DXKEEPER 9.7.1

Prerequisites

To use DXKeeper, you need

- a PC running Windows 95, Windows 98, Windows 2000, or Windows NT, ideally
    - 133 mHz Pentium or better
    - 64 MB RAM or better
- an SVGA display or better

If you plan to run applications such as DXView, Commander, and/or WinWarbler in parallel with DXKeeper, additional memory may be required for satisfactory performance.

Logging and Managing QSOs

DXKeeper allows you to capture and manage more than 100 items of information about each QSO. Some, like the station's callsign or the QSO's start time, will always be of interest. Others, like the station's grid square, may never be utilized. The awards for which DXKeeper provides progress reporting have differing requirements as to what items must be recorded with a QSO in order to properly determine credit; a table describing the requirements for each supported award is provided under “Recording Award Information” on Page 83. The Main window's **Log QSOs** tab provides access to all of these items, for

- logging new QSOs
- logging already completed QSOs
- viewing logged QSOs
- modifying and deleting logged QSOs

Since your hands will generally be on the keyboard while logging QSOs, DXKeeper provides keyboard shortcuts for rapidly navigation from item to item.

The distinction between logging new QSOs in "real time" as they're made, and logging already completed QSOs is important. When you log a QSO in real time, the QSO's frequency, band, and mode can be obtained from your transceiver if Commander is running. When you're logging QSOs from a paper logbook or from notes taken during an operating session, the frequency, band and mode should be set to the frequency and mode of the last logged QSO; these won't always be correct, but even if you QSY'd between QSOs its often easier to "adjust" the frequency than type it in from scratch. Similarly, when you log a QSO in real time, the QSO's start time is *now*, but when you log an already completed QSO the QSO's start time will be after the last logged QSO's end time.
The **Log QSOs** tab of DXKeeper's Main window can be optimized for either logging new QSOs, or for logging already completed QSOs, as described in logging new QSOs and logging already completed QSOs.

New QSOs can also be logged via the **Capture** window, a smaller window that can be used to record the most commonly-used items; keyboard shortcuts are provided for rapid navigation among Capture window items. By logging via the Capture window, the Main window's **Log QSOs** tab is available for viewing previous contacts with your QSO partner, or for mining other information from your log while you're in QSO.

On the Main window's **Log QSOs** tab, DXKeeper organizes items into 9 groups, each associated with a panel:

- QSO items
- Auxiliary items
- QSL items
- Online QSL items
- Award items
- Contest items
- Propagation items
- Details items
- User-defined items

The **QSO** panel is always present; you can independently control the presence of the **Auxiliary**, **QSL**, **Online QSL, Award**, **Contest**, **Propagation**, **Details**, and **User-defined** panels using the Log Panel checkboxes in the Configuration window's **Log** tab or using the eight checkboxes to the right of the **QSO** panel. Enabling the Display panels in two columns option will display these panels side-by-side in two columns rather than stacked in a single column - a format more suitable for widescreen monitors. All information items are stored with each QSO, whether or not the panels displaying them are visible. This allows you to adjust DXKeeper's consumption of screen real estate to meet your needs.

Located at the bottom of the **Main** window's **Log QSOs** tab, the Log Page Display contains one entry for each QSO in the current Log file. Each entry in the Log Paged Display corresponds to one QSO in your log. The visibility of each entry is subject to settings in the Filter panel; for example, you can filter the Log Page Display to show only QSOs made with Albania during 2003.

Clicking an entry in the Log Page Display selects its associated QSO; the panels above the Log Page Display will show the items recorded for that QSO. The **QSO** panel's caption displays the name of the selected QSO's DXCC entity; if the selected QSO's duration is non-zero, the **QSO** panel's caption parenthetically displays the QSO's duration in mm:ss notation; the **QSO** panel also displays the full name of the station's DXCC entity, as well as the DXCC prefix and country code assigned to this entity by the ARRL. These items can also be shown in the Log Page Display; the caption at the top of each column identifies the information item in the cells below it.

- **Configuring the Log Page Display**
- **Sorting the Log Page Display**
- **Filtering the Log Page Display**
- **Filtering the Log Page Display with SQL**
- **Viewing, Modifying, and Deleting Logged QSOs**
- **Modifying QSOs *En Masse***
- **Filtering, Modifying, and Reporting with Scripts**
- **Updating QSOs in the Log Page Display with Callbook and DXCC Database Information**
- **Tracking Award Progress**

Receiving and Tracking QSLs
On receiving a QSL card, you can use the Call filter to quickly locate its associated QSO, and then click the QSL panel's CFM button to set the QSO's QSL Rcvd item to 'Y' and set its QSL date received to the current UTC date; keyboard shortcuts for these functions can be used to rapidly process a stack of received QSL cards. If a newly-confirmed QSO's is needed for DXCC and the DXCC Submission reminder option is enabled, DXKeeper will display a dialog box suggesting that the card be submitted to the DXCC desk.

You can optionally assign the QSL card a unique QSL number, and record this in the QSO's QSL# item. Rather than risk defacing the QSL card by writing the assigned QSL number directly on its surface, the use of post-it notes or equivalent is suggested. Storing received QSL cards sorted in QSL number order makes it easy to locate them for award submission. Assigning a unique QSL number to a QSO also enables DXKeeper's Create Card Record Sheet function to automatically sort QSOs having identical QSL# items at the end of the generated report; if this is the only reason that QSL# items are being assigned, then they only need be assigned to QSL cards that confirm more than one QSO.

Generating Log Reports
The **Report** button generates a log report with one entry for each QSO in the Log Page Display, and places that report in a file in DXKeeper's Reports subfolder. This report's sort order and layout are those of the Log Page Display with one exception: if the Log Page Display includes the country code, the report appends the full DXCC entity name to the country code. You can create a layout optimized for this report and save it in a file for later recall.

Plotting QSOs
If DXView is running, the **Plot** button conveys all QSOs in the Log Page Display to DXView for display on its world map.

Log files
QSOs and their information items are stored in a log file. When you run DXKeeper for the first time after installing it, you will be prompted for your callsign. DXKeeper uses your callsign to create a log file in the databases subfolder of its DXKeeper folder, and automatically opens that log. If you installed DXKeeper in the folder c:\program files\DXKeeper and your callsign is AA6YQ/KH6, for example, DXKeeper will create and open the file c:\program files\DXKeeper\aa6yq-kh6.mdb. This log file may be all you ever need. But if you participate in contests or operate from multiple locations, you may wish to maintain multiple log files; the controls in the Configuration screen's Log File panel support this mode of operation by enabling you to

- create an empty new log and then open it
- select an existing log by navigating with a Windows file selector or by typing its pathname, and then open it

A log file also contains realtime award tracking information for the ARRL DXCC and Top List awards. By default, realtime award tracking for CQ Worked All Zones (WAZ) awards is not enabled in a newly-created log, but the user can direct DXKeeper to enable it; the user can subsequently direct DXKeeper to disable realtime award tracking for WAZ if desired.

If you start DXKeeper with a command line argument that specifies a valid pathname, DXKeeper will attempt to open the designated file as a log.

If you operate from multiple QTHs and wish to automatically generate QSL cards or labels that correctly reflect the QTH from which you were operating , DXKeeper allows you to specify the details of each QTH (e.g. city, country, state, grid) and assign each QTH a unique identifier that can be logged with a QSO.

Logging new QSOs using the Main window

If you are logging a new QSO (as opposed to logging already-completed QSOs from a paper logbook), you can do so via the Main window's **Log QSOs** tab, or via the Capture window. The **Log QSOs** tab can be configured to provide direct access to every item, but at a cost in screen space and in the number of *gestures* (keystrokes or mouse clicks) required to log a QSO. The Capture window is optimized for fast real-time logging, but does not provide the ability to specify every item; for example, it automatically computes the band from frequency, and so does not provide independent access to the band item.

There are three basic steps in logging a QSO via the Main window's **Log QSOs** tab:

1. create a new QSO record by clicking the **New** button
2. record the information items you care about
3. save the QSO record by clicking the **Log** button

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- QSO items
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The **QSO** panel is always present; you can independently control the presence of the **Auxiliary**, **QSL**, **Online QSL, Award**, **Contest**, **Propagation**, **Details**, and **User-defined** panels using the Log Panel checkboxes in the Configuration window's **Log** tab or using the eight checkboxes to the right of the **QSO** panel. Enabling the Display panels in two columns option will display these panels side-by-side in two columns rather than stacked in a single column - a format more suitable for widescreen monitors. All information items are stored with each QSO, whether or not the panels displaying them are visible. This allows you to adjust DXKeeper's consumption of screen real estate by displaying only the panels containing the items you care about.

If you are logging a new QSO (as opposed to logging already-completed QSOs from a paper logbook), check the optimize for realtime QSO entry box.

To create a new QSO record, click the **New** button. This saves any previously open QSO record, initializes all of the textboxes used to capture information items to blanks, and places the cursor in the call item awaiting your entry of a callsign.

If, after entering or modifying a callsign in the call item, you strike the **Enter** key or the **Tab** key or immediately click the mode item selector, DXKeeper will

- automatically initialize many information items for you
- color the callsign to reflect its DXCC/Challenge/Toplist award status:
    - red, bold font: the callsign's DXCC entity is unworked, the entity-band is sought and unworked, or the entity-mode is sought and unworked
    - blue, bold font: the callsign's DXCC entity is worked but not confirmed, or the entity-band is sought and worked but not confirmed, or the entity-mode is sought and worked but not confirmed
    - black, normal font: the callsign's DXCC entity is confirmed, the entity-band is either confirmed or not sought, and the entity-mode is either confirmed or not sought

- if the Displays previous QSOs on lookup box is checked, DXKeeper will show all previous QSOs with the callsign in the Log Page Display and initialize the DXCC, name, QSL via, QTH, gridsquare, IOTA, QSL address, Primary Administrative Subdivision, Secondary Administrative Subdivision, ITU, CQ, continent, eQSL.cc member and LotW member items with information found in previous QSOs, with priority given to information extracted from the most recent QSOs
- if the LotW database is installed, sets the LotW membership selector to **Y** if the callsign is a known participant in the ARRL's Logbook of the World, subject to the Maximum age of most recent LotW upload setting
- if the eQSL AG database is installed, sets the eQSL.cc membership selector to **A** if the callsign is an Authenticity-Guaranteed member of eQSL.cc
- if a Callbook is installed, selected, and configured for automatic initialization, DXKeeper will query the Callbook's database for name, location, and QSL route information.
- move the mouse cursor to the mode item - unless you depressed the **Shift** key while striking the **Enter** key, in which case the mouse cursor will move to the begin item.

If a callsign is found to be a known participant of LotW but not an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to yellow. If a callsign is found to be an Authenticity-Guaranteed member of eQSL.cc but not a known participant of LotW, the callsign's background color is set to pink . If a callsign is found to be a known participant of LotW and an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to cyan (light blue). If SpotCollector is installed, however, the background colors specified on the **Spot Database Display** tab of SpotCollector's **Configuration** window - if not too dark - are used in place of yellow, pink, and cyan. The eQSL AG and LotW databases can be installed via the **Databases** tab of DXView's Configuration window.

You can set any of the remaining items manually. Double-clicking several items immediately performs useful actions.

In determining the DXCC entity from the callsign, DXKeeper uses the current ITU Prefix Allocations. If you are logging an older QSO, you should verify that that DXKeeper has deduced the correct DXCC entity by inspecting the Aux panel's entity item. If you log a 1990 QSO with UP1BZO, for example, DXKeeper will set the QSO's DXCC entity to Kazakhstan, which is incorrect. You can correct this by selecting the correct DXCC entity -- in this case, Lithuania -- in the Aux panel's entity item.

If the first letter of the callsign you enter is an exclamation point, DXKeeper assumes that you are logging a CQ, an unsuccessful call, a test, or some other transmission that you wish to record but does not represent a QSO. Such log entries are not assigned a DXCC entity, do not initiate a Callbook database lookup, and are not included in award tracking statistics.

When any item is modified, the panel labels are rendered in blue as a reminder to save the information. To do so, click the **Log** button; this resets the panel labels to black. If you plan to immediately log another new QSO, you can instead click the **New** button, which will both save the current QSO's information and create a new QSO record. With the cursor in any item textbox, you can perform the **Log** or **New** operations without lifting your hands from the keyboard by striking **Ctrl-L** or **Ctrl-J** respectively.

If you attempt to save a QSO whose Grid item specifies a valid two-character Maidenhead Field, 00aa will be appended to the Grid item to make it a valid Maidenhead Grid Square.

After a newly-created QSO is recorded by clicking the **Log** or **New** buttons, the Require Edit to modify logged QSOs setting determines whether the **Edit** button must be clicked before subsequent modifications to that QSO are permitted. If Require Edit to modify logged QSOs is enabled and the **Edit** button has not been clicked, any attempt to change an item in the current QSO is ignored. If the **Edit** button is clicked, changes are permitted, and the **Edit** button is replaced by a **Save** button that can be clicked to record the changes. If Require Edit to modify logged QSOs is not enabled, changes to items in the current QSO can be made at any time; such changes can be recorded by clicking the **Save** button. Changes are also recorded by taking any action that causes another QSO become selected.

If the Provide audible feedback box is checked, successfully logging a QSO via the **New** or **Log** buttons will play the "Windows Default Beep" sound.

If an item contains an invalid value, or if a required item is missing, clicking the **Log** or **New** buttons or attempting to select another QSO flashes the labels of any such items in red, but does not enter the QSO into the current log; if the Provide audible feedback box is checked, the "Windows Default Beep" will play each time the labels flash. Frequencies not falling within a defined band are considered invalid. Callsign validity checking can be enabled or disabled via the Flag Invalid Callsigns setting. If an item's data exceeds its specified maximum length, its label will be flashing in red and the **Log** button will not enter the QSO into the current log. Until you correct the error(s) causing tem labels to flash, the **New**, **Log**, and **Delete** buttons will not function, nor will you be able to select another QSO.

If a non-critical item is missing or contains an inappropriate value, clicking the **Log** or **New** buttons or attempting to select another QSO will enter the QSO into the current log but flashes the labels of any such items in blue (if the panel's that contain them are visible). Examples of non-critical errors include:

- missing Operator
- have an End date/time that occurs before their Begin date/time
- include a Satellite name but do not have Propagation Mode set to SAT
- have an empty myQTH field in a Log for which multiple QTHs have been defined
- have an invalid Iota item

Iota items that are valid but not in standard format will be placed in standard format when you click the **Log** or **New** buttons. For example, AF1 will be changed to AF-001.

If you modify one or more items and then change your mind, clicking the **Undo** button will restore them to their last saved state.

Double-clicking the caption of an unselected item will *select* that item:

- the item immediately receives keyboard focus (which means that keys you strike will be directed to the selected item)
- the item's caption is rendered in underlined font
- selecting another QSO in the Log Page Display will set the keyboard focus in the selected item of that QSO

Double-clicking the underlined caption of a selected item will de-select that item, setting keyboard focus in the **Filter** panel textbox.

If an item has a default value, Ctrl-double-clicking the caption of that item will display the Configuration window and place the mouse cursor in the default value.

In fields containing dates, the year must be 1930 or later.

If you do not include time separators in the begin or end fields, DXKeeper will insert them appropriately:

Time	Result
1	01:00:00
12	12:00:00
123	1:23:00
1234	12:24:00
12345	1:23:45
123456	12:34:56

If you have configured Windows to use a time separator other than colon, DXKeeper will use the time separator you have specified.

With the mouse cursor in the begin or end fields, you can incrementally change the specified date and time using the up and down arrow keys:

Modifier	Effect of Up or Down Arrow keys
none	increases or decreases the date and time by 1 minute
Ctrl	increases or decreases the date and time by 10 minutes
Shift	increases or decreases the date and time by 1 hour
Alt	increases or decreases the date and time by 1 day

Uncapitalized first letters of each word entered into the Name or QTH items will be automatically capitalized unless the word contains a capitalized letter.

Striking the **Enter** key in the QTH item initiates a word-by-word inspection of the QSL field.

- If the QTH item contains a valid grid square and the QSO's, then the QSO's Grid Square item will be set to the Grid Square found in the QTH item
- If the QTH item contains a valid US State abbreviation, and the QSO's DXCC entity is USA or Alaska or Hawaii, then the QSO's State item will be set to the State found in the QTH item
- If the QTH item contains a valid Canadian Province abbreviation, and the QSO's DXCC entity is Canada, then the QSO's Province item will be set to the Province found in the QTH item
- If the QTH item contains a valid ARRL Section abbreviation, and the QSO's DXCC entity is USA or Alaska or Hawaii or US Virgin Islands or Puerto Rico or US Pacific possessions, or Canada, then the QSO's ARRL Section item will be set to the ARRL Section found in the QTH item
- If the State, Province, ARRL Section, and Grid Square items found in the QTH item unambiguously identify a CQ Zone, then the QSO's CQ zone item will be derived from the information found in the QTH item
- If the State, Province, ARRL Section, and Grid Square items found in the QTH item unambiguously identify an ITU Zone, then the QSO's ITU zone item will be derived from the information found in the QTH item

To make it easy to copy QSL route information into a QSO record, the address item supports drag and drop from OLE sources such as Pathfinder or Microsoft Internet Explorer. To use this feature, first select the QSL route text in the source; then drag the selected text to the address item and drop it there. Semicolons in the selected text will be converted to newline sequences in the address item. The drag and drop action replaces any pre-existing address item contents with the selected source text. You can also invoke the Address Editor by double-clicking the address item or the via item.

Double-clicking the comment or QSLMsg item will invoke a Field editor that makes it easier to edit their content. You can include substitution commands in the QSLMsg item to include information determined by your current location.

Double-clicking or striking the **Enter** key in the Grid Square item updates DXView's display to show the specified grid square as its current position. Depressing the **CTRL** key while double-clicking the Grid Square item updates DXView's display and rotates the antenna to the short-path heading; depressing the **ALT** key while double-clicking the Grid Square item updates DXView's display and rotates the antenna to the long-path heading.

Logging Information Needed for Award Tracking
To track progress towards awards like WAS, USA-CA, RDA, WAJA, JCC, JCG, and AJA, DXKeeper provides items in its **Awards** panel that let you record a callsign's Primary Administrative Subdivision and its Secondary Administrative Subdivision. Some DXCC entities formally define a set of Primary Administrative Subdivisions, e.g. States in the United States, Oblasts in European and Asiatic Russia, and Prefectures in Japan; unique abbreviations or codes are used to identify these primary subdivisions. When you log a QSO with one of these entities, DXKeeper provides an appropriately-labeled (e.g. state, oblast, prefecture) selector that lets you choose from among the valid codes for that entity; if you click the **?** button to the right of this selector, DXKeeper's **Main Administrative Subdivision Selector** window will appear, which provides a cross-reference between codes or abbreviations and full names, and lets you choose a primary subdivision by clicking in either the window's **Code** or **Name** selector.

- If a country contains multiple DXCC entities, then when you select one of these entities the selector will provide choices valid for the selected entity; if a QSO's DXCC entity is Asiatic Russia, for example, the subyekt selector will only offer Oblasts located in Asiatic Russia.
- ADIF defines the District of Columbia (DC) as a Primary Administrative Entity of the United States. DXKeeper's WAS report treats QSOs with stations in the District of Columbia as being in Maryland; its Worked All Counties report treats QSOs with stations in the District of Columbia as being in Maryland's Washington County.
- ADIF defines Newfoundland and Labrador (NL) as a Primary Administrative Entity of Canada, replacing the previous separate provinces of Newfoundland and Labrador

Some of the DXCC entities that define a set of Primary Administrative Subdivisions formally define a set of Secondary Administrative Subdivisions for each of their Primary Administrative Subdivision, e.g. Counties in the United States, Districts in Russia, and Cities and Guns in Japan; unique abbreviations or codes are used to identify these secondary subdivisions. For such entities, DXKeeper provides an appropriately-labeled (e.g. county, district, city/gun) selector lets you choose from among the valid codes; if you click the ? button to the right of this selector, DXKeeper's **Main Administrative Subdivision Selector** window will appear, which provides a cross-reference between codes or abbreviations and full names, and lets you choose a secondary subdivision by clicking in either the window's **Code** or **Name** selector.

- ADIF defines 28 Alaskan Counties; DXKeeper expect these to be logged with Alaskan QSOs. The Worked All Counties report automatically maps these counties to the correct Judicial District and reports your County progress accordingly.

If the Allow direct Subdivision entry setting is enabled, you can directly enter and edit abbreviations or codes in the Primary and Secondary Administrative Subdivisions rather than be restricted to making selections.

For entities that do not define Primary or Secondary Subdivisions, DXKeeper provides **pri sub** and **sec sub** textboxes with which any subdivision name can be recorded; you can use this to capture a subdivision name for QSO with a country that does not formally define its subdivisions, but this information may not be accepted by other logging applications when they import an ADIF file that you export.

The Main window's **Log QSOs** tab also provides region and DOK items to record entity-specific information required for certain awards.

For a summary of what information to record in what item for each supported award, see the table on page 83.

QSO Initialization

If, after entering a callsign in the call textbox, you strike the **Enter** key, DXKeeper will automatically initialize the any of the following information items that you haven't manually set:

Panel	Item	Automatic Initialization
QSO	freq	• if Optimize for realtime QSO entry is checked and Commander is running, this item is set to your transceiver's current frequency • if Optimize for realtime QSO entry is unchecked or Commander is not running, this item is set to the frequency of the last logged QSO
QSO	band	• if Optimize for realtime QSO entry is checked and Commander is running, this item is set to the band for your transceiver's current frequency • if Optimize for realtime QSO entry is unchecked or Commander is not running, this item is set to the band of the last logged QSO
QSO	rx freq	• this item is set to the receive frequency of the last logged QSO
QSO	rx band	• this item is set to the receive band of the last logged QSO
QSO	mode	• if Optimize for realtime QSO entry is checked and Commander is running, this item is set to your transceiver's current mode • if Optimize for realtime QSO entry is unchecked or Commander is not running, this item is set to the mode of the last logged QSO
QSO	begin	• if the Optimize for realtime QSO entry is checked, this item is set to the current UTC time
QSO	DXCC	• if DXView is running, this item is set to the prefix for the DXCC entity associated with callsign in the call textbox
QSO	sent	• if the Run-mode box or the Initialize RST fields box in the Configuration screen's General panel is checked, this item is set to to 59 (if the mode textbox contains SSB or FM) or 599 (if the mode textbox contains CW, RTTY, or PSK)
QSO	rcvd	• if the Run-mode box or the Initialize RST fields box in the Configuration screen's General panel is checked, this item is set to 59 (if the mode textbox contains SSB or FM) or 599 (if the mode textbox contains CW, RTTY, or PSK)
QSO	name	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the name returned by a successful Callbook query
QSO	QTH	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the city returned by a successful Callbook query
Auxiliary	stn call	• this item is set to the contents of the Station Callsign textbox in the Defaults panel on the Configuration screen's General panel
Auxiliary	op call	• this item is set to the contents of the Operator Callsign textbox in the Defaults panel on the Configuration screen's General panel

Auxiliary	own call	• this item is set to the contents of the Owner Callsign textbox in the Defaults panel on the Configuration screen's General panel
Auxiliary	pwr	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the Transmit power textbox in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the transmit power of the last logged QSO
Auxiliary	code	• if DXView is running, this item is set to the ARRL country code for the DXCC entity associated with callsign in the call textbox
QSL	myQTH	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the my QTH ID textbox in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the my QTH ID of the last logged QSO
QSL	msg	• this item is set to the contents of the QSL msg textbox in the Defaults panel on the Configuration screen's General panel
Awards	continent	• if DXView is running, this item is set to the continent associated with callsign in the call textbox
Awards	CQ	• if DXView is running, this item is set to the CQ zone associated with callsign in the call textbox
Awards	ITU	• if DXView is running, this item is set to the International Telecommunications Union zone associated with callsign in the call textbox
Awards	state	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the US state returned by a successful Callbook query
Awards	province	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the Canadian province returned by a successful Callbook query
Awards	cnty	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the county returned by a successful Callbook query
Awards	grid	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the Maidenhead gridsquare returned by a successful Callbook query, or computed from the latitude and longitude returned by a successful Callbook query
Awards	IOTA	• if a Callbook is installed, selected, and configured for automatic initialization, this item is set to the IOTA reference returned by a successful Callbook query
Contest	ID	• if Contest-mode is enabled, this item is set to the Contest name
Contest	tx #	• if Contest-mode is enabled, this item is set to the Contest TX serial#

Propagation	prop mode	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the Propagation mode setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the propagation mode of the last logged QSO
Propagation	Satellite name	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the Satellite name setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the satellite name of the last logged QSO
Propagation	Satellite mode	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the Satellite mode setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the satellite mode of the last logged QSO
Propagation	Meteor Scatter shower	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the Meteor Shower setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the meteor scatter shower name of the last logged QSO
Propagation	Antenna az	• if DXView is running with rotator control enabled, this item is set to the heading last sent to the rotator
Propagation	Antenna path	• if DXView is running with rotator control enabled, this item is set to the path selected when a heading was last sent to the rotator
Propagation	Condition SFI	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the SFI setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the Solar Flux of the last logged QSO
Propagation	Condition A	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the A setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the A-index of the last logged QSO
Propagation	Condition K	• if Optimize for realtime QSO entry is checked, this item is set to the contents of the K setting in the Defaults panel on the Configuration screen's General panel • if Optimize for realtime QSO entry is not checked, this item is set to the K-index of the last logged QSO
Details	Comment	• If Log Special Callsign Tags is checked, then Special Callsign Tags provided by DXView and SpotCollector will be appended to the Comment item
User-defined	user-defined items 0 through 7	• if Optimize for realtime QSO entry is checked, this item is set to the items default value as specified on the Config window's User Items tab

Double-clicking on Item Textboxes

Double-clicking on the following Log items immediately performs the following actions:

Panel	Item	Double-click result
QSO	call	the log page display is filtered to show only QSOs with this station (including variants of the callsign for portable, mobile, or QRP operation)
QSO	begin	the item is set to the current UTC date and time
QSO	end	• if the optimize for realtime QSO entry box is checked, the item is set to the current UTC date and time • if the optimize for realtime QSO entry box is not checked, the item is set to contents of the begin field
QSO	power	if Default Transmit power by band is enabled and the QSO specifies a band for which a default power is specified, then the QSO's power item is set to this band-specific default power; otherwise, the QSO's power item is set to the default Transmit power
QSO	sent	the item is set to 59 (if the mode textbox contains SSB or FM) or 599 (if the mode textbox contains CW, RTTY, or PSK)
QSO	rcvd	the item is set to 59 (if the mode textbox contains SSB or FM) or 599 (if the mode textbox contains CW, RTTY, or PSK)
QSO	rx freq	the item is set to the value of the tx freq item
QSL	date sent	the item is set to the current UTC date, and QSL sent is set to Y
Aux	operator	the item is set to the default operator callsign
QSL	date rcvd	the item is set to the current UTC date
Awards	grid	the specified grid square is conveyed to DXView, which is updates it current position accordingly • if the **CTRL** key is depressed, the antenna is also rotated to the short-path heading • if the **ALT** key is depressed, the antenna is also rotated to the long-path heading
Details	web	the specified URL is displayed in the web browser specified on the Config window's Guidance panel
Details	file	• if no filename is specified, a file selector is displayed • if a filename is specified, the file is displayed by the default "viewer" application associated with the file type by Windows • if a filename is specified, depressing the CTRL key while double-clicking will display a file selector
User-defined	user-defined items 0 through 7	the item is set to its specified default value

Logging New QSOs with the Capture window

To facilitate rapid real-time logging with minimum screen space consumption, DXKeeper provides a QSO Capture window, activated by clicking the **Capture** button located on the **Log QSOs** tab. The QSO Capture Window records 38 items, all but four of which (call, DXCC, tx frequency, and mode) are optional. By dragging the Capture window's lower border up or down, the Capture window can be configured to display from as few as two items to all items.

Clicking the **Lookup** button, or striking the **Enter** key in the Call textbox, or striking the **Tab** key in the Call textbox results in the following actions:

- if the **Shift** key is depressed when striking the <enter> key in the Call textbox, the name, QTH, Address, Primary Administrative Subdivision, Secondary Administrative Subdivision, Grid, IOTA, Sent Via, LotW membership, and eQSL.cc membership items are cleared
- if the **Ctrl** or **Shift** key is depressed when the **Lookup** button is clicked, the name, QTH, Address, Primary Administrative Subdivision, Secondary Administrative Subdivision, Grid, IOTA, Sent Via, LotW membership, and eQSL.cc membership items are cleared
- the callsign is colored to reflect its DXCC/Challenge/Toplist award status:
    - red: the callsign's DXCC entity is unworked, the entity-band is sought and unworked, or the entity-mode is sought and unworked
    - blue: the callsign's DXCC entity is worked but not confirmed, or the entity-band is sought and worked but not confirmed, or the entity-mode is sought and worked but not confirmed
    - black: the callsign's DXCC entity is confirmed, the entity-band is either confirmed or not sought, and the entity-mode is either confirmed or not sought
- if the Display Previous QSOs on Lookup box is checked
    - filters the log to only display previous QSOs with the Call or a variant of the Call (e.g. with a portable, QRP, or mobile designator)
    - initializes the DXCC, name, QSL via, QTH, gridsquare, IOTA, QSL address, Primary Administrative Subdivision, Secondary Administrative Subdivision, ITU, CQ, continent, eQSL.cc member and LotW member items using information found in previous QSOs, with priority given to information extracted from the most recent QSOs (the QSL address is not visible in the Capture window, but will be logged with the other items)
    - if a User-defined item's Init box is checked, initializes the item using information found in previous QSOs, with priority given to information extracted from the most recent QSOs
- if a Callbook is installed, selected, and configured for automatic initialization, it's database is queried to set the name, QTH, Primary Administrative Subdivision, Secondary Administrative Subdivision, IOTA, QSL address, QSL Via, and gridsquare items, if not already set (the QSL address item is not visible in the Capture window, but it will be logged with the other items)
- updates the DXCC item, if not already set, based on the Call's prefix and updates DXView's display based on the prefix and grid fields
- updates the az(imuth) and path items to the values used in the last rotator control command issued by DXView if running with rotator control enabled, or from their previous value if DXView is either not running or is running with rotator control disabled
- updates the IOTA item, if not already set, if it can be determined from the Call's prefix
- updates the ARRL section, continent, ITU, and CQ items, if not already set, if they are determinable from the prefix (these items are not visible in the Capture window, but will be logged with the other items)
- if the LotW database is installed, checks the LotW membership box if the callsign in the Call textbox is a known participant in the ARRL's Logbook of the World, subject to the Maximum age of most recent LotW upload setting
- if the eQSL AG database is installed, checks the eQSL.cc membership box if the callsign in the Call textbox is an Authenticity-Guaranteed member of eQSL.cc
- sets the tx frequency, rx frequency, and mode items from your transceiver's current settings (if Commander is running) or from their previous values (if Commander isn't running)
- sets the RST sent and RST rcvd items if either the run-mode box or the Initialize RST fields box is checked

- if the Log Special Callsign Tags box is checked, Special Callsign Tags provided by DXView and SpotCollector will be appended to the Comment item
- if the Capture callsign generates prop forecast box is checked with DXView and PropView both running, directs PropView to generate a propagation forecast for the station's location on the captured TX frequency.

If a callsign is found to be a known participant of LotW but not an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to yellow. If a callsign is found to be an Authenticity-Guaranteed member of eQSL.cc but not a known participant of LotW, the callsign's background color is set to pink . If a callsign is found to be a known participant of LotW and an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to cyan (light blue). If SpotCollector is installed, however, the background colors specified on the **Spot Database Display** tab of SpotCollector's **Configuration** window - if not too dark - are used in place of yellow, pink, and cyan. The eQSL AG and LotW databases can be installed via the **Databases** tab of DXView's Configuration window.

Allowing the mouse cursor to linger over the DXCC item when it contains a DXCC entity prefix will prompt DXKeeper to display a popup window containing the full name of the DXCC entity. Similarly, allowing the mouse cursor to linger over a State or Province item will prompt DXKeeper to display a popup window containing the full name of the state or province.

If the first letter of the callsign you enter is an exclamation point, DXKeeper assumes that you are logging a CQ, an unsuccessful call, a test, or some other transmission that you wish to record but does not represent a QSO. Such log entries are not assigned a DXCC prefix, do not initiate a Callbook database lookup, and are not included in award tracking statistics.

Double-clicking or striking the **Enter** key in the grid textbox updates DXView's display to show the specified grid square as its current position. Depressing the **CTRL** key while double-clicking the Grid textbox updates DXView's display and rotates the antenna to the short-path heading; depressing the **ALT** key while double-clicking the Grid textbox updates DXView's display and rotates the antenna to the long-path heading.

Clicking the **Begin** button, entering a received signal report in the **RST rcvd** field with the Set QSO start when RST Rcvd box is checked, striking Alt-B in any Capture window field, or striking CTRL-B in any Capture window field

- designates the QSO start time
- hides the **Begin** button until the QSO is logged or cleared, or the **End** button is clicked
- displays the QSO start time
- displays the **End** button

Clicking the **End** button or striking CTRL-E in any Capture window item

- designates the QSO end time
- hides the **End** button until the **Begin** button is clicked
- displays the QSO end time
- displays the **Begin** button

Checking the **QSL Requested** box indicates that a QSL card or label should be sent and a confirmation requested. If logged, the QSO's QSL Sent and QSL Rcvd items will be set to '**R**' (for *requested*); when you later run the QSL Workflow, the Add Requested button will automatically generate a QSL card or label for this QSO; printed cards and 2-column labels will bear a "please!" in their QSL? column.

Checking the **use bureau** box indicates that the QSL should be sent via the QSL bureau. If logged, the QSO's QSL Sent Via item will be set to '**B**'.

Checking the **LotW member** box indicates that the callsign participates in the ARRL's Logbook of the World. If logged, the QSO's LotW Member item will be set to '**Y**'.

Checking the **eQSL.cc member** box indicates that the callsign is an Authenticity Guaranteed member of eQSL.cc . If logged, the QSO's eQSL.cc Member item will be set to '**A**'.

Checking or unchecking the **contest-mode** box enables or disables Contest-mode.
Double-clicking the **QSL Via** item invokes the Address Editor .

Double-clicking an item's label will filter the Log Page Display to show all QSOs whose item matches the value in the Capture window. If the Capture window's **IOTA** item contains OC-005, for example, double-clicking the **IOTA** label will filter the Log Page Display to show all QSOs whose **IOTA** item is OC-005.

If an item has a default value, Ctrl-double-clicking that item's label will display the Configuration window and place the mouse cursor in the default value.

Uncapitalized first letters of each word entered into the **Name** or **QTH** items will be automatically capitalized unless the word contains a capitalized letter.

Striking the **Enter** key in the **QTH** item initiates a word-by-word inspection of the QTH item.

- If the QTH item contains a valid grid square and the QSO's, then the QSO's Grid Square item will be set to the Grid Square found in the QTH item
- If the QTH item contains a valid US State abbreviation, and the QSO's DXCC entity is USA or Alaska or Hawaii, then the QSO's State item will be set to the State found in the QTH item
- If the QTH item contains a valid Canadian Province abbreviation, and the QSO's DXCC entity is Canada, then the QSO's Province item will be set to the Province found in the QTH item
- If the QTH item contains a valid ARRL Section abbreviation, and the QSO's DXCC entity is USA or Alaska or Hawaii or US Virgin Islands or Puerto Rico or US Pacific possessions, or Canada, then the QSO's ARRL Section item will be set to the ARRL Section found in the QTH item
- If the State, Province, ARRL Section, and Grid Square items found in the QTH item unambiguously identify a CQ Zone, then the QSO's CQ zone item will be derived from the information found in the QTH item
- If the State, Province, ARRL Section, and Grid Square items found in the QTH item unambiguously identify an ITU Zone, then the QSO's ITU zone item will be derived from the information found in the QTH item

Clicking the **Clear** button with Contest-mode unchecked requests confirmation (if Prompt on Capture Clear is enabled) and then clears all Capture items, presents the **Begin** button, clears the Log Page Display filter, and selects the last QSO in the Log Page Display; if Contest-mode checked, the TX# item is not cleared.

- depressing the **Alt** key while clicking the **Clear** button eliminates the request for confirmation even if Prompt on Capture Clear is enabled

Clicking the **Log** button

- verifies that all required items are present
- computes the DX station's latitude and longitude if the grid square item is populated
- computes the antenna azimuth if
    - the antenna path selector is set to shortpath or longpath
    - your QTH latitude and longitude is provided by the specified myQTH, or by a default QTH latitude and longitude
- computes the QSO distance if the antenna azimuth was computed and
    - the computed antenna azimuth lies within 10 degrees of the specified antenna azimuth
      or
    - no antenna azimuth is specified
- if the Grid item specifies a valid two-character Maidenhead Field, appends 00aa to the Grid item to make it a valid Maidenhead Grid Square
- places the Iota item in standard format (e.g. AF1 will be changed to AF-001)
- clears the log filter, if set
- notes the time at which the QSO ended

- if the **CTRL** key was depressed when the **Log** button was clicked, or if the Upload an eQSL... box is checked, uploads the QSO to eQSL.cc; if this upload is successful,
    - the QSO's eQSL sent is set to **Y**
    - the QSO's eQSL date sent is set to the current UTC date
    - the QSO's eQSL rcvd is set to **R**

  If you have multiple operator callsigns and multiple eQSL.cc accounts, you can prevent the upload of QSOs whose operator callsigns don't match the currently specified eQSL.cc username by checking the Don't upload QSOs whose operator callsign isn't the specified Username box.
- enters the QSO into the current log (if Contest-mode is disabled and the Don't log Capture window Contest, TX#, RX# if contest mode disabled option is enabled, the Capture window's Contest ID, TX#, and RX# items are not included with the logged information)
- plays the "Windows Default Beep" sound If the Provide audible feedback box is checked
- if the Generate local spot on Capture log option is enabled and SpotCollector is running, an outgoing local spot will be generated
- clears all items
- presents the **Begin** button

Note that striking CTRL-<enter> or CTRL-L in any Capture Window item is equivalent to clicking the **Log** button.

If the Log Page Display is filtered to show previous QSOs with the station in the Call item, the number of previous QSOs is parenthetically appended to the Call item's label, whether or not the main log window is visible. Clicking on the Call item's label will display the main log window, should it be minimized. Information about the most recent QSO -- date, time, frequency, mode, and QSL status -- is displayed in the Capture window is appropriately resized; click the window maximize button on the right side of the title bar to expand the Capture window enough to show all information.

With Contest Mode disabled, a Log Page Display entry will be rendered in red font if its Callsign, Band, and Mode match those in the Capture window; this can help avoid duplicate QSOs; with Contest Mode enabled, a Log Page Display entry will be rendered in red font if its Callsign, Band, Mode and Contest ID match those in the Capture window.

If required items are missing or contain invalid values, clicking the **Log** button highlights the labels of these items in red, but does not enter the QSO into the current log. Frequencies not falling within a defined band are considered invalid. Callsign validity checking can be enabled or disabled via the Flag Invalid Callsigns setting. If a Capture item's data exceeds its specified maximum length, its label will be highlighted in red and the **Log** button will not enter the QSO into the current log.

You can include substitution commands in the QSL msg item to include information determined by your current location.

Uncapitalized first letters of each word entered into the *Name* or *QTH* items will be automatically capitalized unless the word contains a capitalized letter.

To allow operation without removing one's hands from the keyboard, DXKeeper provides keyboard shortcuts for navigating among the Capture Window's items.

Clicking in the **call** box or **tx freq** box with the middle mouse button will direct Commander to activate its Bandspread window.

While DXKeeper can log a receive frequency (distinct from a transmit frequency) for each QSO, the Capture window does not provide a means of recording this information. For cross-band QSOs -- Satellite QSOs, for example -- use the **Main** window for logging.

If SpotCollector is running and has been configured to generate cluster spots, then clicking the **Spot** button will use the Capture window's Call, TX frequency, and Mode items to generate a DX spot; if the Mode is not CW or SSB, it will be included as a spot note. If the Spot split frequency setting is enabled, outgoing spot notes will include the difference between the Capture window's TX and RX frequencies unless that difference exceeds 9.9 KHz, in which case the full TX frequency will be included. If the band is 6m or above and a gridsquare has been captured, it will also be included as a spot note; if the operator's gridsquare is specified in the current myQTH, then the spot note will be of the form "DX_Grid > Operator_Grid".

- Depressing the **CTRL** key while clicking the **Spot** button will display a dialog box that lets you specify notes to be included in the spot; in this case, you must manually include the mode and or gridsquare in the notes should that be appropriate.
- Depressing the **ALT** key while clicking the **Spot** button will direct SpotCollector to generate a "local spot", meaning that a spot database entry is created but the no spot is sent to the spotting network.
- Depressing both the **CTRL** and **ALT** keys while clicking the **Spot** button combines both of the above actions: you'll be prompted to specify notes for a local spot.

If WinWarbler is running and Capture window F-Keys via WW is checked, then striking the function keys **F5** through **F12** in a Capture window textbox will invoke a WinWarbler macro, with **Shift** key and **Alt** key modifiers functioning as they would within WinWarbler. Striking the **Esc** key in a Capture window textbox will abort any active WinWarbler transmission.

Logging Information Required for Award Tracking

To track progress towards awards like WAS, USA-CA, RDA, WAJA, JCC, JCG, and AJA, DXKeeper provides items in its Capture window that let you record a callsign's Primary Administrative Entity and its Secondary Administrative Entity. Some DXCC entities formally define a set of Primary Administrative Subdivisions, e.g. States in the United States, Oblasts in Russia, and Prefectures in Japan; unique abbreviations or codes are used to identify these primary subdivisions. For such entities, DXKeeper provides an appropriately-labeled (e.g. state, oblast, prefecture) selector lets you choose from among the valid codes; if you click the **?** button to the left of this selector, DXKeeper's **Capture Administrative Subdivision Selector** window will appear, which provides a cross-reference between code or abbreviation and full name, and lets you choose a primary subdivision by clicking in either the window's **Code** or **Name** selector.

- If a country contains multiple DXCC entities, then when you select one of these entities the selector will provide choices valid for the selected entity; if a QSO's DXCC entity is Asiatic Russia, for example, the subyekt selector will only offer Oblasts located in Asiatic Russia.
- ADIF defines the District of Columbia (DC) as a Primary Administrative Entity of the United States. DXKeeper's WAS report treats QSOs with stations in the District of Columbia as being in Maryland; its Worked All Counties report treats QSOs with stations in the District of Columbia as being in Maryland's Washington County.
- ADIF defines Newfoundland and Labrador (NL) as a Primary Administrative Entity of Canada, replacing the previous separate provinces of Newfoundland and Labrador

Some of the DXCC entities that define a set of Primary Administrative Subdivisions formally define a set of Secondary Administrative Subdivisions for each of their Primary Administrative Subdivision, e.g. Counties in the United States, Districts in Russia, and Cities and Guns in Japan; unique abbreviations or codes are used to identify these secondary subdivisions. For such entities, DXKeeper provides an appropriately-labeled (e.g. county, district, city/gun) selector lets you choose from among the valid codes; if you click the ? button to the left of this selector, DXKeeper's **Capture Administrative Subdivision Selector** window will appear, which lets you choose a secondary subdivision by clicking in either the window's **Code** or **Name** selector.

- ADIF defines 28 Alaskan Counties; DXKeeper expect these to be logged with Alaskan QSOs. The Worked All Counties report automatically maps these counties to the correct Judicial District and reports your County progress accordingly.

For entities that do not define Primary or Secondary Subdivisions, DXKeeper provides **pri sub** and **sec sub** textboxes with which any subdivision name can be recorded; you could use this to capture a subdivision name for QSO with a country that does not formally define its subdivisions.

The Capture window also provides region and DOK items to record entity-specific information required for certain awards.

For a summary of what information to record in what item for each supported award, see the table on page 83.

Logging Completed QSOs Using the Main window

When manually entering already-completed QSOs, e.g. from a paper logbook, use the Main window's **Log QSOs** tab and un-check the optimize for realtime QSO entry box. The three basic steps for logging a QSO are the same as for logging a new QSO:

1. create a new QSO record by clicking the **New** button
2. record the information items you care about
3. save the QSO record by clicking the **Log** button

On the Main window's **Log QSOs** tab, DXKeeper organizes items into 9 groups, each associated with a panel:

- QSO items
- Auxiliary items
- QSL items
- Online QSL items
- Award items
- Contest items
- Propagation items
- Details items
- User-defined items

The **QSO** panel is always present; you can independently control the presence of the **Auxiliary**, **QSL**, **Online QSL, Award**, **Contest**, **Propagation**, **Details**, and **User-defined** panels using the Log Panel checkboxes in the Configuration window's **Log** tab or using the eight checkboxes to the right of the **QSO** panel. Enabling the Display panels in two columns option will display these panels side-by-side in two columns rather than stacked in a single column - a format more suitable for widescreen monitors. All information items are stored with each QSO, whether or not the panels displaying them are visible. This allows you to adjust DXKeeper's consumption of screen real estate by displaying only the panels containing the items you care about.

With optimize for realtime QSO entry unchecked,

- the begin and end items will be initialized to the QSO end time logged in the last manually-entered QSO incremented by 1 second unless Optimize for roundtable QSOs is checked, in which case the begin item will be initialized to the QSO begin time logged in the last manually-entered QSO incremented by 1 second
- the tx freq item will be initialized to the transmit frequency in the last logged QSO (ignoring the current transceiver frequency if Commander is running)
- the rx freq item will be initialized to the transmit frequency in the last logged QSO unless the propagation mode item in the last logged QSO was **sat**, in which case the rx freq item will be initialized to the receive frequency in the last logged QSO (ignoring the current transceiver frequency if Commander is running)
- the band item will be initialized to the band in the last logged QSO (ignoring the current transceiver frequency if Commander is running)
- the mode item will be initialized to the mode in the last logged QSO (ignoring the current transceiver mode if Commander is running)
- setting the QSL Sent, item to 'Y' will not set the Date Sent item to the current date
- setting the QSL Rcvd, item to 'Y' will not set the Date Rcvd item to the current date
- setting the eQSL.cc Rcvd item to 'Y' will not set the eQSL.cc Date Rcvd item to the current date
- setting the LotW QSL Rcvd item to 'Y' will not set the LotW Date Rcvd item to the current date
- clicking the **CBA** button will query the selected Callbook database for name, QTH information, QSL route, and address information,, but will not over-write fields already containing information; depressing the **Ctrl** key while clicking this button clears the name, QTH, and address fields before querying the Callbook
- double-clicking the end field will copy the contents of the begin field into the end field
- if the end item remains unspecified when the QSO is saved, the contents of the begin field will be copied into the end field
- in QSOs with DXCC entities that specify Primary and Secondary subdivisions, these subdivision items can be directly entered and edited

- if the LotW database is installed, the LotW membership selector will be set to **Y** if the callsign is a known participant in the ARRL's Logbook of the World, subject to the Maximum age of most recent LotW upload setting
- if the eQSL AG database is installed, the eQSL.cc membership selector will be set to **A** if the callsign is an Authenticity-Guaranteed member of eQSL.cc

Uncapitalized first letters of each word entered into the Name or QTH items will be automatically capitalized unless the word contains a capitalized letter.

If you don't wish to record a frequency with a QSO, set its value to 0.

Changing the tx freq item in a simplex QSO and striking the Enter or Tab key or subsequently moving cursor focus to the rx freq item will update the rx freq item to match the tx freq.

Un-checking the optimize for realtime QSO entry box will also uncheck the Contest Mode box.

If a callsign is found to be a known participant of LotW but not an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to yellow. If a callsign is found to be an Authenticity-Guaranteed member of eQSL.cc but not a known participant of LotW, the callsign's background color is set to pink . If a callsign is found to be a known participant of LotW and an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to cyan (light blue). If SpotCollector is installed, however, the background colors specified on the **Spot Database Display** tab of SpotCollector's **Configuration** window - if not too dark - are used in place of yellow, pink, and cyan. The eQSL AG and LotW databases can be installed via the **Databases** tab of DXView's Configuration window.

You can set any of the remaining items manually. Double-clicking several items immediately performs useful actions.

