
Mopidy-Podcast Documentation

Release 1.1.0

Thomas Kemmer

November 22, 2014

1	Installation	3
2	Configuration	5
2.1	General Configuration Values	5
2.2	Feeds Directory Configuration Values	5
2.3	Default Configuration	6
3	Mopidy-Podcast Extensions	7
3.1	Mopidy-Podcast-iTunes	7
3.2	Mopidy-Podcast-gpodder.net	7
4	Mopidy-Podcast API reference	9
4.1	Mopidy-Podcast Data Models	9
4.2	Mopidy-Podcast Directory Provider	13
5	License	15
	Python Module Index	17

Mopidy-Podcast is a [Mopidy](#) extension for searching and browsing podcasts.

Mopidy-Podcast extends Mopidy's browsing and searching capabilities to the podcasting domain by integrating podcasts and their episodes with Mopidy's native [data model](#). More specifically, podcasts are mapped to *albums*, while individual podcast episodes are shown as *tracks* in Mopidy. Podcast and episode metadata is retained and converted to Mopidy's native types where applicable. An episode's audio stream is then played using Mopidy's [streaming](#) extension.

To use Mopidy-Podcast, you first have to configure how to find and access podcasts:

- If you already have some favorite podcasts published as RSS feeds, you can subscribe to them by adding their feed URLs to [podcast/feeds](#). RSS feeds will get updated on a regular basis, so you can always browse and search for the latest episodes.
- You can also install one of several – well, actually two, at the time – [Mopidy-Podcast Extensions](#), which let you access external podcast directory services such as the [Apple iTunes Store](#).

Note that both methods can be combined, i.e. you can configure a list of your favorite RSS feeds for regular – and potentially faster – access, while also installing one or more extensions for exploring.

Installation

Mopidy-Podcast can be installed using `pip` by running:

```
pip install Mopidy-Podcast
```

Configuration

This section describes the configuration values that affect Mopidy-Podcast's core functions and the bundled *feeds* directory provider. For configuring external *extensions*, please refer to their respective documentation.

2.1 General Configuration Values

podcast/browse_limit

The maximum number of browse results and podcast episodes to show.

podcast/search_limit

The maximum number of search results to show.

podcast/search_details

Whether to return fully detailed search results. If set to `off` (the default), only a podcast's or episode's name and URI will appear in search results, similar to what is shown when browsing. If set to `on`, search results will also include meta information such as author name, track counts and lengths, publication dates and images, if available. However, this will slow down searching tremendously, so if you enable this you might consider decreasing `podcast/search_limit`.

podcast/update_interval

The directory update interval in seconds, i.e. how often locally stored information should be refreshed.

2.2 Feeds Directory Configuration Values

This section lists configuration values specific to the *feeds* podcast directory provider that is bundled with Mopidy-Podcast. If you do not plan to use the *feeds* directory, these can be safely ignored.

podcast/feeds

A list of podcast RSS feed URLs to subscribe to. Individual URLs must be separated by either newlines or commas, with newlines preferred.

To subscribe to some podcasts from NPR's highly recommended *All Songs Considered* program:

```
feeds =  
    http://www.npr.org/rss/podcast.php?id=510019  
    http://www.npr.org/rss/podcast.php?id=510253  
    http://www.npr.org/rss/podcast.php?id=510306
```

podcast/feeds_root_name

The directory name shown for browsing subscribed feeds.

podcast/feeds_cache_size

The maximum number of podcast RSS feeds that should be cached.

podcast/feeds_cache_ttl

The feeds cache *time to live*, i.e. the number of seconds after which a cached feed expires and needs to be reloaded.

podcast/feeds_timeout

The HTTP request timeout when retrieving RSS feeds, in seconds.

