Themerr-jellyfin

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CHAPTER

ONE

OVERVIEW

LizardByte has the full documentation hosted on Read the Docs.

1.1 About

Themerr-jellyfin is a plugin for Jellyfin that adds theme songs to movies using ThemerrDB.

1.2 Integrations

1.3 Downloads

CHAPTER

TWO

INSTALLATION

The recommended method for running Themerr-jellyfin is to add the *repository* to Jellyfin.

Tip: See Jellyfin Plugins for more information about installing plugins.

2.1 Repository

1. In Jellyfin, go to http://localhost:8096/web/index.html#!/repositories.html.
2. Add the repository

   ```
   https://app.lizardbyte.dev/jellyfin-plugin-repo/manifest.json
   ```

3. Go to the `Catalog` and search for *Themerr*.
4. Select and install the plugin.
5. Restart Jellyfin

2.2 Portable

The portable archive is cross platform, meaning Linux, macOS, and Windows are supported.

1. Download the `themerr-jellyfin.zip` from the latest release
2. Extract the contents to your Jellyfin plugins directory.
3. Restart Jellyfin

2.3 Docker

Docker images are available on Dockerhub and ghcr.io.

See *Docker* for additional information.

2.4 Source

Caution: Installing from source is not recommended most users.

1. Follow the steps in *Build*.
2. Extract the generated zip archive to your Jellyfin plugins directory.
3. Restart Jellyfin

CHAPTER

THREE

DOCKER

3.1 lizardbyte/themerr-jellyfin

This is a docker-mod for jellyfin which adds Themerr-jellyfin to jellyfin as a plugin, to be downloaded/updated during container start.

This image extends the jellyfin image, and is not intended to be created as a separate container.

3.1.1 Installation

In jellyfin docker arguments, set an environment variable `DOCKER_MODS=lizardbyte/themerr-jellyfin:latest` or `DOCKER_MODS=ghcr.io/lizardbyte/themerr-jellyfin:latest`

If adding multiple mods, enter them in an array separated by `|`, such as `DOCKER_MODS=lizardbyte/themerr-jellyfin:latest|linuxserver/mods:other-jellyfin-mod`

3.1.2 Supported Architectures

Linuxserver.io docker mods do not support multi-arch images; however this image should run on any architecture. If you have issues with this image on a specific architecture, please open an issue on GitHub.

CHAPTER

FOUR

USAGE

Minimal setup is required to use Themerr-jellyfin. In addition to the installation, a few settings must be configured.

4.1 Enable Themes

1. Navigate to your user settings page.
2. Select *Display* from the user section.
3. Within the *Library* section, ensure *Theme songs* is enabled.

4.2 Directory Structure

Attention: Jellyfin requires your media to be stored in separate subdirectories, with each movie/show in its own folder. See Movies or TV Shows for more information.

4.3 Task Activation

4.3.1 Scheduled

Themerr will run automatically on a schedule. You can configure the schedule in the configuration page.

4.3.2 Manual

To initialize a download task manually, follow these steps:

1. Navigate to configuration page.
2. Select *Update Theme Songs*.

Or alternatively:

1. Navigate to http://localhost:8096/web/index.html#!/scheduledtasks.html.
2. Select *Update Theme Songs* under the *Themerr* section.

4.4 Theme Updates

Themerr will only add or update a theme song if the following conditions are met.

- A user supplied `theme.mp3` is not present.
- The theme in ThemerrDB is different from the previously added theme by Themerr.

CHAPTER

FIVE

TROUBLESHOOTING

5.1 Jellyfin Server Logs

Unfortunately, Jellyfin does not separate the logs by plugin. You will need to review the server logs.

The log location varies, depending on your environment. See Jellyfin Server Logs for more information.

> **Attention:** Before uploading logs, it would be wise to review the data in the log file. Themerr does not have control of the information that is logged by the Jellyfin server.

CHAPTER

SIX

CHANGELOG

CHAPTER

SEVEN

DATABASE

The database of themes is held in our ThemerrDB repository. To contribute to the database, follow the documentation there.

CHAPTER

EIGHT

BUILD

Compiling Themerr-jellyfin requires the following:

- git
- .net6.0 SDK
- python 3.x

8.1 Clone

Ensure git is installed and run the following:

```
git clone https://github.com/lizardbyte/themerr-jellyfin.git
cd ./themerr-jellyfin
```

8.2 Setup Python venv

It is recommended to setup and activate a venv.

