

DXView Online Help

DXView enables you to

- determine a callsign's DXCC entity and location information, including latitude, longitude, gridsquare, IOTA tag, CQ zone, ITU zone, beam heading, distance, and country map
- select a location on its built in world map, or optionally on DX Atlas (version 2.1 or later), by
 - entering a callsign
 - entering a latitude and longitude
 - entering a grid square
 - entering an IOTA tag
 - clicking on that location (built-in world map only)
- display sunrise and sunset times for any selected location
- plot information on its built-in world map, or optionally on DX Atlas (version 2.1 or later)
 - beam headings and great circle signal paths
 - solar position
 - solar terminator
 - spotted DX stations and QSOs captured by SpotCollector (QSOs can only be plotted on the built-in world map)
 - award progress from the currently-open DXKeeper log
- prepare to work a DX station plotted on the built-in world map by automatically
 - setting your transceiver to the appropriate frequency and mode via Commander
 - creating and initializing a new DXKeeper log entry
- control and align PC-connected antenna rotators

Prerequisites

Downloading and Installation

Operation

- Using the World Map
- Selecting a position
- Displaying Auroral zones on the World Map
- Displaying a callsign's location
- Highlighting callsigns known to QSL via Logbook of the World
- Selecting a DXCC Entity
- Locating an Island from its IOTA tag
- Positioning an antenna rotator
- Viewing a country map
- Plotting the selected location
- Displaying the selected location in MapQuest
- Displaying the selected location in Google Maps
- Displaying sunrise and sunset times
- Displaying DX spots, DX QSOs, Logged QSOs, and DXCC Entity Award Progress
- Selecting a spot
- Keyboard shortcuts

Configuration

Managing the DXCC Database

- DXCC Database structure
- Viewing and changing Entries in the DXCC database
- Keyboard shortcuts

DXView Prerequisites

To use DXView, you need

- a PC running Windows 95 (v4.00.950 B or v4.00.950 C), Windows 98, Windows NT, Windows 2000, or Windows XP, ideally
 - 75 MHz Pentium or better
 - 32 MB RAM or better
- an SVGA display or better

DXView Download and Installation

Important Note

All DXLab applications are produced using a process that generates frequent releases, referred to as **development releases**. Every few months, a stable development release is used to create a **full release** containing all software and documentation components. Development releases contain only those components that have changed since the most recent full release. Thus installing DXView on a PC for the first time is a two-step process:

1. install the most recent full release
2. install the most recent development release

The instructions below describe how to install the most recent full release. When you've completed these steps, check <http://www.qsl.net/dxlab/download.htm> for access to the latest development release and instructions for installing it.

- | Step | Directions |
|------|--|
| 1 | Create the application folder in which DXView will reside, such as:
C:\Program Files\DXView |
| 2 | In the application folder, create an installation subfolder in which the downloaded and extracted installation files will reside, such as:
C:\Program Files\DXView\Install |
| 3 | Go o http://www.qsl.net/dxview/DXView191Archive.exe to download DXView191Archive.exe, a 5.0 MB self-extracting executable file that contains DXView and its associated files. When prompted, direct your browser to store this file into the installation subfolder you created in step 2. |
| 4 | Run DXView191Archive.exe - in its WinZip Self-Extractor dialog box, direct it to place the unzipped files into the installation subfolder you created in step 2, and click the Unzip button. After extraction completes, click the Close button. The following files should now be present in the installation subfolder: <ul style="list-style-type: none">• DXView191Archive.exe• DXView1.cab• DXView2.cab• DXView3.cab• DXView4.cab• setup.exe• Setup.lst |
| 5 | If a previous version of DXView is installed on your PC, uninstall it using the Add/Remove Programs applet in the Windows Control Panel |

- 6** To install DXView, run the setup.exe program in the installation subfolder. Ignoring the setup program's request to close all running applications may result in error messages during the installation process, and possibly a faulty installation.

After copying several system files, the setup program may ask that you reboot your PC before continuing with the setup. If, after rebooting, your PC does not run setup.exe on its own, direct it to do so.

The setup program may report that the files being installed are older than files already installed on your system, and ask whether you want to over-write the existing newer files with the older files -- you should decline.

The setup program may ask to replace obsolete files with newer files; these new files are Microsoft-supplied updates to components used by multiple applications. DXView will likely not run unless you allow these replacements. The updated components are upwardly compatible with their older versions. In theory, existing applications that use these updated components should not break. **but this is not guaranteed.** If you are risk-averse, cancel the DXView setup and install a configuration snapshot utility like ConfigSafe on your PC. Then if the DXView (or any other) installation does break existing applications, you can easily revert to a working configuration.
- 7** DXView requires a DXCC database. If you have not previously installed DXView, or if you wish to overwrite your existing DXCC database with an up-to-date version, then go to <http://www.qsl.net/dxview/DXCC.exe> to download DXCC.exe, a .5 MB self-extracting executable file that contains a DXCC database. When prompted, direct your browser to store this file into the installation subfolder you created in step 2. Then run DXCC.exe - in its WinZip Self-Extractor dialog box, direct it to place the unzipped files into the Databases subfolder created by DXView in step 6, and click the Unzip button.
- 8** To execute DXView, run the program `DXView.exe` in the application folder.
- 9** If you haven't previously downloaded country maps, go to <http://www.qsl.net/dxview/CountryMaps.exe> to download CountryMaps.exe, a 6.8 MB self-extracting executable file that contains country maps for many DXCC entities. When prompted, direct your browser to store this file into the installation subfolder you created in step 2.
- 10** Run CountryMaps.exe - in its WinZip Self-Extractor dialog box, direct it to place the unzipped files into the Maps subfolder created by DXView in step 6, and click the Unzip button.
- 11** After DXView is installed and you've verified that it works, you may delete the installation subfolder and the files it contains.
- 12** Check <http://www.qsl.net/dxlab/download.htm> for access to the latest development release

You can uninstall DXView by running the Add/Remove Programs applet on the Windows Control Panel.

If you have questions or suggestions, please post them on the DXLab reflector at <http://groups.yahoo.com/group/dxlab/>; if you're not a member, you can sign up at <http://www.qsl.net/dxlab/reflector.htm>.

DXView Operation

DXView's major functions can be invoked by clicking buttons in its Info window, or by striking keyboard shortcuts.

Using the World Map

DXView employs three windows:

- textual information - DXCC entity, latitude and longitude, grid square, IOTA tag, etc. - is displayed in the Info window
- geographic information is displayed on either the built-in World Map window's equidistant cylindrical projection of the world, or on the DX Atlas world map (version 2.1 or later)
- sunrise and sunset times over a 30-day interval for both your QTH and the currently selected location are displayed in the Sunrise/Sunset window

To display the currently-selected World Map, click the **World** button in the Info window's Map panel.

If you have configured WinWarbler to use its built-in World Map, you can use the controls in the World Map window's Map panel to display

- continental boundaries (with or without Antarctica)
- Maidenhead Field boundaries
- CQ zone boundaries
- ITU zone boundaries
- ITU region boundaries

Both the built-in World Map window and the DX Atlas world map display

- your QTH, as a solid black circle
- the currently selected position, as a solid blue circle
- the great circle route between your QTH and the currently selected position, as a blue line
- the sun's current position or its position at a specified date and time, as a solid yellow circle
- the position of the solar terminator, via shading of the nighttime area
- the positions of stations you have spotted or worked, as solid circles whose color you can specify (default is red)

The built-in World Map window also displays

- the paths between spotted DX stations and the stations that spotted them
- the borders of the auroral zones, in magenta

If the built-in World Map is in use and Solar Position panel's **Current** button is selected, the solar position and terminator are updated every two minutes; the World Map window's title bar displays the time of the most recent update. To view the solar position and terminator at a specific date and time, click the **At this UTC date/time** button and specify a UTC date and time using the format dd-mmm-yyyy hh:mm; if this date and time are valid, the solar position and terminator will be displayed, and the World Map window's title bar will display this date and time until you specify another, or until you select the Solar Position panel's **Current** button. The DX Atlas continuously updates its display of the solar position and terminator, and provides controls for displaying the positions of solar position and terminator at any time in the past or future.

