## 1 Installation

1.1 Development ................................................. 3
  1.1.1 Sublime Snippets ........................................ 3
1.2 Issues ....................................................... 3

## 2 Command-Line Usage ........................................ 5

## 3 Documentation .............................................. 7

## 4 Command-Line Tutorial ..................................... 9

  4.1 Search Types .............................................. 9
  4.2 Results .................................................. 10

## 5 Installation ................................................. 13

  5.1 Development .............................................. 13
    5.1.1 Sublime Snippets ....................................... 13
  5.2 Issues .................................................. 13

## 6 Command-Line Usage ........................................ 15

## 7 Documentation .............................................. 17

## 8 Command-Line Tutorial ..................................... 19

  8.1 Search Types ............................................ 19
  8.2 Results .................................................. 20
    8.2.1 Subpackages ........................................... 22
      transientNamer (subpackage) ............................... 22
      transientNamer.commonutils (subpackage) .................. 22
    8.2.2 Modules ............................................... 22
      transientNamer.cl_utils (module) ......................... 22
      transientNamer.utKit (module) ............................. 23
    8.2.3 Classes ............................................... 23
      transientNamer.search (class) ............................. 23
      Methods .................................................. 24
      Attributes ............................................... 24
      transientNamer.utKit.utKit (class) ...................... 24
      Methods .................................................. 24
    8.2.4 Functions .............................................. 25
      transientNamer.cl_utils.tab_complete (function) ....... 25
8.3 Indexes ................................................................. 25
8.4 Todo ................................................................. 25

Python Module Index ............................................. 27
A python package and command-line tools for working with and interacting with the Transient Naming Server.

Here’s a summary of what’s included in the python package:

**Classes**

*transientNamer.search*  The worker class for the transient namer search module

**Functions**

*transientNamer.cl_utils.tab_complete*
The easiest way to install transientNamer is to use pip:

```
pip install transientNamer
```

Or you can clone the GitHub repo and install from a local version of the code:

```
git clone git@github.com:thespacedoctor/transientNamer.git
cd transientNamer
python setup.py install
```

To upgrade to the latest version of transientNamer use the command:

```
pip install transientNamer --upgrade
```

### 1.1 Development

If you want to tinker with the code, then install in development mode. This means you can modify the code from your cloned repo:

```
git clone git@github.com:thespacedoctor/transientNamer.git
cd transientNamer
python setup.py develop
```

Pull requests are welcomed!

#### 1.1.1 Sublime Snippets

If you use Sublime Text as your code editor, and you’re planning to develop your own python code with transientNamer, you might find my Sublime Snippets useful.

### 1.2 Issues

Please report any issues here.
CHAPTER 2

Command-Line Usage

Documentation for transientNamer can be found here: http://transientNamer.readthedocs.org/en/stable

Usage:

transientNamer [-c] cone <ra> <dec> <arcsecRadius> [render: mysql <tableNamePrefix>] [-o directory]
transientNamer [-c] search <name> [render: mysql <tableNamePrefix>] [-o directory]
transientNamer [-c] new <discInLastDays> [render: mysql <tableNamePrefix>] [-o directory]

Commands:
cone  perform a conesearch on the TNS
search perform a name search on the TNS
new  list newly discovered TNS objects

Arguments:
ra  the name of the object the search for (TNS or survey name)
dec
arcsecRadius
name
render  output format for results. Options include json, csv, table, markdown, yaml
tableNamePrefix  the prefix for the tables to write the mysql insert statements for
dirPath  path to the directory to save the output to

Options:
-h, --help  show this help message
-v, --version  show version
-s, --settings  the settings file
-c, --withComments  return TNS comments in result sets
-o directory, --output=directory  output to files in the directory path
CHAPTER 3

Documentation

Documentation for transientNamer is hosted by Read the Docs (last stable version and latest version).
This is a tutorial on how to use the command-line tools for transientNamer, to use transientNamer within your own python scripts please refer to the package's documentation.

4.1 Search Types

The are three kinds of search you can perform on the TNS with transientNamer; a name search, a conesearch or a search for recent discoveries.

