



# Auto Recognition and Intelligent Recommendation

Enhanced Music Enjoyment, Management, and Discovery

Roger Chen  
Gracenote Greater China Regional Manager  
[rchen@gracenote.com](mailto:rchen@gracenote.com)  
+886 935 666828



**Who We Are**  
**What Do We Do**

# The Digital Entertainment Technology Leader

Technology



gracenote®

Digital Media

Entertainment

## Gracenote Provides Embedded Solutions

- Deliver a Substantially Improved Consumer Experience in Digital Media Devices and Applications
- Accelerate Digital Media Commerce
- Enable the Monitoring, Protection & Monetization of the Usage of Digital Media

# The Gracenote Story

## Leading Company

- Unique Market Position
- Robust Product Suite – Deep in Music; Expanding to Video (Movie & TV)
- Strong IP Portfolio
- Experienced Management

## Global Presence

- Offices in the U.S., Japan, Korea, Europe, India, China
- 180 Employees (70 with Dedicated Outsource Partner)
- 200M Gracenote Users in 200 Countries



## Business Success

- Top Tier Investors – Sequoia, Bessemer, Panasonic, Philips & Samsung
- Solid & Predictable Financial Performance
- Awards (CES Best of Show, Red Herring, AlwaysOn...)



# Leading Across Target Markets

## Gracenote Solutions

### Online Media Services and PC Software



Online Media



PC Software

**4,000 Applications**  
**150M Networked Users**

### Consumer Electronics



Automotive



Portable



Home

**50 Major Brands**  
**100 Products**

### Mobile Entertainment



Mobile Entertainment

**Service available to**  
**100M Cellular Users**

**2006**



# Selected Blue-Chip Customers



## Online Media and PC Software

## Consumer Electronics

## Mobile Entertainment



# Gracernote's Customers



W830



K810i



W580i

# Gracenote's Customers

## CE Automotive

Aishen	Panasonic
Alpine	Pioneer
Clarion	Phatnoise
Denso	Rockford Fosgate
Honda	Sanyo
Kenwood	Toyota
MediaClick	Yamaha

## Online Media

AOL	Real
Apple	Rhapsody
Napster	Sony
Pass-Along	Yahoo

## CE Portable

Apple	Rio
Creative	Samsung
Nagase	Sony
Olympus	

## CE Home

Bose	Naim
Denon-Marantz	Nagase
DDi	Numark
Elan	Onkyo
Escient	Panasonic
Gibson	Perception Digital
Gizmo Labs	Philips
Imerge	Revox
Integra	Sonnance
Kenwood	Sony
Linn	Thomson
Meridian	Yamaha

## PC Software

AOL Apple Roxio  
Digion Panasonic  
Just System  
Sonic Solutions  
4000 Applications

## Mobile

Optimus, Musiwave  
KDDI  
KTF (Interware)  
Sony Ericsson  
Media Socket

## Preferred Partner

Aeronix	Digital5	Packet Video
Browse Data	Eastech	Phatnoise
CAC Media	Hitachi	Portal Player
Cirrus Logic	iMerge	Simple Devices
Disc. Console	Lectronix	Syabus
Dig Home Tech	Mediabolic	Ucentric



# Recognition & Awards

## 2006

- CES Innovations 2006 Awards Honoree, Software/Embedded Technologies
- Telematics Update Award for Best Embedded Solution
- AlwaysOn OnHollywood 100 Top Innovator



## 2005

- Gracenote Selected to the Red Herring 100, Second Year in a Row
- CES Innovations 2005 Awards Honoree, Software/Embedded Technology
- AlwaysOn Top 100 Private Companies, Second Year in a Row
- Popkomm IMEA 2005 Bronze Award



## 2004

- Gracenote's Founders, Steve Scherf and Ty Roberts, World Technology Finalists
- CES Innovations 2005 Awards Honoree, Software/Embedded Technologies
- AlwaysOn Top 100 Private Companies
- Gracenote Selected to the Red Herring 100  
Selected as one of the top 100 private companies that play a leading role in innovation, technology and strategy
- Fortune Magazine - Ten Tech Trends, Companies to Watch



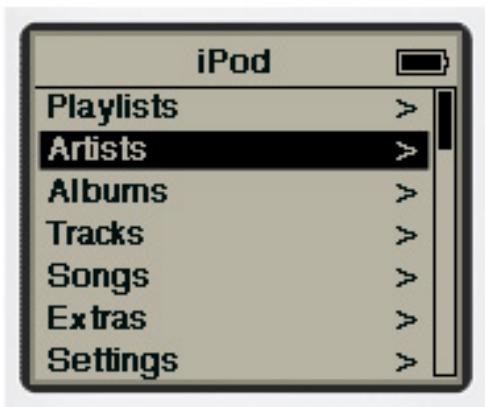
## 2003

- Gracenote Named "Technology of the Year" by Electronic House Magazine
- Gracenote Honored As Top 100 Private Company by AlwaysOn™



# What Do We Do

- Gracenote is a professional **service** and **software** provider
- Music Recognition
  - Recognize CD, file, music on the air
  - Return music attributes
    - Artist, Album, Song name, Genre, Year, Language, Style....
    - Album arts, reviews, biography, Lyrics
  - Music metadata matters with larger storage



## With Gracenote



# What More Do We Do

- Music Recommendation
  - Surfing songs from larger collection is a nightmare
  - Recommendation from local HDD enriches the music listening
  - Recommendation from the server helps music resale
- Linkage from music to the products
  - Secure the resale to the right targets
- **Gracernote is the one shop stop from music enjoyment to resale**
- **From red sea to blue sea, to A+**

# The Gracenote Solution

Over 1.2B Searches / Month from All Gracenote-Enabled Products, Used by Over 200M Consumers

## Consumers

- 2.5K CDs of Metadata Daily
- 100K Fingerprints Daily
- Track Attributes (1H'07)

Submit

## Content Owners

- Content Partner Program
- >1100 Labels, Publishers, Aggregators, Artists
- Automated Application

Submit

Gracenote Music Database

## Meta Data

- 5.5M+CDs, 70M+ Tracks
- Global Genre System
- 12M+ Fingerprints
- Artist & Track Attributes
- 80 Languages

## Enhanced Data

- Lyrics
- Bios, Reviews, Art (Muze & CD Journal)
- Phonetic Data

## Collaborative Data

- Extensive database of Regional (City Level) Artist, Album, Track Popularity

# Comprehensive Global Media Database

Over 200 Data Fields of Metadata



## CD & Digital Music

- Album Title
- Track Title
- Album Artist
- Record Label
- Year
- Genre
- Credits/Roles
- Language
- Region
- Classical Music Fields
- And Many More

## DVD

- Titles
- Release Dates
- Language
- Region Code
- Set Information
- Subtitles
- Run Times
- Aspect Ratio
- Audio Track Information
- Rating
- Genres
- Synopses
- And Many More



# The Gracenote Solution

## portals & communities

- Media Monitoring
- Music Management
- Music Enrichment

## devices & applications

- Music Management
- Music Enrichment

## commerce

- Music Management
- Music Enrichment
- Music Discovery

**CONSUMER**



**PROFESSIONAL**

## content owners

- Content Partner Program

## content services

- Media Monitoring



## Gracenote Products

# The Gracernote Solution



## MusicID

Embedded CD & Digital Music File Recognition & Retagging

## Playlist & Playlist Plus

One-touch **Automatic** Music Mixes

## Link

Rich Content and Commerce Integration

## MediaVOCS

Intuitive Voice Control of Digital Media

## Mobile MusicID

Mobile Phone Music Discovery

## Discover

Full Featured Media and Related Content Discovery

## Enhanced Content

Gracernote Hosted & Licensed Solution Delivering Enhanced Content

## Media Manager

PC Media Manager & Player with Device Synchronization

# Music ID - CD

## Identifies Users' CDs Any Device

### Key Features

- Identifies Any CD Via a Combination of TOC, and Text Matching
- Recognizes Digital Music on the Devices Through a PC or an Embedded Solution
- Identifies, Categorizes and Organizes Digital Music
- Renames Files/Folders and Re-Tags File Metadata

### Technology Highlights

- Gracenote Global Media Database Access
- Global Genre System categorizes music into more than 1600 micro-genres
- Fuzzy matching for similar TOC
- Multi-Step Recognition



# Music ID - File

## Identifies Users' Digital Music Files on Any Device

### Key Features

- Identifies Digital Music File Via a Combination of Waveform and Text Matching
- Recognizes Digital Music on the Devices Through a PC or an Embedded Solution
- Identifies, Categorizes and Organizes Digital Music
- Renames Files/Folders and Re-Tags File Metadata

