

foo_pod
version 0.9.9n



Programming
Aero

iTunesDB Code
Otto42

Documentation
Quazi

trim to exactly 4.75" x 9"

trim to exactly 4.75" x 9"

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Genre

[%genre%]

Use it if it exists

Composer

Sif(%album artist%, %artist%,)

Use the track artist for compilation discs.

Comment

<leave empty>

As far as I can tell, iPods don't use the comment field.

Tracknumber

[%tracknumber%]

Use it if it exists

Flag Compilation Albums

Disable this option because these specific Alternate Metadata strings do all the work.

Introduction

foo_pod is a plugin for Foobar2000 that allows you to manage music on an iPod without the use of iTunes. In addition to most iTunes features, it supports transcoding (re-encoding files from formats the iPod cannot play to those it can), allows for alternate metadata (a non-destructive method for transposing tags on-the-fly), converts ReplayGain data to SoundCheck data, and allows basic iTunesDB database maintenance.

foo_pod is maintained by two members of the Hydrogenaudio forums, Aero and Otto42. Updates are available in the thread:
<http://www.hydrogenaudio.org/forums/index.php?showtopic=19156>

This document is based on foo_pod version 0.9.9n and is hosted:
http://www.tinkafoo.com/log/foo_pod.html

Everywhere you see "<need information>", these are sections I am not familiar with and therefore need more information.

Installation

foo_pod requires Foobar v0.8 (latest: v0.8.3).
It does not work with Foobar v0.9, which is currently in beta.

To install foo_pod

- If you have not done so, install Foobar2000.
 - ◊ (foo_pod cannot run without it)
- download foo_pod from the Hydrogenaudio forum thread
- unzip the foo_pod.dll to your Foobar2000\Components folder.

If you plan to transcode files on-the-fly, you must install foo_podclienc.dll and foo_podtranscoder.dll. See 'Transcoding' for more details.

Configure iTunes so it does not load when you connect your iPod.
(not required, but highly recommended)

- Go to: Edit / Preferences / 'iPod' tab / 'General' tab
- Uncheck "Open iTunes when this iPod is attached"

Alternate Metadata Example Strings

This list of metadata strings is designed to transfer the naming schemes used in my Masstagger article.

Title

```
$if2(%title%,%_filename%)
```

Use the title. But if for some weird reason the song doesn't even have a title tag, it's probably not tagged at all. So, we'll have to resort to the filename.

Artist

```
$if(%album artist%, $if($stricmp(VA, %album artist%),  
%album%, %album artist%), %artist%)
```

If this is a compilation disc, use the album artist. If there's no real album artist (it's "VA"), use the album name instead.

Album

```
[[ $right(%date%, 2) - ] %album%]
```

This allows the iPod to sort albums by year. If the album has a date, prefix the name with the last two digits of the year.

For better performance with a large number of files, it uses more folders to store music on the iPod.

It automatically creates all necessary folders, so that a completely blank iPod might be used without being initialized by iTunes or the iPod Updater. (<need information> ..I have never tried this. What about the firmware installation?)

Metadata:

<need information>

Supports "COPY_TO_PORTABLE" as a technical info metadata item (i.e. accessible in TAGZ as %__COPY_TO_PORTABLE%).

The metadata entries for discs and sets of discs are "DISCNUMBER" and "DISCCOUNT", respectively. For example, to indicate that a song is from Disc #2 of a 6 disc set, you would set DISCNUMBER to 2, and DISCCOUNT to 6. These values are stored in the iTunesDB database.

How-to Guide

Connecting your iPod

As long as Windows detects that it is plugged in properly, foo_pod should see it fine.

