Package 'trustedtimestamping'

May 8, 2026

Title Create Trusted Timestamps of Datasets and Files

Description Trusted Timestamps (tts) are created by incorporating a hash of a file or dataset into a transaction on the decentralized blockchain (Stellar network). The package makes use of a free service provided by <https://stellarapi.io>.

Version 0.2.6

License AGPL-3

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

Depends R (>= 3.0.0)

Imports digest, jsonlite, httr

BugReports https://github.com/ttspackage/tts/issues

NeedsCompilation no

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Repository CRAN

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`convert_stellarHash` *Convert hash on STELLAR network (base64 encoded) to standard hexadecimal value*

Description

Convert hash on STELLAR network (base64 encoded) to standard hexadecimal value

Usage

```
convert_stellarHash(data)
```

Arguments

`data`	base64 encoded hash

Value

hex hexadecimal hash

Examples

```
convert_stellarHash("KMVvhSYRAquk3lPpzljU4SytQSawsTz1aeB+PoKFaf0=")
```

`create_hashFile` *Create sha256 hash of a file*

Description

Create sha256 hash of a file

Usage

```
create_hashFile(path)
```

Arguments

`path`	filename (and path, if outside working directory) of a file

Value

hash

Examples

```
create_hashFile("test.rds")
```

create_hashObject *Create sha256 hash of an object/dataset*

Description

Create sha256 hash of an object/dataset

Usage

```
create_hashObject(data)
```

Arguments

data	any dataset or object

Value

hash

Examples

```
create_hashObject(data)
```

create_ttsFile *Create trusted timestamp of a file*

Description

Create trusted timestamp of a file

Usage

```
create_ttsFile(path, proxy_ip = NULL, proxy_port = NULL)
```

Arguments

path	filename (and path, if outside working directory)
proxy_ip	if needed, provide proxy ip
proxy_port	if needed, provide proxy port

Value

url

Examples

```
create_ttsFile("test.rds")
```

`create_ttsObject` *Create trusted timestamp of an object/dataset*

Description

Create trusted timestamp of an object/dataset

Usage

```
create_ttsObject(data, proxy_ip = NULL, proxy_port = NULL)
```

Arguments

`data`	any dataset or object
`proxy_ip`	if needed, provide proxy ip
`proxy_port`	if needed, provide proxy port

Value

url

Examples

```
create_ttsObject(data)
```

`get_hash` *Retrieve hash from STELLAR network*

Description

Retrieve hash from STELLAR network

Usage

```
get_hash(url, proxy_ip = NULL, proxy_port = NULL)
```

Arguments

`url`	url
`proxy_ip`	if needed, provide proxy ip
`proxy_port`	if needed, provide proxy port

Value

hash

Examples

```
get_hash("https://horizon.stellar.org/transactions/ea0ae0etc")
```

`get_timestamp` *Retrieve timestamp from STELLAR network*

Description

Retrieve timestamp from STELLAR network

Usage

```
get_timestamp(url, proxy_ip = NULL, proxy_port = NULL)
```

Arguments

`url`	url
`proxy_ip`	if needed, provide proxy ip
`proxy_port`	if needed, provide proxy port

Value

GMT GMT-timestamp

Examples

```
get_timestamp("https://horizon.stellar.org/transactions/ea0ae0etc")
```

`get_url_blockchaintransaction` *Get url of the transaction on STELLAR network (stellarchain.io (non-json))*

Description

Get url of the transaction on STELLAR network (stellarchain.io (non-json))

Usage

```
get_url_blockchaintransaction(url)
```

Arguments

`url`	url

Value

url url of blockchain transaction

Examples

```
get_url_blockchaintransaction("https://horizon.stellar.org/transactions/ea0ae0etc")
```

`validate_hashFile` *Validate hash of a file (created on the fly) with hash on STELLAR network p.s. stellar transactions take between 5-7 seconds. If you validate to soon after creating a timestamp, it will fail...*

Description

Validate hash of a file (created on the fly) with hash on STELLAR network p.s. stellar transactions take between 5-7 seconds. If you validate to soon after creating a timestamp, it will fail...

Usage

```
validate_hashFile(url, path, proxy_ip = NULL, proxy_port = NULL)
```

Arguments

`url`	url
`path`	filename (and path, if outside working directory)
`proxy_ip`	if needed, provide proxy ip
`proxy_port`	if needed, provide proxy port

Value

res result of validation

Examples

```
validate_hashFile("https://horizon.stellar.org/transactions/ea0ae0etc", "test.rds")
```

`validate_hashObject` *Validate hash of an object/dataset (created on the fly) with hash on STELLAR network p.s. stellar transactions take between 5-7 seconds. If you validate to soon after creating a timestamp, it will fail...*

Description

Validate hash of an object/dataset (created on the fly) with hash on STELLAR network p.s. stellar transactions take between 5-7 seconds. If you validate to soon after creating a timestamp, it will fail...

Usage

```
validate_hashObject(url, data, proxy_ip = NULL, proxy_port = NULL)
```

Arguments

`url`	url
`data`	any dataset or object
`proxy_ip`	if needed, provide proxy ip
`proxy_port`	if needed, provide proxy port

Value

res result of validation

Examples

```
validate_hashObject("https://horizon.stellar.org/transactions/ea0ae0etc", data)
```

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