To perform a name-search for the transient Gaia16bbi, run the command:

```
transientNamer search Gaia16bbi
```

The results are printed to stdout:

```
1 transients found

# Matched Transients

<table>
<thead>
<tr>
<th>decSex</th>
<th>TNSName</th>
<th>discSurvey</th>
<th>raSex</th>
<th>objectUrl</th>
<th>hostName</th>
<th>transRedshift</th>
<th>decDeg</th>
<th>discoveryName</th>
<th>raDeg</th>
<th>TNSId</th>
<th>hostRedshift</th>
<th>specType</th>
<th>discDate</th>
<th>discMag</th>
<th>discMagFilter</th>
</tr>
</thead>
</table>

# Transient Photometry

<table>
<thead>
<tr>
<th>TNSId</th>
<th>survey</th>
<th>obsdate</th>
<th>filter</th>
<th>limitingMag</th>
<th>mag</th>
<th>magErr</th>
<th>magUnit</th>
<th>suggestedType</th>
<th>telescope</th>
<th>exptime</th>
<th>reportAddedDate</th>
<th>objectName</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016fbz</td>
<td>Pan-STARRS1</td>
<td>2016-08-30 13:19:12</td>
<td>w-PS1</td>
<td>0</td>
<td>17.8</td>
<td>0.02</td>
<td>ABMag</td>
<td>PSN</td>
<td>PS1_GPC1</td>
<td>45</td>
<td>2016-09-02 15:54:03</td>
<td>PS16ebg</td>
</tr>
<tr>
<td>2016fbz</td>
<td>iPTF</td>
<td>2016-08-25 12:00:00</td>
<td>g-PTF</td>
<td>0</td>
<td>17.2823</td>
<td></td>
<td>ABMag</td>
<td>PSN</td>
<td>P48_CFH12k</td>
<td>60</td>
<td>2016-08-25 12:34:00</td>
<td>iPTF16fbz</td>
</tr>
<tr>
<td>2016fbz</td>
<td>iPTF</td>
<td>2009-01-01 00:00:00</td>
<td>R-PTF</td>
<td>1</td>
<td>21.5</td>
<td></td>
<td>ABMag</td>
<td>PSN</td>
<td>P48_CFH12k</td>
<td>60</td>
<td>2016-08-25 12:34:00</td>
<td>iPTF16fbz</td>
</tr>
<tr>
<td>2016fbz</td>
<td>GaiaAlerts</td>
<td>2016-08-16 19:59:31</td>
<td>G-Gaia</td>
<td>0</td>
<td>17.4</td>
<td>0.2</td>
<td>ABMag</td>
<td>PSN</td>
<td>Gaia_Gaia-photometric</td>
<td>60</td>
<td>2016-08-19 09:13:29</td>
<td>Gaia16bbi</td>
</tr>
</tbody>
</table>

# Transient Spectra

<table>
<thead>
<tr>
<th>TNSId</th>
<th>survey</th>
<th>obsdate</th>
<th>specType</th>
<th>transRedshift</th>
<th>telescope</th>
<th>exptime</th>
<th>reportAddedDate</th>
<th>TNSuser</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016fbz</td>
<td>iPTF</td>
<td>2016-08-26 08:56:52</td>
<td>SN Ia</td>
<td>0.045</td>
<td>P60_SED-Machine</td>
<td></td>
<td>2016-09-02 08:06:07</td>
<td>rferr</td>
</tr>
<tr>
<td>2016fbz</td>
<td>iPTF</td>
<td>2016-08-27 14:24:00</td>
<td>SN Ia</td>
<td>0.045</td>
<td>BAO-2.16m_Phot-spec</td>
<td>3000</td>
<td>2016-09-02 08:06:07</td>
<td>rferr</td>
</tr>
</tbody>
</table>

---
# Transient Supplementary Files

<table>
<thead>
<tr>
<th>TNSid</th>
<th>filename</th>
<th>url</th>
<th>dateObs</th>
<th>spec1phot2</th>
</tr>
</thead>
</table>

# Original TNS Search URL

https://wis-tns.weizmann.ac.il/search?decl=&date_end%5Bdate%5D=&num_page=1000&display%5Bsources%5D=1&name=&display%5Bdiscm ... bibcode%5D=1&display%5Bredshift%5D=1&display%5Binternal_name%5D=1&page=0&display%5Bhostname%5D=1&display%5Bdiscoverer%5D=1

Run the same command now with the -c flag to also return the comments and remarks about the data found in the TNS. Note the comments tend to clutter up the output and make it less readable:

```
transientNamer -c search Gaia16bbi
```

You can use any name the transient is known as to search the TNS

```
transientNamer search SN2016fbz
transientNamer search 2016fbz
transientNamer search PS16ebg
transientNamer search iPTF16fbz
```

To perform a conesearch on the TNS use a command with the syntax:

```
transientNamer [-c] cone <ra> <dec> <arcsecRadius>
```

So to return the same result as the name search above run the following:

```
transientNamer cone 23:59:16.00 +22:03:00.70 5
```

or

```
transientNamer cone 359.8167 22.0502 5
```

If you want to return a list of transients that have been recently discovered, use the command syntax:

```
transientNamer [-c] new <discInLastDays>
```

So to return transients discovered in the past 3 weeks:

```
transientNamer new 21
```

The recent discovery search will often return many transients, but data for individual transients are always reported with the transient’s unique TNSId.

## 4.2 Results

Each search will always return four types of data

1. **Source Data** - top-level discovery and classification data
2. **Photometry Data** - time series photometry
3. **Spectral Data** - any classification and spectral coverage information
4. **Related Files** - any related image stamps, finder charts, spectral FITS or ascii files etc.

The URL built to generate the search of the TNS is also returned if you want to view the results via the TNS webpages.
By default the results are rendered as easily readable ascii tables. But by passing a few extra arguments to the command-line it’s possible to render the results in a variety of different formats; csv, json, yaml, table or markdown:

```
transientNamer search PS16ebg csv
transientNamer search PS16ebg json
transientNamer search PS16ebg yaml
transientNamer search PS16ebg table
```

It is also possible to render the results as mysql insert statements to add the results to a set of mysql database tables. The rendering requires an extra `tableNamePrefix` argument, that acts as the prefix to the table names use in mysql insert statements.

```
transientNamer search PS16ebg mysql tns
```

1 transient found

```
# Matched Transients
INSERT INTO `tns_transients` (TNSid,TNSName,dateCreated,decDeg,decSex,discDate,discMag,DiscMagFilter,specType,transRedshift,updated,dateLastModified) VALUES ('2016fbz', 'PS16ebg', '2016-09-20T15:23:05', 15.816667, 'N', '2016-09-20T15:23:05', '15.816667', '23:59:16.00', 'SN Ia', '0.045', 1, NOW());
```

```
# Transient Photometry
```

```
INSERT INTO `tns_photometry` (TNSid,dateCreated,exptime,filter,limitingMag, mag, magErr,magUnit,objectType,survey,telescope) VALUES ('2016fbz', '2016-09-20T15:23:05', '15.816667', '15.816667', '23:59:16.00', 'SN Ia', '0.045', '23:59:16.00', 'SN Ia', 'Pan-STARRS1', 'PS1_GPC1');
```

```
# Transient Spectra
```

```
INSERT INTO `tns_spectra` (TNSid,TNSuser,dateCreated,exptime,obscdate,reportAddedDate,specType,survey,telescope,transRedshift,updated,dateLastModified) VALUES ('2016fbz', '2016-09-20T15:23:05', '15.816667', '15.816667', '23:59:16.00', 'SN Ia', '0.045', '23:59:16.00', 'SN Ia', 'P60_SED-Machine', '0.045', 1, NOW());
```

```
# Transient Supplementary Files
```

```
```

To save the results to file instead of outputting to stdout, pass in the path to the directory you want to save the results to. The four categories of results are save to four separate file.

For ascii tables run either of the 2 commands:

```
transientNamer search PS16ebg -o /path/to/tns-data
transientNamer search PS16ebg tables -o /path/to/tns-data
```

For csv:

```
transientNamer search PS16ebg csv -o /path/to/tns-data
```

For yaml:

```
transientNamer search PS16ebg yaml -o /path/to/tns-data
```

For json:

```
```
For markdown tables:

```
transientNamer search PS16ebg markdown -o /path/to/tns-data
```

For mysql inserts:

```
transientNamer search PS16ebg mysql -o /path/to/tns-data
```

When exporting to file, the mysql insert statements also come with table create statements so that if the table doesn’t yet exist in the database you are importing into it will be created for you with all of the correct field types and unique index constraints applied.
Installation

The easiest way to install transientNamer us to use pip:

```
pip install transientNamer
```

Or you can clone the [github repo](https://github.com/thespacedoctor/transientNamer) and install from a local version of the code:

```
git clone git@github.com:thespacedoctor/transientNamer.git
cd transientNamer
python setup.py install
```

To upgrade to the latest version of transientNamer use the command:

```
pip install transientNamer --upgrade
```

5.1 Development

If you want to tinker with the code, then install in development mode. This means you can modify the code from your cloned repo:

```
git clone git@github.com:thespacedoctor/transientNamer.git
cd transientNamer
python setup.py develop
```

Pull requests are welcomed!

5.1.1 Sublime Snippets

If you use Sublime Text as your code editor, and you’re planning to develop your own python code with transientNamer, you might find my [Sublime Snippets](https://github.com/thespacedoctor/sublime_snippets) useful.

5.2 Issues

CHAPTER 6

Command-Line Usage

Documentation for transientNamer can be found here: http://transientNamer.readthedocs.org/en/stable

Usage:

transientNamer [-c] cone <ra> <dec> <arcsecRadius> [<render> | mysql <tableNamePrefix>] [-o directory]
transientNamer [-c] search <name> [<render> | mysql <tableNamePrefix>] [-o directory]
transientNamer [-c] new <discInLastDays> [<render> | mysql <tableNamePrefix>] [-o directory]

Commands:

- cone: perform a conesearch on the TNS
- search: perform a name search on the TNS
- new: list newly discovered TNS objects

Arguments:

- ra: the right ascension of the object
- dec: the declination of the object
- arcsecRadius: the radius of the cone in arcseconds
- name: the name of the object the search is for (TNS or survey name)
- render: output format for results. Options include json, csv, table, markdown, yaml
- tableNamePrefix: the prefix for the tables to write the mysql insert statements for
- dirPath: path to the directory to save the output to

Options:

- -h, --help: show this help message
- -v, --version: show version
- -s, --settings: the settings file
- -c, --withComments: return TNS comments in result sets
- -o directory, --output=directory: output to files in the directory path
Documentation

Documentation for transientNamer is hosted by Read the Docs (last stable version and latest version).
Chapter 8

Command-Line Tutorial

This is a tutorial on how to use the command-line tools for `transientNamer`, to use `transientNamer` within your own python scripts please refer to the package’s documentation.

8.1 Search Types

There are three kinds of search you can perform on the TNS with `transientNamer`; a name search, a coneselect or a search for recent discoveries.

To perform a name-search for the transient `Gaia16bbi`, run the command:

```
transientNamer search Gaia16bbi
```

The results are printed to stdout:

```
1 transients found

# Matched Transients
+---------------+------------+-------------+--------------+-----------------------------------------------+-----------+--- ...
| decSex | TNSName | discSurvey | raSex | objectUrl | hostName | transRedshift | decDeg | discoveryName | raDeg | TNSId | hostRedshift | specType | discDate | discMag | discMagFilter |
+---------------+------------+-------------+--------------+-----------------------------------------------+-----------+--- ...
+---------------+------------+-------------+--------------+-----------------------------------------------+-----------+--- ...