In determining the DXCC entity from the callsign, DXKeeper uses the current ITU Prefix Allocations. If you are logging an older QSO, you should verify that that DXKeeper has deduced the correct DXCC entity by inspecting the Aux panel's entity item. If you log a 1990 QSO with UP1BZO, for example, DXKeeper will set the QSO's DXCC entity to Kazakhstan, which is incorrect. You can correct this by selecting the correct DXCC entity -- in this case, Lithuania -- in the Aux panel's entity item.

If the first letter of the callsign you enter is an exclamation point, DXKeeper assumes that you are logging a CQ, an unsuccessful call, a test, or some other transmission that you wish to record but does not represent a QSO. Such log entries are not assigned a DXCC entity, do not initiate a Callbook database lookup, and are not included in award tracking statistics.

If you attempt to save a QSO whose Grid item specifies a valid two-character Maidenhead Field, 00aa will be appended to the Grid item to make it a valid Maidenhead Grid Square.

When any item is modified, the panel labels are rendered in blue as a reminder to save the information. To do so, click the **Log** button; this resets the panel labels to black. If you plan to immediately log another QSO, you can instead click the **New** button, which will both save the current QSO's information and create a new QSO record. With the cursor in any item textbox, you can perform the **Log** or **New** operations without lifting your hands from the keyboard by striking **Ctrl-L** or **Ctrl-J** respectively.

After a QSO is recorded by clicking the **Log** or **New** buttons (or striking their keyboard shortcuts), the Require Edit to modify logged QSOs setting determines whether the **Edit** button must be clicked before subsequent modifications to that QSO are permitted. If Require Edit to modify logged QSOs is enabled and the **Edit** button has not been clicked, any attempt to change an item in the current QSO is ignored. If the **Edit** button is clicked, changes are permitted, and the **Edit** button is replaced by a **Save** button that can be clicked to record the changes. If Require Edit to modify logged QSOs is not enabled, changes to items in the current QSO can be made at any time; such changes can be recorded by clicking the **Save** button. Changes are also recorded by taking any action that causes another QSO become selected.

Un-check the optimize for realtime QSO entry box sorts the Log Page Display in ascending order of Unique QSO number; this order places QSOs in the order they were logged (or imported), rather than in the order that they occurred.

If the Provide audible feedback box is checked, successfully logging a QSO via the **New** or **Log** buttons will play the "Windows Default Beep" sound.

If an item contains an invalid value, or if a required item is missing, clicking the **Log** or **New** buttons or attempting to select another QSO flashes the labels of any such items in red, but does not enter the QSO into the current log; if the Provide audible feedback box is checked, the "Windows Default Beep" will play each time the labels flash. Frequencies not falling within a defined band are considered invalid. Callsign validity checking can be enabled or disabled via the Flag Invalid Callsigns setting. If an item's data exceeds its specified maximum length, its label will be flashing in red and the **Log** button will not enter the QSO into the current log. Until you correct the error(s) causing tem labels to flash, the **New**, **Log**, and **Delete** buttons will not function, nor will you be able to select another QSO.

If a non-critical item is missing or contains an inappropriate value, clicking the **Log** or **New** buttons or attempting to select another QSO will enter the QSO into the current log but flashes the labels of any such items in blue (if the panel's that contain them are visible). Examples of non-critical errors include:

- missing Operator
- have an End date/time that occurs before their Begin date/time
- include a Satellite name but do not have Propagation Mode set to SAT
- have an empty myQTH field in a Log for which multiple QTHs have been defined
- have an invalid Iota item

Iota items that are valid but not in standard format will be placed in standard format when you click the **Log** or **New** buttons. For example, AF1 will be changed to AF-001.

If you modify one or more items and then change your mind, clicking the **Undo** button will restore them to their last saved state.

Double-clicking the caption of an unselected item will *select* that item:

- the item immediately receives keyboard focus (which means that keys you strike will be directed to the selected item)
- the item's caption is rendered in underlined font
- selecting another QSO in the Log Page Display will set the keyboard focus in the selected item of that QSO

Double-clicking the underlined caption of a selected item will de-select that item, setting keyboard focus in the **Filter** panel textbox.

If an item has a default value, Ctrl-double-clicking the caption of that item will display the Configuration window and place the mouse cursor in the default value.

In fields containing dates, the year must be 1930 or later.

If you do not include time separators in the begin or end fields, DXKeeper will insert them appropriately:

Time	Result
1	01:00:00
12	12:00:00
123	1:23:00
1234	12:34:00
12345	1:23:45
123456	12:34:56

If you have configured Windows to use a time separator other than colon, DXKeeper will use the time separator you have specified.

With the mouse cursor in the begin or end fields, you can incrementally change the specified date and time using the up and down arrow keys:

Modifier	Effect of Up or Down Arrow keys
none	increases or decreases the date and time by 1 minute
Ctrl	increases or decreases the date and time by 10 minutes
Shift	increases or decreases the date and time by 1 hour
Alt	increases or decreases the date and time by 1 day

Uncapitalized first letters of each word entered into the Name or QTH items will be automatically capitalized unless the word contains a capitalized letter.
Striking the **Enter** key in the QTH item initiates a word-by-word inspection of the QSL field.

- If the QTH item contains a valid grid square and the QSO's, then the QSO's Grid Square item will be set to the Grid Square found in the QTH item
- If the QTH item contains a valid US State abbreviation, and the QSO's DXCC entity is USA or Alaska or Hawaii, then the QSO's State item will be set to the State found in the QTH item
- If the QTH item contains a valid Canadian Province abbreviation, and the QSO's DXCC entity is Canada, then the QSO's Province item will be set to the Province found in the QTH item
- If the QTH item contains a valid ARRL Section abbreviation, and the QSO's DXCC entity is USA or Alaska or Hawaii or US Virgin Islands or Puerto Rico or US Pacific possessions, or Canada, then the QSO's ARRL Section item will be set to the ARRL Section found in the QTH item
- If the State, Province, ARRL Section, and Grid Square items found in the QTH item unambiguously identify a CQ Zone, then the QSO's CQ zone item will be derived from the information found in the QTH item
- If the State, Province, ARRL Section, and Grid Square items found in the QTH item unambiguously identify an ITU Zone, then the QSO's ITU zone item will be derived from the information found in the QTH item

To make it easy to copy QSL route information into a QSO record, the address item supports drag and drop from OLE sources such as Pathfinder or Microsoft Internet Explorer. To use this feature, first select the QSL route text in the source; then drag the selected text to the address item and drop it there. Semicolons in the selected text will be converted to newline sequences in the address item. The drag and drop action replaces any pre-existing address item contents with the selected source text. You can also invoke the Address Editor by double-clicking the address item or the via item.

Double-clicking the comment or QSLMsg item will invoke a Field editor that makes it easier to edit their content. You can include substitution commands in the QSLMsg item to include information determined by your current location.

Logging Information Needed for Award Tracking
To track progress towards awards like WAS, USA-CA, RDA, WAJA, JCC, JCG, and AJA, DXKeeper provides items in its **Awards** panel that let you record a callsign's Primary Administrative Subdivision and its Secondary Administrative Subdivision. Some DXCC entities formally define a set of Primary Administrative Subdivisions, e.g. States in the United States, Oblasts in European and Asiatic Russia, and Prefectures in Japan; unique abbreviations or codes are used to identify these primary subdivisions. When you log a QSO with one of these entities, DXKeeper provides an appropriately-labeled (e.g. state, oblast, prefecture) selector that lets you choose from among the valid codes for that entity; if you click the **?** button to the right of this selector, DXKeeper's **Main Administrative Subdivision Selector** window will appear, which provides a cross-reference between codes or abbreviations and full names, and lets you choose a primary subdivision by clicking in either the window's **Code** or **Name** selector.

- If a country contains multiple DXCC entities, then when you select one of these entities the selector will provide choices valid for the selected entity; if a QSO's DXCC entity is Asiatic Russia, for example, the subyekt selector will only offer Oblasts located in Asiatic Russia.
- ADIF defines the District of Columbia (DC) as a Primary Administrative Entity of the United States. DXKeeper's WAS report treats QSOs with stations in the District of Columbia as being in Maryland; its Worked All Counties report treats QSOs with stations in the District of Columbia as being in Maryland's Washington County.
- ADIF defines Newfoundland and Labrador (NL) as a Primary Administrative Entity of Canada, replacing the previous separate provinces of Newfoundland and Labrador

Some of the DXCC entities that define a set of Primary Administrative Subdivisions formally define a set of Secondary Administrative Subdivisions for each of their Primary Administrative Subdivision, e.g. Counties in the United States, Districts in Russia, and Cities and Guns in Japan; unique abbreviations or codes are used to identify these secondary subdivisions. For such entities, DXKeeper provides an appropriately-labeled (e.g. county, district, city/gun) selector lets you choose from among the valid codes; if you click the ? button to the right of this selector, DXKeeper's **Main Administrative Subdivision Selector** window will appear, which provides a cross-reference between codes or abbreviations and full names, and lets you choose a secondary subdivision by clicking in either the window's **Code** or **Name** selector.

- ADIF defines 28 Alaskan Counties; DXKeeper expect these to be logged with Alaskan QSOs. The Worked All Counties report automatically maps these counties to the correct Judicial District and reports your County progress accordingly.

If the Allow direct Subdivision entry setting is enabled, you can directly enter and edit abbreviations or codes in the Primary and Secondary Administrative Subdivisions rather than be restricted to making selections.

For entities that do not define Primary or Secondary Subdivisions, DXKeeper provides **pri sub** and **sec sub** textboxes with which any subdivision name can be recorded; you can use this to capture a subdivision name for QSO with a country that does not formally define its subdivisions, but this information may not be accepted by other logging applications when they import an ADIF file that you export.

The Main window's **Log QSOs** tab also provides region and DOK items to record entity-specific information required for certain awards.

For a summary of what information to record in what item for each supported award, see the table on page 83.

Viewing, Modifying, and Deleting Logged QSOs

DXKeeper allows you to display and modify more than 100 items of information about each QSO. Some, like the station's callsign or the QSO's start time, will always be of interest. Others, like the station's grid square, may never be utilized. DXKeeper organizes these items into 9 groups:

- QSO items
- Auxiliary items
- QSL items
- Online QSL items
- Award items
- Contest items
- Propagation items
- Details items
- User-defined items

Each of these groups is associated with a panel on the **Log QSOs** tabbed dialog. The **QSO** panel is always present; you can independently control the presence of the **Auxiliary**, **QSL**, **Online QSL, Award**, **Contest**, **Propagation**, **Details**, and **User-defined** panels using the Log Panel checkboxes in the Configuration window's **Log** tab or using the eight checkboxes to the right of the **QSO** panel. All information items are stored with each QSO, whether or not the panels displaying them are visible. This allows you to adjust DXKeeper's consumption of screen real estate to meet your operating needs of the moment.

Double-clicking the caption of an unselected item will select that item:

- the item immediately receives keyboard focus (which means that keys you strike will be directed to the selected item)
- the item's caption is rendered in underlined font
- selecting another QSO in the Log Page Display will set the keyboard focus in the selected item of that QSO

Double-clicking the underlined caption of a selected item will de-select that item, setting keyboard focus in the **Filter** panel textbox.

Viewing QSOs

Located at the bottom of the **Main** window's **Log QSOs** tab, the **Log Page Display** contains one entry for each QSO in the current Log file, subject to settings in the Filter panel. Each entry in the Log Paged Display corresponds to one QSO in your log. If you **select a QSO** by clicking it's entry in the Log Page Display, the panels above will display the information items stored for that QSO. If the QSO's duration is non-zero, the **QSO** panel displays the duration in mm:ss notation; the **QSO** panel also displays the full name of the station's DXCC entity, as well as the DXCC prefix and country code assigned to this entity by the ARRL. Some of these items are also shown in the Log Page Display; the caption at the top of each column identifies the information item in the cells below it.

When first installed, DXKeeper's Log Page Display is configured to show 8 of items stored with each QSO. You can add or remove items from the Log Page Display using the **Log page fields** control in the **Log Layout** panel on the **Configuration** window's Log tab. You can also change the order in which the columns appear.

Whether all items in the Log Page Display will be simultaneously visible as columns depends on their number and width, as well as the width of the Main window. If all items are not simultaneously visible in columns, a horizontal scrollbar will be displayed along the bottom of the Log Page Display; you can use this scrollbar to select the items you wish to see. The small black rectangle to the left of the horizontal scrollbar can be dragged to the right to split the Log Page Display into two independently scrollable sets of columns. You can adjust the boundary between the two sets by dragging the black rectangle to the left of the horizontal scrollbar at the bottom of the right-hand set of columns; to eliminate the right-hand set of columns, drag its black rectangle all the way to the left.

Dates displayed in the Log Page Display follow the date format specified in the Windows Control Panel's **Regional and Language Options** applet's **Regional Options** tab. A Log Page Display entry will be rendered in red font if its Callsign, Band, and Mode match those in the Capture window; this can help avoid making duplicate QSOs.

With the **Log QSOs** tabbed dialog selected, resizing DXKeeper's window allows you to vertically and horizontally expand or contract the Log Page Display. Vertical and horizontal scrollbars allow you to view all cells of all rows in the log page display.

The left-most column of the Log Page Display is shaded, and has no column caption. Click in this selector column *selects* the associated QSO:

- all information items for this QSO are placed in the log textboxes
- if DXView is running, it's earth map and information fields are updated to reflect the selected QSO's call item and grid item
- if an item has been selected, it will receive keyboard focus

The four VCR-like control buttons on the **Log QSOs** tab allow you to select the first, previous, next, or last QSO in the Log Page Display. You can similarly navigate the Log Page Display using the **CTRL-Home**, **PageUp**, **PageDown**, and **CTRL-End** keys respectively. The number displayed between these control buttons indicates the position of the currently-selected QSO in the Log Page Display as it is presently sorted. Note that the Auxiliary panel's QSO# item does not represent the QSO's order -- beyond the fact that a QSO with a smaller QSO# was logged before a QSO with a larger QSO#.

Right-clicking a Log Page Display entry provides quick access to frequently-used functions:

- **Add Entry to QSL Queue**: immediately adds the entry's QSO to the QSL Queue
- **Print QSL Card**: immediately prints a QSL card for the entry's QSO
- **Print Address on Envelope**: immediately prints the entry's address on an Envelope
- **Print self-addressed Envelope**: immediately prints a self-addressed Envelope
- **Upload to LotW**: immediately uploads a QSO to the ARRL's Logbook of the World
- **Upload to eQSL.cc**: immediately uploads a QSO to eQSL.cc
- **Upload to Club Log**: immediately uploads a QSO to Club Log
- **Display File**: if the entry's QSO specifies a file item, display the contents of the specified file using the default file viewer for the file's extension
- **Display eQSL**: if the entry's QSO is confirmed via eQSL and if an eQSL.cc username and password have been specified; displays the previously-downloaded QSL image for this QSO (if present) or displays a QSL image downloaded from eQSL.

Double-clicking an entry in the Log Page Display filters the Log Page Display to show only QSOs with that entry's callsign; Double-clicking an entry in the Log Page Display while depressing the **Ctrl** button filters the Log Page Display to show only QSOs with that entry's DXCC entity

If the Highlight duplicate QSOs box is checked, then entries in the Log Page Display whose callsign, band, and mode match those of the Capture window will be highlighted in red font.

If the Indicate LotW & eQSL AG status box is checked, then the background colors of entries in the Log Page Display will indicate whether the entry's callsign is a known participant of LotW and/or an Authenticity-Guaranteed member of eQSL.cc. If a callsign is found to be a known participant of LotW but not an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to yellow. If a callsign is found to be an Authenticity-Guaranteed member of eQSL.cc but not a known participant of LotW, the callsign's background color is set to pink . If a callsign is found to be a known participant of LotW and an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to cyan (light blue). If SpotCollector is installed, however, the background colors specified on the **Spot Database Display** tab of SpotCollector's **Configuration** window - if not too dark - are used in place of yellow, pink, and cyan.

Modifying QSOs
You can modify items in the currently selected QSO by directly modifying the item textboxes. After a QSO is recorded by clicking the **Log** or **New** buttons on the **Main** window's **Log QSOs** tab or by clicking the **Log** button on the **Capture** window, the Require Edit to modify logged QSOs setting determines whether the **Edit** button must be clicked before making changes to that QSO. If Require Edit to modify logged QSOs is enabled, then attempted changes will be ignored until the **Edit** button is clicked, after which changes are permitted, and the **Edit** button is replaced by a **Save** button that can be clicked to record the changes. If Require Edit to modify logged QSOs is not enabled, changes to items in the current QSO can be made at any time; such changes can be recorded by clicking the **Save** button. Changes are also recorded by taking any action that causes another QSO become selected.

Within an item textbox

- the **Home** key moves the cursor to the beginning of the item
- the **End** key moves the cursor to the end of the item
- the **SHIFT-Home** key selects all characters from the cursor to the beginning of the item
- the **SHIFT-End** key selects all characters from the cursor to the end of the item

Changing the tx freq item in a simplex QSO and striking the Enter or Tab key or subsequently moving cursor focus to the rx freq item will update the rx freq item to match the tx freq.

You can make your changes permanent by clicking the **Save** button, or back out your changes using the **Undo** button.

If the optimize for realtime QSO entry setting is checked,

- setting the QSL Sent, item to 'Y' will set the Date Sent item to the current UTC date
- setting the QSL Rcvd, item to 'Y' will set the Date Rcvd item to the current UTC date
- setting the eQSL.cc Rcvd item to 'Y' will set the eQSL.cc Date Rcvd item to the current UTC date
- setting the LotW QSL Rcvd item to 'Y' will set the LotW Date Rcvd item to the current UTC date

The **CFM** button in the QSL panel makes it easy to process an incoming QSL card for the currently selected QSO. Clicking this button

- sets QSL received to "Y" (yes)
- sets QSL date received to the current UTC date
- if a card was not previous sent, sets QSL sent to "R" (requested)

If an item has a default value, Ctrl-double-clicking the caption of that item will display the Configuration window and place the mouse cursor in the default value.

DXKeeper also provides the ability to modify multiple QSOs *en masse*.

Deleting QSOs
You can delete the currently selected QSO by clicking the **Delete** button. If either the Confirm QSO deletion or Require Edit to modify logged QSOs settings are enabled, you will be prompted to confirm the action. You can delete all QSOs in the **Log Page Display** by depressing the CTRL key while clicking the **Delete** button; this action always requires confirmation. There is no undo operation for a confirmed delete operation.

Configuring the Log Page Display

When first installed, DXKeeper's Log Page Display is configured to show 8 of the more than 100 items associated with each QSO. You can add or remove items from the Log Page Display using the table in the **Log Page Display panel** on the **Configuration** window's **Log** tab. This control also lets you modify the Log Page Display's column captions, change column widths, and change the column order.

To add a column to the Log Page Display that displays a specified item,

- scroll to the last row of the table in the **Log Page Display panel**; this row is distinguished by an asterisk in its leftmost cell
- in the field cell of this last row, click the pulldown icon (a small black triangle) and choose the field to be displayed from the resulting list (the pulldown contains ADIF field names - to correlate with the field captions, consult the cross reference)
- in the caption cell of the newly added row, enter the caption to be used for this field in the log page display, followed by the enter key

Note that to see the newly added field, you may need to horizontally scroll the log page display or increase the width of DXKeeper's Main window.

To remove a column from the Log Page Display,

- in the table in the **Log Page Display panel**, select the row corresponding to the column to be removed by clicking in row's leftmost cell (this cell is shaded)
- strike the **Delete** key on your keyboard

To change the width of a column in the Log Page Display, position the cursor over the vertical line to the left or right of the column's caption; when properly positioned, the cursor will change to the Windows border adjustment cursor, allowing you to click and drag the column border to either expand or contract the column width as desired.

To change the order of columns in the Log Page Display, click on the caption of a column you wish to relocate. Then click-and-drag the column until the two red positioning triangles indicate the desired new location.

To split the Log Page Display into two independently scrollable sets of columns, use the black rectangle to the left of the horizontal scroll bar. Using the left mouse button to click-and-drag this rectangle to the right will create a second set of columns. To eliminate this second set of columns, click-and-drag this rectangle back to the left margin.

You can save the Log Page Display's current layout to a file, and you can restore a layout stored a previously saved file.

If the Highlight duplicate QSOs box is checked, then entries in the Log Page Display whose callsign, band, and mode match those of the Capture window will be highlighted in red font.

If the Indicate LotW & eQSL AG status box is checked, then the background colors of entries in the Log Page Display will indicate whether the entry's callsign is a known participant of LotW and/or an Authenticity-Guaranteed member of eQSL.cc.

Sorting the Log Page Display

To view the Log Page Display in order of each QSO's begin time, click the **UTC** button in the **Sort** panel below the log page display. To view the Log Page Display in callsign order, click the **Call** button in the **Sort** panel below the log page display.

You can sort any column in the Log Page Display by double-clicking on its caption. The first time you do this, the Log Page Display will be sorted in ascending order of the selected column; if you do it again, the Log Page will be sorted in descending order. The **Sort** panel's caption will indicate how the Log Page Display is being sorted.

For more sophisticated sorts, click the **Adv** button to the right of the **Sort** panel to display DXKeeper's **Advanced Logs Sorts, Filter, and Modifiers** window. In this window's **Advanced Sort** panel, you can compose four different advanced sorts, each containing up to three sort fields. To compose a sort, select the first field to be sorted in the **ADIF field name** control at the top of the window; then double-click in the **First Field** textbox. If the first field is to be sorted in ascending order, click the **First Field** panel's **Ascend** button, otherwise click the **Descend** button. If there is a second field to be sorted, specify it in the **Second Field** panel; if there is a third field to be sorted, specify it in the **Third Field** panel. If necessary, use the **X** buttons to the right of a sort field textbox to clear its contents. Double-clicking one of the four sort textboxes at the bottom of the **Advanced Sort** panel will assemble your specified sort in that textbox. To apply a sort, click the **Select** radio button to its right, and click the **Adv** button in the **Main** window's **Sort** panel. You can directly edit an Advanced sort; doing so will reset the **Select** radio button to its right. Click an Advanced sort's **Select** radio button with the **Adv** button in the **Main** window's **Sort** panel already selected will immediately sort the Log Page Display.

Depressing the **CTRL** key while clicking the **Filter** panel's **X** button both resets the Log Page Display filter and sorts the Log Page Display in UTC order.

Invoking a Sync eQSL.cc QSLs or Sync LotW QSLs operation sorts the Log Page Display in order of eQSL date rcvd or LotW date rcvd respectively.

Filtering the Log Page Display

The controls in the **Filter** panel, located at the bottom of the **Main** window's **Log QSOs** tab, allow you to control which QSOs appear in the Log Page Display; this panel includes a **textbox** that can be used to specify a callsign, DXCC prefix, date, etc. Many operations -- log reporting, award progress reporting, QSLing and Exporting -- act only upon QSOs appearing in the Log Page Display, so you can use filtering to limit these operations to a specific subset of the QSOs in your log. For example, you could produce a single-band WPX progress report, or export only those QSOs made during last year's ARRL DX contest. Filtering can also be used to quickly see all previous QSOs with a station you're about to work, or all QSOs during a specified day.

At startup, the Log Page Display Filter is cleared, so the Filter panel's caption is **Filter: None**; thus the Log Page Display contains entries for every QSO in the current log file. If you activate a Log Page Display filter, it will be shown in the Filter panel's caption, e.g.

- **Filter: Call=7O1DX**
- **Filter: QSL begin between 7/26/2008 00:00 and 7/27/2008 00:00**
- **Filter: (Mode = 'RTTY') and (Band = '160m') and (QSL_RCVD = 'Y')**

The Filter panel displays a textbox and a bank of 9 filter buttons:

Button	Function
X	• clears the Log Page Display filter • CTRL-X clears the Log Page Display filter and sets the **Sort** panel to **UTC**
Call	• filters the Log Page Display by the callsign specified in the textbox; if the textbox is empty, filters the Log Page Display by the currently-selected QSO's callsign
DXCC	• filters the Log Page Display by the DXCC entity specified in the textbox; if the textbox is empty, filters the Log Page Display by the current-selected QSO's DXCC entity
Date	• filters the Log Page Display to show only QSOs that started on the Date specified in the textbox • CTRL-Date updates and invokes the Advanced Sorts, Filters, and Modifiers window's UTC filter
Since	• filters the Log Page Display to show only QSOs that started on or after the Date specified in the textbox
Sel	• filters the Log Page Display to show only QSOs whose Select items are set to **Y**
LotW	• filters the Log Page Display to show only QSOs uploaded by not yet accepted by LotW • CTRL-LotW filters the Log Page Display to show all QSOs not confirmed via LotW with stations that have subsequently uploaded to LotW and sets the Select item in each such QSO to **Y** (if the LotW database is present in DXView's Databases folder or in DXKeeper's Databases folder)
Broke	• filters the Log Page Display to show only QSOs that are missing critical information or contain invalid information
~	• displays the next active *bank* of filter buttons

Clearing the Log Page Display filter
To clear the Log Page Display filter so that all QSOs are visible , click the **Filter** panel's **X** button. Depressing the **CTRL** key while clicking the **Filter** panel's **X** button both clears the Log Page Display filter and sorts the Log Page Display in ascending order of .QSO Begin date-and-time.

Call filter
If you type a callsign into the **Filter textbox** and click the **Filter** panel's **Call** button, the Log Page Display hides entries for any QSOs whose call item does not match the Filter callsign. Similarly, entering a callsign into the Filter textbox and clicking the **Filter** panel's **DXCC** button removes entries for any QSOs whose DXCC entity does not match that of the Filter callsign. If the contents of the Filter textbox cannot be mapped to a DXCC Entity, then it is assumed that these contents are DXCC Prefix rather than a callsign, and the Log Page Display is filtered by this DXCC Prefix. For example.

Filter textbox contents	Clicking the Filter panel's DXCC button filters for all QSOs with
3B8IK	Mauritius Island (DXCC = 3B8)
UN1DX	Kazakhstan (DXCC = UN)
UL1DX	Uzbekistan (DXCC = UJ)
Y	German Democratic Republic (DXCC = Y)

You can use * (asterisk) as a wildcard character in Filter callsigns. For example,
K6MI*
will match K6MI, K6MIO, and K6MIO/KH6.
When you invoke the **Call** filter on a callsign that doesn't contain a wildcard character, DXKeeper automatically uses a search expression that will match prepended or appended prefixes or designators. For example
K6AB
will match K6AB, KH6/K6AB, K6AB/QRP, and KH6/K6AB/P but will not match K6ABC or ZK6AB.

DXCC filter
If you type a callsign or callsign fragment into the **Filter textbox** and click the **Filter** panel's **DXCC** button, DXKeeper will determine the DXCC entity associated with the callsign or callsign fragment, and filter the Log Page Display to show all QSOs with this DXCC entity.

Depressing the **CTRL** key while clicking the **Filter** panel's **DXCC** button displays only QSOs whose DXCC entity prefix matches the DXCC entity prefix specified in the **Filter** panel textbox
To use the **DXCC** button to locate QSOs with a deleted DXCC entity, type the deleted entity's DXCC prefix into the Filter textbox preceded by the **~** character. To locate QSOs with Serrana Bank, for example, type **~HK0S** into the Filter textbox and click the **DXCC** button.

Both the **Call** and **DXCC** filters select the appropriate DXCC entity in the Progress Grid and provide detailed award status in the Progress Details Grid.

Filtering for Time Intervals
The **Date** filter limits the Log Page Display to QSOs that began during the interval specified in the Filter panel's textbox. Date-and-time parameters can be specified using any of these formats:

- your locale's standard date or date-and-time formats, as specified in the **Windows Control Panel's Regional and Language Options** settings
- dd-mmm-yyyy hh:mm:ss
- yyyy-mm-dd hh:mm:ss

If in the Filter panel's textbox you specify

- a day, e.g. 2008-01-25, then only QSOs that started during that day will be displayed
- a day and time, then the interval depends on the specified hour, minute, and second:
    - 2008-01-25 16:00 - displays only QSOs that began between 16:00 and 17:00 on 2008-01-25
    - 2008-01-25 16:03 - displays only QSOs that began between 16:03 and 16:04 on 2008-01-25
    - 2008-01-25 16:03:15 - displays only QSOs that began at 16:03:15 on 2008-01-25

Clicking the **Filter** panel's **Since** button limits the Log Page Display to QSOs that began any time after the date or date and time specified in the Filter panel's textbox.

Depressing the **CTRL** key while clicking the **Filter** panel's **Date** button updates and then invokes the **Advanced Logs Sorts, Filter, and Modifiers** window's **UTC** filter, which allows you to restrict the Log Page Display to those QSOs starting within a range specified in one of two ways:

- **within** a specified number of minutes of a specified date-and-time (useful for locating QSOs for which the callsign may have been incorrectly logged), or
- **after** one specified date-and-time and **before** another specified date- and-time; if an **after/before** range is selected but not **before** date-and-time is specified when the **UTC** filter is invoked, the current date-and-time is used for this parameter.

If the **Advanced Logs Sorts, Filter, and Modifiers** window's **UTC** panel specifies a **within** range, then typing a valid date-and-time in the **Filter** panel textbox and then clicking the **Filter** panel's **Date** button while depressing the **CTRL** key will set the center of the range to that date-and-time and activate the **UTC filter**. If the **Advanced Logs Sorts, Filter, and Modifiers** window's **UTC** panel specifies an **after/before** range, then typing a valid date-and-time in the **Filter** panel textbox and then clicking the **Filter** panel's **Date** button while depressing the **CTRL** key will set the beginning of the range to that date-and-time and activate the **UTC filter**.

Selection filter
Clicking the **Filter** panel's **Sel** button displays all QSOs whose Select items are set to **Y**. Every QSO's Select item can be manually set to **N** or **Y**, so this provides a means of specifying and selecting an arbitrary group of QSOs. You can also configure DXKeeper to set the Select item of each imported QSO to Y; with this option enabled and the Select items of all logged QSOs were set to N before the import operation, the **Sel** filter will show only newly-imported QSOs after the import operation completes.

To set the Select item of all QSOs in the Log Page Display to **N**, depress the CTRL key while clicking the **Sel** button. Note that this only affects QSOs in the Log Page Display; to set the Select item of all QSOs in the current log to **N**, either reset the Log Page Display filter before invoking **CTRL-Sel**, or click the Set all Select to N button on the Main window's Import QSOs tab.

Logbook of the World (LotW) filter
Clicking the **LotW** button displays all QSOs whose LotW Sent items are set to **U**, meaning that their acceptance by LotW has not been verified.

Depressing the CTRL key while clicking the **LotW** button filters the Log Page Display to show all QSOs not confirmed via LotW with stations that have subsequently uploaded to LotW and sets the Select item in each such QSO to **Y** (if the LotW database is present in DXView's Databases folder or in DXKeeper's Databases folder).

Broke filter
Clicking the **Broke** button filters the Log Page Display to display only QSOs that

- are missing required information:
    - Band
    - Begin date/time
    - Callsign
    - Country code
    - DXCC prefix
    - Mode
    - Operator
- have a Begin date/time prior to 1/1/1930
- have an End date/time that occurs before their Begin date/time
- do not contain a valid callsign
- include a Satellite name but do not have Propagation Mode set to SAT
- have an empty myQTH field in a Log for which multiple QTHs have been defined

If the Subdivisions box is checked on the **Config** window's **Awards** tab, the **Broke** filter also displays QSOs that

- have PrimaryInvalid set to **Y**, which means that the specified Primary Administrative Subdivision code or abbreviation is not formally defined by the QSO's DXCC entity
- have SecondaryInvalid set to **Y**, which means that the specified Secondary Administrative Subdivision code or abbreviation is not formally defined by the QSO's DXCC entity and Primary Administrative Subdivision

Advanced filters
DXKeeper's **Advanced Logs Sorts, Filter, and Modifiers** window, which appears when you click the **Adv** button located above the Log Page Display on the **Main** window's **Log QSOs** tab or when you click the **Advanced** button at the bottom of the **Main** window's **Check Progress** tab, enables you to

- specify a **within** or **after/before** date-and-time range, and click the **UTC Filter** panel's **Filter** button to display only QSOs that began within that range
- specify one or more bands, and click the **Band Filter** panel's **Filter** button to display only QSOs made on the specified bands
- specify one or more modes and click the **Mode Filter** panel's **Filter** button to display only QSOs made in the specified modes
- specify up to 16 **SQL Query Filters** in 4 ***banks*** of 4, and invoke them as filters
- run a script file containing Filter, Retain Filter, Report, Sort, and Modify commands

Depressing the **Ctrl** key while clicking the **UTC**, **Band**, **Mode,** or **SQL** panel's **Filter** buttons *refines* the existing Log Page Display filter by applying the new filter to those QSOs visible in the Log Page Display.

Invoking SQL Query Filters from the Filter panel
SQL Query Filters can also be invoked from the **Filter** panel textbox on the **Main** window's **Log QSOs** tab. A bank of SQL Query filters is considered ***active*** if at least one caption is specified. Allowing the mouse cursor to hover over an SQL Query filter button for a few seconds will produce a popup window that displays the SQL expression associated with the filter. By clicking the **~** button in the **Filter** panel textbox, buttons for each filter in the next active bank of SQL Query filters will appear in the **Filter** panel textbox, each bearing its specified caption. If buttons for the last active bank of SQL Query filter are being displayed in the **Filter** panel textbox, then clicking the **~** button will display the **Call**, **DXCC**, **Date**, **Since**, **Sel**, **LotW**, and **Broke** filter buttons.

If the Display panels in two columns option is enabled, the **Call**, **DXCC**, **Date**, **Since**, **Sel**, **LotW**, and **Broke** filter buttons will always be visible. Clicking the **~** button will toggle between displaying eight filter buttons for SQL Query Filter banks 1 and 2, and eight filter buttons for SQL Query Filter banks 3 and 4.

An SQL expression typed directly into the **Filter** panel textbox can be used to filter Log Page Display by striking **Ctrl-S**.

Running Scripts from the Filter panel
Clicking the **~** button in the **Filter** panel textbox displays buttons for each filter in the next active bank of **SQL Query Filters** in the **Filter** panel textbox and a **Script** button that when clicked prompts you to specify a script file for execution. If no bank of SQL Query Filters is active, clicking the **~** button will still display the first bank of SQL Query Filters and a **Script** button.

If the Display panels in two columns option is enabled, the **Script** button will always be visible.

Keyboard actions and shortcuts in the Filter panel textbox
Filters can also be invoked by striking control keys in the filter textbox.
To facilitate sequential filter operations, striking the **Enter** key with the cursor in the filter textbox invokes the last filter operation. For example to quickly check for previous QSOs with JY4NE, IK4VYX, and YV1DIG, one would

1. enter JY4NE in the filter textbox
2. click the **Call** button in the filter panel to see previous QSOs with Ali
3. enter IK4VYX in the filter text box and strike the **Enter** key to see previous QSOs with Fab
4. enter YV1DIG in the filter text box and strike the **Enter** key to see previous QSOs with Paul

Double-clicking an item's label in the Capture window will filter the Log Page Display to show all QSOs whose item matches the value in the Capture window. If the Capture window's **IOTA** item contains OC-005, for example, double-clicking the **IOTA** label will filter the Log Page Display to show all QSOs whose **IOTA** item is OC-005.

Depressing the **ALT** key while clicking the **Log** button will reset the Log Page Display filter; if the **Sort** panel is set to **UTC**, the most recent QSO will be made current.

DXKeeper's title bar shows the number of QSOs visible in the Log Page Display, taking any specified filtering into account.

QSL and Export operations only apply to QSOs visible in the Log Page Display, thus you can use filtering to choose a specific subset of QSOs to which these activities apply.

Filtering for Previous QSOs
Double-clicking on a callsign in the Call field in the **Main** window's **Log QSOs** tab filters the Log Page Display to show previous QSOs with that callsign; if Contest-mode is checked, then only QSOs whose recorded Contest IDs match the current Contest ID setting are shown. Double-clicking on an entry in the Log Page Display filters the Log Page Display to show previous QSO's with that entry's callsign; if Contest-mode is checked, then only QSOs matching the current Contest ID are shown. Double-clicking on an entry in the Log Page Display while depressing the **Ctrl** key filters the Log Page Display to show all QSO's with that entry's DXCC entity.

Filtering the Log Page Display with SQL

To create more sophisticated filters by using SQL (Structured Query Language), click the **Adv** button located above the Log Page Display on the **Main** window's **Log QSOs** tab; this will display the DXKeeper's **Advanced Log Sorts and Filter** window. Using the **SQL Query Filters** panel, you can compose and activate up to 16 different SQL Queries (displayed as four ***banks*** of four filters); these filters are automatically saved between DXKeeper sessions.

The **SQL Query Filters** panel contains four query textboxes that display one of four filter banks:

- SQL Query Filters 1 to 4
- SQL Query Queries 5 to 8
- SQL Query Queries 9 to 12
- SQL Query Queries 13 to 16

Clicking the **~** button in the panel's upper right corner causes the panel to display the next bank of filters.

To create a Query, enter the appropriate **SQL expression** in one of the panel's four query textboxes; to use that query as a log filter, click the **Filter** button to immediate right of the query text box. If you have enough screen space, arranging things so you can see both the **Advanced Log Sorts and Filter** window and the **Main** window's **Log QSOs** tab makes it easy to compose queries and immediately see their results.

SQL Query Filters can also be invoked from the **Filter** panel textbox on the **Main** window's **Log QSOs** tab -- but only if you specify a **caption** in the textbox to the left of the **SQL expression** in the **SQL Query Filters** panel. A bank of SQL Query filters is considered ***active*** if at least one caption is specified. By clicking the **~** button in the **Filter** panel textbox, buttons for each filter in the next active bank of SQL Query filters will appear in the **Filter** panel textbox, each bearing its specified caption. Allowing the mouse cursor to hover over an SQL Filter button in the **Filter** panel textbox will produce an explanatory popup showing the SQL expression associated with the button; starting each SQL expression with a comment describing its function will make these popups more useful.

Constructing SQL Queries
The database schema for logs contains one record for each QSO, and each record contains an identical set of fields that store that QSO's items. Use each field's specified ADIF field name name when constructing a query.

At the very top of the **Advanced Log Sorts and Filter** window, you'll find a pull-down list containing all valid field names. Having selected a field name in this list, double-clicking in one of the four query textboxes in the **SQL Query Filters** panel will append the field name to the query.

A simple SQL query that shows only your QSOs with VK9NS would be
CALL='VK9NS'

We could have simply used the main window's Call filter to accomplish that query, but

(CALL='VK9NS') AND (QSO_Begin > #1997-06-01 12:00#)

shows how to incorporate a constraint on the QSO's begin time, in this case showing only QSOs occurring after noon UTC on June 1, 1997. Notice the use of the ISO date format, which is YYYY-MM-DD HH:MM:SS . In SQL, dates must be enclosed between # symbols.

(CALL='VK9NS') AND (QSO_Begin BETWEEN #1997-06-01 12:00# and #1999-12-01#)

illustrates the use of the BETWEEN operator to find QSOs within a specified date/time range.

(CALL='VK9NS') OR (CALL='VK9NL')

shows all QSOs with the Smith family, illustrating the use of the OR operator.

To show only QSOs made in PSK, you could combine a set equal tests, e.g.
(MODE='PSK31') OR (MODE='PSK63') OR (MODE='PSK125') OR (MODE='PSK250')
but an equivalent expression using the IN operator is more readable, as well as less typing:
MODE IN ('PSK31','PSK63','PSK125','PSK250')

If you're searching for an item that contains an apostrophe (single quote), use double quotes to surround the item, e.g.
CNTY="IA,O'BRIEN"

Data Types
Items are representing using one of three data types:

- String (a sequence of alphanumeric characters)
- Date
- Number (with or without a decimal separator)

As shown in the above examples, items whose data type is String must be enclosed by single or double apostrophes, e.g.
CALL='VK9NS'
and
CNTY="IA,O'BRIEN"

Items whose data type is Date must be enclosed by a # symbol, e.g.
QSO_Begin BETWEEN #1997-06-01 12:00# and #1999-12-01#

Items whose data type is Number are not enclosed by symbols, e.g.
(Freq > 7.0) and (Freq < 7.025)

Note that in items of type Number, the period character is used as a decimal separator -- even in locales where a different character is used for this purpose.
Each item's data type is specified here.

Wildcard Characters
SQL provides the LIKE operator and wildcard characters to enable broader searches by specifying a pattern, for example
CALL LIKE 'VK9*'
which shows all QSOs with callsigns whose first three characters are VK9. The Asterisk wildcard character matches 0 or more characters. The Question Mark wildcard character matches exactly one character. Thus
CALL LIKE 'VK9?'
shows all QSOs VK9X, but not those with VK9NS or VK9NL.
(DXCCPrefix='VK9-N') AND NOT (CALL='VK9NS')
uses the NOT operator to show all Norfolk QSOs not involving Jim.

Besides the Asterisk and Question Mark, the LIKE operator provides wildcard characters that let you specify a single digit, or a range of characters, as illustrated in the table below:

To match...	Example	Samples that match	Samples that don't match
one or more characters	VU4*W	VU4CW, VU4WWW, VU41W	VU2CW, VU4DY
one or more characters	*YV1DIG*	YV1DIG, YV0/YV1DIG, YV0/YV1DIG/QRP	YV0/YV1DX
one character	OX1VHF/?	OX1VHF/P, OX1VHF/5,OX1VHF/M	OX1VHF, OX1VHF/MM
one digit	A6#AJ	A61AJ, A64JA	A6JA, C61AJ
a range of characters	A[A-L]6DX	AA6DX, AF6DX	AM6DX, A6DX, AA6DY

outside a range of characters	K[!G-H]4DX	KC4DX, KK4DX, K$4DX	KG4DX, KC4DY
outside the range of digits	K5[!0-9]	K5K, K5%	K50
a pattern composed of several sub-patterns	A[A-L]#[A-Z]*	AA6YQ, AL7X	AM4DX, KH6/AL7X, AA6
characters that are wildcard characters	[*]Footnote	*Footnote	Footnote, -Footnote

Note that you can combine multiple wildcards to specify more complex patterns.

In summary, you can use the following comparison and logical operators to create filters:

Comparison Operator	**Meaning**	**Example**
=	equal to	PROP_MODE='F2'
<	less than	QSO_BEGIN < #2003-12-31 12:00#
<=	less than or equal to	QSO_END <= #2003-12-31 12:00#
>	greater than	QSO_BEGIN > #2003-12-31 12:00#
>=	greater than or equal to	QSO_END >= #2003-12-31 12:00#
<>	not equal to	MODE <> 'SSB'
LIKE	used to match a pattern	QTH LIKE '*Pittsburgh*'
BETWEEN...AND	used to specify a range of values	QSO_BEGIN BETWEEN #2003-12-31 12:00# and #2004-01-01 12:00#
IN	used to specify a set of values	MODE IN ('PSK31','PSK63','MFK8','MFSK16')

Logical Operator	**Meaning**	**Example**
AND	both conditions must be true	(PROP_MODE='F2') AND (MODE <> 'SSB')
OR	either condition can be true	(QTH LIKE '*Pittsburgh*') OR (QTH LIKE '*Philadelphia*')
NOT	logical inversion	(STATE='PA') AND NOT (QTH LIKE '*Philadelphia*')

Referencing the contents of the Filter panel textbox
If the character string <filtertextbox> is found in an SQL Query being executed, it is replaced by the contents of the **Filter textbox**. Thus the query
QTH like '*<filtertextbox>*'
with the **Filter textbox** set to
Philadelphia
results in execution of the query
QTH like '*Philadelphia*'

If you then change the contents of the **Filter textbox** to
Pittsburgh
and invoke the query,
QTH like '*Pittsburgh*'
will be executed.

Comments
Any characters between // and // are ignored, and thus can be used as explanatory comments, e.g.
//Find QTH // QTH like '*<filtertextbox>*'

Abbreviations
If the character string Deleted_Entity is found in an SQL Query being executed, DXKeeper replaces this character string with an expression that evaluates to TRUE if the QSO's DXCC entity is deleted. Thus the SQL expression
Deleted_Entity AND (BAND='40m')
would filter the Log Page Display to contain only 40m QSOs made with deleted DXCC entities.

If the character string USER_X is found in an SQL Query being executed, DXKeeper inspects each user-defined item definition seeking one whose caption is X; it then replaces USER_X with the ADIF name of the user-defined item. Thus if user-defined item #2 has a caption of 10-10, the SQL expression
USER_10-10='123.45'
would be converted to
APP_DXKEEPER_USER_DEFINED_2='123.45'
before execution.

Unspecified QSL sent and received dates
The fields QSLSDATE, QSLRDATE, APP_DXKEEPER_EQSL_QSLSDATE, APP_DXKEEPER_EQSL_QSLRDATE, APP_DXKEEPER_LOTW_QSLSDATE, and APP_DXKEEPER_LOTW_QSLRDATE use the value 4000-01-01 to mean "no date specified". To avoid confusion, appropriately qualify expressions using these dates, for example
(QSL_SENT = 'Y') and (QSLSDATE > #2006-01-01#)

Without the (QSL_SENT = 'Y') qualifier, (QSLSDATE > #2006-01-01#)would select all QSOs whose QSL Sent Date is unspecified.

References
An online reference for SQL as supported by the Microsoft Jet engine, which is incorporated in both DXKeeper and Microsoft Access, is available at http://www.devguru.com/Technologies/jetsql/quickref/jet_sql_intro.html . Functions that can be used in SQL expressions are described in

- http://www.webcheatsheet.com/sql/access_functions/
- http://www.techonthenet.com/access/functions/

Modifying Multiple QSOs *En Masse*

Changes can be applied to all QSOs in the Log Page Display in a single operation by

- using the **Advanced Logs Sorts, Filter, and Modifiers** window's **Modify QSOs** panel
- running a Script
- filling in or replacing the information in each QSO by performing a Callbook Update

Like all power tools, these can be dangerous if not carefully applied. It's a good idea to make a backup copy of your log before using them, as doing so enables a quick recovery if after inspection the change you specified turns out to be incorrect.

Using the Modify QSOs panel

To display the **Advanced Logs Sorts, Filter, and Modifiers** window, click the **Adv** button at the bottom of the **Main** window's **Log QSOs** tab, or click the **Advanced** button at the bottom of the **Main** window's **Awards** tab. The **Modify QSOs** panel lets you designate an item and provide a new value for that item. When you click the panel's **Modify** button, the designated item of each QSO in the Log Page Display will be set to the specified value. To designate an item, use the panel's **Item's ADIF field name** selector to choose the item's ADIF field name. Enter the desired new value in the panel's **New item value** setting. Clicking the panel's **Modify** button applies the change to every QSO in the Log Page Display; if you intend to change only some of the QSOs in your log, first filter the Log Page Display so that only the QSOs to be modified are present.

- If you set the **Item ADIF field name** selector to DXCCPrefix and click the panel's **Modify** button, DXKeeper will automatically set the DXCCID item of each modified QSO to the country code corresponding to the DXCC prefix you selected in **New item value**. Conversely, if you set the **Item's ADIF field name** selector to DXCCID and click the panel's **Modify** button, DXKeeper will automatically set the DXCCPrefix item of each modified QSO to the DXCC prefix corresponding to the country code you selected in **Item new value**. In this way, consistency between DXCCPrefix and DXCCID is maintained.
- You can use <current> in the **New item value** to represent the item's current value in the logged QSO; thus an **Item ADIF field name** of Call and an **Item new value** of <current>/KH6 will change AA6YQ to AA6YQ/KH6 and K4IK to K4IK/KH6.
- You can use <capitalized> in the **New item value** to represent the item's current value in the logged QSO with its first letter capitalized; thus an **Item ADIF field name** of QTH and an **Item new value** of <capitalized> will change paris to Paris and will change new london to New london.
- If the **Item ADIF field name** selector is set to APP_DXKEEPER_FILE, you can use <filename> in the **New item value** to represent the filename component of the pathname in the logged QSO's file item; thus an **Item ADIF field name** of APP_DXKEEPER_FILE and an **Item new value** of c:\dxlab\files\<filename> will change

c:\program files\dxlab suite\files\7O1DX_license.jpg
to
c:\dxlab\files\7O1DX_license.jpg

- You can use <compute> in the **New item value** to compute the value of certain items from other items in the QSO. If the **Item ADIF field name** selector is tx band or rx band, <compute> is available as the last choice in the **Item new value** selector.