2.3 Default Configuration

For reference, this is the default configuration shipped with Mopidy-Podcast release 1.1.0:

```
[podcast]
enabled = true

# maximum number of browse results
browse_limit = 100

# maximum number of search results
search_limit = 20

# whether to return fully detailed search results; if set to "off",
# only name and URI will be returned for increased performance
search_details = off

# directory update interval in seconds
update_interval = 86400

# an optional list of podcast RSS feed URLs to subscribe to; URLs need
# to be seperated by commas or newlines
feeds =

# user-friendly name for browsing subscribed RSS feeds
feeds_root_name = Subscribed Feeds

# number of RSS feeds to cache
feeds_cache_size = 32

# feeds cache time-to-live in seconds
feeds_cache_ttl = 3600

# HTTP request timeout in seconds
feeds_timeout = 10
```

Mopidy-Podcast Extensions

Here you can find a list of external packages that extend Mopidy-Podcast with additional functionality.

3.1 Mopidy-Podcast-iTunes

<https://github.com/tkem/mopidy-podcast-itunes>

Mopidy-Podcast-iTunes is a Mopidy-Podcast extension for searching and browsing podcasts on the [Apple iTunes Store](#).

3.2 Mopidy-Podcast-gpodder.net

<https://github.com/tkem/mopidy-podcast-gpodder>

Mopidy-Podcast-gpodder.net is a Mopidy-Podcast extension for searching and browsing podcasts using the [gpodder.net](#) Web service.

Mopidy-Podcast API reference

Mopidy-Podcast extensions that wish to provide alternate podcast directory services need to subclass `mopidy_podcast.directory.PodcastDirectory` and install and configure it with a Mopidy extension. Directory subclasses need to be added to Mopidy's registry with key `podcast:directory`, e.g.:

```
class MyPodcastExtension(ext.Extension):
    def setup(self, registry):
        registry.add('podcast:directory', MyPodcastDirectory)
```

4.1 Mopidy-Podcast Data Models

Mopidy-Podcast extends Mopidy's `data model` by providing additional domain-specific types. These immutable data models are used for all data transfer between Mopidy-Podcast extensions and the Mopidy-Podcast core module. The intricacies of converting from/to Mopidy's native data models are left to the Mopidy-Podcast module, so extension developers can work solely with domain objects.

These models are based on Apple's – rather informal – `podcast specification`, which in turn is based on `RSS 2.0`.

```
class mopidy_podcast.models.Podcast(*args, **kwargs)
    Mopidy model type to represent a podcast.
```

Parameters

- **uri** (*string*) – podcast URI
- **title** (*string*) – podcast title
- **link** (*string*) – Web site URI
- **copyright** (*string*) – copyright notice
- **language** (*string*) – ISO two-letter language code
- **pubdate** (*datetime.datetime*) – publication date and time
- **author** (*string*) – author name
- **block** (*boolean*) – prevent the podcast from appearing
- **category** (*string*) – main category
- **image** (*Image*) – podcast image
- **explicit** (*boolean*) – whether the podcast contains explicit material
- **complete** (*boolean*) – whether the podcast is complete

- **newfeedurl** (*string*) – new feed location
- **subtitle** (*string*) – short description
- **summary** (*string*) – long description
- **episodes** (list of `Episode`) – podcast episodes

author = None

The podcast's author's name.

block = None

Prevent a podcast from appearing in the directory.

category = None

The main category of the podcast.

complete = None

Indicates completion of the podcast.

copyright = None

The podcast's copyright notice.

episodes = ()

The podcast's episodes as a read-only tuple of `Episode` instances.

explicit = None

Indicates whether the podcast contains explicit material.

image = None

An image to be displayed with the podcast as an instance of `Image`.

language = None

The podcast's ISO two-letter language code.

link = None

The URL of the HTML website corresponding to the podcast.

newfeedurl = None

Used to inform of new feed URL location.

pubdate = None

The podcast's publication date and time as an instance of `datetime.datetime`.

subtitle = None

A short description of the podcast.

summary = None

A description of the podcast, up to 4000 characters long.

title = None

The podcast's title.

uri = None

The podcast URI.