# Transient Photometry
+----------+--------------+----------------------+---------+--------------+----------+---------+----------+----------------+------------------------+----------+----------------+-------------+
| TNSId | survey | obsdate | filter | limitingMag | mag | magErr | magUnit | suggestedType | telescope | exptime | reportAddedDate | objectName |
+----------+--------------+----------------------+---------+--------------+----------+---------+----------+----------------+------------------------+----------+----------------+-------------+
| 2016fbz | Pan-STARRS1 | 2016-08-30 13:19:12 | w-PS1 | 0 | 17.8 | 0.02 | ABMag | PSN | PS1_GPC1 | 45 | 2016-09-02 15:54:03 | PS16ebg |
| 2016fbz | iPTF | 2016-08-25 12:00:00 | g-PTF | 0 | 17.2823 | | ABMag | PSN | P48_CFH12k | 60 | 2016-08-25 12:34:00 | iPTF16fbz |
| 2016fbz | iPTF | 2009-01-01 00:00:00 | R-PTF | 1 | 21.5 | | ABMag | PSN | P48_CFH12k | 60 | 2016-08-25 12:34:00 | iPTF16fbz |
| 2016fbz | GaiaAlerts | 2016-08-16 19:59:31 | G-Gaia | 0 | 17.4 | 0.2 | ABMag | PSN | Gaia_Gaia-photometric | 60 | 2016-08-19 09:13:29 | Gaia16bbi |
+----------+--------------+----------------------+---------+--------------+----------+---------+----------+----------------+------------------------+----------+----------------+-------------+

# Transient Spectra
+----------+---------+----------------------+-----------+----------------+----------------------+----------+----------------+----------+
| TNSId | survey | obsdate | specType | transRedshift | telescope | exptime | TNSuser |
+----------+---------+----------------------+-----------+----------------+----------------------+----------+----------------+----------+
| 2016fbz | iPTF | 2016-08-26 08:56:52 | SN Ia | 0.045 | P60_SED-Machine | | rferr |
| 2016fbz | | 2016-08-27 14:24:00 | SN Ia | 0.045 | BAO-2.16m_Phot-spec | 300 | rferr |
+----------+---------+----------------------+-----------+----------------+----------------------+----------+----------------+----------+
```
# Transient Supplementary Files

<table>
<thead>
<tr>
<th>TNSid</th>
<th>filename</th>
<th>url</th>
</tr>
</thead>
</table>

# Original TNS Search URL

https://wis-tns.weizmann.ac.il/search?decl=&date_end%5Bdate%5D=&num_page=1000&display%5Bsources%5D=1&name=&display%5Bdiscm...bibcode%5D=1&display%5Bredshift%5D=1&display%5Binternal_name%5D=1&page=0&display%5Bhostname%5D=1&display%5Bdiscoverer%5D=1

Run the same command now with the -c flag to also return the comments and remarks about the data found in the TNS. Note the comments tend to clutter up the output and make it less readable:

```
transientNamer -c search Gaia16bbl
```

You can use any name the transient is known as to search the TNS

```
transientNamer search SN2016fbz
transientNamer search 2016fbz
transientNamer search PS16ebg
transientNamer search iPTF16fbz
```

To perform a conesearch on the TNS use a command with the syntax:

```
transientNamer [-c] cone <ra> <dec> <arcsecRadius>
```

So to return the same result as the name search above run the following:

```
transientNamer cone 23:59:16.00 +22:03:00.70 5
```

or

```
transientNamer cone 359.8167 22.0502 5
```

If you want to return a list of transients that have been recently discovered, use the command syntax:

```
transientNamer [-c] new <discInLastDays>
```

So to return transients discovered in the past 3 weeks:

```
transientNamer new 21
```

The recent discovery search will often return many transients, but data for individual transients are always reported with the transient’s unique TNSId.

## 8.2 Results

Each search will always return four types of data

1. **Source Data** - top-level discovery and classification data
2. **Photometry Data** - time series photometry
3. **Spectral Data** - any classification and spectral coverage information
4. **Related Files** - any related image stamps, finder charts, spectral FITS or ascii files etc.

The URL built to generate the search of the TNS is also returned if you want to view the results via the TNS webpages.
By default the results are rendered as easily readable ascii tables. But by passing a few extra arguments to the command-line it’s possible to render the results in a variety of different formats; **csv, json, yaml, table or markdown**:

```bash
transientNamer search PS16ebg csv
transientNamer search PS16ebg json
transientNamer search PS16ebg yaml
transientNamer search PS16ebg table
```

It is also possible to render the results as mysql insert statements to add the results to a set of mysql database tables. The rendering requires an extra `tableNamePrefix` argument, that acts as the prefix to the table names use in mysql insert statements.

