

Pex

*Empowering creators, rightsholders, and platforms
to clearly communicate digital copyrights*

Pex — November 2019



Pex is a global video & audio search engine

Pex is a video & audio analytics & rights management platform that finds and tracks content anywhere on the Web.

Thanks to a set of proprietary algorithms, Pex is able to find copies of multimedia content across all major social platforms.

We offer independent services that helps content creators & rights holders find, measure, and leverage the value of their content.

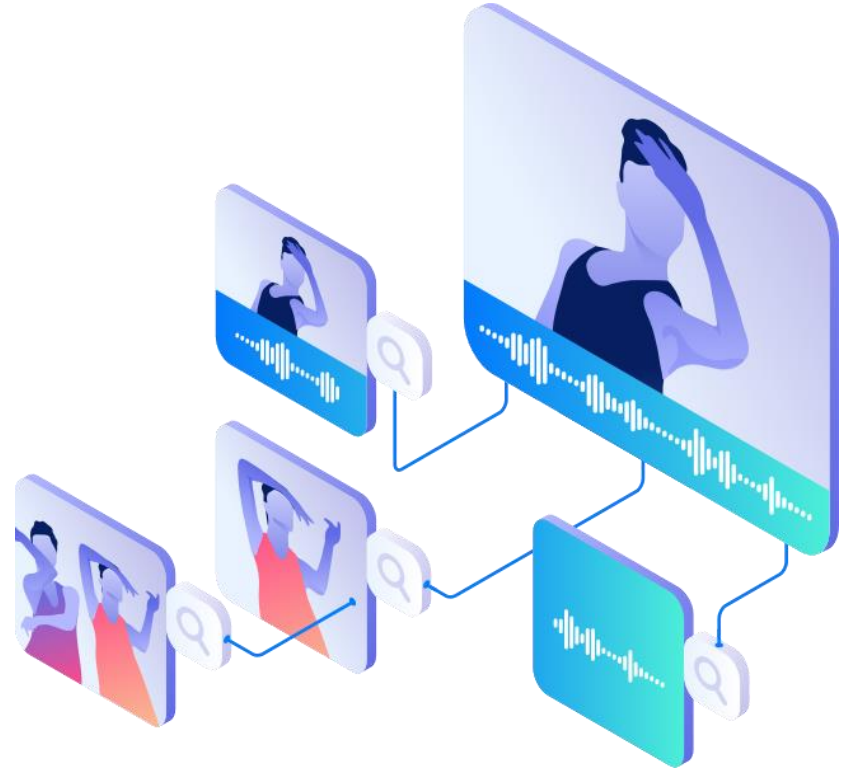


Pex Technology

State of the art fingerprinting technology

Pex's proprietary fingerprinting technology maps the characteristic components of any given content to transform it into a compact coded representation.

Pex's fingerprinting technology functions on audio, melody, video, as well as images.



Audio & video fingerprinting technology

EXTREMELY PRECISE AND RESISTANT TO DISTORTIONS

Audio

<i>Match length</i>	<i>1 second and over</i>
<i>Content detected</i>	<i>Recording, Melody, Mixes, Remixes</i>
<i>Modifications</i>	<i>Sped up / slowed down up to 10%</i>
	<i>Pitch change (range of variation)</i>
	<i>Compressed, degraded audio signal due to imperfect recording, transmission or playback / recording device</i>
<i>Melody identification</i>	<i>Semantic variations of music (Remaster, Instrumental, Live, Karaoke, Acoustic, Demo, Duet, Medley, Remix)</i>

Video

<i>Match length</i>	<i>1 second and over</i>
<i>Modifications</i>	<i>Sped up / slowed down</i>
	<i>Cropped</i>
	<i>Mash ups, sliced videos</i>
	<i>Color modifications, grayscale</i>
	<i>Subtitle or logo overlay</i>
	<i>Horizontal flip, shift or rotation</i>
	<i>Compressed, degraded video signal due to imperfect recording, transmission or playback / recording device, noisy video</i>

Pex built the world's largest video and audio database

The database represents the catalogue of all publicly available content on all major User Generated Content (UGC) platforms since their creation. This means that not only can Pex find copies moving forward, it can also find all historical copies of a video or a song in just a few minutes, across all platforms.



18B

18 billion videos and songs indexed to date



Over 50 million videos and songs added each day



All metadata (title, views, length, etc.) is updated daily

Examples


Copy results

 04:22	Jessie J, Ariana Grande, Nicki Minaj - Bang Bang ft. Ariana Grande		
 04:22	Bag bag niki minaj , ariana grande y jessi j Ariana_Grande_Fans, Apr 25, 2015		 
 00:25	That Song anDthaTsOnG, Apr 18, 2016		 
 04:07	77777777 merabijonevich, Aug 25, 2017	10 	 
 05:27	Ariana Grande Live vs Studio Vocals ImDeeTiller, Jun 29, 2016	30 	 
 03:11	M.C. Sar & The Real McCoy - It's On You (Rmx) 566942868402, Nov 27, 2017	30 	 
 00:58	Jessie J - Bang Bang ft. Ariana Grande, Nicki Minaj - As... JessieJVEVO, Jan 24, 2015	30 	 
 04:22	Jessie J, Ariana Grande, Nicki Minaj - Bang Bang nmilyaeva, Aug 25, 2014		 

