iTunes Tagging for HD Radio™ Broadcasting

An Introduction for Broadcasters

What is iTunes® Tagging for HD Radio Broadcasting?

iTunes Tagging is being introduced to make music listening, discovery, and purchase easier. iTunes Tagging enables consumers (using HD Radio receivers that have been equipped with a special Tag button) to "tag" songs that they hear on the radio for subsequent preview and purchase on iTunes. The consumer must have an iTunes Tagging enabled receiver to take advantage of the feature.

How does it work?

On the transmission side, in addition to the standard metadata contained in SIS and PSD, the broadcast also includes an iTunes Store ID for the currently playing song.

On the receiver side, when a user hears a song that he or she likes, they press a specially designated button labeled "Tag" on the front of the HD Radio receiver. The receiver collects information from SIS (Station Information Service) and PSD (Program Service Data) including Artist Name, Track Name, time of day, and the iTunes Store ID. Using this information, the receiver writes a "Tag" and stores it in an iPod® or iPhone™ (if one is attached) or in a local non-volatile memory until an iPod or iPhone is connected to the receiver. The receiver can store up to 50 such tags.

When the user syncs an iPod or iPhone containing tags to a Mac® or PC running iTunes, iTunes automatically processes the tags and creates a new playlist on iTunes called the "Tagged" playlist. The Tagged playlist contains information about all of the new songs that the user tagged since the last time he or she synced to iTunes. When the user clicks on the Tagged playlist it shows the song's Title, Artist, the referring station, the time the tag was created, and more. The listener can also preview a 30-second sample of each song in the Tagged playlist. Each song in the playlist links to the corresponding album page on the iTunes Store. There, the user can learn more about the artist and /or buy the song.

What changes do I have to make to my station setup to support iTunes Tagging?

On the transmission side there are three things that are required:

1. Upgrade the HD Radio broadcast equipment software to specific versions:

   ▪ Employ an automation system which supports HD Radio Program Service Data (HDP PSD SDK V2.0) formatting compatible (UFID) iTunes Tagging.

   ▪ Broadcast with an HD Radio Exciter/Exporter running IRSS software version 2.3.3 or later. Check with your current supplier of HD Radio transmission equipment to make sure you have the correct version or to get an upgrade.

   ▪ For stations using iTunes Tagging on multicast channels, broadcast with an Importer containing iBiquity version 2.1.5P1 software or later. Check with your current supplier of importer hardware to make sure you have a correct version.

   ▪ Ensure the Importer contains iBiquity version 3.0 SPS capture client or later. Check with your current supplier of importer hardware to make sure you have the correct version.

2. Insert the iTunes Store ID information into the PSD.

   As a song is played on air, in addition to standard PSD content such as Artist and Song Title, the iTunes Store ID for the playing track is transmitted within the PSD message. In order to accomplish this, the metadata associated with the songs in a station playlist must be supplemented to also include an iTunes Store ID for each song. Apple makes the catalog of iTunes Store IDs available to Affiliate Partners. Contact the iTunes team at Apple (itunestagging@apple.com) for more information on the iTunes Affiliate program and gaining access to the Apple database of iTunes Store IDs.

   iBiquity has invoked the UFID tag of the ID3 spec for use in PSD messages to support this feature. Contact iBiquity to obtain documentation specifying how the iTunes Store ID is added to the UFID tag in PSD.

3. Modify PSD behavior to ensure a satisfactory user experience.

   iBiquity and Apple require the following to ensure a satisfactory user experience.

   ▪ PSD messages must arrive at the HD Radio broadcast equipment within 0.5 seconds of each new audio segment or song.

- For the duration of a tagged audio segment or song, the PSD Title and PSD Artist fields must only include song title and artist or other data specific to the tagged audio segment.

- Keep the size of the ID3 Tag, containing the PSD data, less than 345 bytes.

- All text information is ISO-8859-1 encoded and Unicode shall not be used.

- Limit the ID3 UFID frame size to less than 192 bytes.

- The MPS Data PADLINK feature as described in "HD Radio™ Air Interface Design Description - Program Service Data" (document number SY_IDD_1028s) shall not be used in conjunction with the Tagging feature.

Is there anything available that will assist in adding iTunes Tagging to my station?

Yes. To date two companies, Jump2Go and RCS, have deployed solutions to support this service. Jump2Go and Broadcaster Electronics (BE) have extended the functionality of The Radio Experience (TRE) and RCS has included support for iTunes Tagging in NexGen.

For more information about the Jump2Go solution please contact Allen Hartle (allen@jump2go.com). For more information about the RCS solution please contact Chip Jellison (CJellison@rcsworks.com).

In the future additional equipment and service providers may introduce service support.

Does my station or group require an additional license or contract from either iBiquity or Apple in order to support this feature?

The current Broadcast Station License Agreement with iBiquity includes the use of UFID and covers the iTunes Tagging feature.

Apple plans to offer participating stations a revenue share for songs referred to and purchased on iTunes. For further information, please contact the iTunes team via e-mail at itunestagging@apple.com).

Will a station or group be compensated for supporting iTunes Tagging?

Any revenue share is a business relationship between the broadcaster and Apple. iBiquity is not involved. You can explore opportunities for revenue share through programs such as the iTunes Affiliate program, detailed at Apple - iTunes - Partner

with iTunes - Affiliates. For more information, please contact the iTunes team via e-mail at itunestagging@apple.com.

How do I learn more?

To learn more about broadcaster implementation related issues please contact iBiquity via e-mail at tagging@ibiquity.com.

For all Apple-related issues, please contact the iTunes team via e-mail at itunestagging@apple.com.

HD Radio™ and the HD Radio logo are proprietary trademarks of iBiquity Digital Corporation. Other trademarks are the property of their respective owners.