Transferring songs and playlists

To transfer tracks

- Select a track, or a lot of tracks
- Right-click 'Send File to iPod'

To transfer a playlist

- Select a Foobar2000 playlist
- Select: Components / foo_pod / Send Current Playlist to iPod

To transfer an Audiobook

- Select a file (or Foobar2000 playlist)
- Right-click 'Send file(s) to iPod as Audiobook'

Managing playlists on your iPod

- Select: Components / foo_pod / Playlist Editor
- Create Playlists: press either the New Playlist or New Smart Playlist button
- Move existing files by dragging them
 - ◊ (Interface limitation: you cannot add files here)
- Design Smart Playlists with common iPod data

Deleting songs and playlists from your iPod

To delete a song

- Select: Components / Open iPod Songs in Foobar Playlist
- open the iPod playlist
- Select a song
- Right-click 'Delete Selected File(s)'

To delete a playlist

- Select: Components / foo_pod / Playlist Editor
- Select the playlist you want to delete
- Click the Remove Playlist button
- Press the Apply button to actually remove the playlist from the iPod (you can click Cancel and undo all of your changes made in the Playlist Editor).

Other Features

These features of foo_pod have no settings in the interface but are generally good to know.

Files:

foo_pod truncates long filenames during transfer because iPods cannot read files with a total path and filename of greater than 127 characters. (This is the only editing it does to your files.) If you manually copy files and rebuild the database, your iPod might skip those with long file paths.

It does not yet transfer album art, Ratings, Playcount, and Last_Played attributes.

Hardware:

It treats the iPod Shuffle just like any other iPod, with a few iPod Shuffle specific features, including writing two text files, "Track_Order.txt" and "Shuffle_Order.txt" to the root folder of the Shuffle. These allow the iPod Shuffle user to determine in which order songs will be played, in either normal or shuffle modes.

More documentation is included on the tab itself, but these functions basically require at least a third-generation iPod with the 2005-06-26 update installed. To enable a function, the TAGZ string must return a "1" for those tracks.

Podcast

disabled by default - still testing

These tracks will appear in a Podcast menu on the iPod.

Bookmarkable

These tracks will support bookmarks. This allows the position in a track to be saved, and when you return to that track, it will continue from its last played position. This is usually for audiobooks, but you may use it for anything.

Shuffle Skip

These tracks will not be played when the iPod is in shuffle mode. This is usually for filtering out podcasts and audiobooks, but you may use it for anything.

Ejecting your iPod

- Select: Components / foo_pod / Eject iPod

Some Advanced Features

Organize music on your iPod however you want

- Connect your iPod
- Open Windows Explorer and copy music
- Open Foobar2000, Select: Components / foo_pod / Preferences / Advanced / Rebuild iTunesDB on iPod

Sort albums by year on your iPod

- Select: Components / foo_pod / Preferences / Advanced
- Replace the contents of the "Album" box with:
[[\$right(%date%, 2) -]%album%]
- Transfer music with foo_pod

Context-Menu Options

Right-click files or playlists to use these options.

For songs and playlists not on your iPod

Send file(s) to iPod

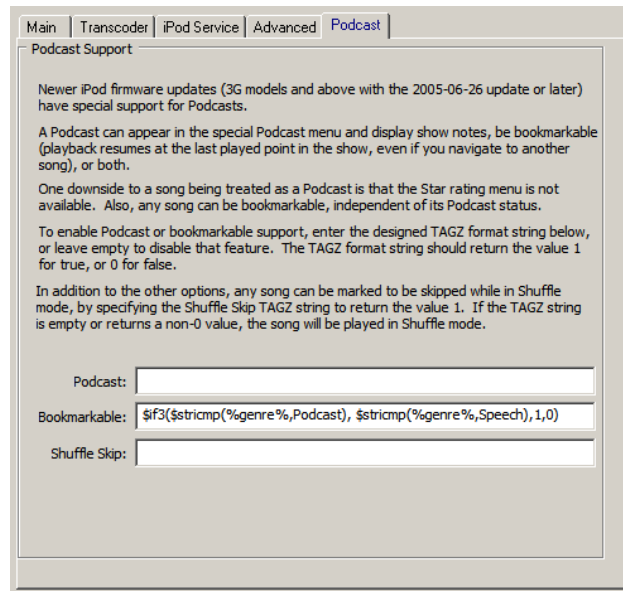
Copies files to your iPod.

Duplicate songs are automatically ignored. This means you can have Song A in Foobar Playlists 1 and 2, and if you send both playlists to the iPod, Song A will be copied once, but still appear in both playlists on the iPod.

