
Finch Documentation

Release 0.5.3

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Finch (the bird) *Finch is a bird . . .*

A Web Processing Service for Climate Indicators.

DOCUMENTATION

Learn more about Finch in its official documentation at <https://finch.readthedocs.io>.

Submit bug reports, questions and feature requests at <https://github.com/bird-house/finch/issues>

CONTRIBUTING

You can find information about contributing in our [Developer Guide](#).
Please use [bumpversion](#) to release a new version.

LICENSE

Free software: Apache Software License 2.0

This package was created with [Cookiecutter](#) and the [bird-house/cookiecutter-birdhouse](#) project template.

4.1 Installation

- *Install from Conda*
- *Install from GitHub*
- *Start Finch PyWPS service*
- *Run Finch as Docker container*
- *Use Ansible to deploy Finch on your System*

4.1.1 Install from Conda

Warning: TODO: Prepare Conda package.

4.1.2 Install from GitHub

Check out code from the Finch GitHub repo and start the installation:

```
$ git clone https://github.com/bird-house/finch.git
$ cd finch
```

Create Conda environment named *finch*:

```
$ conda env create -f environment.yml
$ source activate finch
```

Install Finch app:

```
$ pip install -e .
OR
make install
```

For development you can use this command:

```
$ pip install -e .[dev]
OR
$ make develop
```

4.1.3 Start Finch PyWPS service

After successful installation you can start the service using the `finch` command-line.

```
$ finch --help # show help
$ finch start # start service with default configuration

OR

$ finch start --daemon # start service as daemon
loading configuration
forked process id: 42
```

The deployed WPS service is by default available on:

<http://localhost:5000/wps?service=WPS&version=1.0.0&request=GetCapabilities>.

Note: Remember the process ID (PID) so you can stop the service with `kill PID`.

You can find which process uses a given port using the following command (here for port 5000):

```
$ netstat -nlp | grep :5000
```

Check the log files for errors:

```
$ tail -f pywps.log
```

... or do it the lazy way

You can also use the `Makefile` to start and stop the service:

```
$ make start
$ make status
$ tail -f pywps.log
$ make stop
```

4.1.4 Run Finch as Docker container

You can also run Finch as a Docker container.

Warning: TODO: Describe Docker container support.

4.1.5 Use Ansible to deploy Finch on your System

Use the [Ansible playbook](#) for PyWPS to deploy Finch on your system.

4.2 Configuration

4.2.1 Command-line options

You can overwrite the default **PyWPS** configuration by using command-line options. See the Finch help which options are available:

```
$ finch start --help
--hostname HOSTNAME      hostname in PyWPS configuration.
--port PORT              port in PyWPS configuration.
```

Start service with different hostname and port:

```
$ finch start --hostname localhost --port 5001
```

4.2.2 Use a custom configuration file

You can overwrite the default **PyWPS** configuration by providing your own PyWPS configuration file (just modify the options you want to change). Use one of the existing `sample-*.cfg` files as example and copy them to `etc/custom.cfg`.

For example change the hostname (*demo.org*) and logging level:

```
$ cd finch
$ vim etc/custom.cfg
$ cat etc/custom.cfg
[server]
url = http://demo.org:5000/wps
outputurl = http://demo.org:5000/outputs

[logging]
level = DEBUG
```

Start the service with your custom configuration:

```
# start the service with this configuration
$ finch start -c etc/custom.cfg
```

4.3 Notebooks

These notebooks demonstrates a few features of the Finch server.

If you're unfamiliar with notebooks, note that typing *TAB* after an object will display a drop-down menu of the object's attributes and methods, and that you need to hit *CTRL-Enter* to run a *cell*. You can also type *?* after a function or method to display the corresponding help message.