For podcasts distributed as RSS feeds, the podcast URI is the URL from which the RSS feed can be retrieved.

To distinguish between podcast and episode URIs, the podcast URI *MUST NOT* contain a fragment identifier.

class `mopidy_podcast.models.Episode` (*args, **kwargs)

Mopidy model type to represent a podcast episode.

Parameters

- **uri** (*string*) – episode URI
- **title** (*string*) – episode title
- **guid** (*string*) – globally unique identifier
- **pubdate** (`datetime.datetime`) – publication date and time
- **author** (*string*) – author name
- **block** (*boolean*) – prevent the episode from appearing
- **image** (`Image`) – episode image
- **duration** (`datetime.timedelta`) – episode duration
- **explicit** (*boolean*) – whether the podcast contains explicit material
- **order** (*integer*) – override default ordering
- **subtitle** (*string*) – short description
- **summary** (`Enclosure`) – long description
- **enclosure** – media object

author = None

The episode's author's name.

block = None

Prevent an episode from appearing in the directory.

duration = None

The episode's duration as an instance of `datetime.timedelta`.

enclosure = None

The media object, e.g. the audio stream, attached to the episode as an instance of `Enclosure`.

explicit = None

Indicates whether the episode contains explicit material.

guid = None

A string that uniquely identifies the episode.

image = None

An image to be displayed with the episode as an instance of `Image`.

order = None

Overrides the default ordering of episodes.

pubdate = None

The episode's publication date and time as an instance of `datetime.datetime`.

subtitle = None

A short description of the episode.

summary = None

A description of the episode, up to 4000 characters long.

title = None

The episode's title.

uri = None

The episode URI.

If the episode contains an enclosure, the episode URI *MUST* consist of the associated podcast URI with the enclosure URL appended as a fragment identifier.

class `mopidy_podcast.models.Image(*args, **kwargs)`

Mopidy model type to represent a podcast's image.

Parameters

- **uri** (*string*) – image URI
- **title** – image title
- **width** (integer or `None`) – image width in pixels
- **height** (integer or `None`) – image height in pixels

height = `None`

The image's height in pixels.

title = `None`

The image's title.

uri = `None`

The image's URI.

width = `None`

The image's width in pixels.

class `mopidy_podcast.models.Enclosure(*args, **kwargs)`

Mopidy model type to represent an episode's media object.

Parameters

- **uri** (*string*) – enclosure URI
- **length** (*integer*) – enclosure file size in bytes
- **type** (*string*) – enclosure MIME type

length = `None`

The enclosure's file size in bytes.

type = `None`

The MIME type of the enclosure, e.g. `audio/mpeg`.

uri = `None`

The URI of the media object.

class `mopidy_podcast.models.Ref(*args, **kwargs)`

Extends `mopidy.models.Ref` to provide factory methods and type constants for `Podcast` and `Episode`.

Parameters

- **uri** (*string*) – object URI
- **name** (*string*) – object name
- **type** (*string*) – object type

EPISODE = `u'episode'`

Constant used for comparison with the `type` field.

PODCAST = `u'podcast'`

Constant used for comparison with the `type` field.

classmethod `episode(**kwargs)`

Create a `Ref` with type `EPISODE`.

classmethod `podcast` (***kwargs*)
 Create a `Ref` with type `PODCAST`.

4.2 Mopidy-Podcast Directory Provider

A `PodcastDirectory` provides access to collections (also termed directories in Mopidy), podcasts and episodes, possibly via an external directory service. Each `PodcastDirectory` instance manages its own private namespace of URI references, all starting with an absolute path and optionally containing a query string and fragment identifier. The URI reference `/` specifies the *root* of a podcast directory, and any two podcast directories may use the same URI reference, e.g. `/Music?topPodcasts`, for different resources.

