should be located in the directory where the *WRAD* software was installed, which is where the **wrad.exe** file is located (you can use Start->Find to locate wrad.exe).   Typically, it would be located in::

>C:\Program Files\QRZ Ham Radio\World Radio Amateur Directory\wradnew.mdb

>If the callsigns that you add to the database are important to you, should make it a point to back up this file on a regular basis. A simple backup strategy would be to occasionally copy it to a floppy disk.   If it's too large for a floppy, you can always use a ZIP drive or perhaps just a separate copy on a second hard disk. Depending on how often you add or edit callsigns, you may want to back up this file as often as once a day.

Database Error: Email file not found
>This means that the email address support file, **netaddr.qrz**, was not found in during initialization. This is probably because an unsuccessful attempt was made to copy the database files from the *WRAD* CDROM to the hard drive.   The program will work without this file (but without email addresses) and so it is considered non-critical.   To suppress this message, create a dummy file (size and contents don't matter) called **netaddr.qrz** in the same directory where the other ***.qrz** files are located.

Database Error: Index file not found
>This message is generated when the **wradkeys.qrz** file is not found.   It probably means that you tried to copy the database files from the CDROM to your hard disk, but not all of the files were copied correctly.   For the database to work, both the **wraddata.qrz** and the **wradkeys.qrz** files are **required**.   If you want to have email addresses as well, then the netaddr.qrz file is also needed. To remedy, simply copy all of the ***.qrz** files from the CDROM to the desired hard disk directory.   To reverse the procedure (i.e. quit using the hard disk drive for *WRAD* data), simply delete all of the ***.qrz** files.   If needed, the program will ask you where to find the data once it has been removed from the hard disk.

Database Error: Data file not found
>Although rare, you might see this message.   It means that the **wraddata.qrz** file was not found.   Since the *WRAD* browser software checks for this file before attempting to start the database, the appearance of this message probably means that something else is wrong.   If the file is on hard disk (instead of CDROM), it might be corrupted, or there may be a network problem if you are using shared services.   When in doubt, insert the *WRAD* CDROM and see if the program starts working correctly.

Invalid [Start In] directory…
>The *WRAD* browser must be run in a directory where it can read, write and create new files.   An automatic

check of the current working directory indicated that it was read-only (possibly write-protected).   You must configure a writable **Start In** directory in the *WRAD* icon's shortcut properties, or, be in the *WRAD* install directory if you start the program from the command line.

Tag Refresh Error: Can't find xx0xxx in local database
This happens when you are trying to restore a list (File ->Load) and an item exists in the list that can no longer be found in your private database.   You shoud either re-enter the listing for the indicated callsign, or, delete the entry from the list and re-save it.

How to Contact the *WRAD* Editor

The World Radio Amateur Directory CDROM is produced by QRZ, makers of the QRZ Ham Radio CDROM. The editor and author, Fred Lloyd, AA7BQ, may be contacted by email at: editor@qrz.com   All email inquiries will be answered, however, the same cannot be guaranteed for written (postal) mail, for which we cannot always answer.

WRAD/QRZ can be found on the Internet with the following services:

World Wide Web
>   http://www.qrz.com **is the home of QRZ and the** *WRAD*

Email
>   QRZ maintains the following email addresses for user correspondence. Except for the author's, each of the addresses below are automated response servers:

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Email database lookups	**lookup@qrz.com**	Auto. database lookup system
Product Info	**info@qrz.com**	Automated Press Releases

By Postal Mail

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