Select to Ignore Playlist

Ignores the the songs in the current database. Allows you to specify an unlimited number of playlists which foo_pod will not use when syncing or sending playlist. This is useful for keeping playlists of songs that you do not want on your iPod. This list of Playlists is saved between Foobar sessions, so the playlist will remained ignored until you un-ignore it.

Preferences / Podcast



Use non-modal progress dialogs (may cause crashes)

Allows you to continue using Foobar while the progress dialog boxes are in operation. (the little windows that pop up during transfer and delete) Even though this option used to cause crashes in earlier versions, it was reinstated by popular demand. Use with caution.

iTunesDB Format

Support for the iTunes 4.9 format has been removed due to problems. The only option is "iTunes 4.7/4.8 Compatible". This should not be an issue even if you are using a much higher version of iTunes.

ReplayGain Adjustment

Changes the ReplayGain target level.

ReplayGain defaults to a target of 83dB which some people find too quiet. If you prefer a level of 89dB for example, adjust the slider to +6dB.

Send To iPod as Audiobook

Audiobooks are treated differently on the iPod in a number of respects - they have automatic bookmarking, which allows you to return to a specific point in a song. Also, on newer iPods (4G+), there is a menu item that displays audiobooks, and they can be played faster or slower than normal speed. This feature requires that an AAC encoder is available - the default configuration uses FAAC.exe, located in the Foobar2000 folder, but the settings can be changed in the Preferences/Transcoder tab.

For songs on your iPod

After your iPod is connected, select the iPod playlist.
default name : "iPod (foo_pod)"

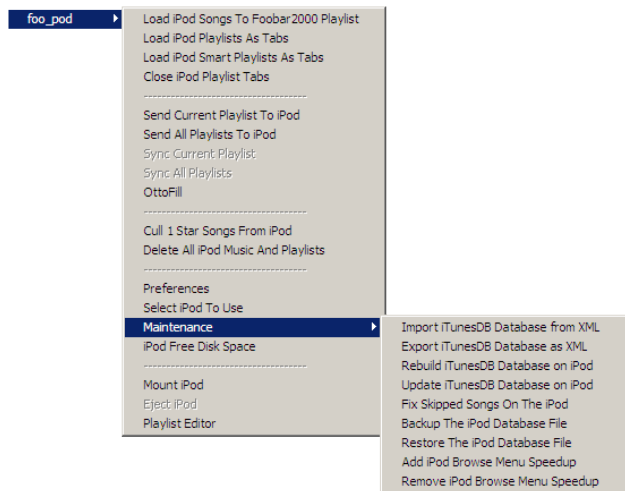
Save iPod Files To Disk

Allows you to copy songs from the iPod to your hard drive in a structured fashion, based on a user-configurable TAGZ format string. To use this feature, select one or more files from the iPod playlist, right click and select "Save iPod files to disk". Then select the starting folder for the files to be copied. The formatting can be modified in Preferences / Main.

Delete Selected File(s)

Manually remove files from the iPod without having to do a sync.

Menu



Console Debug Mode

Controls what type of information is sent to the Foobar console.

“All Debug Messages” can be very verbose, so it should probably only be used if you suspect a problem with foo_pod and need to report debug information.

Default: “Errors and Warnings”

Speed Up iPod Browse Menus (experimental)

Addresses a potentially serious bug when using both foo_pod and iTunes to add songs to the same iPod. Symptoms of this problem are weird items (missing or out of order entries) in the Artist/Album/Genre browse menus on the iPod.

A side-effect is that the iPod browse menus will now list in strict alphabetic order. (For example, “The Beatles” will appear after ‘T’ instead of after ‘B’.)

This is the ‘more permanent’ version of the “iPod Browse Menu Speedup” option -- it is not disabled when uploading/downloading songs to/from the iPod.

Metadata Defaults:

Title: `$if2(%title%,%filename%)`
Artist: `$if2(%artist%, '[Artist]')`
Album: `$if2(%album%, '[Album]')`
Genre: `%genre%`
Composer: `%composer%`
Comment: `%comment%`
Tracknumber: `%tracknumber%`

NOTE: Debug your strings before using them. A simple typo can cause you to misplace a lot of music on your iPod.