A `PodcastDirectory` may also register one or more URI schemes via the `uri_schemes` attribute. For example, the *feeds* directory bundled with Mopidy-Podcast already registers the `file`, `ftp`, `http` and `https` schemes, assuming URIs with these schemes point to podcast RSS feeds. By returning an absolute URI with one of these schemes, a podcast directory actually delegates retrieving and parsing the respective resource to the *feeds* directory.

class `mopidy_podcast.directory.PodcastDirectory` (*config*)
 Podcast directory provider.

name = `None`

Name of the podcast directory implementation.

Subclasses must override this attribute with a string starting with an ASCII character and consisting solely of ASCII characters, digits and hyphens (-).

root_name = `None`

Name of the root directory for browsing.

Subclasses must override this attribute if they implement the `browse()` method.

uri_schemes = `[]`

List of URI schemes the directory can handle.

Subclasses that provide support for additional URI schemes must implement the `get()` method for the specified schemes, and must also support absolute URIs in their `browse()` and `search()` methods.

Note that the `file`, `ftp`, `http` and `https` schemes are already handled by the *feeds* directory implementation.

get (*uri*)

Return a podcast for the given *uri*.

uri is an absolute URI corresponding to one of the configured `uri_schemes`.

If a subclass does not override `uri_schemes`, this method need not be implemented.

Parameters *uri* (*string*) – podcast URI

Return type `mopidy_podcast.models.Podcast`

browse (*uri*, *limit=None*)

Browse directories, podcasts and episodes at the given *uri*.

uri may be either a URI reference starting with `/`, or an absolute URI with one of the configured `uri_schemes`.

limit specifies the maximum number of objects to return, or `None` if no such limit is given.

Returns a list of `mopidy_podcast.models.Ref` objects for the directories, podcasts and episodes at the given *uri*.

Parameters

- **uri** (*string*) – browse URI
- **limit** (*int*) – browse limit

Return type `mopidy_podcast.models.Ref` iterable

search (*uri*, *terms*, *attr=None*, *type=None*, *limit=None*)

Search podcasts and episodes at the given *uri* for *terms*.

uri may be either a URI reference starting with /, or an absolute URI with one of the configured `uri_schemes`.

terms is a list of strings specifying search terms.

attr may be an attribute name which must be matched, or `None` if any attribute may match *terms*.

type, if given, specifies the type of items to search for, and must be either `mopidy_podcast.models.Ref.PODCAST` or `mopidy_podcast.models.Ref.EPISODE`.

limit specifies the maximum number of objects to return, or `None` if no such limit is given.

Returns a list of `mopidy_podcast.models.Ref` objects for the matching podcasts and episodes found at the given *uri*.

Parameters

- **uri** (*string*) – browse URI
- **terms** (*list of strings*) – search terms
- **attr** (*string*) – search attribute
- **type** (*string*) – search result type
- **limit** (*int*) – search limit

Return type `mopidy_podcast.models.Ref` iterable

refresh (*uri=None*)

Refresh the podcast directory.

This method is called right after `__init__()` and should be used to perform potentially time-consuming initialization, such as retrieving data from a Web site.

This method may also be called periodically as a request to update any locally cached data.

Parameters **uri** (*string*) – refresh URI

License

Mopidy-Podcast is Copyright (c) 2014 Thomas Kemmer.

Licensed under the Apache License, Version 2.0 (the “License”); you may not use this software except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an “AS IS” BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

m

`mopidy_podcast.directory`, [13](#)
`mopidy_podcast.models`, [9](#)

A

author (mopidy_podcast.models.Episode attribute), 11
author (mopidy_podcast.models.Podcast attribute), 10

B

block (mopidy_podcast.models.Episode attribute), 11
block (mopidy_podcast.models.Podcast attribute), 10
browse() (mopidy_podcast.directory.PodcastDirectory method), 13

C

category (mopidy_podcast.models.Podcast attribute), 10
complete (mopidy_podcast.models.Podcast attribute), 10
configuration value
 podcast/browse_limit, 5
 podcast/feeds, 5
 podcast/feeds_cache_size, 5
 podcast/feeds_cache_ttl, 6
 podcast/feeds_root_name, 5
 podcast/feeds_timeout, 6
 podcast/search_details, 5
 podcast/search_limit, 5
 podcast/update_interval, 5
copyright (mopidy_podcast.models.Podcast attribute), 10