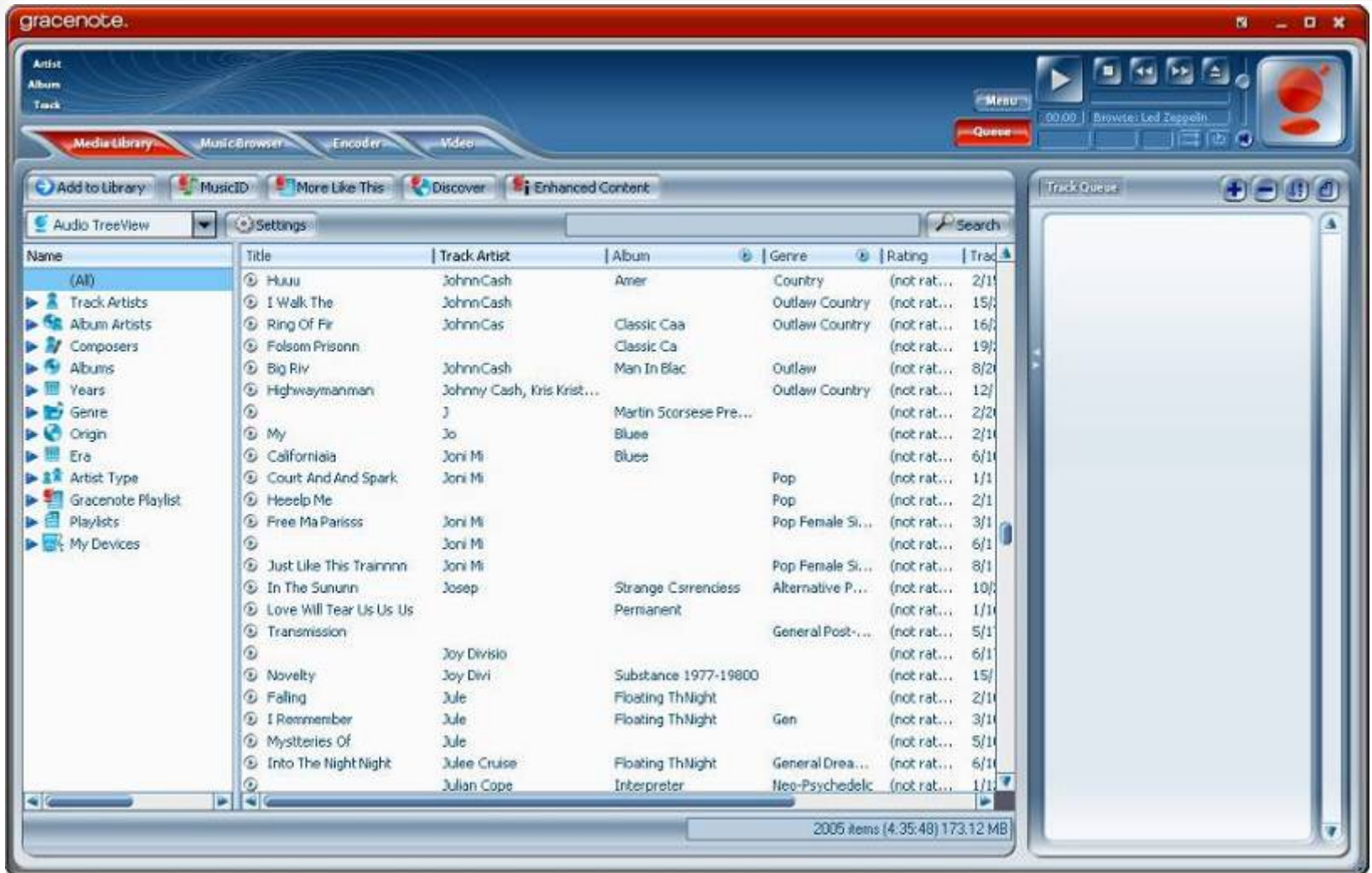
### Technology Highlights

- Gracenote Global Media Database Access
- Global Genre System categorizes music into more than 1600 micro-genres
- Audio Waveform Recognition Technology Identifies Songs Even if They Have No Tag or File Data
- Multi-Step Digital File Recognition



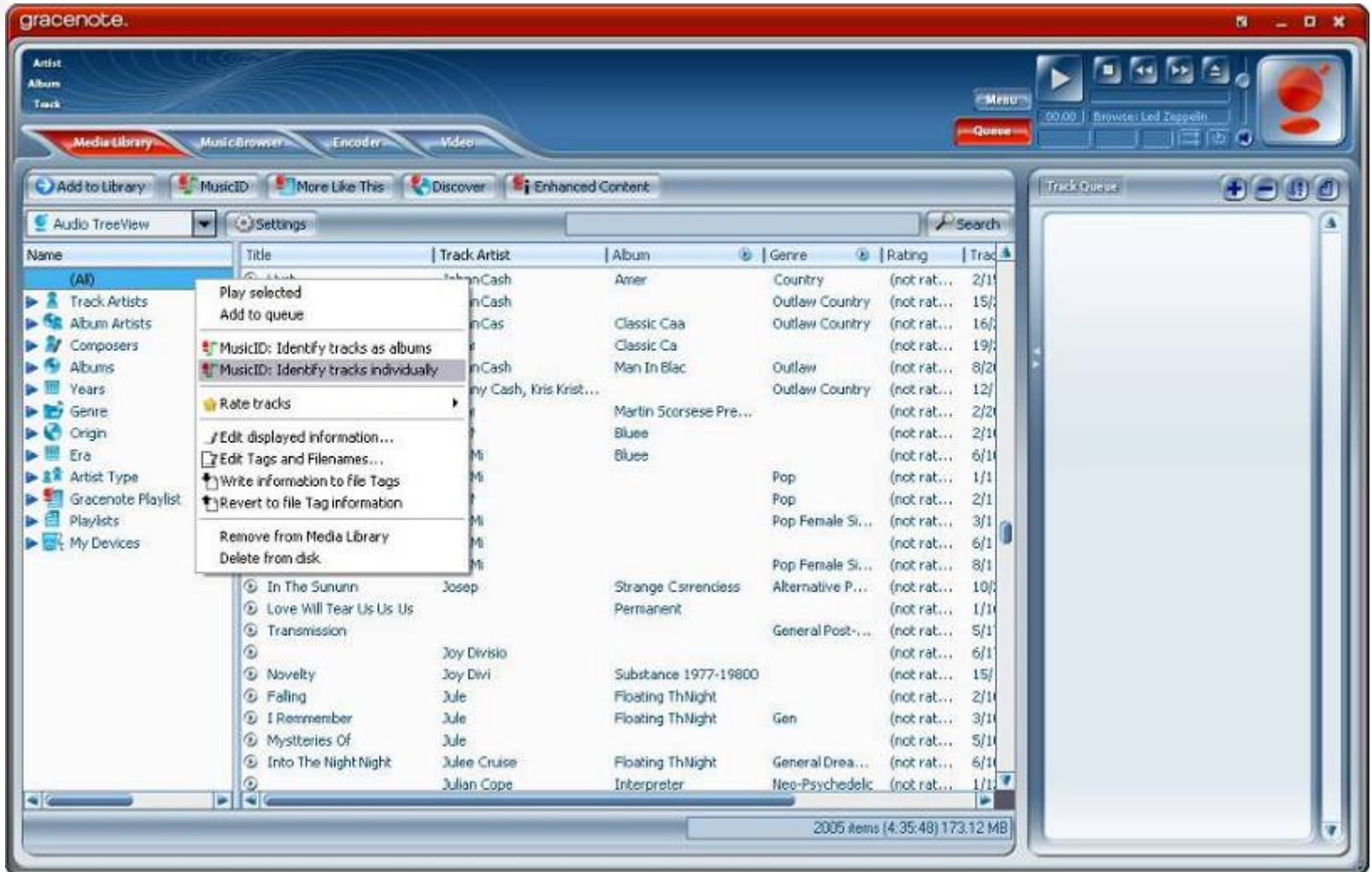


# Music ID Cleans out Metadata



A typical user's collection of digital music files

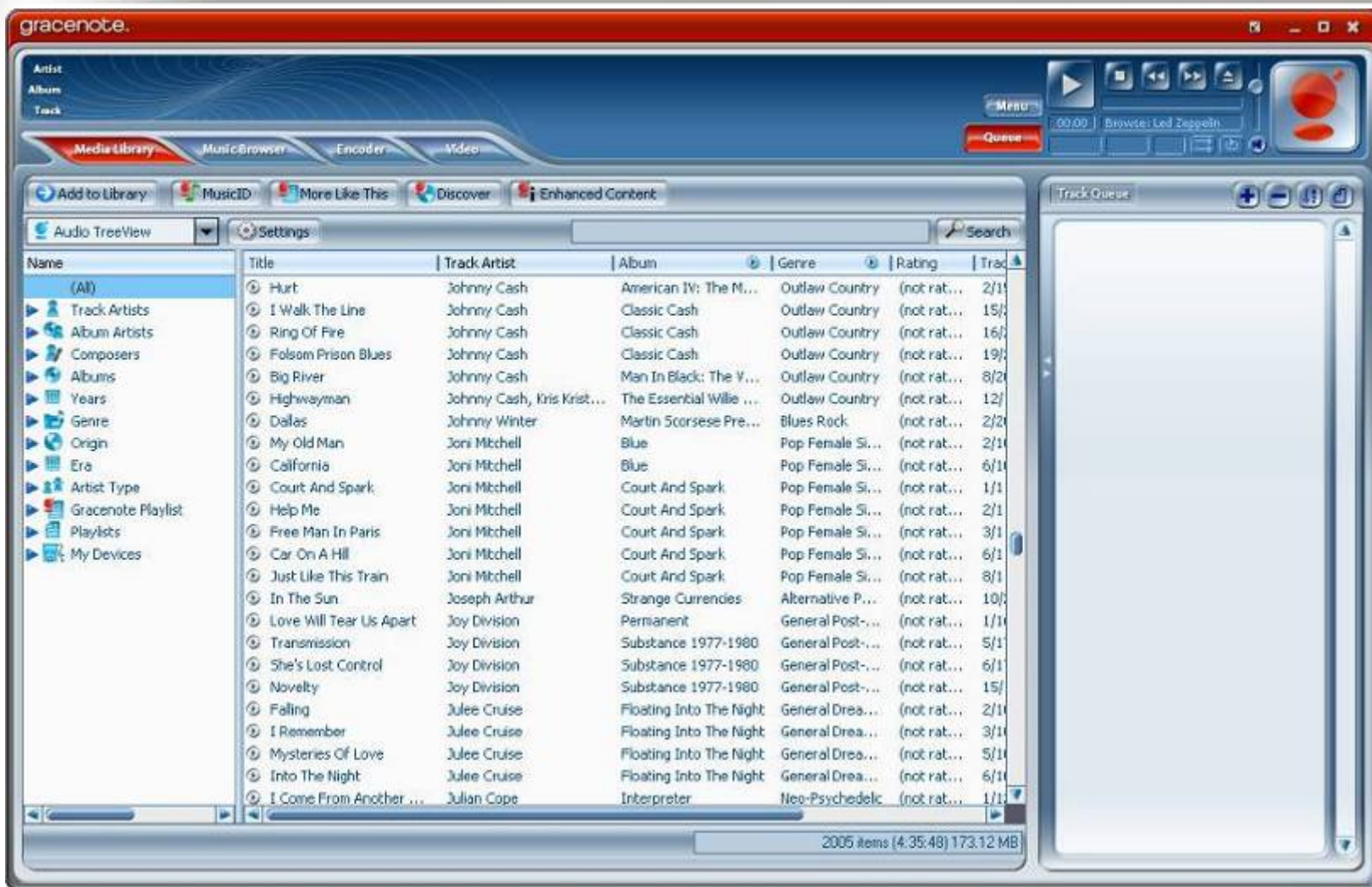
# Music ID Cleans out Metadata



MusicID identifies the digital music...