```bash
transientNamer search PS16ebg mysql tns
```

1 transient found

# Matched Transients
```
INSERT INTO `tns_transients` (TNSid,TNSName,dateCreated,decDeg,decSex,discDate,discMag,DiscMagFilter, ... raDeg="359.816667", raSex="23:59:16.00", specType="SN Ia", transRedshift="0.045", updated=1, dateLastModified=NOW() ;
```

# Transient Photometry
```
INSERT INTO `tns_photometry` (TNSid,dateCreated,exptime,filter,limitingMag,mag,magErr,magUnit,objectName,photometricType,ps1_sex=0,ps1_weight=0,ps1_id=1,ps1_name=NULL) VALUES ("2016fbz", "2016-09-20T15:23:05", "15:54:03", "SG", "14.7", "14.7", "0.1", "m", NULL, NULL, "PSN", "PS1_GPC1", "PS1_GPC1", "PS1_GPC1");
```

# Transient Spectra
```
INSERT INTO `tns_spectra` (TNSid,TNSuser,dateCreated,exptime,obstime,specType,survey,telescope,transRedshift,updated) VALUES ("2016fbz", "iPTF", "2016-09-20T15:23:05", "15:54:03", "IFAO", "IFAO", "IFAO", "IFAO", "0.045", 1);
```

# Transient Supplementary Files
```
INSERT INTO `tns_files` (TNSid,dateCreated,dateObs,filename,spec1phot2,url) VALUES ("2016fbz", "2016-09-20T15:23:05", "2016-09-20T15:23:05", "2016-09-20T15:23:05", NULL, NULL);
```

# Original TNS Search URL
```bash
https://wis-tns.weizmann.ac.il/search?decl=&date_end%5Bdate%5D=&num_page=1000&display%5Bsources%5D=1&name=&display%5Bdiscm ... bibcode%5D=1&display%5Bredshift%5D=1&display%5Binternal_name%5D=1&page=0&display%5Bhostname%5D=1&display%5Bdiscoverer%5D=1
```

To save the results to file instead of outputting to stdout, pass in the path to the directory you want to save the results to. The four categories of results are save to four separate file.

For ascii tables run either of the 2 commands:

```bash
transientNamer search PS16ebg -o /path/to/tns-data
transientNamer search PS16ebg tables -o /path/to/tns-data
```

For csv:

```bash
transientNamer search PS16ebg csv -o /path/to/tns-data
```

For yaml:

```bash
transientNamer search PS16ebg yaml -o /path/to/tns-data
```

For json:
transientNamer Documentation, Release 0.1.6

For markdown tables:

transientNamer_search_PS16ebg_markdown -o /path/to/tns-data

For mysql inserts:

transientNamer_search_PS16ebg_mysql -o /path/to/tns-data

When exporting to file, the mysql insert statements also come with table create statements so that if the table doesn’t yet exist in the database you are importing into it will be created for you with all of the correct field types and unique index constraints applied.

8.2.1 Subpackages

transientNamer (subpackage)

transientNamer.commonutils (subpackage)

common tools used throughout package

8.2.2 Modules

transientNamer.cl_utils Documentation for transientNamer can be found here: http://transientNamer.readthedocs.org/en/stable

transientNamer.utKit Unit testing tools

transientNamer.cl_utils (module)

Documentation for transientNamer can be found here: http://transientNamer.readthedocs.org/en/stable

Usage:

transientNamer [-c] cone <ra> <dec> <arcsecRadius> [<render> | mysql <tableNamePrefix>] [-o directory] 

transientNamer [-c] search <name> [<render> | mysql <tableNamePrefix>] [-o directory] 

transientNamer [-c] new <discInLastDays> [<render> | mysql <tableNamePrefix>] [-o directory]

Commands: cone perform a conesearch on the TNS search perform a name search on the TNS new list newly discovered TNS objects

Arguments: ra dec arcsecRadius name the name of the object the search for (TNS or survey name) render output format for results. Options include json, csv, table, markdown, yaml tableNamePrefix the prefix for the tables to write the mysql insert statements for dirPath path to the directory to save the output to

Options:

-h, --help show this help message

-v, --version show version

-s, --settings the settings file

-c, --withComments return TNS comments in result sets
-o directory, --output=directory  output to files in the directory path

transientNamer.cl_utils.main(arguments=None)

    The main function used when 'cl_utils.py' is run as a single script from the cl, or when installed as a cl command

transientNamer.utKit (module)

Unit testing tools

class transientNamer.utKit.utKit (moduleDirectory)

    Override dryx utKit

8.2.3 Classes

| transientNamer.search        | The worker class for the transient namer search module |
| transientNamer.utKit.utKit   | Override dryx utKit                                    |

transientNamer.search (class)

class transientNamer.search(log, ra='', dec='', radiusArcsec='', name='', discInLastDays='', settings=False, comments=False)

    The worker class for the transient namer search module

Key Arguments:

- log – logger
- settings – the settings dictionary
- ra – RA of the location being checked
- dec – DEC of the location being searched
- radiusArcsec - the radius of the conesearch to perform against the TNS
- name – name of the object to search the TNS for
- discInLastDays – search the TNS for transient discovered in the last X days
- comments – print the comments from the TNS, note these can be long making table outputs somewhat unreadable. Default False

Usage:

To initiate a search object to search the TNS via an object name (either TNS or survey names accepted):

```python
from transientNamer import search

log = search()
log=log,
name="Gaia16bbi"
```

or for a conesearch use something similar to:

```python
from transientNamer import search

tns = search()
log=log,
```
Note the search method can accept coordinates in sexagesimal or decimal degree formats.

To list all new objects discovered in the last three weeks, then use:

```python
from transientNamer import search
tns = search(
    log=log,
    discInLastDays=21
)
```

__init__ (log, ra='', dec='', radiusArcsec='', name='', discInLastDays='', settings=False, comments=False)

Methods

__init__ (log, ra, dec, radiusArcsec, name, ...)
csv([dirPath]) Render the results in csv format
json([dirPath]) Render the results in json format
markdown([dirPath]) Render the results in markdown format
mysql([tableNamePrefix, dirPath]) Render the results as MySQL Insert statements
table([dirPath]) Render the results as an ascii table
yaml([dirPath]) Render the results in yaml format

Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>files</td>
<td>The associated source files</td>
</tr>
<tr>
<td>photometry</td>
<td>The associated source photometry</td>
</tr>
<tr>
<td>sources</td>
<td>The results of the search returned as a python list of dictionaries</td>
</tr>
<tr>
<td>spectra</td>
<td>The associated source spectral data</td>
</tr>
<tr>
<td>url</td>
<td>The generated URL used for searching of the TNS</td>
</tr>
</tbody>
</table>

transientNamer.utKit.utKit (class)

class transientNamer.utKit.utKit (moduleDirectory)

Override dryx utKit

__init__ (moduleDirectory)

Methods

__init__ (moduleDirectory)

setupModule() The setupModule method
tearDownModule() The tearDownModule method
8.2.4 Functions

transientNamer.cl_utils.tab_complete (function)

transientNamer.cl_utils.tab_complete (text, state)

8.3 Indexes

- Module Index
- Full Index

8.4 Todo

- Todolist
transientNamer, 22
transientNamer.cl_utils, 22
transientNamer.commonutils, 22
transientNamer.utKit, 23
Symbols

__init__() (transientNamer.search method), 24
__init__() (transientNamer.utKit.utKit method), 24

M
main() (in module transientNamer.cl_utils), 23

S
search (class in transientNamer), 23

T
tab_complete() (in module transientNamer.cl_utils), 25
transientNamer (module), 22
transientNamer.cl_utils (module), 22
transientNamer.commonutils (module), 22
transientNamer.utKit (module), 23

U
utKit (class in transientNamer.utKit), 23, 24