4.3.1 Finch usage

Finch is a WPS server for climate indicators, but also has a few utilities to facilitate data handling. To get started, first instantiate the client. Here, the client will try to connect to a local or remote finch instance, depending on whether the environment variable `WPS_URL` is defined.

```
[1]: import os
import xarray as xr
from birdy import WPSClient

# Disable Dataset.__repr_html_ and DataArray.__repr_html_, enabled by default in
↳ xarray 0.15.1
xr.set_options(display_style='text')

pavics_url = 'https://pavics.ouranos.ca/twitcher/ows/proxy/finch/wps'
url = os.environ.get('WPS_URL', pavics_url)
verify_ssl = True if 'DISABLE_VERIFY_SSL' not in os.environ else False
wps = WPSClient(url, verify=verify_ssl)
```

The list of available processes can be displayed using the magic `?` command (`wps?`). Similarly, help about any individual process is available using `?` or the help command.

```
[2]: help(wps.frost_days)

Help on method frost_days in module birdy.client.base:

frost_days(tasmin=None, freq='YS') method of birdy.client.base.WPSClient instance
    Number of days where daily minimum temperatures are below 0.

    Parameters
    -----
    tasmin : ComplexData:mimetype:`application/x-netcdf`, :mimetype:`application/x-
↳ ogc-dods`
        NetCDF Files or archive (tar/zip) containing netCDF files.
    freq : string
        Resampling frequency

    Returns
    -----
    output_netcdf : ComplexData:mimetype:`application/x-netcdf`
        The indicator values computed on the original input grid.
    output_log : ComplexData:mimetype:`text/plain`
        Collected logs during process run.
    ref : ComplexData:mimetype:`application/metalink+xml; version=4.0`
        Metalink file storing all references to output files.
```

To actually compute an indicator, we need to specify the path to the netCDF file used as input for the calculation of the indicator. To compute `frost_days`, we need a time series of daily minimum temperature. Here we'll use a small test file. Note that here we're using an OPeNDAP link, but it could also be an url to a netCDF file, or the path to a local file on disk. We then simply call the indicator. The response is an object that can poll the server to inquire about the status of the process. This object can use two modes: - synchronous: it will wait for the server's response before returning; or - asynchronous: it will return immediately, but without the actual output from the process.

Here, since we're applying the process on a small test file, we're using the default synchronous mode. For long computations, use the asynchronous mode to avoid time-out errors. The asynchronous mode is activated by setting the `progress` attribute of the WPS client to `True`.

```
[3]: tasmin = "https://pavics.ouranos.ca/twitcher/ows/proxy/thredds/dodsC/birdhouse/
↳testdata/flyingpigeon/cmip3/tasmin.sresa2.miub_echo_g.run1.atm.da.nc"
resp = wps.frost_days(tasmin)
```

```
[4]: print("Process status: ", resp.status)
urls = resp.get()
print("Link to process output: ", urls.output_netcdf)
```

```
Process status: ProcessSucceeded
```

```
Link to process output: https://pavics.ouranos.ca/wpsoutputs/98bd37b6-7749-11ea-bda5-
↳0800276e9ee6/frost-days_SRES-A2-experiment_20460101-20650101.nc
```

The `get` method returns a `NamedTuple` object with all the WPS outputs, either as references to files or actual content. To copy the file to the local disk, you can use the `getOutput` method, but `birdy`'s `get` function has a more user-friendly solution. Setting the `asobj` argument to `True` will directly download all the output files and return outputs as python objects.

```
[5]: out = resp.get(asobj=True)
```

```
[6]: out.output_netcdf
```

```
[6]: <xarray.Dataset>
Dimensions:      (lat: 6, lon: 7, time: 20)
Coordinates:
  height         float64 ...
  * time          (time) object 2046-01-01 00:00:00 ... 2065-01-01 00:00:00
  * lat           (lat) float64 42.68 46.39 50.1 53.81 57.52 61.23
  * lon           (lon) float64 281.2 285.0 288.8 292.5 296.2 300.0 303.8
Data variables:
  frost_days      (time, lat, lon) timedelta64[ns] ...
Attributes:
  comment:        Spinup: restart files from end of experiment 20...
  title:          MIUB model output prepared for IPCC Fourth Ass...
  cmor_version:   0.96
  institution:    Canadian Centre for Climate Services (CCCS)
  source:         ECHO-G(1999): atmosphere: ECHAM4 (T30L19) with ...
  contact:        Canadian Centre for Climate Services
  references:     ECHAM4: E. Roeckner et al., 1996, The atmospher...
  experiment_id:  SRES A2 experiment
  realization:    1
  directory:      /ipcc/sresa2/atm/da/
  table_id:       Table A2 (17 November 2004)
  calendar:       360_day
  project_id:     IPCC Fourth Assessment
  Conventions:    CF-1.0
  id:             pcm4i.ipcc4.miub_echo_g.sresa2.run1.atm.da
  history:        Mon Aug 1 11:43:58 2011: ncks -4 -L 7 -d lat,4...
  NCO:            4.0.9
  climateindex_package_id: https://github.com/Ouranosinc/xclim
  product:        derived climate index
  institute_id:   CCCS
```