# Music ID Cleans out Metadata



And presents complete and accurate data

# Gracenote Mobile Music ID™

## Lets Consumers Use their Mobile Phones to Identify Music and Link to and Purchase Related Content

### Key Features

- Delivers Fast and Accurate Recognition of Songs Wherever Mobile Phone User May Be—in a bar, at a party, in the car
- Allows Mobile Operators to Create an Enhanced Customer Experience and Generate Increased ARPU
- Offers Relevant Information and Drives Commerce Opportunities When Integrated with Gracenote Link and Gracenote Discover

### Technology Highlights

- Combines Gracenote Patent-Pending Waveform Analysis Technology with Global Media Database
- Flexible Implementation: Carriers and Service Providers can Secure Dedicated Capacity or Access Shared Capacity Hosted by Gracenote for Reduced Time to Market



# Gracenote Playlist™

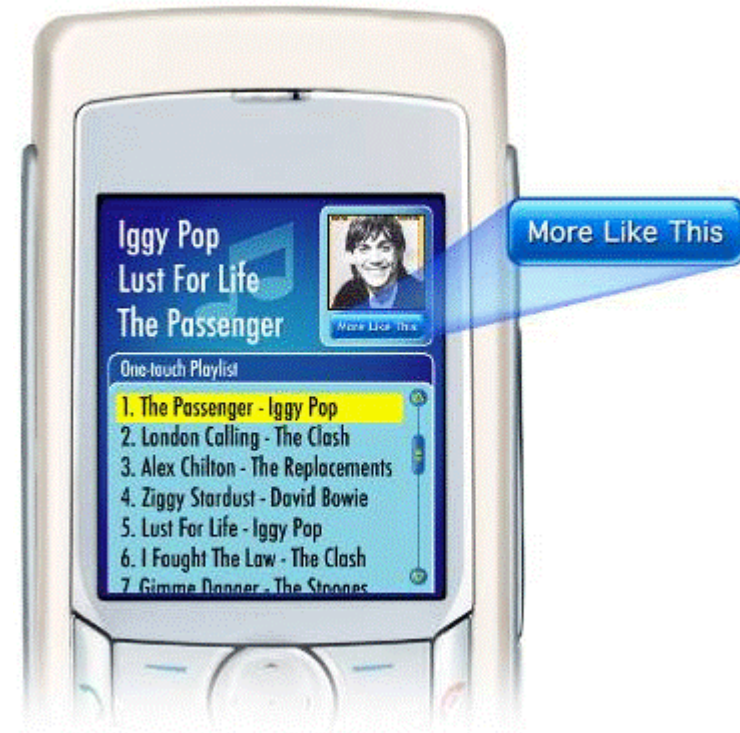
## The Industry's First Dynamic Playlist Generation Technology for Both Desktop and Embedded Platforms

### Key Features

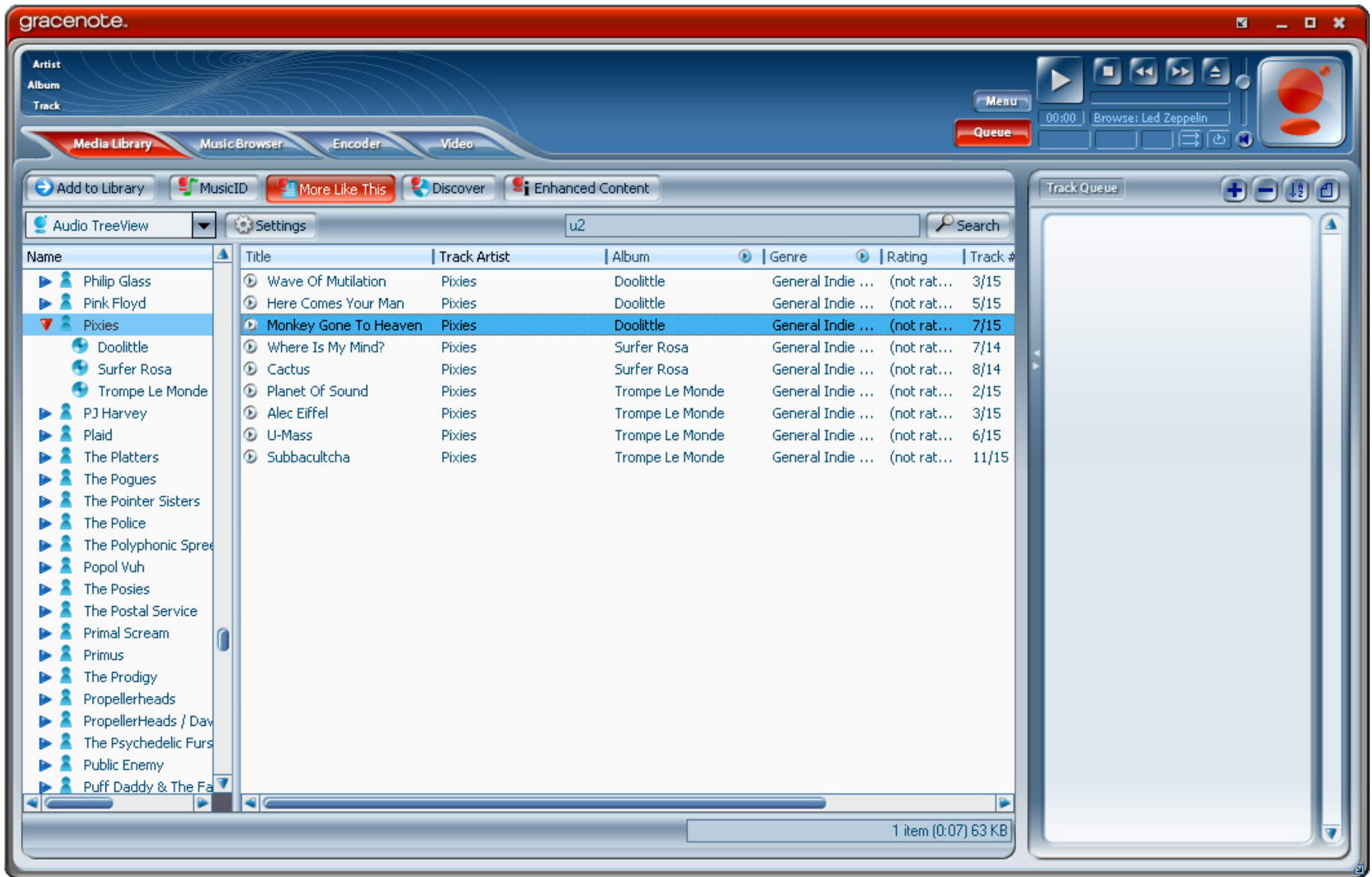
- One-Touch Playlists Based on Similarity of One or More “Seed” Song, Album or Artist
- Pre-Set Dynamic Playlists Evolve with a User’s Collection
- Instant Playlist Creation on the Mobile Phone Using Gracenote’s Embedded Solution
- “More Like This” optimized smart playlist generating

### Technology Highlights

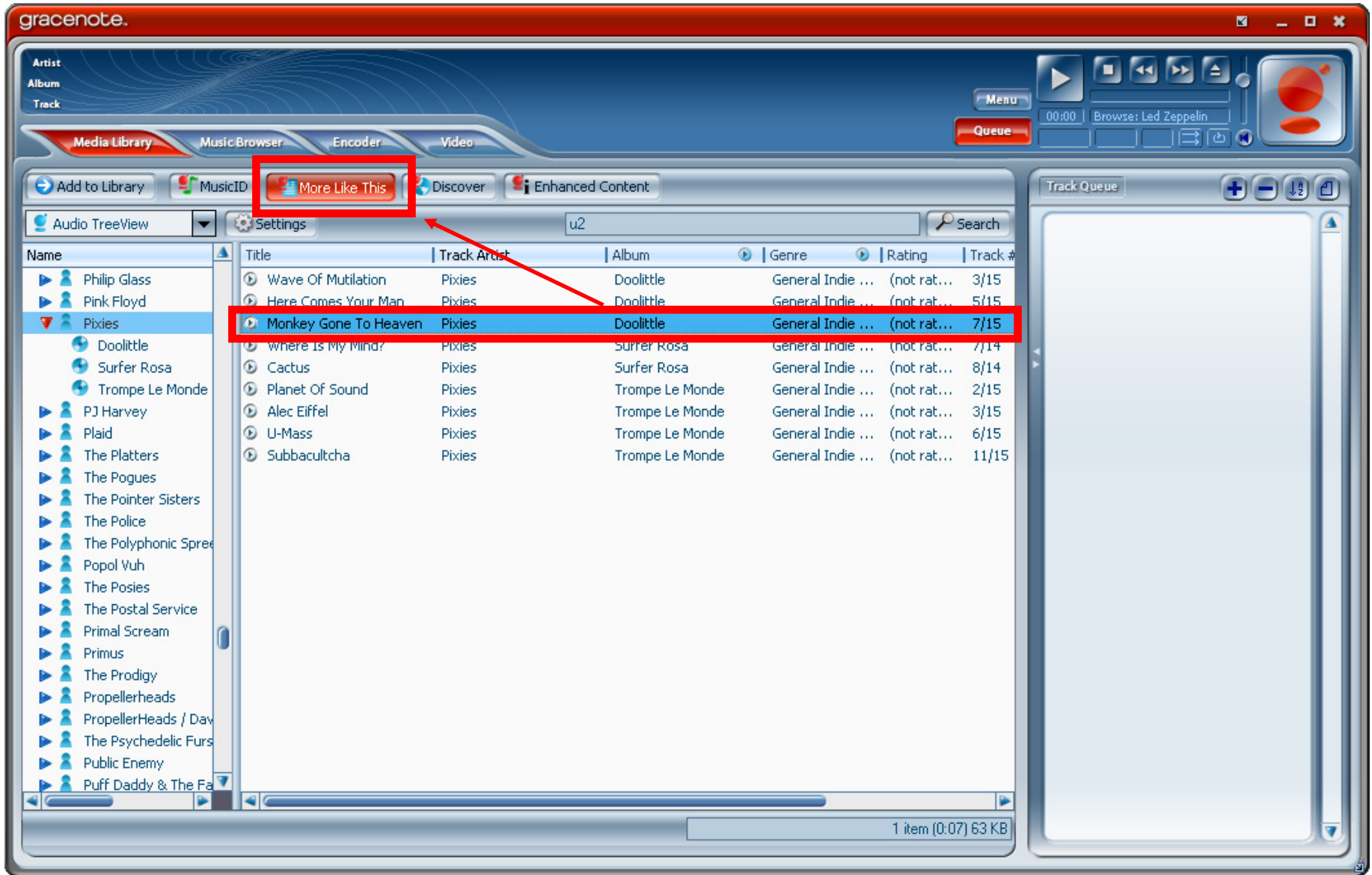
- Extensible Platform Incorporating Multiple Data Sources
- Correlates System Relates Similar Music Even If Coded to Different Genres or Other Descriptors
- Unique Descriptive Data
  - 1,600+ Micro-Genres, Plus Era, Region, Solo/Group, Gender and Popularity







Enjoy one-touch playlist generation



Simply select a "seed" song...

gracenote.

