

BarFly Commands

Most commands in BarFly are issued by choosing from a menu, or by using a command-key shortcut which does the same thing. There are one or two places where you can issue a command with a mouse click, or by using a key combination which is not a menu shortcut, and these will be described first, before going on to the menus.

SETTING THE CURRENT TUNE

Many of the commands described below operate on "the current tune". This is the tune where the text insertion point is currently located, so to change the current tune you simply click anywhere on the tune which you wish to make current. If the insertion point is between two tunes, the current tune is the one above the insertion point. If the insertion point is at the beginning of the file, the current tune is the first tune in the file, and if it is at the end of the file the current tune is the last tune in the file.

In split-screen mode, changing the current tune by moving the insertion point will not change the tune on display. If you wish to change the tune which is displayed as well, you can either click on the name of the tune which you wish to make current in the index pane, or option-click on the tune in the text pane. In split-screen mode you can also move forward or backward to the next tune in sequence by means of the key combinations Command-Down Arrow and Command-Up Arrow respectively.

ERROR CHECKING

The smiley-face icon at the top right of the screen is an error indicator. When you play a tune containing minor errors it changes to a frown. You can then inspect the list of errors by clicking once on it, which will cause the program to open a new window containing the list of errors. If the error icon is smiling, clicking on it will cause the current tune to be silently error-checked. Viewing the error list or playing another tune resets the error list, so it will normally only contain information on one tune. An exception to this is when you use the Check all Tunes command from the Utility menu. In this case the program will work its way through all the tunes in the window, and if the error icon is frowning the error list may contain information on more than one tune.

There are lots of examples of tunes containing errors in the file named "Bad Tunes", together with information on how to fix them.

file:///Bad Tunes

GRAPHIC SELECTION

In Split-Screen mode, clicking on a note-head or rest will cause both the symbol in the music pane and the corresponding text in the abc to be selected, making it easy to navigate around the abc using the music display. This feature is not available when the enable macros option is on in the Viewer Preferences (See Viewer PreferencesÉ below).

MULTIPLE TUNE SELECTION

In Split-Screen mode, you can use Shift-click to select a range of tunes, Command-click to make a discontinuous selection or type Command-Option-A to select all tunes in the index pane. Registered users can then:

- ¥ Print multiple tunes in the same document.
- ¥ Export multiple picture files of the music.
- ¥ Export multiple Quicktime movie files.
- ¥ Export multiple AIFF audio files.
- ¥ Export multiple Standard Midi files.

Export routines will use file names derived from the tune titles (truncated if necessary). If you have more than one tune with the same title, the program will add an incrementing number to the file name to avoid overwriting the

previous file. So, if you select three tunes for export to Midi, all of which have the title "Tune", you will get files named:

Tune.mid
Tune01.mid
Tune02.mid

FILE REFERENCES AND URLS

You can command-click on URLs placed within the text of a BarFly file, and provided that your Internet control panel is set up correctly, your chosen web browser will start up and connect to the URL. If you want to visit the BarFly home page to check for updates, command-click here:

<http://www.barfly.dial.pipex.com/>

If you place a URL within a line of text (rather than on a line on its own) you should do it like this <<http://www.barfly.dial.pipex.com/>> using angle brackets to delimit it from the surrounding text.

File references look like URLs, but start with the word "file://", and contain either a full or partial pathname to the file of interest. Command-clicking on them opens the file in a new window, without closing the existing window. Unlike URLs, the pathname is written in Macintosh style, using colons as directory delimiters rather than slashes. Full pathnames start with the name of your hard drive, while partial pathnames start with a colon, and are interpreted relative to the location of the file which contains them. Neither URLs nor File references need to be in blue - the font, style and colour of the text is actually irrelevant.

MENU COMMANDS

File Menu

New

Opens a new, untitled window. Windows always open in text mode, and you cannot switch to Split-Screen mode until you have typed or pasted in at least one tune. By default, new windows are 640 pixels wide, and the full height of your screen. If you want a different size you can set it in the General Preferences dialog in the Edit menu.

Open

Leads to a dialog where you can choose a file to open. BarFly can only open files of type TEXT, so only these will appear in the dialog. If your system supports Navigation Services you have a choice of whether you use this dialog (which permits opening multiple files, dragging files in from the Finder and saving favourite folders) or the older and simpler Standard File dialog. This choice is set in the General Preferences dialog in the Edit menu.

Not all text files are the same; the three major platforms, Mac, PC and Linux all use different methods of marking the ends of lines. When opening files which originate on PC or Linux machines BarFly automatically converts the line ends to Macintosh format, and if you then save the file the conversion is made permanent.

Close

Closes the front window. If you have edited the contents of the window you will be prompted to save the file. If you hold down the Option key while issuing this command (or use the command key equivalent, Command-Option-W) the program will close all open windows.

Save as

Leads to a dialog where you can choose a place to save the front window in a new file. As with the Open command, you have a choice whether you wish to use Standard File or Navigation Services dialogs. Files are saved as type

'TEXT', and can be opened by any Macintosh text editor. Files which use styled or coloured text store this information in the file's resource fork. Programs other than BarFly will ignore this information, and open the file as plain text. You can optionally store additional information here too, and specify that the window should open exactly as you left it (display mode, position of cursor and scroll bars). This option is set in the General Preferences dialog in the Edit menu.

Save

Updates the file corresponding to the front window to reflect its current contents. If there is no corresponding file, this command acts in exactly the same way as the Save as command.

Revert to Saved

Discards the current contents of the front window and replaces it with the contents of the corresponding file. You are asked to confirm that this is really what you want to do. This command is dimmed-out if there is no corresponding file.

Export

Leads to a sub-menu where you can choose what you want to export. The available options here are described in a separate file named Export/Import:

file:///Export/Import

Import

Leads to a sub-menu giving a choice of either a tab-delimited text file containing abc tunes or a musicXML file containing a single tune. For more information see the Export/Import file in the file reference above.

Page Setup

Leads to the usual dialog (which differs depending on your OS version and what kind of printer you have) in which you can choose paper size, magnification, layout, orientation etc.

