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# PyHal Documentation

*Release 10.2.7 build*  
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Release v10.2.7

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# CHAPTER 1

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## Table of contents

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- *Introduction*
- *Installation*
- *Contribute*
- *Authors*
- *Thanks*
- *License*



## CHAPTER 2

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### API reference

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- Hal
- Alphabetical list



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Behold, the power of Hal

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## 3.1 Edit songs tags

### 3.1.1 Classic way

```
>>> import os
>>> from mutagen.mp3 import MP3
>>> my_folder = "path to folder containing songs"
>>> for root, dirs, files in os.walk(my_folder):
>>>     for file in files:
>>>         audio = MP3(file)
>>>         audio["artist"] = "An example"
>>>         audio.save()
```

### 3.1.2 Using Hal

```
>>> from hal.files.models.system import ls_recurse
>>> from hal.files.models.audio import MP3Song
>>> my_folder = "path to folder containing songs"
>>> for file in ls_recurse(my_folder):
>>>     MP3Song(file).set_artist("An example")
```

## 3.2 Plot data

### 3.2.1 Classic way

```
>>> import numpy as np
>>> import matplotlib.pyplot as plt
>>> x = np.arange(1., 100.)
>>> y = np.sin(x)
>>> plt.plot(x, y)
>>> plt.show()
```

### 3.2.2 Using Hal

```
>>> import numpy as np
>>> from hal.charts.plotter import Plot2d
>>> Plot2d().plot(np.sin, 1, 100, 100)
```

## 3.3 Get YouTube RSS feed of channel

### 3.3.1 Classic way

No easy way that I know of

### 3.3.2 Using Hal

```
>>> from hal.internet.services.youtube import YoutubeChannel
>>> video_url = "my awesome video of an awesome channel"
>>> channel_feed = YoutubeChannel.get_feed_url_from_video(video_url)
>>> # or if you know the name
>>> channel_name = "my awesome channel"
>>> channel_feed = YoutubeChannel(channel_name).get_feed_url()
```

## 3.4 Generate module tests code

### 3.4.1 Classic way

No easy way that I know of

### 3.4.2 Using Hal

```
>>> from hal.tests.gen import TestWriter
>>> src = "path to module source folder"
>>> out = "path to output folder"
>>> w = TestWriter(src)
>>> w.write_tests(out)
```

Different ways, all equals

### 4.1 via pipenv

- `$ pipenv install .`
- `$ make install`

### 4.2 via pip

- `$ pip3 install PyHal`
- `$ make pip-install`

### 4.3 fast install

- `make fast-init` *just copies source files to distribution files ... run it only if you're sure about dependencies*



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## Contributing and feedback

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0. [open an issue](#)
1. [fork this repository](#)
2. [create your feature branch](#) (`git checkout -b my-new-feature`)
3. [commit your changes](#) (`git commit -am 'Added my new feature'`)
4. [publish the branch](#) (`git push origin my-new-feature`)
5. [open a PR](#)

Suggestions and improvements are [welcome!](#)



## CHAPTER 6

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Authors

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Stefano Fogarollo
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## CHAPTER 7

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Thanks to

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- Kenneth Reitz



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