4.3.2 Computing indicators on DAP subsets

In a typical programming environment, the standard way to compute an indicator for a given location would be to extract the time series at the given location, then run the computation on this subset. When interacting with a remote server, things are a bit more complicated. One option would be to first call a subsetting process to extract the data at the desired location, then run the climate indicator process on that subsetted file. The other option showcased here is to pass a DAP url that encodes the [subsetting operation](#).

This tutorial shows how to get the index for the desired location and pass them as a DAP link to a Finch indicator process.

```
[1]: import os
import xarray as xr
from birdy import WPSClient

# Disable Dataset.__repr_html_ and DataArray.__repr_html_, enabled by default in
↳ xarray 0.15.1
xr.set_options(display_style='text')

# Link to file storing precipitation
pr = "https://pavics.ouranos.ca/twitcher/ows/proxy/thredds/dodsC/birdhouse/testdata/
↳ flyingpigeon/cmip3/pr.sresa2.miub_echo_g.run1.atm.da.nc"

# Open connection to Finch WPS server
pavics_url = 'https://pavics.ouranos.ca/twitcher/ows/proxy/finch/wps'
url = os.environ.get('WPS_URL', pavics_url)
wps = WPSClient(url)
```

```
[2]: # Open remote dataset and extract location indices
ds = xr.open_dataset(pr)
ds
```

```
[2]: <xarray.Dataset>
Dimensions:      (bnds: 2, lat: 6, lon: 7, time: 7200)
Coordinates:
  * lat          (lat) float64 42.68 46.39 50.1 53.81 57.52 61.23
  * lon          (lon) float64 281.2 285.0 288.8 292.5 296.2 300.0 303.8
  * time         (time) object 2046-01-01 12:00:00 ... 2065-12-30 12:00:00
Dimensions without coordinates: bnds
Data variables:
  lat_bnds      (lat, bnds) float64 ...
  lon_bnds      (lon, bnds) float64 ...
  time_bnds     (time, bnds) object ...
  pr            (time, lat, lon) float32 ...
Attributes:
  comment:      Spinup: restart files from end of experiment 20C3M (corre...
  title:        MIUB model output prepared for IPCC Fourth Assessment SR...
  cmor_version: 0.96
  institution:  MIUB (University of Bonn, Bonn, Germany)
  source:       ECHO-G(1999): atmosphere: ECHAM4 (T30L19) with partial se...
  contact:      Stephanie Legutke (legutke@dkrz.de), Seung-Ki Min(skmin@u...
  references:    ECHAM4: E. Roeckner et al., 1996, The atmospheric general...
  experiment_id: SRES A2 experiment
  realization:  1
  directory:     /ipcc/sresa2/atm/da/
  table_id:      Table A2 (17 November 2004)
  calendar:      360_day
  project_id:    IPCC Fourth Assessment
```

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```

Conventions:    CF-1.0
id:             pcmdi.ipcc4.miub_echo_g.sresa2.run1.atm.da
history:        Mon Aug  1 11:42:37 2011: ncks -4 -L 7 -d lat,42.0,64.0 -...
NCO:           4.0.9

```

```

[3]: # Use the `remap_label_indexers` function to convert coordinates to *positional*
      ↪ indexes.
import datetime as dt
coords = dict(lat=45, lon=290)
index, _ = xr.core.coordinates.remap_label_indexers(ds, coords, method="nearest")