Print

Leads to a Print dialog where you can choose the number of copies, what pages of the document to print and various other options depending on the capabilities of your printer. What gets printed depends on what display mode you are in. In text mode you will get the full text printed out, extending over as many pages as necessary. In split-screen mode a picture of the current tune in staff notation will be printed. To print multiple tunes you should select the tunes you want to print by command-clicking or shift-clicking on the index pane before printing. The program will then print out the selected tunes one after another on the same page, and on as many subsequent pages as necessary. (Printing multiple tunes is only available in the registered version of the program.)

It is usually necessary to do some experimentation to get the best quality of printed output. Quality is almost always improved by setting around 70% reduction under Page Setup, and using the "Use Printer Page Size" option in Viewer Preferences - the music will be displayed wider on screen, but will print normally. You may have to adjust the spacing between staves (Staves/page) under Viewer preferences, to avoid notes on leger lines getting cut off at the page breaks. Turning on the antialiasing option under the View menu will improve the appearance of the music, but the text may not look as nice. Some printers have a graphics smoothing option which looks better than antialiasing; check the Page Setup options to see what your printer offers. If you want to use antialiasing to print you must also use offscreen drawing (the program will turn it on if it's not already), so printing large documents with antialiasing will need lots of memory available.

For more information and hints on printing see the file:

file:///Printing

Print Preview

Leads to two successive dialogs, the first being the normal Print dialog, and the second giving you a reduced picture of the pages as they will be printed. From this dialog, you can set the pages printing, or export the currently-displayed page in PICT format. (It's quicker to do it this way than to use the Preview button in the main Print dialog, as you don't have to wait for the Preview program to start up.)

Edit Menu

Commands at the top of this menu are the standard Macintosh editing commands. Commands between the two dividing lines are utilities which operate on the text, or on tunes contained in the text. Commands below the bottom dividing line let you set preferences, give information, or allow you to register BarFly.

Undo

Undoes the last editing operation. The text of the command changes to reflect what is being undone, e.g. 'Undo Typing', 'Undo Paste' etc. After using the command the text changes to Re-do xxx as appropriate. If it reads 'Cannot Undo' and is disabled there's nothing to undo.

Cut

Copies the selected text to the clipboard and deletes it from the window.

Copy

Copies the selected text to the clipboard, leaving the original text unchanged. In split-screen mode both the selected text (if any) and a picture of the music are placed on the clipboard. What you get (text or picture) when you paste into another program depends on whether that program understands text or graphics.

Paste

Transfers any text on the clipboard into the front window at the insertion position. Any text already selected is replaced by the new text. If the clipboard also contains style information this will be preserved. If the clipboard contains a picture and no text the picture will be pasted instead.

Paste Plain Text

Transfers any text on the clipboard ignoring any font, style, size or colour information. The inserted text takes its style from the surrounding text, or is given the default style when pasting into a new window.

Clear

Deletes any selected text.

Select All

Selects the entire text of the front window.

Enter Search Text

This command is only enabled if a small section of text (greater than zero, but less than 255 characters) is selected in the front window. It causes this text to be copied to the program's internal search string, so that text will be the default for any of the five text search commands below. For example, you can select a word at the top of the window, then type Command-Option-E, Command-G to search for the next instance of that text below.

Find Text

Searches the text in the front window for a string of characters which you enter (or paste) into the dialog. You can specify whether the search is case sensitive or not, and whether you want the search to wrap around (i.e. if it gets to the end of the file without finding the search string it will start again at the beginning and search back to the start point).

Find Text again

If you have already entered a string to find, you can continue the search using this command (most conveniently by typing command-G), either in the same window or another window. The command is dimmed if you have not previously used the Find Text or Replace Text commands.

Replace Text

Searches the text in the front window for the search string and if found, replaces it with the replace string. As in the Find Text command, the search can be case sensitive or insensitive, can wrap around to the start of the file, and you can also make all replacements at once.

Replace Text again

This command is useful if you want to keep an eye on what replace text is doing. Use Replace Text first, and after the first instance of the search string has been replaced, type command -T repeatedly to replace the subsequent instances. You can see what's happening and stop when you've got to the end of the section you want to modify.

Tip:

All of the Find and Replace commands can be used to find and replace characters which you cannot type at the keyboard, provided that you know the numerical ASCII value of the character. For example, if you want to search for the return character (ASCII value 13) you can represent it using the bullet mark ¥ (Option-8) followed by the number 13. For example, if you want to remove the line ends from a block of text to make it all one paragraph, you can enter ¥13 as the search string and leave the replace string blank. This will just remove all the returns. A corollary of this is that you cannot enter the bullet mark itself in a search or replace string. Use ¥165 instead (165 is, of course the ASCII value of the bullet mark itself).

File Search

Leads first to a dialog where you enter a search string (it's the same dialog as in Find Text, but with the Wrap Search checkbox disabled), then to a file dialog where you choose a folder to search. That folder, and any folders within it will be searched, and any files of type TEXT will be opened and searched for the search string. The results will be reported in a new window. Each hit will result in the line where it was found being quoted, along with a file reference. If you then want to open the file, command-click on the file reference, and the file will open with the line containing the hit scrolled to the top of the screen.

Tip:

Like the other Find commands, File Search accepts the bullet mark escape character for searching for characters which can't be typed. Another concealed feature is that if you hold down the Option key before opening the menu, and keep it held down until you have issued the command, the search will not report any hits, instead it will just count them. So if you want to know how many tunes are in your abc collection, do this and search the folder for ¥13X: and it will just count the number of X: fields. (You can only do this when you issue the command via the menu, rather than via the Command-key equivalent.)

Comment out selection

The comment symbol in abc is the percentage sign %. When you are working with an abc tune which is in error, it helps to be able to temporarily remove part of the tune. You can do this by putting a % at the beginning of each line. Select the part of the text which you want to comment-out and issue this command to do this in a single operation.

Un-comment selection

This reverses the previous operation, removing all the comment symbols within the selected area of text.

General Preferences

In this dialog you can set several preferences:

The default height for new windows is set automatically to the full height of the screen the first time the program runs,

but you can change both the height and width here.

