# sync Release 2022

Kapa Kudaibergenov

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#### ONE

### SYNC

## 1.1 main module

Takes all input arguments. Schedules the synchronization with the input interval.

This is a Python package that synchronizes two folders: source and replica. The program maintains a full, identical copy of source folder at replica folder.

To implement it you should be in the folder 'veeam\_task' and write into console command "python main.py "sourcedir" "targetdir" interval "log\_file\_path" ".

#### positional arguments:

#### param sourcedir

Location of the source folder.

#### param targetdir

Location of the replica folder. If the folder doesn't exist at this directory, it will be created.

#### param interval

Synchronization interval. Stays for with what frequency synchronization should be repeated. Float argument.

#### param log\_file\_path

Log file path. If the file doesn't exist, it will be created.

#### optional arguments

- param -h, -help: Show this help message and exit.
- param time\_units {s,m,h}: Time measurement units. Possible values: s for seconds, m for minutes,h for hours. Default value is seconds.

## 1.2 sync package

#### 1.2.1 Submodules

#### 1.2.2 sync.run module

Run function to call to the Syncer class and to make report.

#### sync.run.args\_parser()

Parser of input arguments. Returns all input arguments from command line.

```
sync.run.synchronize(sourcedir, targetdir, interval, log_file_path)
```

Calls to Syncer class, makes comparison, copies content and outputs logs.

#### **Parameters**

- **sourcedir** the source folder location
- targetdir the replica folder location. Will be created if doesn't exist.
- interval synchronization interval
- log\_file\_path the log file location. Will be created if doesn't exist.

#### 1.2.3 sync.syncer module

```
class sync.syncer.DCMP(l, r, c)
Bases: object
```

Class to store unique values in source and replica folders, and common files in these folders

```
class sync.syncer.Syncer(dir1, dir2, interval, log_file_path)
```

Bases: object

Modifies the replica folder to exactly match content of the source folder.

#### **Parameters**

- **sourcedir** the source folder location
- targetdir the replica folder location. Will be created if doesn't exist.
- interval synchronization interval
- log\_file\_path the log file location. Will be created if doesn't exist.

```
log(msg=")
```

Reference to the logger.

```
print_logs()
```

Outputs logs.

sync()

Sync function.

sync\_work()

Creates new directory if it doesn't exist. Calls to synchronization function. Takes starting and ending time.

#### 1.2.4 Module contents

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## CHAPTER

# TWO

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