(see Alternate Metadata for example strings)

Flag Compilation Albums

Enables the iPod's "compilation bit" for files with certain criteria.

Default: `$if(%album artist%, 1, 0)`

- This means that if a track contains the album artist tag, `foo_pod` will set its compilation bit to "1", otherwise it will be "0". The logic behind this is that only compilation albums use the album artist tag. See Foobar2000's Encouraged Tag Standards.

When `foo_pod` is installed, you will get a "foo_pod" submenu under the Foobar2000 Components menu. You may rearrange the menu however you like.

Load iPod Songs to Foobar2000 Playlist

Creates a new Foobar2000 playlist and populates it with all of the files on the iPod.

See Preferences / Main for options:

- `foo_pod` Playlist Name
- Automatically Update
- Sort

Load iPod Playlists As Tabs

Creates a new Foobar playlist for each playlist on the iPod. These playlists are noted by the suffix "[iPod]" at the end of the playlist name.

Load iPod Smart Playlists As Tabs

Will read any smart playlists on the iPod and display the iPod songs that match the rules (i.e. the songs that are displayed on the iPod).

Close iPod Playlist Tabs

Closes all iPod playlists in Foobar. The iPod playlists can be edited (songs added, removed, reordered) like any Foobar playlist. When you are done, right click on a song in the playlist and select the "Update Playlist On iPod" option. This copies files (if necessary) to the iPod and creates the specified playlist.

Send Current Playlist to iPod

Sends songs in current playlist to your iPod. Does not create the playlist. Duplicate songs are automatically ignored. This means you can have Song A in Foobar Playlists 1 and 2, and if you send both playlists to the iPod, Song A will be copied once, but still appear in both playlists on the iPod.

Send All Playlists to iPod

<need information>

Sends songs in all playlists to your iPod.

Duplicate songs are automatically ignored. What this means is you can have Song A in Foobar Playlists 1 and 2, and if you send both playlists to the iPod, Song A will be copied once, but still appear in both playlists on the iPod.

Metadata Prefix

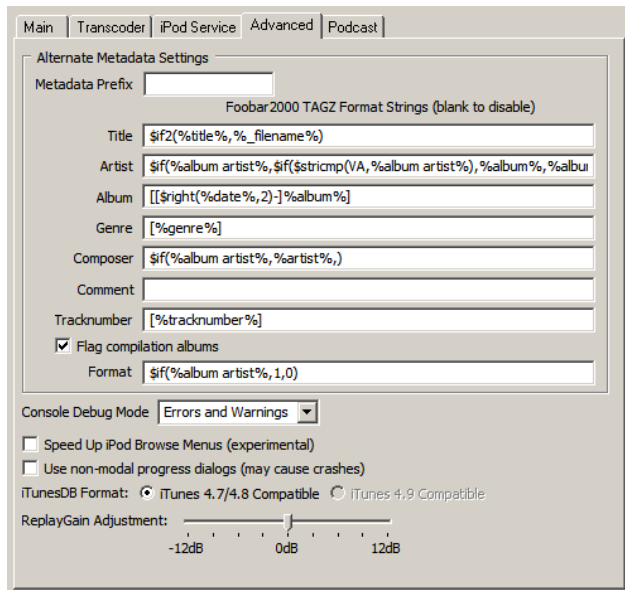
Allows the use of a second set of metadata items for the iPod while not disturbing the regular metadata. Default Prefix = "POD_"

- The following metadata items are supported: TITLE, ARTIST, ALBUM, GENRE, COMMENT, COMPOSER, and TRACKNUMBER
- For example, if the Alternate Metadata Prefix setting is "POD_" and a "POD_ARTIST" tag exists and contains a value, the artist field on the iPod will be the value from POD_ARTIST. Otherwise, it will use ARTIST.

Global Alternate Metadata

Allows the use of Foobar TAGZ strings to configure how songs are displayed on the iPod, in a global fashion. This does NOT alter the tags of your files in any way. The Metadata Prefix option (above) supersedes this option.