To set your QTH, click the **Config** button and specify your latitude and longitude in the *General* tab's QTH panel. Alternatively, select your QTH position as described in the next section, click the **Config** button, and then click the **Position** button in the *General* tab's QTH panel.

Selecting a position

There are four ways to select a position:

- click on its location in the built-in World Map window or in the DX Atlas world map, if enabled
- enter its latitude and longitude in the Info window's **Latitude** and **Longitude** textboxes, and strike the **Enter** key in either textbox
- enter its grid square in the Info window's **Grid** textbox, and strike the **Enter** key
- enter its IOTA tag in the Info window's **IOTA** textbox, and strike the **Enter** key

Selecting a position plots its position in the World Map window as a solid blue circle, plots the great circle route connecting it and your QTH as a blue line, and updates the following Info window textboxes:

short	the short-path heading from your QTH to the selected position
long	the long-path heading from your QTH to the selected position
latitude	the selected position's latitude
longitude	the selected position's longitude
grid	the selected position's Maidenhead grid square
SP DX	the short-path distance in miles or kilometers from your QTH to the selected position, depending upon the setting selected in the Distance Units panel ;click the ~ button to display the long-path distance in miles or kilometers.
max	the maximum magnetic latitude encountered by a signal traversing the short or long path from your QTH to the selected position

If you depress the **Ctrl** key while selecting a location by clicking on a map location, DXView will rotate your antenna to the location's short path heading; if you depress the **Alt** key, DXView will rotate your antenna to the location's long path heading.

If you depress the **Shift** key while selecting a location by clicking on a map location, DXView will direct PropView to compute and display a propagation forecast to the designated location.

Latitudes should be entered in the format X Y' Z, where

- X is the degrees component of your QTH latitude
- Y is the minutes component of your QTH latitude
- Z is the letter N or S

Examples of latitudes include 38 15' N and 42S . If you enter an illegal latitude, the value 0 0' S will be used.

Longitudes should be entered in the format X Y' Z, where

- X is the degrees component of your QTH longitude
- Y is the minutes component of your QTH longitude
- Z is the letter E or W

Examples of latitudes include 122 10' W and 10E . If you enter an illegal longitude, the value 0 0' E will be used. The accuracy of DXView's computation of the maximum magnetic latitude encountered by a signal depends in part on knowing the geographic location of the Magnetic Poles; as the magnetic poles drift significantly from year to year, these settings should be updated annually.

Displaying Auroral Zones

If you check the **Aurora** box in the World Map window's Plot panel, the predicted boundaries of the northern and southern aurora zones will be displayed on the built-in World Map, enabling you to visually determine the extent to which a signal path may be influenced by auroral transit. As described in <http://sprg.ssl.berkeley.edu/forecast/currentshelp.html>, the auroral boundaries expand as the earth's magnetosphere increases in strength due to solar activity. This field strength is measured and widely reported using a parameter referred to as the K index, which takes on values from 0 (low field strength) to 9 (extremely high field strength). DXView provides a textbox on its Info window's GeoMag panel for you to specify the current value of the K index, which is available from WWV broadcasts and propagation web sites. SpotCollector automatically captures the most recent K index from WWV spots; if SpotCollector is running, DXView's **K index** textbox will be automatically updated as SpotCollector receives WWV data. The accuracy of DXView's prediction of auroral zone boundaries depends in part on knowing the geographic location of the Magnetic Poles; as the magnetic poles drift significantly from year to year, these settings should be updated annually.

Displaying a callsign's location

Enter or paste a callsign (or callsign fragment or prefix) into the Info window's **Callsign** textbox; characters will be displayed in red font until you initiate the search by striking the **Enter** key, or by clicking the **Go** button. If an Entity Override is specified for the callsign, the specified DXCC entity will be used; otherwise, the DXCC Database will be searched to determine the callsign's DXCC entity and location. If successful, the current position is set to a location in the DXCC entity; the current position is chosen based on secondary information in the callsign, e.g. the prefix and call area. DXView plots the current position in the World Map window as a solid blue circle, plots the great circle route connecting it and your QTH as a blue line, and updates the following Info window textboxes:

Prefix	the standard prefix associated with the DXCC entity
Entity	the name of the DXCC entity
Code	the DXCC entity's country code as assigned by the ARRL's DXCC desk
Short	the short-path heading from your QTH to the selected position
Long	the long-path heading from your QTH to the selected position
Region	the name of the region containing the selected position
Latitude	the selected position's latitude
Longitude	the selected position's longitude
Grid	the selected position's Maidenhead grid square
SP DX	the short-path distance in miles or kilometers from your QTH to the selected position, depending upon the setting selected in the Distance Units panel; click the ~ button to display the long-path distance in miles or kilometers.
Cont	the selected position's continent
CQ	the selected position's CQ zone
ITU	the selected position's ITU zone
Time	the selected position's time offset relative to UTC

If Pathfinder is running, clicking the **QRZ.com** button will query the online callbook at www.QRZ.com and update the **Entity**, **Code**, **Grid**, **Latitude**, **Longitude**, **CQ**, **ITU**, and **Time** textboxes with the information found there. Depressing the **Shift** key while striking the **Enter** key in the **Callsign** textbox or while clicking the **Go** button will also query www.QRZ.com.

If DXKeeper is running, DXView displays a Progress panel showing award progress for the selected DXCC entity in the currently open log; the DXCC entity's prefix and the name of the currently open log both appear in the Progress panel's caption. A table within the Progress panel shows the status of four modes (SSB, CW, RTTY, and PSK) and 11 bands (160m through 2m), using the following progress codes:

Code	Meaning
W	worked, no QSL requested
R	worked, QSL requested
C	QSL received
V	QSL verified by DXCC desk

If the DXCC Award objectives specified in DXKeeper indicate that a mode is sought, but there are no confirmed QSOs with the selected DXCC entity in that mode, then the background of that mode's cells will be white rather than the window's background color.. Similarly, if the DXCC Award objectives specified in DXKeeper indicate that a band is sought, but there are no confirmed QSOs with the selected DXCC entity on that band, then the background of that band's cells will be white rather than the window's background color.

- double-clicking a table column or row heading filters DXLab's log to show only QSOs with the DXCC entity in the selected band **or** mode
- double-clicking a table cell filters DXLab's log to show only QSOs with the DXCC entity in the selected band **and** mode

SpotCollector can be configured to automatically direct DXView to display information about each incoming spot. To ensure that these automatic updates will not displace information you directly requested from DXView, such automatic updates are ignored for 5 seconds after any direct request. To preserve the currently-displayed information for a longer time, click the **SC Lock** button; when the current information is no longer needed, click the **SC Unlock** button.

If DXKeeper is running, you can log the contents of the **Prefix** textbox, presumably a callsign, by

- depressing the **Ctrl** key while striking the **Enter** key in the Prefix text box
- or
- depressing the **Ctrl** key while clicking the **Go** button

Highlighting callsigns known to QSL via Logbook of the World

The file `LotW.mdb` is a database containing callsigns known to participate in the ARRL's Logbook of the World (LotW). If at startup, `LotW.mdb` is present in DXView's Databases folder, then DXView will indicate that a callsign is known to QSL via Logbook of the World by coloring the backgrounds of textboxes in the Search and DXCC panels when you strike the **Enter** key in the **Callsign** textbox or when you click the **Go** button. The colors used differentiate callsigns based on known LotW participation can be specified in the Search & DXCC Background Colors panel.