Checking "Open a new window at startup" will cause the program to open a new untitled window if you start it up by double-clicking the BarFly icon, rather than double-clicking a file.

Checking "Save Window state with files" causes the program to add an extra resource to files which specifies the mode (Text or split-screen), position and size of the window, position of text cursor and scroll bars so that the window will re-open looking exactly as you left it.

Checking "Use Ctrl and Option for octave shifts" changes the way that the keyboard works to save you some typing when typing notes which lie outside the normal two-octave range. When this option is activated, holding down the Control or option keys while typing a letter in the range a - g will add apostrophes or commas to shift the pitch up to two octaves in either direction as follows:

Modifier keys	Letter Typed	Note Entered
none	a	a
shift	A	A
Ctrl	a	a'
Shift+Ctrl	A	A,
Option	a	a''
Shift+Option	A	A,,

Checking "Use Navigation Services" (if it's enabled) allows the program to use Apple's new finder-style dialogs for opening and saving files. If this option is disabled your system does not include this . The Carbon version always uses Navigation Services, so the option is not available.

The "Don't show splash screen at startup" option is only available to registered users.

"Use Quartz Antialiasing" is only available in the Carbon version, and only when running under OS 10.1.5 or later. Quartz antialiasing only applies to text, and this is a global option, affecting all of the text displayed by the program. It makes text in the editor and text displayed with the music look much nicer (especially on an LCD screen), and also improves the appearance of printed text. Softening of the outline of the text can reduce its readability however, especially at small text sizes and when the text is selected, so you may wish to experiment with different font sizes and selection colours to suit your eyes.

Player Preferences

In this dialog you can set several options affecting the way that the program plays abcs.

Note length scrollbars.

The three scrollbars determine what proportion of the musical time of a note is actually occupied by sound. Normal notes by default will occupy about 90% of their allotted time, leaving a brief period of silence before the next note starts. Slurred notes occupy the whole time-slot, whereas notes marked as staccato only occupy about 40% of their musical time. Moving the scrollbars changes these settings, and plays a little scale using the currently-selected instrument so you can hear the effect.

"Enable Macros" and "Use Stress Programming" checkboxes.

When checked, these permit the program to expand macros or apply the appropriate stress program when playing tunes.

Fermata button.

The fermata (H) and inverted fermata (I) symbols change the length of the following note, making it play for a longer or shorter period of time (but without producing a bar-check error). The button leads to a dialog in which you may set

the amount by which the time of the note is multiplied or divided in each case.

Default Speed

Here you may enter a number which determines the default tempo which applies if there is no Q: field in the tune and no stress program applied. The radio buttons below allow you to choose whether this number is interpreted as default notes per minute or as beats per minute ("beats" here is taken from the numerator of the time signature - in 4/4 time there are four beats per bar, in 6/8 there are six etc.). Checking the "Override Q: field in tune" checkbox will mean that the program will use the default tempo even if the tune contains a Q: field.

Gracenote times

Using the radio buttons you can determine whether gracenotes take their time from the following note or from the preceding note (this effect is rather subtle, and you will need to listen carefully). The absolute length of gracenotes is set as a fraction of the default note length, and the number entered here is the denominator of the fraction, so "4" means 1/4. 4 is about right for most purposes, but for pipe music you may wish to shorten gracenotes to 6 or even 8.

Record button

Pressing this button records a copy of BarFly's current preferences in the abc tune. This is just a set of numbers inserted into the header, and looking like this:

```
%%Bfly 0 300 4 3 242 255 128 0 750 750 10 0 128 18255 \  
1 0 1 1 1 7 0 113 142 -332 31 24 0 12 2 512 5 0 0
```

in future, the tune will always use this set of preferences to play or display this tune, ignoring the set of preferences the user has set in the Player and Viewer preferences dialogs. Just edit this out if you change your mind and want to modify the preferences in future.

OK button

Makes the changes you have set come into effect and dismisses the dialog.

Cancel button

Dismisses the dialog without changing any of the settings.

MIDI volume.

This controls the volume when playing using Quicktime, and if you have a midi interface and an external synthesiser, sets the volume of that instrument too. If you are not using external midi, just leave this set at maximum, and set the sound volume as you normally do (e.g. via the control strip, the Sound control panel or the volume button on a PowerBook).

Viewer Preferences

This dialog sets the options for the display of music in staff notation. Note that the dialog is moveable, so if you have music displayed in the window behind, you can use the Apply button and move the dialog aside to see the effect of the changes you've made before leaving the dialog.

Page size

By default, the program will use the page size corresponding to that used by your printer. If the machine does not have a printer, or no printer has been chosen you will get a warning message at startup, and this option will be unavailable. (You can get rid of the warning by going to the Chooser and selecting a printer driver, even if there's no real printer attached.) Alternately you can set a custom page size, ignoring the printer and entering the height and width of the page (in pixels).

Staves/page

Setting the number of staves per page changes the spacing between staves. You may want to do this if you have a song with several lines of lyrics below each staff, or where the music covers a wide range, using lots of leger lines. Normal setting would be 10 or 12, but you can set the number down to 6.

Staff Height

The staff height is set in pixels, and although you can set any number here, the program will always round the number to a multiple of 4. (It has to be a multiple of 4 so that the staff lines are evenly spaced.) Changing this setting causes all the musical symbols to be scaled to match the new staff height.

Slur Curvature scrollbar

This sets the height of the arch which the program will use when joining two notes with a slur or tie.

Pane proportions

By default, when you switch to split-screen mode the window is divided into two areas of equal height, the bottom area being divided horizontally into two panes of equal width. If you have a large screen you may want to give more space to the music pane and less to the index pane. Enter (for example) 5:3:1 here to achieve this. The numbers must be separated by colons, and the first pair correspond to the relative heights of music pane to the text and index panes, while the second pair correspond to the relative widths of the text and index panes.

Place guitar chords below staff .

By default, guitar chords entered as e.g. "Am7" in the abc will be drawn above the staff, and aligned with the note which follows. Checking this checkbox will cause them to be drawn below the staff instead.

Allow last staff to be un-justified.