Preferences / Advanced



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trim to exactly 4.75" x 9"

Sync Current Playlist

disabled by default - still testing

Copies files to the iPod, and deletes files from the iPod to make it match the list of files you want to sync. If you sync one file, it will delete all songs from the iPod, and leave that one file. Does not transcode files.

(enable with Preferences / Main / "Enable Sync")

Sync All Playlists

disabled by default - still testing

Copies files to the iPod, and deletes files from the iPod to make it match the list of files you want to sync. If you sync one file, it will delete all songs from the iPod, and leave that one file. Does not transcode files.

(enable with Preferences / Main / "Enable Sync")

OttoFill

Mimics the "Auto Fill" function in iTunes, except this works on all iPods, not just iPod Shuffles. It will not automatically start on hard drive based iPods, and will warn you if you attempt to delete all songs.

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There are 3 sources that OttoFill can source files from:

- the current Foobar playlist
- all open, non-ignored playlists
- another iPod

NOTE: Currently, the slider for selecting how much space to use for music is disabled at 100%. Future versions will enable this setting.

(named after hydrogenaudio forum member Otto42, who wrote the original iPod transfer code from which foo_pod is based)

Cull 1 Star Songs From iPod

Removes all songs from the iPod that are rated with one star.

Delete All iPod Music And Playlists

Removes all songs and all playlists from your iPod. Use with caution.

Preferences

Allows you to change how foo_pod works.

Select iPod to Use

Opens a small window and lets you switch between two or more iPods connected at the same time.

Don't Use iPodService

disabled by default

This is only useful in rare cases, and should normally not be set.

iPod Device Name / iPod Owner's Name

Self explanatory, strings that you can set if you wish.

Enable Disk Mode

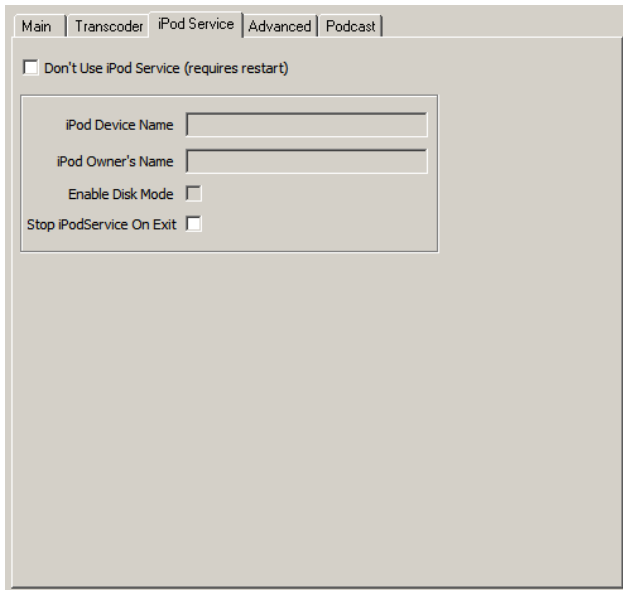
Highly recommended. The equivalent of iTunes "Enable Disk Mode".

(When I disable this, it ejects my iPod. I'm not sure why this is an option.)

Stop iPodService On Exit

<need information>

Preferences / iPod Service



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Import iTunesDB Database as XML

Overwrites the current iTunesDB file with an XML file, preferably a backup created with the 'Export' function (below).

Export iTunesDB Database as XML

Saves a copy of the current iTunesDB file as an XML file. This allows easy human access to the database.

To edit, I recommend studying the iTunesDB wiki:

<http://ipodlinux.org/iTunesDB>

Rebuild iTunesDB Database on iPod

Scans for iPod-playable music anywhere on the iPod (not just in the Music folders) and re-creates a database of those files without moving them.

This allows you to store your songs in human-readable folders, rather than in F00 - F99.

Deletes existing playlists, and dynamic data: rating, playcounts, and last played time. Preserves Smart Playlists.

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Update iTunesDB Database on iPod

Updates information about songs that are already in the iPod database. Use this function if you alter tags or ReplayGain data on files on the iPod.