Item	Computation	Prerequisite
antenna az	compute antenna azimuth from grid square or latitude and longitude	• valid grid square or latitude and longitude • antenna path set to short or long • myQTHID specifies a QTH that includes a valid latitude and longitude, or default QTH latitude and longitude is specified
dist	compute distance from grid square or latitude and longitude	• valid grid square or latitude and longitude • antenna path set to short or long • myQTHID specifies a QTH that includes a valid latitude and longitude, or default QTH latitude and longitude is specified
grid	compute grid square from latitude and longitude	• valid latitude and longitude
lat	compute latitude and longitude from grid square	• valid grid square
lon	compute latitude and longitude from grid square	• valid grid square
rx band	determine rx band from rx frequency	• valid rx frequency
state	determine the primary administrative subdivision from the secondary administrative subdivison	• valid secondary administrative subdivision
tx band	determine tx band from tx frequency	• valid tx frequency
WPX	compute the WPX prefix from the callsign	• valid callsign

- You can adjust the contents of a QSO's QSO_Begin or QSO_End item with a **Item new value**that begins with a + (to add a time interval) or - (to subtract a time interval). For example,

Item new value	**Effect**
+1y	adds one year
-1m	subtracts one month
+3d	adds 3 days
-2h	subtracts 2 hours
+5n	adds 5 minutes
+3s	adds 3 seconds

Neither fractions nor combinations are permitted; if you want to add 3 hours and 30 minutes to each QSO's start time, for example, use +210n.

- You can adjust the contents of a QSO's freq or rx_freq item with a **Item new value** that begins with a + (to add a frequency offset in MHz), - (to subtract a frequency offset in MHz), x (to multiply by a number), or / (to divide by a number). For example,

Item new value	**Effect**
+ 36	adds 36 MHz
- .1	subtracts 100 KHz
x 1000	multiples by 1000
/ 1000	divides by 1000

- Changing the contents of a QSO's freq or rx_freq item automatically updates its tx band or rx band item respectively

- You can use <ADIF field name> in the **Item new value** to represent the value of the designated ADIF field in the current QSO. If the **Item ADIF field name** is set to Comment and the **Item new value** is

worked <Name> on <Band>

then a 20m QSO with ON4UN will have its **comment** item set to

worked John on 20m

Modifications to any of the following items can require that the current log's Realtime Award Progress and the current Spot Database (if SpotCollector is running) be updated via recomputation:

- Band
- Call
- CQ
- DXCC Prefix
- eQSL Rcvd
- LotW Rcvd
- Mode
- PropMode
- QSL Rcvd
- QSL Sent
- SatName

If recomputation might be required, DXKeeper will notify you, and offer to initiate the process. If you are planning more modifications, complete all modifications; then initiate recomputation after the last change has been made.

If the Subdivisions box is checked on the **Config** window's **Awards** tab and your modification results in one or more QSOs with DXCC entities that formally specify Primary or Secondary Administrative Subdivisions specifying an invalid primary or secondary administrative entity, a message window informing you of this situation will appear at the conclusion of the operation. You can invoke the Broke filter to display QSOs specifying invalid primary or secondary administrative entities.

Filtering, Modifying, and Reporting with Scripts

A **Script** is a text file containing lines of commands that

- filter the Log Page Display using structured query language (SQL) expressions
- sort the Log Page Display using SQL expressions
- modify QSOs in the Log Page Display
- specify the layout of the Log Page Display
- generate log reports and award progress reports
- export QSOs from the Log Page Display to a file in ADIF, tab-delimited, or Cabrillo format

Scripts thus enable you to automate frequently-invoked sequences of operations, like this one:

```
Filter (Band='6m') and (Mode = 'RTTY')
Report Grids C:\Program Files\DXKeeper\Reports\6M RTTY grids.txt
Filter (Band='2m')and (Mode = 'RTTY')
Report Grids C:\Program Files\DXKeeper\Reports\2M RTTY grids.txt
```

Any characters between // and // on a line are ignored, and thus can be used as explanatory comments.
You can run a script by

- clicking the **Script** button in the **Filter** panel on the **Main** window's **Log QSOs** tab; if the Script button is not visible in this panel, click the **~** button at the left end of the panel and the Script button will become visible.
- clicking the **Script** button on the **Main** window's **Check Progress** tab
- clicking the **Run** button in the **Advanced Sorts, Filters, and Modifiers** window

In each case, you will be prompted to select a file containing the script you wish to run. Script filename extensions can be either .txt or .scp. By default, you'll be prompted to select a script file from DXKeeper's Scripts folder, but if you select a script from a different folder, you'll be prompted to select a script file from that folder the next time you take one of the above actions.

When you direct DXKeeper to run a script it determines whether that script will modify your log; if so, it offers to create a backup copy of your log (highly recommended!). DXKeeper then executes each of the script's commands in sequence, and records each executed command in a script log file with an indication as to its success or failure.

The script log file is created in the folder in which the script file resides; its filename is constructing by appending _Log_YYYY_MMM_DD to the script log's filename, where YYYY is the current year, MMM is the current month, and DD is the current day, and its filename extension is .log .

Script Commands

Export

The Export command exports sets the Options panel on the Main window's Exports tab and then exports QSOs in the Log Page Display to a specified filename. Its generic format is

```
Export Options ExportFilename
```

Options can be ADIF, TDF, or CABRILLO to set the Options panel to ADIF, tab-delimited, or Cabrillo respectively.

If the specified ExportFilename already exists, its contents will be replaced.
ExportFilename supports the Filename Substitution Commands described below

Delete

The Delete command deletes the specified filename; its format is

```
Delete Filename
```

Display
The Display command displays the contents of the specified filename; its format is
Display Filename

Filter
The **Filter** command specifies a structured query language (SQL) expression that is used to filter the Log Page Display. The number of QSOs present in the Log Page Display after executing the Filter command is recorded in the script log file. This **Filter** command, for example,

```
Filter QSO_Begin < #1/1/1979# and call like '*KB6*'
```

selects all QSOs with Baker and Howland Islands prior to January 1, 1979.

Ordinarily, DXKeeper remembers the Log Page Display Filter in effect before you initiated script execution, and restores this filter after script execution has completed. If the selected script contains the command **Retain Filter**, however, DXKeeper does not restore the original Log Page Display Filter; the Log Page Display Filter will be established by the last **Filter** command executed by the script. This allows script files to be used purely to filter the Log Page Display.

LoadLayout
The **LoadLayout** command specifies a filename containing a Log Page Display layout file, which is loaded and applied. This allows a layout optimized for a particular report to be instituted, the report generated, and the normal Log Page Display layout restored:

```
    LoadLayout C:\Program Files\DXKeeper\Configurations\GridReport.txt
  Filter Band='6m'
  Report Grids C:\Program Files\DXKeeper\Reports\<operator>6M grids.txt
    LoadLayout C:\Program Files\DXKeeper\Configurations\Primary.txt
```

Modify
The **Modify** command designates an item and provide a new value for that item; its operation is comparable to the **Modify QSOs** panel. Consider the following **Modify** commands:

```
Modify DXCCid 20
Modify DXCCprefix KH1
Modify CQZ 31
Modify ITUz 61
```

These commands will change the DXCCid, DXCCprefix, CQZ, and ITUz items of each QSO in the Log Page Display. If placed after the above Filter command, these four Modify commands would update all pre-1979 QSOs with Baker and Howland Islands to contain the correct country code, DXCC prefix, CQ zone, and ITU zone. Within the new value, the character sequence **<current>** represents the item's current value. Thus the commands

```
Filter (QSO_Begin > #6/21/2003#) and QSO_Begin < #6/22/2003#)
Modify COMMENT <current> (solar flux = 144)
```

will append (solar flux = 144)to the comment item of every QSO logged on 21-Jun-2003.

Within the new value, the character sequence '' means "clear the designated item". Thus the commands

```
Filter Band='6m'
Modify PROP_MODE ''
```

will clear the propagation mode item logged with every 6m QSO.

Within the new value, the character sequence **<capitalized>** represents the item's current value with its first letter capitalized. Thus the commands

```
Filter DXCCprefix = 'F'
Modify QTH <capitalized>
```

will change a QTH containing paris to Paris in all QSOs with French stations.

Within the new value of a file item, the character sequence **<filename>** represents the simple filename component of the pathname specified in the current value. Thus the commands

```
Filter DXCCprefix = 'F'
Modify APP_DXKEEPER_FILE c:\HamRadio\QSO_Files\French\<filename>
```

will change a QSO's file item from

```
c:\dxlab\dxkeeper\QSO_Files\F5IN_Transceiver_Schematic.jpg
```

to

```
c:\HamRadio\QSO_Files\French\F5IN_Transceiver_Schematic.jpg
```

Within the new value, you can reference the contents of any other item in the QSO by enclosing that item's ADIF name in angle brackets. Thus the commands

```
Filter true
Modify PROP_MODE <COMMENT>
```

would set every QSO's propagation mode to the contents of its **comment** item.

You can also use the new value field to add or subtract a time interval from the QSO_Begin or QSO_End item of each selected QSO:

New item value	Effect
+1y	adds one year
-1m	subtracts one month
+3d	adds 3 days
-2h	subtracts 2 hours
+5n	adds 5 minutes
+3s	adds 3 seconds

Neither fractions nor combinations are permitted; if you want to add 3 hours and 30 minutes to each QSO's start time, for example, use +210n.

A **Modify** command will only be executed if the most recent **Filter** command succeeded; thus the first command in a script file must be a **Filter** command. After a **Modify** command is executed, the number of QSOs modified is recorded in the script log file, and then the most recent **Filter** command is re-executed; this ensures that any subsequent **Modify** commands are applied to the intended subset of logged QSOs. Prior to execution, the **Modify** command verifies that the designated item is valid, and that the specified new value for that item is appropriate; any error will prevent the Modify command from being executed, and will be recorded in the script log file.

Modifications made by script execution to any of the following items can require that the current log's Realtime Award Progress and the current Spot Database (if SpotCollector is running) be updated via recomputation:

- Band
- Call
- CQ
- DXCC Prefix
- eQSL Rcvd
- LotW Rcvd
- Mode
- PropMode
- QSL Rcvd
- SatName

If recomputation might be required, DXKeeper will notify you, and offer to initiate the process. If you are planning to execute more scripts that modify logged QSOs, complete those modifications; then initiate recomputation after the last change has been made.

DXKeeper's /Scripts folder contains several preconstructed scripts for updating older QSOs to reflect up-to-date DXCC country codes, DXCC prefixes, CQ zones, and ITU zones. These can be used to correct QSOs that were imported without DXCCID tags, and as examples of script construction.

Report and AppendReport
The **Report** and **AppendReport** commands direct the generation of a log or progress report into a specified filename. Their generic formats are

Report Kind ReportFilename
AppendReport Kind ReportFilename

Kind can be one of the following values

Kind	Report Format	Description
AJA	text	All Japan (AJA) progress report
ARRL_entities_progress	text	progress report showing worked/confirmed status for each entity defined by the ARRL • can be used to generate progress reports for a variety of entity-based awards, e.g. BARTG • the filename component of ReportFilename is used as the generated report's title
ARRL_entities_submission	text	submission report showing confirmed entities defined by the ARRL • can be used to generate submission reports for a variety of entity-based awards, e.g. BARTG • the filename component of ReportFilename is used as the generated report's title
Canadian_Provinces	text	RAC Canadaward progress report
CQDX	text	CQ DX progress report
DDFM	text	REF Diplôme des Départements Français de la Métropole progress report
DOK	text	DARC DOK progress report
DXCC	text	DXCC progress report
Fields	text	CQ Field progress report
Grids	text	Maidenhead Grid Squares progress report
IOTA	text	Islands On The Air progress report
JCC	text	Japan Century Cities (JCC) progress report
JCG	text	Japan Century Guns (JCG) progress report
Holyland	text	Holyland progress report

Log	text	one entry for each QSO visible in the Log Page Display
RDA	text	RDA Russian District Award progress report
RDA_submission	text	RSA Russian District Award submission report
SRR	text	SRR Russian Oblast Award progress report
SRR_submission	text	SRR Russian Oblast Award submission report
Uniques_Callsign	text	Unique Callsigns report in Callsign order
Uniques_QSO	text	Unique Callsigns report in descending order of Mixed QSO count
US_States	text	ARRL Worked All States progress report
US_Counties	text	CQ United States of America Counties progress report
VUCC	text	VUCC progress report
WAB	text	Worked All Britain progress report
WAC	text	ARRL Worked All Continents progress report
WAE	text	DARC Worked All Europe progress report
WAJA	text	Worked All Japan Prefectures (WAJA) progress report
WAHUC	text	Worked All Hungarian Counties progress report
WAIP	text	Worked All Italian Provinces progress report
WITU	HTML	Worked ITU Zones progress report
WAZ	HTML	CQ Worked All Zones progress report
WPX	text	CQ Worked All Prefixes progress report
WPX-summary	HTML	CQ Worked All Prefixes summary report
WPX-submission	text	CQ Worked All Prefixes submission report

Both commands supports the Filename Substitution Commands described below. For example, the commands

```
Filter Band='6m'
Report Grids C:\Program Files\DXKeeper\Reports\<operator>6M grids.txt
```

will produce a 6 meter Maidenhead Gridsquare progress report in the file
AA6YQ 6M grids.txt
in the folder
C:\Program Files\DXKeeper\Reports.

The log report's sort order and layout are those of the Log Page Display with one exception: if the Log Page Display includes the country code, the report appends the full DXCC entity name to the country code. You can create a layout optimized for this report and save it in a file for later recall.

If the specified ReportFilename already exists, the Report command will clear it before populating it with the generated report, whereas the AppendReport command will append the generated report to the existing file; therefore, the AppendReport command can only be used to generate text reports. At its completion, the Report command displays the generated report, whereas the AppendReport command does not. In conjunction with the Delete and Display commands, the AppendReport command can be used to place several reports into a single file and then display them, e.g.

```
delete c:\program files\dxlab suite\dxkeeper\reports\us_states.txt

filter true
appendreport us_states c:\program files\dxlab suite\dxkeeper\reports\us_states.txt

filter Mode='SSB'
appendreport us_states c:\program files\dxlab suite\dxkeeper\reports\us_states.txt

filter Mode='CW'
appendreport us_states c:\program files\dxlab suite\dxkeeper\reports\us_states.txt

filter Mode='RTTY'
appendreport us_states c:\program files\dxlab suite\dxkeeper\reports\us_states.txt

display c:\program files\dxlab suite\dxkeeper\reports\us_states.txt
```

Sort

The **Sort** command specifies an expression which is used to sort the Log Page Display. The expression specifies the items by which the log is to be sorted, with each item's ADIF field name separated by comma's. They keyword **DESC** is appended if an item is to be placed in descending rather than ascending order. Thus

```
Sort Band DESC, Call
```

will sort the Log Page Display by band in descending order, and then by callsign in ascending order. Executing a script containing a Sort command will clear the Sort panel on the Main window's Log QSOs tab.

Filename Substitution Commands

Substitution command	Replacement
<stationcallsign>	the Default station callsign
<operator>	the Default operator callsign
<ownercallsign>	the Default owner callsign
<date>	the current UTC date in the format dd-mmm-yyyy (e.g., 25-JAN-1952)
<ISOdate>	the current UTC date in the format yyyy-mm-dd (e.g., 1952-01-25)

Updating QSOs in the Log Page Display with Callbook and DXCC Database Information

On the **Main** window's **Log QSOs** tab, clicking the **CBA** button queries the selected Callbook for information such as name, QTH, address, and zone -- but this information only inserted into empty items in the current QSO. After the Callbook is queried,

- if DXView is running, it will be directed to query the DXCC database for additional information unambiguously determinable from the current QSO's callsign and DXCC entity; this information will only be inserted into empty items in the current QSO
- if DXView is not running, the DXCC database will be queried for additional information unambiguously determinable from the current QSO's callsign and DXCC entity; this information will only be inserted into empty items in the current QSO

This Callbook and DXCC lookup operation should only be applied to recent QSOs. Information extracted from a Callbook or the DXCC database may not be correct for older QSOs.

This operation can be modified in two ways:

- depressing the **Ctrl** key while clicking the **CBA** button means that information obtained from the Callbook and DXCC database will replace information present in the current QSO; for example, the QSO's Name item currently contains *Dave* and the Callbook returns a Name of *David*, the QSO's Name item will updated to *David*.
- depressing the **Alt** key while clicking the **CBA** button, the above operation to every QSO in the Log Page Display

Depressing both the **Alt** and **Ctrl** keys while clicking the **CBA** button combines both modifications: information in all QSOs in the Log Page Display will be replaced by information obtained from the database queries.

If you click the **CBA** button with the **Alt** key depressed, DXKeeper will offer to create a backup copy of your log before proceeding with the update; accepting this offer is highly recommended. Applying these operations to large numbers of QSOs can take significant time, particularly if you haven't copied your Callbook's database from CDROM to a hard drive, and even more so if you're using an internet-accessible service as a callbook.

There are two scenarios in which the Callbook and DXCC lookup operation can alter a a QSO's DXCC entity:

1. The QSO's DXCC entity is Alaska, Hawaii, or the US, but the state returned by the Callbook does not match the entity; if the **Ctrl** key depressed when the **CBA** button was clicked, DXKeeper will correct the QSO's DXCC entity to match the state returned by the Callbook.
2. The QSO's DXCC entity is unspecified and the callsign is not an aeronautical or maritime mobile stations, and is not preceded by an exclamation point; if the DXCC database can unambiguously determine the entity from the callsign, DXKeeper will update the QSO with this DXCC entity.

If the **Alt** key is depressed when the **CBA** button is clicked, all instances of the above two scenarios will be displayed in a report when the operation completes.

If a QSO specifies a DXCC entity that formally defines a set of Primary Administrative Subdivisions, the Callbook returns a Primary Administrative Subdivision code or abbreviation, and if the Subdivisions box is checked on the **Config** window's **Awards** tab, then DXKeeper will determine whether that code or abbreviation is valid. If the QSO's DXCC entity also formally defines a set of Secondary Administrative Subdivisions, the Callbook returns a Secondary Administrative Subdivision code or abbreviation, and if the Subdivisions box is checked on the **Config** window's **Awards** tab, then DXKeeper will also determine whether that code or abbreviation is valid. If either subdivision is found to be invalid and the **Alt** key was not depressed, then DXKeeper will display a message and leave the QSO's subdivision unmodified. If either subdivision is found to be invalid and the **Alt** key was depressed, then the QSO's subdivision will be updated with the invalid code or abbreviation, the QSO's PrimaryInvalid or SecondaryInvalid item will be set to **Y**, and when the **Alt-CBA** operation has updated all QSOs a message will be displayed indicating that one or more QSOs were imported with invalid subdivisions. The Broke filter can be used to filter the Log Page Display to show QSOs whose PrimaryInvalid or SecondaryInvalid items are set to **Y**.

If the Require Edit to modify logged QSOs setting is enabled and you have not clicked the **Edit** button before initiating a callbook lookup, you will be prompted to confirm the lookup action.

Editing QSL Information

The **QSL Editor** window appears when you double-click on the Address item in DXKeeper's main window, when you double click on the Via item in the Capture window, or when you double-click on an entry in the QSL queue. In each case, the QSL editor displays

- the station's **Callsign** (cannot be modified in this window)
- the **QSO Date and Time** (cannot be modified in this window)
- the **QSL Message** (from the QSL msg item)
- the **QSL Manager** (from the Via item)
- the **Address**
- the **Sent Via** (from the Sent Via item)

If a Callbook is installed and selected, the **Callbook lookup** panel will contain two buttons:

- the **Callsign** button performs a callbook lookup on the station's callsign, placing the results in the **Address**
- the **Manager** button performs a callbook lookup on the QSL Manager's callsign, placing the results in the **Address**

Double-clicking in the **Callsign** box will invoke Pathfinder (if running) and pre-configure it to perform QSL lookups on the callsign; similarly, double-clicking on the **QSL Manager** box will pre-configure Pathfinder to locate an address for the QSL manager's callsign. When you locate an address, copy it to the windows clipboard (select it and then strike Ctrl-C), drag it to the **QSL Editor**'s **Address** box, and drop it there. Note that performing a Radio Amateur's Callbook (RAC) search in Pathfinder automatically places the result into the Windows clipboard; to copy this information into the **QSL Editor**, click in the **Address** box and strike Ctrl-V.

Changing the contents of the **QSL Manager, Address**, **QSL Message**, or **Sent Via** boxes enables the **Save** button; clicking Save updates the appropriate Log items, as well as the information in the QSL queue (if that's where you invoked the QSL editor). To discard changes, click the **Cancel** button.

If the **QSL Editor** window was activated by double-clicking an entry in the QSL queue, a set of QSL Queue navigation buttons will appear above the **Save** and **Cancel** buttons; these buttons let you select the first, previous, next, or last QSL Queue entry and update the **QSL Editor** window to reflect its contents. If the information displayed in the **QSL Editor** window is modified and you click one of these navigation buttons, a window will appear asking if the modified information should be saved before selecting the new QSL Queue entry and updating the **QSL Editor** window.

Keyboard Shortcuts

To allow operation without removing one's hands from the keyboard, DXKeeper provides the following keyboard shortcuts for navigation among the Main window and Capture window fields.

Main window Log QSOs tab shortcuts

The following shortcuts are effective within all items in panels on the Main window's Log QSOs tab, and within the Filter panel's Filter textbox; if the panel containing the destination item is not visible, then the shortcut will have no effect.

Alt Key Shortcut	**Effect**
Alt-A	moves the mouse cursor to the *Primary Administrative Subdivision* item
Alt-B	moves the mouse cursor to the *QSO begin* item
Alt-C	moves the mouse cursor to the *Call* item
Alt-D	moves the mouse cursor to the *DXCC* item
Alt-E	moves the mouse cursor to the *Comments* item
Alt-F	moves the mouse cursor to the *TX Freq* item
Alt-G	moves the mouse cursor to the *Grid* item
Alt-H	moves the mouse cursor to the *QSL Message* item
Alt-I	moves the mouse cursor to the *Iota* item
Alt-J	saves the QSO and creates a new QSO record (equivalent to clicking the **New** button)
Alt-K	moves the mouse cursor to the *Address* item
Alt-L	saves the QSO (equivalent to clicking the **Log** button)
Alt-M	moves the mouse cursor to the *Mode* item
Alt-N	moves the mouse cursor to the *Name* item
Alt-O	moves the mouse cursor to the *Secondary Administrative Subdivision* item
Alt-P	moves the mouse cursor to the *Primary Administrative Subdivision* item
Alt-Q	moves the mouse cursor to the *QTH* item
Alt-R	moves the mouse cursor to the *RST rcvd* item
Alt-S	moves the mouse cursor to the *RST sent* item
Alt-T	moves the mouse cursor to the *Contest* item
Alt-U	moves the mouse cursor to the *QSL_Sent* item
Alt-V	moves the mouse cursor to the *QSL Via* item
Alt-W	moves the mouse cursor to the *TX serial#* item
Alt-X	moves the mouse cursor to the *Band* item
Alt-Y	moves the mouse cursor to the *Satellite Name* item
Alt-Z	moves the mouse cursor to the *RX serial#* text box
Alt-=	moves the mouse cursor to the *ARRL*, *region*, or *DOK* item (if visible)
Alt-n	moves the mouse cursor to user-defined field n, where n is a digit from 0 to 7

The following shortcuts are effective within items in panels on the Main window's Log QSOs tab:

Ctrl Key Shortcut	**Effect**
Ctrl-1 through Ctrl-9	in the *RST sent* or *RST rcvd* item, sets the signal report to 51 through 59 if the QSO's mode is a phone mode, or to 519 through 599 if the mode is not a phone mode
Ctrl-A	selects the field's contents
Ctrl-C	copies the selected text to the Windows clipboard
Ctrl-F	moves the mouse cursor to the Filter textbox
Ctrl-J	saves the QSO and creates a new QSO record (equivalent to clicking the **New** button)
Ctrl-L	saves the QSO (equivalent to clicking the **Log** button)
Ctrl-R	sets the *QSL Rcvd* item to **Y**
Ctrl-S	sets the *QSL Sent* item to **Y**
Ctrl-V	pastes the text contents of the Windows clipboard
Ctrl-X	copies the selected text to the Windows clipboard and then deletes the selected text
Ctrl-Z	performs an "undo" operation
Ctrl-Left Arrow	moves the mouse cursor to the beginning of the current word in the current item
Ctrl-Right Arrow	moves the mouse cursor to end of the current word in the current item
Home	moves the mouse cursor to the beginning of the item (text controls only)
End	moves the mouse cursor to the end of the item (text controls only)

The following shortcuts are effective within all items in panels on the Main window's Log QSOs tab:

Key Shortcut	**Effect**
Ctrl-Home	selects the first QSO in the Log Page Display
PageUp	selects the previous QSO in the Log Page Display
PageDown	selects the next QSO in the Log Page Display
Ctrl-End	selects the last QSO in the Log Page Display

The following shortcuts are effective within the Filter panel's Filter textbox:

Ctrl Key Shortcut	**Effect**
Ctrl-1	executes SQL filter 1 as defined in the Advanced window's SQL Query Filters panel
Ctrl-2	executes SQL filter 2 as defined in the Advanced window's SQL Query Filters panel
Ctrl-3	executes SQL filter 3 as defined in the Advanced window's SQL Query Filters panel
Ctrl-4	executes SQL filter 4 as defined in the Advanced window's SQL Query Filters panel
Ctrl-A	selects the Filter textbox's contents
Ctrl-B	filters the Log Page Display for broken QSOs
Ctrl-C	filters the Log Page Display for QSOs with the specified Callsign
Ctrl-D	filters the Log Page Display for QSOs with the specified Callsign's DXCC entity
Ctrl-S	filters the Log Page Display with the SQL expression in the Filter Panel textbox
Ctrl-U	filters the Log Page Display for QSOs that occurred within the specified time range

Ctrl-V	pastes the text contents of the Windows clipboard
Ctrl-X	resets the Log page filter so that all QSOs are visible there
Ctrl-Z	performs an "undo" operation
Home	move mouse cursor before the first character
End	move mouse cursor after the last character
Ctrl-Left Arrow	move mouse cursor to the beginning of the current word
Ctrl-Right Arrow	move mouse cursor to end of the current word
Ctrl-Alt-B	• sets the current QSO's QSL received item to **Y** (yes) • sets the current QSO's QSL date received item to the current UTC date • if an outgoing QSL card was not previously sent, sets the current QSO's QSL sent item to "R" (requested) • set current QSO's QSL rcvd via to **B** (bureau)
Ctrl-Alt-C	• sets the current QSO's QSL received item to **Y** (yes) • sets the current QSO's QSL date received item to the current UTC date • if an outgoing QSL card was not previously sent, sets the current QSO's QSL sent item to "R" (requested)
Ctrl-Alt-D	• sets the current QSO's QSL received item to **Y** (yes) • sets the current QSO's QSL date received item to the current UTC date • if an outgoing QSL card was not previously sent, sets the current QSO's QSL sent item to "R" (requested) • set current QSO's QSL rcvd via to **D** (direct)
Ctrl-Home	selects the first QSO in the Log Page Display
PageUp	selects the previous QSO in the Log Page Display
PageDown	selects the next QSO in the Log Page Display
Ctrl-End	selects the last QSO in the Log Page Display

Capture window shortcuts

The following shortcuts are effective within all items on the Capture window:

Alt Key Shortcut	**Effect**
Alt-A	moves the mouse cursor to the *Primary Administrative Subdivision* item
Alt-B	• designates the QSO start time • hides the **Begin** button until the QSO is logged or cleared • displays the QSO start time
Alt-C	moves the mouse cursor to the *Call* item
Alt-D	moves the mouse cursor to the *DXCC* item
Alt-E	moves the mouse cursor to the *Comments* item
Alt-F	moves the mouse cursor to the *Freq* item
Alt-G	moves the mouse cursor to the *Grid* item
Alt-H	moves the mouse cursor to the *QSL Message* item
Alt-I	moves the mouse cursor to the *Iota* item
Alt-J	saves the QSO and clears the Capture window (equivalent to clicking the **Log** button)

Alt-K	moves the mouse cursor to the *Pwr* item
Alt-L	saves the QSO and clears the Capture window (equivalent to clicking the **Log** button)
Alt-M	moves the mouse cursor to the *Mode* item
Alt-N	moves the mouse cursor to the *Name* item
Alt-O	moves the mouse cursor to the *Secondary Administrative Subdivision* item
Alt-P	moves the mouse cursor to the *Primary Administrative Subdivision* item
Alt-Q	moves the mouse cursor to the *QTH* item
Alt-R	moves the mouse cursor to the *RST rcvd* item
Alt-S	moves the mouse cursor to the *RST sent* item
Alt-T	moves the mouse cursor to the *Contest* item
Alt-U	toggles the *QSL request* checkbox
Alt-V	moves the mouse cursor to the *QSL Via* item
Alt-W	moves the mouse cursor to the *TX serial#* item
Alt-X	moves the mouse cursor to the *CQ* item
Alt-Y	moves the mouse cursor to the *ITU* item
Alt-Z	moves the mouse cursor to the *RX serial#* text box
Alt-=	moves the mouse cursor to the *ARRL*, *region*, or *DOK* item (if visible)
Alt-n	moves the mouse cursor to user-defined field n, where n is a digit from 0 to 7

The following shortcuts are effective within all items on the Capture window:

Ctrl Key Shortcut	**Effect**
Ctrl-1 through Ctrl-9	in the *RST sent* or *RST rcvd* item, sets the signal report to 51 through 59 if the QSO's mode is a phone mode, or to 519 through 599 if the mode is not a phone mode
Ctrl-A	selects the field's contents
Ctrl-B	• designates the QSO start time • hides the **Begin** button until the QSO is logged or cleared • displays the QSO start time
Ctrl-C	copies the selected text to the Windows clipboard
Ctrl-E	• designates the QSO end time • hides the **End** button until the QSO is logged or cleared • displays the QSO end time
Ctrl-F	invokes the Capture window's Lookup function
Ctrl-J	saves the QSO and clears the Capture window (equivalent to clicking the **Log** button)
Ctrl-L	saves the QSO and clears the Capture window (equivalent to clicking the **Log** button)
Ctrl-V	pastes the text contents of the Windows clipboard
Ctrl-S	send an outgoing spot without notes
Ctrl-T	prompt for notes and then send an outgoing spot
Ctrl-W	clears all Capture window fields and places the cursor in the Call field

Ctrl-X	copies the selected text to the Windows clipboard and then deletes the selected text
Ctrl-Z	performs an "undo" operation
Ctrl-Left Arrow	move mouse cursor to the beginning of the current word in the current item
Ctrl-Right Arrow	move mouse cursor to end of the current word in the current item

QSLing

DXKeeper supports three independent kinds of QSLing: paper QSL cards and labels, electronic QSLs via the eQSL.cc service, and electronic QSLs via the ARRL's Logbook of the World (LotW). You can choose to confirm a QSO by any one of these QSL kinds, any two, or all three. DXKeeper can also generate cards and labels that confirm reports from Shortwave Listeners (SWLs). DXKeeper can also generate files that drive QSL printing applications like BV or Word, or that can be uploaded to QSL delivery services like Global QSL.

Traditionally, the need to load your printer with index stock or labels has made QSLing a batch operation, rather than an activity accomplished at the time you log a QSO. After accumulating some number of QSOs for which confirmation is desired, you identify the QSOs, load the printer with index stock or blank QSL labels, print QSL cards or labels for each designated QSO, reload the printer with envelopes or blank address labels, print addresses for each QSL, and finally update the original QSOs to indicate that QSLs have been sent and, if appropriate, that return QSLs have been requested. DXKeeper thus provides a **QSL Queue** in which to assemble a batch of outgoing QSLs. The QSL Queue is stored in each log file; if you switch log files, you will also switch QSL Queues.

The eQSL.cc service provides a new mode of operation; by depressing the Ctrl key while logging a QSO via the Main or Capture windows, DXKeeper will immediately upload the QSO to eQSL.cc; if you check the Upload an eQSL... box, simply logging a QSO via the Capture window will perform the immediately upload without your having to depress the Ctrl key. Real-time uploads are attractive if you are always connected to the internet, but those using dialup connections will prefer to connect to the internet, upload a batch of QSLs to eQSL.cc and then disconnect; the QSL Queue supports this latter mode of operation.

Because LotW QSOs must be digitally encrypted before transmission to the ARRL, its it is more efficient wait until a batch of QSLs are needed before uploading them. Batches of outgoing QSLs are collected in the QSL Queue. From here, they can be printed or uploaded, and then used to update your log to indicate the operation's success.

DXKeeper provides a set of immediate QSLing operations. If the QSL Queue is empty, right-clicking on a QSO in the Log Page Display will produce a popup menu containing the following options:

- **Print QSL card**
- **Print Address on Envelope**
- **Print Self-addressed Envelope**
- **Upload to LotW**
- **Upload to eQSL.cc**

Left-clicking on one of these options will immediately perform the action; before selecting Print QSL card, Print Envelope or Print Self-addressed Envelope, load your printer with the appropriate media. Note that selecting Print QSL card will uncheck the Print Preview option.

The workflows for batch QSLing via cards, labels, eQSL.cc, LotW, or files are similar:

1. choose the QSL kind (cards, labels, eQSL.cc, LotW, ADIF file, or tab-delimited file)
2. identify the QSOs for which QSLs should be sent and load them into the QSL Queue
3. print or upload the QSLs, or place the QSL information in a file for printing and/or distribution by another application or service
4. print addresses on envelopes or labels (only if QSLing via cards or labels)
5. remove each successfully processed entry from the QSL queue, and update its associated QSO to indicate that QSLs have been sent and, if appropriate, that return QSLs have been requested (this step is automatic when uploading to eQSL.cc or LotW)

When a QSL Queue entry is created from a logged QSO in step 2 above, a snapshot of the information in that logged QSO is used to populate the QSL Queue entry. If you subsequently modify the logged QSO -- for example, by editing the logged QSL Message -- this modification will not be automatically propagated to QSL Queue entry; to accomplish this propagation, you must **clear** and then repopulate the QSL Queue.

You will also wish to update your log to reflect incoming confirmations, whether in the form of QSL cards received via postal mail or electronically via eQSL.cc or LotW; the process of updating your log to reflect confirmations received from eQSL.cc and LotW is automated, and is referred to as **synchronization**.

If you intend to upload a large number of QSOs to eQSL.cc, the following workflow will be faster than identifying individual QSOs and loading them into the QSL Queue:

1. Filter the Log Page Display so that all QSOs to be uploaded are visible
2. Use the Main window's Export to eQSL.cc function to generate an ADIF file that can be uploaded to eQSL.cc

The exact threshold depends on your CPU and hard drive speed, as well as the bandwidth of your internet connection, but more than a few hundred QSOs is a good guideline for using the Export functions rather than the Upload functions.

Similarly, uploading more than 1000 QSOs to LotW is best accomplished with the following workflow:

1. Filter the Log Page Display so that all QSOs to be uploaded are visible
2. Use the Main window's Export to LotW function to generate an ADIF file that can be processed by the ARRL's TQSL program to produce a file that can be uploaded to LotW

Choosing the QSL kind: cards/labels, eQSL.cc, LotW, ADIF files, or tab-delimited files
You choose the QSL *kind* by making a selection in the **QSL Via** panel on the Main window's QSL tab:

Selection	**Meaning**
Cards	print QSL cards, 4 per page
2-column labels	print QSL labels, typically 20 per page
3-column labels	print QSL labels, typically 30 per page
eQSL.cc	upload QSOs to eQSL.cc
LotW	upload QSOs to LotW
ADIF file	save QSO information in a specified file using ADIF format (for QSL generation by another application)
tab-delimited file	save QSO information in a specified file using tab-delimited format (for QSL generation by another application using mail merge techniques)

Cards, labels, ADIF files, and tab-delimited files are all used to produce hardcopy QSL cards that are physically conveyed to the station you worked; these four kinds are therefore collectively referred to as QSL Cards.

Once you populate the QSL Queue with one or more entries, your ability to change the QSL Via panel's selection becomes limited. You can switch among cards, labels, ADIF files, and tab-delimited files, but you cannot switch from any of these to the LotW or eQSL.cc selections, or vice versa. You also can't switch between LotW and eQSL.cc. If you've populated the QSL Queue and decide you must change the QSL Via panel's selection, first clear the QSL Queue.

Identifying QSOs for which QSLs should be sent and loading them into the QSL Queue
You can place an individual QSO in the QSL Queue by right-clicking on its entry in the Log Page Display and then left-clicking on the **Add to QSL Queue** option. To add a Shortwave Listener (SWL) confirmation for a QSO to a batch of outgoing QSL cards or labels, place an SWL confirmation of that QSO in the QSL Queue by right-clicking on its entry in the Log Page Display and then left-clicking on the Add SWL Entry to QSL Queue option.

You can direct DXKeeper to populate the QSL Queue with multiple QSOs in order to

- respond to all requests for confirmation from QSO partners
- solicit confirmation of all QSOs needed to achieve your DXCC/Challenge/Toplist and WAZ objectives
- solicit confirmation of all QSOs shown in a CQ DX, CQ Field, IOTA, USA-CA, VUCC, WAC, or WAS progress report as worked but un-confirmed and un-requested
- solicit confirmation of all QSOs in the Log Page Display

Responding to requests for confirmation and soliciting confirmation require status information to be recorded with each QSO. DXKeeper separately tracks the confirmation of each QSO by QSL Card, eQSL.cc, and LotW. For each of these three *kinds* of QSLing, there are four fields stored with each QSO:

	QSL Card	**eQSL.cc**	**LotW**	**Meaning**
outgoing status	QSL sent	eQSL sent	LotW sent	• N - no outgoing QSL should be sent or uploaded • R - an outgoing QSL should be printed or uploaded • U - the outgoing QSL has been uploaded but acceptance is unknown (LotW only) • Y - the outgoing QSL has been printed or uploaded and accepted • I - no outgoing QSL should be sent or uploaded
outgoing date	QSL date sent	eQSL date sent	LotW date sent	date on which the outgoing QSL was printed or uploaded and accepted

confirmation status	QSL rcvd	eQSL rcvd	LotW rcvd	• R - the outgoing QSL should (or did) include a request for a confirming QSL • Y - confirmation has been received • S - confirmation has been submitted to the ARRL for verification (cards & LotW only) • V - confirmation has been verified by the ARRL (cards & LotW only) • E - Entity-only confirmation has been verified by the ARRL (cards only) • B - Entity-and-Entity-Band-only confirmation has been verified by the ARRL (cards only) • M - Entity-and-Entity-Mode-only confirmation has been verified by the ARRL (cards only) • I - this QSO is invalid for award purposes • X - this QSO can't be confirmed
confirmation date	QSL date rcvd	eQSL date rcvd	Lotw date rcvd	date on which the incoming QSL was received

To designate a QSO for which an outgoing QSL should be printed or uploaded, set the outgoing status to **R**. If you'd like the QSO confirmed, also set the appropriate confirmation status to **R**; in the case of cards and 2-column labels, this will result in the a "please!" being printed in the card's **QSL?** column. To have every outgoing card print "please!" in its **QSL?** column unless its QSO is already confirmed, enable the Outgoing QSLs request confirmation unless already confirmed option.

To designate a QSO for which no outgoing QSL card should be generated, set its QSL sent to **N**.

The Main window's QSL and Online QSL panels provide full access to the outgoing status fields for QSL Card, eQSL.cc, and LotW. These panels also provide **RR** buttons for each kind of QSL; clicking an **RR** button simultaneously sets the outgoing status to **R** and the confirmation status to **R**. Having to click all these buttons for each logged QSO would clearly be inconvenient. While we may only send a QSL card if asked or if needed to solicit a confirmation, there is good reason to upload every logged QSO to eQSL.cc and LotW, assuming you have accounts with each; by doing so, you provide confirmation of your QSO to those in need. Thus DXKeeper provides an Initialize eQSL sent to 'R' box that when checked will automatically set the eQSL.cc outgoing status to **R** whenever you log a QSO, and an Initialize LotW sent to 'R' box that when checked will automatically set the LotW outgoing status to **R** whenever you log a QSO. Even if you have no immediate plans to use eQSL.cc or LotW, leaving these boxes in their default checked setting is a good idea; if you eventually change your mind, your QSOs will already be flagged for uploading.

With DXKeeper configured to always designate QSOs for upload to eQSL.cc and LotW, the only decision you must make is whether to send a paper QSL Card. If you are logging QSOs from the Capture window and decide that you'd like a QSL card -- or are asked for a card by your QSO partner -- check the Capture window's **QSL Requested** box; if you log the QSO with this box checked, both the QSL Card outgoing status and confirmation status will be recorded as **R**. If you are logging QSO's via the Main window, clicking the QSL panel's **RR** will have the same effect.

Add Requested
The **Add Requested** function on the Main window's QSL tab responds to requests for confirmation from a QSO partner; it

- notes the QSL kind you have selected
- scans all QSOs in the Log Page Display in reverse chronological order for any QSO whose outgoing status for the selected QSL kind is set to **R** (you can terminate the scan by clicking the **Stop** button)
- creates an entry in the QSL Queue for each such QSO it locates and optionally sets QSL Via to 'B' or 'D'

LotW requires that only QSOs made with the same station callsign be uploaded together. You can enforce this by placing an operator callsign in the Limit Add and Sync operations to this callsign setting, which if the QSL kind is LotW causes the **Add Requested** function to ignore Log Page Display QSOs made with any other station callsign.

If the Add Requested no dup band-modes option is enabled, the Add Requested function will not create a QSL Queue entry unless doing so would give the receiving station a new band or mode, or unless the QSL Via panel is set to LotW or eQSL.cc .

Add Needed
Besides memorializing memorable QSOs, we send QSL Cards to solicit QSO confirmations needed to achieve our DXing objectives. DXKeeper provides the **Add Needed** function to automate this process for the following awards:

- ARRL DX Century Club (DXCC), based on settings in the DXCC/TOP Bands & Modes panel
- ARRL DX Century Club Challenge, based on settings in the DXCC/TOP Bands & Modes panel
- ARRL VHF UHF Century Club (VUCC)
- ARRL Worked All States (WAS)
- Top List, based on settings in the DXCC/TOP Bands & Modes panel
- CQ DX
- CQ Field
- CQ United States Counties Award (USA-CA)
- CQ Worked All Zones(WAZ), based on settings in the WAZ Bands & Modes panel
- CQ Worked All Prefixes (WPX), based on settings in the WPX Bands & Modes panel
- IARU Worked All Continents (WAC)
- Islands On the Air (IOTA)

The **Add Needed** function scans all QSOs in the Log Page Display for QSOs whose confirmations are required for the awards you've selected, considering the DXing objectives you have specified - but ignoring any QSO whose QSL sent item is set to **N** or **I**; for each such QSO, the **Add Needed** function

- sets the QSL Card outgoing status and confirmation status to **R**
- create an entry in the QSL Queue for each such QSO it locates

On the assumption that all QSOs will be uploaded to LotW and/or eQSL.cc, the **Add Needed** function is only available when the QSL kind is QSL cards, QSL labels, ADIF files, or tab-delimited files. When **Add Needed** finds a QSO whose confirmation is required, it locates all other unconfirmed QSOs with the same station and adds these to the QSL Queue. If you'd prefer to only request confirmation for the QSOs you need, un-check the Add Needed requests all with same call box. If a QSO whose confirmation is required has a QSL manager, **Add Needed** will locate all other unconfirmed QSOs with having the same QSL manager and add these to the QSL Queue if you check the Add Needed requests all with same mgr box. **Add Needed** can optionally set QSL Via to 'B' or 'D' for each QSO it adds to the QSL Queue.

Add All

The **Add All** function creates an entry in the QSL Queue for each QSO in the Log Page Display - independent of whether its needed and/or requested. By filtering the Log Page Display before invoking **Add All**, you can choose only those QSOs within a date range, or with a particular DXCC entity, or on a specified band. If the QSL kind is LotW, placing a station callsign in the Limit Add and Sync operations to this callsign setting causes the **Add All** function to ignore Log Page Display QSOs made with any other station callsign. If you are just starting with LotW, **Add All** is an efficient way to select all of a log's QSOs for uploading; because eQSL.cc uploading is optimized for interactivity, it will be faster to upload a large number of QSOs by using Export to eQSL.cc. The **Add All** function will ignore any QSO

- whose QSL sent item is set to **N** or **I** (if the QSL Via panel is set to cards, labels, ADIF file, or tab-delimited file)
- whose LotW sent item is set to **N** or **I** (if the QSL Via panel is set to LotW)
- whose eQSL sent item is set to **N** or **I** (if the QSL Via panel is set to eQSL.cc)

For other awards -- VUCC, ARRL Worked All States, ARRL Worked All Continents, Islands On The Air, CQ Worked All Zones, or CQ Worked All Prefixes, you must designate needed confirmations by clicking the **RR** button on the Main window's QSL panel, and then click **Add Requested**; reports generated from the Main window's Check Progress tab do indicate which confirmations are required for these awards.

Routing: direct or via the QSL bureau
Each **QSL Queue** entry's **Sent Via** item indicates whether the QSL should be sent via the QSL bureau or direct. To change a QSL's routing, click in its entry's **Sent Via** cell, and a down-facing black triangle will appear. Click the triangle, and a dropdown selector will appear that lets you choose the desired routing; the entry's left-most column will display a pencil icon, indicating that the entry has been modified but not saved. Click any other QSL Queue entry to save the modified entry; DXKeeper will propagate the modified **Sent Via** item to the QSO from which the QSL Queue entry was generated. Note: if the QSL Queue contains a single entry that you've modified, save it by clicking the right-facing arrow button and then the left-facing arrow button in the group of VCR-like buttons below the QSL Queue's lower-right corner. When the **Update Log** function is initiated, each QSO's Sent Via item will be updated from its QSL Queue entry's **Sent Via** item

Constraints
Once one or more entries have been added to the **QSL Queue** with **Add Requested**, **Add Needed**, or **Add All**, you can no longer change the selected QSL kind until you either complete this batch of QSLs -- either by printing or by uploading -- and update your log accordingly, or until you abort this batch by clicking the QSL tab's **Clear** button.

Because eQSL.cc confirmations currently do not "count" for ARRL DXing awards, the **Add Needed** function is disabled when the selected QSL Via panel is set to is eQSL.cc. While LotW confirmations do "count" for ARRL DXing awards, it is assumed that users with an LotW account will upload every QSO (in batches); thus the **Add Needed** function is also superfluous when the selected QSL kind is LotW.

The LotW implementation of digital encryption requires that all QSLs in an uploaded batch share the same station callsign and the same station QTH. If all QSOs in your log meet this requirement, then you can freely use **Add Requested** and **Add All**. If not, you must either filter the Log Page Display to meet this requirement prior to invoking these operations, or you must configure the Add Requested and Add All operations to ignore QSOs except those with a specified callsign when the QSL Via panel is set to LotW.

QSL Queue Operations
The topics below describe how to

- generate QSL cards, QSL labels, Envelopes, and Address Labels from the QSL Queue
- upload QSL Queue entries to eQSL.cc, and update your log to reflect eQSL.cc confirmations
- upload QSL Queue entries to LotW, and update your log to reflect LotW confirmations
- generated ADIF or tab-delimited files from the QSL Queue

You can sort the QSL Queue in ascending or descending order of any of its columns. Double-clicking on a column's caption sort's the QSL Queue in ascending order of that column; double-clicking on the same column's caption again sorts the QSL Queue in descending order of that column.

With the QSL Via panel set to Cards, 2-column labels, 3-column labels, ADIF file, or tab-delimited file, QSL Queue entries that are missing an **Address** item and have a **Sent Via** item not set to *buro* are highlighted in red font.

To specify or modify the **Address** item of a entry in the **QSL queue**, to change its **Sent Via** item, or to change its **QSL Msg** item, double-click its entry to display DXKeeper's QSL Editor window; from this window, you can direct Pathfinder (if running) to perform a QSL route lookup on the callsign, or on the QSL manager's callsign. When you click the QSL Editor's **Save** button, any changes you've made will update both the QSL Queue entry and the logged QSO. If the **Alt** key is depressed when the entry is double-clicked, DXKeeper will also direct DXView (if running) to display information about the entry's callsign, including DXCC progress by band and mode.

Double-clicking a QSL Queue entry while depressing the **Ctrl** key will locate the log entry from which the QSL Queue entry was created, and display it in the Main window's Log QSOs tab.

