4. Using D-RATS:
4.1. The D-RATS Main Window

The D-RATS main window has been broken up into several sections, comprising:

1.

Toolbar (at the top of the screen) with options including *File, View and* **Help***;*

2.

Tab entries for *Messages, Chat, Files and* **Event Log***;*

3.

Stations window that displays a list of callsigns seen by D-RATS; and

4.

My Status window indicated whether you are online and available.

4.2. The Stations Window

The Stations window (located on the right hand side of the D-RATS program) is used to display a list of stations that have been received by D-RATS and their status.

When-ever a D-RATS station transmits any sort of message (Going online, positional information, QST Beacon, chat message, file transfer, etc) their status is sent to all stations using the same port (i.e: RF, Ratflector, etc).

Callsigns, in the Stations List, that are:

-

Blue - Currently online and reporting status

-

Amber - Currently reporting status, but has indicated that the station is unattended

-

Black - Heard, but not reporting status (either not a D-RATS station or running an old version of D-RATS)

-

Dimmed - have been previously received, but sent a "Sign-Off Message" and are therefore no longer accessible.

4.2.1. Checking the Status of an specific station

1. Right click on the callsign of interest in the Stations window. A sub-menu will be displayed.
2.

Click on *Ping*. A Ping request will be sent to the desired callsign and if they are on-line the last-heard timer, next to their callsign, will revert to zero.

3. By performing a mouse hover over their callsign, their status and other information will be displayed.

4.2.2. Finding out who else is on-line and their status

1. Right click somewhere in the Stations window. A sub-menu will be displayed.
2.

Click on *Ping All Stations*. A Ping request will be sent to all enabled ports (i.e: RF, Ratflector, etc) and all stations that are on-line will respond.

3. By performing a mouse hover over their callsign, their status and other information will be displayed.
4. If a previously pinged station does not respond their last-heard time will not revert to zero.

4.2.3. Requesting positional information for a remote station

1. Right click on the callsign of interest in the Stations window. A sub-menu will be displayed.
2.

Click on *Request Position*. A position request message will be sent to the desired callsign and if they are on-line and have their coordinates configured in File > Preferences > GPS then their Latitude and Longitude details will be broadcast to all connected stations.

4.3. The My Status Window

The My Status window displays the current status of your station and the Sign-On message that will be sent to other stations.

4.3.1. Changing your Station's Status

1. When-ever your station is pinged by another station, or your station transmits information for any reason, the Status information will be sent.
2.

Use the drop-down list to select between *Online and* **Unattended***.*

4.4. The Messages Tab

The **Messages** tab opens the Messages Window where internet email and forms can be exchanged across D-RATS. D-RATS supports a number of different types of forms, such as HICS260, ICS213 and email, that are packaged and distributed with the D-RATS program and these function in the same manner to that of an email message. Some of these messages can auto populate appropriate fields simplifying data entry.

Currently email and forms sent / received via D-RATS is limited to text. D-RATS cannot process

images, attachments, or html coding.

4.4.1. The Messages Toolbar and Window

The Messages Toolbar advises what options are available.

-

New: Allows a new Email message or Form template to be opened.

-

Send: Allows a message in the Inbox to be sent to another Station in the Station's list.

-

Reply: Reply to the highlighted message.

-

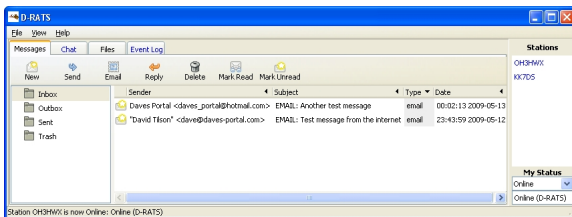**Delete:** Delete the highlighted message.

-

Mark Read: Mark the highlighted message as Read.

-

Mark Unread: Mark the highlighted message as Unread.

Folders depicting **Inbox, Outbox, Sent** and **Trash** are available to be clicked on. If an item is displayed in the Outbox, it indicates that the message has not yet been sent.

4.4.2. Receiving Email and Forms through D-RATS

1. Double clicking on a received email/form will open the item for display and provide several options on what to do with it.
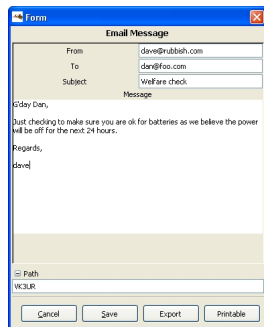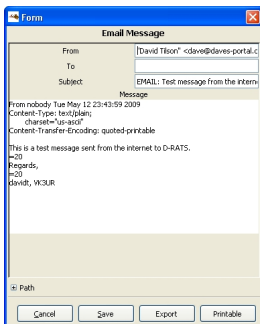

4.4.3. Sending Email and Forms through D-RATS

1.