Artist Pixies  
Album Trompe Le Monde  
Track Planet Of Sound

Media Library Music Browser Encoder Video

00:00 Browse: Pixies  
64 kbps Mono MP3

Add to Library MusicID More Like This Discover Enhanced Content

Audio TreeView Settings u2 Search

Name	Title	Track Artist	Album	Genre	Rating	Track #
Philp Glass	Wave Of Mutilation	Pixies	Doolittle	General Indie ...	(not rat...)	3/15
Pink Floyd	Here Comes Your Man	Pixies	Doolittle	General Indie ...	(not rat...)	5/15
Pixies	Monkey Gone To Heaven	Pixies	Doolittle	General Indie ...	(not rat...)	7/15
Doolittle	Where Is My Mind?	Pixies	Surfer Rosa	General Indie ...	(not rat...)	7/14
Surfer Rosa	Cactus	Pixies	Surfer Rosa	General Indie ...	(not rat...)	8/14
Trompe Le Monde	Planet Of Sound	Pixies	Trompe Le Monde	General Indie ...	(not rat...)	2/15
PJ Harvey	Alec Eiffel	Pixies	Trompe Le Monde	General Indie ...	(not rat...)	3/15
Plaid	U-Mass	Pixies	Trompe Le Monde	General Indie ...	(not rat...)	6/15
The Platters	Subbacultcha	Pixies	Trompe Le Monde	General Indie ...	(not rat...)	11/15

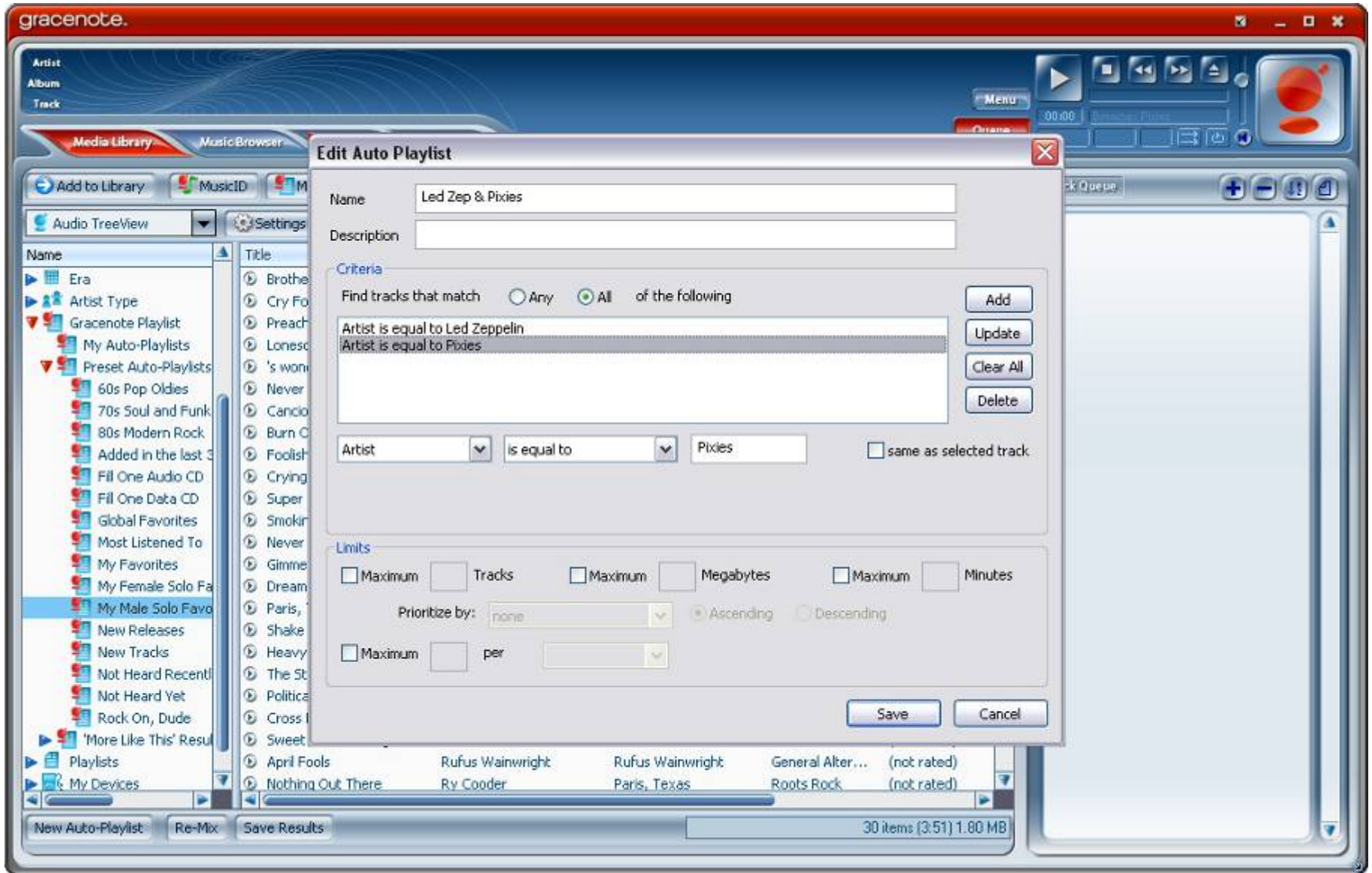
Track Queue

- Game Theory / The Real Sheila 0:07
- Pixies / Planet Of Sound 0:07
- Buffalo Tom / Soda Jerk 0:07
- The Vaselines / Jesus Wants Me For A Girl 0:07
- Meat Puppets / Hot Pink 0:07
- Elf Power / Jane 0:07
- Meat Puppets / Violet Eyes 0:07
- Sleater-Kinney / Jenny 0:07
- Elf Power / Olde Tyme Waves 0:07
- Camper Van Beethoven / (I Was In) A Band 0:07
- Sleater-Kinney / The Drama You've Made 0:07
- Elf Power / Willow Man 0:07
- Lush / Covert (Album Version) 0:07
- Pixies / Monkey Gone To Heaven 0:07
- Pixies / Subbacultcha 0:07
- Camper Van Beethoven / Still Wise 0:07
- The Breeders / Cannonball 0:07
- Meat Puppets / We Don't Exist 0:07
- Sleater-Kinney / Start Together 0:07
- Pixies / Alec Eiffel 0:07
- Lush / Stray (Album Version) 0:07
- Game Theory / Kenneth - What's In It For Me 0:07
- Meat Puppets / Backwater 0:07
- The Breeders / Divine Hammer 0:07
- Camper Van Beethoven / The History of Rock Music 0:07
- The Vaselines / Son Of A Gun 0:07
- Elf Power / Will My Feet Still Carry Me 0:07
- Lush / Tiny Smiles (Album Version) 0:07
- The Vaselines / You Think You're In Love 0:07
- Sleater-Kinney / Little Babies 0:07

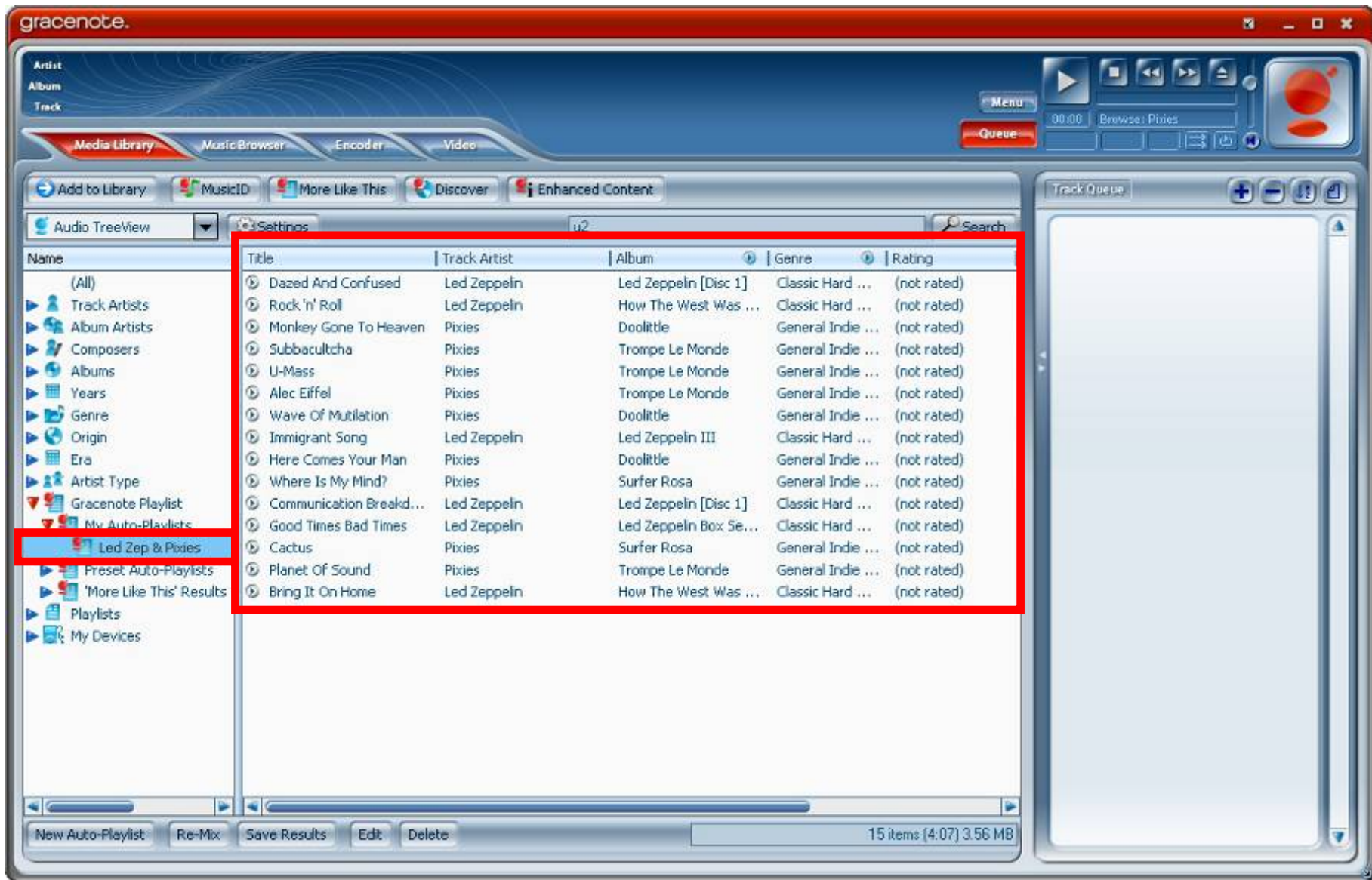
9 items (1:05) 524 KB

And a mix of music from related artists and genres is created





Or enjoy creating your own custom playlists



And that playlist is now ready to be played.