8.3 Install Requirements

Install Requirements

```
python -m pip install -r ./requirements-dev.txt
```

8.4 Compile

```
mkdir -p ./build
python -m jprm plugin build --output ./build
```

8.5 Remote Build

It may be beneficial to build remotely in some cases. This will enable easier building on different operating systems.

1. Fork the project
2. Activate workflows
3. Trigger the *CI* workflow manually
4. Download the artifacts from the workflow run summary

CHAPTER

NINE

LOCALIZATION

Themerr-jellyfin and related LizardByte projects are being localized into various languages. The default language is *en* (English).

9.1 CrowdIn

The translations occur on CrowdIn. Anyone is free to contribute to localization there.

Translations Basics

- The brand names *LizardByte* and *Themerr* should never be translated.
- Other brand names should never be translated. Examples:
  - Jellyfin

CrowdIn Integration

How does it work?

When a change is made to the source locale file, those strings get pushed to CrowdIn automatically.

When translations are updated on CrowdIn, a push gets made to the *l10n_master* branch and a PR is made. Once PR is merged, all updated translations are part of the project and will be included in the next release.

9.2 Extraction

Themerr-jellyfin uses a custom translation implementation for localizing the html config page. The implementation uses a JSON key-value pair to map the strings to their respective translations.

The following is a simple example of how to use it.

- **Add the string to *Locale/en.json*, in English.**

```
{
  "hello": "Hello!"
}
```

Note: The json keys should be sorted alphabetically. You can use jsonabc to sort the keys.

- **Use the string in the config page.**

```
<p data-localize="hello">Hello!</p>
```

Note:

- The *data-localize* attribute should be the same as the key in the JSON file.
- The *innerText* of the element should be the default English string, incase the translations cannot be properly loaded.
- The *data-localize* attribute can be added to any element that supports *innerText*.
- Once the page is loaded, the *innerText* will be replaced with their respective translations.
- If the translation is not found, there will be a fallback to the default English string.

- **Use the string in javascript.**

```
const hello = translate("hello");
```

CHAPTER

TEN

TESTING

10.1 SonarAnalyzer.CSharp

Themerr-jellyfin uses SonarAnalyzers.CSharp to spot Bugs, Vulnerabilities, and Code Smells in the project. This is run automatically as part of the build process.

The config file for SonarAnalyzers.CSharp is `.editorconfig`.

10.2 StyleCop.Analyzers

Themerr-jellyfin uses StyleCop.Analyzers to enforce consistent code styling. This is run automatically as part of the build process.

The config file for StyleCop.Analyzers is `.editorconfig`.

10.3 Sphinx

Themerr-jellyfin uses Sphinx for documentation building. Sphinx, along with other required python dependencies are included in the *./docs/requirements.txt* file. Python is required to build sphinx docs. Installation and setup of python will not be covered here.

The config file for Sphinx is `docs/source/conf.py`. This is already included in the root of the repo and should not be modified.

Test with Sphinx

```
cd docs
make html
```

Alternatively

```
cd docs
sphinx-build -b html source build
```

Lint with rstcheck

```
rstcheck -r .
```

10.4 Unit Testing

Themerr-jellyfin uses xUnit for unit testing.

Test with xUnit

```
dotnet test /p:CollectCoverage=true /p:CoverletOutputFormat=opencover --logger
↪"console;verbosity=detailed"
```

CHAPTER

ELEVEN

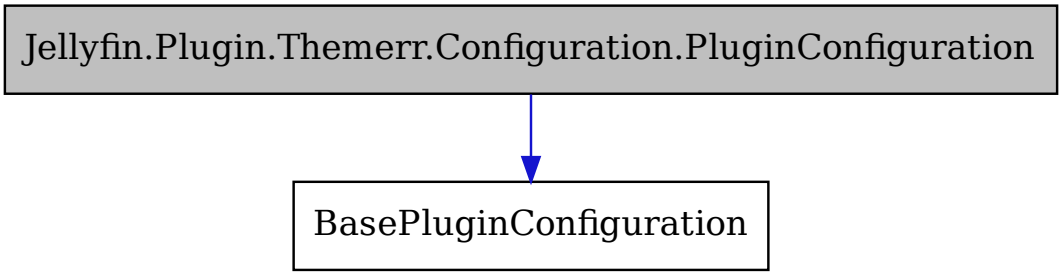
SOURCE CODE

Our source code is documented using the standard documentation guidelines.

11.1 Source

class Jellyfin.Plugin.Themerr.Configuration.PluginConfiguration : BasePluginConfiguration

Inheritence diagram for Jellyfin::Plugin::Themerr::Configuration::PluginConfiguration:



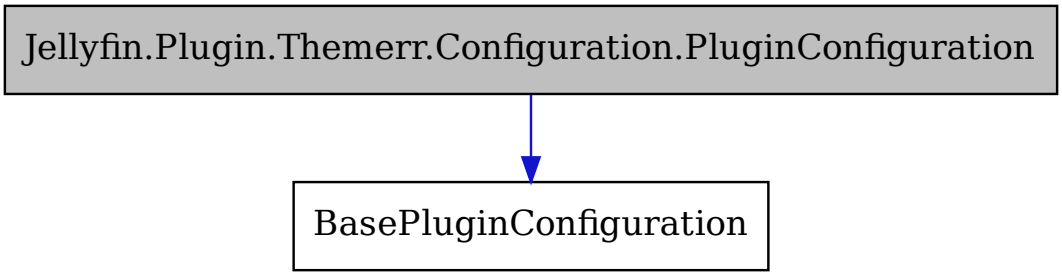
Collaboration diagram for Jellyfin::Plugin::Themerr::Configuration::PluginConfiguration:

Initializes a new instance of the *PluginConfiguration* class.

Public Functions

PluginConfiguration ()

Initializes a new instance of the *PluginConfiguration* class.



Properties

int? **UpdateInterval** { **get; set;** }

Gets or sets the time between scheduled updates, in minutes.

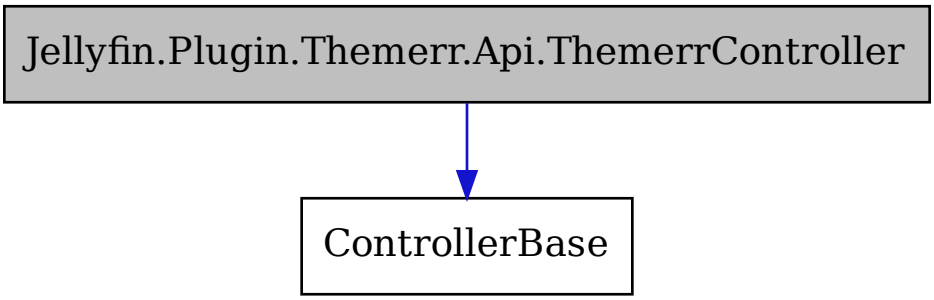
Minimum value of 15.

Private Members

int **_updateInterval**

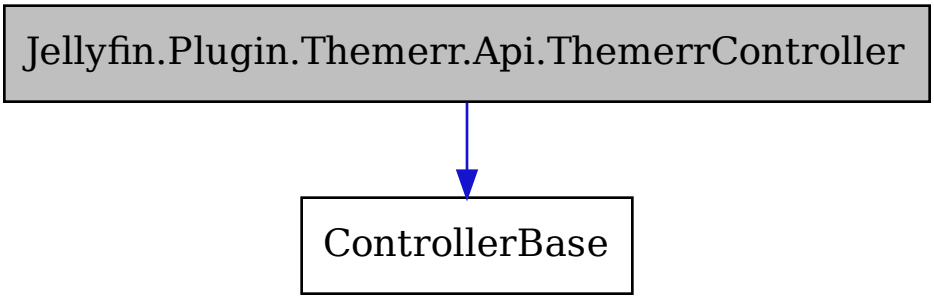
class Jellyfin.Plugin.Themerr.Api.ThemerrController : ControllerBase

Inheritence diagram for Jellyfin::Plugin::Themerr::Api::ThemerrController:



Collaboration diagram for Jellyfin::Plugin::Themerr::Api::ThemerrController:

The *Themerr* api controller.



Public Functions

ActionResult **GetProgress** (int *page = 1*, int *pageSize = 10*)

Get the data required to populate the progress dashboard.

Loop over all *Jellyfin* libraries and supported items, creating a json object with the following structure: { "items": [BaseItems], "media_count": BaseItems.Count, "media_percent_complete": ThemedItems.Count / BaseItems.Count * 100, }

Param page
The page number to return.

Param pageSize
The number of items to return per page.

Return
JSON object containing progress data.

ActionResult **GetTranslations** ()

Get the localization strings from Locale/{selected_locale}.json.

Return
JSON object containing localization strings.

ThemerrController (IApplicationPaths *applicationPaths*, ILibraryManager *libraryManager*, ILogger<*ThemerrController*> *logger*, IServerConfigurationManager *configurationManager*, ILoggerFactory *loggerFactory*, IXmlSerializer *xmlSerializer*)

Initializes a new instance of the *ThemerrController* class.

Param applicationPaths
The application paths.

Param libraryManager
The library manager.

Param logger
The logger.

Param configurationManager
The configuration manager.

Param loggerFactory
The logger factory.

Param xmlSerializer
The XML serializer.

`async` Task **`TriggerUpdateRequest`** ()

Trigger an update from the configuration html page.

A response code of 204 indicates that the download has started successfully.

Return
A NoContentResult indicating success.

Private Members

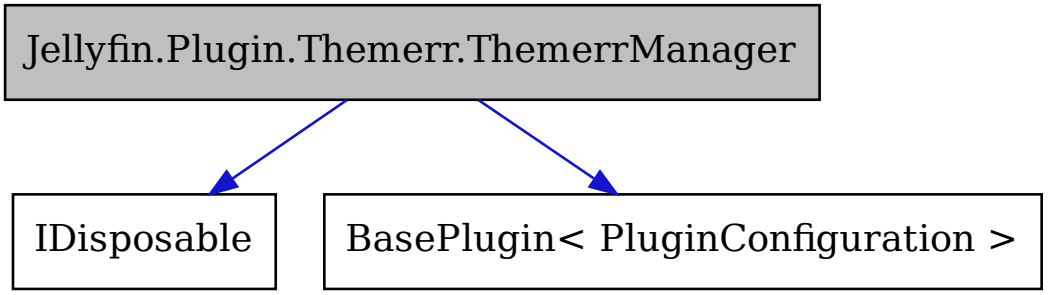
`readonly` IServerConfigurationManager **`_configurationManager`**

`readonly` ILogger<*ThemerrController*> **`_logger`**

`readonly` *ThemerrManager* **`_themerrManager`**

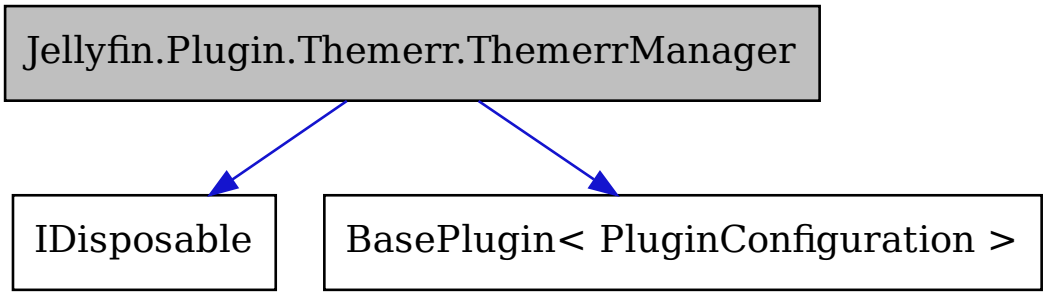
`class Jellyfin.Plugin.Themerr.ThemerrManager` : BasePlugin<*PluginConfiguration*>, IDisposable

Inheritence diagram for Jellyfin::Plugin::Themerr::ThemerrManager:



Collaboration diagram for Jellyfin::Plugin::Themerr::ThemerrManager:

The main entry point for the plugin.



Public Functions

bool **ContinueDownload** (string *themePath*, string *themerrDataPath*)

Check if the theme song should be downloaded.

Various checks are performed to determine if the theme song should be downloaded.

Param themePath
The path to the theme song.

Param themerrDataPath
The path to the themerr data file.

Return
True to continue with downloaded, false otherwise.

string **CreateThemerrDbLink** (string *tmdbId*, string *dbType*)

Create a link to the themerr database.

Param tmdbId
The tmdb id.

Param dbType
The database type.

Return
The themerr database link.

void **Dispose** ()

Cleanup.

List<string> **GetCultureResource** (string *culture*)

Get the resources of the given culture.

Param culture
The culture to get the resource for.

Return
A list of file names.

string **GetExistingThemerrDataValue** (string *key*, string *themerrDataPath*)

Get a value from the themerr data file if it exists.

Param key
The key to search for.

Param themerrDataPath
The path to the themerr data file.

Return
The value of the key if it exists, null otherwise.

string **GetIssueUrl** (BaseItem *item*)

Get ThemerrDB issue url.

This url can be used to easily add/edit theme songs in ThemerrDB.

Param item
The *Jellyfin* media object.

Return
The ThemerrDB issue url.

string **GetMd5Hash** (string *filePath*)

Get the MD5 hash of a file.

Param filePath
The file path.

Return
The MD5 hash of the file.

string **GetThemePath** (BaseItem *item*)

Get the path to the theme song.

Param item
The *Jellyfin* media object.

Return
The path to the theme song.

string **GetThemeProvider** (BaseItem *item*)

Get the theme provider.

Param item
The *Jellyfin* media object.

Return
The theme provider.

string **GetThemerrDataPath** (BaseItem *item*)

Get the path to the themerr data file.

Param item
The *Jellyfin* media object.

Return
The path to the themerr data file.

string **GetTmdbId** (BaseItem *item*)

Get TMDB id from an item.

Param item
The *Jellyfin* media object.

Return
TMDB id.

IEnumerable<BaseItem> **GetTmdbItemsFromLibrary** ()

Get all supported items from the library that have a tmdb id.

Return
List of BaseItem objects.

string **GetYoutubeThemeUrl** (string *themerrDbUrl*, BaseItem *item*)

Get the YouTube theme url from the themerr database.

Param themerrDbUrl
The themerr database url.

Param item
The *Jellyfin* media object.

Return
The YouTube theme url.

void **ProcessItemTheme** (BaseItem *item*)

Download the theme song for a media item if it doesn't already exist.

Param item
The *Jellyfin* media object.

Task **RunAsync** ()

Run the task, asynchronously.

Return
A Task representing the asynchronous operation.

bool **SaveMp3** (string *destination*, string *videoUrl*)

Save a mp3 file from a YouTube video url.

Param destination
The destination path.

Param videoUrl
The YouTube video url.

Return
True if the file was saved successfully, false otherwise.

bool **SaveThemerrData** (string *themePath*, string *themerrDataPath*, string *youtubeThemeUrl*)

Save the themerr data file.

Param themePath
The path to the theme song.

Param themerrDataPath
The path to the themerr data file.

Param youtubeThemeUrl
The YouTube theme url.

Return
True if the file was saved successfully, false otherwise.

ThemerrManager (IApplicationPaths *applicationPaths*, ILibraryManager *libraryManager*, ILogger<*ThemerrManager*> *logger*, IXmlSerializer *xmlSerializer*)

Initializes a new instance of the *ThemerrManager* class.

Param applicationPaths
The application paths.

Param libraryManager
The library manager.

Param logger
The logger.

Param xmlSerializer
The XML serializer.

Task **UpdateAll** ()

Enumerate through all supported items in the library and downloads their theme songs as required.

Return
A Task representing the asynchronous operation.

bool **WaitForFile** (string *filePath*, int *timeout*)

Wait for file to exist on disk and is not locked by another process.

Param filePath
The file path to check.

Param timeout
The maximum amount of time (in milliseconds) to wait.

Return
True if the file exists and is not locked, false otherwise.

Properties

override string **Name** { **get; set;** }

Gets the plugin instance.

Private Functions

void **OnTimerElapsed** ()

Called when the plugin is loaded.