# The `nearest` method cannot be used with slices, so we do another call for the time
      ↪ period.
ti, _ = xr.core.coordinates.remap_label_indexers(ds, dict(time=slice("2060-01-01",
      ↪ "2064-12-30")))

# Merge the spatial and temporal indices
index.update(ti)
index

[3]: {'lat': 1, 'lon': 2, 'time': slice(5040, 6840, None)}

```

Subsetting URLs

The subset syntax consists in a ? followed by comma separated list of variable names, each followed by a slice [start, step, stop] for each dimension. So for example, to get the very first time step of the precipitation time series over the entire grid, we'd write

```
<url>?pr[0:1:0][0:1:5][0:1:6]
```

Note that this uses a 0-based indexing system, so [0:1:1] is a slice including the first and second elements.

```

[4]: xr.open_dataset(pr+"?pr[0:1:0][0:1:5][0:1:6]")

[4]: <xarray.Dataset>
Dimensions:  (lat: 6, lon: 7, time: 1)
Dimensions without coordinates: lat, lon, time
Data variables:
    pr                (time, lat, lon) float32 ...
Attributes:
    comment:           Spinup: restart files from end of experiment 20C3M (corre...
    title:             MIUB model output prepared for IPCC Fourth Assessment SR...
    cmor_version:      0.96
    institution:       MIUB (University of Bonn, Bonn, Germany)
    source:            ECHO-G(1999): atmosphere: ECHAM4 (T30L19) with partial se...
    contact:           Stephanie Legutke (legutke@dkrz.de), Seung-Ki Min(skmin@u...
    references:        ECHAM4: E. Roeckner et al., 1996, The atmospheric general...
    experiment_id:     SRES A2 experiment
    realization:       1
    directory:         /ipcc/sresa2/atm/da/
    table_id:          Table A2 (17 November 2004)
    calendar:          360_day
    project_id:        IPCC Fourth Assessment
    Conventions:       CF-1.0
    id:               pcmdi.ipcc4.miub_echo_g.sresa2.run1.atm.da
    history:           Mon Aug  1 11:42:37 2011: ncks -4 -L 7 -d lat,42.0,64.0 -...
    NCO:              4.0.9

```

Note that the returned array has no time, lat or lon variables. We only requested the `pr` variable, not these other coordinate variables. To remedy the situation, we add these coordinate variables to the request.

```
[5]: xr.open_dataset(pr+"?pr[0:1:0][0:1:5][0:1:6],time[0:1:0],lat,lon")

[5]: <xarray.Dataset>
Dimensions: (lat: 6, lon: 7, time: 1)
Coordinates:
  * lat      (lat) float64 42.68 46.39 50.1 53.81 57.52 61.23
  * lon      (lon) float64 281.2 285.0 288.8 292.5 296.2 300.0 303.8
  * time      (time) object 2046-01-01 12:00:00
Data variables:
  pr          (time, lat, lon) float32 ...
Attributes:
  comment:      Spinup: restart files from end of experiment 20C3M (corre...
  title:        MIUB model output prepared for IPCC Fourth Assessment SR...
  cmor_version: 0.96
  institution:  MIUB (University of Bonn, Bonn, Germany)
  source:       ECHO-G(1999): atmosphere: ECHAM4 (T30L19) with partial se...
  contact:      Stephanie Legutke (legutke@dkrz.de), Seung-Ki Min(skmin@u...
  references:    ECHAM4: E. Roeckner et al., 1996, The atmospheric general...
  experiment_id: SRES A2 experiment
  realization:  1
  directory:    /ipcc/sresa2/atm/da/
  table_id:     Table A2 (17 November 2004)
  calendar:     360_day
  project_id:   IPCC Fourth Assessment
  Conventions:  CF-1.0
  id:           pcmdi.ipcc4.miub_echo_g.sresa2.run1.atm.da
  history:      Mon Aug 1 11:42:37 2011: ncks -4 -L 7 -d lat,42.0,64.0 -...
  NCO:          4.0.9
```

Now let's go back to our original index and convert it into a DAP subset URL.