Fix Skipped Songs on the iPod

Addresses an issue on the iPod Photo/Color where certain songs with long filenames are consistently skipped. This is not necessary on other iPods.

Backup the iPod Database

Saves a copy of the current iTunesDB file.

Restore the iPod Database

Overwrites the current iTunesDB file, preferably a backup created with the 'Backup' function above.

Transcoding allows audio file formats that the iPod can't play (anything except MP3, AAC, WAV, and AIFF) to be converted to the selected format and copied to the iPod. To use the transcoding feature, you must have the foo_podclienc and foo_podtranscoder components installed, and a recent version of lame.exe (version 3.96 is preferred) in the Foobar2000 folder.

The Foobar Advanced Limiter will be applied to transcoded songs, to prevent clipping. (Note: due to a bug in Foobar2000, this feature only works on Foobar2000 0.8.3 and higher.)

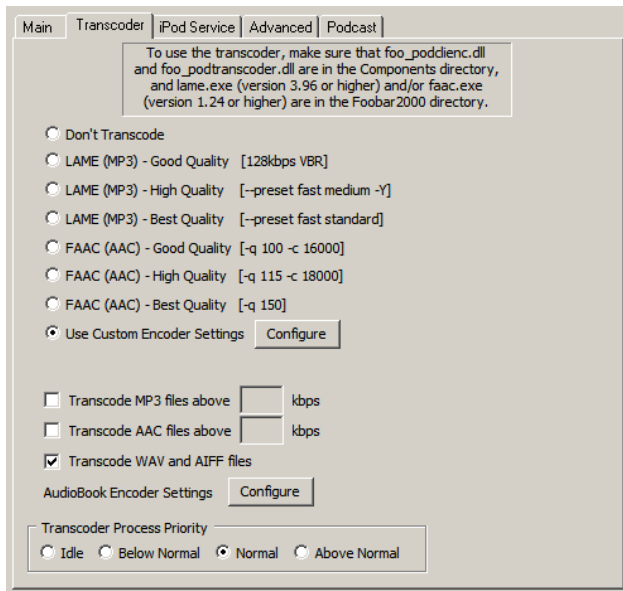
When transcoding, foo_pod writes the tracks to a temporary folder before moving them to the iPod, and writes out the following metadata to the transcoded files:

- ReplayGain metadata
- Exact Audio Copy metadata
 - ◇ TRANSCODER - a description of the transcoder and settings
 - ◇ TRANSCODED_DATE - timestamp when the file was transcoded
 - ◇ ORIGINAL_CODEC - the codec of the source file
 - ◇ ORIGINAL_BITRATE - the original bitrate

Transcoder Process Priority

Allows the transcoder to use more/less CPU time.

Preferences / Transcoder



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Add iPod Browse Menu Speedup

experimental

Addresses a potentially serious bug when using both foo_pod and iTunes to add songs to the same iPod. Symptoms of this problem are weird items (missing or out of order entries) in the Artist/Album/Genre browse menus on the iPod.

This is temporary. Adding/removing songs to/from the iPod will disable this. To have this permanently in effect, open the Preferences menu, select the Advanced tab, and use the option "Speed up iPod Browse Menu".

A side-effect is that the iPod browse menus will now list in strict alphabetic order. (For example, "The Beatles" will appear under 'T' instead of 'B'.)

Remove iPod Browse Menu Speedup

experimental

Disables the 'browse menu speedup' function. (above)

iPod Free Disk Space

Reports how much space is remaining on your iPod.

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Mount iPod

Forces the iPod to mount. Useful when you have ejected your iPod but kept it plugged into your computer. Also useful for troubleshooting.

Eject iPod

Safely disconnects your iPod from Windows.

Playlist Editor

Manage playlists and Smart Playlists

- New Playlist - creates a normal playlist
 - ◊ Move existing files by dragging them
 - ◊ (Interface limitation: You cannot add files here.)
- New Smart Playlist - creates a Smart Playlist
 - ◊ Design Smart Playlists with common iPod data
- Remove Playlist - removes playlists

No changes take place on the iPod until you press Apply.