Match review

ASSET Sync play

The Voice Inspiring & Emotional Blind Auditions PART 5
Added by lana@pex.com




00:43 / 71.67% of copy

00:00 18:03

COPY

How amazing is she?! Follow us (@vocalsgoal) for dail...
vocalsgoal, 4 hours ago




WHAT A UNIQUE VOICE! 🥰👏

00:42 / 3.88% of asset

00:00 01:00

ASSET Sync play

game.of.thrones.s08e05.mp4
Added by roman@pex.com




61.47% of copy

00:00 01:29:46

COPY

Cheka Teaser Go
Cheka Teaser Go, May 12, 2019



55.41% of asset

00:00 01:06:52

Data on one song



Jessie J - Bang Bang

DISCOVER

NUMBER OF COPIES
255K

TOTAL VIEWS ON YT ORIGINAL
1.42B

TOTAL VIEWS, WITH COPIES
5.69B

UNIDENTIFIED VIEWS ON YT
852M

OTHER NON-MONETIZED VIEWS
1.7B

ANALYZE

BY COPIES

BY VIEWS

- YouTube
- Facebook
- Instagram
- Twitter
- Others

SITE	COPIES	VIEWS
1. YouTube	151,914	3,939,027,228
2. Facebook	34,747	1,335,611,833
3. Instagram	30,016	183,939,827
4. Vk	10,144	4,690,009
5. YouKu	8,044	69,005,522
6. Twitter	4,302	109,207,742
Grand total	254,960	5,685,564,541

Attribution Engine

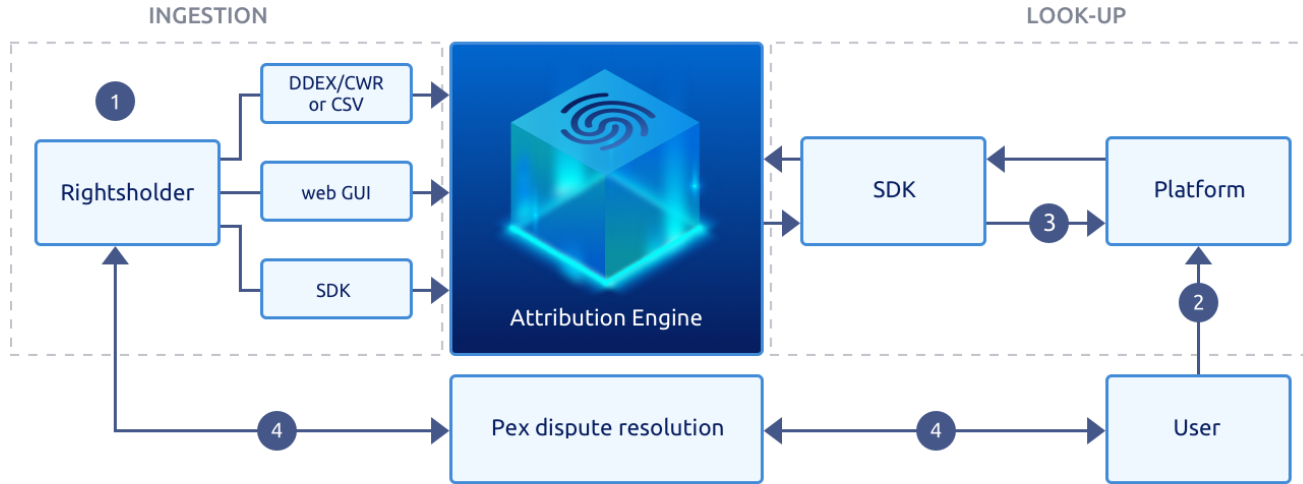
What is Attribution Engine

Attribution Engine is an automated clearinghouse for digital copyrights.

Built on top of our technology, the Attribution Engine enables digital media-sharing platforms to identify copyrighted material at the point of upload, and rightsholders to clearly communicate their copyrights and licensing requirements to platforms.



How it works



- 1 Rightsholders register media files/fingerprints, metadata, and licensing policies.
- 2 When a user uploads to a platform, a fingerprint is generated and sent to the Attribution Engine via the SDK.
- 3 If copyrighted content is found, the licensing rule is returned to the platform.
- 4 If the user disagrees with the rule applied, they can dispute the application.

Features of Attribution Engine

For platforms

- ▶ *No implementation costs, no maintenance costs, no penalty based on the amount of content to process (Pex takes a small % of revenue share from content licensed on the platform)*
- ▶ *Simple Software Development Kit (SDK) implementation to require minimal resources from the platform*
- ▶ *Capability to process 1,100 hours of content every second, allowing us to scale with the growth of online content*
- ▶ *Pex facilitates dispute resolution between uploaders and rightsholders*
- ▶ *Guaranteed lookup time within 5 seconds, enabling real-time uploads and live-streaming*

Features of Attribution Engine

For rightsholders

- ▶ *Rightsholders can use the Attribution Engine free of charge in perpetuity*
- ▶ *All rightsholders, not just a select few, can utilize the system*
- ▶ *Multiple ways to register content in order to help rightsholders large and small: DDEX, CSV, web interface, SDK, etc. (content file is not required)*
- ▶ *Rightsholders have granular control over which platforms and territories are cleared, licensed, or blocked*
- ▶ *Pex combines various copyright data to provide a complete ownership picture for any content*
- ▶ *Rightsholders are provided usage reports on the re-uses of their works*

Features of Attribution Engine

For creators / users

- ▶ *Pex recognizes all license types including public domain and creative commons*
- ▶ *Creators can look up what copyrighted content can be cleared or licensed*
- ▶ *Immediate identification of copyright status at the moment of the upload to reduce uncertainty*
- ▶ *The dispute resolution process enables quick resolutions of disputes between rightsholders and content uploaders*

Questions