You can obtain `LotW.mdb` by downloading <http://www.qsl.net/spotcollector/LotW.exe> ; extract this file's contents (a file named `LotW.mdb`) into DXView's Databases folder. If `LotW.mdb` is present, its date of last update is shown in the Database Versions panel.

Selecting a DXCC entity

You can select a DXCC entity by

- selecting the entity's prefix in the DXCC panel's **Prefix** selector
- selecting the entity's name in the DXCC panel's **Entity** selector
- enter the entity's country code in the DXCC panel's **Code** textbox and then striking the **Enter** key

DXView responds as it does when you identify a callsign's DXCC entity.

Locating an Island from its IOTA tag

If you enter an IOTA tag in the Info window's **IOTA** textbox and strike the **Enter** key, DXView will

- display the name of the associated Island group in the Info window's **Region** textbox
- set the current position to the center of the associated Island group
- update the **Latitude**, **Longitude**, **Grid**, and **SP DX** textboxes
- update the short-path and long-path headings
- display a status code in parenthesis following the word IOTA in the Info window's Location panel
 - D - deleted
 - P - provisional
 - H - on hold pending additional information
- display the word IOTA in a magenta font if additional notes are available; to see these notes, let the mouse cursor hover over the word IOTA, and a popup window displaying the IOTA database version and notes will appear

If the entire Island group falls within a single DXCC entity, the Info window's **Prefix**, and **Country** textboxes will be updated; the **Cont**, **CQ**, **ITU**, and **Time** textboxes may also be updated if they can be unambiguously determined.

DXView presents the above information by querying an IOTA database. To determine what version of this database is installed on your system, consult the Database Versions panel, or let the mouse cursor hover over the word IOTA in the Info window's Location panel; a popup window displaying the IOTA database version will appear.

Positioning an antenna rotator

To activate a properly configured antenna rotator connected to your PC, click the Info window's **SP** button to choose the current short path heading, or click the **LP** button to choose the current long path heading. Depressing the **CTRL** key while clicking the **SP** or **LP** buttons will stop any in-progress rotation if the selected rotator supports a programmable stop command.

Above the **SP** and **LP** buttons, DXView displays the most recent heading and path conveyed to the rotator.

Viewing a country map

If DXView's Map subfolder contains a map for the currently-specified DXCC entity, the Info window's **Country Map** button will be enabled. Clicking this button displays the country map in a separate window.

Plotting the selected location

To capture information associated with the selected location and plot this location on the currently-selected World Map window, click the Info window's **Plot** button. Subject to Band Filtering, Mode Filtering, and Origin Filtering, this location will be marked on the World Map by a solid red circle that persists until its *lifetime* expires, or until you terminate DXView. Allowing the mouse cursor to rest on a plotted red circle will produce a popup that displays the captured information, which can include callsign, DXCC prefix, DXCC entity (if enabled), Maidenhead grid-square, frequency, mode, UTC time, and shortpath heading.

For plots created by the Plot button to be visible on the World Map, the Origin Filter must include the region specified by the Location setting in the General tab's QTH panel .

If Commander is running, the active transceiver's frequency and mode are captured when the **Plot** button is clicked. If Commander is not running, you must set the Band Filter and Mode Filter to display plots of unknown band and mode respective for such plots to be visible on the World Map.

If you depress the **CTRL** key while clicking the Info window's **Plot** button, a small *DXView Plot* window will appear that lets you specify a frequency (in Kilohertz), and select a mode. Clicking the *DXView Plot* window's **Plot** button lets you create a plot with frequency and mode information without Commander running. If you depress **CTRL** key while clicking the *DXView Plot* window's **Plot** button, the plot will be generated, and the *DXView Plot* window will remain on-screen rather than close; this is convenient if you'll be frequently creating plots whose frequencies and modes you manually specify.

Displaying sunrise and sunset times

To display sunrise and sunset times for the currently-selected position, click the DXInfo window's **Sun** button to display DXView's Sunrise/Sunset window. The scrollable grid in this window displays sunrise and sunset times for your QTH, and for the currently-selected position -- referred to in this window as **DX**. The grid displays sunrise and sunset times for the next 30 days, starting with the date specified in the **UTC Date** textbox; by modifying this date and clicking the **Calculate** button, you can display sunrise and sunset times for any 30-day interval. Double-clicking the **UTC Date** sets its contents to the current UTC date.

If you change the location of the selected position, or the location of your QTH, or the contents of the **UTC Date** textbox, the **Calculate** button will become active, indicating that the information displayed in the grid does not correspond to the newly-specified location and/or time. When you click the **Calculate** button, the grid is updated, and the **Calculate** button is deactivated.

If a location is in 24-hour sunlight or 24-hour darkness, the corresponding grid cell will indicate *day* or *night* respectively.

Displaying the selected location in MapQuest

To invoke MapQuest with the coordinates of the DXView's currently selected location, click the Info window's **MapQuest** button. MapQuest will be displayed in the web browser whose pathname is specified in the Guidance panel on the Config window's General tab; if no browser pathname is specified, your default web browser will be used. You can specify the initial zoom level via the slider in the MapQuest Zoom panel.

Displaying the selected location in Google Maps

To display a Google Map with the coordinates of the DXView's currently selected location, click the Info window's **Google** button. Google Maps will be displayed in the web browser whose pathname is specified in the Guidance panel on the Config window's General tab; if no browser pathname is specified, your default web browser will be used. You can specify the initial zoom level via the slider in the Google Map panel.

Displaying DX Spots, DX QSOs, Logged QSOs, and DXCC Entity Award Progress

Using its built-in world map or DX Atlas, DXView can display the locations of DX spots and DX QSOs captured by SpotCollector, QSOs logged in DXKeeper, and your progress against DXing awards tracked by DXKeeper.

Displaying DX Spots and DX QSOs on the built-in world map

To display spots captured by SpotCollector on DXView's built-in world map, select *Spots* in the DX sub-panel in the World Map window's Plot panel. Subject to Band Filtering, Mode Filtering, and Origin Filtering, the plotted spot will be marked by a solid red circle that persists until its *lifetime* expires, or until you terminate DXView.

If you check the QSOs box in the DX sub-panel in the World Map window's Plot panel, DXView will plot the location of both a spotted DX station and the station that spotted it if SpotCollector was able to obtain a grid square for both locations. The location of the spotting station is depicted as a black circle, the path between the spotted and spotting station is depicted as a black line.

You can control the size of the circles and lines used to depict DX stations, spotting stations, and paths:

- The diameter of the circles that depict your QTH, the currently-selected position, and the position of stations spotted or worked is specified by the DX spot diameter setting.
- The width of lines that depict the paths between spotted DX stations and the spotting stations is specified by the QSO line width setting.
- The diameter of the circles that depict spotting stations is specified by the QSO origin spot diameter setting.

Allowing the mouse cursor to linger on the built-in World Map window within 500 miles (800 kilometers) of a plotted spot will pop up a text banner containing the associated callsign, frequency, mode, grid square (if available), time, and beam heading for the closest plotted spot; if the Include country in popup box is checked, the text banner will also include the associated country name.

With *Spots* selected in the World Map window's Plot panel, double-clicking in the World Map will

- set DXView's current location to the closest plotted spot
- convey the spot information to WinWarbler (if running) if
 - the spot's mode is PSK31, PSK63, or RTTY
 - the spot's mode is CW and the CW Mode panel is set to CW via WinWarbler
 - the spot's mode is SSB and the Phone modes via WinWarbler panel's SSB box is checked
 - the spot's mode is FM and the Phone modes via WinWarbler panel's FM box is checked
 - the spot's mode is AM and the Phone modes via WinWarbler panel's AM box is checked
- set your transceiver to the spot's frequency and mode (if the spot is not conveyed to WinWarbler and if Commander is running)
 - if the spot's mode is RTTY, the RTTY mode if WinWarbler not running panel specifies whether the transceiver is set to RTTY, RTTY-R, LSB or USB
 - if the spot's mode is CW, the CW Mode panel specifies whether the transceiver is set to CW or CW-R
- initialize a log entry (if DXKeeper is running) for that spot's callsign and grid square (if available)
- direct Pathfinder (if running) to perform a QSL route search
- display all previous QSOs with that spot's callsign or DXCC entity, as directed by the Log Filter panel

If you depress the **Ctrl** key while double-clicking a plotted spot, DXView will rotate your antenna to the short path heading; if you depress the **Alt** key, DXView will rotate your antenna to the long path heading.