ReplayGain / Sound Check Conversion

Translation between ReplayGain values and the values used by the SoundCheck feature on the iPod.

There are 3 new preferences dealing with ReplayGain: disable, Prefer Album Gain, and Prefer Track Gain. Prefer Album Gain will use the album gain as the source for SoundCheck. If album gain is not available, it will use track gain.

3G iPod Line Out Mode

Since third-generation iPods do not have SoundCheck available via the Line Out port (it only works via the headphone jack), this feature applies the ReplayGain corrections using a different method. Unlike SoundCheck, this can not be turned off on the iPod.

iPod Preamp Volume Adjustment

Raises the volume of all songs by the percentage shown by the slider. It allows different settings for tracks whether or not they have SoundCheck data. (For example, this can be used to reduce the volume for files without SoundCheck data.)

This is equivalent to the 'volume' feature in iTunes.

Minimize Foobar During Transfers

Minimizes Foobar during copy and sync functions.

“Save iPod Files to Disk” Format

Allows you to copy songs from the iPod to your hard drive in a structured fashion, based on a user-configurable TAGZ format string.

default: %artist%\%album%\%tracknumber% - %title%

example: Aerosmith\Honkin' On Bobo\11 - Stop Messin' Around.mp3

Send/Sync Playlist Settings

<need information>

Create iPod Playlists

<need information>

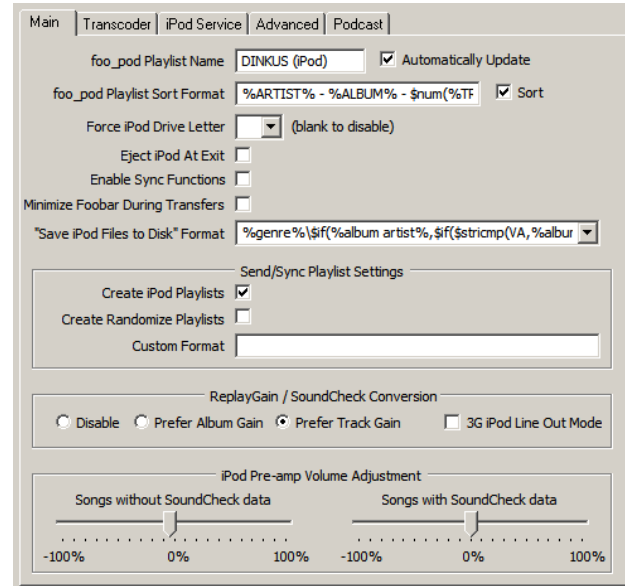
Create Randomize Playlists

<need information>

Custom Format

<need information>

Preferences / Main



foo_pod Playlist Name

The FooBar playlist can have a custom name, but if it is empty, foo_pod uses the device name. It will first try to find the device name via iPodService. If that is not available, it will use the Windows drive name for the playlist.

Automatically Update

Update the "iPod (foo_pod)" playlist after any send/sync/delete.

foo_pod Playlist Sort Format

Sorts the iPod playlist displayed in FooBar.

Default:

```
%ARTIST% - %ALBUM% - $num(%TRACKNUMBER%, 3) - %TITLE%
```

Enable/Disable using the "Sort" checkbox.

Force iPod Drive Letter

<need information>

(My interpretation: This selects the device at a given drive letter. It may be useful for managing an iPod that foo_pod does not detect any other way. Side-effect: when set to "C:", it may treat your hard drive as an iPod -- "iPod Free Disk Space" is one of the few functions that work in that situation.)

Default is blank.

Eject iPod at Exit

Safely ejects the iPod when FooBar2000 exits.

Enable Sync Functions

disabled by default - still testing

Copies files to the iPod, and deletes files from the iPod to make it match the list of files you want to sync. If you sync one file, it will delete all songs from the iPod, and leave that one file. Does not transcode files.

Automatically skips files with either "IPOD" or "COPY_TO_PORTABLE" metadata set to "NO", "FALSE", or "0" (zero). Variables and values are not case sensitive.