# Gracenote Playlist Plus™

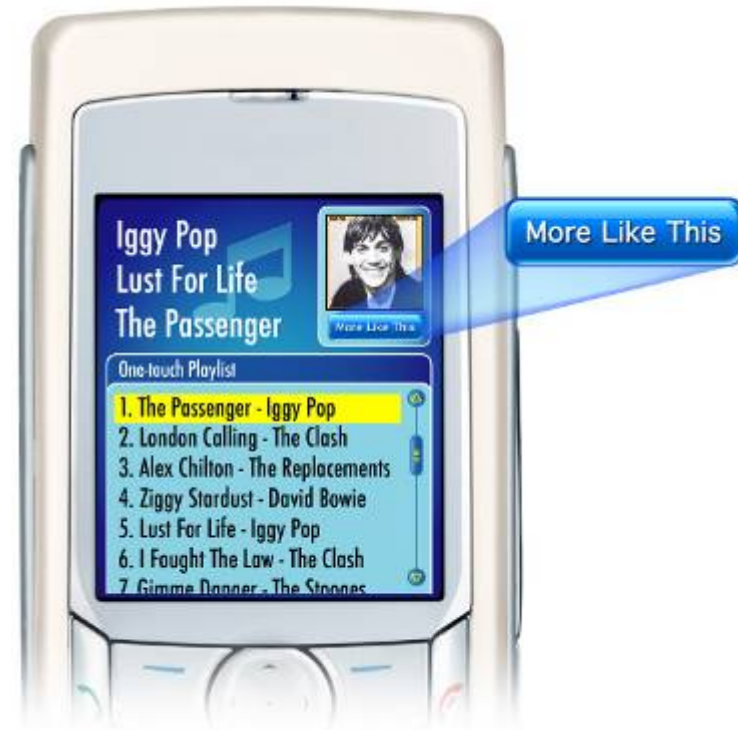
## Lightweight, Embedded Playlist Technology for System Resource Constrained Devices

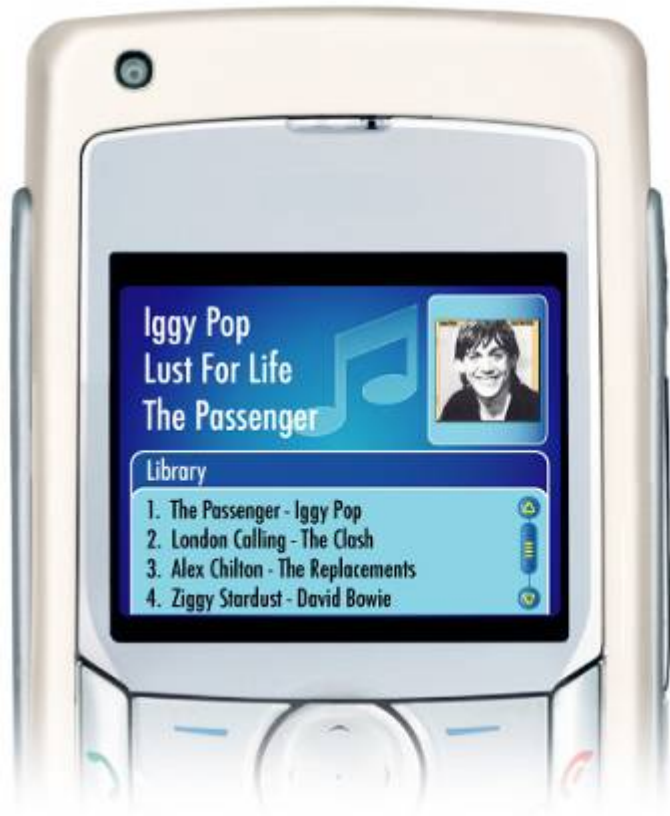
### Key Features

- More Like This™ one-click auto-playlist creation
- Pre-Set Dynamic Playlists & Easy Device Synchronization

### Technology Highlights

- Runs in Resource-Constrained Environments typical of Mobile, Portable & Automotive Devices
- Analyzes Music on a Device to Link to a Local Internal Database of Relational Music Information to Enable Automatic Playlisting
- Embedded Database Size Can be Customized to Fit Device Constraints
- Can be Optimized for Specific Target Regions by Using Gracenote's Popularity Data





A playlist is created with  
the new files

Enjoy one-touch playlist generation



Enjoy one-touch playlist generation



New playlist created with  
Iggy Pop as seed song

And access playlists on a portable device from a car audio device

# Gracenote Enriched Content™

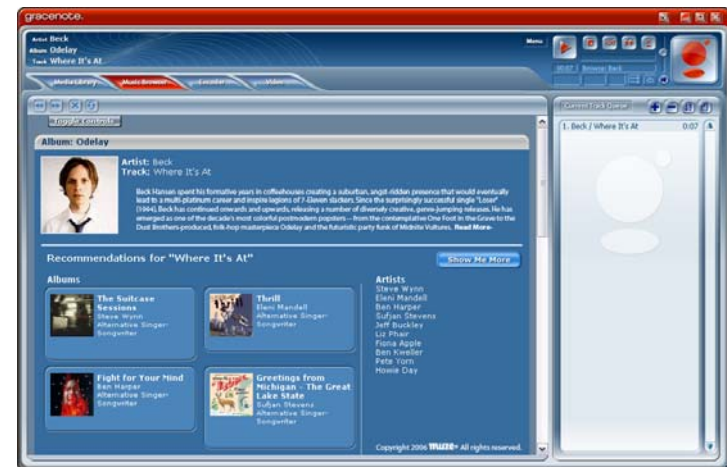
## Enables the Delivery of Relevant Enriched Data to Music Fans

### Key Features

- Matches and delivers global music enrichment information from multiple vendors
- Offers the most comprehensive and global collection of music enrichment data available

### Technology Highlights

- Matches third-party catalogs to the Global Gracenote Media Database
- Secure delivery of Gracenote-hosted, licensed content during the playback of recognized music





Artist Beck  
Album Odelay  
Track Where It's At

Menu

Playback controls including play/pause, stop, previous, next, repeat, and shuffle buttons. A progress bar shows 00:07. A search field contains "Browse: Beck". A volume control slider is visible on the right.

Media Library Music Browser Encoder Video



Toggle Controls

Album: Odelay



Artist: Beck  
Track: Where It's At

Recommendations for "Where It's At"

Show Me More

Albums

No Cover Art Available  
**The Suitcase Sessions**  
Steve Wynn  
Alternative Singer-Songwriter

No Cover Art Available  
**Thrill**  
Eleni Mandell  
Alternative Singer-Songwriter

No Cover Art Available  
**Fight for Your Mind**  
Ben Harper  
Alternative Singer-Songwriter

No Cover Art Available  
**Greetings from Michigan - The Great Lake State**  
Sufjan Stevens  
Alternative Singer-Songwriter

Artists

- Steve Wynn
- Eleni Mandell
- Ben Harper
- Sufjan Stevens
- Jeff Buckley
- Liz Phair
- Fiona Apple
- Ben Kweller
- Pete Dinklage
- Howie Day

Current Track Queue



1. Beck / Where It's At 0:07





# Gracernote Lyrics Solutions

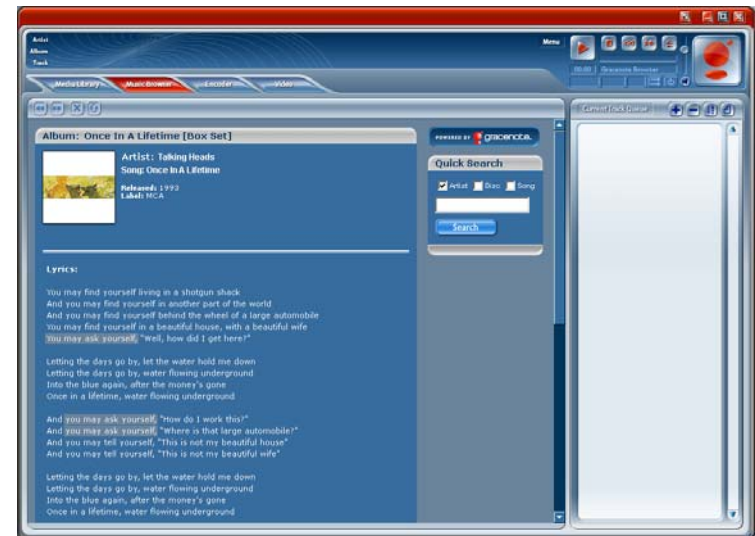
## The World's First Commercially Viable Lyrics Offering

### Key Features

- Flexible licensing options: downloads, streaming, subscription, ad-supported search, paid search, a-la-carte, embedded
- Data quality assurance of lyrics
- Licensed rights with more than 80 music publishers, including the “Big Five”
- Experience rights payment partner: built a lyric-specific rights clearance payment system

### Technology Highlights

- Supports delivery to all major media platforms: PC, Web, mobile phones and online and embedded devices
- Supports mapping commercial catalog tracks to lyrics to optimize revenue opportunities



# Gracenote Lyrics Solutions

The screenshot displays the Gracenote software interface. At the top, there are navigation tabs for 'Media Library', 'Music Browser', 'Encoder', and 'Video'. The 'Music Browser' tab is active. On the right side, there is a 'Menu' button and a 'Current Track Queue' panel. The main content area shows album information for 'Once In A Lifetime [Box Set]' by Talking Heads, released in 1993 on the MCA label. Below this, the lyrics for the song 'Once In A Lifetime' are displayed. A 'Quick Search' section is also visible, with a search box and a 'Search' button. The interface is styled with a blue and white color scheme.

Artist  
Album  
Track

Media Library Music Browser Encoder Video

Menu

00:00 Gracenote Browser

Album: Once In A Lifetime [Box Set]

POWERED BY gracenote.

Artist: Talking Heads  
Song: Once In A Lifetime  
Released: 1993  
Label: MCA

Quick Search

Artist  Disc  Song

Search

Current Track Queue

**Lyrics:**

You may find yourself living in a shotgun shack  
And you may find yourself in another part of the world  
And you may find yourself behind the wheel of a large automobile  
You may find yourself in a beautiful house, with a beautiful wife  
You may ask yourself, "Well, how did I get here?"

Letting the days go by, let the water hold me down  
Letting the days go by, water flowing underground  
Into the blue again, after the money's gone  
Once in a lifetime, water flowing underground

And you may ask yourself, "How do I work this?"  
And you may ask yourself, "Where is that large automobile?"  
And you may tell yourself, "This is not my beautiful house"  
And you may tell yourself, "This is not my beautiful wife"

Letting the days go by, let the water hold me down  
Letting the days go by, water flowing underground  
Into the blue again, after the money's gone  
Once in a lifetime, water flowing underground

# Gracenote Link<sup>SM</sup>

- Enables Seamless Delivery of Rich Third-Party Content About Music / Film Releases and Artists
- Improves the Media Experience
- Opens New Revenue Streams for Gracenote Partners



## Key Features

- Enables Third-Party Content Integration Such As Album / DVD Cover Art, Artist Bios, Album Reviews, etc. (third-party license required)
- Streamlines the Integration and Delivery of Content and Commerce

## Technology Highlights

- Gracenote MusicID to Identify Track / CD / DVD
- Gracenote Link Enables Delivery of Licensed Third-Party Content

A screenshot of a music player interface for the artist Beck. It includes a profile picture, a list of top songs with play buttons, and a table of songs and albums. The interface is clean and modern, typical of a music streaming service.

