# Unify your local music library

[**WORKSHOP**] Introducing MusicBrainz, Picard, and ultimate music categorization

Justin W. Flory (licensed under CC-BY-SA 4.0)

### MusicBrainz: Wat?

- Open source music metadata encyclopedia (est. 2000)
- Store, categorize, sort (all languages and scripts)

- Used by...
  - **Developers**: Build cool music apps!
  - **Commercial users**: Update local music databases with live updates from MusicBrainz (Spotify, Amazon, Google, Last.fm, etc.)
  - Users (that's us!): Tagging your own music

### Is MusicBrainz really that big?

Let's look at <u>some numbers</u>...

- Artists: 1,189,376
- **Releases**: 1,769,002
- **Recordings**: 17,152,131
- Artist locations:
  - Countries: 259
  - **Cities**: 74,087
  - Islands: 96
- Editor accounts: 1,781,906 registered (1,329 active last week)

### But what about my audio dramas?

Yes, you can have your audio dramas, all 257 of them.



### **Metadata matters**

Visibility

Find your music!

**Record keeping** 

Write music history!



Research

Discover music science!

## Introducing... Picard

File Edit View Options Too Add Files Add Folder Sore Sore Utile Utile Clouders Sound of Guns Blue Ruby Nerve in a Million Ye Bilance The Eleventh Hour Black Parth Cone Chance Human Existence Know the Teme Human Existence Sole Chance Human Existence Sole Memory Sed of Memory Bilege Through Timu	CD Lookup Cluster Lookup Scan Lengti Artist 50:39 Apollo Brown 203 Apollo Brown 214 Apollo Brown 214 Apollo Brown 214 Apollo Brown 203 Apollo Brown 204 Apollo Brown 204 Apollo Brown 204 Apollo Brown 204 Apollo Brown 214 Apollo Brown 214 Apollo Brown 214 Apollo Brown 214 Apollo Brown 214 Apollo Brown	Album - Thie Thie Cookup in Browser Thie Thie The Reset (15/15; 15')	and the second			
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Chusters     Clouds (27)     Clouds (27)     Sound of Guns     Stue Ruby     Never in a Million Ye     Safance     The Eleventh Hour     Shock the Heart     Push     Coe Chance     Homan Existence     Know the Time     Herkorn     Seed of Memory     Stedge Through Time     hust Malk	1:19     Apollo Brown       2:03     Apollo Brown       2:14     Apollo Brown       2:14     Apollo Brown       0:4     Apollo Brown       0:4     Apollo Brown       2:14     Apollo Brown       2:14     Apollo Brown       2:14     Apollo Brown	• • • • • • • • • • • • • • • • • • •	Apollo Brown Apollo Brown Apollo Brown Apollo Brown Apollo Brown Apollo Brown Apollo Brown Apollo Brown Apollo Brown Apollo Brown			
	209 Apollo Brown 0.43 Apollo Brown 206 Apollo Brown 217 Apollo Brown 212 Apollo Brown e 213 Apollo Brown 0.24 Apollo Brown	11     Odds Aint Fair (feat. Hassan Mackey)     339       12     Brainwash (feat. Yu, Grag Luva & Finale)     358       13     Just Think (feat. Magestik Legend)     252       14     Propa (feat. Oddisce & Tanqui)     354       15     Ghetto Soul Music (feat. Declaime, Prin 3:22	Apolio Brown Apolio Brown Apolio Brown Apolio Brown Apolio Brown			
Tag	Original Value	New Value				
Ibum Artist Sort Order Apollo B	frown	Brewn, Apollo				
irtist Sort Order Apollo 8		Brown, Apollo				
	Music Group	Mello Music Group				
Nisc Number		1				
Aedia		CD				
Original Release Date		2010-05-25				

- Tool to sort, scan, and correct metadata for you
  - References MusicBrainz database
- Puts the right metadata in the right place
  - Album name, artist name, album artwork, release year...
  - Helpful for music tracking services (e.g. Last.fm / Libre.fm)
  - Helpful for cloud music players (upload and forget)
- Available for Windows, macOS, Linux

# Installing and using Dicard

### Available for... almost everything

#### picard.musicbrainz.org

• Windows / macOS: Installers available

#### • Linux:

• Ubuntu:

sudo add-apt-repository ppa:musicbrainz-developers/stable
sudo apt-get update

• Fedora:

sudo dnf install picard chromaprint-tools

Why do I need chromaprint-tools?