When checked, tunes with a short last line will have the last staff shortened from the right to achieve a normal spacing between notes.

Print OptionsÉ

This button leads to a second dialog which allows you to set some display options which only affect the printed output: margin settings, page numbering and double-sided printing. See <file:///Printing> for more information.

Enable Macros

If checked, this option causes any macros to be expanded before the tune is parsed. The resulting music may look very complicated, as all the ornaments are now written out in full. This option disables graphic selection, as the text which is being parsed is no longer the same as the music on display. You will normally want to keep this option turned off.

International Sort Order

If checked, this option causes the index in split-screen mode to be sorted in the correct order when you have tunes whose names start with letters with diacritical marks. By default the sort is in ASCII order. International sort order slows the sorting quite a lot, so you will probably want to turn this off if you don't actually need it.

Draw Staff in Grey

Drawing the staff lines in grey can improve the readability of music on screen. Be careful if you export pictures for use on the web, as the grey lines can sometimes be interpreted as dotted lines, which looks very strange.

Note Shape

This control lets you re-shape the note heads to your own taste. The ellipse in the control represents an ideal magnified note head, and the two little black squares are handles which you can use to modify it. Clicking on either handle and dragging allows you to change both the radius and rotation of the ellipse, so you can set both the shape and the tilt of the note heads. The number of segments used to draw the ellipse (it's actually a polygon with enough sides to look smooth) is set below, but you probably won't want to change it. When using this control, it's best to have some music on display in the window behind, and use the Apply button to see the effects of your changes. Note heads will look best when made quite large, tilted at about 45° to the horizontal and with the long axis of the ellipse about 1.5 times the short one (but your mileage may vary:-).

Using Antialiasing also improves the appearance of note heads (see Antialias Music below).

Apply button.

This button updates the music display in the window behind to reflect the changes you've made, so that you can experiment with settings without leaving the dialog. If you subsequently hit Cancel, the display will return to its original settings (unless you have recorded the settings in the tune). The Apply button is disabled if there is no music on display in the window behind.

Record button

This button has exactly the same effect as the Record button in the Player Preferences - i.e. it records BarFly's preferences in the tune, so that in future the tune will always play and display exactly as it does now. It doesn't matter which of the dialogs (Player or Viewer preferences) you use to record preferences, as the effect is exactly the same. The effect of hitting the Record button is immediate - you cannot undo it by hitting Cancel. If you make a mistake here you will need to leave the dialog and edit the %%Bfly line out of the tune.

OK button

Sets the program's preferences according to the settings in the dialog, and exits the dialog.

Cancel button

Returns the program's preferences to their original settings and exits the dialog.

Global Macro File>

This sub-menu lets you choose which of the sets of global macros to use. Macro files are contained in a folder named "Macros" which must be located in the same folder as BarFly, and the menu is constructed by searching this folder at startup. To add an extra file, place it in the Macros folder and re-start the program. The setting here will have no effect unless the tune contains symbols corresponding to the macros defined in the file, and macros are enabled in the Player (or Viewer) preferences. For more information on the Macro system see the file "Using BarFly Macros".

file:///Using BarFly Macros

Register BarFly

When you have registered BarFly you will receive an email containing your registration number. In this dialog you enter your name and registration number. You must enter the name and number exactly as given in the message, using the same capitalisation and spelling. The registration number does not use the letters 'O', 'I' or the lower-case 'L' so '0' means the number zero, and '1' means the number one in all cases. When your registration is accepted, the program will start up without the initial delay, and the message in the splash screen will read "Registered to: Your Name". Registration actually enables BarFly to run as registered under the system in use at the time; if you have more than one system on your machine you should register BarFly separately under each. The program itself is unaffected, you can still give copies of it away, and it will run as unregistered on any other machine. (You should not, of course, give away your registration number.) Please print out your registration information and keep it safe. If you get a new computer, or if you suffer a bad disk crash and have to re-format your drive you will have to register BarFly again. (It won't be affected by any normal disk operations, such as de-fragmentation.)

Play Menu

Items at the top of this menu are used to set the program playing in various ways. Items at the bottom set options for playing which you may want to change frequently, without going to the Play Preferences dialog.

Play this tune

Plays the current tune. Playing takes place in the background (unless the Highlight note played option is on), and you can do other things with the program while the tune plays. To stop a tune from playing use Command-period.

Play selection

Plays only the part of the tune which is selected in the text.

Play from insertion point

Plays from the position of the insertion point in the tune to the end of the tune.

Play next tune

Makes the tune following the current tune current and plays it. If the current tune is the last in the file it plays that.

Play tunes from here

Plays the next tune and continues playing the tunes in sequence to the end of the file.

Play medley

This command is only available in split-screen mode. In this mode you can select multiple tunes in the index (hold down the command key to make a discontinuous selection). The command will then play only the tunes which you have selected.

Play all

Starts at the first tune in the file and plays them all in sequence.

Skip current tune

When playing multiple tunes using Play tunes from here, Play medley or Play all this command will abort playing of the current tune and move on to the next one. When playing a single tune it just stops it.

Tips:

When playing multiple tunes in split-screen mode, the program will also display each tune as it is played.

As each tune is played the insertion point moves to the end, ready to play the next tune. If you want to skip a whole block of tunes you can move the insertion point on yourself.

Highlight note played

If this option is checked, the program will select each abc symbol in the text as the corresponding note is played. This is very useful when you have entered a tune which doesn't sound quite right, but is error-free as far as abc syntax and bar-checking is concerned. You can set the tune playing to see exactly which symbol produces the wrong note. This is a very limited playing mode; playing takes place in the foreground and the program will not respond to any commands other than command-period to stop playing. Chords will not be played, even if the Polyphonic option (below) is on, and in multi-voice abc, the voices will be played sequentially, rather than together. This option is saved between runs of the program.

Loop

If this option is checked, any tune once started will continue to play indefinitely, or until stopped with command-period. This option is saved between runs of the program.

Polyphonic

If this option is checked, chords (written in brackets []) will be played; if not, only the first note of chords will play. In multi-voice abc all of the voices will play, but chords within a voice will play as single notes. This option is saved between runs of the program.

Skip repeats

If this option is checked, when tunes are played, each repeated section is played once only. Where repeated sections have alternate endings, only the second ending is played. This option is saved between runs of the program.

Play transposed>

If anything other than '0' is checked, tunes will be played shifted in pitch by the number of semitones shown in the sub-

menu. You can shift the pitch by ± 6 semitones. Remember to set it back to normal after you have finished with it to avoid misleading effects. See also the TransposeÉ command in the Edit menu, which can make a permanently transposed version of the abc text. This option is not saved between runs of the program.

Play modulated>

Alters the key signature of the current tune to switch it into a different mode. This will only work predictably if the tune is in a single mode to start with, and will produce strange and unpredictable effects on tunes with accidentals. It will also change the key signature of the displayed music, which can be very confusing, so don't forget to set it back to normal after use. If you don't understand what modes are about, read the file "Modes and Scales":

file:///Modes and Scales

This option is not saved between runs of the program.

Intonation>

In this sub-menu you can choose from four different intonation settings supplied. You can also create extra intonations using the Edit IntonationsÉ command (below). Please note that Intonations don't work with Quicktime 5 to 6.0,1 (at the time of writing 6.0.2 is the current version). This is due to a bug in Quicktime.

For more information on intonations read the file "Tuning and Intonation":

file:///Tuning and Intonation

Instrument>

On first use, the sub-menu here contains only two options, Add an InstrumentÉ and Acoustic Grand Piano. In order to make use of Quicktime instruments you need to add them to the menu. Choose Add an InstrumentÉ and in the subsequent dialog, choose a synthesiser (normally Quicktime synthesizer), a category, and an instrument from the three popup menus. You can try out the sound before installing it using the piano keyboard. Clicking OK adds the instrument to the menu and makes it the current default instrument. Once added, instruments remain on the menu, and the default instrument is also saved between runs of the program. To remove an instrument, press the option key and hold it down while you navigate through the menus to the instrument you want to remove. (You must already have the option key held down before you click in the menu bar.)

Play NoteÉ

Here you can set a note, or many notes playing indefinitely. This is useful for tuning purposes, or for use as a drone. First choose a Quicktime instrument from the Instrument> sub-menu which has infinite sustain (e.g. a brass or woodwind instrument). Next issue the Play NoteÉ command. In the dialog, enter the pitch of the note you want to play in abc format (e.g. ^C for the C sharp above middle C), set any pitch-bend you want (in units of 1/256 semitone) and press the play button. The note will start to play, and the dialog will indicate the exact frequency of the note in Hz. You can now enter a second note and set it playing, if you wish. Hitting Cancel will dismiss the dialog leaving the notes playing, and you can now use the Play commands to play a tune against this drone if you want. You can stop the note playing either by returning to the dialog and hitting Stop, or just by typing command-period.

Edit IntonationsÉ

Leads to a dialog in which you can create new intonations, edit or delete existing ones. If you are using Quicktime 5, you will get a warning message, since this version of QT has a bug which prevents intonations from working. This does not stop you from editing the numbers, but you won't be able to hear the results.

Intonations may be either rooted or un-rooted. A rooted intonation simulates the case where an instrument plays fixed notes whose pitch is set by the instrument maker or tuner and is not under the player's immediate control, e.g. bagpipes. An un-rooted intonation simulates an instrument where the pitch is infinitely variable and under the control of the player, e.g. violin, trombone or the human voice. A rooted intonation will play the same absolute pitches regardless of what key the music is in, while an un-rooted intonation will shift the pitches to keep the frequency ratio to the tonic constant as the key changes.

To create a new intonation, hit the New button and give your intonation setting a name (the name will appear in the Intonation menu). The program will fill in a set of default ratios, which actually correspond to equal temperament. Each ratio is the ratio of the frequency of that note to the tonic, so for example in Just Intonation the fifth is a perfect fifth, with a ratio of 3:2 or 1.5000. In an instrument like the bagpipes which is rooted and diatonic, some ratios are irrelevant, since the instrument simply can't play those notes. In this case just leave them set at the equally-tempered ratios. If the intonation you are creating is rooted, you should specify the note which acts as the root (Highland bagpipes are rooted on A). Click OK to add the new intonation to the menu. To delete an intonation, open the dialog again and select the intonation in the popup menu, then hit delete.

If you don't use intonations, what you will get is equal temperament, the standard way of tuning modern instruments. In a sense this is a rooted intonation, but it makes no difference what key you play in, since the ratios are chosen so that intervals are the same, wherever you start on the scale. All of the pitches are slightly wrong (the fifth is 1.4983, and quite noticeably flat compared with a perfect fifth, 1.5000), but we don't mind because it means we can play chromatic music without worrying exactly how our notes are tuned as the tonic changes.

View Menu

The two items at the top of this menu are used to switch between text mode and split-screen mode. The remainder of the menu contains options which apply only in split-screen mode.

Text Mode

You can switch to text mode at any time. By default, files open in this mode and new windows are always in this mode. In this mode the program acts as a standard text editor.

Split-screen Mode

You can only switch to split-screen if the window contains at least one abc tune. In this mode the current tune is displayed in the top pane of the window in staff notation, the abc text is in the bottom left pane, and the bottom right pane contains an index of titles of all tunes in the file. Each pane has its own scrollbar, and you can click on the heavy black dividing lines between the panes and drag them to change the relative sizes of the panes. Text in the bottom left pane remains editable, and when editing this text the changes are continuously reflected in the music display at the top. Clicking on the index pane changes the current tune to the one whose name is selected, scrolls that name to the top of the index display, scrolls the corresponding abc text to the top of the text pane, and displays the new tune in the music pane.

Antialias music

When this option is checked, all the musical symbols which do not consist of orthogonal lines are first drawn offscreen into a bitmap at 4x their normal size, then transferred to the regular offscreen bitmap using dithering before being copied to the screen. This has the effect of filling in the jagged steps at the edges of sloping lines and curves with shades of grey, resulting in a much smoother and cleaner appearance. The effect is particularly noticeable with complex symbols like clefs and the curved lines of slurs and ties. This option requires still more memory, and greatly slows down the display of music. For this reason most users will wish to keep it turned off except when printing or exporting pictures of the music. This option is saved between runs.

Sort Index by>

Here you can choose whether you want the index to display the tune names in alphabetical order, in order of their IDs (that is, the numbers in the X: fields) or in order of their positions in the file. You can change this at any time.

Align Voices

This option only affects multi-voice abc. When turned on it causes all the timed symbols to be vertically aligned with

each other according to their time-points in the music. This is normally what you want to see, but it can be helpful to turn it off while editing, since it slows down the display a little.

Line Ends>

This submenu offers three options which control how the program determines where to put staff breaks when drawing the music. Since these options operate on the text of the tune before it is parsed, they also affect some of the utility commands.

>Normal

This is the default setting. Tunes are interpreted according to the abc standard i.e. staff breaks will be placed wherever there is a line break in the text, unless the line ends in a backslash, in which case the linebreak is ignored.

>Ignore continuation characters

The backslash '\' at the end of a line of abc indicates that the line continues on the line below without a line-break. If all of the lines of a tune are continued in this way (or all except the last), the program will decide where the line breaks should be, and fold the tune up accordingly in the music display. Usually this works fine, but occasionally you may want to tell the program to ignore the backslashes and leave the musical line ends where they are in the text. That's what this option does when it's checked.

>Staff break only on !

If this option is on, the program will ignore linebreaks in the tune, placing staff breaks only where marked by an exclamation mark in the tune. Exclamation marks can be placed at the ends of lines of text, or in the middle of a line (anywhere where a line break would be legal). This emulates the behaviour of the program ABC2win, and is useful when reading files created by this program. Note that this option also fixes up some syntactic errors which are common in files created by this program, so if you use it to create files of your own you may be generating non-standard abc. It is, however, possible to create abc tunes which will work in ABC2win and not make problems for other programs, so if you want to do this you should test your abc with this option both on and off.

This setting is not saved between program runs.

Shape Notes>

This submenu has three options which affect the shapes of notes used in the music display. You can change the setting here at any time, and it will apply to all windows, persisting until changed again. When using shape-notes you have a limited ability to adjust the shapes used, using the note shape control in the Viewer Preferences dialog. For the normal (oval) shape you can change the height or width, and also the degree of tilt. The remaining shapes are all drawn within the same bounding rectangle, so you can change the height and width, but not the tilt. When using shape notes you may want to increase the size of the note heads to make it easier to distinguish between them.

>Common Musical Notation

This is the default option, and uses the normal tilted-oval shape for all notes.

>Sacred Harp

This is the system used in "The Original Sacred Harp". It uses four different note shapes, with the first three notes of the scale (doh-re-mi) a triangle, oval and square, then the pattern repeats on the next three notes (fa-so-la), with the seventh note drawn as a diamond shape. Note that the shapes are determined by the key signature, which is always interpreted as a major key. So, in the above example, if the scale were in Am or D dorian a triangle would still be used for the C. If the key signature had two sharps it would be interpreted as D major, and a triangle would be used for the note of D, even though the tune might be in A mix. For information about Sacred Harp music go here:

<<http://www.fasola.org/>>

>Aiken

This system uses seven separate shapes, and is perhaps easier for teaching beginners to sight-read. As with the Sacred Harp system, the shapes are determined by their position in the major scale which corresponds to the key signature.

You can read more about it here:

<<http://www.paperlesshymnal.com/shapnote/shaped.htm>>

Utility Menu

This menu contains commands to perform various useful functions on abc tunes. Most operate on the current tune in the front window, some on all of the tunes in the front window, and some operate on files. Most of these commands were previously in the Edit menu, but have been moved here since they are not really concerned with editing.

Re-number

Renumbers the X: fields of all tunes in the front window in numerical order, starting with the number which you specify. You may need to use this when you edit together a number of tunes from different files into a single file. The ID numbers must be in the range 0..32768.

Transpose

Transposes the current tune into a different key. The routine will not permit you to change the mode part of the key signature, so minor tunes remain minor for example. Specify the new key with a single capital letter, adding 'b' or '#' for flat or sharp respectively. You can opt to specify the direction of transposition (up or down), or just leave it to the program to go to whichever is nearest. You cannot transpose by more than eleven semitones, so if you want to move the key by more than an octave, you will have to do it in two or more operations. The program will open a new window for the transposed tune. The routine will track key changes (if any) in the tune, and will transpose both the abc tune and any embedded guitar chords. One side effect of this is that if, as frequently happens, the tune contains annotations faked as guitar chords, the program may try to transpose them, with entertaining effects - e.g. "Allegro" may become "C#llegro". (The solution to this is to use the new annotation format - write the annotation as "^Allegro" to put the word above the staff, or "_Allegro" to put it below, and the transpose routine won't mess with it.) BarFly does not recognise key signatures with more than seven sharps or flats, so you cannot have A# Major or Db Minor, for example.

Expand Macros

Opens a new window containing the current tune with the macros expanded. If you want to send a tune which uses macros to a user who does not have BarFly, you can use this command to make a version of the tune with the ornaments written out in full. It can also be useful if you are having trouble with macros and you want to see what the program is actually playing. For more information about BarFly's macro system, read the file "Using BarFly Macros".

file:///Using BarFly Macros

Expand Guitar Chords

Opens a new window containing the current tune in two voices, with the guitar chords written out as music in the second voice. You can then play the tune to hear it with the chords. Unfortunately there are several different conventions for naming the more complex guitar chords, and if you find a tune with a chord named "A_i" it won't play correctly, because I have named that chord "Adim". When the routine comes across a chord for which it does not have a definition it progressively shortens the name from the right until it finds a match, so in this case you will get an A major chord. You can, however, insert an extra chord definition to deal with this. Open the file named "Chord Definitions" in BarFly. You will find that it contains instructions on how to edit the chord definitions.