**Beck**

Play Top Songs  
Play Artist Fan Station

Biography  
Music Videos  
Photos

Share this page: IM Email Link  
Rate Artist: ☆☆☆☆☆

Genres: Rock, Indie Rock, Adult Alternative, Modern Rock

Songs | Albums

Popularity	Play	Song	Album
1	▶	Girl	Guero
2	▶	Lost Cause	Sea Change
3	▶	Qué Onda Guero	Guero
4	▶	Loser (LP Version)	Loser
5	▶	Where It's At	Odelay
6	▶30	Ghettochip Malfunction (Hell Yes)	Hell Yes
7	▶30	Hell Yes	Guero
8	▶	The Golden Age	Sea Change
9	▶	Scarecrow	Guero

Yahoo! Music Engine


File Edit View Controls Help

Y! MUSIC engine

Search: **U** Y! Unlimited Artist

Welcome **swwhite510**  
[\[Sign Out | My Account | My Music Profile\]](#)

**Beck**

 [Play Top Songs](#)  
[Play Artist Fan Station](#)  
[Biography](#)  
[Music Videos](#)  
[Photos](#)

Share this page: [IM](#) [Email](#) [Link](#)  
 Rate Artist: ☆☆☆☆

Genres: Rock, Indie Rock, Adult Alternative, Modern Rock

**Explore Similar Artists**

[Create Similar Artist Playlist](#)

[Portishead](#)  
[Alice In Chains](#)  
[The Crystal Method](#)  
[Rage Against The Machine](#)  
[Modest Mouse](#)

[more ▶](#)

**Songs | Albums**

Popularity	Play	Song	Album	Release Year	My Rating	My Music	Buy	Price
1		Girl	Guero	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
2		Lost Cause	Sea Change	2002	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
3		Qué Onda Guero	Guero	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
4		Loser (LP Version)	Loser	1994	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
5		Where It's At	Odelay	1996	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
6		Ghettochip Malfunction (Hell Yes)	Hell Yes	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
7		Hell Yes	Guero	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
8		The Golden Age	Sea Change	2002	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
9		Scarecrow	Guero	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
10		Lonesome Tears	Sea Change	2002	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
11		Wish Coin (Go It Alone)	Guerolito	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
12		Broken Drum	Guero	2005	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79
13		Guess I'm Doing Fine	Sea Change	2002	☆☆☆☆☆		<input type="button" value="BUY"/>	\$ 0.79

Enjoy access to third-party linked data



Beck Biography on Yahoo! Music - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://music.yahoo.com/ar-262397-bio--Beck

Latest Headlines NextBus Map

Yahoo! Music Home Help

**Y! MUSIC** Sign In [New User? Sign Up]


SEARCH MUSIC All GO

LAUNCHcast RADIO MUSIC VIDEOS Y! MUSIC UNLIMITED ARTISTS

Artist Main  
► Biography  
Downloads  
Music Videos  
LAUNCHcast Radio  
Photos  
Albums  
Similar Artists  
News  
Reviews  
Interviews  
Groups  
Message Boards  
Fans  
Fan Sites

VISIT:  
[Official Artist Site](#)  
[Get Ringtones](#)  
[Get Concert Tickets](#)  
[Grammy Coverage](#)


### Beck Biography



Customize Your Music  
Rating affects your music played in LAUNCHcast and Music Videos.  
Your Artist Rating:  
☆☆☆☆  
[Why Rate?](#)

### Biography

One of the most inventive and eclectic figures to emerge from the '90s alternative revolution, Beck was the epitome of postmodern chic in an era obsessed with junk culture. Drawing upon a kaleidoscope of influences -- pop, folk, psychedelia, hip-hop, country, blues, R&B, funk, indie rock, noise rock, experimental rock, jazz, lounge, Brazilian music -- Beck created a body of work that was wildly unpredictable, vibrantly messy, and bursting with ideas. He was unquestionably a product of the media age -- a synthesist whose concoctions were pasted together from bits of the past and present, in ways that could only occur to an overexposed pop-culture junkie. His surreal, free-associative lyrics were laced with warped imagery and a sardonic sense of humor that, while typical of the times, only rarely threatened the impact of his adventurous music. Beck appropriated freely from whatever genres he felt like, juxtaposing sounds that would never have co-existed organically (and his habitual irony made clear that he wasn't aiming for authenticity in the first place). If his musical style was impossible to pigeonhole, his true identity lay in that rootless, sprawling diversity, that determination to acknowledge no

ADVERTISEMENT  
\*subject to terms and conditions  
**WANTED:**  
Local Mystery Shoppers  
  
Shop for FREE!

Done

Enjoy access to third-party linked data



# Gracenote Discover™

**Provides Consumers with Highly Relevant Music and Merchandise Recommendations on a PC or Mobile Handset**

## Key Features

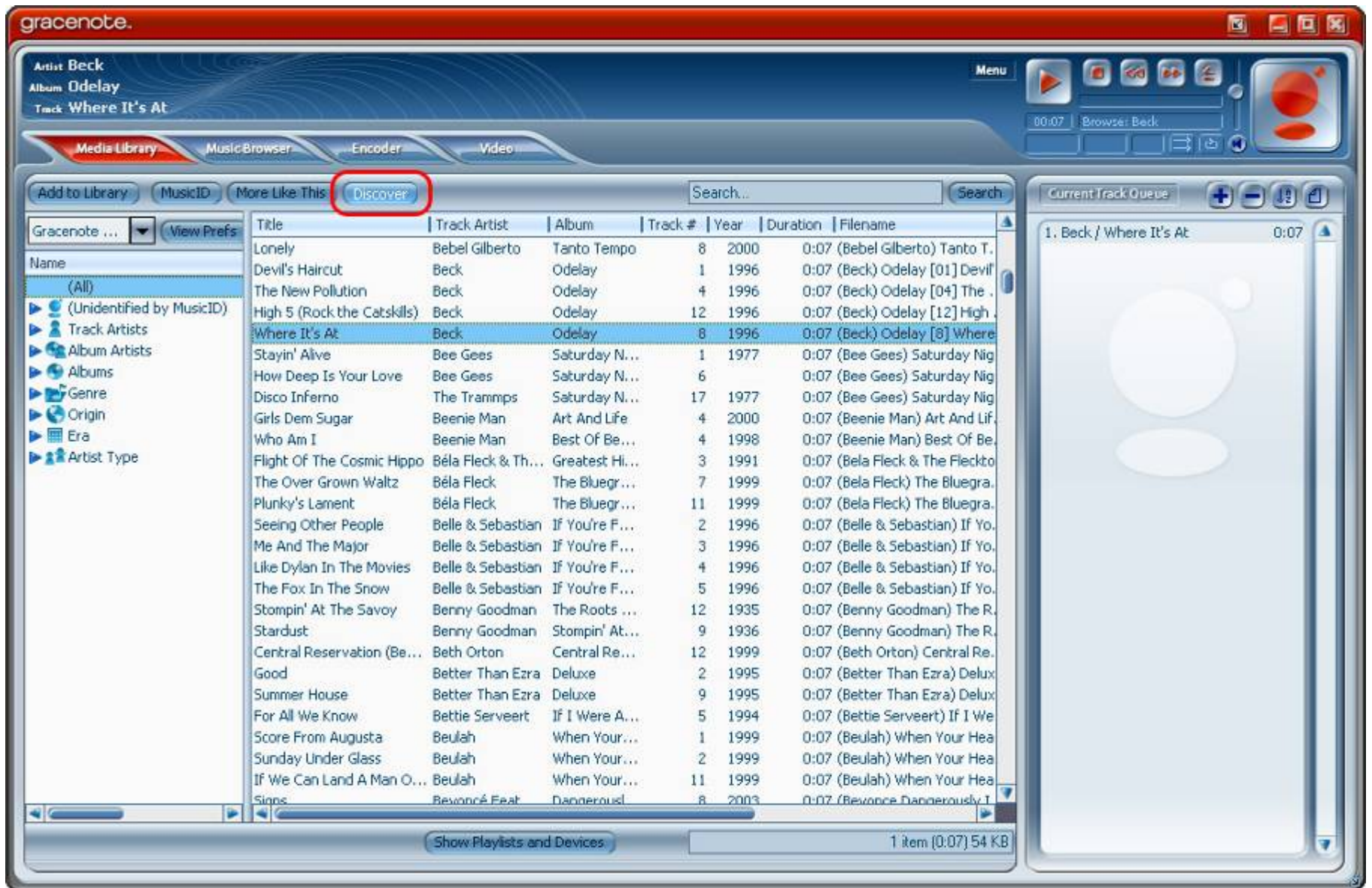
- Integrates the Best Attributes of Multiple Recommendation Approaches to Deliver Superior Results
  - Expert Editorial: Sophisticated Global Artist/Album/Track Results
  - Track-Level DSP Attributes: Further Optimizes Track Level Recommendations
  - Music Community Data: Further Improves Artists, Album & Track Recommendations

## Technology Highlights

- Provides Results Tailored for Each Customer Catalog of Items to be Sold (e.g. download songs, ringtones, etc.)
- Can Generate Recommendations for ANY Track/Album/Artist Regardless of Source
- “White Box” Approach Puts Overall Control in Customer’s Hands to Target, Tune, Customize & Differentiate
- Leverages the Gracenote Global Media Database to Provide Geographically Sensitive Recommendations
  - Data For Over 200 Countries and Territories, 80 Languages



A screenshot of the Gracenote Discover interface. At the top left is a portrait of the artist Beck. To the right of the portrait, it says "Artist: Beck" and "Track: Where It's At". Further right, under the heading "More By This Artist", is a list of other tracks: "Nitemare", "Hippy Girl", "Side of the Road", "Blackhole", "Broken Drum", "We Live Again", "Epilogue", and "Que' Onda Guero". Below this is a section titled "Recommendations for 'Where It's At'", with a sub-heading "Albums". There are four album recommendations shown in a 2x2 grid. Each recommendation includes a small album cover image, the album title, the artist name, and their role. The recommendations are: 1. "The Suitcase Sessions" by Steve Wynn, Alternative Singer-Songwriter. 2. "Thrill" by Eleni Mandell, Alternative Singer-Songwriter. 3. "Fight for Your Mind" by Ben Harper, Alternative Singer-Songwriter. 4. "Greetings from Michigan - The Great Lake State" by Susan Stevens, Alternative Singer-Songwriter.