• Arch Linux, Debian, Gentoo, OpenSUSE, and others (see the docs)

		Music	Brainz Picard Automatically look up metadata from existing metadata				
File Edit View Option	is Tools Help		Scan file to get audio fingerprint to look up metadata				
			Manually look up the metadata on musicbrainz.org				
Add Folder Add Files P	······································		Remove Lookup in Browser				
Title	Length Artist		Title Leng Artist				
<ul> <li>Unmatched Files (113)</li> </ul>			Go Transitions (7/7; 0 images)     S6: El Ten Eleven				
<ul> <li>Clusters (150)</li> </ul>			<ul> <li>♦ (6) Yellow Bridges (single) (3/3; 1 image)</li> <li>&gt; 15: El Ten Eleven</li> </ul>				
<ul> <li>Clusters (150)</li> <li>The Empties (13)</li> </ul>	46:03 The Empties		Solution Bridges (single) (3/3, 1 image)     Solution Bridges (single) (1/1; 1 image)     Solution Bridges				
			<ul> <li>Single (1/1; 1 image)</li> <li>Single (1/1; 1 image)</li> <li>Single (1/1; 0 image)</li> <li>Single (1/1; 0 image)</li> <li>Single (1/1; 0 image)</li> <li>Single (1/1; 0 image)</li> </ul>				
Inception (OST) (11)	1	:					
Party Starter: 80s N			<b>y</b>				
The Peach EP (5)	17:38 Louis La Roo	ne	♦ 60 El Ten Eleven (9/9; 0 images) 35: El Ten Eleven				
▶ 18 (18)	71:25 Moby		▶				
Boston (2)	9:49 Boston		♦ 69 Mixtape 001 (9/9; 1 image) 39: El Ten Eleven				
United (10)	37:53 Phoenix		▶ 6 It's Still Like a Secret (12/12; 0 images) 41: El Ten Eleven				
Wolfgang Amadeus			▶ ⓑ Bulletproof (Shadow the Machine Ang 4:17 Shadow the Machine Angel				
_ 55	he Complete Hit Singles (2) 6:28 Three Dog 1	5	▶ ⑤ Baby (Shadow the Machine Angel Remi 4:07 Shadow the Machine Angel				
Give Up (10)	44:57 The Postal S		▶ ⓑ MiDNiGHT SuN (10/10; 1 image) 37: Shadow the Machine Angel				
	th Anniversary Edition) (26) 106: The Postal S	ervice	✓ <sup>(6)</sup> Hurry Up, We're Dreaming (22/22; 1 im 73: M83)				
In Rainbows (10)	42:39 Radiohead		✓ 1-01 Intro 5:23 M83				
The Bends (12)	48:40 Radiohead		✓ 1-02 Midnight City 4:04 M83				
🕨 🛅 Hail To The Thief (2	27) 108: Radiohead		1-03 Reunion 3:55 M83				
Tag	Original Value		New Value M83.				
Title	Midnight City	Midnight City					
Artist	M83	M83					
Album	Hurry Up, We're Dreaming	Hurry Up, We're Dreaming					
Frack Number	2	2 Hum/Up. Vencestra					
_ength	4:04	4:04					
Date	2011-10-18	2011-10-18					
AcoustID	4dfd11f7-5361-4607-9d8e-d764af87efa9		7-9d8e-d764af87efa9				
Album Artist	M83	M83					
Album Artist Cart Ordar	lay/M83/Hurry Up, We're Dreaming/1-02 Midnigi	M00	2172 🔒 44 🖲 0 🔒 0 🐺 Listening on port 800				

#### Exploring the MusicBrainz Picard interface

# **Conceptual demo**

Tag	Original Value	New Value	
Title	(different across 8 items)	(different across 8 items)	
Artist	Hiatus	Hiatus	
Album	Music for a Film	Music for a Film	
Track Number	(different across 8 items)	(different across 8 items)	
Length	(different across 8 items)	(different across 8 items)	
Date	2010-12-25	2010-12-25	
AcoustID	(different across 8 items)	(different across 8 items)	
Album Artist	Hiatus	Hiatus	
Album Artist Sort Order	Histor	Listue	

(1) Hey, look, this album doesn't have album artwork, but I have it on my computer.