When expanding chords, the routine operates on one line at a time, and there is a limitation in that each line may not be longer than 255 characters. If this is exceeded you will get an error message. This is most likely to happen when dealing with tunes which have been entered with a backslash continuation character at the end of each line so that the tune is treated as a single line. You can fix this either by editing the tune into a more sensible shape, or by turning on the Ignore Continuation Characters option in the View menu. The routine is quite sensitive to badly-formed abc, so before using it on tunes which you have downloaded you should check them carefully for broken lines, illegal characters and other such garbage.

The routine can handle slash chords, so if it finds a chord written as "D/F#" it will substitute the note of F# for the bottom D of the D major chord. The note which follows the slash does not have to be a normal component of the chord, so you could write "D/F" and get a D chord with an F natural at the bottom (if that's what you really want).

At the moment the "accompaniment" which BarFly generates is quite crude, consisting of block chords which start at the specified note, and continue until the end of the bar, repeating in the subsequent bars until a new chord is encountered. In future I hope to do something a little more musical here. Chords whose lengths are illegal will be split into shorter tied pairs (so [C,5G,5C5E5G5c5] will become [C,4-G,4-C4-E4-G4-c4-] [C,G,CEGc]. This is not always done in the most musically appropriate way, so you may find in 9/8 time that you get tied chords of length 8 and 1 in each bar. Chords cannot be shorter than the default note length, and will be rounded up to this value, generating timing errors if you try to change chords too frequently.

Analyse Melody

Analyses the current tune. In the dialog which follows from this command you can specify whether you want the program to take the given K: field as correct, or to determine the key and mode from the melody. In the latter case, you can specify that only key/mode combinations matching the tune's given key signature should be considered. The routine can optionally display up to three histograms, showing note usage (the percentage of time that the tune spends on each of the twelve notes of the chromatic scale), pitch usage (the number of times each pitch is used) and interval usage (the difference between successive notes in semitones).

The routine determines the best key/mode combination by using the pattern of note usage to perform a least-squares fit against an experimentally-determined set of statistical data derived from my own collection of tunes, giving the best fitting key/mode and the residuals as score. (The lower the score, the better the fit.) If there is more than one possible answer (scores within 10% of one another) the routine may quote up to four matches in order of merit. Key entries which are compatible with the original K: field (i.e. which will yield the same number of sharps or flats in the key signature) are marked with a "+". This is a statistical technique, and it is not guaranteed always to give the correct answer (there may not be a "correct" answer!) For more information on this routine, the background to it and how to interpret the results, read the file "Modes and Scales":

file//:Modes and Scales

Format Tune

Opens a new window in which to display the current tune formatted according to the settings made in the initial dialog. You can specify the maximum number of bars per line and the maximum number of notes per line, and also a number of tidying-up operations (put V: fields on separate lines or use an initial inline field, fix old-style chords, fix illegal repeat markers so |: becomes ::, :] becomes :| etc., insert spaces either side of bar lines, and use the shortcut style for note lengths. The routine is most useful for extracting single voices from multi-voice abc and merging individual voices again: To extract voices put in large numbers for Max bars per line and Max notes per line so that the tune comes out with each voice on a single line, then copy and paste each voice out to a new tune. To merge voices together, edit them into a single tune, then use this command with suitably low numbers for Max bars and Max notes per line. There is an example of this technique in the file "Bad Tunes", named "Displays staves in the wrong order". To learn more about multi-voice abc read the file "Multi-voice abc".

file//:Bad Tunes##22231

file//:Multi-voice abc

Error check all tunes

This command switches the display to split-screen (if necessary) and error checks all tunes in the file. If the error icon at top right of the window stays smiling there were no errors. Otherwise click the icon once to open a new window containing the list of errors. Since each tune is checked by both the play and display parsers, some errors may be reported twice. You should turn off the Antialias music option in the View menu before using Check all tunes, as this will slow things down considerably. For more information on the types of errors detected and examples of the common errors, read the file "Bad Tunes".

file:///Bad Tunes

Check key assignments

This command performs an Analyse Melody command on all of the tunes in the front window, listing the results in abbreviated fashion (one line per tune) in a new window. Results look like this:

```
1* E Phrygian   Chromatic ( +3#)
2 G Major      Hexatonic ( -7) Ionian/Mixolydian
3 D Major      Heptatonic ()
4 G Major      Heptatonic ()
5 D Phrygian   Hexatonic ( -2 -3 +3# -6 +7#) irregular
6** D Major    Hexatonic ( -4) Lydian/Ionian
7 F Major      Heptatonic ()
8 C Major      Pentatonic ( -4 -7) Lydian/Ionian/Mixolydian [11]
9 D Major      Pentatonic ( -4 -7) Lydian/Ionian/Mixolydian [11]
10* A Dorian   Heptatonic ( -3 +3#)
```

The first column contains the ID of the tune (from the X: field). This may be followed by one or two asterisks. A single asterisk means that the suggested key/mode is different from the original, and you may want to consider changing it. Two asterisks imply that this change will produce a different number of sharps or flats in the key signature from the original, so if you do make the suggested change you may also have to change some accidentals within the tune as well.

The second column lists the suggested K: entry, determined from the tune.

The third column describes the number of notes and the scale using Bronson's classification.

Where a change of key/mode is suggested, you may want to do a full Analyse on that tune for more detailed information, so read the Analyse MelodyÉ paragraph above, and look at the file "Modes and Scales":

file:///Modes and Scales

List Instruments

This command opens a new window and lists all the musical instruments available through Quicktime. Instruments numbered up to 127 are the General MIDI set, those with higher numbers are the Roland GS set. It can take a long time to list them all when running on an old machine, so you can stop the routine using command-period. You can use this list as an alternative to picking instruments using the Instrument sub- menu under Play. In multivoice abc you can give each voice a separate instrument by entering "program 1 x" in a V: field in the header of the tune, where x is the instrument number. In single-voice abc, you can enter the same information by using a %%midi command after the K: field, e.g.

K:C

%%midi program 1 23

will cause the tune to play on Tango Accordion (instrument number 23).

This command requires that you have Quicktime 2.1 (or later) installed.

Split a FileÉ

This command lets you split a large file of tunes into smaller files containing the number of tunes which you specify. The command leads first to a file-opening dialog where you choose the file to split, then to a parameter dialog which lists the number of tunes in the selected file, and requests the number of tunes which you want to place in each split file. This can be any number from 1 to the total number in the original file.