Track in consumer's personal music library



Recommendations for selected track



# Gracernote Mediavocs

## Enables Automated Speech Recognition (ASR) and Text To Speech (TTS) Solutions Provide Consumers with Hand-Free Access to their Music and Media

### Key Features

- Allows access to a Specific Song, Album, Artist or Genre just by Saying the Name
- Provides Phonetic Transcriptions and Phonetic Transcription Variants (Most Common Mispronunciations) for the Core Metadata and Alternate Names
- Alternate Names Consist of
  - Artist, Album, and Track Nicknames
  - Artist Birth Names, Acronyms, and Initials
  - Artist, Album, and Track Short and/or Long Names
- Enabled through Playlist Plus for Advanced Voice Control of Media

### Technology Highlights

- Extensive Phonetic Transcriptions for Music-Related Proper Names and Terms That Cannot Be Recognized or Pronounced by ASR or TTS Solutions
- Extensive Phonetic Transcription Variants – Most Common Mispronunciations
  - “Sayd” (mispronunciation of Sade)



# Gracenote Classical Music Initiative



## Complete and Consistent Classical Music Data

### Key Features

- Industry's first system to accurately present key information required to identify classical music tracks
- Enables three-lined display of classical music information on digital devices

### Technology Highlights

- 10,000+ most popular albums converted into CMI format and increasing daily
- Endorsed by classical artist, experts, critics, scholars and authors; music labels Naxos and Harmonia-Mundi

Composer: **Antonio Vivaldi**  
Work: **The Four Seasons**  
Opus: **8/1**  
Movement: **1 (Allegro)**  
Ensemble: **Boston Symphony Orchestra**  
Conductor: **Seiji Ozawa**  
Soloist: **Joseph Silverstein**  
Album: **Vivaldi: The Four Seasons**

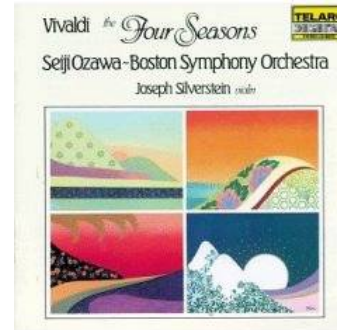


Classical Music Initiative Process





Composer: **Antonio Vivaldi**  
Work: **The Four Seasons**  
Opus: **8/1**  
Movement: **1 (Allegro)**  
Ensemble: **Boston Symphony Orchestra**  
Conductor: **Seiji Ozawa**  
Soloist: **Joseph Silverstein**  
Album: **Vivaldi: The Four Seasons**



## Classical Music Initiative Process

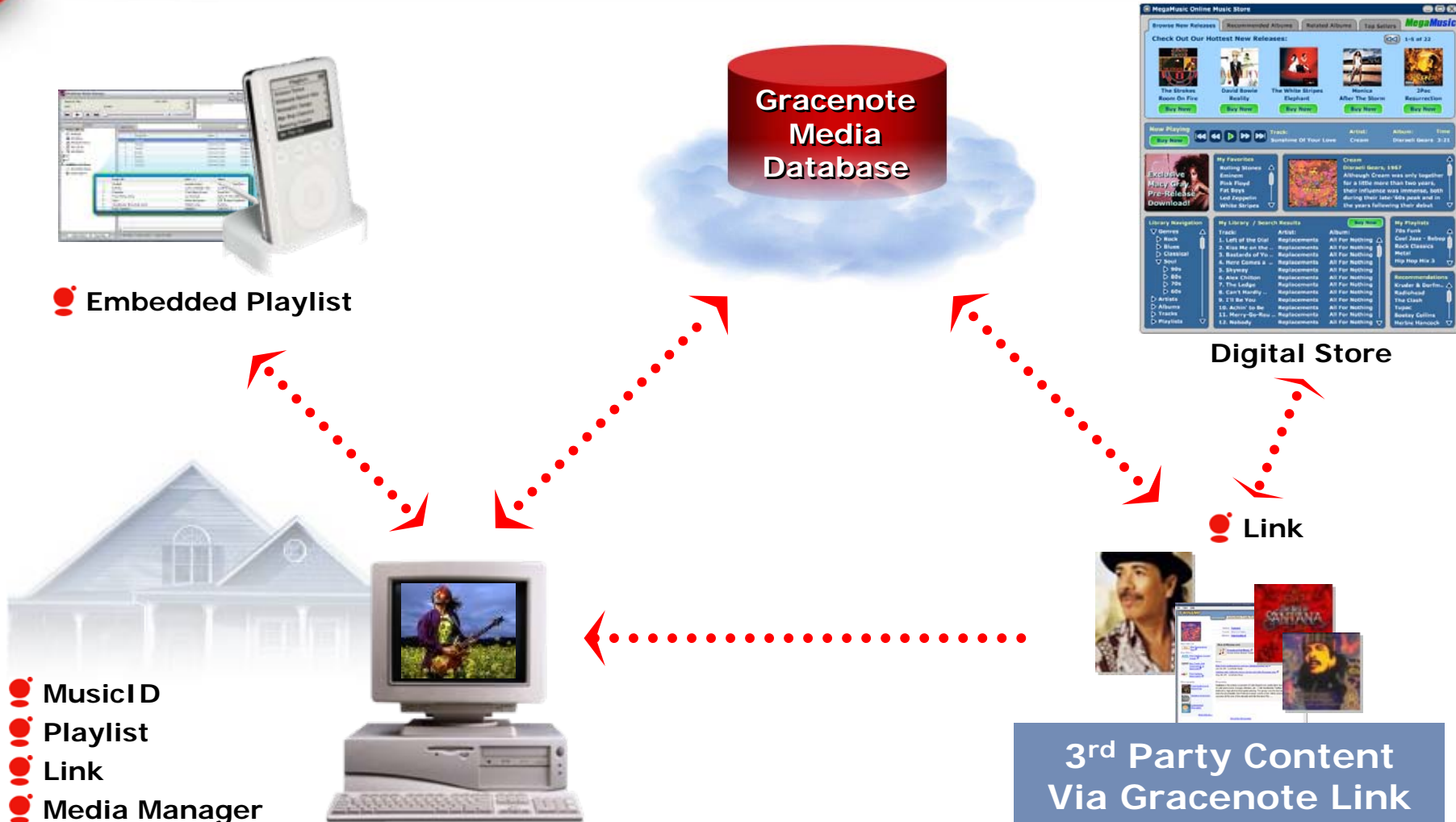
**Track** Vivaldi: The Four Seasons, Op. 8/1, "Spring" – 1. Allegro  
**Artist** Joseph Silverstein, Seiji Ozawa; Boston Symphony Orchestra  
**Album** Vivaldi: The Four Seasons