Each entry in the QSL Queue contains a **QSL** box. By default, each entry's box is checked, which *enables* the entry for QSL Queue operations. A QSL Queue entry whose **QSL** box is not checked will be ignored by all operations except clearing the QSL Queue. You can use the **EnableAll** and **DisableAll** function to quickly enable or disable all QSL Queue entries. Disabling a QSL Queue entry is useful when you're not yet ready to send a QSL card or label, perhaps because you expect to make additional QSOs with the station and want to print them all on a single card or label.

QSLing with Paper: Printing QSL cards, QSL labels, Envelopes, and Address Labels from the QSL Queue
QSL cards can be printed either one card per page, or four cards per page, with dimensions you specify; a printer capable of handling card stock is recommended. Information to be printed on each card can be specified on the configuration window's QSL Cards tab; you can optionally specify a background image to be printed on each card. QSL cards are sorted in DXCC prefix order. When printed four cards per page, each page can be thought of as having four quadrants, with quadrant1 in the upper left, quadrant 2 in the upper right, quadrant 3 in the lower left, and quadrant4 in the lower right. DXKeeper places QSL cards into quadrants in a specific order that, if maintained, avoids the need to sort the final deck by DXCC prefix after the cards are separated with a paper cutter. To achieve this order, start with the cards in quadrant 1, then append the cards in quadrant 2, then quadrant 3, and finally those in quadrant 4. If the QSL Via item contains a valid callsign, its DXCC prefix will be used for sorting purposes.

Most printers cannot print right to an edge; each printer imposes a set of margins. If the QSL card dimensions you specify will not fit within these margins or would produce a card that is too small to contain the minimum information, DXKeeper will so inform you. Your printer's margins are depicted in the Print Preview window as shaded areas. You can optionally direct DXKeeper to ignore the printer imposed margins; this could damage your printer, so do so at your own risk.

Both two-column and three-column labels can be printed with QSL information and with addresses; Dimensions of each can be specified on the configuration window's QSL Labels tab and Address Labels tab. On installation, DXKeeper is pre-configured to support 1" x 2.625" (Avery 8160 for inkjet printers, Avery 5960 for laser printers) 3-column labels, and 1" x 4" (Avery 8161 for inkjet printers, Avery 5961 for laser printers) 2-column labels. You can specify QSL label dimensions in either inches or millimeters. QSL labels are also sorted in DXCC prefix order, starting with the top row of labels and proceeding down the page. As with QSL cards, If the QSL Via item contains a valid callsign, its DXCC prefix will be used for sorting purposes.

- Setting column 2 offset to 0 reduces the number of label columns per page to one; this can be used to print single column labels on dedicated label printers.
- Setting column 2 offset to 0 and setting labels per column to 1 produces one label per page; this can be used to print label information directly onto pre-printed QSL cards,

Dates are printed on QSL cards and labels using a specified format

While a RST_Sent item can contain up to 8 characters, QSL cards and 2-column labels only print the first 3 characters of the signal report; 3-column labels print all 8 characters of the signal report.

When QSLing via cards or labels, DXKeeper will by default confirm multiple QSOs with the same station on the same card or label if

- the station callsign items of each such QSO are identical
- the Via item of each such QSO are identical
- if multiple QTH's are in use, the QTH components, e.g. street, city, state, country, and postal code, of each such QSO are identical
- there is space on the cards or labels

If desired, you can restrict QSL cards or labels to confirm exactly one QSO -- uncheck the Confirm Multiple QSOs per QSL box.

If you want outgoing cards or labels to bear the word "thanks!" if the QSO is already confirmed in LotW, then check the Set outgoing QSL? to "thanks!"... box.

If you want QSL cards to include a background image, select and enable an appropriate bitmap image file.

If you want QSL cards to include the QSL manager (from the QSO's Via item if this contains a valid callsign) in the confirmation line, then check the Include QSL Mgr in confirmation box. An example of a confirmation line including a QSL manager is
confirming a 2X QSO with YV1DIG via FJ/AA6YQ

If you want 2-column labels to include the QSL manager (from the QSO's Via item if this contains a valid callsign) in the confirmation line, then check the Include QSL Mgr in confirmation box. An example of a confirmation line including a QSL manager is
7O1NU confirms 2X QSO with AA6YQ via F6FNU

If you want 3-column labels to display the QSL manager (from the QSO's Via item if this contains a valid callsign) and the words 'pse QSL!' (unless every QSO on the card is confirmed, in which case the words 'tnx QSL!') along each label's bottom edge, then check the Include QSL Mgr & pse/tnx QSL box. To have every outgoing 3-column label display the words 'pse QSL!' unless all QSOs on the label are confirmed, enable the Outgoing QSLs request confirmation unless already confirmed option.

For QSLs to be sent via the QSL bureau, you can configure QSL cards, 2-wide labels, and 3-wide labels to include the designation [x buro] (where x is the DXCC prefix for the destination QSL bureau).

QSL substitution commands found in a QSO's QSL message item will be replaced before printing on QSL cards or labels. This allows you to personalize the QSL message with information about you, your QSO partner, your equipment, or the conditions.

Each **QSL Queue** entry's **Sent Via** item indicates whether the QSL should be sent via the QSL bureau or direct. To change a QSL's "routing", click in it's entry's **Sent Via** cell, and a down-facing black triangle will appear. Click the triangle, and a dropdown selector will appear that lets you choose the desired routing; the entry's left-most column will display a pencil icon, indicating that the entry has been modified but not saved.

You can control whether cards or labels destined for the QSL bureau and/or for direct mailing are to be printed by checking or unchecking the **Include QSLs to be sent via the QSL Bureau** and **Include QSLs to be sent via direct mail** boxes.

If you are printing QSL cards, then

- make sure that dimensions and QSL Information textboxes have been properly specified on the QSL Configuration window's QSL Cards tab; you can customize the QSL Information textboxes with QSL substitution commands
- on the QSL Configuration window's Printer tab,
    - ensure that the desired printer is selected and configured
    - ensure that the correct Media for QSL cards is selected
- load the appropriate paper or labels into your printer
- on the Main window's QSL tab
    - disable any QSL Queue entries for which you don't want cards generated
    - check the **Print Preview** box in the **Process QSLs and Addresses** panel
    - click the **Print QSL Cards** button
    - inspect the contents of the Print Preview window and, if satisfied click its **Print** button

If you are printing QSL labels, then

- make sure that dimensions and fixed information have been properly specified on the QSL Configuration window's QSL Labels tab
- on the QSL Configuration window's Printer tab
    - ensure that the desired printer is selected and configured
    - ensure that the correct Media for QSL labels and address labels is selected
- load the appropriate paper or labels into your printer
- on the Main window's QSL tab
    - disable any QSL Queue entries for which you don't want labels generated
    - specify the number of labels missing from the first sheet in the **Missing Labels** box
    - check the **Print Preview** box in the **Process QSLs and Addresses** panel
    - click the **Print QSL Labels** button
    - inspect the contents of the Print Preview window and, if satisfied click its **Print** button

If the previewed cards or labels are unsatisfactory, you can make corrections to settings on the QSL Configuration window's QSL Cards tab or QSL Labels tab and then repeat the **Print QSL Cards** or **Print QSL Labels** operation. If incorrect logged data **other than callsign or begin time** has been printed on any cards or labels, correct the erroneous logged data by double-clicking on a QSL Queue entry to display the associated QSO in the Main window, where you can correct the error and click the **Log** button. If a QSO has been logged with the wrong callsign or begin time,

- clear the QSL Queue by clicking the QSL tab's **Clear** button
- correct the erroneous logged data
- repeat the **Add Requested** and/or **Add Needed** operations you originally used to load the **QSL Queue**
- repeat the **Print QSL Cards** or **Print QSL Labels** operation.

If you intend to print envelopes or address labels, you should verify that an address is available for each entry in the **QSL Queue**. Entries shown in red font are missing an address; to specify or modify the address of a station in the **QSL queue**, double-click its entry to display DXKeeper's QSL Editor window. When you click the QSL Editor's **Save** button, any changes you've made will update both the QSL Queue entry and the logged QSO.

Click the **Create Address File** button on the Main window's QSL tab to generate a report showing the address for each station that will receive a QSL. This report can be used to double-check the addresses, and later to ensure that the correct card is placed in the correct envelope.

If you are printing addresses on envelopes, then

- make sure that dimensions and fixed information have been properly specified on the QSL Configuration window's Envelope tab
- indicate whether you want the DX address printed in upper case
- on the QSL Configuration window's Printer tab
    - ensure that the desired printer is selected and configured
    - ensure that the correct Media for envelopes is selected
- load the appropriate envelopes into your printer
- on the Main window's QSL tab, click the **Address Envelopes** button

If you are printing addresses on labels, then

- make sure that dimensions and fixed information have been properly specified on the QSL Configuration window's Address Labels tab
- indicate whether you want the DX address printed in upper case
- on the QSL Configuration window's Printer tab
    - ensure that the desired printer is selected and configured
    - ensure that the correct Media for QSL labels and address labels is selected
- load the appropriate envelopes into your printer
- on the Main window's QSL tab
    - specify the number of labels missing from the first sheet in the **Missing Labels** box
    - click the **Address Labels** button

When you have completed the printing of all QSL cards, QSL labels, envelopes, and/or address labels, click the **Update Log** button on the Main window's QSL tab. For each entry in the QSL Queue, this function will locate the logged QSO from which it was generated and

- set the logged QSO's QSL sent to **Y**
- set the logged QSO's QSL date sent to the current UTC date
- if the outgoing QSL included a request for confirmation, then the logged QSO's QSL rcvd will be set to **R** unless its already set to **Y** or **V**
- remove the entry from the QSL Queue

If you need self-address envelopes to accompany your outgoing QSL cards, the **Self-addr envel** panel lets you print batches of envelopes addressed to the specified return address. If you want "Airmail, Par Avion" printed on these envelopes, check the airmail indication box. Then set the **batch size** textbox to the desired number of envelopes, and click the **Print** button.

When you receive a QSL card, you can use the Call filter to quickly locate the logged QSO; if the QSO parameters match, click the QSO panel's **CFM** button; this will set the logged QSO's QSL card QSL rcvd to **Y** and, if Optimize for Realtime QSO Entry is checked, set its QSL card QSL date rcvd to the current UTC date.

While reviewing your ARRL DXCC status report, you can also use the Call filter to quickly locate newly-verified QSOs, and then click the QSO panel's VFY button to set the QSL rcvd to **V**.

QSLing via eQSL.cc: uploading QSLs from the QSL Queue, and synchronizing confirmed QSLs
If you need to convey more than a few hundred QSOs to eQSL.cc, using Export to eQSL.cc will likely be faster. To upload the contents of the QSL Queue to eQSL.cc

- disable any QSL Queue entries that you don't want uploaded
- if you operate from more than one location, verify that the correct QTH Nickname is specified (or enable the Use each QSO's myQTHID as its QTH Nickname when uploading or exporting option)
- connect to the Internet and then click the **Upload to eQSL.cc** button on the Main window's QSL tab.

If you've specified a QTH Nickname, that QTH Nickname is displayed beneath the last date and time of upload; clicking this QTH Nickname will display the QSL Setup window's eQSL tab, where the QTH Nickname setting can be modified.

DXKeeper transmits the following information to eQSL.cc for each entry in the QSL Queue:

- Callsign of the station worked
- UTC date at which the QSO began
- UTC time at which the QSO began
- QSO Frequency
- QSO Band
- QSO Mode
- RST sent
- QSL message (the contents of this field will appear on the eQSL card)
- Propagation mode

QSL substitution commands found in a QSO's QSL message item will be replaced before uploading to eQSL.cc. This allows you to personalize the QSL message with information about you, your QSO partner, your equipment, or the conditions.

If you have multiple station callsigns and multiple eQSL.cc accounts, you can prevent the upload of QSOs whose station callsigns don't match the currently specified eQSL.cc username by checking the Don't upload QSOs whose station callsign isn't the specified Username box. You can optionally specify an eQSL.cc QTH Nickname to select a QTH in your eQSL.cc profile for each uploaded QSO, or you can specify that each QSO's myQTHID be used to as an eQSL.cc nickname to select a QTH in your eQSL.cc profile. If not needed, leave the QTH Nickname textbox empty.

Any uploaded QSO rejected by eQSL.cc as a duplicate is treated as if it had been uploaded successfully.

After this operation completes, DXKeeper will display an **eQSL.cc Upload Report** in a browser window; any QSLs rejected by eQSL.cc will be noted in this window. The current UTC date and time will appear under the **Upload to eQSL.cc** button to remind you when you last invoked this function; this information is stored in the current log. You can now disconnect from the Internet.

For each successfully uploaded QSL Queue entry, DXKeeper will perform the following for each enabled entry in the QSL Queue:

- set the associated logged QSO's eQSL sent to **Y**
- set the associated logged QSO's eQSL date sent to the current UTC date
- set the associated logged QSO's eQSL rcvd to **R**
- remove the entry from the QSL Queue

QSLs that were disabled or not successfully uploaded will remain in the QSL Queue after the **Upload to eQSL.cc** operation. If incorrect logged data **other than callsign or begin time** is at fault, double-clicking on the QSL Queue entry to display its associated QSO in the Main window, where you can correct the error and click the **Log** button. If an incorrect callsign or begin time was logged,

- clear the QSL Queue by clicking the QSL tab's **Clear** button
- correct the logged data
- repeat the **Add Requested** operations you originally used to load the **QSL Queue**
- reconnect to the Internet and repeat the **Upload to eQSL.cc** operation

To synchronize your log with eQSL.cc by downloading QSLs and matching them with logged QSOs,

- if desired, specify an eQSL.cc QTH Nickname to limit the downloaded QSLs to those made from a specific QTH in your eQSL.cc profile
- verify that the setting that establishes the maximum time variance for a match is correct
- connect to the Internet
- click the **Sync eQSL.cc** QSLs button on the Main window's QSL tab; DXKeeper will download the eQSL.cc Inbox for the specified username and update the current log to reflect confirmations.

The current UTC date and time will appear under the **Sync eQSL.cc** button to remind you when you last invoked this function; this information is stored in the current log. You can now disconnect from the Internet.

Under certain circumstances, you may wish to manually download an eQSL.cc Inbox and direct **Sync eQSL.cc** to process its contents; to do so, check the Prompt the user to specify a file containing the already-downloaded contents of an eQSL.cc Inbox box before invoking **Sync eQSL.cc**. To manually download an eQSL.cc Inbox, log in to eQSL.cc and then navigate to http://www.eqsl.cc/qslcard/DownloadInbox.cfm .

The **Sync eQSL.cc** function remembers the last QSL that it processes; this time is shown beneath its button. When activated, this function directs eQSL.cc to supply only newly-arrived QSLs, thereby minimizing the amount of information to be downloaded and inspected. You can, however, force all QSLs to be downloaded and inspected by depressing the CTRL key while clicking the **Sync eQSL.cc** button.

A logged QSO will be confirmed if it matches a downloaded QSL:

- the callsigns are identical
- the bands are identical
- the modes are identical
- the difference between start times must be less than the maximum time variance for a match setting

For each confirmed QSL, DXKeeper will set the logged QSO's eQSL rcvd to **Y** and its eQSL date rcvd to the current UTC date. Any errors encountered while inspecting the downloaded QSLs -- including QSLs that match no QSO in the current log -- will be displayed in an error report.

When the **Sync eQSL.cc QSLs** function completes, DXKeeper displays a report showing

- any errors encountered while inspecting the downloaded QSLs
- any confirmations of desired (per your specified WAZ award objectives) but previously unconfirmed CQ zones, CQ zone-modes, or CQ zone-bands

After all logged QSOs have been updated, the Log Page Display is filtered to show only QSOs confirmed via eQSL.cc, and sorted in order of eQSL date rcvd ; the QSOs most recently confirmed via eQSL.cc will thus appear at the bottom of the Log Page Display. The **Filter** and **Sort** panel's captions will indicate how the Log Page Display is being filtered and sorted respectively. Depressing the **CTRL** key while clicking the **Filter** panel's **X** button both resets the Log Page Display filter and sorts the Log Page Display in UTC order.

If a QSO has been confirmed via eQSL.cc, you can display an image of the QSL by clicking the **Display** button in the **eQSL.cc** sub-panel on the **Online QSL** panel on the **Main** window's **Log QSOs** tab. If the Retain eQSL images option is enabled, then DXKeeper will save downloaded images in its eQSL Images folder; when you click the Display button, DXKeeper will check for an already-downloaded image and display it if present, rather than download the image from eQSL.cc. Depressing the CTRL key while clicking the Display button directs DXKeeper to download a new image, replacing the already-downloaded image if one exists.

QSLing via LotW: uploading QSLs from the QSL Queue, verifying uploads, and synchronizing confirmed QSLs

Each QSO uploaded to LotW must include a Callsign, Band, Mode, Begin date and time, and Propagation mode. If the propagation mode is **SAT**, then Satellite Name and Satellite Mode are also required.
LotW accepts only QSOs with specified modes; before uploading QSOs with a data mode not yet accepted by LotW, configure TQSL to "map" this mode to DATA.

To upload QSOs in the QSL Queue to LotW,

- disable any QSL Queue entries that you don't want uploaded
- if you've defined more than one TQSL station location, verify that the TQSL station location shown immediately beneath the **Upload to LotW** button on the Main window's QSL tab is correct
- connect to the Internet
- click the **Upload to LotW** button on the Main window's QSL tab; DXKeeper will create an ADIF file containing the enabled QSL Queue entries, and invoke TQSL using the specified TQSL full pathname and TQSL station location
    - if the certificate associated with the specified TQSL station location is password-protected, the **Enter password** dialog box will appear; enter the password that unlocks the certificate's private key, and the click the OK button; to remove the password from a certificate so that TQSL does not prompt you for a password each time you upload, use the ARRL's TQSLCert application to save the certificate in a .p12 file with no password specified, and then reload the certificate from that .p12 file with no password specified.
    - the DXKeeper LotW Upload dialog box will report upload progress, culminating in a response from LotW; if the response is not "upload to LotW accepted", inspect the associated message to understand the problem, correct it, and invoke **Upload to LotW** again

The UTC date and time of your last LotW upload appears under the **Upload to LotW** button to remind you when you last invoked this function; this information is stored in the current log. The TQSL station location that will be used in uploading QSOs to LotW is displayed beneath the last date and time of upload; clicking this station location will display the QSL Setup window's LotW tab, where the TQSL station location setting can be modified.

After a successful upload to LotW, DXKeeper will perform the following for each enabled entry in the QSL Queue:

- set the associated logged QSO's LotW sent to **U**, reflecting the fact that the QSO has been uploaded, but its individual acceptance by LotW is unknown.
- set the associated logged QSO's LotW date sent to the current UTC date
- set the associated logged QSO's LotW rcvd to **R**
- remove the entry from the QSL Queue

QSLs that were disabled or not successfully uploaded will remain in the QSL Queue after the **Upload to LotW** operation.

LotW generally processes successfully uploaded QSLs quickly; after waiting a few minutes, verify that the uploaded QSLs were accepted by connecting to the Internet and clicking the **Sync LotW QSOs** button. This will direct LotW to download all *newly-accepted* QSOs, where *newly-accepted* is with respect to the last time you invoked **Sync LotW QSOs**.. Logged QSOs whose LotW sent is set to **U** will have that status update to **Y**, reflecting acceptance by LotW. The UTC date and time that the last uploaded QSO was verified will appear under the **Sync LotW QSOs** button to remind you when you last invoked this function; this information is stored in the current log.

QSOs not accepted by LotW will remain in the log with their LotW sent set to **U**; you can filter the Log Page Display to show such QSOs by clicking the LotW button in the Main window's Filter panel.

If you find such QSOs, check your LotW account to determine whether they've simply not yet been processed, or been processed and generated errors. After correcting any erroneous QSOs

- set each QSO's LotW sent to R
- repeat the **Add Requested** operations you originally used to load the QSL Queue
- connect to the Internet and repeat the **Upload to LotW** operation
- repeat the **Sync LotW QSOs** operation

If you depress the CTRL key while invoking the **Sync LotW QSOs** operation, DXKeeper will direct LotW to download *all* accepted QSOs, and the update logged QSOs to reflect their acceptance as described above. If you depress the ALT key while invoking the **Sync LotW QSOs** operation, DXKeeper will set the Select item of each accepted QSO to 'Y'. This can be used to identify any QSOs in your log that are not shown as accepted by LotW. The ALT and CTRL keys can be simultaneously depressed while invoking the **Sync LotW QSOs** to check for acceptance of all QSOs.

To synchronize your log with LotW by downloading QSLs and matching them with logged QSOs,

- connect to the Internet
- click the **Sync LotW QSLs** button on the Main window's QSL tab

The date and time when the last QSL was downloaded will appear under the **Sync LotW QSLs** button to remind you when you last invoked this function; this information is stored in the current log.

A logged QSO will be marked as "confirmed via LotW" if it matches a QSL downloaded from LotW:

- the callsigns are identical
- the bands are identical
- the modes are identical
- the start times fall within the same minute
- the station callsigns are identical (this requirement can optionally be eliminated, as discussed below)

Each logged QSO that matches a QSL downloaded from LotW will be updated to reflect its confirmation:

- the QSO's LotW rcvd item will be set to **Y**
- the QSO's LotW date rcvd item will be set to the current UTC date
- the QSO's LotW cfm item will be set to indicate additional WAS and VUCC confirmations
    - an **S** in the LotW cfm item means that the LotW QSL specifies a valid US state that matches the US state specified in the logged QSO
    - a **G** in the LotW cfm item means that the LotW QSL specifies a valid grid square that matches the grid item specified in the logged QSO
    - a **2** in the LotW cfm item means that the LotW QSL specifies a valid grid square that matches the grid2 item specified in the logged QSO
    - a **3** in the LotW cfm item means that the LotW QSL specifies a valid grid square that matches the grid3 item specified in the logged QSO
    - a **4** in the LotW cfm item means that the LotW QSL specifies a valid grid square that matches the grid4 item specified in the logged QSO

Right-clicking a QSO in the Log Page Display and selecting the **Update from LotW** menu item performs the Sync LotW QSLs operation on the selected QSO; this provides a quick way to update a QSO's LotW cfm item after your QSO partner has re-uploaded the QSO with additional or corrected US state or Maidenhead gridsquare information.

Any errors encountered while inspecting the downloaded QSLs will be displayed in a results report. QSLs that match no QSO in the current log are reported as errors if the Report unmatched QSLs as errors box is checked; this setting defaults to unchecked, and is maintained independently for each log.

All QSLs downloaded from LotW specify a DXCC entity; QSLs downloaded from LotW may include additional information provided by the QSLing station:

- Continent
- CQ zone
- ITU zone
- IOTA tag
- Grid
- Grid2
- Grid3
- Grid4
- State
- County

If the Subdivisions box is checked, any LotW confirmation with a station in the US, Hawaii, or Alaska that does not specify a valid US state will be reported.

If the VUCC box is checked, any LotW confirmation with a station on the 6m or 2m bands or with a propagation mode set to Satellite will be reported under any of these conditions:

- the LotW QSL does not specify a grid square, or specifies one or more invalid grid squares
- the LotW QSL specifies one or more grid squares that don't match any grid square specified in the logged QSO
- the LotW QSL does not specify one or more grid squares specified in the logged QSO

Each QSL is compared with its matching logged QSO. Information downloaded from LotW that is not present in the logged QSO will be automatically added unless it is inconsistent with the callsign; for example, a logged QSO missing a Iota tag will be updated with the Iota tag contained in its matching QSL, but a QSO with AA6YQ missing a CQ zone will not updated with a CQ zone of 6. The comparison process compensates for syntactic differences; eu1 and EU-001 are considered identical, for example. If the a logged 4-character gridsquare matches the first 4 characters of the matching QSL's 6-character gridsquare, then the logged QSO will be updated with the 6-character gridsquare. When information logged with QSO is inconsistent with the information contained in the QSO's matching QSL, however, the conflict is resolved as specified in the Handling of LotW detail inconsistencies setting, which provides three choices

- always replace the logged data with the LotW QSL data
- always preserve the logged data, ignoring the LotW QSL data
- display a dialog presenting the logged data and the LotW QSL data so that the user can choose (the default setting)

If either the LotW QSL or the logged QSO specifies more than one grid square, the Sync LotW QSLs will as described above report logged grids that are not specified in the QSL, and grids specified in the QSL that are not logged in the QSO, but will not modify the logged grids with LotW QSL data regardless of the Handling of LotW detail inconsistencies setting.

When the **Sync LotW QSLs** function completes, DXKeeper displays a report showing

- any errors encountered while inspecting the downloaded QSLs
- any confirmations of desired (per your specified DXCC award objectives) but previously unconfirmed entities, entity-modes, or entity-bands

After logged QSOs have been updated, the Log Page Display is filtered to show only QSOs confirmed via LotW , and sorted in order of LotW date rcvd; the QSOs most recently confirmed via LotW will thus appear at the bottom of the Log Page Display. The **Filter** and **Sort** panel's captions will indicate how the Log Page Display is being filtered and sorted respectively. Depressing the **CTRL** key while clicking the **Filter** panel's **X** button both resets the Log Page Display filter and sorts the Log Page Display in UTC order.

The **Sync LotW QSOs** and **Sync LotW QSLs** functions remember the last QSO and QSL respectively that they process; these times are shown beneath their buttons. When activated, these functions direct LotW to supply only newly-arrived QSOs or QSLs, thereby minimizing the amount of information to be downloaded and inspected. You can, however, force all QSOs or QSLs to be downloaded and inspected by depressing the CTRL key while clicking the buttons that activate these functions.

If DXKeeper is unable to download uploaded QSOs or QSLs, verify that the ARRL's LotW web site is operational; also verify that ARRL personnel have not changed your username and/or password.

If your PC is not connected to the Internet but you have access to an Internet connection from another PC, check the PC has no internet connection box. When you click the **Prep LotW upload** button, DXKeeper will invoke TQSL as described above to generate a signed (.tq8) file, and then display the name of this file so you can move it to an internet-connected PC and manually upload it to LotW. After this upload is accomplished, click the **Update Log** button; DXKeeper will then perform the following for each enabled entry in the QSL Queue:

- set the associated logged QSO's LotW sent to **U**, reflecting the fact that the QSO has been uploaded, but its individual acceptance by LotW is unknown.
- set the associated logged QSO's LotW date sent to the current UTC date
- set the associated logged QSO's LotW rcvd to **R**
- remove the entry from the QSL Queue

With the PC has no internet connection box checked, invoking the **Sync LotW QSO**, **Sync LotW QSL**, or **Update from LotW** functions will result in DXKeeper prompting you to manually query LotW from an internet-connected PC and then move the file containing the query results to a specified file on your PC. When you click the **OK** button, DXKeeper will process the query results as if they had been directly downloaded from LotW.

If all of your QSOs are logged with the same station callsigns from the same location in a single log file, then the above facilities are all that are required to successfully maintain synchronization between your log and LotW; If you have logged QSOs with multiple station callsigns, from multiple QTHs, and/or in multiple log files, then the following facilities can be used to accelerate processing.

By default, LotW will download all of your accounts QSOs or QSLs when you click **Sync LotW QSOs** and **Sync LotW QSLs** respectively. If your current log contains only QSOs made from a single station callsign, however, you can reduce both the download and inspection times by specifying that callsign in the Limit Add and Sync operations to this callsign setting. This setting is maintained independently for each log; loading a new log will automatically restore the setting value you established when that log was loaded. When the setting contains no callsign, all QSOs and QSLs in your LotW will be downloaded by **Sync LotW QSOs** and **Sync LotW QSLs** respectively. Here's an example:

	AA6YQ.mdb	**FJ-AA6YQ.mdb**	**KP2-AA6YQ.mdb**
Station callsigns contained in log's QSOs	KC6IGZ, N6YBG, AA6YQ	FJ/AA6YQ	KP2/AA6YQ
Limit Add and Sync operations to this station callsign		FJ/AA6YQ	KP2/AA6YQ
Report unmatched QSLs as errors	no	yes	yes

Enabling Report unmatched QSLs as errors is only practical when downloading is limited to a single station callsign -- either because the LotW account contains only QSOs and QSLs made with that station callsign, or because Limit QSO and QSL downloads to this callsign is set to a specific callsign, as in the FJ-AA6YQ.mdb and KP2-AA6YQ.mdb logs in the example above.

In circumstances where you are uncertain as to the station callsign used in one or more QSOs -- for example, AA6YQ vs. AA6YQ/1 -- one approach you can take is to

- upload them all with the operator callsign set to AA6YQ
- modify them all to have an station callsign of AA6YQ/1 and upload them again

Incoming QSLs will match one or the other, depending upon the station callsign logged by the QSLing station. By checking the Exclude station callsign when matching QSOs & QSLs to logged QSOs box, your QSOs will be properly confirmed when you run the **Sync LotW QSLs** function**.**

Note: **Upload to LotW** sends the following information for each QSL Queue entry:

- Callsign of the station worked
- UTC date at which the QSO began
- UTC time at which the QSO began
- QSO Frequency
- QSO Band
- QSO Mode (mapped to modes accepted by LOTW)
- RST sent
- RST received
- QSL message
- QSL route
- Satellite name
- Satellite mode
- Propagation mode
- QSO receive frequency
- QSO receive band

QSL substitution commands found in a QSO's QSL message item will be replaced before uploading to LotW. This allows you to personalize the QSL message with information about you, your QSO partner, your equipment, or the conditions.

QSLing via ADIF or tab-delimited files: Generating QSL cards via an external application or service by way of the QSL Queue

While DXKeeper can generate QSL cards, their design is utilitarian, optimized for soliciting a confirmation at the lowest cost. There are applications that allow you to design more attractive QSL cards and print them with QSL information extracted from a file of QSO data in ADIF format:

- BV
- QSLDesignAndPrint
- QSLMaker

There are also services like Global QSL that accept your uploaded QSO data in ADIF format, print QSL cards using a design you create, and distribute these cards via QSL bureaus. Setting the QSL kind to **ADIF file** allows you to generate QSL cards using such applications and services. You can also use mail merge techniques with applications like Microsoft Word to produce QSO cards; setting the QSL kind to **tab-delimited file** allows you to generate QSL cards using such applications.

Each **QSL Queue** entry's **Sent Via** item indicates whether the QSL should be sent via the QSL bureau or direct. To change a QSL's "routing", click in it's entry's **Sent Via** cell, and a down-facing black triangle will appear. Click the triangle, and a dropdown selector will appear that lets you choose the desired routing; the entry's left-most column will display a pencil icon, indicating that the entry has been modified but not saved.

You can control whether cards or labels destined for the QSL bureau and/or for direct mailing are to be included in the generated file by checking or unchecking the **Include QSLs to be sent via the QSL Bureau** and **Include QSLs to be sent via direct mail** boxes.

To generate a file containing ADIF data for each entry in the QSL Queue,

- disable any QSL Queue entries that you don't want to include in the generated file
- set the QSL Via panel to ADIF file and click the **Save ADIF file** button on the Main window's QSL tab; in the resulting **Save ADIF QSL records** dialog, specify a folder and filename, and then click the dialog's **Save** button.

DXKeeper stores the following ADIF information for each QSL Queue entry:

- Callsign of the station worked
- DXCC country code for the station worked
- UTC date at which the QSO began
- UTC time at which the QSO began
- QSO Frequency at specified precision
- QSO Band
- QSO Mode
- Operator Name
- RST sent
- RST rcvd
- QSL_rcvd
- QSL message
- QSL route
- Satellite name
- Satellite mode
- Propagation mode
- QSO receive frequency at specified precision
- QSO receive band

QSL substitution commands in a QSO's QSL message item will be replaced before being placed in the ADIF file. This allows you to personalize the QSL message with information about you, your QSO partner, your equipment, or the conditions.

To generate a file containing tab-delimited data for each entry in the QSL Queue,

- set the QSL Via panel to tab-delimited file
- disable any QSL Queue entries that you don't want to include in the generated file
- if you want the first record of the generated file to specify the caption for each field, check the **Include a header in the tab-delimited file** box in the **Process QSLs and Addresses** panel
- click the **Save TDF file** button on the Main window's QSL tab; in the resulting **Save Tab-delimited QSL records** dialog, specify a folder and filename, and then click the dialog's **Save** button.

DXKeeper stores the following tab-delimited information in the following order for each QSL Queue entry:

- Callsign of the station worked
- UTC date at which the QSO began, in the specified format
- UTC time at which the QSO began
- QSO Frequency at specified precision
- QSO Band
- QSO Mode
- RST sent
- RST received
- QSL route
- QSL message
- QSO receive frequency at specified precision
- QSO receive band
- Propagation mode
- Satellite name
- Satellite mode
- DXCC entity name (derived from the country code)
- Name
- Transmitter power
- QTH
- Contest identifier

- Station callsign
- QSL_SENT
- QSL_RCVD
- SRX
- STX
- Station's QTH street address
- Station's QTH city
- Station's QTH county
- Station's QTH state
- Station's QTH postal code
- Station's QTH country
- Station's QTH latitude
- Station's QTH longitude
- Station's QTH grid square
- Station's QTH Iota tag
- Station's QTH CQ zone
- Station's QTH ITU zone
- Station's name
- Station's rig
- Station's email address

QSL substitution commands found in a QSO's QSL message item will be replaced before being placed in the tab-delimited file. This allows you to personalize the QSL message with information about you, your QSO partner, your equipment, or the conditions.

If you are using a service like Global QSL, be aware that some QSOs may be rejected because there is no destination QSL bureau. Upload the generated ADIF file to the service, and note any QSOs not accepted. For each such QSO, uncheck its QSL Queue entry's QSL box before proceeding.

After the ADIF or tab-delimited file has been created and processed, click the **Update Log** button on the Main window's QSL tab. This will do following for each successfully-processed entry in the QSL Queue:

- set the logged QSO's QSL sent to **Y**
- set the logged QSO's QSL date sent to the current UTC date
- if the outgoing QSL included a request for confirmation, then the logged QSO's QSL rcvd will be set to **R** unless its already set to **Y** or **V**.
- remove the entry from the QSL Queue

Any unsuccessfully-processed entries - denoted by an unchecked QSL box - will remain in the QSL Queue. Remove these by clearing the QSL Queue; their logged QSOs will continue to indicate that no outgoing QSL has been generate, so you can use an alternative QSLing strategy (e.g. printing cards or labels for direct mail).

When you receive a QSL card, you can use the Call filter to quickly locate the logged QSO; if the QSO parameters match, click the QSO panel's **CFM** button; this will set the logged QSO's QSL card QSL rcvd to **Y** and, if Optimize for Realtime QSO Entry is checked, its QSL card QSL date rcvd to the current UTC date.

While reviewing your ARRL DXCC status report, you can also use the Call filter to quickly locate newly-verified QSOs, and then click the QSO panel's VFY button to set the QSL rcvd to **V**.

Confirming Reports from Shortwave Listeners (SWLs)
DXKeeper can generate QSL cards or labels that confirm reports from SWLs. To confirm such a report for a QSO, first, set the QSL Via panel to Cards, 2-column labels, or 3-column labels as desired. Then right-click on the QSO in the Log Page Display; in the popup menu, choose the **Add SWL entry to QSL Queue** option. DXKeeper will display a small window that prompts you for the SWL station's callsign; after you enter this callsign and click the window's **OK** button, an entry will be added to the QSL Queue. Such entries will generate QSL cards or labels when you invoke the Print QSL Cards or Print QSL Labels functions, as described above. Note that the QSL Queue can simultaneously contain entries that generate confirmations for QSO partners and entries that generate confirmations for SWLs.

QSL Substitution Commands
Any substitution command found in a QSL Information textbox will be replaced as described in the table below before printing that textbox's content on a generated QSL card. This allows you to incorporate information about your operating location, equipment, and conditions that can vary from QSO to QSO.

Any substitution command found in a QSL msg will be replaced as described in the table below before the message is

- printed on a QSL card
- printed on a QSL label
- uploaded to eQSL.cc
- uploaded to LotW
- placed in an ADIF file from the QSL queue
- placed in a tab-delimited file from the QSL queue

This allows you to personalize the QSL msg with information about you and your QSO partner.

Command	Replacement
<band>	the QSO's band
<buro>	if the QSO's QSL_VIA is set to 'B' (bureau), [x buro] where x is the destination entity's DXCC prefix
<callsign>	the callsign of the station specified in the QSO
<city>	the QTH's city
<contestid>	the contest identifier
<country>	the QTH's country
<county>	the QTH's county
<cq>	the QTH's CQ zone
<destination>	the QSL manager's callsign if one is specified, otherwise the callsign of the station specified in the QSO
<distance>	if the QSO's specifies a distance item, the replacement is the word "DX: " followed by the distance in miles or kilometers followed by either "mi" or "km"
<dx>	if the QSO's specifies a distance item, the replacement is the distance in miles or kilometers followed by either "mi" or "km"
<dxccentity>	the station's DXCC entity
<email>	your email address (associated with the QTH)

<grid>	if the QTH's grid square is specified, then the replacement is the word "grid:" followed by the specified grid square; otherwise, the replacement is empty
<iota>	if the QTH's Iota designator is specified, then the replacement is the specified Iota designator; otherwise, the replacement is empty
<itu>	the QTH's ITU zone
<latitude>	the QTH's latitude
<longitude>	the QTH's longitude
<meteor shower>	meteor shower name
<mode>	the QSO's mode
<mycall>	station callsign used during the QSO
<myqthid>	the myQTH identifier recorded with the QSO
<name>	the station's operator's name
<opcall>	callsign of the station operator
<opname>	your name (associated with the QTH)
<ownercall>	callsign of the station owner
<postalcode>	the QTH's postal code
<propmode>	if the QSO specifies a propagation mode, then the replacement is the word "prop: " followed by the propagation mode; otherwise, the replacement is empty
<qth>	the station's QTH (up to 30 characters)
<rig>	your station equipment (associated with the QTH)
<rstrcvd>	the signal report you gave your QSO partner
<rxband>	if the QSO specifies a satellite, then the replacement is the phrase "rx band: " followed by the receive band; otherwise, the replacement is empty
<rxfreq>	if the QSO specifies a satellite, then the replacement is the phrase "rx freq: " followed by the receive frequency; otherwise, the replacement is empty
<satmode>	if the QSO specifies a satellite, then the replacement is the phrase "sat mode: " followed by the satellite mode; otherwise, the replacement is empty
<satname>	if the QSO specifies a satellite, then the replacement is the word "sat: " followed by the satellite name; otherwise, the replacement is empty
<SFI_A_K>	if the QSO specifies a solar flux, then the replacement is the phrase "SFI: *sfi*, A: *a*, K: *k*" where *sfi*, *a*, and *k* are the solar flux, a-index, and k-index logged with the QSO
<srx>	the receive serial number or exchange logged with the QSO
<srx_info>	the QSO's receive exchange info
<state>	the QTH's state

<streetaddress>	the QTH's street address
<stx>	the transmit serial number or exchange logged with the QSO
<stx_info>	the QSO's transmit exchange info
<txpower>	your transmitter's power
<via>	if the QSO specifies a QSL manager, then the replacement is the word "via" followed by the QSL manager's callsign; otherwise, the replacement is empty

The substitution command <via> lets you include contents of the QSO's Via item on the QSL card. if the QSO's Via item is specified, then the replacement is the word "via:" followed by the contents of the Via item; otherwise, the replacement is empty. The <propmode> and <satname> fields work in a similar fashion. The <satmode>, <rxfreq>, and <rxband> commands only produce replacements if the QSO specifies a satellite name.

LotW Procedures

The ARRL's Logbook of the World (LotW) is a repository of QSOs submitted by users from around the world. When both participants in a QSO submit matching QSOs to LotW, the result is a QSL that can be used for ARRL award credit.

To ensure the authenticity of QSOs submitted by a user to LotW, the ARRL requires that the file containing these QSOs be encrypted with a unique key. Each user receives their key from the ARRL as part of the enrollment process, which requires the user to submit proof of identity. The ARRL embeds this key in a ***digital certificate***, and refers to the process of of encrypting a file containing QSOs as ***digitally signing*** that file.

A digital certificate is itself a file, but one whose contents are not directly readable by users; digital certificate files have the suffix .tq6. The ARRL provides an application called **tqslcert** that lets you request a digital certificate from the ARRL, and manage digital certificates sent to you by the ARRL.

If you have always operated with the same callsign, then one digital certificate is all you need. If you have operated with more than one callsign -- with your novice callsign, or portable from another region of your country, or from another DXCC entity -- you'll need to request a digital certificate for each such callsign. Start by requesting a digital certificate for your current (primary) callsign. Once the ARRL has verified your identity and issued your first digital certificate, you can submit that first digital certificate as proof of identity with your requests for additional digital certificates, eliminating the need for the ARRL to review documentation before granting those requests. When submitting QSOs to LotW, group them in batches made with the same callsign; the file containing each batch can thus be signed by the appropriate digital certificate.

If you have already created a backup (*.p12) file:
1) Start tQSL Cert
2) File -> Load Certificate File
3) Choose: PKCS#12 (*.p12) certificate file -> Next
4) Select the *.p12 from the standard "open file" dialog
5) Enter the old password when prompted -> Next
6) Leave the "New Password" and "enter again to confirm" boxes blank and click "OK"
7) click "finish"

Certificate will be restored with no password.

If you do not have a *.p12 file, it will be necessary to create one:
1) Start tQSL Cert
2) Select Certificate to back up
3) Certificate -> Save
4) Select location and name for the backup (*.p12) file (standard windows "file save as" dialog)
5) Leave the "New Password" and "enter again to confirm" boxes blank and click "OK" (not absolutely necessary)
This completes the creation of a backup (*.p12) file

The process for enrolling in LotW is described in https://p1k.arrl.org/lotw/getstart .

QSL Cards, QSL Labels, Envelopes, and Address Labels

QSL Cards
QSL cards are printed four to each sheet of paper; you can specify each card's width and height in inches or millimeters. A printer capable of handling card stock is recommended. Information to be printed on each card can be specified on the QSL Configuration window's QSL Cards tab. Each printed page can be thought of as having four quadrants, with quadrant 1 in the upper left, quadrant 2 in the upper right, quadrant 3 in the lower left, and quadrant 4 in the lower right. DXKeeper places QSL cards into quadrants in a specific order that, if maintained, avoids the need to sort the final deck by DXCC prefix after the cards are separated with a paper cutter. To achieve this order, start with the cards in quadrant 1, then append the cards in quadrant 2, then quadrant 3, and finally those in quadrant 4.

QSL cards contain the callsign of the station worked, and the following information for each QSO:

- UTC date at which the QSO began (using English month abbreviations, independent of your PC's locale)
- UTC time at which the QSO began
- QSO Frequency (If the QSO Frequency is missing, DXKeeper will use the QSO Band instead)
- QSO Mode
- RST sent
- solicitation for a return QSL if the QSO's QSL_Sent field is set to **R** (see QSL Workflow)
- thanks for the return QSL if the QSO has been confirmed via QSL card or, if the Set outgoing card/label QSL ? to "thanks" box is checked, if the QSO has been confirmed via LotW
- QSL message
- Operator callsign
- QSL route (if the Include QSL Mgr in Confirmation box is checked and if the Via item appears to contain a valid callsign -- a single word containing at least one number and one letter but no symbols other than /)

Settings on the QSL Configuration window's QSL Cards tab let you suppress printing of the Operator callsign (for QSL cards preprinted with this information) or print separation guides.

Additional information from the logged QSO - QSL note, QSL route, IOTA designator, CQ and ITU zones, etc. -- can be optionally printed on each QSL card via settings on the QSL Configuration window's QSL Cards tab using substitution commands.

QSL Labels
Both two-column and three-column labels can be printed with QSL information; label dimensions are specified on the QSL Configuration window's QSL Labels tab. On installation, DXKeeper is pre-configured to support 1" x 2.625" (Avery 8160 for inkjet printers, Avery 5960 for laser printers) 3-column labels, and 1" x 4" (Avery 8161 for inkjet printers, Avery 5961 for laser printers) 2-column labels:

Setting	2-column labels	3-column labels
labels per column	10	10
Row 1 offset	.5	.5
Row height	1	1
Column 1 offset	0	0
Column 2 offset	4.125	2.75
Column 3 offset		5.5
Label width	3.875	2.5

You can specify QSL label dimensions in either inches or millimeters. Note that setting a column offset to 0 reduces the number of label columns per page; this can be used to print single column labels on dedicated label printers, for example.

2-column QSL labels contain the callsign of the station worked, and the following information for each QSO:

- UTC date at which the QSO began (using English month abbreviations, independent of your PC's locale)
- UTC time at which the QSO began
- QSO Frequency (If the QSO Frequency is missing, DXKeeper will use the QSO Band instead)
- QSO Mode
- RST sent
- solicitation for a return QSL if the QSO's QSL_Sent field is set to **R** (see QSL Workflow)
- thanks for the return QSL if the QSO has been confirmed via QSL card or, if the Set outgoing card/label QSL ? to "thanks" box is checked, if the QSO has been confirmed via LotW
- QSL message
- Operator callsign
- QSL route (if the Include QSL Mgr in Confirmation box is checked and if the Via item appears to contain a valid callsign -- a single word containing at least one number and one letter but no symbols other than /)

3-column QSL labels contain the callsign of the station worked, and the following information for each QSO:

- UTC date at which the QSO began (using English month abbreviations, independent of your PC's locale)
- UTC time at which the QSO began
- QSO Frequency (If the QSO Frequency is missing, DXKeeper will use the QSO Band instead)
- QSO Mode
- RST sent
- Operator callsign
- if the Include QSL Mgr and Pse/Tnx QSL box is checked
    - solicitation for a return QSL if QSL_Sent field of any QSO on the label is set to **R** (see QSL Workflow)
    - thanks for the return QSL if all QSOs on the label have been confirmed via QSL card or, if the Set outgoing card/label QSL ? to "thanks" box is checked, via LotW
    - QSL route (if the Include QSL Mgr in Confirmation box is checked and if the Via item appears to contain a valid callsign -- a single word containing at least one number and one letter but no symbols other than /)

Envelopes

Envelopes can be directly printed with

- your return address, as specified on the QSL Configuration window's Envelopes tab
- the address of the station worked with the address information from the logged QSO
- an Airmail indication, as specified on the QSL Configuration window's Envelopes tab

Address Labels

Both two-column and three-column labels can be printed with the address information from the logged QSO; label dimensions are specified on the QSL Configuration window's Address Labels tab. On installation, DXKeeper is pre-configured to support 1" x 2.625" (Avery 8160 for inkjet printers, Avery 5960 for laser printers) 3-column labels, and 1" x 4" (Avery 8161 for inkjet printers, Avery 5961 for laser printers) 2-column labels. You can specify Address label dimensions in either inches or millimeters. Note that setting a column offset to 0 reduces the number of label columns per page; this can be used to print single column labels on dedicated label printers, for example.

Recording Award Information

The awards for which DXKeeper provides reporting and tracking have differing requirements as to what must be recorded with a QSO in order to properly determine credit. The following table and its notes show what must be recorded for each award. In this table, the word *any* indicates that a valid item must be recorded; for a QSO to be properly credited towards the CQ Field award, for example, its Grid item must specify a valid Maidenhead Grid Square.