🗧 🛈 🔒   https://beta.musict	orainz.org/release/1eda6f2e-c454-45ae-886c-ef6cca5558b9	C Search	合 自 🔤 🦊	^ 💕 🖸 🔎	🧈 🖗
RIT 🗸 📄 Co-Ops 🗸 🛅 Fedd	ora 🗸 🗋 Computing 🗸 📑 FOSS 🗸 📄 Servers 🗸 📄 Code 🗸 📑 Fact	ebook 🎔 Twitter 🛅 LinkedIn 😌 Dropbox [	Music 🗸 📄 Finances 🗸	School 🗸 📄 My Sites	~
MusicBrainz	jflory7 v My Data v	Artist	<b>v</b> Q		
	About Us v Products v Search v Editing v Documentation v			English	
Music for a Fil	m		TAGGER	No cover art available.	
Release by Hiatus (see a second se	e all versions of this release, 1 available)			<b>Release information</b>	
Overview Disc IDs Cove	er Art Aliases Tags Details Edit			Format: Digital Media	
Side and Side and	a file fillades lags becaus care			Length: 16:54	
Tracklist				Additional details	
		Di	splay Credits at Bottom	Type: EP + Soundtrack	
🔻 Digital Media 1	Packaging: None				
# Title	Rating Length	Status: Promotion			
1 Ruins			**** 1:22 Language: English		
2 Dawn		**** 3:40			
3 Shelter			***** 1:48 Data Quality: Normal		
4 Gulf			**** 1:58	Labels	
5 Veiled			***** 1:23 = [no label]		
6 Kite		**** 2:30	Release events		
7 Contrail	= 🛄 [Worldwide]				
8 Foreigner			**** 2:50	2010-12-25	
Credits				Release group rating	
				****	
Release	ad for free: http://hiatusmusic.bandcamp.com/album/free-download-m		Tags (none)		
uowino	au for free. http://matushusic.bandcamp.com/abum/ree-download-m				
				I	Ta
				External links	
				be Bandcamp	
				Editing	
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				= Change release qualit	

(2) Looks like there's no artwork added to this release... let's fix that!

Overview	Disc IDs	Cov	er Art	Aliases	Tags	Details	Edit						
Add Cover	Art				,			,					
			Select	images		or dro	op files	s here					
					File:	cover.j	pg (1.9	' 9 MB)					)
Hiatus MUSIC ROR AJ	нм	* +			Type:	Sp	ont oine ster	Back	Booklet Other Waterma	Medium Tray ark	Obi		Remove
				6	omment:		see th	e Cover Art Ty	pes documentati	on for a descript	ion of these ty	/pes.	
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#### **Edit Note**

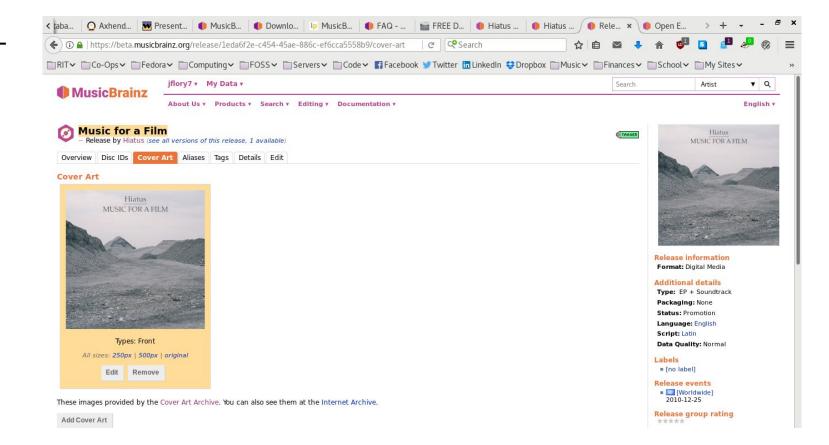
Entering an edit note that describes where you got your information is highly recommended. Not only does it make it clear where you got your information, but it can also encourage other users to vote on your edit — thus making your edit get applied faster.

Even just providing a URL or two is helpful!

Edit note:	Included with official download from the artist's <u>Bandcamp</u> release. https://hiatusmusic.bandcamp.com/album /free-download-music-for-a-film
	Make all edits votable.

Enter edit

(3) Adding the front cover of the album artwork to the album (and cite the source!)



(4) Awesome, we did it! Album artwork is open to review for seven days before approval.

Tag	Original Value	New Value	Histur MUSICFOR A FILM
Title	(different across 8 items)	(different across 8 items)	MLSK FOR A FILM
Artist	Hiatus	Hiatus	
Album	Music for a Film	Music for a Film	
Track Number	(different across 8 items)	(different across 8 items)	
Length	(different across 8 items)	(different across 8 items)	
Date	2010-12-25	2010-12-25	
AcoustID	(different across 8 items)	(different across 8 items)	
Album Artist	Hiatus	Hiatus	
Album Artist Sort Order	Listue	Listue	

(5) Guess who's album artwork is in their music player now?

# Hands-on demo!

### Two different scenarios...

I know what I downloaded, but the music metadata could be improved or be more accurate. Now what? I have literally no idea what this MP3 is or where it came from, but it's catchy and I want to know more about it. Halp?

# **Open floor!**

# **Comments? Questions? Ideas?**



and more at: