# Summit Sound Inc. - Mysteries of CD Text explained:

#### There are 2 types of "CD text"information currently in common usage:

## 1. <u>CD Text</u>:

Actual CD Text is an extension of the Red Book Compact Disc specifications standard for audio CDs. It allows for storage of additional information (e.g. album name, song name, and artist) on a standards-compliant audio CD. The information is stored either in the leadin area of the CD, where there is roughly five kilobytes of space available, or in the Subchannels R to W on the disc, which can store about 31 megabytes. These areas are not used by strict Red Book CDs. The text is stored in a format usable by the Interactive Text Transmission System (ITTS). ITTS is also used by Digital Audio Broadcasting or the MiniDisc. The specification was released in September 1996 and backed by Sony. Support for CD-Text is common, but not universal. Utilities or plug-ins exist to automatically rip CD-Text data, and insert it into CDDB or freedb.

- Windows Media Player 10 and 11 with the WMPCDText plug-in support reading CD-Text.
- iTunes 7 supports burning with CD Text. It is by default an unchecked option in the burning preferences but requires a compatible burner that also supports CD text.
- Toast on Mac OS X also has support for reading and writing CD-Text.
- Nero for the PC can also read CD text

New versions of i-Tunes (7 and up) may write CD text, but may not always read it (sometimes using a different - ie. external) CD drive will resolve this as your internal CD drive may not support CD text. Windows Media Player (10 and up) may read CD text but does not write it - once again it requires a compatible CD drive to work.

### 2. On-line CD Info Databases:

iTunes uses one of the most widely utilized music data base "Gracenote" which performs a search each time you insert a CD and compares the number of tracks order of songs and length of each track to it's archived data. To get a match, a new CD that the user inserts, would have to have to include the exact same number of tracks, with identical track lengths with each of these in the same sequence. The "Gracenote" system then does not actually embed any title text on the CD it just compares your CD to the Garacenote database and shows the titles of the CD(s) that it believes match.

Online databases are used to store CD information as well as other metadata including album art, lyrics and to provide this data to any device that has access to the database. In fact the original online database, CDDB (created by Ti Kan and Steve Scherf), predated the release of the CD-Text spec. The original CDDB contained CD profiles that could be accessed via the internet. Each CD profile was created by a fingerprinting process involving calculations on track start times, track duration and total length information stored in the table of contents of the CD. If a record for the CD was not found, a new profile could be created and submitted to the database. Now CDDB is know as Gracenote (used by iTunes) and there are many other databases available as well, most notable AMG (Lasso), Muze, freedb and MusicBrainz. Although the CD identification process used by these databases may differ from the original CDDB process, the concept is the same and duplicate, erroneous and multiple entries do occur with some systems (especially in systems that report user-submitted data such as Gracenote & freedb.)

The information supplied by online databases can easily be confused with similar data stored within MP3 or AAC (iTunes format) files. These files actually do contain metadata in the header of the file (called ID3 tags for MP3's). This information is often supplemented using data from online databases within many applications.

#### Solutions to make your CD text info visible to everyone:

Assuming that your CD Master does contain accurate CD-TEXT information, the next step is to get your info to the online databases. Unfortunately every database has a different procedure but below is a list based on some of the current players:

<u>iTunes</u> - insert your CD, click on the first track and select 'file', then 'get info' and enter the track information (You can also click in the edit fields or, on a PC, hit [ctrl]+[l].) When you have entered all the track information go to 'advanced', 'submit CD track names', fill in the requested information and hit [OK].

<u>Windows Media Player</u> - You must send a copy of your CD to AMG. Use this link be to get mailing address information <u>http://www.macrovision.com/pl/8472.htm</u>.

Exact Audio Copy & Nero - These are players that reference the freedb database. Visit their website to see a list of supported players you can use to submit CD information (see link below). http://www.freedb.org/en/faq.3.html

Related Links:

AMG(All Media Guide) http://www.macrovision.com/pl/8472.htm Gracenote (CDDB) http://www.gracenote.com/company\_info/FAQ/FAQs/ Muse http://www.muze.com/html/industry/labels.htm#q1 Freebd http://www.freedb.org/en/faq.3.html

Having said all of the above, even if you submit your CD track info to "Gracenote" via iTunes etc., this can be changed by other iTunes users - unless you get a secure license from Gracenote (their software ironically is PC only). In addition, if you actually embed "CD text" using a CD text software such as Toast, the titles will only show up on newer players that support CD text (and may work on some, but not on others) - I would also speculate that there are compatibility issues with some brands of CDR blank media as I have seen discs that were clearly written correctly with the software to embed the CD text that still mysteriously do not show up on some players that you know do support this format. (cue music for the twilight zone!)

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