Displaying Logged QSOs on the built-in world map

When you invoke the Plot function on the Log QSOs tab of DXKeeper's Main window, all QSOs in the Log Page Display will be conveyed to DXView, the **QSOs** button in the Log sub-panel in the Plot panel of DXView's World Map window will be both enabled and selected, and the each conveyed QSO will be plotted as a red circle on the world map. These plotted QSOs are subject to confirmation status filtering, as specified by checkboxes in the Log sub-panel:

- *Unworked* - displays a red circle at the location of a logged QSO whose confirmation status is invalid or expired
- *Unconfirmed* - displays a red circle at the location of a logged QSO whose confirmation status is unconfirmed
- *Confirmed* - displays a red circle at the location of a logged QSO whose confirmation status confirmed or submitted
- *Verified* - displays a red circle at the location of a logged QSO whose confirmation status is verified

If DXKeeper's Log Page Display was filtered when the Plot function was invoked, the caption of the **QSOs** button in the Plot panel of DXView's World Map window will change to *Filtered QSOs*; allowing the mouse cursor to hover over the **Filtered QSOs** button will display a popup window showing the expression used to filter the Log Page Display.

You can control the diameter of the circles used to depict logged QSOs via the Logged QSO diameter setting.

With *QSOs* or *Filtered QSOs* selected in the Log sub-panel of the World Map window's Plot panel, allowing the mouse cursor to linger on the World Map within 500 miles (800 kilometers) of a plotted QSO will display a text banner showing the QSO's callsign, DXCC entity name, band, mode, and grid square (if available). If multiple QSOs specify the same location, the text banner will designate one with the most advance confirmation status for that location.

Displaying DXCC Entity Award Progress on the built-in world map

When DXKeeper is running or with the Open most recent log option enabled, the caption of the Log sub-panel in the World Map window's Plot panel indicates the name of the currently open log file; you can visually plot DXing award progress for this log file by selecting *DXCC Entities* in the Plot panel's Log sub-panel. These plots are subject to Band Filtering, Mode Filtering, and progress filtering, as specified by checkboxes in the Log sub-panel:

- *Unworked* - displays a red circle in each DXCC entity that has not been worked on each active band and active mode
- *Unconfirmed* - displays a red circle in each DXCC entity that has been worked, but has not been confirmed on each active band and active mode
- *Confirmed* - displays a red circle in each DXCC entity that has been confirmed but not verified on each active band and active mode
- *Verified* - displays a red circle in each DXCC entity that has been verified on each active band and active mode

You can control the diameter of the circles used to depict DXCC entities via the DX entity diameter setting.

With *DXCC Entities* selected in the World Map window's Plot panel, allowing the mouse cursor to linger on the World Map within 500 miles (800 kilometers) of a plotted DXCC entity will display a text banner showing the prefix for the closest plotted country and the associated DXCC entity name.

Displaying DX Spots and DX QSOs on the DX Atlas world map

To display spots on the DX Atlas world map rather than on DXView's built-in World Map window, check the DX Atlas box the Config window's World Map tab, and check the Spots box in the DX sub-panel on the Config window's Selection panel. Subject to Band Filtering, Mode Filtering, and Origin Filtering, the plotted spot will be marked by a solid red circle that persists until its *lifetime* expires, or until you terminate DXView. If the Display labels box is checked, the red circle will be accompanied by a text description. If the Display label details box is unchecked, the description will be the spot's callsign; if the Display label details box is checked, the description will be the spot's callsign, frequency, mode, grid square (if available), time, and beam heading. Note that a spot's text description will be suppressed if it would obscure another spot or its description; increasing the zoom will provide additional room for descriptions to appear.

If the Display labels box is not checked, plotted spots will not be accompanied by text, but if you allow the mouse cursor to rest over a plotted spot, text containing the spot's callsign, frequency, mode, grid square (if available), and time will appear, and remain until you move the mouse cursor.

With Spots selected in the DX sub-panel on the Config window's Selection panel, depressing the **Shift** key while clicking on the DX Atlas world map with panning mode disabled will select the designated location

- set DXView's current location to the closest plotted spot
- convey the spot information to WinWarbler (if running) if
 - the spot's mode is PSK31, PSK63, or RTTY
 - the spot's mode is CW and the CW Mode panel is set to CW via WinWarbler
 - the spot's mode is SSB and the Phone modes via WinWarbler panel's SSB box is checked
 - the spot's mode is FM and the Phone modes via WinWarbler panel's FM box is checked
 - the spot's mode is AM and the Phone modes via WinWarbler panel's AM box is checked
- set your transceiver to the spot's frequency and mode (if the spot is not conveyed to WinWarbler and if Commander is running)
 - if the spot's mode is RTTY, the RTTY mode if WinWarbler not running panel specifies whether the transceiver is set to RTTY, RTTY-R, LSB or USB
 - if the spot's mode is CW, the CW Mode panel specifies whether the transceiver is set to CW or CW-R
- initialize a log entry (if DXKeeper is running) for that spot's callsign and grid square (if available)
- direct Pathfinder (if running) to perform a QSL route search
- display all previous QSOs with that spot's callsign or DXCC entity, as directed by the Log Filter panel

If you depress the **Ctrl** key while clicking a plotted spot, DXView will also rotate your antenna to the short path heading; if you depress the **Alt** key, DXView will rotate your antenna to the long path heading.

Displaying Logged QSOs on DX Atlas on the DX Atlas world map

To display logged QSOs on the DX Atlas world map rather than on DXView's built-in World Map window, check the DX Atlas box the Config window's World Map tab. When you invoke the Plot function on the Log QSOs tab of DXKeeper's Main window, all QSOs in the Log Page Display will be conveyed to DXView, the **QSOs** button in the Log sub-panel in the Configuration window's Selection panel will be both enabled and selected, and the each conveyed QSO will be plotted as a red circle on the DX Atlas world map. If the Display labels box is checked, the red circle will be accompanied by a text description. If the Display label details box is unchecked, the description will be the QSO's callsign; if the Display label details box is checked, the description will be the QSO's callsign, DXCC entity, band, mode, and grid square (if available). Note that a spot's text description will be suppressed if it would obscure another spot or its description; increasing the zoom will provide additional room for descriptions to appear.

If the Display labels box is not checked, plotted QSOs will not be accompanied by text, but if you allow the mouse cursor to rest over a plotted QSO, text containing the QSO's callsign, DXCC entity, band, mode, and grid square (if available) will appear, and remain until you move the mouse cursor.

Plotted QSOs are subject to confirmation status filtering, as specified by checkboxes in the Log sub-panel on the Configuration window's Selection panel:

- Unworked - displays a red circle at the location of a logged QSO whose confirmation status is invalid or expired
- Unconfirmed - displays a red circle at the location of a logged QSO whose confirmation status is unconfirmed
- Confirmed - displays a red circle at the location of a logged QSO whose confirmation status confirmed or submitted
- Verified - displays a red circle at the location of a logged QSO whose confirmation status is verified

If DXKeeper's Log Page Display was filtered when the Plot function was invoked, the caption of the **QSOs** button in the Log sub-panel in the Configuration window's Selection panel will change to Filtered QSOs; allowing the mouse cursor to hover over the **Filtered QSOs** button will display a popup window showing the expression used to filter the Log Page Display.