Award	**Cont**	**DXCC entity**	**Region**(1)	**Primary**(2)	**Secondary**(3)	**Grid**	**CQ**	**IOTA**	**DOK**(4)
AJA		JA, JD-M, JD-O		prefecture	city, gun, ku				
Canadaward		VE		province					
CQ DX		any	CQ prefix (5)						
CQ Field						any			
CQ Marathon		any	CQ prefix (5)				any		
DDFM		F, TK		department					
DOKs		DL							any
DXCC		any							
Holyland		4Z	IARC area (6)						
IOTA								any	
JCC		JA, JD-M, JD-O		prefecture	city				
JCG		JA, JD-M, JD-O		prefecture	gun				
RDA		UA, UA0, UA2, R1F, R1M		subyekt (oblast)	distrikt				
SRR		UA, UA0, UA2, R1F, R1M		subyekt (oblast)					
USA-CA		K, KH6, KL7		state	county (9)				
VUCC						any			
WAJA		JA, JD-M, JD-O		prefecture					
WAB		G, GD, GI, GJ, GM, GU, GW	WAB square (7)						
WAC	any								
WAE		1A0, 3A, 4O, 9A, 9H, C3, CT, CU, DL, E7, EA, EA6, EI, ER, ES, EU, F, G, GD, GI, GJ, GM, GU, GW, HA, HB, HB0, HV, I, IS, JW, JX, LA, LX, LY, LZ, OE,	WAE prefix (8)						

		OH, OH0, OJ0, OK, OM, ON, OY, OZ, PA, R1F, R1M, S5, SM, SP, SV, SV/A, SV5, SV9, T7, TA, TF, FK, UA, UA2, UR, YL, YU, Z3, ZA, ZB							
WAHUC		HA		megye					
WAIP		I, ISO		province					
WAS		K, KH6, KL7		state					
WAZ							any		
WPX									

Notes

1. If the CQ, DARC WAE, Holyland option in the **Other** panel on the **Configuration** window's **Awards** tab is enabled, clicking the region item's **?** button will display an Award Selector window that lets you select a Region by code or by full name
2. Clicking the Primary item' s **?** button will display a Primary Selector window that lets you select a Primary Administrative Subdivision by code or by full name
3. Clicking the Secondary item's **?** button will display a Secondary Selector window that lets you select a Secondary Administrative Subdivision by code or by full name
4. If the DARC DOK option in the **Other** panel on the **Configuration** window's **Awards** tab is enabled, clicking the DOK item's DOK **?** button will display an Award Selector window that lets you select a DOK by code or by full name
5. CQ prefixes

CQ Country	DXCC entity	CQ Prefix
African Italy	Italy	IG9/IH9
Bear Island	Svalbard	JW/B
European Turkey	Turkey	TA1
ITU Vienna	Austria	4U1V
Kosovo	Serbia	YU8
Shetland Island	Scotland	GM/S *
Sicily	Italy	IT9

6. * If you are also pursuing the WAB award, record the WAB square in the Region of QSOs with Shetland Island; the CQ DX progress report and CQ Marathon progress and submission reports will properly credit such QSOs.
7. IARC areas: 3-character 10 by 10 km Israeli grid reference square designator combined with a 2-letter "administrative region" code, as described at http://www.qrz.co.il/4xradio.php?pid=123
8. WAB squares: 2-letter 100 x 100 km "large square" designator combined with a 2-digit 10 x 10 km "small square" designator, as described at http://wab.intermip.net/Definitions.php

9. WAE prefixes

WAE Country	DXCC entity	WAE Prefix
Bear Island	Svalbard	JW/B
European Turkey	Turkey	TA1
ITU Vienna	Austria	4U1V
Kosovo	Serbia	YU8
Shetland Island	Scotland	GM/S *
Sicily	Italy	IT9

* If you are also pursuing the WAB award, record the WAB square in the Region of QSOs with Shetland Island; the WAE progress report will properly credit such QSOs.

10. ADIF defines 28 Alaskan Counties; DXKeeper expect these to be logged with Alaskan QSOs. DXKeeper's USA-CA report automatically maps these counties to the correct Judicial District and reports your County progress accordingly

Checking Award Progress

In DXKeeper **reporting** award progress and **tracking** award progress involve two different mechanisms.

Reporting is accomplished by scanning each QSO in the Log Page Display to generate a classic Progress Report, which can be viewed and saved to a file for future reference. This approach is flexible because the Log Page Display can be filtered before generating the report, for example to contain QSOs made during a particular time interval, or from a particular location, or on a particular band, or in a particular mode. DXKeeper can generate progress reports for all supported awards. However, scanning the Log Page Display takes time proportional to the number of QSOs present. Even the few seconds required to scan a small log is too long when the goal is to determine whether an incoming DX spot is *needed*.

To provide a way of instantaneously indicating whether a QSO is *needed* for an award, DXKeeper provides **realtime award tracking** for the ARRL DXCC, Top List, CQ Worked All Zones(WAZ), and CQ DX Marathon families of awards. This service requires DXKeeper to take into account any modification to a already-logged QSO that might alter an award's progress. Updating award progress by scanning every QSO in the log -- referred to as **recomputation** -- is a lengthy process. To avoid recomputation whenever a an already-logged QSO is modified, DXKeeper employs a technique known as **automatic recomputation** in which only the relevant subset of all logged QSOs is scanned; this is usually fast enough to be invoked automatically rather than require explicit invocation by the user. None-the-less, DXKeeper can be directed to temporarily disable automatic recomputation when the user intends to make many progress-affecting changes to logged QSOs, after which award progress can be updated with a single recomputation. When a log is created, realtime award tracking for the ARRL DXCC and TopList awards is automatically provided. By default, realtime award tracking for CQ Worked All Zones(WAZ) and CQ DX Marathon awards are not provided in a newly-created log, but the user can direct DXKeeper to provide realtime tracking for WAZ and to provide realtime tracking for Marathon; the user can later direct DXKeeper to disable realtime award tracking for these awards if desired.

Realtime award tracking information can be viewed and queried in DXKeeper's Realtime Award Tracking window; its DXCC, Challenge Top tab displays this information for the ARRL DXCC and Top List awards, its WAZ tab displays this information for the CQ Worked All Zones(WAZ) awards, and its Marathon tab displays this information for the CQ DX Marathon award.

The awards for which DXKeeper provides progress reporting have differing requirements as to which items must be recorded with a QSO in order to properly determine credit. A table describing the requirements for each supported award is provided on Page 83.

The Main window's **Check Progress** tab provides the ability to

- generate award progress reports
- generate award submission reports
- report the ages of outstanding confirmation requests
- analyze confirmations by band, mode, and kind (hardcopy, LotW, eQSL.cc)
- initiate the execution of scripts that can filter the Log Page Display and generate award progress reports
- initiate recomputation

Generating Award Progress and Submission Reports

DXKeeper can generate a wide variety of award progress and submission reports. The format of all dates used in these reports is specified via the Date Format panel on the Config window's Reports tab. Generated reports are placed in files in DXKeeper's Reports sub-folder with filenames constructed from your callsign, the report name, and the report date, e.g.

- AA6YQ Marathon Progress 2008-12-01.txt
- AA6YQ Marathon Submission 2008-12-01.csv
- AA6YQ Worked All DOKs 2008-11-27.txt
- AA6YQ Worked All Prefixes Summary 2008-08-23.htm

Generated reports are saved as text files unless otherwise noted to produce files in HTML or CSV (comma-separated values) formats. After generating a progress report file, DXKeeper will display the report using the default *viewer application* for the file type assigned in Windows; typically, this assignment is

- **Notepad** for .txt files
- **Microsoft Internet Explorer** for .htm files
- **Microsoft Excel** for .csv files

You can alter these assignments using the **File Types** tab in the **Folder Options** window, which appears when you click the **Folder Options...** item in **Windows Explorer's Tools** menu.

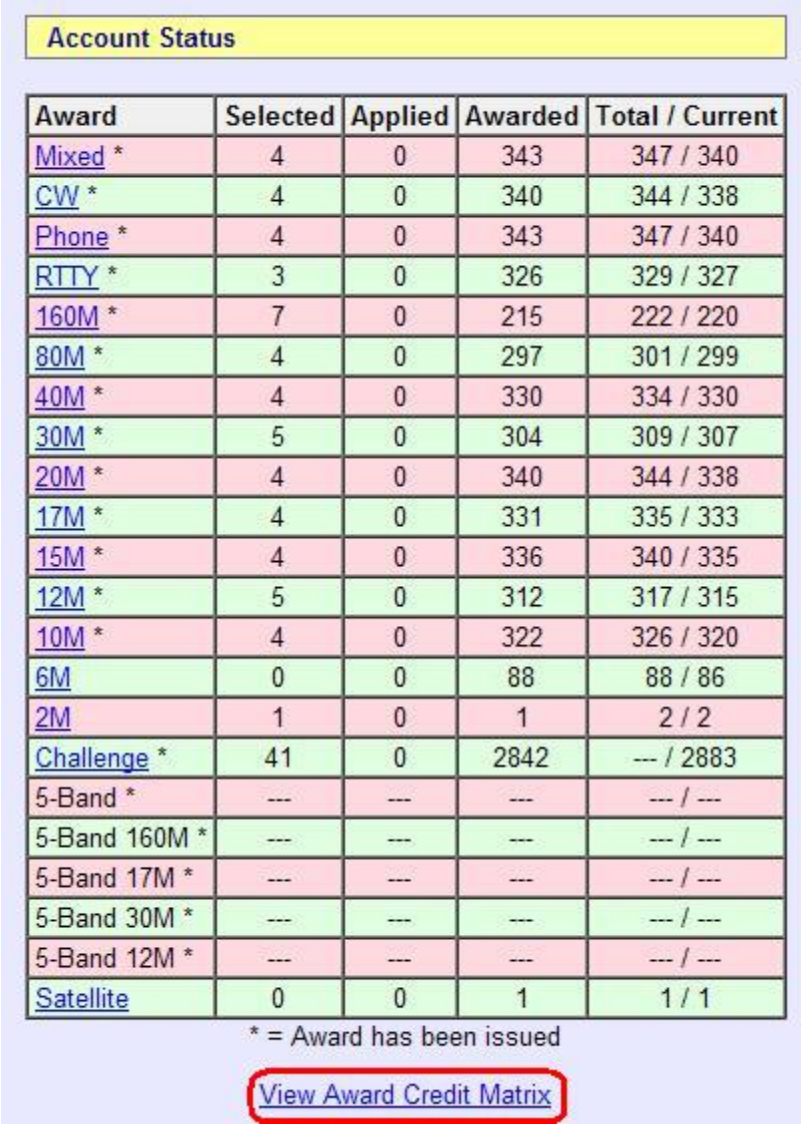
Most reports consider only QSOs in the Log Page Display, thereby enabling you to produce band-specific, mode-specific, or timeframe-specific reports by appropriately setting the Log Page Filter. If you have operated from more than one location, filter the Log Page Display to contain only QSOs made from locations valid for the award whose progress is being reported. The **Card Aging** reports consider all QSOs in the Log Page Display regardless of filter.

The **Main** window's **Check Progress** tab provides panels from which reports can be generated for families and groups of awards:

DXCC, DXCC Challenge, & TopList

- The **Progress** button generates a detailed DXCC progress report for current and deleted DXCC entities from QSOs in the Log Page Display.
    - This report considers both QSL card and LotW confirmations; if the Include eQSL.cc confirmations... box is checked, eQSL.cc confirmations are also considered.
    - By filtering the Log Page Display beforehand, you can narrow the generated report to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.
- The **Submission** button displays the DXKeeper DXCC Submission window, from which you can assemble a DXCC submission -- a set of confirmed but unverified QSOs to be submitted to the ARRL's DXCC desk -- and generate the required DXCC Record Sheet to accompany your award application.
- The **QSL Kind** button generates a text report showing DXCC confirmations by QSL card, eQSL.cc, LotW, and the combination of eQSL.cc and LotW; if the Include eQSL.cc confirmations... box is checked, this report shows the combination of eQSL.cc, LotW and eQSL.cc confirmations.
- The **Realtime** button displays the DXCC, Challenge Top tab in the Realtime Award Tracking window.
- The **Compare** button reports any discrepancies between your DXCC Account credits and the current log's DXCC Entity, Entity-Band, and Entity-Mode verification data by using your LotW username and password to download the ARRL's DXCC Award Credit Report for the specified DXCC account number; this report shows the entity, entity-band, and entity mode credits you've been granted for each DXCC entity.

  This function can only work if you have linked your LotW account to your DXCC account. To determine if this is the case,
    1. log into your LotW account
    2. click on the **Awards** tab
    3. Beneath the **Your LotW ARRL DXCC (DX Century Club) Account(s)** heading, click the **Select DXCC Award Account** button
    4. if a table like this appears beneath the **Account Status** heading with a "View Award Credit Matrix" hyperlink at the bottom, your LotW and DXCC accounts are linked.



Account Status

Award	Selected	Applied	Awarded	Total / Current
Mixed *	4	0	343	347 / 340
CW *	4	0	340	344 / 338
Phone *	4	0	343	347 / 340
RTTY *	3	0	326	329 / 327
160M *	7	0	215	222 / 220
80M *	4	0	297	301 / 299
40M *	4	0	330	334 / 330
30M *	5	0	304	309 / 307
20M *	4	0	340	344 / 338
17M *	4	0	331	335 / 333
15M *	4	0	336	340 / 335
12M *	5	0	312	317 / 315
10M *	4	0	322	326 / 320
6M	0	0	88	88 / 86
2M	1	0	1	2 / 2
Challenge *	41	0	2842	--- / 2883
5-Band *	---	---	---	--- / ---
5-Band 160M *	---	---	---	--- / ---
5-Band 17M *	---	---	---	--- / ---
5-Band 30M *	---	---	---	--- / ---
5-Band 12M *	---	---	---	--- / ---
Satellite	0	0	1	1 / 1

* = Award has been issued

View Award Credit Matrix

If your accounts are not linked, then click the **Link Account** button the **DXCC Account Menu** along the left side of the page. Specify the callsign under which your current LotW certificate was issued, along with any other callsigns used with this certificated. Then click the **Request Linking** button; ARRL staff will respond to this request by linking your DXCC and LotW accounts.

If you have only one DXCC account, your DXCC account number is most likely 1. If you have more than one DXCC account, or if invoking the Compare function produces a "*Downloaded DXCC Verification file specifies no linkage to DXCC record*" message, you can determine the correct DXCC Account Number by using this procedure.

CQ WAZ

- The **Progress** button generates an HTML report from QSOs in the Log Page Display showing progress towards the CQ Worked All Zones(WAZ) award on the bands and modes specified in the WAZ Bands & Modes panel based on each QSO's CQ Zone item.
    - If a QSO whose CQ Zone item is empty is encountered, a DXCC database query will be initiated to determine the QSO's CQ Zone; if the result is unambiguous, the QSO will be updated with the new CQ Zone item, which will be considered in the generated Progress report.
    - Only QSOs confirmed via QSL card or via eQSL with an Authenticity Guaranteed member are considered confirmed in the above report.
    - By filtering the Log Page Display beforehand, you can narrow the generated report to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.
- The **Realtime** button displays the WAZ tab in the Realtime Award Tracking window.

CQ WPX

- The **Progress** button generates a detailed progress report from QSOs in the Log Page Display showing confirmation status for WPX prefixes, prefix-bands, and prefix-modes for the CQ Worked All Prefixes (WPX) award, based on each QSO's WPX item and the WPX Bands & Modes panel settings.
- The **Submission** button generates a report from confirmed QSOs in the Log Page Display based on each QSO's WPX item and the WPX Bands & Modes panel settings
- The **Summary** button generates an HTML report from QSOs in the Log Page Display summarizing progress towards the CQ Worked All Prefixes (WPX) award, based on each QSO's WPX item.
- Only QSOs confirmed via QSL card or via eQSL with an Authenticity Guaranteed member are considered confirmed in the above reports.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

IOTA

- the **Progress** button generates a report from QSOs visible in the Log Page Display showing all Islands On The Air confirmed or worked based on each QSO's IOTA item
    - if a QSO whose IOTA item is empty is encountered, a DXCC database query will be initiated to determine the QSO's IOTA; if the result is unambiguous, the QSO will be updated with the new IOTA item, which will be listed in the first section of the generated report
    - if the IOTA Database is installed, then
        - QSO with an IOTA tag marked as deleted will be ignored
        - optionally, clicking the Progress button will also create IOTA_Worked and IOTA_Confirmed update files for IOTAMem4WIN in DXKeeper's Reports sub-folder or
    - A QSO confirmed via QSL card (QSL_Rcvd is set to **Y**, **S**, or **V)** is considered *confirmed* in this report unless its IOTAVerify item is set to **N**, in which case it is considered *worked*
    - A QSO whose IOTAVerify item is set to **S** is considered *confirmed* and *submitted* in this report , independent of QSL_Rcvd
    - A QSO whose IOTAVerify item is set to **V** is considered *confirmed* and verified in this report , independent of QSL_Rcvd
    - A QSO whose IOTAVerify item is set to **D**, **I** is ignored by this report
    - by filtering the Log Page Display beforehand, you can narrow the generated report to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

CQ DX Marathon

- The **Progress** button generates a CQ DX Marathon progress report for the current year based on each QSO's DXCC entity and any CQ Prefix specified in its Region item.
    - To generate this report for a specific year, depress the **CTRL** key while clicking the **Progress button**.
    - If the Include QSOs with no propagation mode box is unchecked, QSOs whose propagation mode is unspecified will not be included.
    - If a maximum transmit power is specified is specified, QSOs whose transmit power is unspecified or whose transmit power exceeds the specified maximum transmit power will not be included.
    - Note that CQ DX Marathon progress reports filtered by band, mode, and status can be generated from the Realtime Award Tracking window's Marathon tab.
- the **Submission** button generates a CQ DX Marathon submission file for the previous year based on each QSO's DXCC entity and Region items
    - To generate this report for a specific year, depress the **CTRL** key while clicking the **Submission** button.
    - If the Include QSOs with no propagation mode box is unchecked, QSOs whose propagation mode is unspecified will not be included.
    - If a maximum transmit power is specified, QSOs whose transmit power is unspecified or whose transmit power exceeds the specified maximum transmit power will not be included.
    - Note that a CQ DX Marathon submission filtered by band, mode, and status can be generated from the Realtime Award Tracking window's Marathon tab.
    - The submission file is generated in in CSV (comma-separated values) format in a way that allows its data to be cut and pasted into the **CQ DX Marathon Official Score Sheet**:

        1. If DXKeeper hasn't done it for you, use your spreadsheet application to open the generated Marathon submission file in DXKeeper's Reports sub-folder; the file is named using the convention described above.
        2. Using your spreadsheet application, open the **CQ DX Marathon Official Score Sheet**
        3. copy the region **C1:H345** from the generated Marathon submission file to the Windows clipboard (in Microsoft Excel, click in cell **C1**, depress the **Shift** key while clicking in cell **H345**, and strike **CTRL-C**)
        4. paste the contents of the Windows clipboard into the region **D17:I361** of the **CQ DX Marathon Official Score Sheet** (in Microsoft Excel, click in cell **D17**, and strike **CTRL-V**)
        5. copy the region **C347:H386** from the generated Marathon submission file to the Windows clipboard (in Microsoft Excel, click in cell **C347**, depress the **Shift** key while clicking in cell **H386**, and strike **CTRL-C**)
        6. paste the contents of the Windows clipboard into the region **D363:I402** of the **CQ DX Marathon Official Score Sheet** (in Microsoft Excel, click in cell **D363**, and strike **CTRL-V**)
        7. verify that the correct score appears in cells **I4** through **I6** of the **CQ DX Marathon Official Score Sheet**
        8. complete the Submission Information in cells **D4** through **D10**, **D12** though **D14**, and **G13** of the **CQ DX Marathon Official Score Sheet**
        9. Save the **CQ DX Marathon Official Score Sheet** (in Microsoft Excel, choose the **File** menu's **SaveAs** item)

CQ DX

- The **Progress** button generates a report from QSOs in the Log Page Display showing progress towards the CQ DX award based on each QSO's DXCC entity and any CQ Prefix specified in its Region item.
    - Only QSOs confirmed via QSL card or via eQSL with an Authenticity Guaranteed member are considered confirmed in the above report.
    - By filtering the Log Page Display beforehand, you can narrow the generated report to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

WAC reports

- The **Progress** button generates a report from QSOs in the Log Page Display showing progress towards the ARRL Worked All Continents award (WAC) based on each QSO's Continent item.
    - If a QSO whose Continent item is empty is encountered, a DXCC database query will be initiated to determine the QSO's Continent; if the result is unambiguous, the QSO will be updated with the new Continent item, which will be considered in the generated Progress report.
    - Only QSOs confirmed via QSL card or LotW are considered confirmed for this award.
        - If the Include eQSL.cc confirmations... box is checked, then eQSL.cc confirmations are also considered.
    - By filtering the Log Page Display beforehand, you can narrow the generated report to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

VUCC reports

- The **Progress** button generates a VUCC progress report for satellite QSOs in the Log Page Display and for Log Page Display QSOs in the bands from 6m to light based on each QSO's Grid, Grid2, Grid3, and Grid4, items.
- The **Submission** button generates a VUCC submission report for satellite QSOs in the Log Page Display and for Log Page Display QSOs in the bands from 6m to light; this report enumerates all confirmed QSOs for gridsquares not yet verified by the ARRL.
- A QSO confirmed via QSL card (QSL_Rcvd is set to **Y**, **S**, or **V)** is considered *confirmed* in this report
- A QSO confirmed via an LotW confirmation that specifies a Gridsquare that matches a logged Gridsquare is shown as *confirmed* in this report; A QSO confirmed via an LotW confirmation that does not specify the logged Gridsquare will be considered *worked*, and shown in the progress report's "LotW Cfm" column as **NG** , meaning "no grid".
    - If the Include eQSL.cc confirmations... box is checked, then eQSL.cc confirmations are also considered.
- A QSO whose VUCC Verify item is set to **S** is considered *confirmed* and *submitted* in this report, independent of its QSL_Rcvd item
- A QSO whose VUCC Verify item is set to **V** is considered *confirmed* and verified in this report, independent of its QSL_Rcvd item
- A QSO whose VUCC Verify item is set to **I** is ignored by this report, independent of its QSL_Rcvd item
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

Maidenhead reports

- The **CQ Fields** button generates a CQ Field progress report from QSOs in the Log Page Display showing all Maidenhead Fields confirmed or worked based on each QSO's Grid item.
    - Only QSOs confirmed via QSL card or via eQSL with an Authenticity Guaranteed member are considered confirmed in the above report; If the include LotW confirmations... setting is enabled, then LotW confirmations are also considered.
- The **Grids** button generates a report from QSOs in the Log Page Display showing all Maidenhead Grid Squares confirmed or worked based on each QSO's Grid item.
    - Only QSOs confirmed via QSL card are considered confirmed for this award..
        - If the Include LotW confirmations... setting is enabled, then LotW confirmations are also considered.
        - If the Include eQSL.cc confirmations... box is checked, then eQSL.cc confirmations are also considered.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

North American progress reports

- The **WAS** button generates a report from QSOs in the Log Page Display with US, Alaskan, and Hawaiian stations showing progress towards the ARRL Worked All States award based on each QSO's Primary Administrative Subdivision item.
    - QSOs confirmed via QSL card are considered *confirmed* by this report
    - A QSO confirmed via an LotW confirmation that specifies a state that matches the logged state is shown as *confirmed* in this report; A QSO confirmed via an LotW confirmation that does not specify a state that matches the logged state will be considered *worked*, and shown in the progress report's LotW column as **NS** , meaning "no state".
        - if the Include eQSL.cc confirmations... box is checked, eQSL.cc confirmations are also considered.
    - ADIF defines the District of Columbia (DC) as a Primary Administrative Subdivision of the United States; this report treats QSOs with stations in the District of Columbia as being in Maryland.
- The **USA-CA** button generates a report from QSOs in the Log Page Display with US, Alaskan, and Hawaiian stations showing progress towards the CQ United States Counties Award (USA-CA) award based on each QSO's Secondary Administrative Subdivision item.
    - An error report will be generated if QSOs are encountered whose Secondary Administrative Subdivision items are inconsistent with their Primary Administrative Subdivision item.
    - Only QSOs confirmed via QSL card or via eQSL with an Authenticity Guaranteed member are considered confirmed in this report.
    - ADIF defines 28 Alaskan Counties; DXKeeper expect these to be logged with Alaskan QSOs. This progress report automatically maps these counties to the correct Judicial District and reports your County progress accordingly.
    - USA-CA rules governing the independent cities of **Virginia**, **Nevada**, and the **District of Columbia** are specified here.
- The **Canada** button generates a report from QSOs in the Log Page Display with Canadian stations showing progress towards the RAC Canadaward based on each QSO's Primary Administrative Subdivision item.
    - Only QSOs confirmed via QSL card care considered confirmed in this report; if the Include eQSL.cc confirmations... box is checked, eQSL.cc confirmations are also considered.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

JARL progress reports

- The **WAJA** button generates a report from QSOs in the Log Page Display with Japan, Minami Torishima, and Ogasawara showing progress towards the Worked All Japan Prefectures (WAJA) award based on the Primary Administrative Subdivision item of each QSO.
- The **JCC** button generates a report from QSOs in the Log Page Display with Japan, Minami Torishima, and Ogasawara showing progress towards the Japan Century Cities (JCC) award based on the Primary Administrative Subdivision and Secondary Administrative Subdivision items of each QSO.
    - A QSO whose Secondary Administrative Subdivision specifies a Ku will be counted to towards the Ku's parent City for this award.
- The **JCG** button generates a report from QSOs in the Log Page Display with Japan, Minami Torishima, and Ogasawara showing progress towards the Japan Century Guns (JCG) award based on the Primary Administrative Subdivision and Secondary Administrative Subdivision items of each QSO.
- The **AJA** button generates a report from QSOs in the Log Page Display with Japan, Minami Torishima, and Ogasawara showing progress towards the All Japan (AJA) award based on the Primary Administrative Subdivision and Secondary Administrative Subdivision items of each QSO.
    - if a QSO's Secondary Administrative Subdivision specifies a City or Ku, it will be counted towards this award
- Only QSOs confirmed via QSL card are considered confirmed for these awards.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

Other progress reports

- The **DDFM** button generates a text report from QSOs in the Log Page Display showing progress towards the REF Diplôme des Départements Français de la Métropole awards based on each French and Corsican QSO's Primary Administrative Subdivision item.
- The **DOKs** button generates a report from QSOs in the Log Page Display showing progress towards DARC DOK awards based on each German QSO's DOK item.
- The **Holyland** button generates a progress report for the Israeli Amateur Radio Club's Holyland award based on each Israeli QSO's IARC area specified in its Region item; only QSOs made on or after January 1, 1992 and confirmed via QSL card are considered for this award.
- The **WAB** button generates a text report from QSOs in the Log Page Display showing progress towards the Worked All Britain awards based on each British, Scottish, Welsh, Northern Irish, Guernsey, Jersey, and Isle of Man QSO's WAB square specified in its Region item.
- The **WAE** button generates a report from QSOs in the Log Page Display showing progress towards the DARC Worked All Europe award based on each QSO's DXCC entity and any WAE Prefix specified in its Region item.
- The **WAHUC** button generates a progress report for the Hungarian Radio Amateur Society's Worked All Hungarian Counties award based on each Hungarian QSO's Primary Administrative Subdivision item.. Only QSOs made on or after March 1, 1968 and confirmed via QSL card are considered for this award.
- The **WAIP** button generates a progress report for the Italian Radioamateur Association's Worked All Italian Provinces award based on each Italian and Sardinian QSO's Primary Administrative Subdivision item. Only QSOs made on or after April 1, 1990 and confirmed via QSL card are considered for this award.
- The **WITU** button generates a progress report for the RSGB Worked ITU Zones award based on each QSO's ITU zone.
- Only QSOs confirmed via QSL card are considered confirmed for the above awards.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

SRR Russian Oblast reports

- The **Progress** button generates a report from QSOs in the Log Page Display showing progress towards the Russian Oblast Award based on the Primary Administrative Subdivision item of each QSO whose DXCC entity is European Russia, Asiatic Russia, Franz Josef Land, Kaliningrad, or Malyj Vysotski.
- The **Submission** button generates a report from QSOs in the Log Page Display showing confirmed Russian Oblasts based on the DXCC entity and Primary Administrative Subdivision item of each QSO whose DXCC entity is European Russia, Asiatic Russia, Franz Josef Land, Kaliningrad, or Malyj Vysotski.
- Only QSOs made on or after June 12, 1991 and confirmed via QSL card are considered for this award.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

RDA Russian District reports

- The **Progress** button generates a report from QSOs in the Log Page Display showing progress towards the Russian District Award based on the Secondary Administrative Subdivision item of each QSO from European Russia, Asiatic Russia, Franz Josef Land, Kaliningrad, and Malyj Vysotski.
- The **Submission** button generates a report from QSOs in the Log Page Display showing confirmed Russian Districts based on the Secondary Administrative Subdivision item of each QSO from European Russia, Asiatic Russia, Franz Josef Land, Kaliningrad, and Malyj Vysotski.
- Only QSOs made on or after June 12, 1991 and confirmed via QSL card are considered for this award.
- By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

Club Log

- Clicking the **Upload** button filters the Log Page Display to contain all QSOs whose Club Log status item is not set to **Y** and uploads these QSOs to Club Log; depressing the CTRL key while clicking the **Upload** button uploads all QSOs in the Log Page Display to Club Log independent of the state of each QSO's Club Log status. At the end of either operation, each uploaded QSO's Club Log status item is set to **Y**, and the Log Page Display contains the uploaded QSOs.

  Using the Main window's Log QSOs tab to modify any of the following items of a QSO whose Club Log status is set to **Y** will change the QSO's Club Log status to **M**:
  - call
  - DXCC prefix
  - QSO begin
  - freq
  - band
  - mode
  - propagation mode
  - QSL rcvd
  - LotW QSL rcvd

  Thus clicking the **Upload** button will select and upload all QSOs in the Log Page Display that have either never been uploaded to Club Log, or have been modified since last being uploaded to Club Log.

  If more than 5000 QSOs will be uploaded, DXKeeper automatically segments the action into groups of 5000 QSOs. Checking the Slow net box segments the action into groups of 250 QSOs, ensuring delivery when uploading via a slow internet connection.

- Clicking the **Home** button directs your web browser to display the Club Log home page.

Additional Reports and Functions

- The **Report** button on the **Main** window's **Log QSO**s tab generates a report containing every QSO visible in the Log Page Display.
  - The order of fields, and their captions and widths are specified by the Log Page Display panel; you may find it convenient to establish specific settings for your report that differ from those used in normal Log Page Display viewing, and save these settings in a Log Page Display layout file for quick recall.
  - By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.
- The **Card Aging** button generates a report of needed, outstanding QSL cards by DXCC prefix and age. If an Expiration age is specified, this function also offers to ***expire*** any QSO whose needed, outstanding QSL card has an age exceeding the specified Expiration age.
  - A needed QSL card is one whose receipt would advance your DXCC or WAZ award progress (the latter if realtime WAZ award tracking is enabled)
  - An outstanding QSL is one whose QSO's QSL_Sent field contains Y (meaning "sent") and whose QSL_Rcvd field contains **R** (for "requested").
  - An outstanding QSL card's age is the number of weeks between the day the QSL was sent and the current date.
  - A QSO is ***expired*** by setting its QSL_Rcvd field to **X.**
  - the Optional report item selector lets you select any log item to appear in the generated report; selecting QSL_SENT_VIA, for example, would show how each outstanding QSL was routed
- The **QSL Stats** button generates and a report showing outgoing count, incoming count, and return rate statistics for QSL cards, eQSL.cc, and LotW by mode and by band for each QSO in the Log Page Display.
  - By filtering the Log Page Display beforehand, you can narrow the above reports to a time interval, to a specific set of bands or modes, to a particular operator callsign, etc.

- The **Uniques** button generates a report showing all unique callsigns in the Log Page Display, sorted alphabetically -- included mobile stations, and stations whose callsigns are preceded by **!**. Depressing the **CTRL** key while clicking the Uniques button generates a unique callsign report sorted in descending order of mixed QSO count. In these reports,
    - the **RTTY statistics** count QSOs made in the RTTY mode only (e.g. QSOs in PSK and other modes that generate RTTY credit for DXCC are not included)
    - the **PSK statistics** count QSOs made in modes designated as PSK
    - the **Digi statistics** count QSOs made in digital modes that generates RTTY credit for DXCC, but are not RTTY and are not designated as PSK
- The **First QSOs** button sets the Select item of each QSO in your log to **Y** if it's the chronologically first QSO with its callsign, or to **N** if the QSO's callsign was already worked in an earlier QSO; the Log Page Display is then filtered to show only QSOs whose Select item is set to **Y**.
- The **Show reports** button directs Windows Explorer to display the files in DXKeeper's Reports folder.
- The **Run Script** button lets you select and execute a script file containing directives that filter the Log filter the Log Page Display and generate any of the reports described above. Here, for example, is the contents of a script file that will generates a set of 5-band Worked All US States reports:

```
filter Band='160m'
report us_states c:\program files\dxlab suite\dxkeeper\reports\us_states_160.txt

filter Band='80m'
report us_states c:\program files\dxlab suite\dxkeeper\reports\us_states_80.txt

filter Band='40m'
report us_states c:\program files\dxlab suite\dxkeeper\reports\us_states_40.txt

filter Band='20m'
report us_states c:\program files\dxlab suite\dxkeeper\reports\us_states_20.txt

filter Band='15m'
report us_states c:\program files\dxlab suite\dxkeeper\reports\us_states_15.txt

filter Band='10m'
report us_states c:\program files\dxlab suite\dxkeeper\reports\us_states_10.txt
```

- The **Recompute** button reconstructs all realtime award tracking information in the current log by examining each QSO in the current log.
    - If the Subdivisions box is checked, then this function will correct common misspellings of US Counties and Canadian Province abbreviations, and checks the validity of each QSO's Primary and Secondary Administrative Subdivisions; QSOs with invalid Subdivisions will not be flagged as broken, but will be revealed via the Broke filter
    - If the WPX box is checked, then this function computes a WPX prefix for those QSOs for which one is missing; if the CTRL button is depressed when the Recompute button is clicked, each QSO's WPX prefix will be computed from its callsign.
    - If a QSO's DXCC Prefix does not match its DXCC ID (country code), then the DXCC Prefix is updated, and an Action entry is placed in a report displayed when the function is complete
    - If a QSO is missing critical fields, has an end date and time that occurs before its beginning date and time, then the QSO is flagged as *broken*, and an Error entry is placed in a report displayed when the function is complete
    - If the Flag invalid callsigns box is checked and a QSO contains an invalid callsign, then the QSO is flagged as *broken*, and an Error entry is placed in a report displayed when the function is complete
    - QSOs flagged as *broken* can be viewed using the Broke filter. If the Recompute function encounters no QSOs that generate Action or Error entries, no report is generated.
- The **Advanced** button displays the **Advanced Sorts, Filters, and Modifiers** window, from which you can sort the Log Page Display, Filter the Log Page Display, and modify multiple QSOs simultaneously.

- The **Config** button displays the Configuration window's Awards tab.
- The **Help** button displays this online documentation

Generating and Processing a DXCC Submission
In the **DXCC, Challenge, TOP** panel, clicking the **Submission** button displays the **DXKeeper DXCC Submission window**, from which you can assemble a ***DXCC Submission*** -- a set of confirmed but unverified QSOs to be submitted to the ARRL's DXCC desk -- and generate the required DXCC Record Sheet to accompany your award application. A QSO is considered to be included in your DXCC Submission if either its QSL Rcvd or LotW Rcvd items are set to **S**. You can manually add a QSO to your DXCC Submission by setting either of these items to **S** using the Main window's **QSO panel** or **Online QSO** panel; you may find filtering the Log Page Display (especially with the **Advanced Logs Sorts, Filter, and Modifiers** window) and generating Log Reports helpful in choosing QSOs to be submitted. Alternatively, the Assemble Submission function described below automatically expands your DXCC Submission to include all confirmed QSOs whose verification would advance your DXCC progress on the bands and modes selected in the DXCC/TOP Bands & Modes panel, choosing between QSL cards and LotW credits as directed by settings in the DXCC Submission panel. Note that the View Submission, Create Planning Report, Create Card Record Sheet, Create LotW Record Sheet, Verify Submission, and Reset Submission functions can all be used whether you assembled your submission manually, or by invoking Assemble Submission.

- The **Assemble Submission** button finds all confirmed but unsubmitted and unverified QSOs visible in the Log Page Display whose DXCC entity is unverified, or whose band is selected in the DXCC/TOP Bands & Modes panel and whose entity-band is unverified, or whose mode is selected in the DXCC/TOP Bands & Modes panel and whose entity-mode is unverified; in each such QSO, a QSL Rcvd item that is currently **Y** will be changed to **S** if Submit QSL cards is selected, or a LotW Rcvd item that is currently **Y** will be changed to **S** if Submit LotW credits is selected; if a QSO's QSL Rcvd and LotW Rcvd are currently **Y** and if both Submit QSL cards and Submit LotW credits are selected, then the DXCC Submission Preference determines which of QSL Rcvd or LotW Rcvd is set to **S**.
- The **View Submission** button shows all QSOs visible in the Log Page Display that are included in the DXCC Submission; depressing the Ctrl key while invoking this function will show all QSOs included in the DXCC Submission whether or not they are visible in the Log Page Display.
- The **Create Planning Report** button generates a report showing all QSOs visible in the Log Page Display that are included in the DXCC Submission, sorted by DXCC entity prefix and showing what the QSO verifies: entity, band, and/or mode, and whether a QSL card or LotW credit is being submitted; if a QSL card credit is being submitted and the QSO specifies a QSL#, it's also included. This report also shows the total number of QSL cards and LotW credits in the DXCC Submission (more precisely, in the portion of the DXCC Submission visible in the Log Page Display).
- The **Create Card Record Sheet** -button generates a DXCC Record Sheet report showing all QSOs visible in the Log Page Display whose QSL Rcvd item is **S**, sorted by band, mode, and entity prefix. but with QSOs having identical QSL# items sorted at the end of the report; this is accomplished by setting temp to **Y** in QSOs with identical QSL# items, and by setting temp to **N** in QSOs that specify either no QSL# or that specify a unique QSL#. A Card Record Sheet is not required if you are sending cards directly to the ARRL's DXCC desk. It is required, however, if you are submitting cards to a Card Checker. Note that you must manually move QSOs confirmed by QSL cards containing multiple contacts to the end of the report.
- The **Create LotW Record Sheet** button generates an LotW Record Sheet report showing all QSOs visible in the Log Page Display whose LotW Rcvd item is **S**, sorted by entity, band, and mode to assist you in selecting credits on the LotW web site.
- The **Verify Submission** button updates your log to reflect verification of your DXCC Submission by the ARRL's DXCC desk: for all QSOs visible in the Log Page Display, if a QSO's QSL Rcvd or LotW Rcvd item is currently **S** it is changed to **V**.
- The **Reset Submission** button performs an "undo" operation on your DXCC Submission; for all QSOs visible in the Log Page Display,
    - if a QSO's QSL Rcvd item is currently **S,** it is changed to it's previous value, which could be **Y**, **E**, **B**, or **M**
    - if a QSO's LotW Rcvd item is currently **S,** it is changed to **Y**

Realtime Award Tracking for DXCC and TopList
Realtime award tracking information for the ARRL DXCC and TopList award families is displayed on the **Realtime Award Tracking** window's **DXCC, Challenge, Top** tab. This information consists of by-mode and by-band progress for each DXCC entity based on every QSO in the current log file. Confirmations via QSL card and LotW (in QSL_Rcvd and Lotw Rcvd respectively) are both considered in determining progress; if you check the Include eQSL.cc confirmations... box, confirmations via eQSL.cc will also be considered in determining progress.

The **Award Progress** panel displays a **Progress Grid** with one entry per DXCC entity; its **Progress Details** sub-panel displays a **Progress Details Grid** for the currently-selected Progress Grid entry. Cells in the Progress Grid contain codes showing the confirmation status of the entity, bands, and modes; cells in the Progress Details Grid contain codes showing the confirmation of band-mode combinations. The codes used in both grids are identical:

- **W** worked
- **Q** an entry is present in the QSL Queue
- **R** a QSL card has been sent requesting a confirmation
- **C** confirmed via QSL card or LotW (or via eQSL.cc if the Include eQSL.cc confirmations... box is checked)
- **V** verified by the ARRL

If either of a QSO's QSL_Rcvd or LotW Rcvd items are set to **I**, then the QSO is considered invalid for award tracking purposes. If both of a QSO's QSL_Rcvd and LotW Rcvd items are set to **X**, the QSO is considered to be unconfirmable and thus treated for award tracking purposes as if it did not occur. If the Include eQSL.cc confirmations... box is checked, then an **I** or **X** in the QSO's eQSL Rcvd field has an equivalent effect.

If the DXCC Bands & Modes panel indicates that a mode is sought, but there are no confirmed QSOs with the currently-selected Progress Grid entry in that mode, then the background of that mode's cells in the Progress Details Grid will be white rather than the window's background color. Similarly, if the DXCC Bands & Modes panel indicates that a band is sought, but there are no confirmed QSOs with the currently-selected Progress Grid entry on that band, then the background of that band's cells in the Progress Details Grid will be white rather than the window's background color.

If you change the Include eQSL.cc confirmations... setting, the Progress Grid, Progress Details Grid, and other reports will not reflect the change until you invoke the Recompute function.

Note that RTTY mode progress includes credit for PSK31 QSOs. RTTY mode progress also includes QSOs in any other digital modes designated as eligible for DXCC RTTY credit via DXKeeper's user-defined mode mechanism.

Both the Progress Grid and the Progress Details Grid are *live* -- you can navigate among them and your log by selecting entries or double-clicking cells:

- clicking an entry in the Progress Grid selects the associated DXCC entity and provides detailed award status in the Progress Details Grid
- striking a letter or number key in the Progress Grid selects the first entity whose DXCC Prefix begins with that letter or number and provides detailed award status for that entity in the Progress Details Grid; if no entity's DXCC Prefix begins with that letter or number, the table's first entry is selected.
- double-clicking a band or mode cell in the Progress Grid
    - selects the associated DXCC entity
    - provides detailed award status in the Progress Details Grid
    - filters the Log Page display to show all QSOs with the DXCC entity in the selected band or mode
    - shows the Log Page display
- double-clicking a column or row heading in the Progress Details Grid
    - filters the Log Page display to show all QSOs with the DXCC entity in the selected band **or** mode
    - shows the Log Page display

- double-clicking a cell in the Progress Details Grid
    - filters the Log Page display to show all QSOs with the DXCC entity in the selected band **and** mode
    - shows the Log Page display

The Award Progress panel's **Award Progress Filter** panel contains a set of controls that let you filter the Progress Grid to show what's unworked, what's worked but not requested, what's requested but not confirmed, what's confirmed but not verified, and/or what's verified -- on any band and mode, or on specific band-mode combinations. You can also choose whether or not to include DXCC entities that are no longer current. Only Progress Grid entries that match the criteria set in these controls are visible; the number of matching entries is shown in the Award Progress panel's caption.

- To generate a report showing all entities shown by the specified filter sorted in entity prefix order, click the Award Progress Filter panel's **Report** button
- To generate a report showing all entities shown by the specified filter sorted in entity name order, depress the **CTRL** key while clicking the Award Progress Filter panel's **Report** button; this format is useful when comparing against ARRL-generated reports sorted in entity name order
- To reset the filter so that all Progress Grid entries are visible, click the **All** button.

Note that filtering the Progress Grid has no impact on DXKeeper's ability to track awards progress; such progress will be accurately tracked whether all DXCC entities are visible in the Progress Grid or not.

The Progress Grid and Progress Details Grid are incrementally updated when

- a station is worked
- a QSL card is requested
- when a QSO is confirmed via QSL card or LotW (or via eQSL.cc if the Include eQSL.cc confirmations... box is checked)
- when a QSO is verified by the ARRL

When enabled, DXKeeper will automatically update the Progress Grid and Progress Details Grid when you

- indicate a regression in the QSO's progress, e.g. demoting its QSL_Rcvd or Lotw Rcvd status from confirmed to worked, or from worked to unworked (if the Include eQSL.cc confirmations... box is checked, demoting a QSO's eQSL Rcvd status will also trigger an automatic update)
- modify a QSO's band or mode
- modify a QSO's DXCC entity
- place an exclamation point at the beginning of a QSO's callsign (marking the QSO as not to be considered for award progress)
- delete a QSO

This update is accomplished by reviewing all QSOs with the DXCC entity of the deleted or modified QSO; this is generally much faster than clearing the Progress Grid and rebuilding it by scanning every QSO in the log, as performed by the Recompute function. DXKeeper displays a small dialog box with a progress bar whenever it is recomputing progress for a specific DXCC entity. If you plan to delete or modify several QSOs, however, it may be faster to disable automatic progress recomputation, make the changes, and then perform a Recompute to rebuild the log's Progress Grid.

The **Summary** button in the Award Progress panel computes and displays a summary of progress towards the ARRL DX Century Club award (DXCC), the ARRL DX Century Club Challenge award , and the Top List award; this summary considers both QSL card and LotW confirmations. The results appear in a separate **DXCC Summary window**, within which

- the **Update** button in the **Summary panel** recomputes the displayed DXCC and Top List progress, taking into account changes since the progress summary was last updated
    - you can view the results either with or without deleted countries by making the appropriate selection in the **Award Program - include deleted countries? panel**.
    - note that **HR** (Honor Roll) totals include only non-deleted countries no matter how the radio buttons in the **Award Program - include deleted countries? panel** are set.
- the **Progress** button in the **DXCC Challenge, TOP panel** generates a DXCC and Top List progress report showing verified Honor Roll countries and confirmed countries. The DXCC section of the includes deleted entities, whereas the Top List section does not. This report considers both QSL card and LotW confirmations.
- the **Summary** button in the **DXCC Challenge, TOP panel** generates a DXCC or Top List summary report showing worked, confirmed and verified countries; use the **Award Program panel** to choose whether or not deleted entities are included. The summary report considers both QSL card and LotW confirmations. This report is generated in HTML, and so can easily be uploaded to your personal web site. You can optionally insert additional HTML to appear above the report's table via the Optional HTML textbox on the Config window's Report tab; see http://webpages.charter.net/goldenhartz/dxkeeper.html for suggestions and sample HTML.

Realtime Award Tracking for CQ WAZ

Realtime award tracking information for the CQ Worked All Zones award family is displayed on the **Realtime Award Tracking** window's **WAZ** tab. This information consists of by-mode and by-band progress for each CQ zone based on every QSO in the current log file. Confirmations via QSL card and eQSL.cc (in QSL_Rcvd and eQSL Rcvd respectively) are both considered in determining progress, but eQSL.cc confirmations only count if they come from an Authenticity Guaranteed member.

The **WAZ Award Progress** panel displays a **WAZ Progress Grid** with one entry per CQ zone; its CQ Zone Progress Details sub-panel displays a **Progress Details Grid** for the currently-selected Progress Grid entry Cells in the Progress Grid contain codes showing the confirmation status of the CQ zone, bands, and modes; cells in the Progress Details Grid contain codes showing the confirmation of band-mode combinations. The codes used in both grids are identical:

- **W** worked
- **Q** an entry is present in the QSL Queue
- **R** a QSL card has been sent requesting a confirmation
- **C** confirmed via QSL card or Authenticity Guaranteed member of eQSL.cc
- **V** verified by the award sponsor

If a QSO's WAZVerified item is set to **I**, then the QSO is considered to be invalid for WAZ awards. If a QSO's QSL_Rcvd or eQSL_QSL_RCVD item is set to **X**, the QSO is considered to be unconfirmable and thus treated for WAZ award tracking purposes as if it did not occur.

Both the Progress Grid and Progress Details Grid are *live* -- you can navigate among them and your log by selecting entries or double-clicking cells:

- double-clicking a band or mode cell in the Progress Grid
    - selects the associated CQ zone
    - filters the Log Page display to show all QSOs with the CQ zone in the selected band **or** mode
    - shows the Log Page display
- double-clicking a cell in the Progress Details Grid
    - filters the Log Page display to show all QSOs with the CQ zone in the selected band **and** mode
    - shows the Log Page display

The WAZ Award Progress panel's **WAZ Award Progress Filter** panel contains a set of controls that let you filter the WAZ Progress Grid to show what's unworked, what's worked but not requested, what's requested but not confirmed, what's confirmed but not verified, and/or what's verified -- on any WAZ band, or in any WAZ mode. Only WAZ Progress Grid entries that match the criteria set in these controls are visible; the number of matching entries is shown in the WAZ Award Progress panel's caption. To generate a report showing all CQ zones shown by the specified filter, click the WAZ Award Progress Filter panel's **Report** button; to reset the filter so that all WAZ Progress Grid entries are visible, click the **All** button. Note that filtering the WAZ Progress Grid has no impact on DXKeeper's ability to track awards progress; such progress will be accurately tracked whether all CQ zones are visible in the WAZ Progress Grid or not.

Bands and modes being pursued for WAZ are specified in the WAZ Bands & Modes panel.

Realtime Award Tracking for CQ Marathon
Realtime award tracking information for the CQ DX Marathon award family is displayed on the **Realtime Award Tracking** window's **Marathon** tab. This information consists of by-mode and by-band progress - unworked or worked - for each CQ Country and CQ zone based on QSOs for the current year in the log file.