```
[6]: xr.open_dataset(pr+"?pr[5040:1:6840][1:1:1][2:1:2],lat[1:1:1],lon[2:1:2],time[5040:1:
↪6839]")

[6]: <xarray.Dataset>
Dimensions: (lat: 1, lon: 1, time: 1800, time_1: 1801)
Coordinates:
  * lat      (lat) float64 46.39
  * lon      (lon) float64 288.8
  * time      (time) object 2060-01-01 12:00:00 ... 2064-12-30 12:00:00
Dimensions without coordinates: time_1
Data variables:
  pr          (time_1, lat, lon) float32 ...
Attributes:
  comment:      Spinup: restart files from end of experiment 20C3M (corre...
  title:        MIUB model output prepared for IPCC Fourth Assessment SR...
  cmor_version: 0.96
  institution:  MIUB (University of Bonn, Bonn, Germany)
  source:       ECHO-G(1999): atmosphere: ECHAM4 (T30L19) with partial se...
  contact:      Stephanie Legutke (legutke@dkrz.de), Seung-Ki Min(skmin@u...
  references:    ECHAM4: E. Roeckner et al., 1996, The atmospheric general...
  experiment_id: SRES A2 experiment
  realization:  1
  directory:    /ipcc/sresa2/atm/da/
  table_id:     Table A2 (17 November 2004)
  calendar:     360_day
```

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```

project_id:    IPCC Fourth Assessment
Conventions:   CF-1.0
id:            pcmdi.ipcc4.miub_echo_g.sresa2.run1.atm.da
history:       Mon Aug  1 11:42:37 2011: ncks -4 -L 7 -d lat,42.0,64.0 -...
NCO:           4.0.9

```

```
[7]: index
```

```
[7]: {'lat': 1, 'lon': 2, 'time': slice(5040, 6840, None)}
```

```

[8]: def dap_slice(index):
    """Convert python index dictionary into DAP subset index dictionary."""
    dap = {}
    for key, val in index.items():
        if isinstance(val, slice):
            dap[key] = f"[{val.start}:{val.step or 1}:{val.stop - 1}]"
        elif isinstance(val, int):
            dap[key] = f"[{val}:1:{val}]"
    return dap

def dap_subset(da, index):
    """Return DAP subset URL."""
    s = dap_slice(index)
    vs = [da, ] + list(da.coords.values())
    url = "?" + ",".join([x.name + ".".join([s[dim] for dim in x.dims]) for x in vs])
    return url

sub = dap_subset(ds.pr, index)
print(sub)

?pr[5040:1:6839][1:1:1][2:1:2],lat[1:1:1],lon[2:1:2],time[5040:1:6839]

```

```
[9]: xr.open_dataset(pr + sub)
```

```

[9]: <xarray.Dataset>
Dimensions:  (lat: 1, lon: 1, time: 1800)
Coordinates:
  * lat      (lat) float64 46.39
  * lon      (lon) float64 288.8
  * time     (time) object 2060-01-01 12:00:00 ... 2064-12-30 12:00:00
Data variables:
  pr         (time, lat, lon) float32 ...
Attributes:
  comment:    Spinup: restart files from end of experiment 20C3M (corre...
  title:      MIUB model output prepared for IPCC Fourth Assessment SR...
  cmor_version: 0.96
  institution: MIUB (University of Bonn, Bonn, Germany)
  source:     ECHO-G(1999): atmosphere: ECHAM4 (T30L19) with partial se...
  contact:    Stephanie Legutke (legutke@dkrz.de), Seung-Ki Min(skmin@u...
  references:  ECHAM4: E. Roeckner et al., 1996, The atmospheric general...
  experiment_id: SRES A2 experiment
  realization: 1
  directory:  /ipcc/sresa2/atm/da/
  table_id:   Table A2 (17 November 2004)
  calendar:   360_day

```

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```

project_id:      IPCC Fourth Assessment
Conventions:     CF-1.0
id:              pcmdi.ipcc4.miub_echo_g.sresa2.run1.atm.da
history:         Mon Aug  1 11:42:37 2011: ncks -4 -L 7 -d lat,42.0,64.0 -...
NCO:            4.0.9

```

Using the subset URL in a WPS process

Now this subset url can be used as a normal netCDF link in WPS processes. Here, let's compute the average precipitation during wet days (sdii) over our subset. As expected, the output is only computed for the five years we requested on a single grid point closest to the coordinates we chose.