Click on the *New* button and select the desired item from the drop-down list. Some examples of forms currently distributed with D-RATS are:

ICS213_OR_WashCoARES
ICS213_US_OS
email
hics260
ics213
memo
radiogram

1.

To send an email message, select **email** from the drop-down list.

2.

Enter the email address of who the message is from in the **From** field.

3.

Enter the destination email address in the **To** field.

4.

Enter the message subject in the **Message** field.

5. Enter the message content.
6.

If sending this message through a D-RATS Gateway station, click on the *Path* button and enter the callsign of the Gateway station.

7.

When creation of the message is completed, click on **Save**.

8.

The message will be saved in the *Outbox* awaiting further action.

9.

Highlight the desired message that you wish to send and click on the **Email** button.

Note: Content of messages / forms transmitted across RF via D-RATS are subject to the usual regulations and where appropriate 3rd party agreements. Due care should be taken to ensure that messages / forms do not breach these rules and agreements.

4.5. The Chat Tab

The **Chat** tab opens the Chat Window where information can be exchanged in real-time with other D-RATS users and where QST beacons can be managed.

4.5.1. Chatting in Real Time

1.

From the main window, select the *Chat* tab near the top of the screen.

2. If you have multiple ports configured, select the appropriate port you wish to send the message through.
3.

Enter your message in the box and click *Send*.

4.5.2. Sending a Quick Message

1.

Go to the *Chat tab and select* **Quick Messages***.*

2. Choose which port you wish to send the message on.
3. Double-click on a message from the list to send it.

4.5.3. Forcing QST beacons to be sent

To immediately send a QST:

1.

Go to the *Chat tab and select* **QST***.*
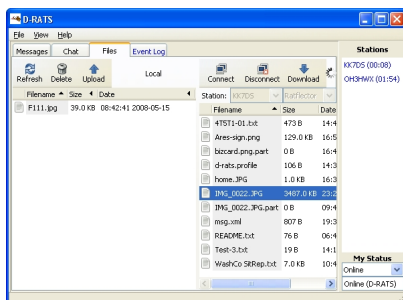
2.

Ensure that the *On* box is ticked for the desired QST.

3. Double-click on its entry. This also resets the timer.

4.6. The Files Tab

The **Files** tab opens the Files Window where files can be exchanged across D-RATS.

It should be remembered that D-RATS operates across the low speed data segment of a D-STAR digital voice transmission and that the file speed is less than 1kbps. Therefore it would be unwise to attempt the transfer of large files across D-RATS.

4.6.1. Testing Connectivity with a Remote Station

Unlike the D-STAR DV Voice Channel, which has error correction built into the protocol, the Data Sub-channel has no error correction. This makes the transfer of data across D-STAR a lot more dependant on a good radio path being established between the two locations wishing to exchange data.

D-RATS includes the ability to test connectivity between two locations.

1.

Click on the *Files* tab to display the **Files** *window. (Note: This process can be performed through any of the windows.)*

2. Right click on the callsign of interest in the Stations window. A sub-menu will be displayed.
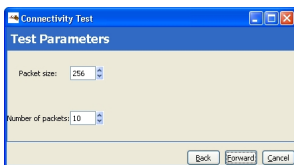3.

Click on *Test Connectivity*. Details of the desired station to test with shall be displayed.
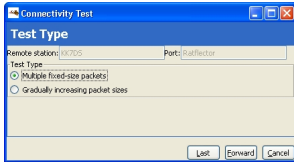
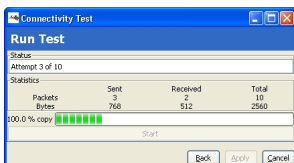1.

If correct, Click on **Forward**.

2. Confirm the test parameters.

1.

Click on **Start**.

2. The test will conclude advising the quality of the path.

4.6.2. Send a File to a Remote Station

1.

Click on the *Files* tab to display the **Files** *window.*

2. Select, from the drop-down list, the Station you wish to send a file to.
3. If you have multiple ports configured for D-RATS to operate across, select the appropriate port.
4.

Click on the **Connect** button. (*If communications has been successfully established with the remote station a list of files in their* **File Transfer Path** *directory will be displayed.*)

5.

Click on the **filename** you wish to send, so that it is highlighted.

6.

Click on the *Upload* button. (The status of the transfer will be displayed in the bottom status bar.)

7.

When the transfer is complete the filename should appear in their *File Transfer Path* directory.

8.

Click on the *Disconnect* button to disconnect from the remote station.

4.6.3. Get a File from a Remote Station

The following procedure assumes that the remote D-RATS station has the **Remote File Transfer**   box enabled in
File
>
Preferences
>
Transfer
.