Displaying DXCC Entity Award Progress on DX Atlas on the DX Atlas world map

To display DXCC entities on the DX Atlas world map rather than on DXView's built-in World Map window, check the DX Atlas box the Config window's World Map tab. When DXKeeper is running or with the Open most recent log option enabled, the caption of the Log sub-panel in the Configuration window's Selection panel indicates the name of the currently open log file; you can visually plot DXing award progress for this log file by selecting DXCC Entities in the Selection panel's Log sub-panel. If the Display labels box is checked, DXCC entities will be plotted on the DX Atlas world map as red circles accompanied by a text description. If the Display label details box is unchecked, the description will be the entity's DXCC prefix; if the Display label details box is checked, the description will be the entity's DXCC prefix and name. Note that a DXCC entity's text description will be suppressed if it would obscure another spot or its description; increasing the zoom will provide additional room for descriptions to appear.

If the Display labels box is not checked, plotted DXCC entities will not be accompanied by text, but if you allow the mouse cursor to rest over a plotted entity, text containing its DXCC prefix and name will appear, and remain until you move the mouse cursor.

Plotted DXCC entities are subject to Band Filtering, Mode Filtering, and progress filtering, as specified by checkboxes in the Log sub-panel on the Configuration window's Selection panel:

- Unworked - displays a red circle in each DXCC entity that has not been worked on each active band and active mode
- Unconfirmed - displays a red circle in each DXCC entity that has been worked, but has not been confirmed on each active band and active mode
- Confirmed - displays a red circle in each DXCC entity that has been confirmed but not verified on each active band and active mode
- Verified - displays a red circle in each DXCC entity that has been verified on each active band and active mode

Displaying or Editing the DXCC Database

To display or modify Entries in the DXCC Database, click the Info window's **DXCC** button.

DXView Configuration

DXView's Configuration screen contains 4 tabs - General, Plot Settings, Rotator Control, and World Map -- each containing a related group of settings and controls that you can inspect and/or modify.

The **General tab** contains seven panels:

- Options Panel

Display progress data in bold font	when checked, data in the info window's Progress table is rendered with a bold font
Open most recent log	when checked with DXKeeper not running, DXView opens the most recent log opened when DXView and DXKeeper were both last running (if DXKeeper is terminated with this box checked, DXView will continue to display progress from the currently open log)
Use dual monitors	when checked, windows that resided on the secondary monitor during the previous session will be restored to the secondary monitor on startup
Log debugging information	when checked, DXView records diagnostic information in a file named Errorlog.txt residing in DXView's folder.

- Magnetic Pole Position Panel

Latitude	the North Magnetic Pole's latitude (defaults to the estimated 2004 position of 82 18'N)
Longitude	the North Magnetic Pole's longitude (defaults to the estimated 2004 position of 113 24'W)

- DX Units Panel

Miles button	sets the DX textbox's unit of distance measurement to miles
Kilometers button	sets the DX textbox's unit of distance measurement to kilometers

- Search & DXCC Background Colors

Normal	click on the rectangle to set the color used to display the backgrounds of textboxes in the Search and DXCC panels when the callsign is not known to participate in the ARRL's Logbook of the World
LotW	click on the rectangle to set the color used to display the backgrounds of textboxes in the Search and DXCC panels when the callsign is known to participate in the ARRL's Logbook of the World

- QTH Panel

Latitude	<p>your QTH latitude, in the format X Y' Z</p> <ul style="list-style-type: none"> X is the degrees component of your QTH latitude Y is the minutes component of your QTH latitude Z is the letter N or S <p>examples:</p> <ul style="list-style-type: none"> 38 15' N 42S
----------	--

Longitude	<p>your QTH longitude, in the format X Y' Z</p> <ul style="list-style-type: none"> • X is the degrees component of your QTH longitude • Y is the minutes component of your QTH longitude • Z is the letter N or S <p>examples:</p> <ul style="list-style-type: none"> • 128 37' W • 71E
Position button	click to set your QTH latitude and longitude to the currently selected position on DXView's world map
Save button	click to save your QTH latitude and longitude for use by subsequent DXView sessions
Restore button	click to set your QTH latitude and longitude to the previously saved QTH position
Location buttons	<p>choose your QTH location:</p> <ul style="list-style-type: none"> • NAE for the eastern part of North America • NAM for the midwestern part of North America • NAW for the western part of North America • AS for South America • EU for Europe • AF for Africa • AS for Asia • OC for Oceania <p>This location is used to establish an origin for plots created when you click the Plot button. The Origin Filter considers a plot's origin in determining whether or not that plot should be displayed on DXView's earth map.</p>

- Guidance Panel

show control explanations	when checked, enables the display of explanatory information when the mouse cursor lingers over a textbox, button, checkbox, display pane, or setting.
Browser pathname	if this setting is blank, WinWarbler displays online help using your PC's default HTML browser; if this setting contains the pathname of an HTML browser, WinWarbler displays online help using that browser. MapQuest and Google maps are displayed using the same browser.

- Database Versions

DXCC	the version number of the currently-installed DXCC database
IOTA	the version number of the currently-installed IOTA database
LotW Callsigns	the date-of-last-update for the currently-installed LotW callsign database

The **Plot Settings tab** contains four panels:

- Selection Panel
 - DX sub-panel
 - the Spots and QSOs items in this sub-panel are linked to their counterparts on the built-in World Map window's Plot panel; changing one will automatically update the other

Spots	when selected with SpotCollector running, DX spots are displayed on the world map
QSOs	when checked with SpotCollector running, both the location of a spotted DX station and that of the station that spotted it are displayed on the built-in world map if gridsquares for each location were specified in the spot
Lifetime	specifies how long, in hours, a spot should be displayed on the world map, as measured from the time the spot first appears; fractional durations like .25 can be specified.

- Log sub-panel
 - if DXKeeper is installed, the caption of this sub-panel includes the name of the log file from which QSOs and DXCC entities will be displayed
 - items in this sub-panel are linked to their counterparts on the built-in World Map window's Plot panel; changing one will automatically update the other

QSOs	when selected with DXKeeper running, logged QSOs are displayed on the world map <ul style="list-style-type: none"> • this item is disabled -- "grayed-out" -- until you direct DXKeeper to designate a set of QSOs to be plotted by clicking the Plot button on the <i>Log QSOs</i> tab of its Main window • if DXKeeper's Log Page Display is filtered when you click the Plot button on the <i>Log QSOs</i> tab of its Main window, then this item's caption will change to <i>Filtered QSOs</i>; allowing the mouse cursor to hover over the caption will produce a popup display containing the filter expression
DXCC Entities	when selected with DXKeeper running, DXCC entities are displayed on the world map
Unworked	when checked, the world map displays logged QSOs whose DXCC award status is <i>expired</i> , and DXCC entities whose award status is unworked
Unconfirmed	when checked, the world map displays logged QSOs whose DXCC award status is <i>worked</i> or <i>requested</i> , and DXCC entities whose award status is worked, queued, or requested
Confirmed	when checked, the world map displays logged QSOs whose DXCC award status is <i>confirmed</i> or <i>submitted</i> , and DXCC entities whose award status is confirmed
Verified	when checked, the world map displays logged QSOs whose DXCC award status is <i>verified</i> , and DXCC entities whose award status is <i>verified</i>

- Band Filter Panel (this panel is disabled -- "grayed out" when Logged QSOs are being displayed)

160m checkbox	determines whether 160m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
80m checkbox	determines whether 80m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
40m checkbox	determines whether 40m DX spots, DX QSOs, or DXCC entity award progress appear on the world map