Private Members

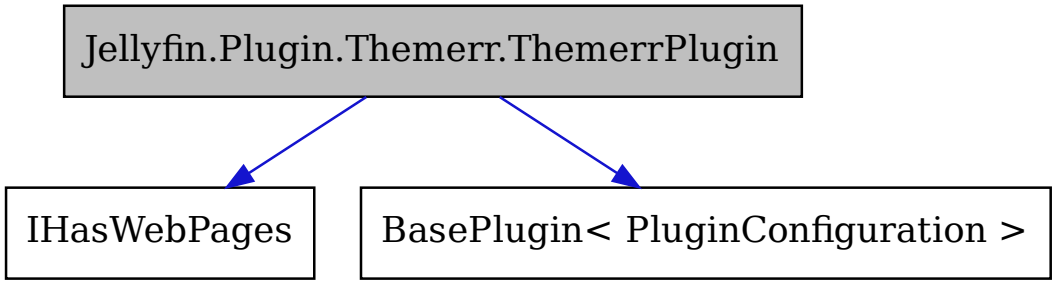
readonly ILibraryManager **_libraryManager**

readonly ILogger<*ThemerrManager*> **_logger**

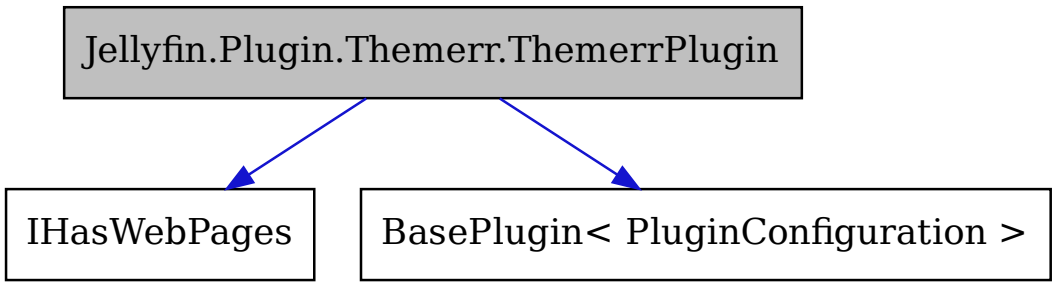
readonly Timer **_timer**

class Jellyfin.Plugin.Themerr.ThemerrPlugin : BasePlugin<*PluginConfiguration*>, IHasWebPages

Inheritence diagram for Jellyfin::Plugin::Themerr::ThemerrPlugin:



Collaboration diagram for Jellyfin::Plugin::Themerr::ThemerrPlugin:



The *Themerr* plugin class.

Public Functions

IEnumerable<PluginPageInfo> **GetPages** ()

Get the plugin's html config page.

Return

Instance of the PluginPageInfo configuration page.

ThemerrPlugin (IApplicationPaths *applicationPaths*, IXmlSerializer *xmlSerializer*)

Initializes a new instance of the *ThemerrPlugin* class.

Param applicationPaths

Instance of the IApplicationPaths interface.

Param xmlSerializer

Instance of the IXmlSerializer interface.

Properties

override string **Description** { **get; set;** }

Gets the description of the plugin.

override Guid **Id** { **get; set;** }

Gets the plugin instance id.

ThemerrPlugin **Instance** { **get; set;** }

Gets the plugin instance.

override string **Name** { **get; set;** }

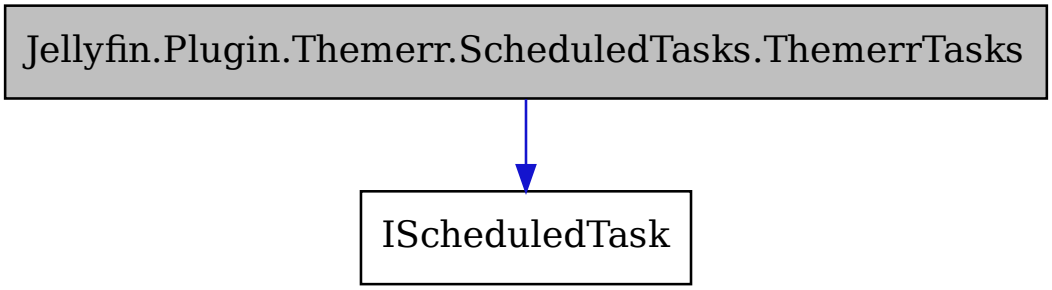
Gets the name of the plugin.