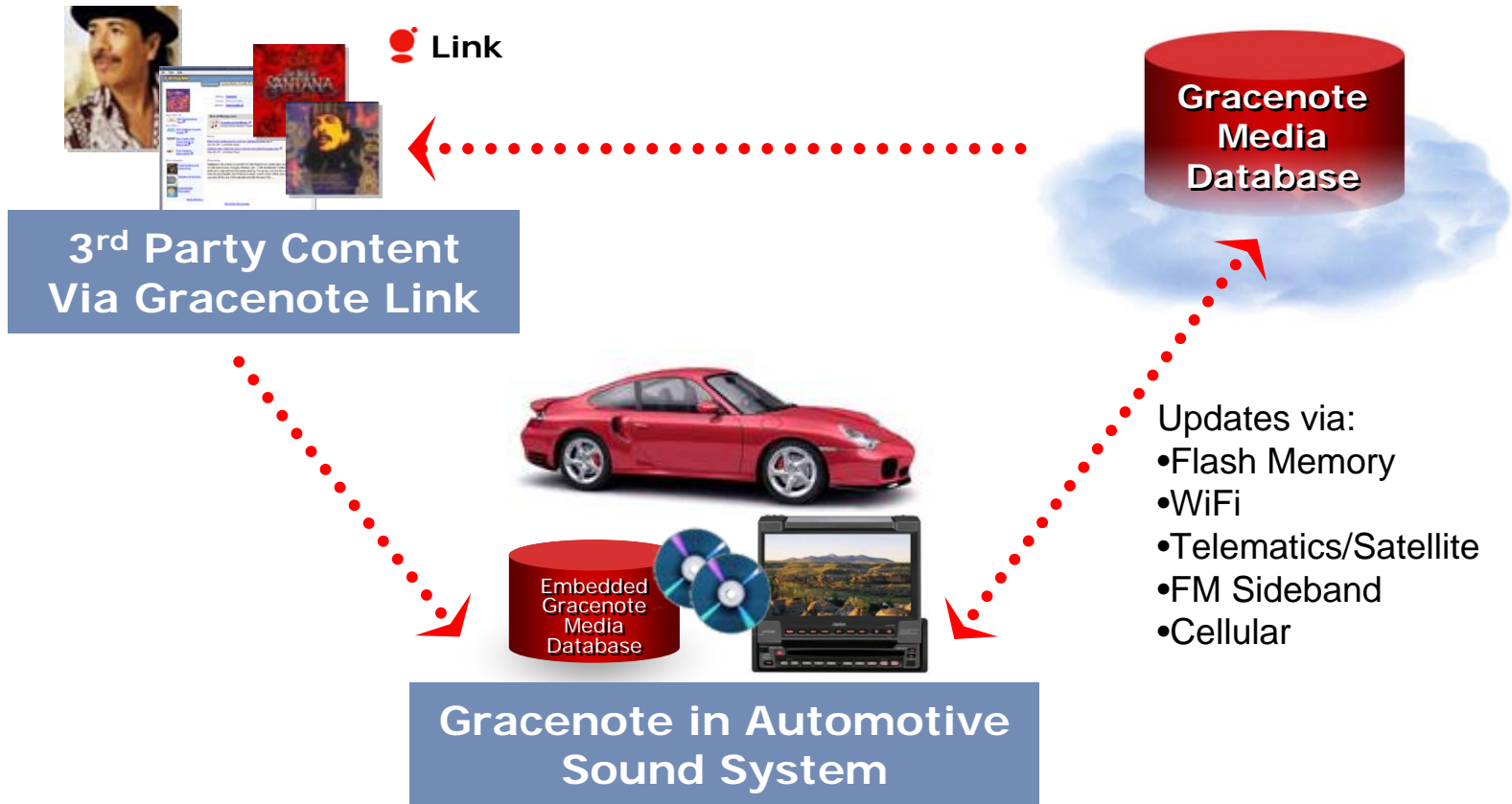


## Gracenote Implementation

# Gracenote in Consumer Electronics — Portable



# Gracenote in Consumer Electronics — Automotive



Recognize Music & Videos without a PC

- Embedded MusicID
- VideoID
- Playlist




# Gracenote in Consumer Electronics — Home

## Digital Media Adapter

Accesses All Media, Playlists and Metadata on Digital Media Server

## Digital Media Server

 **MusicID** &  **VideoID** Provides Metadata for all stored content

 **Playlist** Provides Automatic One-Touch Music Mixes

Gracenote  
Media  
Database



Wireless or Ethernet Network



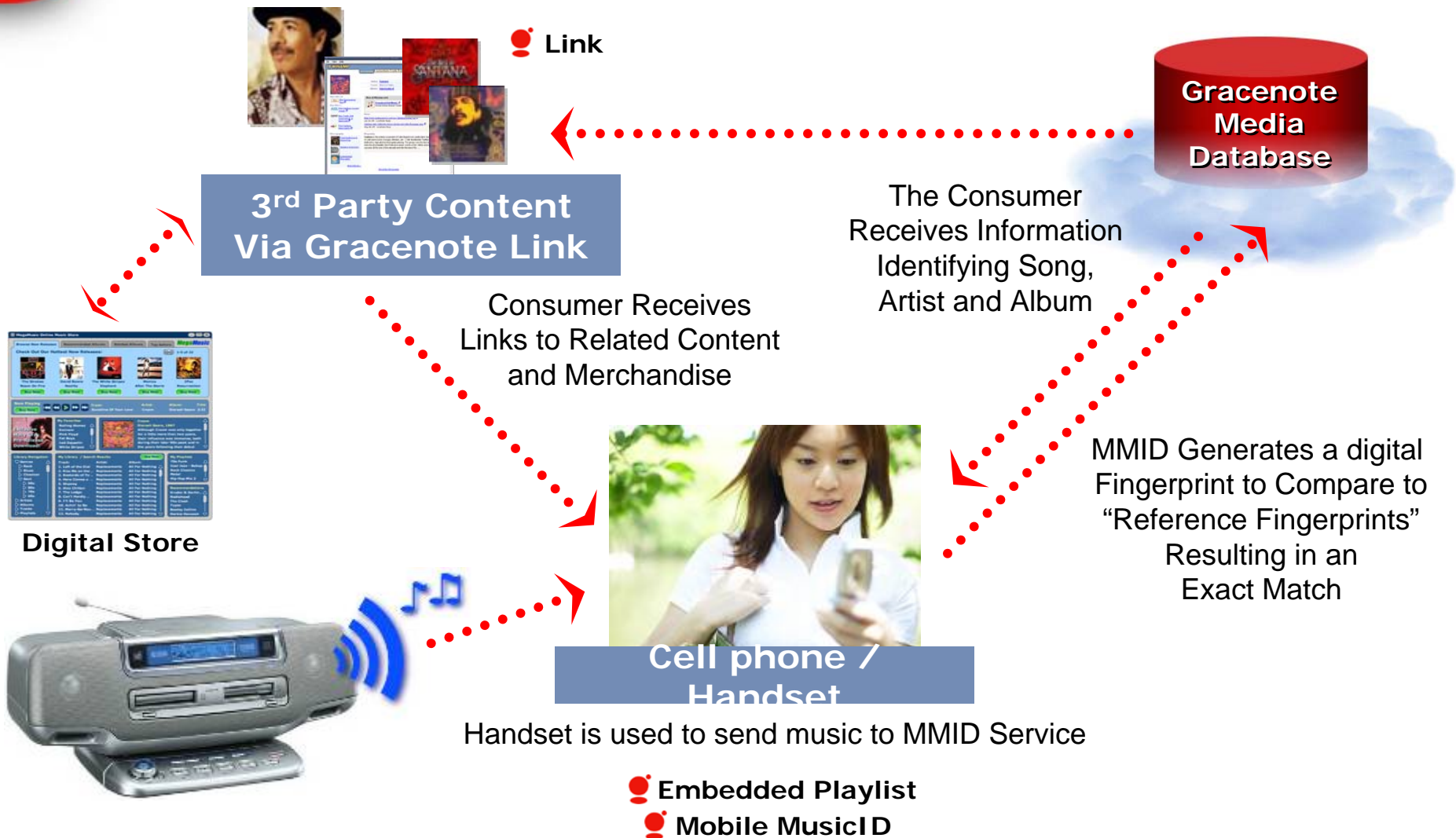
Bed Room

Living Room



3<sup>rd</sup> Party Content  
Via Gracenote Link

# Gracenote in Mobile Applications



# More Like This – the Basic Applications

"More Like This" at cellular phone

# More Like This – for Portable Quick Sync

## More Like This – Quick Song Selection



# More Like This – for Preset Events

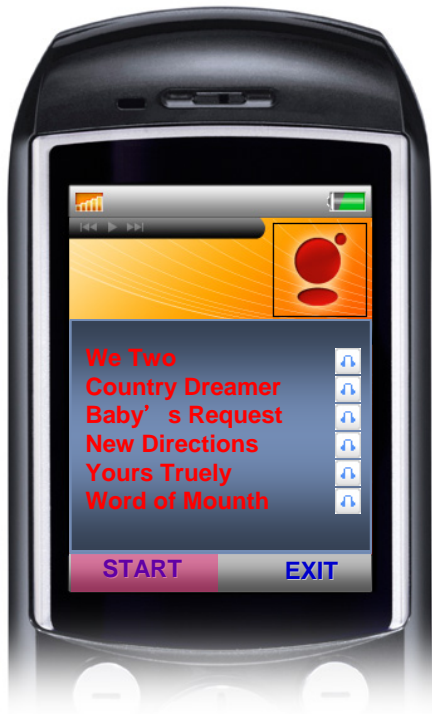
- Preset some events – party, before bed, study, jogging...
- Preset some modes – sad, happy, in love, peaceful, heart breaking....
- Preset for different owners – Husband, wife, son, grandpa...
- Each one got some seed songs, users can also add seed songs in....

**More Like This for Preset Events**

# Gracernote MMID Application Examples



## Push Music Sales



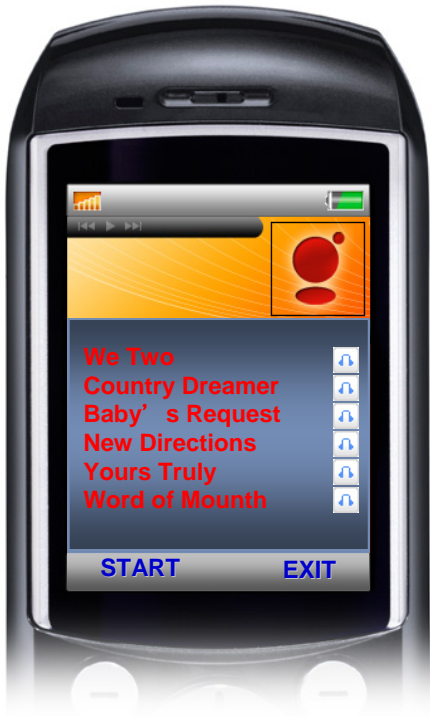
- Mobile MusicID
- Link
- Discover

# Gracernote MMID Application Examples



## Push Music Sales

## Sell Music Related Items



- Mobile MusicID
- Link
- Discover



- Mobile MusicID
- Link

# Gracernote MMID Application Examples



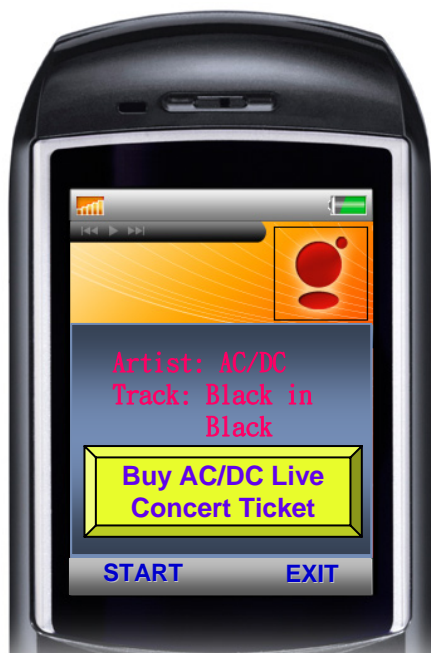
## Push Music Sales

## Sell Music Related Items

## On Line Advertisement



- Mobile MusicID
- Link
- Discover



- Mobile MusicID
- Link



- Mobile MusicID
- Link



# Why Gracenote

- Music management has become “MUST HAVE”
  - Digital music is still the major content for multimedia systems
  - Large storage has been very affordable
    - HDD and SSD are competing on price
  - Smart person can not handle more than 500 songs
- Gracenote has been the industrial standard
  - More than 4000 pc applications use Gracenote
    - You will need to join the Worldwide standard
    - Worldwide database breaks the geography boundary
  - Music intelligence enriches the music enjoyment
- Fastest new music update
- Completeness networking with brands, contents
  - Helps ODM/OEM winning business

# Unique Value of Gracenote

**Gracenote  
Media Database**

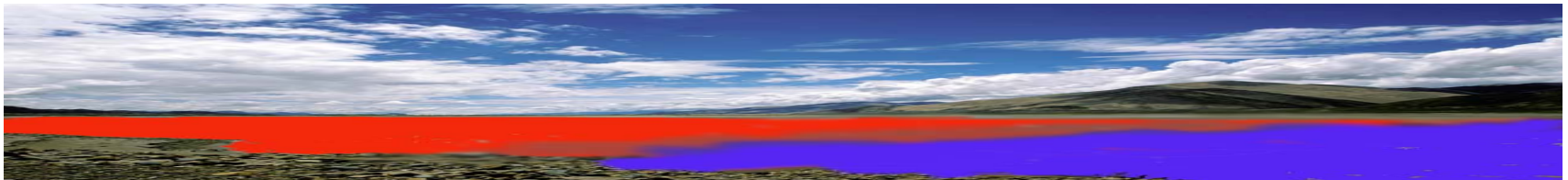
**Recognition  
Technology**

**Complete Solution**

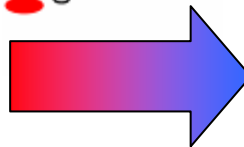
**Global Scope**

**IP Portfolio**

- The World's Largest Media Database
- End-User Community Data Collection Process
- CD & Waveform
- Proprietary Matching Technologies
- Content ID
- Playlist / Link / Media Manager
- Discovery
- Consumers – 200+M
- Countries & Territories – 200+
- Languages – 80+
- 34 Patents Granted or Filed



**Hardware Me Too  
Spec Comparison  
Features Delivery  
Time To Market  
Low Price**



**Service Wins!!  
Rich Experience!!  
Unique Features!!  
Long Life Cycle  
\$\$ High Price \$\$**





**THANK YOU!!**