The **Marathon Award Progress** panel displays a **Marathon Progress Grid** with one entry CQ Country and one entry per CQ zone. In this grid, the letter **W** identifies a *worked* band or mode.

The Progress Grid is *live* -- you can navigate to your log by double-clicking a band or mode cell in the Progress Grid; this action filters the Log Page display to show all QSOs with the CQ selected CQ country or zone in the selected band **or** mode, and shows the Log Page Display.

The Marathon Award Progress panel's **Marathon Award Progress Filter** panel contains a set of controls that let you filter the Marathon Progress Grid to show what's unworked, what's worked -- on any band, or in any mode. Only Marathon Progress Grid entries that match the criteria set in these controls are visible; the number of matching entries is shown in the Marathon Award Progress panel's caption. To generate a report showing only Marathon countries and zones shown by the specified filter, click the Marathon Award Progress Filter panel's **Report** button; to reset the filter so that all Marathon Progress Grid entries are visible, click the **All** button. To generate a Marathon submission containing only Marathon countries and zones shown by the specified filter, click the **Submission** button. Note that filtering the Marathon Progress Grid has no impact on DXKeeper's ability to track awards progress; such progress will be accurately tracked whether all Marathon countries and zones are visible in the Marathon Progress Grid or not.

Single-band and single-mode certificates being pursued for Marathon are specified in the Marathon panel.

DXCC Database
DXKeeper includes a comprehensive DXCC database, which it uses to lookup DXCC prefixes and country codes, and to initialize log file progress grids -- when a log file is first created, or when you click the Recompute button. You can always obtain an up-to-date DXCC database by downloading www.dxlabsuite.com/dxview/DXCC.exe and extracting its contents (the file DXCC.mdb) into your DXKeeper Databases subfolder. The pathname and version of the DXCC database currently in use is displayed in the DXCC Database panel on the Configuration window's Databases tab.

You can maintain your own DXCC database using the application DXView, a freeware application that displays DXCC info and country maps, and plots spots, beam headings, solar position, and the solar terminator on a world map. If, when DXKeeper starts, it finds DXView installed on your PC, DXKeeper uses DXView's DXCC database, ignoring its own. Thus DXCC database updates you make with DXView are accessible to DXKeeper with no further action on your part.

Determining your DXCC Account Number

1. Using your web browser, navigate to https://p1k.arrl.org/lotwuser/awards?awg_id=&ac_acct=
2. Log in with your LotW username and password
3. Click the Awards tab
4. Under the **Your LotW ARRL DXCC (DX Century Club) Account(s)** heading on the left, use the "pulldown" selector to choose a DXCC account, and then click the **Select DXCC Award Account** button beneath the selector.
5. Your browser will display a table summarizing your DXCC **Account Status**.
    - If a hyperlink named **View Award Credit Matrix** appears beneath this table, then examine the URL your browser is displaying; it will look like

      https://p1k.arrl.org/lotwuser/awardaccount?awardaccountcmd=status&awg_id=DXCC&ac_acct=**n**

      Where the above URL shows **n**, the selected DXCC account's account number will appear. Specify this DXCC account number in the **Log Settings** panel on the **Config** window's **Log** tab.
    - If a hyperlink named **View Award Credit Matrix** does not appear beneath this table, then you must first link your LotW account to your DXCC record before you can proceed further:
        - Click the **Link Account** hyperlink in the **Notes** section to the left of the **Account Status** table
        - Your web browser will display a **Link Account** page, in which you must specify the **current callsign** and any **past callsigns** associated with your DXCC record
        - After specifying the appropriate current and past callsigns, click the **Request linking** hyperlink
        - Your link request will be submitted to the ARRL; when you receive notification that this request has been processed, repeat steps 1 through 5 above to determine the DXCC Account number to specify in the **Log Settings** panel on the **Config** window's **Log** tab.

If your PC is not directly connected to the internet, you can configure DXKeeper to prompt you to download the required web page from an internet-connected PC and copy the resulting file to a specified location on your PC.

Importing ADIF and Tab-delimited Files

The **Import QSOs** tabbed dialog enabled you to import QSOs from standard ADIF files:

- Click the **Start** button, and use the file selector to choose the file containing the QSOs to be imported. The **Progress** panel provides a display of real-time statistics, as well as errors encountered
- Click the **Abort** button to terminate the import operation before it completes.

You can also import QSOs from non-standard ADIF files, and from tab-delimited files.

To make it easy to view newly imported QSOs, DXKeeper provides the option to automatically set the Select item of each imported QSO set to **Y.** Before starting the import operation, however, you should set the Select item of all existing QSOs to **N** by clicking the **Import QSO** tab's **Set all Select to N** button. After the import operation is complete Invoke the **Sel** filter to see only the imported QSOs in the Log Page Display.

If SpotCollector is running when an import operation completes, DXKeeper will direct it to automatically update the entries in the Spot Database to reflect advances in award progress. If you are planning to import several files, it will be more efficient to unchecked the **Enable automatic updates box** in the **Recomputation** panel on the **Spot Database** tab of SpotCollector's Config window, perform the imports, click SpotCollector's **Recomp** button, and then check the **Enable automatic updates box**.

Import Options
Options available on this tab allow you to prevent the importing of duplicate QSOs, import from non-standard ADIF files produced by other applications, recover or insert missing information, save errors to a file, and/or display a report showing any advances in award progress attributable to the imported QSOs:

General Options

- if you want each imported QSO's QSL_Sent_Via item set to '**B**' (for "bureau") unless it specifies otherwise, check the **Default to 'send via bureau'** box.
- check the **Deduce missing items from entity, primary subdivision, and DXCC database** box to have DXKeeper fill in missing items like CONT, CQ, ITU, or ARRL Section when they can be unambiguously determined from the DXCC entity and Primary Administrative Subdivision and a DXCC database query of the imported callsign.
- check the **Query Callbook and DXCC database for missing items** box to have DXKeeper lookup each imported QSO's callsign in the selected Callbook and the DXCC database and fill in any items not present in the imported QSO with information from these sources; this option will be disabled if no Callbook is currently selected.
- check the **Update LotW membership** box to have DXKeeper determine whether a QSO's callsign is a known LotW participant by consulting the LotW database and if so set the LotW Member item to **Y**, subject to the Maximum age of most recent LotW upload setting
- check the **Update eQSL membership** box to have DXKeeper determine whether a QSO's callsign is a known eQSL AG participant by consulting the eQSL.cc database and if so set the eQSL Member item to **Y.**
- check the **Set Select in imported QSOs to Y** box to have each imported QSO's Select item set to **Y**, thereby making it easy to later filter the Log Page Display to contain only the imported QSOs by invoking the **Sel** filter; its generally appropriate to set the Select item of all existing QSOs to **N** before performing the import so that when the import is complete, only newly-imported QSOs will have their Select items set to **Y**.
- if you check the **Guarantee unique start times** box , DXKeeper assumes that the ADIF file being imported contains QSOs in ascending order of start time, and compares imported QSO's start time to that of its immediate predecessor; if a QSO's start time is the same or earlier than that of its predecessor's start time, the imported QSO's start time is set to that of its predecessor plus 5 seconds, time and the imported end time is set to 1 second after the start time -- thereby guaranteeing that each imported QSO has a unique start time. **This option should not be used when importing an ADIF file whose QSOs are not sorted in ascending order of start time.**

- if the file you are importing contains tags contains binary data, you must either check the **Ignore tags with binary data** box or select **Import From Logic**; otherwise, DXKeeper will be unable to properly import the file
- check the **Produce and Display Award Progress Report** box to
    - track all changes to award progress attributable to the imported QSOs, subject to the objectives specified in the DXCC/Top Bands & Modes panel
    - generate a report in a file whose pathname is created by appending _progress.txt to the pathname of the file being imported (over-writing any existing file with that pathname)
    - display the generated report. Award progress is subject to the objectives you've
- check the **Report import errors in error file** checkbox to record all import errors in a file whose pathname is created by appending _error.txt to the pathname of the file being imported, over-writing any existing file with that pathname whether or not new errors are actually reported; note that import errors are also displayed in the **Progress** panel, but to a maximum of 65,000 characters

Duplicate Checking

- if you are importing QSOs into an empty log, you can uncheck the **Check Duplicates on Import** checkbox to improve performance; if you are importing into a populated log and wish to prevent the importing of duplicates, check the **Check Duplicates on Import** box and specify the range (in minutes)
    - 0 means an imported QSO must exactly match a logged QSO's begin date/time to be considered a duplicate
    - a number larger than 0 specifies a range before and after the imported QSO's begin date/time; if a matching logged QSO's begin date/time falls in this range, the imported QSO will be considered a duplicate
- if the **Consider primary and secondary administrative subdivisions** box is checked, an imported QSO is only rejected if its primary and secondary administrative subdivisions also match
- if the **Consider gridsquares** box is checked, an imported QSO is only rejected if its gridsquare also matches

Substitution Options

If the file you are importing contains QSOs that may be missing Station Callsign, Operator Callsign, Owner Callsign, or QTH Identifier fields, use the options in this panel to populate missing items with the default values you've specified:

- check the **Substitute ... for missing station callsigns** box to populate missing Station Callsigns with the callsign specified in the Station callsign text box in the Default panel of DXKeeper's configuration window.
- check the **Substitute ... for missing operator callsigns** box to populate missing Operator Callsigns with the callsign specified in the Operator callsign text box in the Default panel of DXKeeper's configuration window.
- check the **Substitute ... for missing owner callsigns** box to populate missing Owner Callsigns with the callsign specified in the Owner callsign text box in the Default panel of DXKeeper's configuration window.
- check the **Substitute QTH ID**... box to place the specified default QTH identifier into the myQTH item of any imported QSO whose ADIF record lacks an APP_DXKEEPER_MY_QTHID tag; note that this option is only enabled if if your log contains one or more QTH definitions and you've specified a default QTH identifier
- check the **Substitute default Transmit Power for missing TX_PWR** box to set a QSO's transmit power to the value specified on the Configuration window's Defaults tab when importing a QSO that does not specify a TX_PWR tag; the specified value is determined from the Default Transmit Power by Band, Default Transmit Power by Mode, and Transmit power settings.

Note that

- If an imported QSO is missing a Station Callsign field but contains an Operator field, and both the **Substitute ... for missing station callsigns** and **Replace Station Callsign with** boxes are unchecked, then the contents of the Operator field will be imported as the Station Callsign
- If an imported QSO is missing an Owner Callsign field, and the **Substitute ... for missing owner callsigns** box is unchecked, then

- if the imported QSO contains a Station Callsign field, its contents will be imported as the Owner Callsign
- if the imported QSO does not contain a Station Callsign field but does contain an Operator field, the Operator field's contents will be imported as the Owner Callsign.

Replacement Options
if you are importing a contest log, the following options may be useful:

- if you check the **Station Callsign** box, the Station Callsign of every imported QSO will be replaced with the specified value.
- if you check the **Operator Callsign** box, the Operator Callsign of every imported QSO will be replaced with the specified value.
- if you check the **Owner Callsign** box, the Owner Callsign of every imported QSO will be replaced with the specified value.
- if you check the **Contest ID** box, the Contest ID of every imported QSO will be replaced with the specified value.
- If you check the **State, Province, & Section** box and set the selector to its right to an ADIF tag, the field of each imported QSO designated by that tag will be inspected word by word for a Grid Square or for
  - a US State abbreviation (if the QSO's DXCC entity is USA, Alaska, or Hawaii)
  - a Canadian Province abbreviation (if the QSO's DXCC entity is Canada)
  - an ARRL section abbreviation (if the QSO's DXCC entity is the USA, Alaska, Hawaii, US Virgin Islands, Puerto Rico, US Pacific possessions, or Canada)

  If unambiguous, a CQ zone and ITU zone will be derived from the State, Province, and Grid Square. Any Information found in or derived from the specified field will only be utilized if field specifications are absent from the imported QSO.

ADIF Style
While there exists a formal ADIF specification, some applications export ADIF files that are not fully compliant in ways that require foreknowledge on DXKeeper's part in order to successfully import information:

Option	Effect
Standard ADIF	• assumes an ADIF-compliant file, and imports application-specific ADIF tags
DX4WIN	• extracts name and QTH from **NOTES** tags, and LotW confirmation from **COMMENT** tags
DXBase5	• imports QSOs exported from DXBase version 5 using Btrieve and DXBconvt • extracts Name, Frequency, Gridsquare, CQ zone, and IOTA information from **COMMENT** tags
DXBase	• sets the DXCC entity for each imported QSO from information in the **DXBPFX** tag • acquires LotW QSL sent information from the **DXBQSL_SENT** tag • acquires LotW QSL received information from the **DXBQSL_RCVD** tag • acquires the LotW QSL received date from the **DXBLOTWR** tag • acquires DXCC verification information from the **DXBAWD** tag • if a **DXVAL** tag is present and specifies the value 0, marks the QSO as invalid for DXCC awards by setting the imported QSO's QSL_RCVD item to **I**

	• acquires primary and secondary subdivision information from the **SPEC1** tag in QSOs with stations in Japan, Ogasawara, or Minami Torishima; this tag is expected to contain **JCCnnnn** or **JCGnnnnn** respectively (City or Gun codes) • **Note:** if a QSO's **DXBAWD** tag indicates that its been approved for DXCC, and its confirmed via both QSL card and LotW, then DXKeeper sets its QSL_RCVD item to **V**
Ham Log	• Imports text files exported by Ham Log
Logger16	• all but the first word of each imported **NAME** tag is relocated to the **COMMENT** tag
LOGic	• ignore any tags containing binary data • acquires LotW QSL sent information from the **LotW_Sent** tag • acquires LotW QSL received information from the **LotW_Rcvd** tag • interprets **DXCCSUB:** in a **COMMENT** tag to mean that the QSO has been verified by the DXCC desk; if the QSO is confirmed via both QSL card and LotW, then DXKeeper sets its QSL_RCVD item to **V**
MMTTY	• extracts transmit and receive contest sequence numbers from the **RST_SENT** and **RST_RCVD** tags respectively
N3FJP	• converts a **MODE** of **PH** to **SSB**
SWISSLOG	• converts a value conveyed by the non-standard **QSL_ACTION** tag to the ADIF standard **QSL_SENT_VIA** tag, which is placed in the QSO's Sent Via item • places the contents of the non-standard **P_SUB_REGION** tag into the QSO's Region item • places the contents of the non-standard **L_QSL_CARDNR** tag into the QSO's QSLNumber item • places the contents of the non-standard **REGION** tag into the QSO's State item • converts non-standard **VE_PROV** values to ADIF standard Canadian province abbreviations • converts values conveyed by the non-standard **L_LOTW_STATUS**, **L_LOTW_SEND_DATE**, **L_LOTW_RECEIVED**, and **L_LOTW_RECEIVED_DATE** tags to values conveyed by ADIF standard LotW tags, and places these in the QSO's LotW status items • places the contents of the non-standard **MY_EVENT** tag into the QSO's ContestID item; the value **DX** is ignored

TurboLog v3, v4	• extracts US State and CQ Zone information from **IOTA** tags • extracts "via Buro" and "via Direct" information from **QSL_SENT** tags • replaces a leading * in the **CALL** tag with a ! • interprets **<TL4_QSL_ACCEPTED:1>Y** to mean "verified - DXCC Credit Granted", and sets the QSO's QSL_RCVD item to **V**
WinLog32	• imports information from **WL_REMARKS** tags into comment items, and ignores information associated with **COMMENT** tags (which contain country names)
Writelog	• correctly interprets Writelog's DXCC prefixes in **PREF** tags, ensuring that each imported QSO is assigned to the correct DXCC entity
tab-delimited file	• assumes an tab-delimited file whose first line is a header, and whose values are consistent with those specified in ADIF (a few exceptions are permitted, as described below)

If the file you are importing contains tags that specify binary data, you must either check the **Ignore tags containing binary data** box or select **Logic** in the **ADIF Style** panel; otherwise, DXKeeper will not properly import the file.

Application-specific ADIF tags
The ADIF specification enables applications to define their own tags. With the ADIF Style set to Standard ADIF, DXKeeper recognizes the application specific tags of certain other applications, as described below:

Tag	Effect
APP_LOGGER32_LAT	sets the QSO's Lat item
APP_LOGGER32_LNG	sets the QSO's Lon item
APP_LOGGER32_STATE	sets the QSO's State item
APP_LOGGER32_CNTY	sets the QSO's Cnty item
APP_LOGGER32_LOTW_SENT	if **Y** or **N**, sets the QSO's LotW_Sent item
APP_LOGGER32_LOTW_RCVD	if **Y** or **N**, sets the QSO's LotW_Rcvd item
APP_LOGGER32_EQSL_SENT	if **Y** or **N**, sets the QSO's eQSL_Sent item
APP_LOGGER32_EQSL_RCVD	if **Y** or **N**, sets the QSO's eQSL_Rcvd item
APP_LOGGER32_QSL	if **Y** sets the QSO's QSL_Sent item to **R**
APP_LOGGER32_eQSL	if **Y** sets the QSO's eQSL_Sent item to **R**
APP_LOGGER32_LoTW	if **Y** sets the QSO's LotW_Sent item to **R**

Importing tab-delimited files

To import a tab-delimited file by set the ADIF Style panel to *tab-delimited file* before initiating the import operation. Tab-delimited files are easily created by spreadsheet applications; each row in the spreadsheet produces a line in the file, and each column in the spreadsheet is represented by a tab-delimited field in each line. For DXKeeper to successfully import a tab-delimited file,

1. the first line must contain a caption for each field, where a caption is either a valid ADIF tag, or one of the following
    - QSO_BEGIN_DATE - treated the same as QSO_DATE
    - QSO_BEGIN_TIME - the first 4 digits represent the QSO start time
    - UDF-X - treated the same as APP_DXKEEPER_USER_DEFINED_X (where X is an integer between 0 and 7)
    - any other caption will ignored, as will the data associated with its field
2. the following fields must be present
    - CALL
    - QSO_DATE or QSO_BEGIN_DATE
    - TIME_ON or TIME_OFF or QSO_BEGIN_TIME
    - BAND or FREQ
    - MODE
3. subsequent lines must contain fields whose values comply with the ADIF specification, e.g. frequencies are represented in megahertz with the period character as a decimal separator; the following exceptions are supported
    - BAND - the trailing M character is optional; 20 and 20M are both acceptable
    - QSO_DATE and QSO_BEGIN_DATE - standard date formats like YYYY-MM-DD are accepted in addition to the ADIF standard YYYYMMDD (be careful when using MM/DD/YYYY and DD/MM/YYYY, as these are ambiguous)
    - TIME_ON and TIME_OFF - colon-delimited formats like HH:MM and HH:MM:SS are also accepted in addition to the ADIF standard HHMMSS
    - QSO_BEGIN_TIME - expects times to specified in the format HHMMZ, e.g.. 2345Z

For some users, creating a spreadsheet will be the fasted way to digitize paper logs. Before embarking down this path, set up the spreadsheet's header row, record a few test QSOs, generate a tab-delimited file, import that file into your DXKeeper log, and verify that all QSO data is being properly captured. Then large number of QSOs can be digitized with confidence.

Interactions with other configuration settings

- If the Initialize QSL Sent to 'R' for each imported QSO box is checked, then each imported QSO's QSL Sent item will be set to 'R' unless the imported value is 'Y'
- If the WPX box is checked, the Import operation computes a WPX prefix for imported QSOs for which one is missing.
- If the Initialize eQSL Sent to 'R' box is checked, imported QSOs will have their eQSL sent field set to **R**.
- If the Initialize LotW Sent to 'R' box is checked, imported QSOs will have their LotW sent field set to or **R**.

Other considerations

- If an imported QSO contains an ARRL Section and its DXCC Entity is specified, but is missing a US State or Canadian Province, the State or Province will be determined from the ARRL Section and DXCC Entity if the relationship is unambiguous. For example, an ARRL Section of EMA with a DXCC Entity of USA will automatically set the State to MA.
  If an imported QSO specifies a DXCC entity that formally defines a set of Primary Administrative Subdivisions and specifies a Primary Administrative Subdivision code or abbreviation in its STATE tag and if the Subdivisions box is checked on the **Config** window's **Awards** tab, then DXKeeper will
    - correct common misspellings in that primary ode or abbreviation
    - determine whether that code or abbreviation is valid. If valid, then the QSO's PrimaryInvalid item will be set to **N**, if invalid, then the QSO's PrimaryInvalid item will be set to **Y** and an error will be noted in the **Progress** panel.

- If an imported QSO specifies a DXCC entity that formally defines a set of Primary Administrative Subdivisions and formally defines a set of Secondary Administrative Subdivisions specifies a Primary Administrative Subdivision code or abbreviation in its STATE tag, and specifies a Secondary Administrative Subdivision code or abbreviation in its CNTY tag, and if the Subdivisions box is checked on the **Config** window's **Awards** tab, then DXKeeper will
    - correct common misspellings in those primary and secondary codes or abbreviations
    - determine whether the secondary code or abbreviation is valid for the specified DXCC entity and primary code or abbreviation. If valid, then the QSO's SecondaryInvalid item will be set to **N**, if invalid, then the QSO's SecondaryInvalid item will be set to **Y** and an error will be noted in the **Progress** panel.
- If an imported QSO specifies a DXCC entity that does not formally define a set of Primary Administrative Subdivisions, then its PrimaryInvalid item will be set to **N** no matter what is imported in the STATE tag; similarly, if an imported QSO specifies a DXCC entity that does not formally define a set of Secondary Administrative Subdivisions, then its SecondaryInvalid item will be set to '**N**' no matter what is imported in the CNTY tag. The Broke filter can be used to filter the Log Page Display to show QSOs whose PrimaryInvalid or SecondaryInvalid items are set to **Y**.
- If the Secondary Administrative Subdivision imported with a QSO is inconsistent with that QSO's DXCC Entity and/or Primary Administrative Subdivision, an import error will be reported and the QSO's SecondaryInvalid item will be set to **Y**. You can use the Broke filter to identify such QSOs after the import operation is complete.
- The following conversions are performed automatically during import:
    - Frequencies containing two decimal points, like those exported by DXBase, will be correctly interpreted
    - the mode PSK will be imported as PSK31
    - the mode BPSK will be imported as PSK31
    - the mode BPSK31 will be imported as PSK31
    - the mode BPSK63 will be imported as PSK63
    - the mode MFSK will be imported as MFSK16
    - the modes USB and LSB are imported as SSB.
- Information imported with a Prop_Mode tag that exceeds the field-width (8) will be appended to the Comment field.
- When an imported ADIF record contains an APP_DXKEEPER_MY_QTHID tag, the associated QTH identifier is placed in the imported QSO's myQTH item. If the log contains no QTH definition with this QTH identifier, then a new QTH definition is created, and assigned this QTH identifier. If the imported ADIF record contains any of the following ADIF 2.0 tags, their associated data is used to populated the newly-created QTH definition: MY_CITY, MY_CNTY, MY_COUNTRY, MY_CQZONE, MY_GRIDSQUARE, MY_IOTA, MY_ITUZONE, MY_LAT, MY_LON, MY_POSTAL_CODE, MY_STATE, and MY_STREET.

Exporting ADIF, Tab-delimited, and Cabrillo Files

The **Main** window's **Export QSOs** tab enables you to export QSOs to a file

- in standard ADIF format
- in the ancient ADIF 1.0 format
- in ADIF targeted to the ARRL's Logbook of the World (LotW)
- in ADIF targeted to eQSL.cc
- in ADIF that DXBase can import
- in tab-delimited format
- using the Cabrillo template specified for the currently selected contest.

If the current log is filtered, only QSOs visible in the Log Page Viewer are exported, making it easy to export a selected subset of QSOs in the current log file.

Check the **export QTH definitions** box to include the contents of a QTH definition in the ADIF record of each QSO containing a myQTH item. The QTH definition contents are exported with the following ADIF 2.0 tags:

- **MY_CITY**
- **MY_CNTY**
- **MY_COUNTRY**
- **MY_CQZONE**
- **MY_GRIDSQUARE**
- **MY_IOTA**
- **MY_ITUZONE**
- **MY_LAT**
- **MY_LON**
- **MY_POSTAL_CODE**
- **MY_STATE**
- **MY_STREET**

QSOs whose callsigns begin with an exclamation point are only exported if the **Export callsigns with leading !** box is checked; such callsigns will not be exported if either the **Export ADIF for LOTW**, **Export ADIF for eQSL.cc**, or **Export Cabrillo** radio buttons are checked, even if the **Export callsigns with leading !** box is checked.

To export QSOs, first make the appropriate selections in the Options panel:

- if you are exporting a file in standard ADIF, check the **Export standard ADIF** button
- if you are exporting a file in ADIF 1.0 format, check the **Export ADIF 1.0** button; in this format
    - only tags specified in ADIF 1.0 are exported: **ADDRESS, BAND, CALL, CNTY, COMMENT, CONT, CONTEST_ID, CQZ, DXCC, FREQ, GRIDSQUARE, IOTA, ITUZ, MODE, NAME, OPERATOR, PFX, QSL_RCVD, QSL_SENT, QSL_VIA, QSLMSG, QSLRDATE, QSLSDATE, QSO_DATE, QTH, RST_RCVD, RST_SENT, SAT_MODE, SAT_NAME, SRX, STATE, STX, TIME_OFF, TIME_ON, TX_PWR, VE_PROV**
        - the **STATE** tag is only used for US states, including Alaska and Hawaii
        - the **CNTY** tag is only used for US counties, including Alaska and Hawaii
        - the **VE_PROV** tag is used for Canadian provinces (this is deprecated in ADIF 2.X)
- if you are exporting a file to be uploaded to LotW, check the **Export ADIF for LOTW** radio button to export modes accepted by LotW and update each QSO's status as described below
- if you are exporting a file to be uploaded to eQSL.cc, check the **Export ADIF for eQSL.cc** radio button to export modes accepted by eQSL.cc and update each QSO's status as described below
- if you are exporting a file to be imported by DXBase, check the **Export ADIF For DXBase** radio button to use its two-decimal-point representation of frequencies
- if you are generating QSLs with another application using mail merge techniques, check the **Export tab-delimited file** radio button to export QSO information in tab-delimited format

- if you are exporting a Cabrillo file, check the **Export Cabrillo** radio button; note that the **Export Cabrillo** radio button will be disabled unless you've selected a Contest ID for which DXKeeper can generate Cabrillo
- to insert text into the header of the exported ADIF file, enter this text into the **Insert in ADIF Header** textbox
- to append text to the QSO notes item of each exported QSO, enter this text in the **Append to QSO Notes** textbox

Click the **Start** button, and use the file selector to choose the file to which QSOs will be exported. The **Progress** panel provides real-time statistics of the operation. Click the **Abort** button to terminate the export operation before it completes.

If you export a Cabrillo file, DXKeeper will display the file in Notepad after the operation is complete so that you can complete the necessary descriptor fields and delete any unnecessary descriptor fields.
The format of the date placed in exported ADIF file headers is governed by the Date Format sub-panel on the Config window's Awards tab.

Exporting to LotW
Each QSO submitted to LotW must include a Callsign, Band, Mode, Begin date and time, and Propagation mode. If the propagation mode is **SAT**, then Satellite Name and Satellite Mode are also required.
Exporting ADIF to LotW translates modes unsupported by LotW as shown in the following table:

QSO Mode in log	Exported QSO Mode
ASCI	DATA

Each exported QSO will be updated to reflect the correct status:
- the QSO's LotW Sent will be set to **U**, reflecting the fact that these QSOs have been uploaded, but their acceptance by LotW is unknown.
- the QSO's LotW Date Sent will be set to the current UTC date
- the QSO's LotW Rcvd will be set to **R**

Invoke TQSL and direct it to encrypt and sign the file you just exported; the resulting file will have a file extension of .tq8. You can submit this .tq8 file to LotW by emailing it to lotw-logs@arrl.org, or by logging on to your LotW web page and uploading the file from there. You can then proceed with the LotW QSL workflow by click the Sync LotW QSOs button.

Exporting to eQSL.cc
If Use each QSO's myQTHID as its QTH Nickname when uploading or exporting is enabled, each QSO will be exported with an eQSL.cc Nickname whose value is taken from the QSO's myQTHID. If Use each QSO's myQTHID as its QTH Nickname when uploading or exporting is not enabled and a QTH Nickname is specified, DXKeeper will ask if it should be included with each exported QSO.
- click **Yes** to export the specified QTH Nickname with each QSO
- click **No** to export each QSO without a QTH Nickname
- click **Cancel** to terminate the export operation

Each exported QSO will be updated to reflect its status:
- the QSO's eQSL Sent will be set to **U**
- the QSO's eQSL Date Sent will be set to the current UTC date
- the QSO's eQSL Rcvd will be set to **R**

After logging into eQSL.cc, upload the file you just exported. Since eQSL.cc does not presently provide a means of verifying that a QSO has been successfully uploaded, you must inspect the upload report and manually clear the eQSL Sent, eQSL Date Sent, and eQSL Rcvd fields for each QSO that was rejected. Then click the **Update eQSL Sent** button to change eQSL Sent from **U** to **Y** for all QSOs in your log; note that the **Update eQSL Sent** button is only enabled when the **Options** panel is set to **Export ADIF for eQSL.cc**.

Exporting a tab-delimited file
If the on the **Export header in tab-delimited files** box is checked on the **Main** window's **Export QSOs** tab, the first record in the generated file will specify a caption for each of the above items. This is required if you plan to later import the file.

For each exported QSO, the following information will be stored in the following order:

- Callsign of the station worked
- UTC date at which the QSO began, in the specified format
- UTC time at which the QSO began
- QSO Frequency
- QSO Band
- QSO Mode
- RST sent
- RST received
- QSL route
- QSL message
- Comment
- QSO receive frequency
- QSO receive band
- Propagation mode
- Satellite name
- Satellite mode
- DXCC entity name (derived from the country code)
- Name
- Transmitter power
- QTH
- Contest identifier
- Station callsign
- QSL_SENT
- QSL_RCVD
- SRX
- STX
- Operator's QTH street address
- Operator's QTH city
- Operator's QTH county
- Operator's QTH state
- Operator's QTH postal code
- Operator's QTH country
- Operator's QTH latitude
- Operator's QTH longitude
- Operator's QTH grid square
- Operator's QTH Iota tag
- Operator's QTH CQ zone
- Operator's QTH ITU zone
- Operator's name
- Operator's rig
- Operator's email address
- Country code
- Primary Administrative Entity
- Secondary Administrative Entity
- Operator callsign
- Owner callsign
- User-defined item 0

- User-defined item 1
- User-defined item 2
- User-defined item 3
- User-defined item 4
- User-defined item 5
- User-defined item 6
- User-defined item 7

Managing Multiple QTHs

If you operate from more than one QTH and

- want to print QSL cards or labels that correctly describe the location from which you were operating at the time
- want to generate progress reports for awards that consider only QSOs made from some of the locations from which you operated

then you'll need to describe each of your QTHs and assign each a unique identifier. When you log a QSO, specifying the correct unique QTH identifier enables DXKeeper's QSL information substitution commands to take on the correct value when you print a QSL card.

QTH descriptions are captured and maintained using the **my QTHs** tab of DXKeeper's main window. To describe a QTH, click the New button, and enter appropriate text in the Name, Street, City, County, State, PostCode, Country, Email, Rig, CQ, ITU, IOTA, Grid, Latitude, and Longitude text boxes. You need only enter information that you plan to print on QSL cards (using the substitution commands), but to avoid extra work if you later change your mind, its best to capture all of the information. Note that entering a Grid will automatically compute the Latitude and Longitude; entering a Latitude and Longitude will automatically compute the Grid.

The textbox labeled **ID** is special -- you must enter a set of characters that uniquely identify this QTH; the single apostrophe ' cannot be used. When you log a QSO, the myQTH item is used to capture the unique identifier of the QTH from which you are making the QSO. If you never operate from two cities with the same name (like San Jose, California and San Jose, Costa Rica), then you can use the city name as a unique identifier. You could also use the name of the street from which you operate, or the name of the village, or just assign each QTH a unique letter (A for Addis Ababa, B for Bata Sani, C for Calcutta, etc). After filling in all of the textboxes, click the **Save** button.

As you define QTHs, they appear in a grid display in the lower part of the **my QTHs** tab. You can define up to 4096 QTHs; each must have a unique identifier. To modify a QTH definition, select its entry in grid display, make whatever changes are required, and click the **Save** button.

To delete a QTH definition, select its entry in the grid display and click the **Delete** button. Note that you cannot delete a QTH definition if one or more QSOs still contain its QTH identifier; should you attempt to do so, DXKeeper will inform you of its refusal, and will filter the Log Page Display to show all QSOs still containing a QTH identifier for the QTH definition you are attempting to delete. If desired, you can use the Modify QSOs function to change these QTH definitions in a single operation. Successfully deleting a QTH definition leaves the Log Page Display showing all QSOs in the log.

If you have many QTH definitions and wish to quickly select a particular QTH definition, open the **Find myQTH ID** selector, scroll down to the desired QTH definition, and click it; the selected QTH definition will appear.
If you've got a log full of QSOs made from different QTHs and wish to properly associate each with the correct QTH ID, you need not step through each QSO individually to set its myQTH item -- you can use DXKeeper's filtering capabilities to select a group of QSOs made from the same QTH. First, select a QTH by clicking on its grid display entry in the **my QTHs** tab. Then switch to the **Log QSOs** tab and use the filtering capabilities to select a set of QSOs made from that QTH -- for example, all QSOs between 25-DEC-00 and 1-JAN-01. Then switch back to the **my QTHs** tab and click the **Set myQTH ID** button in the **Update QSOs in Log Page Display** panel -- this will set the myQTH item of each selected QSO to that of the current QTH.

When you log a QSO via the Main or Capture windows, you can record the myQTH from which you are operating. If you are making many QSOs from the same QTH, you can define a default myQTH that will be used to initialize each new QSO.

If you've defined one or more QTHs, invoking the Broke filter on the **Log QSOs** tab will reveal any QSOs for which the myQTH item has not been set.

When you print QSL cards or labels, DXKeeper will confirm multiple QSOs with the same station on a single card or label if the my QTH fields for City, County, State, Country, and PostCode all match; upper/lower case and white space are ignored in this comparison. You can, however, force each QSO to be confirmed on a separate card or label by unchecking the Confirm multiple QSOs per QSL box.

When a QSO containing a myQTH item is exported in ADIF, the QTH identifier is exported with the tag APP_DXKEEPER_MY_QTHID. If the Export tab's Export QTH definitions box is checked, DXKeeper will also export the contents of the QTH definition selected by the QTH identifier using the ADIF 2.0 tags MY_CITY, MY_CNTY, MY_COUNTRY, MY_CQ_ZONE, MY_GRIDSQUARE, MY_IOTA, MY_ITU_ZONE, MY_LAT, MY_LON, MY_POSTAL_CODE, MY_STATE, MY_STREET, MY_NAME, MY_RIG, and MY_EMAIL.

When an imported ADIF record contains an APP_DXKEEPER_MY_QTHID tag, the associated QTH identifier is placed in the imported QSO's myQTH item; single apostrophes contained in the identifier are removed, and noted in the import log. If the log contains no QTH definition with this QTH identifier, then a new QTH definition is created, and assigned this QTH identifier. If the imported ADIF record contains any of the following ADIF 2.0, their associated data is used to populated the newly-created QTH definition: MY_CITY, MY_CNTY, MY_COUNTRY, MY_CQZONE, MY_GRIDSQUARE, MY_IOTA, MY_ITUZONE, MY_LAT, MY_LON, MY_POSTAL_CODE, MY_STATE, MY_STREET, MY_NAME, MY_RIG, and MY_EMAIL.

Taken together, the above export and import capabilities mean that if a log containing multiple QTH definitions and QSOs that reference them (via QTH identifiers) is exported in ADIF with the Export QTH definitions box checked, the resulting ADIF file can later be imported into an empty log with the result that all QTH definitions from the original log will be re-created, and the imported QSOs will appropriately reference these QTH definitions.

Contesting

DXKeeper supports Contesting by

- providing a contest-mode that when enabled when enabled accelerates the logging of contest QSOs; contest-mode can be enabled by checking the Contest-mode box on the Configuration window's Contest tab, or by checking the Capture window's contest-mode box.
- providing the ability to generate a Cabrillo log containing contest QSOs

Generating a Cabrillo log requires that

- all necessary Cabrillo parameters -- NAME, CATEGORY-ASSISTED, CATEGORY-STATION, etc -- have been specified
- contest information is logged as described in the table below.

Making a few test QSOs before the contest and verifying that a proper Cabrillo log can be generated is strongly recommended.

Support for contesting is enabled when you check the Contest-mode box on the Configuration window's Contest tab, or when you check the contest-mode box on the Capture window. Enabling contest-mode also enables Run-mode. With contest-mode enabled, DXKeeper displays the word Contest followed by the Contest ID in the Main window's title bar; if no Contest ID is specified, DXKeeper displays Contest: ?

In the Capture window,

- striking the enter key in the Call textbox will
    - set the RST sent and RST rcvd items to 59 (if the mode is SSB or FM) or 599 (if the mode is CW, RTTY, or PSK)
    - set the contest and tx# fields to the Contest ID and TX serial# settings respectively
    - place the mouse cursor in the RX# field (to place the mouse cursor in the RX# when activating a DX spot in SpotCollector, DXView or Commander, check the Place focus in RX# ... box.
- striking Ctlr-L in any Capture window field or clicking the Log button will
    - record the QSO
    - automatically increments the TX serial# setting if the Increment TX serial# box is checked and the TX serial# contains a numeric value

With Contest-mode enabled and a Contest ID specified,

- the Contest ID is logged in each QSO.
- filtering the Log Page Display for previous QSOs with a specified station shows only QSOs in the current year whose recorded Contest ID matches the Contest ID setting; a Log Page Display entry matching the Capture window's Callsign, Band, Mode and Contest ID will be rendered in red font. DXKeeper will thus perform accurate contest-specific duplicate checking, even in a log containing non-contest QSOs, QSOs from other contests, and QSOs from the same contest in previous years. If Contest-mode is enabled but the Contest ID setting is empty, then filtering the Log Page Display for previous QSOs shows previous QSOs independent of the contest in which they were worked.

DXKeeper can export Cabrillo files for the contests listed in the following table. Setting the Contest ID selector to one of the contests on this list

- initializes the Increment TX serial# box, as shown in the table
- enables the Export Cabrillo option on the Main window's Export QSOs tab
- determines how transmit and receive exchanges are exported with each QSO in the appropriate Cabrillo template, as shown in the table:

Contest ID	Increment TX serial#	Cabrillo Template	Transmit Exchange	Receive Exchange
ANARTS-RTTY		Anarts	recorded RST sent Location CQ recorded begin time	recorded RST rcvd recorded RX# (note 5)
AP-SPRINT	a	APSprint	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
ARRL-10		HF	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
ARRL-160		ARRL-160	recorded RST sent recorded TX# (note 13)	recorded RST rcvd recorded RX# (note 13)
ARRL-DX-CW ARRL-DX-SSB		ARRL-DX	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
ARRL-RTTY		HF	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
ARRL-SS-CW ARRL-SS-SSB	a	Sweepstakes	recorded TX# Location Section TX Exchange setting (note 3)	recorded ARRL recorded RX# (note 4)
ARRL VHF		ARRL-VHF	Location Grid setting	recorded Grid
BARTG-RTTY	a	BARTG	recorded RST sent recorded TX# recorded begin time	recorded RST rcvd recorded RX# recorded notes (UTC time)
CQ-VHF		CQ-VHF	Location Grid setting	recorded Grid
CQ-WW-CW CQ-WW-SSB		HF	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
CQ-WW- RTTY		CQ-WW-RTTY	recorded RST sent TX Exchange setting (note 9)	recorded RST rcvd recorded RX# (note 10)
CQ-WPX-CW CQ-WPX-RTTY CQ-WPX-SSB	a	HF	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
DARC-WAEDC-CW DARC-WAEDC-RTTY DARC-WAEDC-SSB	a	WAE	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
EPC-PSK63		EPC-PSK63	recorded RST sent TX Exchange setting (note 11)	recorded RST rcvd recorded RX# (note 12)
EPC-WW-DX	a	EPC-WW-DX	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
IARU-HF		IARU	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
JIDX-CW JIDX-SSB		JIDX	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#

NAQP-CW NAQP-RTTY NAQP-SSB	a	NA	recorded TX# First name setting Location ST/PR setting	recorded RX# recorded name recorded state
NA-SPRINT-CW NA-SPRINT-RTTY NA-SPRINT-SSB	a	NA	recorded TX# First name setting Location ST/PR setting	recorded RX# recorded name recorded state
OCEANIA-DX-CW OCEANIA-DX-SSB	a	HF	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
FL-QSO-PARTY		FLQP	recorded RST sent TX Exchange setting (note 1) recorded TX#	recorded RST rcvd recorded RX# (note 2)
GA-QSO-PARTY IL QSO Party MI-QSO-PARTY NEQP OH-QSO-PARTY ON-QSO-PARTY QC-QSO-PARTY Virginia QSO Party WA-State-Salmon-Run WI-QSO-PARTY	a	NEQP	recorded RST sent TX Exchange setting (note 1) recorded TX#	recorded RST rcvd recorded RX# (note 2)
RSGB-IOTA	a	IOTA	recorded RST sent recorded TX# Location IOTA setting	recorded RST rcvd recorded RX# recorded IOTA
SAC-CW SAC-SSB	a	HF	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
STEW-PERRY		Stew	recorded RST sent recorded TX#	recorded RST rcvd recorded RX#
UKSMG		UKSMG	recorded RST sent TX Exchange setting (note 7)	recorded RST rcvd recorded RX# (note 8)
VOLTA-RTTY	a	Volta	recorded RST sent recorded TX# Location CQ	recorded RST rcvd recorded RX# (note 6)

Note 1: In State QSO Parties, the TX Exchange should be set to a state, country, or state-and-county abbreviation per contest rules.

Note 2: In State QSO Parties, the recorded RX# item is assumed to contain both a received sequence number and a received state, county, or state-and-county abbreviation. These two sub-items can be immediately adjacent, or separated by one or more spaces; DXKeeper will properly separate them for use in generated Cabrillo records.

Note 3: In Sweepstakes, the TX Exchange should be set to the Precedence and Check, separated by a space. The ARRL Section must also be selected for a valid Cabrillo log to be generated.

Note 4: In Sweepstakes, the recorded RX# item is assumed to contain a received sequence number followed by a Precedence character followed by a two-digit Check followed by an ARRL section; these sub-items can be immediately adjacent, or separated by one or more spaces; DXKeeper will properly separate them for use in generated Cabrillo records. If the recorded RX# item does not include an ARRL section, the recorded ARRL will be used (if recorded with the QSO).

Note 5: In Anarts RTTY, the recorded RX# item is assumed to contain a one-digit or two-digit CQ zone followed by a space character followed by the UTC time.

Note 6: In Volta RTTY, the recorded RX# item is assumed to contain a sequence number followed by a one-digit or two-digit CQ zone.

Note 7: in UKSMG, the TX Exchange should be set to the four-character grid locator followed by a space character followed by the UKSMG membership number

Note 8: In UKSMG, the recorded RX# item is assumed to contain a four-character grid locator followed by a space character followed by the UKSMG membership number

Note 9: in CQ WW RTTY, the TX Exchange should be set to the two-digit CQ zone followed by a space character followed by one of the following:

- a 2-character state abbreviation (for American stations)
- a 2-character province abbreviation (for Canadian stations)
- DX (for all other stations)

Note 10: In CQ WW RTTY, the recorded RX# item is assumed to contain a one-digit or two-digit CQ zone and, optionally, a 2-character area indicator: a state abbreviation, a province abbreviation or DX. If no area indicator is present, DX is assumed. The zone and area indicator can be in any order, with or without a space separator. Thus the following are all acceptable receive exchanges:

- 03 NV
- nv 3
- CA3
- 25
- dx31
- 26 DX

Note 11: in EPC contests, the TX Exchange should be EPC followed by your four-digit EPC membership number, e.g. EPC2640.

Note 12: In EPC contests, the recorded RX# item is assumed to contain either an EPC membership number, e.g. EPC2640, or a serial number, e.g. 007.

Note 13: in the ARRL 160m contest, the TX Exchange should be set to 599 followed by a space character followed by your ARRL section abbreviation, e.g. 599 STX., and the RX# item should be set to 599 followed by a space character followed by your QSO partner's ARRL section abbreviation, e.g. 599 LAX.

Configuration

Configuring DXKeeper is primarily accomplished via the Configuration window and the QSL Configuration window. Defining bands and defining or eliminating modes, however, are accomplished by editing files.