Private Members

readonly Guid **_id** = new Guid("84b59a39-bde4-42f4-adbd-c39882cbb772")

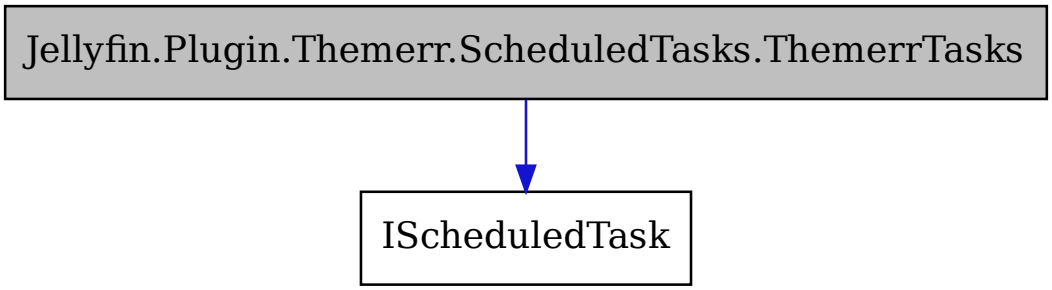
class Jellyfin.Plugin.Themerr.ScheduledTasks.ThemerrTasks : ISchedulerTask

Inheritence diagram for Jellyfin::Plugin::Themerr::ScheduledTasks::ThemerrTasks:



Collaboration diagram for Jellyfin::Plugin::Themerr::ScheduledTasks::ThemerrTasks:

The *Themerr* scheduled task.



Public Functions

async Task **ExecuteAsync** (IProgress<double> *progress*, CancellationToken *cancellationToken*)

Execute the task, asynchronously.

Param progress
The progress reporter.

Param cancellationToken
The cancellation token.

Return
A Task representing the asynchronous operation.

IEnumerable<TaskTriggerInfo> **GetDefaultTriggers** ()

Gets the default triggers.

Return
A list of TaskTriggerInfo.

ThemerrTasks (IApplicationPaths *applicationPaths*, ILibraryManager *libraryManager*, ILogger<*ThemerrTasks*> *logger*, ILoggerFactory *loggerFactory*, IXmlSerializer *xmlSerializer*)

Initializes a new instance of the *ThemerrTasks* class.

Param applicationPaths
The application paths.

Param libraryManager
The library manager.

Param logger
The logger.

Param loggerFactory
The logger factory.

Param xmlSerializer
The XML serializer.

Properties

string **Category** { **get; set;** }
: Gets the category of the task.

string **Description** { **get; set;** }
: Gets the description of the task.

string **Key** { **get; set;** }
: Gets the key of the task.

string **Name** { **get; set;** }
: Gets the name of the task.

Private Members

readonly ILogger<*ThemerrTasks*> **_logger**

readonly *ThemerrManager* **_themerrManager**

namespace Jellyfin

namespace Jellyfin.Data.Enums

namespace Jellyfin.Plugin

namespace Jellyfin.Plugin.Themerr

namespace Jellyfin.Plugin.Themerr.Api

namespace Jellyfin.Plugin.Themerr.Configuration

namespace Jellyfin.Plugin.Themerr.ScheduledTasks

namespace MediaBrowser.Common.Api

namespace MediaBrowser.Common.Configuration

namespace MediaBrowser.Common.Plugins

namespace MediaBrowser.Controller.Configuration

```
namespace MediaBrowser.Controller.Entities

namespace MediaBrowser.Controller.Entities.Movies

namespace MediaBrowser.Controller.Entities.TV

namespace MediaBrowser.Controller.Library

namespace MediaBrowser.Model.Entities

namespace MediaBrowser.Model.Plugins

namespace MediaBrowser.Model.Serialization

namespace MediaBrowser.Model.Tasks

namespace Microsoft.AspNetCore.Authorization

namespace Microsoft.AspNetCore.Http

namespace Microsoft.AspNetCore.Mvc

namespace Microsoft.Extensions.Logging

namespace Newtonsoft.Json

namespace System

namespace System.Collections

namespace System.Collections.Generic

namespace System.IO

namespace System.Linq

namespace System.Net.Http

namespace System.Net.Mime

namespace System.Reflection
```

namespace System.Threading

namespace System.Threading.Tasks

namespace YoutubeExplode

namespace YoutubeExplode.Videos.Streams

file ThemerrController.cs

file PluginConfiguration.cs

file ThemerrTasks.cs

file ThemerrManager.cs

file ThemerrPlugin.cs

dir Jellyfin.Plugin.Themerr/Api

dir Jellyfin.Plugin.Themerr/Configuration

dir Jellyfin.Plugin.Themerr

dir Jellyfin.Plugin.Themerr/ScheduledTasks