D

duration (mopidy_podcast.models.Episode attribute), 11

E

Enclosure (class in mopidy_podcast.models), 12
enclosure (mopidy_podcast.models.Episode attribute), 11
Episode (class in mopidy_podcast.models), 10
EPISODE (mopidy_podcast.models.Ref attribute), 12
episode() (mopidy_podcast.models.Ref class method), 12
episodes (mopidy_podcast.models.Podcast attribute), 10
explicit (mopidy_podcast.models.Episode attribute), 11
explicit (mopidy_podcast.models.Podcast attribute), 10

G

get() (mopidy_podcast.directory.PodcastDirectory method), 13

guid (mopidy_podcast.models.Episode attribute), 11

H

height (mopidy_podcast.models.Image attribute), 12

I

Image (class in mopidy_podcast.models), 12
image (mopidy_podcast.models.Episode attribute), 11
image (mopidy_podcast.models.Podcast attribute), 10

L

language (mopidy_podcast.models.Podcast attribute), 10
length (mopidy_podcast.models.Enclosure attribute), 12
link (mopidy_podcast.models.Podcast attribute), 10

M

mopidy_podcast.directory (module), 13
mopidy_podcast.models (module), 9

N

name (mopidy_podcast.directory.PodcastDirectory attribute), 13
newfeedurl (mopidy_podcast.models.Podcast attribute), 10

O

order (mopidy_podcast.models.Episode attribute), 11

P

Podcast (class in mopidy_podcast.models), 9
PODCAST (mopidy_podcast.models.Ref attribute), 12
podcast() (mopidy_podcast.models.Ref class method), 12
podcast/browse_limit
 configuration value, 5
podcast/feeds
 configuration value, 5
podcast/feeds_cache_size
 configuration value, 5
podcast/feeds_cache_ttl
 configuration value, 6

- podcast/feeds_root_name
 - configuration value, [5](#)
- podcast/feeds_timeout
 - configuration value, [6](#)
- podcast/search_details
 - configuration value, [5](#)
- podcast/search_limit
 - configuration value, [5](#)
- podcast/update_interval
 - configuration value, [5](#)
- PodcastDirectory (class in mopidy_podcast.directory), [13](#)
- pubdate (mopidy_podcast.models.Episode attribute), [11](#)
- pubdate (mopidy_podcast.models.Podcast attribute), [10](#)

R

- Ref (class in mopidy_podcast.models), [12](#)
- refresh() (mopidy_podcast.directory.PodcastDirectory method), [14](#)
- root_name (mopidy_podcast.directory.PodcastDirectory attribute), [13](#)

S

- search() (mopidy_podcast.directory.PodcastDirectory method), [14](#)
- subtitle (mopidy_podcast.models.Episode attribute), [11](#)
- subtitle (mopidy_podcast.models.Podcast attribute), [10](#)
- summary (mopidy_podcast.models.Episode attribute), [11](#)
- summary (mopidy_podcast.models.Podcast attribute), [10](#)

T

- title (mopidy_podcast.models.Episode attribute), [11](#)
- title (mopidy_podcast.models.Image attribute), [12](#)
- title (mopidy_podcast.models.Podcast attribute), [10](#)
- type (mopidy_podcast.models.Enclosure attribute), [12](#)

U

- uri (mopidy_podcast.models.Enclosure attribute), [12](#)
- uri (mopidy_podcast.models.Episode attribute), [11](#)
- uri (mopidy_podcast.models.Image attribute), [12](#)
- uri (mopidy_podcast.models.Podcast attribute), [10](#)
- uri_schemes (mopidy_podcast.directory.PodcastDirectory attribute), [13](#)

W

- width (mopidy_podcast.models.Image attribute), [12](#)