DXKeeper's Configuration window presents 8 tabs:

- the General tab enables you to set or reset various options, show pathnames and versions for the DXCC, IOTA, and LotW databases, and configure the online help system
- the Log tab lets you select a log file, and configure the log display
- the Awards tab enables you to specify the bands and modes for which you seek QSLs
- the Reports tab lets you configure the reports that DXKeeper generates
- the Callbook tab enables you to specify the location of the Radio Amateur Callbook on your PC so that DXKeeper can query it
- the Contest tab enables you specify the settings that govern DXKeeper's support for contest operation
- the User Items tab lets you configure up to 8 user-defined items stored with each QSO
- the Defaults tab lets you specify default values for QSO items, and provides control over DXKeeper's TCP/IP server

General Tab

- Options Panel

Display seconds in date/time fields	When checked, begin and end items are displayed using the locale's standard date/time format with hours, minutes, and seconds When unchecked, begin and end items are displayed using the locale's standard date/time format with hours, and minutes
Display Previous QSOs on Lookup	When checked, entering a new callsign in the Main window or clicking the QSO Capture window's Lookup button filters the log to only display previous QSOs with the captured Callsign, and initializes the Capture window with information extracted from those QSOs
Highlight duplicate QSOs	When checked, QSOs in the Log Page Display that match the QSO Capture window's callsign, band, and mode will be highlighted in red font
Set QSO start when RST Rcvd	When checked, automatically set the QSO start time when a received signal report is entered in the Capture window
Initialize RST fields to default	When checked, automatically sets the Main and Capture window RST sent and RST rcvd items to the specified default value; if no default value is specified, these items are initialized to 59 (for phone modes) or 599 (for non-phone modes) unless another report has already been entered, and selects the entire contents of these fields whenever they gain focus
New QSO on DX Spot activation	When checked, create a QSO in the Main window when a DX Spot is activated (in SpotCollector, DXView or Commander) with the Capture window closed and Optimize for realtime QSO entry checked
Spot split frequency	when checked, outgoing spot notes will include the difference between the Capture window's TX and RX frequencies unless that difference exceeds 9.9 KHz, in which case the full TX frequency will be included
Log Special Callsign Tags	when checked, Special Callsign Tags provided by DXView and SpotCollector will be appended to the Comment item
Backup log on shutdown	when checked, automatically creates a Log backup on shutdown if a log file is open

Flag invalid callsigns	When checked, callsigns not containing at least one number and one letter will be flagged when you attempt to Save in the Main window or Log in the Capture window; QSOs containing such callsigns will be marked Broken by the Recompute function
Provide audible feedback	When checked, • play a single "Windows Default Beep" sound when a QSO is logged via the Main window's Log or New functions or the Capture window's Log function • play a continuous sequence of "Windows Default Beep" sounds when an attempt to log a QSO fails due to invalid items • play a single "Windows Default Beep" sound when a duplicate QSO is entered into the Capture window with Contest mode enabled
Display information in title bars	When checked, displays log information in the Main window's title bar and UTC time in the Capture window's title bar (uncheck when running on Vista)
Use multiple monitors	When checked, windows that resided on a secondary monitor during the previous session will be restored to the same secondary monitor on startup; when not checked, all windows are restored to the primary monitor on startup
Log debugging information	When checked, records debugging information to the file ErrorLog.txt in DXKeeper's folder

- Main "Log QSOs" options Panel

Require Edit to modify logged QSOs	if this box is checked, the QSO currently selected on the Main window's Log QSOs tab cannot be modified without first clicking the Edit button
Confirm QSO deletion	if this box is checked, DXKeeper will request confirmation before deleting a QSO

Optimize for realtime QSO entry	When this box is checked, DXKeeper's Main window is optimized for logging QSOs in real time:
	• if, after entering a callsign in the call textbox, you strike the **Enter** key, DXKeeper will
	  o if the begin item has not been specified, set the begin item to the current UTC date and time
	  o if Commander is running, set the freq item to your transceiver's current frequency
	  o if Commander is running, set the band item to the band for your transceiver's current frequency
	  o if Commander is running, set the mode item to the your transceiver's current mode
	• if you double-click the end item, DXKeeper will set the end item to the current UTC date and time
	• setting the QSL Rcvd, item to 'Y' will set the Date Rcvd item to the current date
	• setting the eQSL.cc Rcvd item to 'Y' will set the eQSL.cc Date Rcvd item to the current date
	• setting the LotW QSL Rcvd item to 'Y' will set the LotW Date Rcvd item to the current date
	• if you save a QSO whose end item has not been specified, DXKeeper will set the end item to the current time.
	• for QSOs with DXCC entities that specify Primary and Secondary Administrative Subdivisions, these subdivision items can only be selected from a list of valid choices

	When this box is unchecked, DXKeeper's Main window is optimized for manually entering past QSOs: • if, after entering a callsign in the call textbox, you strike the **Enter** key and , DXKeeper will o if the begin item has not been specified, set the begin item to the begin item of the previously-entered QSO plus 1 second o set the freq item to the freq item of the previously entered QSO o set the band item to the band item of the previously entered QSO o set the mode item to the mode item of the previously entered QSO • if you double-click the end item, DXKeeper will set the end item to the contents of the begin item • setting the QSL Rcvd, item to 'Y' will not set the Date Rcvd item to the current date • setting the eQSL.cc Rcvd item to 'Y' will not set the eQSL.cc Date Rcvd item to the current date • setting the LotW QSL Rcvd item to 'Y' will not set the LotW Date Rcvd item to the current date • if you save a QSO whose end item has not been specified, DXKeeper will set the end item to the contents of the begin item • if you save a QSO whose RST sent or RST rcvd item has not been specified, DXKeeper will set the item to 59 or 599 as appropriate for the specified mode Note that the Optimize for realtime QSO entry setting has no effect on the Capture window's behavior, which is always optimized for logging QSOs in real time.
Optimize for roundtable QSOs	When this box is unchecked and Optimize for realtime QSO entry is unchecked, a new QSO's begin item is initialized to the last manually-entered QSO's end item incremented by 1 second. When this box is checked and Optimize for realtime QSO entry is unchecked, a new QSO's begin item is initialized to the last manually-entered QSO's begin item incremented by 1 second.
Allow direct Subdivision entry	when checked, for QSOs with DXCC entities that specify Primary and Secondary Administrative Subdivisions, these subdivision items can be directly entered and edited in the Award panel on the Main window's Log QSOs tab
Run-mode checkbox	If this box is checked, striking the enter key in the call textbox will • initialize the freq textbox, mode textbox, and band textbox • set the sent textbox and rcvd textbox to 59 (if the mode is SSB or FM) or 599 (if the mode is CW, RTTY, or PSK) • save the current QSO • create an empty log record for the next QSO • if the Contest mode box is checked, increment the Contest TX Serial#l If this box is checked, striking the enter key in the QSO Capture window's Call textbox will set the RST sent and RST rcvd items to 59 (if the mode is SSB or FM) or 599 (if the mode is CW, RTTY, or PSK)
Display panels in two columns	when checked, panels in the Main window's **Log QSOs** tab are displayed side-by-side in two columns, yielding an aspect ratio more suitable for widescreen monitors

- Capture options Panel

Capture always on top	When checked, the Capture window always appears atop other windows
Capture callsign generates prop forecast	When checked with DXView running, entering a callsign in the Capture window and striking the **Enter** or **Tab** key or clicking the **Lookup** button directs PropView (if running) to generate a propagation forecast for the station's location on the captured TX frequency
Local spot on callsign acquisition	When checked with SpotCollector running, an outgoing local spot will automatically be generated entering a callsign in the Capture window and striking the **Enter** or **Tab** key
Capture window F-keys via WW	When checked • the Function keys **F5** through **F12** when struck in a Capture window textbox activate WinWarbler macros, with **Shift** and **Alt** key modifiers interpreted as they would be within WinWarbler • the **Esc** key when struck in a Capture window textbox aborts WinWarbler transmission
Prompt on Capture overwrite	When checked, if an action -- e.g. activating a Spot Database entry in SpotCollector-- would overwrite unsaved Capture window data from an active QSO, DXKeeper will display a dialog box allowing the user to allow or disallow the overwrite. A QSO is considered active if its start time has been set, either by clicking the Begin button or by capturing a received signal report (if Set QSO start when RST Rcvd is checked)
Prompt on Capture clear	When checked, clicking the Capture window's Clear button displays a dialog box confirming the user's intention to clear the Capture window items

- Log QSOs Tab's Default Focus

Call textbox	place the mouse cursor in the QSO panel's Call textbox after completing an operation on the Main window's Log QSOs tab
Filter textbox	place the mouse cursor in the Filter panel textbox after completing an operation on the Main window's Log QSOs tab

- Distance unit

Miles	QSO distance is displayed in miles
Kilometers	QSO distance is displayed in kilometers

- Guidance Panel

Browser pathname textbox	if this setting is blank, DXKeeper displays online help using your PC's default HTML browser; if this setting contains the pathname of an HTML browser, DXKeeper displays online help using that browser.
Select button	displays a file selector dialog that allows you to choose a Browser pathname
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.

- **QSL Config** button - when clicked, displays the QSL Configuration window

- **Database info** button - when clicked, displays the **DXKeeper Database Info** window, which shows the pathname and version of each database utilized by DXKeeper; these databases can be installed via the **Database** tab of DXView's Configuration window.

DXCC Database panel	shows the pathname and version of the DXCC Database being used by DXKeeper
IOTA Database panel	shows the pathname and version of the IOTA Database being used by DXKeeper
LotW Database panel	shows the pathname and version of the LotW Database being used by DXKeeper
eQSL AG Database panel	shows the pathname and version of the eQSL Authenticity Guaranteed Database being used by DXKeeper

- **Display Error Log** button - when clicked, displays DXKeeper's errorlog.txt file

- **Help** button - displays the information you are now reading

Log Tab

- Log File Panel

Pathname textbox	This textbox specifies the pathname of the current log file. To open a different log file or create a new log file, you can enter or paste the appropriate pathname into this textbox and then click the Select or Create buttons in this panel. Alternatively, you can click the Select button in this panel and use the file selector dialog to choose the log file you wish to open or create. Note: If you start DXKeeper with a command line argument that specifies a valid pathname, DXKeeper will place this argument in the Pathname textbox and attempt to open the designated file as a log.
Open Button	closes any open log and opens the log in the file specified by the Pathname textbox; this button is only present when the Pathname textbox specifies an existing file
Create Button	closes any open log, and creates a new log in the file specified by the Pathname textbox; this button is only present when the Pathname textbox specifies a non-existent file If DXView has been installed on your PC, the newly-created log's progress table will be initialized using the DXCC database managed by DXView. If DXView has not been installed, the newly-created log's progress table will be initialized from the file DXCC.mdb in the Databases subfolder of your DXKeeper application folder.
Compact Button	If you delete QSOs in a log, the log file can become fragmented and use disk space inefficiently. Compacting the log file re-arranges the files contents to improve storage efficiency.
Select Button	displays a file selector dialog with which you can navigate to a desired folder and select a log file to open; if the selected file exists, any currently-open log is closed and the selected log file is opened
New Button	displays a file selector dialog with which you can navigate to a desired folder and specify a new log file to be created; if the specified file does not exist, any currently-open log is closed, and the specified log file is created and then opened If DXView has been installed on your PC, the newly-created log's progress table will be initialized using the DXCC database managed by DXView. If DXView has not been installed, the newly-created log's progress table will be initialized from the file DXCC.mdb in the Databases subfolder of your DXKeeper application folder.

- Backup Folder Panel

Backup folder pathname	this textbox specifies the pathname of folder into which log backups will be stored
Backup button	creates a backup copy of the current Log file in the specified backup folder pathname
Recover button	replaces the contents of the current Log file with the contents of a specified backup copy

- Log Settings Panel: these settings are stored in each log; when you select a new log, the settings will be updated to reflect the values saved with that log.

Display DXCC submission reminder	when checked, setting a needed QSO's QSL Rcvd field to 'Y' will display a dialog box reminding you to submit the QSL to the DXCC desk
Partial DXCC Credit	when checked, a QSO's QSL Rcvd item can also be set to E, B, or M: • E (Entity verified) - the card's Entity has been verified by the ARRL • B (Entity and Band verified) - the card's Entity and Entity-Band have been verified by the ARRL • M (Entity and Mode verified) - the card's Entity and Entity-Mode have been verified by the ARRL (use these settings for QSL cards submitted to the DXCC desk before its records were computerized, where a card's Entity-Band and/or Entity-Mode was not recorded)
Include radio name in QTH ID	when checked, the default QTH ID is assembled by appending the Radio Name specified for the currently-selected transceiver in Commander to the specified root QTH ID
DXCC account #	specifies the DXCC account from the ARRL's DXCC Entity, Entity-Band, and Entity-Mode verification data is downloaded in order to report any discrepancies with the current log's DXCC Entity, Entity-Band, and Entity-Mode verification data.
root QTH ID	text to which the currently-selected transceiver's Radio name is appended to assemble a default QTH ID (only visible if the Include radio name in QTH ID option is enabled)
default QTH ID	identifies the operator's current QTH • initializes the myQTH textbox • specifies the operator's current QTH when another DXLab application logs a QSO that is missing this item

- Log Panels Panel (note that the functions of the Auxiliary, QSL, Award, Contest, and Satellite fields checkboxes are also accessible from the Main window's Log QSOs tab)

Auxiliary fields checkbox	Checking this box shows the Log's Aux panel, which contains textboxes for each of the following fields: • station call • operator call • owner call • QSO # • submode • rx band • select • temp Depressing the CTRL key while checking this box will display the Log's Aux panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's Aux panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's Aux panel and increase the number of visible Log Page Display entries.
QSL fields checkbox	Checking this box shows the Log's QSL panel, which contains textboxes for each of the following fields: • sent • rcvd • date sent • date rcvd • sent via • rcvd via • msg • addr • myQTH Depressing the CTRL key while checking this box will display the Log's QSL panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's QSL panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's QSL panel and increase the number of visible Log Page Display entries.
Online QSL fields checkbox	Checking this box shows the Log's Online QSL panel, which contains textboxes for each of the following fields: • eQSL.cc sent • eQSL.cc rcvd • eQSL.cc date sent • eQSL.cc date rcvd • eQSL.cc member • LotW sent • LotW rcvd • LotW date sent • LotW date rcvd • LotW member Depressing the CTRL key while checking this box will display the Online Log's QSL panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height.

	Unchecking this box will hide the Log's Online QSL panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's Online QSL panel and increase the number of visible Log Page Display entries.
Award fields checkbox	Checking this box shows the Log's Awards panel, which contains textboxes for each of the following fields: • grid • IOTA • continent • WPX • CQ • ITU • ARRL • primary administrative subsystem • secondary administratie subsystem Depressing the CTRL key while checking this box will display the Log's Awards panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's Awards panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's Awards panel and increase the number of visible Log Page Display entries.
Contest fields checkbox	Checking this box shows the Log's Contest panel, which contains textboxes for each of the following fields: • ID • rx # • tx # • tx info • rx info Depressing the CTRL key while checking this box will display the Log's Contest panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's Contest panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's Contest panel and increase the number of visible Log Page Display entries.
Propagation fields checkbox	Checking this box shows the Log's Propagation panel, which contains textboxes for each of the following fields: • Propagation mode • complete • EME initial • Antenna azimuth • Antenna path • Antenna elevation • Solar Flux Index • Geomagnetic A-index • Geomagnetic K-index • Satellite name • Satellite mode • Meteor shower • Meteor max time • Meteor bursts • Meteor random • Meteor pings

	Depressing the CTRL key while checking this box will display the Log's Propagation panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's Propagation panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's Propagation panel and increase the number of visible Log Page Display entries.
Details fields checkbox	Checking this box shows the Log's Details panel, which contains textboxes for each of the following fields: • distance • special interest group • special interest group information • latitude • longitude • owner call • email address • worldwide web URL • rig • age • power • filename • notes Depressing the CTRL key while checking this box will display the Log's Details panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's Details panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's Details panel and increase the number of visible Log Page Display entries.
User-defined fields checkbox	Checking this box shows the Log's User-defined panel, which lets you specify up to eight user-defined fields. Depressing the CTRL key while checking this box will display the Log's User-defined panel and decrease the number of visible Log Page Display entries rather than expand the Main window's height. Unchecking this box will hide the Log's User-defined panel and vertically shrink the Main window; depressing the CTRL key while unchecking this box will hide the Log's User-defined panel and increase the number of visible Log Page Display entries.
Font Button	Enables you to specify the font and font metrics (size, bold, italic) used in the Main window's Auxiliary, QSL, Online QSL, Awards, Contest and Satellite panels, and the Capture window. If a bold font is selected, then information in the Award Progress and Progress Details grids will also be rendered in bold font.

- Log Page Display Panel

Log Page Display table	Each row in this table corresponds to a column in Log Page Display. By adding or removing rows in this table, you can control which items appear (as columns) in the Log Page Display. You can also specify the caption and alignment for each item appearing in the Log Page Display. To add an item to the Log Page Display, • scroll to the last row of the Log Page Display table; this row is distinguished by an asterisk in its leftmost cell • click in the **Item** cell of this last row, then click the pulldown icon (a small black triangle), and choose the item to be displayed from the resulting list (the pulldown contains ADIF field names - to correlate with items, consult the cross reference) • click in the **Caption** cell of the last row, and type the caption to be used for this item in the Log Page Display • click in the **Align** cell of the last row, then click the pulldown icon (a small black triangle), and choose item's alignment (left-justified, centered, or right-justified) • click in the row above the last row to complete the addition To see the newly added item (column) in the Log Page Display, you may need to horizontally scroll the log page display or widen your DXKeeper window. To remove a field from the log page display, • select the row corresponding to the field to be removed by clicking in row's leftmost cell (this cell is shaded) • strike the Delete key The order in which fields appear in the log page display, and the width of each column in the log page display are controlled by direct manipulation.
Font Button	Enables you to specify the font and font metrics (size, bold, italic) used in the log page display
Reset button	Set's the Log Page Display row height and column widths to default values based on the current font size
Log Page Display layout file	the pathname of a file whose contents specify a Log Page Display **layout**: • which fields appear in the log page display • the caption for each such field • the alignment of each such field • the order in which such fields appear • the width of each field
Select	displays a file selector that lets you choose a Log Page Display layout file and then format the Log Page Display as specified by the selected file's contents
Save	displays a file selector that lets you choose a file into which will be saved the Log Page Display's current layout
Automatically update layout file	when checked, the specified Log Page Display layout file will automatically be updated to reflect changes made to the Log Page Display layout
Indicate LotW & eQSL AG status	When checked, the background color of each entry in the Log Page Display indicates whether the entry's callsign is a known participant in LotW and/or an Authenticity-Guaranteed member of eQSL.cc • If a callsign is found to be a known participant of LotW but not an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to yellow. • If a callsign is found to be an Authenticity-Guaranteed member of eQSL.cc but not a known participant of LotW, the callsign's background color is set to pink

	• If a callsign is found to be a known participant of LotW and an Authenticity-Guaranteed member of eQSL.cc, the callsign's background color is set to cyan (light blue). • If SpotCollector is installed, however, the background colors specified on the **Spot Database Display** tab of SpotCollector's **Configuration** window are used in place of yellow, pink, and cyan.
Frequency precision	specifies the number of decimal digits shown in transmit frequencies and receive frequencies appearing in the Log Page Display and in Log Reports; the valid range is 3 to 6.

- Reset Unique #s - when clicked, each QSO in the current log is assigned a unique number based on its QSO Begin date and time: the earliest QSO is assigned QSO number 1, the second is assigned QSO number 2, etc.

Awards Tab
The **Automatically recompute realtime award tracking** checkbox determines whether DXKeeper will automatically update realtime award tracking information when you delete a QSO or indicate a regression in the QSO's progress, e.g. demoting its status from confirmed to worked, or from worked to unworked. If this box is unchecked, DXKeeper will not direct SpotCollector to initiate progress recomputations.

The **Deduce CQ and ITU zones from US callsigns** checkbox determines whether callsigns of US stations will be used to deduce CQ and ITU zones if more precise information (previous QSOs, state, ARRL section, Callbook) is unavailable and the call area fits entirely in the zone.

The **Include LotW confirmations in Maidenhead progress** box will, when checked, include QSOs confirmed by the ARRL's Logbook of the World (LotW) in the Maidenhead Field, and Maidenhead Gridsquare reports.

The **Include eQSL.cc confirmations in DXCC, WAS, WAC, & Maidenhead Grid progress** box will, when checked, will include QSOs confirmed by eQSL.cc in the the DXCC, Challenge, TOPLIST, WAS, WAC, and Maidenhead Gridsquare awards progress and reports. The ARRL, and TOPLIST do not accept eQSL.cc confirmations for their awards, but if your personal DXing program considers eQSL.cc confirmations to be valid, then checking this box will generate correct status. If you change this setting, immediately running the By QSL Mode, WAS, WAC, and Maidenhead Gridsquare reports will produce correct results. However, the Progress Grid, Progress Details Grid, and all other reports will not reflect the change until you invoke the Recompute function.

Checkboxes in the **DXCC Bands & Modes Panel** specify the bands and modes you are pursuing for the ARRL DX Century Club award (DXCC), the ARRL DX Century Club Challenge award , and/or the Top List award. When you click the QSL tab's Add Needed button, these settings are used to identify QSOs for which QSLs would advance your progress. When you prepare a DXCC Submission, confirmed QSL cards and/or LotW credits will only be submitted for bands and modes selected in this panel. If SpotCollector is running, the settings of these checkboxes are used to determine whether a QSO with a spotted station would advance your progress. If no awards tab boxes are checked, DXKeeper and SpotCollector assume that you are pursuing DXCC without focus on specific bands or modes.

Award Program	**boxes to check in DXKeeper's DXCC/Top Bands & Modes panel**
DXCC	none
5-band DXCC	80m, 40m, 20m, 15m, 10m
DXCC Challenge	160m, 80m, 40m, 30m, 20m, 17m, 15m, 12m, 10m, 6m, Phone, CW, RTTY
TopList	160m, 80m, 40m, 30m, 20m, 17m, 15m, 12m, 10m, Phone, CW, RTTY

Checkboxes in the **Marathon panel** specify

- the bands and modes you are pursuing for CQ DX Marathon awards
- whether Marathon reports should include QSOs whose propagation mode is unspecified
- the maximum transmit power for QSOs to be included in Marathon reports (leaving this textbox empty means that transmit power will not be used as a constraint on QSOs considered for inclusion in Marathon reports)
- whether realtime award tracking for CQ DX Marathon awards is enabled; if unchecked, checking the **Realtime Award Progress checkbox** directs DXKeeper to enable realtime award tracking for Marathon in the current log.

When realtime award tracking for CQ DX Marathon awards is enabled and SpotCollector is running, the settings of this panel's band and mode checkboxes are used to determine whether a QSO with a spotted station would advance your Marathon progress. If no awards tab boxes are checked, DXKeeper and SpotCollector assume that you are pursuing Marathon without focus on specific bands or modes.

Checkboxes in the **WAZ Bands & Modes Panel** specify the bands and modes you are pursuing for awards in the CQ Worked All Zones (WAZ) family. The contents of a WAZ Progress Report are controlled by these settings. The **Realtime Award Progress checkbox** indicates whether realtime award tracking for the WAZ award family is enabled; if unchecked, checking this box directs DXKeeper to enable realtime award tracking for WAZ in the current log. When enabled,

- clicking the QSL tab's Add Needed button identifies QSOs for which QSLs would advance your WAZ progress.
- If SpotCollector is running, the settings of this panel's band and mode checkboxes are used to determine whether a QSO with a spotted station would advance your WAZ progress. If no awards tab boxes are checked, DXKeeper and SpotCollector assume that you are pursuing mixed WAZ without focus on specific bands or modes.

Checkboxes in the **WPX Bands & Modes Panel** specify the bands and modes you are pursuing for awards in the CQ Worked All Prefixes (WPX) family. If this panel's **Mixed** box is checked,

- invoking a CQ WPX progress report with Add Unconfirmed enabled populates the QSL Queue with QSOs needed to confirm
    - unconfirmed WPX prefixes
    - unconfirmed WPX prefix-bands for which this panel's band boxes are checked
    - unconfirmed WPX prefix-modes for which this panel's mode boxes are checked
- the Recompute operation computes a WPX prefix for logged QSOs that don't specify one
    - if the CTRL key was depressed when the Recompute button is clicked, each QSO's WPX prefix will be computed from its callsign
- the Import operation computes a WPX prefix for imported QSOs that don't specify one
- when logging a QSOs from another application (e.g. WinWarbler or MultiPSK), a WPX prefix will be computed if when one is not supplied

Unchecking this panel's **Mixed** box will uncheck all of the panel's band and mode boxes. Clicking this panel's **HF** button will check the 160m through 10m band boxes.

The **DXCC Submission panel** lets you specify

- whether QSL cards should be submitted as proof of confirmed QSOs
- whether LotW credits should be submitted as proof of confirmed QSOs
- if an unverified QSO is confirmed by both QSL card and LotW credit, which should be submitted
- whether QSOs that confirm deleted DXCC entities should be submitted
- the number of lines to be printed on each page of the generated Card Record Sheet and LotW Record Sheet reports

In the **Other Panel**,

- if the **CQ, DARC WAE, Holyland** box is checked, DXKeeper enables the **?** buttons to the right of the **region** boxes on the **Capture** window and on the **Main** window's **Log QSOs** tab; these **?** buttons display an **Award Selector** window that lets you select a region by its full name
- if the **DARC DOK** box is checked, DXKeeper enables the **?** buttons to the right of the **DOK** boxes on the **Capture** window and on the **Main** window's **Log QSOs** tab; these **?** buttons display an **Award Selector** window that lets you select a DOK by its full name
- the **IOTA** checkbox determines whether generating an IOTA progress report will also create IOTA_Worked and IOTA_Confirmed update files for IOTAMem4WIN in DXKeeper's Reports sub-folder
- if the **Subdivisions** box is checked
    - the validity of Primary and Secondary Administrative Subdivisions is recorded with each QSO
    - the Broke filter displays QSOs with invalid primary or secondary administrative subdivisions
    - when importing QSOs from a file, logging QSOs from another application (e.g. WinWarbler or MultiPSK), or synchronizing LotW QSLs, corrects common misspellings of Primary and Secondary Administrative Subdivisions
    - when performing a Sync LotW QSLs operation, report any confirmation with a station in the US, Hawaii, or Alaska that does not specify a valid US state
- if the **VUCC** box is checked
    - the height of the Award panel on the Main window's **Log QSOs** tab is expanded to display the grid2, grid3, and grid4 items
    - the Sync LotW QSLs operation reports a new 6m, 2m, or Satellite confirmation that does not specify a valid gridsquare, or that specifies one or more gridsquares that don't match the grid square(s) specified in the logged QSO

The **Club Log** panel provides settings that enable DXKeeper to upload QSOs to Club Log:

Email	specifies the Email address with which you've registered with Club Log
Password	specifies the password that enables your access to Club Log
Callsign	specifies the Club Log account to which QSOs should be uploaded; this setting is stored with each log file, and thus changes when a new log file is loaded
Auto upload	when checked, any QSO logged by DXKeeper either directly, or on behalf of another application, will automatically be uploaded to Club Log using the above settings; enabling this option does not automatically upload QSOs as they are imported from a file
Slow net	when checked, QSOs are uploaded in small chunks to ensure delivery when uploading via a slow internet connection

Reports Tab

The **Date Format panel** lets you specify the format of dates used in reports, and in the headers of exported ADIF files.

- dd-mmm-yyyy (local month abbreviations) uses the standard month abbreviations for your PC's locale
- dd-mmm-yyyy (English month abbreviations) uses the English month abbreviations independent of your PC's locale
- yyyy-mm-dd (ISO 8601) uses the ISO 8601 standard date format independent of your PC's locale

The **Frequency precision** setting specifies the number of decimal digits shown in frequencies appearing in progress reports; the valid range is 3 to 6.

The DXCC Summary panel's Optional HTML textbox lets you insert HTML at the beginning of the DXCC Summary's body, prior to the data table.

In the **QSL Aging** panel

- the **Expiration age** textbox lets you specify a time interval in weeks that the Card Aging function can use to automatically flag QSOs as expired, meaning that a confirmation is no longer expected.
- the **Optional report item** selector lets you choose a log item to be displayed in each entry of the report generated by the Card Aging function

Callbook Tab

DXKeeper can obtain name, address, and location information from multiple sources:

- the Flying Horse Radio Amateur's Callbook installed on your PC
- the HamCall callbook installed on your PC
- HamCall.net (requires a subscription)
- the QRZ Callsign Database installed on your PC
- QRZ.com
    - o if you have a data-only or full subscription to QRZ.com

      or
    - o if Pathfinder is running (the downloading and display of advertisements significantly increases the access time, but no subscription is required)

Use this tab's radio buttons to specify which source of information is used for Callbook Lookup operations:

None	no callbook lookup is performed
RAC (PC)	use the RAC callbook installed on your PC; specify the pathname of the folder containing the RAC's Callbook.exe file
HamCall (PC)	use the HamCall callbook installed on your PC; specify the pathname of the folder containing the HamCall database
HamCall Online	use your subscription to HamCall.net; specify the callsign and password registered with HamCall.net, and set the **HamCall Online timeout** to indicate how long to wait before abandoning a request made to HamCall
QRZ (PC)	use the QRZ callbook installed on your PC; specify the pathname of the folder containing the QRZ database callbkc.dat file If you use QRZ's default installation location, the correct pathname will be C:\Program Files\QRZ Ham Radio\CALLBK
QRZ.com	use your subscription to QRZ.com; specify the callsign and password registered with QRZ.com, and set the **QRZ.com timeout** to indicate how long to wait before abandoning a request made to QRZ.com
QRZ.com via Pathfinder	use Pathfinder to obtain information from QRZ.com; make sure Pathfinder (version 4.2.6 or later) is running, and set the **QRZ.com timeout** to indicate how long to wait before abandoning a request made to QRZ.com

Use this tab's checkboxes to govern callbook behavior:

Automatically use callbook data... checkbox	if checked • DXKeeper will initialize the name, QTH, primary administrative subdivision,, secondary administrative subdivision, IOTA, and grid fields with the results of a successful Callbook query • the Capture window's **Lookup** button will initialize the Capture window's name, QTH, primary administrative subdivision, secondary administrative subdivision, IOTA, and grid fields with the results of a successful Callbook query

Warn when Callsign Lookups fail	When checked, a Callsign lookup that fails to locate Callbook information for the Call will display a warning message requiring confirmation

From the Capture window, you can add name, QTH information, and address information from the selected Callbook to the current QSO by clicking the **Lookup** button, as described above.

Using the **CBA** button on the Main window's Log QSOs tab, you can update or replace name, QTH information, and address information in the current QSO or in all QSOs visible in the Log Page Display.

You can also configure DXKeeper to lookup each imported QSO in the selected callbook and the DXCC database and fill in any items not present in the imported QSO with information from these sources.

Contest tab
These settings govern DXKeeper's support for contest operation.

Contest-mode	when contest-mode is enabled, • The contest ID and Contest tx# fields of QSOs recorded via the Main window's Log QSOs tab are initialized to the Contest ID and TX serial# respectively • The contest and tx# fields of QSOs recorded via the Capture window are initialized to the Contest ID and TX serial# respectively • Striking the Enter key in the Main window's Call field with Run-mode enabled automatically increments the TX serial# if the Increment TX serial# box is checked • Logging a QSO via the Capture window automatically increments the TX serial# if the Increment TX serial# box is checked • a Log Page Display entry will be rendered in red font if its Callsign, Band, Mode and Contest ID match those in the Capture window • Filtering the Log Page Display for previous QSOs with a specified station shows only QSOs whose recorded Contest ID matches the Contest ID configuration setting Enabling Contest mode automatically enables Run-mode; disabling Contest-mode automatically disables Run-mode Contest-mode can also be enabled or disabled via the Capture window's contest-mode checkbox.
Increment TX serial#	when checked, increments the TX serial# after each QSO (if the Contest-mode box is checked, and if the TX serial# contains a numeric value)
Place focus in RX# on DX spot activation	when checked, activating a DX spot in SpotCollector, DXView or Commander will place the mouse cursor in the Capture window's RX# item if the Capture window has not been closed if the Capture window is closed, Optimize for realtime QSO entry is checked, and New QSO on DX Spot activation is checked, then activating a DX spot will create a new QSO and display it in the Main window; if the Contest panel on the Main window's Log QSOs tab is visible, then the mouse cursor will be placed in its RX# item
Don't log Capture window Contest, TX#, RX# if contest mode disabled	when checked with contest mode disabled, don't log the Capture window's Contest, TX#, and RX# items
Contest ID	the Contest Identifier recorded with each QSO, and used to select the Cabrillo template used when generating a Cabrillo log

TX serial#	the transmit serial number or exchange to be recorded with the next QSO
TX Exchange	fixed portion of transmit exchange (see the table describing how Contest information is recorded to enable Cabrillo generation)

Cabrillo panel

This panel determines what information is placed in the header section of a generated Cabrillo file; some of this information is also incorporated in recorded contest exchanges, as noted in the table below. If no value for an item is specified, then its Cabrillo tag will not appear in the header section.

Item	Cabrillo Tag	Description
Contest	CONTEST	the name of the contest (initialized when you select a Contest ID)
Name	NAME	submitter's full name
Address	ADDRESS	up to 4 lines of postal address (do not include your name)
Operators	OPERATORS	callsigns of participating operators, separated by commas
Soapbox	SOAPBOX	Cabrillo Soapbox
Operator's first name		your first name (used in contest exchanges)
Club	CLUB	name of your contest or radio club
Score	CLAIMED-SCORE	your claimed score in the contest (obtained from your contesting application, or manually computed)
Category	CATEGORY	Cabrillo category
Category Assisted	CATEGORY-ASSISTED	Cabrillo assistance category
Category Operator	CATEGORY-OPERATOR	Cabrillo operator category
Category Station	CATEGORY-STATION	Cabrillo station category
Category Band	CATEGORY-BAND	Cabrillo band category
Category Mode	CATEGORY-MODE	Cabrillo mode category
Category Power	CATEGORY-POWER	Cabrillo power category
Category Overlay	CATEGORY-OVERLAY	Cabrillo overlay category
Category Transmitter	CATEGORY-TRANSMITTER	Cabrillo transmitter category
Category Time	CATEGORY-TIME	Cabrillo time category
Location Section	LOCATION	the ARRL section from which you are operating
Location ST/PR	LOCATION	two-letter abbreviation for the US State or Province from which you are operating (for use in contest exchanges)
Location IOTA	LOCATION	Islands on the Air tag or Island Name from which you are operating (for use in contest exchanges)

Location Grid	LOCATION	Maidenhead Grid Square from which you are operating (for use in contest exchanges)
Location CQ	LOCATION	CQ Zone from which you are operating (for use in contest exchanges)
Location RDA #	LOCATION	RDA number from which you are operating (for use in RDXC contest exchanges)

User Items tab

DXKeeper can record up to 8 user-defined items with each QSO. This tab lets you specify a caption, style, alignment, and default value for each user-defined item.

Caption	specifies the caption that appears to the left of the item in the User-defined panel on the Main window's Log QSOs tab, in the Capture window, and in WinWarbler's QSO Info panel
Style	specifies the type of information captured in the item:

Style	**Valid Characters**
Integer	digits, minus sign
Positive Integer	digits
Number	digits, minus sign, decimal separator
Positive Number	digits, decimal separator
Alphanumeric	all
Lower Alphanumeric	all (letters converted to lower case)
Upper Alphanumeric	all (letters converted to upper case)
Alphabetic	letters
Lower Alphabetic	letters (converted to lower case)
Upper Alphabetic	letters (converted to upper case)
List	set of legal values specified in a file • each line in the file specifies a value • click the Set list button to specify the file's pathname • user-defined items specified by a list are always left-aligned

Align	specifies whether values are displayed as **L**eft-aligned, **C**entered, or **R**ight-aligned • user-defined items specified by a list are always left-aligned
Init	If checked and the Display Previous QSOs on Lookup box is checked, then new QSOs with be initialized with information extracted from previous QSOs with the same callsign
Default	specifies an optional default value for use in initializing a new QSO in the Capture window, in the Main window's Log QSOs tab, and in WinWarbler's QSO Info panel

The List style is appropriate when a user-defined item's value is limited to a small discrete set, for example the set {Y, N}, or the set {Alinco, Elecraft, FlexRadio, Icom, Kachina, Kenwood, TenTec, Yaesu}. A text file specifying the latter set would contain 8 lines:
Alinco
Elecraft
FlexRadio
Icom
Kachina
Kenwood
TenTec
Yaesu

It is usually appropriate to offer a choice representing "not specified"; this can be accomplished by having the first line of the specifying file be blank. When exporting a QSO, any of its user-defined items whose value is "not specified" are not included.

Defaults tab

Station callsign	the station callsign used over the air (label is highlighted in red if maximum length is exceeded) • used to name the log file created when DXKeeper runs the first time after being installed • initializes the stn call textbox • specifies the station callsign when another application sends a QSO to be logged that is missing this item
Operator callsign	the callsign of the operator of the station (label is highlighted in red if maximum length is exceeded) • initializes the operator textbox • specifies the operator callsign when another application sends a QSO to be logged that is missing this item
Owner callsign	the callsign of the owner of the station (label is highlighted in red if maximum length is exceeded) • initializes the owner textbox • specifies the owner callsign when another application sends a QSO to be logged that is missing this item
QTH latitude	the QTH latitude used to compute QSO distance and azimuth if no myQTH is specified, or if the specified myQTH does not include a grid square or latitude and longitude • initialized from the QTH latitude specified in DXView, if DXView is installed • double-clicking prompts you to specify a grid square, from which the QTH latitude and QTH longitude are computed
QTH longitude	the QTH longitude used to compute QSO distance and azimuth if no myQTH is specified, or if the specified myQTH does not include a grid square or latitude and longitude • initialized from the QTH longitude specified in DXView, if DXView is installed • double-clicking prompts you to specify a grid square, from which the QTH latitude and QTH longitude are computed

Transmit power	transmitter power, in watts (label is highlighted in red if maximum length is exceeded); if neither Default Transmit power by band nor Default Transmit power by mode is enabled or applicable, • initializes the Capture window's Pwr item • initializes the pwr textbox if Optimize for realtime QSO entry is enabled • sets the transmit power when you double-click the power item in the QSO panel on the Main window's "Log QSOs" tab • specifies the transmit power when another DXLab application logs a QSO that is missing this item • if the Substitute default Transmit Power for missing TX_PWR option is enabled, specifies the transit power when importing a QSO that doesn't specify a TX_PWR tag
RST sent & rcvd	if enabled, the specified default value is used to initialize the RST sent and RST rcvd items in the Capture window or in the Main window's Log QSOs tab. If the default value includes a slash, e.g. 59/599, characters before the slash are used with phone modes, and characters after the slash are used with non-phone modes. if enabled with no default value specified, the RST send and RST rcvd items in the Capture window or in the Main window's Log QSOs tab are initialized to 59 for phone modes and 599 for non-phone modes.
QSL msg	selects message to be printed on each QSL card from among the standard messages defined in the QSL Msgs tab • initializes the Capture window's QSL Msg item • initializes the Main window's msg textbox • specifies the QSL message when another DXLab application logs a QSO that is missing this item if a message is selected, you can modify it by editing the displayed text
Antenna Path	• specifies the antenna path for QSOs logged via the Capture window • initializes the antenna path selector on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
Propagation mode	• specifies the propagation mode for QSOs logged via the Capture window • initializes the propagation mode selector on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
SFI	• initialized from the most recent Solar Flux captured by SpotCollector, if SpotCollector is running • specifies the solar flux for QSOs logged via the Capture window • initializes the solar flux textbox on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
A	• initialized from the most recent A-index captured by SpotCollector, if SpotCollector is running • specifies the A-index for QSOs logged via the Capture window • initializes the A-index textbox on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
K	• initialized from the most recent K-index captured by SpotCollector, if SpotCollector is running • specifies the K-index for QSOs logged via the Capture window • initializes the K-index textbox on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled

Satellite name	• specifies the satellite name for QSOs logged via the Capture window • initializes the satellite name selector on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
Satellite mode	• specifies the satellite mode for QSOs logged via the Capture window • initializes the satellite mode selector on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
Meteor shower	• specifies the meteor shower name for QSOs logged via the Capture window • initializes the meteor shower name textbox on the Main window's Log QSOs tab if Optimize for realtime QSO entry is not enabled
Default Transmit power by band panel	specifies the default transmitter power, in watts, for the amateur bands from 160m through 23cm; if enabled and the QSO's frequency lies within one of the bands for which a default is specified, • initializes the Capture window's Pwr item • initializes the pwr textbox if Optimize for realtime QSO entry is enabled • sets the transmit power when you double-click the power item in the QSO panel on the Main window's "Log QSOs" tab • specifies the transmit power when another DXLab application logs a QSO that is missing this item • if the Substitute default Transmit Power for missing TX_PWR option is enabled, specifies the transit power when importing a QSO that doesn't specify a TX_PWR tag
Default Transmit power by mode panel	specifies the default transmitter power, in watts, for Phone, CW, RTTY, and PSK modes; if enabled and the QSO's mode is one for which a default is specified, • initializes the Capture window's Pwr item • initializes the pwr textbox if Optimize for realtime QSO entry is enabled • sets the transmit power when you double-click the power item in the QSO panel on the Main window's "Log QSOs" tab • specifies the transmit power when another DXLab application logs a QSO that is missing this item • if the Substitute default Transmit Power for missing TX_PWR option is enabled, specifies the transit power when importing a QSO that doesn't specify a TX_PWR tag
Network Service panel	lets you specify the Base Port for TCP/IP service, set the Base Port to its default value, and restart the TCP/IP server

Defining Bands
DXKeeper is driven by a set of band definitions contained in a file. Any attempt to log a QSO on a frequency not falling within a defined band will be flagged.

At startup, DXKeeper checks its Databases folder for the file Bands.txt ; if found, the contents of this file are interpreted as user-defined band specifications in the format shown below. If Bands.txt is not found, then DXKeeper checks its Databases folder for the file DefaultBands.txt, which every DXKeeper release installs. DefaultBands.txt, is a file containing one line per band::

```
2190M, 0.136,0.137
160M, 1.800, 2.000
80M, 3.500,4.000
60M, 5.3305,5.405
40M, 7.000,7.350
30M, 10.100, 10.150
20M, 14.000, 14.350
17M, 18.068, 18.168
15M, 21.000, 21.450
12M, 24.890, 24.990
10M, 28.000, 29.900
6M, 50.000, 54.000
4M, 70.0, 71.0
2M, 144.000, 148.000
1.25M,222.0,225.0
70CM, 420.0, 450.0
33CM, 902.0, 928.0
23CM, 1240, 1300
13CM,2400,2450
9CM, 3300, 3500
6CM, 5650, 5925
3CM, 10000, 10500
1.25cm,24000,24250
6MM, 47000, 47200
4MM, 75500, 81000
2.5MM, 119980,120020
2MM, 142000, 149000
1MM, 241000,250000
SUBMM, 300000,1000000
```

Each line contains three parameters, separated by commas: the band name, the band's lower edge in megahertz, and the band's upper edge in megahertz. The band name cannot exceed its defined maximum length.

To add or subtract bands, make a copy of DefaultBands.txt in DXKeeper's Databases folder and name it Bands.txt. Delete or add lines as required, ensuring that

- each band's lower band edge is less than its upper band edge
- the upper band edge defined on one line is less than the lower band edge defined on the next line

Defining or Eliminating Modes

DXKeeper provides built-in support for six modes: *SSB, CW, RTTY, AM, FM*, and *PSK31*. At startup, DXKeeper checks its Databases folder for the file Modes.txt ; if found, the contents of this file are interpreted as user-defined mode specifications, as described below. If Modes.txt is not found, then DXKeeper checks its Databases folder for the file DefaultModes.txt and if found interprets its contents as user-defined mode specifications. Every DXKeeper release installs a DefaultModes.txt file that contains the following mode specifications:

Mode Name	DXCC Phone credit	DXCC CW credit	DXCC RTTY credit	WAZ RTTY credit	WAZ Digital credit	WPX SSB credit	WPX CW credit	WPX Digital credit	PSK credit
AMTORFEC			a		a			a	
ASCI			a	a				a	
ATV									
CHIP64			a		a			a	
CHIP128			a		a			a	
CLO			a		a			a	
CONTESTI			a		a			a	
DOMINO			a		a			a	
DOMINOF			a		a			a	
DSTAR									
FAX									
FMHELL			a		a			a	
FSK31									
FSK441			a		a			a	
GTOR			a		a			a	
HELL			a		a			a	
HELL80			a		a			a	
HFSK									
JT44			a		a			a	
JT4A			a		a			a	
JT4B			a		a			a	
JT4C			a		a			a	
JT4D			a		a			a	
JT4E			a		a			a	
JT4F			a		a			a	
JT4G			a		a			a	
JT65			a		a			a	
JT65A			a		a			a	
JT65B			a		a			a	
JT65C			a		a			a	
MFSK8			a		a			a	
MFSK16			a		a			a	
MT63			a		a			a	
OLIVIA			a		a			a	
PAC			a		a			a	
PAC2			a		a			a	
PAC3			a		a			a	

PAX		a		a	a	
PAX2		a		a	a	
PKT		a		a	a	
PSK10		a		a	a	a
PSK63		a		a	a	a
PSK63F		a		a	a	a
PSK125		a		a	a	a
PSK220F		a		a	a	a
PSKAM10						
PSKAM31						
PSKAM50						
PSKFEC31		a		a	a	a
PSKHELL						
Q15						
QPSK31		a		a	a	a
QPSK63		a		a	a	a
QPSK125		a		a	a	a
ROS		a		a	a	
RTTYM		a	a		a	
SSTV	a					
THRB		a		a	a	
THRBX		a		a	a	
TOR		a		a	a	
VOI						
WINMOR		a		a	a	
WSPR		a		a	a	

Users wishing to define additional modes or remove modes that aren't built-in can do so by creating the file Modes.txt in SpotCollector's Databases folder. The specification format used in DefaultModes.txt and Modes.txt is identical: each line of the file specifies a mode's name, followed optionally by a list of awards for which QSOs in the mode produce credit; the mode name and optional awards are separated by commas. The mode name cannot exceed its defined maximum length. Valid award designators are shown in the following table:

Award Designator	**Meaning**
DXCC_Phone	QSOs in this mode "count" for DXCC Phone credit
DXCC_CW	QSOs in this mode "count" for DXCC CW credit
DXCC_RTTY	QSOs in this mode "count" for DXCC RTTY credit
WAZ_RTTY	QSOs in this mode "count" for WAZ RTTY credit
WAZ_DIGITAL	QSOs in this mode "count" for WAZ Digital credit
WPX_Phone	QSOs in this mode "count" for WPX Phone credit
WPX_CW	QSOs in this mode "count" for WPX CW credit
WPX_Digital	QSOs in this mode "count" for WPX Digital credit
PSK	QSOs in this mode "count" for PSK credit

Thus, the first line of the file DefaultModes.txt, which is
ASCI, DXCC_RTTY, WAZ_RTTY
defines the new mode ASCI, and specifies that QSOs in ASCI should be credited as DXCC RTTY and WAZ RTTY QSOs.

The easiest way to create a custom Modes.txt file is by starting with a copy of DefaultModes.txt and editing as required. Be sure to make your changes in Modes.txt as DefaultModes.txt will be overwritten by the next DXKeeper release.

QSL Configuration

Configuring DXKeeper is primarily accomplished via the Configuration window and the QSL Configuration windows. Defining bands and defining or eliminating modes, however, are accomplished by editing files.

DXKeeper's Configuration window presents 9 tabs:

- the General tab enables you to preset each new QSO's 'QSL Requested" checkbox, indicate whether multiple QSOs should be confirmed on each QSL card or label, and customize the operation of the Add Needed and Add Requested functions
- the QSL Cards tab enables you to specify the dimensions of QSL cards and the information to be printed on each card
- the QSL Labels tab enables you to specify the dimensions of QSL labels
- the Envelopes tab enables you to specify the layout of your envelopes, your return address, and whether or not an Airmail designator is to be printed
- the Address Labels tab enables you to specify the dimensions of address labels
- the QSL Msgs tab enables you to specify up to 8 standard QSL messages
- the eQSL tab enables you to specify your eQSL.cc username and password, and control synchronization between DXKeeper and eQSL.cc
- the LoTW tab enables you to specify your LotW username and password, specify uploading parameters, and control synchronization between DXKeeper and LotW
- the ADIF & TDF tab enables you to control the precision of frequencies exported to ADIF and Tab-delimited files from the QSL Queue
- the Printer tab enables you to select the printer on which QSLs will be printed

General Tab

The Options panel provides the ability to set default values for the Capture window's QSL requested and use bureau checkboxes, and to enable the confirmation of multiple QSLs on each QSL card or label:

Preset 'QSL Requested' checkbox	When checked, the Capture window's QSL requested checkbox will be set for each new QSO
Preset 'use bureau' checkbox	When checked, the Capture window's use bureau checkbox will be set for each new QSO
Initialize QSL Sent to 'R' for each imported QSO	When checked, each imported QSO's QSL Sent item will be set to 'R' unless the imported value is 'Y'
Outgoing QSLs request confirmation unless already confirmed	When checked, each outgoing QSL card or label will requests a confirmation by displaying 'please!' or 'pse!' respectively unless the QSO has already been confirmed; changing this setting has no affect on QSOs already present in the QSL Queue
Confirm multiple QSOs per QSL	• when checked, multiple QSOs will be confirmed on each QSL card and label as long as the Operator and myQTH fields match, and as long as there is space on the card or label • when unchecked, each QSL card or label will confirm exactly one QSO

The Add Needed panel controls the operation of the Add Needed function:

Add Needed requests all with same call	when checked, the Add Needed function will request confirmation for all unconfirmed QSOs with a station for which there's a QSO whose confirmation is needed
Add Needed requests all with same mgr	when checked, the Add Needed function will request confirmation for all unconfirmed QSOs having a QSL manager from whom confirmation of a QSO requiring confirmation will be sought
Add Needed sets Sent Via to 'B' (for Bureau)	when checked, the Add Needed function sets each needed QSO's Sent Via item to B (for Bureau) before adding it to the QSL Queue
Add Needed sets Sent Via to 'D' (for Direct mail)	when checked, the Add Needed function sets each needed QSO's Sent Via item to D (for Direct mail) before adding it to the QSL Queue
Awards	the Add Needed function will populate the QSL Queue with confirmation requests needed for each award whose box in this panel is checked

The Add Requested panel controls the operation of the Add Requested function:

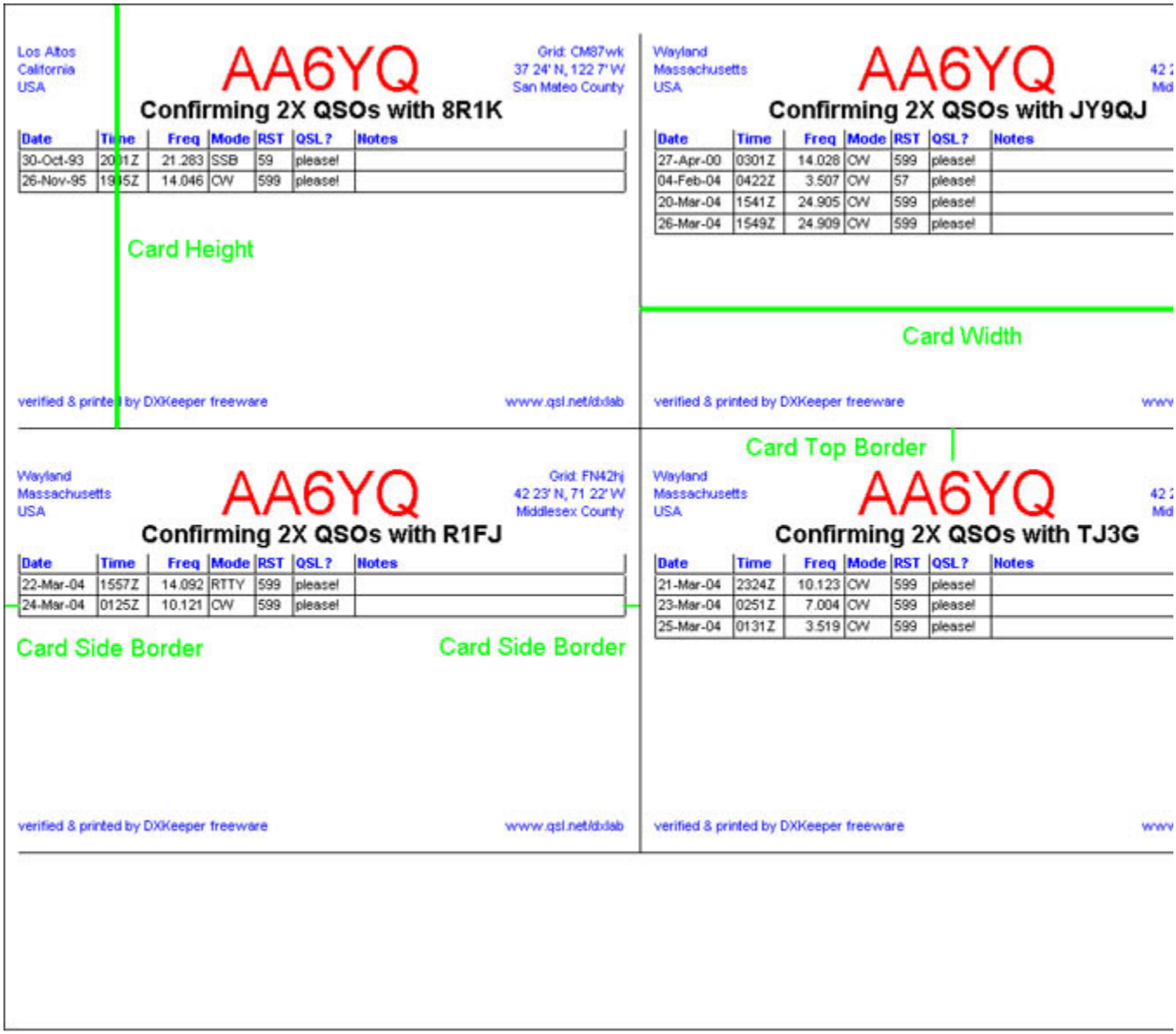
Add Requested no dup band-modes	when checked, the Add Requested function won't generate a QSL Queue entry unless doing so would give the receiving station a new confirmed band or mode, or unless the QSL Via panel is set to LotW or eQSL.cc
Add Requested sets Sent Via to 'B' (for Bureau)	when checked, the Add Requested function sets each needed QSO's Sent Via item to B (for Bureau) before adding it to the QSL Queue
Add Requested sets Sent Via to 'D' (for Direct mail)	when checked, the Add Requested function sets each needed QSO's Sent Via item to D (for Direct mail) before adding it to the QSL Queue

The QSL Date Format panel selects the date format used on QSL Cards and QSL Labels, and in tab-delimited files exported from the QSL Queue or exported from the Log Page Display.