30m checkbox	determines whether 30m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
20m checkbox	determines whether 20m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
17m checkbox	determines whether 17m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
15m checkbox	determines whether 15m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
12m checkbox	determines whether 12m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
10m checkbox	determines whether 10m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
6m checkbox	determines whether 6m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
2m checkbox	determines whether 2m DX spots, DX QSOs, or DXCC entity award progress appear on the world map
? checkbox	determines whether DX spots, DX QSOs, or DXCC entity award progress whose band is unknown appear on the world map
None checkbox	resets all band checkboxes
Top checkbox	sets the 160m checkbox
Low checkbox	sets the 80m and 40m checkboxes
Tri checkbox	sets the 20m, 15m, and 10m checkboxes
Warc checkbox	sets the 30m, 17m, and 12m checkboxes
VHF checkbox	sets the 6m and 2m checkboxes
All checkbox	sets all band checkboxes

- Mode Filter Panel (this panel is disabled -- "grayed out" when Logged QSOs are being displayed)

SSB checkbox	determines whether SSB DX spots, DX QSOs, or DXCC entity award progress appear on the world map
AM checkbox	determines whether AM DX spots, DX QSOs, or DXCC entity award progress appear on the world map
FM checkbox	determines whether FM DX spots, DX QSOs, or DXCC entity award progress appear on the world map
CW checkbox	determines whether CW DX spots, DX QSOs, or DXCC entity award progress appear on the world map
RTTY checkbox	determines whether RTTY DX spots, DX QSOs, or DXCC entity award progress appear on the world map
PSK checkbox	determines whether PSK DX spots, DX QSOs, or DXCC entity award progress appear on the world map
MFSK checkbox	determines whether MFSK DX spots, DX QSOs, or DXCC entity award progress appear on the world map
HELL checkbox	determines whether HELL DX spots, DX QSOs, or DXCC entity award progress appear on the world map
SSTV checkbox	determines whether SSTV DX spots, DX QSOs, or DXCC entity award progress appear on the world map

? checkbox	determines whether DX spots, DX QSOs, or DXCC entity award progress whose mode is unknown appear on the world map
None checkbox	resets all mode checkboxes
All checkbox	sets all mode checkboxes

- Origin Filter Panel (this panel is disabled -- "grayed out" when Logged QSOs are being displayed)

NAE checkbox	determines whether DX spots or DX QSOs originating from eastern North America appear on the world map
NAM checkbox	determines whether DX spots or DX QSOs originating from midwestern North America appear on the world map
NAW checkbox	determines whether DX spots or DX QSOs originating from western North America appear on the world map
SA checkbox	determines whether DX spots or DX QSOs originating from South America appear on the world map
EU checkbox	determines whether DX spots or DX QSOs originating from Europe appear on the world map
AF checkbox	determines whether DX spots or DX QSOs originating from Africa appear on the world map
AS checkbox	determines whether DX spots or DX QSOs originating from Asia appear on the world map
OC checkbox	determines whether DX spots or DX QSOs originating from Oceania appear on the world map
? checkbox	determines whether DX spots or DX QSOs whose origin is unknown appear on the world map
None checkbox	resets all origin checkboxes
All checkbox	sets all origin checkboxes

The **Rotor Control tab** contains the Enable checkbox and six panels

- Enable
 - determines whether rotator control is enabled
 - when set, attempts to open and configure the selected port
- Model Panel

AlfaSpid	specifies and AlfaSpid antenna rotator
ARSWIN	specifies a rotator controlled by ARSWIN
Heath	specifies a Heath HD1780 IntelliRotor
Hygain	specifies a rotator whose controller uses the Hygain DCU-1 protocol
LP-Rotor	specifies a rotator controlled by LP-Rotor
M2 RC2800P-A	specifies an M2 RC2800P-A antenna rotator
M2 RC2800X	specifies an M2 RC2800PX antenna rotator
Prosistel	specifies a Prosistel antenna rotator
SARtek	specifies a SARtek rotor controller
TIC	specifies a TIC rotor controller
TrackBox	specifies a TAPR TrackBox rotor controller
Yaesu	specifies a Yaesu antenna rotator

- Speed Panel (M2 and Yaesu rotators only)

Slow	selects the rotators slowest speed of rotation
Medium	selects the rotators mid-range speed of rotation
Fast	selects the rotators fastest speed of rotation

- Options Panel (Hygain-compatible rotators only)

Endpoint	enables the Rotor-EZ "endpoint" option (disabling jumper on PCB must be removed for this to work)
Overshoot	enables the Rotor-EZ "overshoot" option (disabling jumper on PCB must be removed for this to work)
Unstick	enables the Rotor-EZ "Unstick" option (disabling jumper on PCB must be removed for this to work)

- Alignment Panel

Solar-QTH	<ul style="list-style-type: none"> • continuously displays the difference, in degrees, between the Sun's present longitude and your QTH's longitude • if your QTH longitude and PC's clock are set accurately, the Sun is due south or due north of your antenna when this value is 0
Rotator offset	<ul style="list-style-type: none"> • use this setting to compensate for rotator positioning errors, and/or for rotator controllers requiring a fixed offset (e.g. Yaesu rotator controllers in North America require an offset of -180) • enter a value between -359 and +359

- Bands panel

If Commander is running, the checkboxes in this panel determine whether a rotator control directive from another application is obeyed or ignored: if the active transceiver band's box is checked in this panel, then rotator control directives are obeyed. If the active transceiver band's box is not checked, then rotator control directives are ignored. If Commander is not running, rotator control directives from other applications are obeyed.

- Serial Port Interface Panel (not shown if you're using an ARSWIN or LP-Rotor controller)

Port	choose the serial port by which your PC is connected to your rotator controller
Speed	select the serial port's baud rate
Word Length	select the serial port's word length, in bits
Stop Bits	select the number of stop bits following each transmitted word
Parity	select the serial port's parity

The **World Map tab** contains four panels:

- Built-in Cylindrical Equidistant Panel

Enable	when checked, directs WinWarbler to display information on its built-in world map, a cylindrical equidistant projection in a rectangular window
Include Antarctica on Continent overlay	when checked, the built-in world map's continent boundaries include Antarctica

o Graphics sub-panel

DX spot diameter	specifies the diameter of the filled circle that depicts a DX spot on the world map
QSO line width	specifies the width of the line that connects both participants of a DX QSO on the world map
QSO origin diameter	specifies the diameter of the filled circle that depicts a spotted DX QSO's origin on the world map
Logged QSO diameter	specifies the diameter of the filled circle that depicts a Logged QSO on the world map
DXCC entity diameter	specifies the diameter of the filled circle that depicts a DXCC entity on the world map
Plot color	click to set the color of the solid circles that represent DX spots, logged QSOs, and DXCC entities on the world map

o Solar position sub-panel

Current	when selected, the sun's current position is displayed on the built-in world map
At this UTC date/time	when selected, the sun's position at the specified date and time is displayed on the built-in world map <ul style="list-style-type: none"> o double-clicking sets the date/time to the current date time o the m, w, d, h, and n buttons above the word <i>previous</i> reduce the date/time by one month, week, day, hour, or minute, respectively o the n, h, d, w, and m buttons above the word <i>next</i> increase the date/time by one minute, hour, day, week, or month respectively

o DX Spots sub-panel

Set Xcvr split	when checked, double-clicking on a plotted spot in the built-in world map for a DX station operating split directs Commander (if running) to place the transceiver in split mode				
Include Country in popup	when checked, country names are included in popups that appear when the mouse cursor hovers over a DX spot on the built-in world map				
Log Filter	<table style="width: 100%; border: none;"> <tr> <td style="width: 15%; vertical-align: top;">call</td> <td>double-clicking on a plotted spot in the built-in world map directs DXKeeper (if running) to show all previous QSOs with the spot's base callsign</td> </tr> <tr> <td style="vertical-align: top;">entity</td> <td>double-clicking on a plotted spot in the built-in world map window directs DXKeeper (if running) to show all previous QSOs with the spot's DXCC entity</td> </tr> </table>	call	double-clicking on a plotted spot in the built-in world map directs DXKeeper (if running) to show all previous QSOs with the spot's base callsign	entity	double-clicking on a plotted spot in the built-in world map window directs DXKeeper (if running) to show all previous QSOs with the spot's DXCC entity
call	double-clicking on a plotted spot in the built-in world map directs DXKeeper (if running) to show all previous QSOs with the spot's base callsign				
entity	double-clicking on a plotted spot in the built-in world map window directs DXKeeper (if running) to show all previous QSOs with the spot's DXCC entity				

RTTY mode if WinWarbler not running	<p>RTTY double-clicking on a plotted RTTY spot in the built-in world map sets the transceiver to normal RTTY mode (if Commander is running)</p> <p>RTTY-R double-clicking on a plotted RTTY spot in the built-in world map sets the transceiver to reversed RTTY mode (if Commander is running)</p> <p>USB double-clicking on a plotted RTTY spot in the built-in world map sets the transceiver to USB mode (if Commander is running)</p> <p>LSB double-clicking on a plotted RTTY spot in the built-in world map sets the transceiver to LSB mode (if Commander is running)</p> <p>PKT double-clicking on a plotted RTTY spot in the built-in world map sets the transceiver to PKT mode (if Commander is running)</p>
CW mode	<p>CW double-clicking on a plotted CW spot in the built-in world map sets the transceiver to normal CW mode (if Commander is running)</p> <p>CW-R double-clicking on a plotted CW spot in the built-in world map sets the transceiver to reversed CW mode (if Commander is running)</p> <p>CW via WW double-clicking on a plotted CW spot in the built-in world map with both WinWarbler and Commander running, conveys the spot information to WinWarbler; if WinWarbler isn't running but Commander is running, the transceiver is set to normal CW mode</p>
Phone modes via WinWarbler	<p>SSB via WW when checked, double-clicking on a plotted SSB spot in the built-in world map with both WinWarbler and Commander running conveys the spot information to WinWarbler; if WinWarbler isn't running but Commander is running, the transceiver is set to USB or LSB mode as a function of frequency</p> <p>AM via WW when checked, double-clicking on a plotted AM spot in the built-in world map with both WinWarbler and Commander running conveys the spot information to WinWarbler; if WinWarbler isn't running but Commander is running, the transceiver is set to AM mode</p> <p>FM via WW when checked, double-clicking on a plotted FM spot in the built-in world map with both WinWarbler and Commander running conveys the spot information to WinWarbler; if WinWarbler isn't running but Commander is running, the transceiver is set to FM mode</p>

- DX Atlas Panel

Enable	when checked, directs WinWarbler to display information on DX Atlas (version 2.1 or later)
Display labels	<p>when checked,</p> <ul style="list-style-type: none"> ○ DX spots plotted on DX Atlas are accompanied by text indicating the spot's callsign and, if Display label details is enabled, the spot's frequency, mode, and time ○ Logged QSOs plotted on DX Atlas are accompanied by text indicating the QSOs callsign, and if Display label details is enabled, the QSO's band, mode, and grid square ○ DXCC entities plotted on DX Atlas are accompanied by text indicating the entity's DXCC prefix and if Display label details is enabled, the entity's name <p>when non checked,</p> <ul style="list-style-type: none"> ○ allowing the mouse cursor to hover near a plotted spot displays text indicating the spot's callsign, frequency, mode, and time ○ allowing the mouse cursor to hover near a plotted logged QSO displays text indicating the QSO's callsign, band, mode, and grid square ○ allowing the mouse cursor to hover near a plotted DXCC entity displays text indicating the entity's DXCC prefix and name
Display label details	if Display labels is enabled, determines whether additional text is displayed for plotted DX spots, logged QSOs, and DXCC entities
Update grid status	when checked, initiating the Plot function on the Log QSOs tab of DXKeeper Main window clears any Maidenhead Fields and Grids currently shown as worked or confirmed on the DX Atlas map, and after all logged QSOs have been received from DXKeeper, updates the DX Atlas map to show worked and confirmed Fields and Grids (if DX Atlas is configured to display field and grid status)
Plot color	click to set the color of the solid circles that represent DX spots, logged QSOs, and DXCC entities on DX Atlas

- MapQuest Zoom Panel

The slider in this panel specified the initial zoom level when MapQuest is invoked to display the current position. Zoom level 0 uses the least magnification for the widest possible view, while zoom level 9 uses the most magnification for the most detailed view. High magnification maps are not available for some parts of the world.

- Google Maps Zoom Panel

The slider in this panel specified the initial zoom level when Google Maps are invoked to display the current position. Zoom level 15 uses the least magnification for the widest possible view, while zoom level 0 uses the most magnification for the most detailed view. High magnification maps are not available for some parts of the world.

The **Entity Overrides tab** allows you to specify up to 16 callsigns and their associated DXCC entities. You can use this mechanism to handle DX callsigns that do not conform to standard prefix allocations. DXKeeper will be governed by these Entity Overrides; If Spotcollector is installed it will also be governed by these Entity Overrides. You can also specify or modify Entity Overrides via the Entity Overrides tab on SpotCollector's Configuration window; any such changes will be reflected in DXView's Entity Overrides tab.

Managing the DXCC Database

DXCC Database Structure

DXView's DXCC Database contains *Entries* that *associate* callsigns with *DXCC Entities* and *Locations* within those Entities. A Location is a geographic region within an Entity that can be unambiguously determined from a callsign. The callsign RA4FM, for example, is associated with the Penza region of the DXCC Entity European Russia. The governments of some DXCC Entities don't allocate callsigns in a way that allows a region to be unambiguously determined from a callsign; for such Entities, a single Location is defined with a name identical to that of the Entity.

Each DXCC Entity has the following properties:

Property	Content
Entity Name	the Entity's full name, as defined in http://www.arrrl.org/awards/dxcc/dxcclist.txt
Country Code	the Entity's Country Code, a unique, immutable number assigned by the ARRL DXCC desk; see http://www.qsl.net/dxkeeper/CountryCodes.htm
Entity Prefix	the prefix used to represent this entity within DXKeeper, e.g. K for the United States, G for the United Kingdom
Callbook Prefix	the prefix used by Pathfinder to select a country-specific callbook when seeking a QSL route for a callsign associated with this Entity
Map Prefix	the prefix used to select a country map to be displayed when the user clicks the Country Map button on DXView's Info window (if the Map Prefix is <code>foo</code> , then DXView displays the contents of the file <code>foo.gif</code> its Maps folder, if this file exists)
Start Date	the first date on which contacts with this Entity are deemed valid by the ARRL DXCC desk; if no date is specified, the Entity has been valid since the beginning of the ARRL DXCC program
End Date	the last date on which contacts with this Entity are deemed valid by the ARRL DXCC desk; if no date is specified, all contacts after the Start Date are valid.

Each DXCC Entity has one or more Locations. Each Location has the following properties:

Property	Content
Prefix List	<p>a comma-separated list of prefixes from this Location to be mapped to this Entity Name and Country Code</p> <ul style="list-style-type: none"> • the character <code>~</code> preceding a prefix means that the prefix is for documentation purposes only and should not be associated with the Entity's DXCC Entity; this is used as a way of recording the prefixes once associated with deleted DXCC Entities. • a prefix may contain one of the following wildcard characters in order to generate multiple prefix-to-Entity associations: <ul style="list-style-type: none"> ○ <code>#</code> - expands to the numbers 0 through 9, generating 10 prefix-to-Entity associations ○ <code>?</code> - expands to the letters A through Z, generating 26 prefix-to-Entity associations ○ <code>\$</code> - expands to the letters A through G, I through K, and M through Z, generating 24 prefix-to-Entity associations (used in defining US prefixes for the 0, 6, 7, 8, and 9 call areas) ○ <code>%</code> - expands to the letters A through G, I through K, M through N, and Q through Z, generating 23 prefix-to-Entity associations (used in defining US prefixes for the 1, 2, 3, 4, and 5 call areas)

	<ul style="list-style-type: none"> ○ & - expands to the letters A through G and I though K, generating 10 prefix-to-Entity associations (used in defining US AA prefixes) ○ ! - expands to the letters A through I, generating 9 prefix-to-Entity associations (used in defining the U prefixes assigned to European Russia) • DXView's callsign-to-Entity association algorithm operates by finding the <i>longest</i> defined prefix that matches the callsign. Thus the callsign 3C0DX is associated with Annobon Island because it matches the 3C0 prefix defined for Annobon, pre-empting the shorter 3C prefix defined for Equatorial Guinea. The callsign 3C1DX, however, would be associated with Equatorial Guinea since it doesn't match Annobon's 3C0 prefix. One can if necessary specify a full callsign as a prefix; the prefix DP1POL, for example, is associated with the Neumayer research base in Antarctica. <p>Note that the same prefix cannot be associated with more than one Entity; the reTable operation will report and ignore such attempts.</p>
Time Zone	UTC offset for this Location, in hours (positive for west of Greenwich England, negative for east of Greenwich England)
CQ Zone	CQ Zone for this Location, per http://www.cq-amateur-radio.com/wazrules.html
ITU Zone	ITU zone for this Location, per http://www4.plala.or.jp/nomrax/ITU/
IOTA	IOTA tag for this Location, per http://www.rsgbiota.org/shortlist.php4
Continent	Continent for this location - one of AF,AS, EU, NA, OC, SA
Latitude	Latitude of this Location (degrees, positive for north latitude, negative for south latitude)
Longitude	Longitude of this Location (degrees, positive for east longitude, negative for west longitude)

An Entry in the DXCC Database comprises

- a set of prefixes associated with a Location of a DXCC Entity
- the properties of that DXCC Entity
- the properties of that Location
- a Sort property specifies the position in DXView's Database Display of this Entry among the other Entries for this Entity; the first Entry's Sort property is 1; an Entity's Entries are displayed in ascending of their Sort property.

A DXCC Database's Master table contains a set of Entries that cover all DXCC Entities -- current, and deleted. Prior to 2004, DXCC databases were not assigned versions. All DXCC databases released after 1-Jan-2004 contain a version designator, which is displayed in the caption of the Info window's DXCC panel, and in the Config window's Database Versions panel. If you are using a DXCC databases released prior to 1-Jan-2004, the displayed version number will be 1.?.?.

A DXCC Database contains three tables -- DXCC, Location, and Prefix -- whose entries are derived from the Master table when you initiate the reTable operation; this arrangement is purely a performance optimization. A table named Settings is used to retain information specific to a DXCC Database: its version number, and a flag indicating whether or not the Master Table has been modified without changing the version number.

Viewing and Changing Entries in the DXCC Database

To view the DXCC Database's Master Table, click the Info window's **DXCC** button; when DXView displays its DXCC Database window, select the Master Table tab. The lower half of this tab contains the DXCC Database Display -- a scrollable grid with which you can select any DXCC Database Entry; you can adjust the widths of this grid's columns by left-dragging the lines separating the column captions. The upper half of this tab contains textboxes that are populated with data from the currently-selected DXCC Database Entry. These textboxes correspond to the components of a DXCC Database Entry described above. When you select a DXCC Database Entry by clicking on it in the Database Display, these textboxes display that Entry's components. You can modify a component by editing its textbox; when you do so, the **Save** button becomes enabled, reminding you that the Entry has been modified. When you have completed all changes to an Entry, click the **Save** button to record them, or click the **Undo** button to back them out.

To delete a record from the DXCC Database's Master table, select its entry in the grid, and click the **Delete** button.

To add a record to the DXCC Database's Master table, scroll the grid control to the last DXCC Database Entry, which is designated by an asterisk in its first column. Click in first cell of this Entry to select it; click a second time, and DXView creates an empty Entry that you can populate via the textboxes in the tab's upper section. Click the **Save** button when all of the Entry's components have been specified.

When you've completed all necessary changes, decide whether the new DXCC Database should be considered a new version, or just a modification of the existing version. If the former, enter the new version number in the Database Version panel's **New** textbox, and uncheck the **Flag new as modified** box. If the latter, leave the **New** textbox showing the current version, and check the **Flag new as modified** box. When using a DXCC Database created with *Flag new as modified* checked, DXView appends a plus (+) to the version number.

Keyboard shortcuts for the above functions are available.

As described above, the DXCC Database contains four tables. The contents of three of these tables -- DXCC, Location, and Prefix -- are computed from the Master table. Thus after adding, deleting, or modifying one or more Entries to the DXCC Database's Master table, you must regenerate these three tables; this is accomplished by clicking the **reTable** button. If you fail to regenerate these tables, none of the changes you made to the Master table will be available to the applications that rely on it until you perform a reTable operation. The reTable operation requires exclusive access to the DXCC Database. If SpotCollector and/or DXKeeper are running when you initiate a reTable operation, you will be notified that the operation cannot be completed; simply terminate SpotCollector and/or DXKeeper, and then click the **reTable** button again. Opening the DXCC Database with an application like Microsoft Access or Microsoft Excel will also prevent the reTable operation from completing.

The DXCC, Location, and Prefix tables are not made visible by DXView, though you can view them by opening the DXCC Database with Microsoft Access or Microsoft Excel. DXView does display the number of Entries in each of the DXCC Databases five tables on its Database window's Statistics tab.

DXView Keyboard Shortcuts

Info window shortcuts

Alt Key Shortcut	Effect
Alt-C	moves the mouse cursor to the callsign textbox
Alt-D	opens the DXCC Database window
Alt-G	moves the mouse cursor to the grid textbox
Alt-K	moves the mouse cursor to the K textbox
Alt-L	moves the mouse cursor to the longpath textbox
Alt-M	displays the MapQuest map for the selected location
Alt-N	moves the mouse cursor to the longitude textbox
Alt-P	directs the antenna rotator to the longpath heading
Alt-R	directs the antenna rotator to the shortpath heading
Alt-S	moves the mouse cursor to the shortpath textbox
Alt-T	moves the mouse cursor to the latitude textbox
Alt-U	displays sunrise and sunset times for the selected location
Alt-W	displays the world map window
Alt-Y	displays a country map for the selected location
Alt-Z	updates all Info window fields based on the callsign (equivalent to clicking the Go button)

Database window shortcuts

Alt Key Shortcut	Effect
Alt-A	moves the mouse cursor to the DXCC Name field
Alt-B	moves the mouse cursor to the Start Date field
Alt-C	moves the mouse cursor to the Country Code field
Alt-D	requests confirmation to delete the selected DXCC Database Entry
Alt-E	moves the mouse cursor to the End Date field
Alt-F	moves the mouse cursor to the Continent field
Alt-G	moves cursor focus to the DXCC Database Grid, which can then be navigated via the left and right arrow keys
Alt-H	moves the mouse cursor to the Time Zone field
Alt-I	moves the mouse cursor to the IOTA field
Alt-J	moves the mouse cursor to the DXCC Search field
Alt-K	moves the mouse cursor to the DXCC Sort field
Alt-L	moves the mouse cursor to the Prefix List field
Alt-M	moves the mouse cursor to the DXCC Map field
Alt-N	moves the mouse cursor to the Longitude field
Alt-O	moves the mouse cursor to the Location field

Alt-P	moves the mouse cursor to the DXCC Prefix field
Alt-Q	moves the mouse cursor to the CQ Zone field
Alt-R	activates the reTable function
Alt-S	saves changes to the selected DXCC Database entry
Alt-T	moves the mouse cursor to the Latitude field
Alt-U	moves the mouse cursor to the ITU Zone field
Alt-Z	abandons changes to the selected DXCC Database entry