1.

Click on the *Files* tab to display the **Files** *window.*

2. Select, from the drop-down list, the Station you wish to receive a file from.
3. If you have multiple ports configured for D-RATS to operate across, select the appropriate port.
4.

Click on the *Connect* button. (*If communications has been successfully established with the remote station a list of files available (from their defined* **File Transfer Path**
directory) to be received will be displayed, including file size and the date/time of the file creation.
)

5.

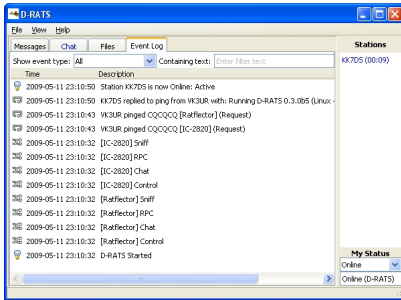Click on the **filename** you wish to receive, so that it is highlighted.

6.

Click on the *Download* button. (The status of the transfer will be displayed in the bottom status bar.)

7. When the transfer is complete the filename should appear in your File Transfer Path directory.
8.

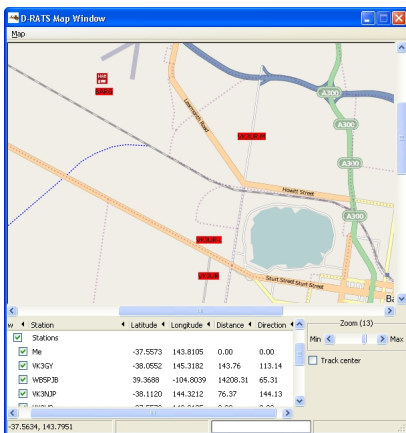Click on the *Disconnect* button to disconnect from the remote station.

4.7. The Event Log Tab

The **Event Log** tab opens the Event Log Window where a summary of recent events can be viewed.

4.8. D-RATS Mapping

D-RATS can display the location of other D-STAR users as well as information from specialist services, such as NBDC Buoys and NWIS Rivers.

4.8.1. Viewing the Map

1.

Go to the *View menu and select* **Map***.*

2. Information displayed will include the Station name and its associated latitude and longitude coordinates, as well as the distance and direction to the station, from your location, for any positional information received across RF or an internet connection (i.e: through a Ratflector).

4.8.2. Additional information which can be displayed on the Map
4.8.2.1. Adding Static Overlays to the Map

D-RATS can import ".csv" files containing static lists of positional information (i.e: Hospitals, Repeater Sites, EOC's, etc) that can be displayed on the D-RATS Map. See the Map Display page for further details on creating a static list, or the
 Map Overlays
page for examples of some that have already been created.

4.8.2.2. Adding NBDC Buoys to the Map

 NBDC Buoys can be added to the D-RATS Map. If an internet connection is available D-RATS will interrogate the NDBC web site and retrieve information pertaining to the specified buoys.

To add an NDBC Buoy to the D-RATS Map:

1.

Go to the *Map menu and select* **Edit Sources***.*

2.

Select *NBDC Buoy* from the drop-down list.

3.

Enter the unique NBDC Buoy identifier in the ***Buoys*** field (*multiple buoys can be added separated by commas*).

4. Data pertaining to the NBDC Buoy can be seen by hovering the mouse over the Buoy icon on the map.

4.8.2.3. Adding NWIS River Information to the Map

NWIS Rivers can be added to the D-RATS Map. If an internet connection is available D-RATS will interrogate the NWIS web site and retrieve information pertaining to the specified rivers.

To add an NWIS River to the D-RATS Map:

1.

Go to the ***Map*** *menu and select* **Edit Sources***.*

2.

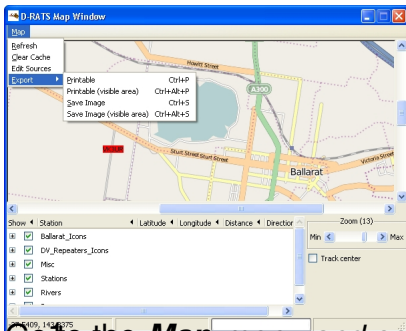Select ***NWIS River*** from the drop-down list.

3.

Enter the unique NWIS River identifier in the ***Sites*** field (*multiple Rivers can be added separated by commas*).

4. Data pertaining to the NWIS River can be seen by hovering the mouse over the River icon on the map.

4.8.3. Printing / Saving the Map

D-RATS can print the current map screen, or save it as a "*.png" image.

Go to the *Map* menu and select **Export**, *followed by the desired option.*

4.9. Forms

4.9.1. Creating Form Templates

- Need information here...