QSL Cards Tab

The Page Layout panel lets you specify whether DXKeeper prints

- one QSL card per page aligned on the printer's right-side paper guide
- one QSL card per page aligned on the printer's left-side paper guide
- four QSL cards per page as shown in this layout:



If you choose 4 QSL cards per page, guides that make it easier to separate the cards will be printed if you check the Page Layout panel's *print separation guides* box.

This tab's Frequency panel allows you to specify whether generated QSL cards show a QSO's frequency or its band.

This tab's Card Dimensions panel allows you to specify the geometry of each card:

Width	the width of each QSL card in inches or millimeters as specified by the Inches and Millimeters selectors
Height	the height of each QSL card in inches or millimeters as specified by the Inches and Millimeters selectors
Side border	the width of the left and right side border of each QSL card in inches or millimeters as specified by the Inches and Millimeters selectors
Top border	the width of the top border of each QSL card in inches or millimeters as specified by the Inches and Millimeters selectors

Additional panels on this tab provide control of information printed on QSL cards generated by DXKeeper. You can individually specify the font name, metrics (size, bold, italic), and color of the station callsign, confirmation statement, QSO information, and the text positioned in each corner of the card. Double-clicking a font name, size, or color control displays a dialog box that facilitates selection of the desired parameters.

You can also specify the pathname of a file containing a background image in BMP format; you can use Microsoft Paint to open a file in JPG format and save it in BMP format. If the *Background Image* panel's *Enable* box is checked, then DXKeeper will compute an image size in pixels from the printable area dimensions reported by the selected printer's driver, the specified card Width and Height, and your monitor resolution; the computed image size is displayed at the top of the Print Preview window. If the selected printer's driver reports left and top margins of 0, then background image will cover the entire card; otherwise, there will be side margins equal to the printer's left margin, and top/bottom margins matching the printer's top margin. The selected background image will be adjusted to fit; an image whose pixel size exactly matches the computed image size shown at the top of the Print Preview window will not be adjusted -- otherwise, re-sampling and/or changes to the image's aspect ratio may be required.

If you are printing QSL cards on blank cardstock either without a background image or with a background image that does not include the station callsign, check the *Station Callsign* panel's *Display* box so that DXKeeper will print each QSO's station callsign. If the *Below Upper Text* box is unchecked, the station callsign with be printed at the top-center of each card; if this box is checked, the station callsign will be printed in the center of each card below the fourth line of Upper Text -- allowing more or larger text in the Upper Left and Upper Right text boxes, but reducing the number of QSOs that can be confirmed on a single QSL card. Note that the callsign printed is taken from the QSO's station call item, not the from the default station callsign; this allows you to operate with multiple callsigns within the same log -- e.g. AA6YQ and AA6YQ/1 -- and print the correct callsign on each QSO.

If you are printing QSL cards on cardstock preprinted with your callsign or using a background image that includes the station callsign, then uncheck the *Station Callsign* panel's *Display* box.

If you want the contents of the QSO's Via item to be appended to the Confirmation information if those contents are a valid callsign, check the *Confirmation* panel's *Include QSL Manager* box. If you want [x buro] (where x is the DXCC prefix for the destination QSL bureau) appended to the Confirmation information if the QSL is to be sent via the QSL bureau, check the Confirmation panel's *Include [buro]* box.

Below the Confirmation information, DXKeeper will print a table consisting of a row of Heading text followed by one row of Information text for each QSO being confirmed. The *QSO Information* panel lets you specify the color of the font used to display text in the Heading row, and separately specify the color of the font used to display text in the QSO Information rows. If you'd like the table's rows and columns to be separated by lines, check the *QSO Information* panel's *print grid lines* box, and specify the color to be used to render these lines.

Information from the following *QSL Information* textboxes is printed on every QSL card using the specified font parameters and color:

Upper Left Text	up to 4 lines of text positioned in the card's upper left corner
Upper Right Text	up to 4 lines of text positioned in the card's upper right corner
Lower Left Text	up to 1 lines of text positioned in the card's lower left corner
Lower Right Text	up to 1 lines of text positioned in the card's lower right corner

Typically, these QSL Information text boxes are used to print information about your QTH -- your city, county, state, grid-square, etc. If you are printing QSL cards on cardstock preprinted with your QTH information, then simply leave the QSL Information text boxes blank. If you always operate from the same place, then you can directly enter your QTH information. But if you operate from multiple locations and want your QSL cards to accurately indicate the QTH from which you made the QSO, then you must

1. specify each QTH, assigning each a unique identifier
2. make sure that each QSO's myQTH field contains the identifier for the QTH from which that QSO was made
3. use appropriate QSL substitution commands in the QSL information fields

By using QSL substitution commands in the QSL Information textboxes, you can establish one QSL card style that will correctly print QSL cards for QSOs made from a variety of locations. Each substitution command found in a QSL Information textbox is replaced by the appropriate information for the QTH from which the current QSO was made.

QSL Labels Tab

Each QSL label is composed of a Confirmation line and a table consisting of a Heading row and one row of QSO Information for each confirmed QSO. You can individually control the font name, font metrics (size, bold, italic), and font color of each of these elements. Double-clicking a font name, font size, or font color control displays a dialog box that facilitates selection of the desired parameters.

This tab's Frequency panel allows you to specify whether generated QSL labels show a QSO's frequency or its band.

The following settings are used to specify the geometry of the QSL labels you're using.

Label model #	manufacturer's model number for the label in use (serves as a reminder to the user)
Labels per column	the number of labels in each column
Row 1 offset	distance from the top edge of the label sheet to the top of the first row of label, in inches or millimeters as specified by the Units panel
Row height	distance from the top edge of the one row of labels to the top edge of the next row of label, in inches or millimeters as specified by the Units panel
Column 1 offset	distance from the left edge of the label sheet to the left edge of the first label column, in inches or millimeters as specified by the Units panel
Column 2 offset	distance from the left edge of the label sheet to the left edge of the second label column, in inches or millimeters as specified by the Units panel; if 0, only 1 column of labels per page are printed
Column 3 offset	distance from the left edge of the label sheet to the left edge of the third label column, in inches or millimeters as specified by the Units panel; if 0, only 2 columns of labels per page are printed
Label width	the width of each label, in inches or millimeters as specified by the Units panel

Include QSL Mgr in confirmation	When checked, the contents of the QSO's Via item will be appended to the confirmation line if the contents are a valid callsign (2-column labels only)
Include [buro] in confirmation	When checked, [x buro] (where x is the DXCC prefix for the destination QSL bureau) will be appended to the Confirmation line if the QSL is to be sent via the QSL bureau (2-column labels only)
Include QSL Mgr & Pse/Tnx QSL	When checked places the following information along the bottom margin of each 3-wide label using the font metrics specified in the *Bottom Line Font* panel: • the contents of the QSO's Via item if it is a valid callsign • if all QSOs on the label have been confirmed, 'tnx QSL'; otherwise, 'pse QSL!'
Include [buro]	When checked, [x buro] (where x is the DXCC prefix for the destination QSL bureau) will be included in a 3-wide label's *Bottom Line Font* panel if the QSL is to be sent via the QSL bureau and Include QSL Mgr & Pse/Tnx QSL is enabled

Envelopes Tab

The following settings are used to specify the geometry of the envelopes to be addressed, and the location of the address on the envelope, and the return address to be printed.

Return address	your return address (up to 5 lines)
Top margin	distance from the printer's top of page to the top edge of the envelope, in inches
Left margin	distance from the printer's left edge to the left edge of the envelope, in inches
Address top offset	distance from the top edge of the envelope to the first address line, in inches
Address left offset	distance from the left edge of the envelope to the left edge of the address, in inches
Airmail Indicator	check to have "Airmail, Par Avion" printed on each envelope
Printer orientation	set to "portrait" or "landscape" as required to reliably print envelopes on your printer
Print DX address in upper case	check to force the DX address to be printed in upper case

If you always operate from the same place, then you can directly enter your return address; even if you operate from multiple locations, you may want all QSLs returned to the same address. But if you operate from multiple locations and want QSL cards returned to the location from which you operated, you must

1. specify each QTH, assigning each a unique identifier
2. make sure that each QSO's myQTH field contains the identifier for the QTH from which that QSO was made
3. use appropriate substitution commands in the return address

By using the following substitution commands in the return address field, you can establish one return address specification that will correctly print envelopes whose return addresses are specified by the operating location. Each substitution command found in a return address field is replaced by the appropriate information for the QTH from which the current QSO was made, as shown in the following table:

Command	**Replacement**
<streetaddress>	the QTH's street address
<city>	the QTH's city
<county>	the QTH's county

<state>	the QTH's state
<postalcode>	the QTH's postal code
<country>	the QTH's country

Address Labels Tab

The following settings are used to specify the geometry of the address labels you're using.

Label model #	manufacturer's model number for the label in use (serves as a reminder to the user)
Labels per column	the number of labels in each column
Row 1 offset	distance from the top edge of the label sheet to the top of the first row of label, in inches or millimeters as specified by the Units panel
Row height	distance from the top edge of the one row of labels to the top edge of the next row of label, in inches or millimeters as specified by the Units panel
Column 1 offset	distance from the left edge of the label sheet to the left edge of the first label column, in inches or millimeters as specified by the Units panel
Column 2 offset	distance from the left edge of the label sheet to the left edge of the second label column, in inches or millimeters as specified by the Units panel; if 0, only 1 column of labels per page are printed
Column 3 offset	distance from the left edge of the label sheet to the left edge of the third label column, in inches or millimeters as specified by the Units panel; if 0, only 2 columns of labels per page are printed
Label width	the width of each label, in inches or millimeters as specified by the Units panel
Print DX address in upper case	check to force the DX address to be printed in upper case

QSL Msgs Tab

This tab provides 8 standard QSL messages, any one of which can be selected as the default QSL message via the General tab's QSL msg selector. You can also choose from among these messages using the Capture window's QSL msg selector, and make modifications there. Double-clicking one of these messages invokes a Field editor. A QSL message's label will be highlighted in red if the maximum length is exceeded).

You can use substitution commands in QSL messages to include information determined by your current location.

eQSL Tab

Username	your eQSL.cc username
Password	your eQSL.cc password, concealed by * characters; clicking the **?** button reveals the password
QTH Nickname	optional eQSL.cc QTH nickname • if present, limits the Sync eQSL.cc QSLs operation to QSLs from the specified QTH in your eQSL.cc profile • if present and Use each QSO's myQTHID as its QTH Nickname when uploading or exporting is disabled, selects the QTH in your eQSL.cc profile for QSOs uploaded or exported to eQSL.cc
Maximum time difference...	if a downloaded QSL in consistent with a QSO's callsign, band, and mode, this parameters specifies the maximum difference in minutes between the QSL's begin time and the QSO's begin time for the QSL to be deemed a match for the QSO
Upload an eQSL...	when checked, clicking the Capture window's Log button automatically uploads an eQSL (eliminating the need to depress the **Ctrl** key each time)
Initialize eQSL Sent to 'R'...	when checked, logging a QSO via the Main or Capture windows, or importing a QSO records the eQSL Sent field as 'R' (for requested) unless the imported field is set to 'Y'
Use each QSO's myQTHID as its QTH Nickname when uploading or exporting	when checked, each QSO's myQTHID will be used as its QTH Nickname when uploading to eQSL.cc or when exporting for eQSL.cc; when not checked, the specified QTH Nickname will be used.
Don't upload QSOs whose station callsign isn't the specified Username	when checked, only QSOs whose station callsign matches the eQSL.cc Username will be uploaded to eQSL.cc by the Upload to eQSL.cc function
Prompt the user to specify a file containing the already-downloaded contents of an eQSL.cc Inbox when a Sync eQSL.cc QSLs operation is performed	when checked, the Sync eQSL.cc QSLs operation prompts you to specify a file containing the contents of an eQSL.cc Inbox that you have already downloaded
Retain eQSL images	when checked, clicking the eQSL Display button checks to see if the current QSO's eQSL image has already been downloaded into DXKeeper's eQSL image folder • if not, the image is downloaded from eQSL, saved in DXKeeper's eQSL image folder, and displayed • if so, the already-downloaded image is displayed -- unless the user depressed the CTRL key while clicking the eQSL Display button, in which case the already-downloaded image is replaced with a new image downloaded from eQSL.cc, and displayed
eQSL image folder pathname	the pathname of the folder into which downloaded eQSL images are stored; click the **Select** button to choose a folder

Update eQSL AG Membership button

- enabled if the eQSL AG database is present in DXView Databases folder or in DXKeeper's Databases folder
- click to set the eQSL Member item to 'A' in all QSOs in the Log Page Display whose callsign is an Authenticity Guaranteed member of eQSL.cc

LotW Tab

Username	your LotW username
Password	your LotW password (use the web account password) concealed by ***** characters; clicking the **?** button reveals the password
Initialize LotW Sent to 'R'...	when checked, logging a QSO via the Main or Capture windows, or importing a QSO records the LotW Sent field as 'R' (for requested) unless the imported field is set to 'Y'
Consider LotW confirmations in outgoing card/label QSL? "please/thanks" decisions	when checked, a QSO confirmed via LotW will be considered confirmed when deciding whether or not to print 'please!' or 'thanks!' in a QSL card's QSL? column or to print 'pse!' or 'tnx!' in a QSL label's QSL? column
PC has no internet connection (prompt operator to manually query LotW)	when checked, DXKeeper will prompt you to manually upload a signed .TQ8 file, and to manually query LotW and place the query results in a designated file; this option should only be selected when your PC does not have a direct connection to the internet. This option can also be used to report DXCC verification discrepancies from a PC with no internet connection.
Maximum age of most recent LotW upload to be considered "active" (months)	• if no age is specified, a callsign is considered to be an active LotW participant if it appears in the LotW database, independent of when it last uploaded QSOs to LotW • if an age in months is specified, a callsign is considered to be an active LotW participant if it appears in the LotW database and has uploaded QSOs to LotW within the specified interval

The **Handling of LotW QSL detail inconsistencies** setting controls the resolution of inconsistencies between a downloaded LotW QSL and its matching logged QSO in the country code, CQ, ITU, Gridsquare, Iota, State, and/or County fields:

- always replace the logged data with the LotW QSL data
- always preserve the logged data, ignoring the LotW QSL data
- display a dialog presenting the logged data and the LotW QSL data so that the operator can choose

Log-specific options are store in each Log file:

Limit Add and Sync operations to this station callsign	When this setting specifies a callsign, and QSL Via is set to LotW, • the Add Requested and Add All operations ignore Log Page Display QSOs whose Station Callsign item doesn't match the specified callsign • the Sync LotW QSOs and Sync LotW QSLs operations download and synchronize only QSOs and QSLs whose station callsign matches the specified callsign When this setting is empty, the Sync LotW QSOs and Sync LotW QSLs operations download and synchronize all QSOs and QSLs in your LotW account, respectively • the Add Requested and Add All consider all QSOs in the Log Page Display • the Sync LotW QSOs and Sync LotW QSLs operations download and synchronize all QSOs and QSLs independent of their station callsign

Report unmatched QSOs or QSLs as errors	when checked, • the Sync LotW QSOs operation will report any downloaded QSOs that don't match any QSO in the current log • the Sync LotW QSLs operation will report any downloaded QSLs that don't match any QSO in the current log
Exclude station callsign when matching downloaded QSOs & QSLs to logged QSOs	when checked, • the Sync LotW QSOs operation will consider a downloaded QSO to match a logged QSO if the callsigns, bands, modes, and begin times are all identical; when unchecked, the station callsigns must also be identical. • the Sync LotW QSLs operation will consider a downloaded QSL to match a logged QSO if the callsigns, bands, modes, and begin times are all identical; when unchecked, the station callsigns must also be identical.

TQSL settings:

Full pathname of TQSL.exe	specify the location of the LotW application TQSL on your PC's hard drive • TQSL is free, and available via https://www.arrl.org/lotw/getstart • if you already have TQSL installed, verify that it is version 1.1.0 or later by running it and invoking its Help:About menu item • By default, TQSL is installed in c:\Program Files\TrustedQSL\TQL.exe • If you installed TQSL in another location, use the **Select** button to locate and select TQSL Note that TQSL must be installed on a drive directly attached to your PC; otherwise, DXKeeper will be unable to obtain your station locations.
TQSL station location	Select the TQSL station location to be used associated with the uploaded QSOs; if no station location is selected, TQSL will ask you to select one when it invoked by DXKeeper during the LotW upload process. If you add, modify, or delete a station location in TQSL, click the **Update** button to update the station location selector.

Update LotW Membership button

- enabled if the LotW database is present in DXView's Databases folder or in DXKeeper's Databases folder
- if no Maximum age of most recent LotW upload is specified, clicking this button sets LotW Member item to 'Y' in all QSOs in the Log Page Display that has been confirmed via LotW, or whose callsign is found in the LotW database.
- if a Maximum age of most recent LotW upload is specified, clicking this button
    - sets the LotW Member item to 'Y' in all QSOs in the Log Page Display that have been confirmed via LotW, or whose callsign is found in the LotW database with a "date of last upload" within the interval specified by Maximum age of most recent LotW upload
    - clears the LotW Member item in all QSOs in the Log Page Display that have not been confirmed via LotW and whose callsign is not found in the LotW database with a "date of last upload" within the interval specified by Maximum age of most recent LotW upload

ADIF & TDF Tab

Frequency precision	specifies the number of decimal digits shown in transmit frequencies and receive frequencies included in ADIF and Tab-delimited files exported from the QSL Queue; the valid range is 3 to 6.

Printer Tab

Name	the name of the printer on which QSLs will be printed
Media for QSL cards	• Size - selects the paper size on which QSL cards will be printed • Source - selects the media bin from which QSL cards will be printed
Media for QSL labels and address labels	• Size - selects the paper size on which QSL labels and address labels will be printed • Source - selects the media bin from which QSL labels and address labels will be printed
Media for envelopes	• Size - selects the paper size on which envelopes will be printed • Source - selects the media bin from which envelopes will be printed
Print Quality	select the desired print quality
Ignore printer-imposed margins	when checked, top and left margins reported by the printer driver are ignored and reported as 0; this allows borderless printing of QSL cards and labels. Note that doing this could damage your printer, so **USE AT YOUR OWN RISK**.

Backing Up and Recovering Your Log

While modern mass storage devices are very reliable, the retain their predecessors' habit of failing at the worst possible moment. The careful operator will make frequent backup copies of his or her log using external media -- a CDROM or DVDROM, a removable disk drive, a disk drive on another PC on a home network, even a thumb drive. In addition, one should make a backup before performing major changes to one's log, such as importing new QSOs, using the **Modify QSOs** panel, or running a script; this makes it easy to recover if things don't go as expected.

Making a backup copy of your Log file
To make a backup copy of the current Log file,

1. click the **Config** button
2. select the Configuration window's **Log** tab
3. click the **Backup folder** panel's **Backup** button.

DXKeeper will create a copy of your log file in the specified backup folder; this copy's filename will include the current UTC date and time, allowing you to create and retain log backups as frequently as every second. If you've previously created a log backup file on the same UTC date, you will be offered the choice of aborting the new backup or over-writing the previous backup.

Automatically making a backup copy of your Log file on shutdown
If the Backup log on shutdown box is checked when DXKeeper is directed to terminate with a log file open, then

- a copy of your log file will be created in the specified backup folder
- this copy's filename will be constructed by appending the current UTC date to the log filename
- if an existing file with this name already exists in the specified backup folder, the existing file will be replaced with the new copy

Recovering your Log file from a backup copy
If the contents of the current Log are damaged -- by the unintentional deletion of multiple QSOs, for example -- you can replace the contents of the current Log with those of a previously-created backup copy. To do so,

1. terminate SpotCollector if its running
2. click the **Config** button
3. select the Configuration window's **Log** tab
4. click the **Backup folder** panel's **Recover** button.

DXKeeper will display a file selector dialog window with which you can choose the backup copy whose contents will be replace the contents of the current Log file. Before this replacement occurs, the contents of the current Log file are saved to a file whose name is generated by appending the words and timestamp _abandoned_YYYY_MMM_DD_HH_MM_SS_0 to the original filename. This file provides a safety net should you later discover that it contains needed data; it can be deleted when you are certain that its no longer needed.

When the operation is complete, the Log file will be in a state identical to that of the moment you created the selected backup file: logged QSOs, awards progress, QSL queue, and log-specific settings.

Log Items

QSO items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
call	Call	String	the station's callsign	13
name	Name	String	the operator's name	1024
QTH	QTH	String	the operator' QTH	1024
mode	Mode	String	QSO mode (SSB, CW, RTTY, AM, FM, PSK31 plus any user-defined modes)	8
via	QSL_via	String	the station's QSL route	1024
tx freq	Freq	Number	the QSO transmit frequency in MHz. (in a cross-band QSO, the transmit frequency)	14
begin	QSO_Date Time_On	Date	the UTC time at which the QSO started • entry format is your locale's standard date/time format, or dd-mmm-yyyy hh:mm:ss, or yyyy-mm-dd hh:mm:ss • display format is your locale's standard date/time format, with seconds presented if the Display seconds in date/time fields checkbox is checked. • the year must be 1930 or later	NA
sent	RST_Sent	String	the RST report you sent	8
rcvd	RST_Rcvd	String	the RST report you received	8
tx band	Band	String	the QSO transmit band (2190m, 160m, 80m, ... 2m ... 3cm ... 1mm .. submm)	6
rx freq	Freq_RX	Number	the QSO receive frequency in MHz.	14
end	QSO_Date Time_Off	Date	the UTC time at which the QSO ended • entry format is your locale's standard date/time format, or dd-mmm-yyyy hh:mm:ss, or yyyy-mm-dd hh:mm:ss • display format is your locale's standard date/time format, with seconds presented if the Display seconds in date/time fields checkbox is checked. • the year must be 1930 or later	NA
power	TX_Pwr	Number	your transmit power, in watts	4
code	DXCC	String	the ARRL's country code for the station's DXCC entity	3
DXCC	App_DXKeeper_DXCCPrefix	String	the station's DXCC prefix	6
entity	(not stored in log)		the name of the station's DXCC entity (changing this automatically sets the DXCCID code to the correct value)	(not stored in log)

Auxiliary items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
station call	Station_Callsign	String	the station callsign used over the air	13
op call	Operator	String	callsign of the station operator	13
owner call	Owner_Callsign	String	callsign of the station owner	13
unique	(not imported or exported)	Number	unique number assigned to this QSO • the first QSO logged or imported is assigned the number 1 • each subsequent QSO logged or imported is assigned the next number • the unique numbers assigned to a QSO's log can be reset	8
sub mode	App_DXKeeper_Submode	String	auxillary mode information (e.g. number of tones, error correction scheme, etc)	32
rx band	BAND_RX	String	the QSO receive band (2190m, 160m, 80m, ... 2m ... 3cm ... 1mm .. submm)	6
select	App_DXKeeper_Select	String	this item can be used in conjunction with the Select filter and SQL filters to place arbitrary sets of QSOs in the Log Page Display • Y - the QSO is selected • N - the QSO is not selected	1
Club Log status	App_DXKeeper_ClubLog	String	Club Log upload status • Y - the QSO has been uploaded to ClubLog • M - the QSO has been modified after being uploaded to ClubLog	1
temp	App_DXKeeper_Temp	String	this item can be used in conjunction with the Modify QSOs panel to non-destructively move information between items Note: for QSOs in a submission confirmed by QSL card, the Create Card Record Sheet function sets temp to **Y** in QSOs with identical QSL# items, and to **N** in QSOs that specify either no QSL# or that specify a unique QSL#	1024

QSL items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
sent	QSL_sent	String	status of your outgoing QSL card • (blank) - a card has not yet been sent • N (no) - no card should be sent • R (requested) - the card should be sent • Y (yes) - the card has been sent • I (ignore) - no card should be sent	1
rcvd	QSL_rcvd App_DXKeeper_QSL_Verified App_DXKeeper_QSL_Expired	String	status of the station's incoming QSL card • R (requested) - the card has been requested • Y (yes) - the card has been received • S (submitted) - the card will be submitted to the ARRL for verification • V (verified) - the card has been verified by the ARRL • I (invalid) - the card is invalid • X (expired) - ignore this QSO when determining which QSOs should be confirmed if the Partial DXCC Credit option is enabled, the following values can also be used: • E (Entity verified) - the card's Entity has been verified by the ARRL • B (Entity and Band verified) - the card's Entity and Entity-Band have been verified by the ARRL • M (Entity and Mode verified) - the card's Entity and Entity-Mode have been verified by the ARRL (use these settings for QSL cards submitted to the DXCC desk before its records were computerized, where a card's Entity-Band and/or Entity-Mode was not recorded)	1

date sent	QSLSdate	Date	the date your outgoing QSL card was sent • entry format is your locale's standard date format, or dd-mmm-yyyy, or yyyy-mm-dd • display format is yyyy-mm-dd • the year must be 1930 or later • if not specified, the value 4000-01-01 is recorded	NA
date rcvd	QSLRdate	Date	the date the station's incoming QSL card was received • entry format is your locale's standard date format, or dd-mmm-yyyy, or yyyy-mm-dd • display format is yyyy-mm-dd • the year must be 1930 or later • if not specified, the value 4000-01-01 is recorded	NA
sent via	QSL_Sent_Via	String	means by which an outgoing confirmation should be (or has been) conveyed • E - convey electronically • B - convey QSL card via the QSL bureau • D - convey QSL directly	1
rcvd via	QSL_Rcvd_Via	String	means by which confirmation was conveyed • E - electronic • B - via the QSL bureau (and possibly electronic) • D - directly (and possibly via bureau or electronic)	1
QSL#	App_DXKeeper_QSL_Number	Number	user-assigned tracking number associated with the received QSL card	NA
msg	QSLMsg	String	a message to appear on your outgoing QSL card	1024
myQTH	App_DXKeeper_My_QTHID	String	uniquely identifies the QTH from which you were operating when making this QSO	64
addr	Address	String	the address to which a request for QSL should be sent, formatted as you wish it to appear on an envelope or label (use the Enter key to insert line breaks)	1024

WAZVerified	Credit_Submitted (WAZ) Credit_Granted (WAZ) App_DXKeeper_WAZ_Invalid	String	WAZ verification status • S (submitted) - the card has been submitted for WAZ verification • V (verified) - the card has been verified for WAZ • I (invalid) - the card is invalid for WAZ	1
IOTAVerified	Credit_Submitted (IOTA) Credit_Granted (IOTA) App_DXKeeper_IOTA_Status	String	IOTA verification status • S (submitted) - the QSO has been submitted to RSGB, and is considered confirmed • V (verified) - the QSO has been verified by RSGB • N (not confirmed) - the QSO's confirmation is invalid for IOTA, but the QSO is valid • D (deleted) - the QSO IOTA group is deleted • I (invalid) - the QSO is invalid for IOTA	1
VUCCVerified	Credit_Submitted (VUCC) Credit_Granted (VUCC) App_DXKeeper_VUCC_Status	String	VUCC verification status • S (submitted) - the card has been submitted for VUCC verification • V (verified) - the card has been verified for VUCC • I (invalid) - the card is invalid for VUCC	1

Online QSL Items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
eQSL.cc sent	EQSL_QSL_Sent	String	status of upload to eQSL.cc • (blank) - this QSO has not yet been uploaded to eQSL.cc • R (requested) - this QSO should be uploaded to eQSL.cc • U (uploaded) - this QSO has been uploaded to eQSL.cc • Y (yes) - this QSO has been uploaded and accepted by eQSL.cc • N (no) - this QSO should not be uploaded to eQSL.cc • I (ignore) - this QSO should not be uploaded to eQSL.cc	1

eQSL.cc rcvd	EQSL_QSL_Rcvd	String	status of confirmation by eQSL.cc • R (requested) - confirmation has been requested from eQSL.cc • Y (yes) - confirmation has been received from eQSL.cc • V (verified) - confirmation has been verified by eQSL.cc • I (invalid) - ignore this QSO when tracking progress • X (expired) - ignore this QSO when determining which QSOs should be confirmed	1
eQSL.cc date sent	EQSL_QSLSdate	Date	the date that the QSO information was successfully uploaded to eQSL.cc • entry format is your locale's standard date format, or dd-mmm-yyyy, or yyyy-mm-dd • display format is yyyy-mm-dd • the year must be 1930 or later • if not specified, the value 4000-01-01 is recorded	NA
eQSL.cc date rcvd	EQSL_QSLRdate	Date	the date that the QSO was confirmed via eQSL.cc • entry format is your locale's standard date format, or dd-mmm-yyyy, or yyyy-mm-dd • display format is yyyy-mm-dd • the year must be 1930 or later • if not specified, the value 4000-01-01 is recorded	NA
eQSL.cc member	App_DXKeeper_EQSL_Member	String	participation in eQSL.cc • Y - known to participate • A - known to participate, "authenticity guaranteed" • N - known not to participate	1
LotW sent	LotW_QSL_Sent	String	status of upload to LotW • (blank) - this QSO has not yet been uploaded to LotW • R (requested) - this QSO should be uploaded to LotW • U (uploaded) - this QSO has been uploaded to LotW • Y (yes) - this QSO has been uploaded and accepted by LotW • N (no) - this QSO should not be uploaded to LotW • I (ignore) - this QSO should not be uploaded to LotW	1

LotW rcvd	LotW_QSL_Rcvd App_DXKeeper_LOTW_Verified	String	status of confirmation by LotW • R (requested) - confirmation has been requested from LotW • Y (yes) - confirmation has been received from LotW • S (submitted) - the confirmation will be submitted to the ARRL for verification • V (verified) - confirmation has been verified by LotW • I (invalid) - ignore this QSO when tracking progress • X (expired) - ignore this QSO when determining which QSOs should be confirmed	1
LotW cfm	App_DXKeeper_LOTWConfirmation	String	contains a G if this QSO's LotW confirmation specifies a valid grid square, and an S if this QSO's LotW confirmation specifies a valid US State	4
LotW date sent	LotW_QSLSdate	Date	the date that the QSO information was successfully uploaded to LotW • entry format is your locale's standard date format, or dd-mmm-yyyy, or yyyy-mm-dd • display format is yyyy-mm-dd • the year must be 1930 or later • if not specified, the value 4000-01-01 is recorded	NA
LotW date rcvd	LotW_QSLRdate	Date	the date that the QSO was confirmed via LotW • entry format is your locale's standard date format, or dd-mmm-yyyy, or yyyy-mm-dd • display format is yyyy-mm-dd • the year must be 1930 or later • if not specified, the value 4000-01-01 is recorded	NA
LotW member	App_DXKeeper_LotW_Member	String	participation in LotW • Y - known to participate • N - known not to participate	1

Award items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
grid	GridSquare	String	the station's grid square in the Maidenhead Locator System	8
IOTA	IOTA	String	the station's Islands on the Air designator	7
cont	Cont	String	the station's continent (NA, SA, EU, AF, OC, AS)	2
WPX	Pfx	String	the station's prefix as defined by the CQ	8

			WPX awards program	
CQ	CQZ	String	the station's CQ zone	2
ITU	ITUZ	String	the station's International Telecommunications Union zone	2
ARRL	ARRL_Sect	String	the station's ARRL section (only visible in the Awards panel for stations in the US, US possessions, and Canada)	6
DOK	App_DXKeeper_DOK	String	the station's DARC DOK (only visible in the Awards panel for stations in Germany) • clicking the **?** button displays the **Main Award Selector** window, which lets you select a DOK by name or by code	16
Region	App_DXKeeper_Region	String	for stations in Austria, Italy, Scotland, Svalbard, and Turkey, the station's Region as defined by CQ for its Marathon award and DARC for its WAE award • clicking the **?** button displays the **Main Award Selector** window, which lets you select a CQ or WAE Region by name or by code for stations in Israel, the station's Region as defined for the Holyland award • clicking the **?** button displays the **Main Award Selector** window, which lets you select a Holyland Region by name or by code for stations in England, Guernsey, Ireland, Isle Of Man, Jersey, Northern Ireland, Scotland, and Wales, a Worked All Britain code Note: if you are pursuing both the Worked All Britain and Marathon awards or both the Worked All Britain and WAE awards, then log the appropriate Worked All Britain code with Scottish stations; the Marathon reporting will interpret this code correctly	8
varies by entity	State	String	the station's primary administrative subdivision code • clicking the **?** button displays the **Main Administrative Subdivision Selector** window, which lets you choose the primary administrative subdivision by name or by code	2
varies by entity	Cnty	String	the station's secondary administrative subdivision code • clicking the **?** button displays the **Main Administrative Subdivision Selector** window, which lets you choose the secondary administrative subdivision by name or by code	32

	PrimaryInvalid	String	validity of specified primary administrative subdivision code for DXCC entity • Y - specified primary administrative subdivision code is invalid • N - specified primary administrative subdivision code is valid	1
	SecondaryInvalid	String	validity of specified secondary administrative subdivision code for DXCC entity and primary administrative subdivision code • Y - specified secondary administrative subdivision code is invalid • N - specified secondary administrative subdivision code is valid	1
grid2	App_DXKeeper_Grid2	String	the station's second grid square in the Maidenhead Locator System when operating on a grid boundary; this item is only visible in the Awards panel if the VUCC box is checked on the Configuration window's Awards tab.	6
grid3	App_DXKeeper_Grid3	String	the station's third grid square in the Maidenhead Locator System when operating on a grid boundary; this item is only visible in the Awards panel if the VUCC box is checked on the Configuration window's Awards tab.	6
grid4	App_DXKeeper_Grid4	String	he station's fourth grid square in the Maidenhead Locator System when operating on a grid boundary; this item is only visible in the Awards panel if the VUCC box is checked on the Configuration window's Awards tab.	6

Contest items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
ID	Contest_ID	String	the name of the current contest	32
tx #	STX	String	transmit serial number or exchange	16
rx #	SRX	String	receive serial number or exchange	16
tx info	STX_String	String	transmit exchange information	32
rx info	SRX_String	String	receive exchange information	32

Propagation items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
mode	Prop_Mode	String	the propagation mode • AUR - Aurora • AUE - Aurora-E • BS - Back scatter • ECH - EchoLink • EME - Earth-Moon-Earth • ES - Sporadic E • FAI - Field Aligned Irregularities • F2 - F2 Reflection • ION - Ionoscatter • IRL - IRLP • MS - Meteor scatter • RS - Rain scatter • SAT - Satellite • TEP - Trans-equatorial • TR - Tropospheric ducting	8
complete	QSO_Complete	String	indicates whether the QSO was complete from the perspective of the logging station • Y - yes • N - no • NIL - not heard • ? - uncertain	3
EME initial	Force_Init	String	new Earth-Moon-Earth "initial" • Y - yes • N - no	1
Antenna az	Ant_Az	Number	antenna azimuth	4
Antenna path	Ant_Path	String	antenna path • S - shortpath • L - longpath • G - grayline • O - other	1
Antenna elev	Ant_El	Number	antenna elevation	4
Condition SFI	SFI	Number	solar flux	4
Condition A	A_Index	Number	Boulder K-index	4
Condition K	K_Index	Number	Boulder A-index	4
Satellite name	Sat_Name	String	satellite name	32
Satellite mode	Sat_Mode	String	satellite mode	8
Meteor Scatter shower	MS_Shower	String	meteor shower name	32
Meteor Scatter max time	Max_Bursts		maximum length of meteor scatter bursts heard by the logging station, in seconds	4

Meteor Scatter random	QSO_Random	String	indicates whether the QSO was random or scheduled • Y - random • N - scheduled	1
Meteor Scatter bursts	Nr_Bursts	Number	the number of meteor scatter bursts heard by the logging station	4
Meteor Scatter pings	Nr_Pings	Number	the number of meteor scatter pings heard by the logging station	4

Details items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
dist (mi or km)	Distance	Number	distance to the contacted station in miles or kilometers	8
lat	Lat	String	contacted station latitude	11
lon	Lon	String	contacted station longitude	11
age	Age	String	contacted operator's age	3
sig	Sig	String	contacted operator's special interest group	32
sig info	Sig_Info	String	contacted operator's special interest group information	32
owner call	Eq_Call	String	contacted station's owner's callsign	13
rig	Rig	String	contacted station's equipment	32
power	RX_Pwr	Number	contacted station's output power	4
email	Email	String	contacted operator's email address	1024
web	Web	String	contacted operator's worldwide web URL	1024
file	App_DXKeeper_Fike	String	name of local file containing information associated with this QSO	1024
comment	Comment	String	additional information about the QSO you wish to retain; in Contest Mode, used to capture secondary exchanges for some contests as selected by the Contest Style setting.	1024

User defined

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
configurable	App_DXKeeper_User_Defined_0	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_1	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_2	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_3	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_4	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_5	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_6	String	user-defined	1024
configurable	App_DXKeeper_User_Defined_7	String	user-defined	1024

Other items

These items do not appear in any panel on the Main window's Log QSOs tab:

ADIF Field Name	Data Type	Item Description	Max Length
App_DXKeeper_ClubLogDate	Date	the UTC date and time at which the QSO was last uploaded to ClubLog; if never uploaded, the value 4000-01-01 is recorded	NA

MyQTH items

Textbox Caption	ADIF Field Name	Data Type	Item Description	Max Length
ID	App_DXKeeper_My_QTHID	String	unique identifier associated with a QTH	20
Rig	My_Rrig	String	equipment in use	128
Name	My_Name	String	operator's name	32
Email	App_DXKeeper_My_Email	String	operator's email address	32
Street	My_Street	String	station QTH street name	32
City	My_City	String	station QTH city	32
State	My_State	String	station QTH state	32
PostCode	My_Postal_Coce	String	station QTH postal code	32
County	My_Cnty	String	station QTH county	32
Country	My_Country	String	station QTH country	32
CQ	My_CQ_Zone	String	station QTH CQ zone	2
ITU	My_ITU_Zone	String	station QTH ITU zone	2
IOTA	My_IOTA	String	station QTH IOTA tag	8
Grid	My_Gridsquare	String	station QTH grid square	6
Latitude	My_Lat	String	station QTH latitude	16
Longitude	My_Lon	String	station QTH longitude	16

Sig	My_Sig	String	operator's special interest group name	32
Sig Info	My_Sig_Info	String	operator's special interest group information	32

Primary and Secondary Administrative Subdivision Codes
For most DXCC entities, DXKeeper's State item employs the codes defined by ADIF for Primary Administrative Subdivisions. For the following DXCC entities, however, DXKeeper uses codes different than ADIF's, performing translation during import and export operations to maintain ADIF compliance:

Entity Name	Primary Code (ADIF)	Primary Code (DXKeeper)	Secondary Code (DXKeeper)
Franz Josef Land	FJL	AR	AR-32
Lord Howe Is	LH	NSW	
Malyj Vysotskij	MV	LO	LO-24
Macquarie Is	MA	TAS	
Minami Torishima	MT	10	100007
Ogasawara	O	10	100007

As shown in the above table, DXKeeper also defines Secondary Administrative Subdivision codes for several DXCC entities where ADIF does not define such codes.

Capture Window Items

call	required	station callsign • striking the <enter> key is equivalent to clicking the **Lookup** button • striking CTRL-<enter> is equivalent to clicking the **Log** button • striking the ESC key or clicking on the ? button to the left of this field filters the Log Page Display for previous QSOs with this station • striking the INS key is equivalent to clicking the **Start** button • keyboard shortcuts navigate to other Capture Window items • the label of this field indicates the number of previous QSOs after the Log Page Display has been filtered for previous QSOs • clicking on the label of this field will display the main log window, should it be minimized
RST sent	optional	signal report sent • if the run-mode box is checked, clicking the **Lookup** button initializes this field to 59 (if the mode is SSB or FM) or to 599 (if the mode is CW, RTTY, or PSK) • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
RST rcvd	optional	signal report received • if the run-mode box is checked, clicking the **Lookup** button initializes this field to 59 (if the mode is SSB or FM) or to 599 (if the mode is CW, RTTY, or PSK) • if the Set QSO start when RST Rcvd box is checked, entering a received signal report o designates the QSO start time o hides the **Start** button until the QSO is logged or cleared o displays the QSO start time • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items

tx frequency	optional	transmit frequency in mHz • if Commander is running and a call is specified, clicking the **Lookup** button or clicking the ? button to the left of this field initializes the field to your transceiver's current frequency • if Commander is not running and a call is specified, clicking the **Lookup** button or clicking the ? button to the left of this field initializes the field to its value in the previously-logged QSO • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
name	optional	operator's name • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
pri sub (name of primary administrative subdivision, e.g. state or district)	optional	primary administrative subdivision • clicking the **?** button displays the **Capture Administrative Subdivision Selector** window, which lets you choose the primary administrative subdivision by name or by code • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
QSL requested	optional	check if the operator asked you to QSL (initial value is set by the Preset 'QSL Requested' checkbox)
QSL via	optional	QSL route • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items • double-clicking invokes the Address Editor
use bureau	optional	check to designate that this QSO should be QSL'd via the bureau (initial value is set by the Preset 'use bureau' checkbox)
grid	optional	Maidenhead grid square • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
LotW member	optional	check if this callsign participates in the ARRL's Logbook of the World
IOTA	optional	RSGB Islands On The Air designator • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
eQSL.cc member	optional	check if this callsign participates in the eQSL.cc

pwr	optional	transmit power (watts) • double-clicking sets the Default Transmit Power to the power specified in this field • striking SHIFT-<enter> sets the Default Transmit Power to the power specified in this field • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
comments	optional	QSO comments and notes • if this item is not visible, strike the **~** button to the left of the QSL msg selector • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items • double-clicking invokes the Field Editor
QSL msg	optional	QSL message selector • if this item is not visible, strike the **~** button to the left of the notes item • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
contest ID	optional	contest identifier • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
Last QSO	{displayed information}	when Display previous QSOs on Lookup is enabled, displays the date, time, frequency and mode of the last QSO with the callsign
user-defined items 0, 1,2, and 3	optional	User-defined items • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
DXCC	required	DXCC prefix • clicking the **Lookup** button or clicking the ? button to the left of this field chooses the DXCC prefix associated with the Callsign • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items

mode	optional	mode • if Commander is running and a call is specified, clicking the **Lookup** button or clicking the ? button to the left of this field initializes the field to your transceiver's current mode • if Commander is not running and a call is specified, clicking the **Lookup** button or clicking the ? button to the left of this field initializes the field to its value in the previously-logged QSO • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
rx frequency	optional	receive frequency in mHz • if Commander is running and a call is specified, clicking the **Lookup** button initializes this field to your transceiver's current frequency • if Commander is not running and a call is specified, clicking the **Lookup** button initializes this field to its value in the previously-logged QSO • striking CTRL-<enter> is equivalent to clicking the **Log** button • double-clicking sets the rx frequency to the tx frequency • keyboard shortcuts navigate to other Capture Window items
QTH	optional	station QTH • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
sec sub (name of secondary administrative subdivision, e.g. state or district)	optional	secondary administrative subdivision code • clicking the **?** button displays the **Capture Administrative Subdivision Selector** window, which lets you choose the secondary administrative subdivision by name or by code • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
cont	optional	Continent • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
ARRL	optional	ARRL section (present if the callsign is associated with a DXCC entity governed by the ARRL) • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items

DOK	optional	DARC DOK code (present only for German callsigns) • clicking the **?** button displays the **Capture Award Selector** window, which lets you select a DOK by name or by code • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
region	optional	for stations in Austria, Italy, Scotland, Svalbard, and Turkey, the station's Region as defined by CQ for its Marathon award and DARC for its WAE award • clicking the **?** button displays the **Capture Award Selector** window, which lets you select a CQ or WAE region by name or by code for stations in England, Guernsey, Ireland, Isle Of Man, Jersey, Northern Ireland, Scotland, and Wales, a Worked All Britain code Note: if you are pursuing both the Worked All Britain and Marathon awards or both the Worked All Britain and WAE awards, then log the appropriate Worked All Britain code with Scottish stations; the Marathon reporting will interpret this code correctly • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
CQ	optional	CQ zone • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
ITU	optional	ITU zone • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
az	optional	antenna azimuth in degrees • if DXView is running with antenna rotator control enabled and a call is specified, clicking the **Lookup** button initializes this field to the most recent heading sent to the rotator • if DXView is not running or running with antenna control enabled and a call is specified, clicking the **Lookup** button initializes this field to its value in the previously-logged QSO • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items

path	optional	antenna path • if DXView is running with antenna rotator control enabled and a call is specified, clicking the **Lookup** button initializes this field to the path selected when the most recent heading was sent to the rotator • if DXView is not running or running with antenna control enabled and a call is specified, clicking the **Lookup** button initializes this field to its value in the previously-logged QSO • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
myQTH ID	optional	unique QTH identifier • clicking the **Lookup** button or clicking the ? button to the left of this field initializes the field to the contents of the my QTH ID textbox on the Log Settings panel of the Config window's Log tab • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
tx#	optional	transmitted sequence number • automatically increments after each QSO if Contest is not blank • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
rx#	optional	received sequence number • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items
user-defined items 4, 5,6, and 7	optional	User-defined items • striking CTRL-<enter> is equivalent to clicking the **Log** button • keyboard shortcuts navigate to other Capture Window items