There are two options for naming the resulting split files. You can opt to name them using the title of the first tune in each (truncated if necessary), or to use a root name (the program will suggest the name of the original file, but you can change it) plus a range of numbers. The first choice is most useful if you are splitting the file into single tunes, as then each file will be named after the tune it contains. The second option will result in files named e.g. My tunes 1-10, My tunes 11-20 etc.

There are two checkboxes at the bottom of the dialog which you can use to add a '.abc' extension to the file names (not required by BarFly, but essential if you are putting tunes up on a website or transferring them to a PC or Unix machine) or to re-number the tunes within the split files.

Finally, the routine requests a location to store the split files. You can store them in a new folder, or place them with the original file.

The routine will only split files immediately before an X: field, so tunes don't get split between two files. Any text between tunes will be attached to the previous tune.

Join Files

Leads to a dialog in which you select a folder containing the files to be joined, then to a dialog in which you select what kind of files to include. The options are to join all text files, only BarFly files or only text files with a '.abc' extension. You can also choose whether to re-number the tunes in the new file. Finally you select a location for the joined file, and give it a name.

There is no limit to the number of files which may be joined, nor to the size of the resulting file, however, if the final file is too big to fit into memory the re-number operation may fail with a 'Not enough room in heap zone' error. Although BarFly can now handle files containing more than 1000 tunes, operations on such large files are liable to be slow.

Change Default Note Length

You will often come across files of tunes on the net which have been transcribed with a badly chosen value for the default note length. The result of this is that every note in the tune is followed by a number or divider, making the abc hard to read and unnecessarily verbose. This routine will take either a single tune or a whole file of tunes and create a new window containing the tune(s) written out with a new default note length. The tunes should display and play identically to the originals, but if the new default note length is well-chosen the abc will be smaller.

Make Incipit Index

An "incipit" is a picture of the first few bars of a tune, intended to remind the player of how the tune starts:

An incipit index is a cheat sheet - a list of tune names, each with a picture. It's for when you know all the tunes you want to play but just need a reminder. The routine takes a file of tunes in the front window and produces a new window which contains the incipit index. The exact details of what comes out are dependent on the settings in Viewer Preferences (especially page size, staff height and staves per page), but the program will try to fit in as many bars as possible (up to a maximum of three). If the original window was in text mode the incipits will be listed in order of their placing within the file; if in split-screen then they will be listed in the same order as the index (i.e. in the order specified in the Sort Index by > sub menu of the View menu). You can re-order the incipits manually (most conveniently by drag and drop if that option is enabled under General Preferences) and you can insert text in between the incipits, but you cannot edit the tune titles since they are embedded in the pictures. This routine is sensitive to bad tunes and may abort if it encounters a serious error, so it's a good idea to error-check your tunes thoroughly before starting.

Convert old-style V: fields

Older versions of BarFly permitted multi-voice abc to use numerical V: fields at the beginning of each line like this:

```
V:1 z2 d3 c dB c2 dc dc AB c2c2 zd B2 G2 GA B2 Bc dc BA G4 |
V:2 z4 z2 A3 G AF G2 AG AGEF G2 G2 zA F2 D2 DE F2 FG AG FE |
V:3 D,4 D,2 D,2 C,4 D,2 D,2 C,4 B,,4 C,4 D,4 B,,4 C,2 C,2|
```

This worked OK while the voice labels were limited to numbers, however, now that you can use words (which may include spaces) there, there is no way for the program to determine where the voice label ends and the abc begins. If you have old files in this format, you need to convert them, placing the V: fields in square brackets like this:

```
[V:1] z2 d3 c dB c2 dc dc AB c2c2 zd B2 G2 GA B2 Bc dc BA G4 |
[V:2] z4 z2 A3 G AF G2 AG AGEF G2 G2 zA F2 D2 DE F2 FG AG FE |
[V:3] D,4 D,2 D,2 C,4 D,2 D,2 C,4 B,,4 C,4 D,4 B,,4 C,2 C,2|
```

It's not a simple search and replace job, since V: fields in the header should NOT be in square brackets, and even in the tune V: fields placed on a separate line are still OK:

```
V:1
z2 d3 c dB c2 dc dc AB c2c2 zd B2 G2 GA B2 Bc dc BA G4 |
V:2
z4 z2 A3 G AF G2 AG AGEF G2 G2 zA F2 D2 DE F2 FG AG FE |
V:3
D,4 D,2 D,2 C,4 D,2 D,2 C,4 B,,4 C,4 D,4 B,,4 C,2 C,2|
```

This command will do the job for you, converting only those V: fields which need it.

Sort Tunes

This command makes a copy of the tunes in the front window, sorts them into the specified order and places them in a new window, leaving the originals unchanged. You can specify up to three header fields to sort on by entering single letters in the dialog, leaving any unused keys blank. For example, if you enter R as the first sort key and M as the second, using increasing order in both cases, you will get a window with Airs listed first and Waltzes last; within the block of Marches you will find the 2/2 marches first, followed by the 2/4, 4/4 and 6/8 marches in that order.

The sort is alphabetical, but uses international sort order, so characters with accents will sort correctly. Numbers are padded out to six digits with leading zeroes before sorting, so they will sort correctly provided that they are less than seven digits in length.

Text Menu

This menu contains standard Mac commands used to set the font, style, size and colour of text. None of these affect the interpretation of the text as abc. They just make the page look pretty.

Windows Menu

This menu contains one command (Stack Windows), plus the names of all the windows you have open.

Stack Windows

Arranges the open windows in a cascade so you can see their titles.

(Window names)

Choosing the name of a window brings it to the front.

Help Menu

This menu contains one command (Search Documentation), plus the names of all the files in the Documents folder.

Search Documentation

Does a File Search on the Documentation folder without you having to navigate to it.

(File names)

Choosing the name of a documentation file opens it. If you have files of your own to which you refer frequently, you can place them (or aliases to them) in the Documentation folder, and they will appear on this menu for easy access.

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