```

[10]: resp = wps.sdii(pr + sub)
      out = resp.get(asobj=True)
      out.output_netcdf.sdii

[10]: <xarray.DataArray 'sdii' (time: 5, lat: 1, lon: 1)>
      array([[[4.984402]],

              [[5.412616]],

              [[5.488322]],

              [[5.164405]],

              [[4.69054 ]]])
Coordinates:
  * time      (time) object 2060-01-01 00:00:00 ... 2064-01-01 00:00:00
  * lat       (lat) float64 46.39
  * lon       (lon) float64 288.8
Attributes:
  units:      mm/day
  cell_methods:  time: mean (interval: 30 minutes)
  history:     pr=max(0,pr) applied to raw data;\n[2020-04-05 10:27:31] ...
  standard_name: lwe_thickness_of_precipitation_amount
  long_name:    Average precipitation during wet days (sdii)
  description:  Annual simple daily intensity index (sdii) : annual avera...

```

4.4 Developer Guide

- *Building the docs*
- *Running tests*
- *Run tests the lazy way*
- *Prepare a release*
- *Bump a new version*

Warning: To create new processes look at examples in [Emu](#).

4.4.1 Building the docs

First install dependencies for the documentation:

```
$ make develop
```

Run the Sphinx docs generator:

```
$ make docs
```

4.4.2 Running tests

Run tests using `pytest`.

First activate the `finch` Conda environment and install `pytest`.

```
$ source activate finch
$ pip install -r requirements_dev.txt # if not already installed
OR
$ make develop
```

Run quick tests (skip slow and online):

```
$ pytest -m 'not slow and not online'
```

Run all tests:

```
$ pytest
```

Check pep8:

```
$ flake8
```

4.4.3 Run tests the lazy way

Do the same as above using the `Makefile`.

```
$ make test
$ make test-all
$ make lint
```

4.4.4 Prepare a release

Update the Conda specification file to build identical [environments](#) on a specific OS.

Note: You should run this on your target OS, in our case Linux.

```
$ conda env create -f environment.yml
$ source activate finch
$ make clean
$ make install
$ conda list -n finch --explicit > spec-file.txt
```

4.4.5 Bump a new version

Make a new version of Finch in the following steps:

- Make sure everything is commit to GitHub.
- Update `CHANGES.rst` with the next version.
- Dry Run: `bumpversion --dry-run --verbose --new-version 0.8.1 patch`
- Do it: `bumpversion --new-version 0.8.1 patch`
- ... or: `bumpversion --new-version 0.9.0 minor`
- Push it: `git push`
- Push tag: `git push --tags`

See the [bumpversion](#) documentation for details.

4.5 Processes

- *xclim Indicators*
- *Ensemble Processes*
- *Other Processes*

4.5.1 xclim Indicators

```
class finch.processes.xclim.cdd_Indicator_Process
    cdd unicode.unicode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.cold_spell_days_Indicator_Process
    cold_spell_days unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.cold_spell_duration_index_Indicator_Process
    cold_spell_duration_index unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tn10** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.consecutive_frost_days_Indicator_Process
    consecutive_frost_days unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))

- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.cooling_degree_days_Indicator_Process
    cooling_degree_days unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.cwd_Indicator_Process
    cwd unicode.unidecode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.dlyfrzthw_Indicator_Process
    dlyfrzthw unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))

- **thresh_tasmax** (*string, optional*) – Threshold
- **thresh_tasmin** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.dtr_Indicator_Process
    dtr unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.dtrvar_Indicator_Process
    dtrvar unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.etr_Indicator_Process
    etr unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.freshet_start_Indicator_Process
    freshet_start unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.frost_days_Indicator_Process
    frost_days unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.growing_degree_days_Indicator_Process
    growing_degree_days unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.heat_wave_frequency_Indicator_Process
    heat_wave_frequency unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.heat_wave_index_Indicator_Process
    heat_wave_index unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.

- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.heat_wave_max_length_Indicator_Process
    heat_wave_max_length unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.heat_wave_total_length_Indicator_Process
    heat_wave_total_length unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.heating_degree_days_Indicator_Process
    heating_degree_days unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.ice_days_Indicator_Process
    ice_days unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.liquidprcptot_Indicator_Process
    liquidprcptot unicode.unidecode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.max_n_day_precipitation_amount_Indicator_Process
    max_n_day_precipitation_amount unicode.unidecode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))

- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.prcptot_Indicator_Process
    prcptot unicode.unidecode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.rain_frzgr_Indicator_Process
    rain_frzgr unicode.unidecode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh**(*string, optional*) – Threshold
- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.rx1day_Indicator_Process
    rx1day unicode.unidecode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.sdii_Indicator_Process
    sdii unicode.unicode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.solidprcptot_Indicator_Process
    solidprcptot unicode.unicode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tg10p_Indicator_Process
    tg10p unicode.unicode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))

- **t10** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tg90p_Indicator_Process
    tg90p unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **t90** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tg_Indicator_Process
    tg unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tg_mean_Indicator_Process
    tg_mean unicode.unidecode (v0.1)
```

Parameters

- **tas** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))

- **freq**(*string*, *optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log**(*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tn10p_Indicator_Process
    tn10p unicode.unidecode (v0.1)
```

Parameters

- **tasmin**(*application/x-netcdf*, *application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **t10**(*application/x-netcdf*, *application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq**(*string*, *optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log**(*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tn90p_Indicator_Process
    tn90p unicode.unidecode (v0.1)
```

Parameters

- **tasmin**(*application/x-netcdf*, *application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **t90**(*application/x-netcdf*, *application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq**(*string*, *optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log**(*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tn_days_below_Indicator_Process
    tn_days_below unicode.unidecode (v0.1)
```

Parameters

- **tasmin**(*application/x-netcdf*, *application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh**(*string*, *optional*) – Threshold

- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log**(*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tn_max_Indicator_Process
    tn_max unicode.unidecode (v0.1)
```

Parameters

- **tasmin**(*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log**(*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tn_mean_Indicator_Process
    tn_mean unicode.unidecode (v0.1)
```

Parameters

- **tasmin**(*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log**(*text/plain*) – Collected logs during process run.
- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tn_min_Indicator_Process
    tn_min unicode.unidecode (v0.1)
```

Parameters

- **tasmin**(*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq**(*string, optional*) – Resampling frequency

Returns

- **output_netcdf**(*application/x-netcdf*) – The indicator values computed on the original input grid.

- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tropical_nights_Indicator_Process
    tropical_nights unicode.unidecode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx10p_Indicator_Process
    tx10p unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **t10** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx90p_Indicator_Process
    tx90p unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **t90** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.

- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx_days_above_Indicator_Process
    tx_days_above unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx_max_Indicator_Process
    tx_max unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx_mean_Indicator_Process
    tx_mean unicode.unidecode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx_min_Indicator_Process
    tx_min unicode.unicode (v0.1)
```

Parameters

- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.tx_tn_days_above_Indicator_Process
    tx_tn_days_above unicode.unicode (v0.1)
```

Parameters

- **tasmin** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **tasmax** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

```
class finch.processes.xclim.wetdays_Indicator_Process
    wetdays unicode.unicode (v0.1)
```

Parameters

- **pr** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF Files or archive (tar/zip) containing netCDF files. ([Info](#))
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

Returns

- **output_netcdf** (*application/x-netcdf*) – The indicator values computed on the original input grid.
- **output_log** (*text/plain*) – Collected logs during process run.

- **ref**(*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

4.5.2 Ensemble Processes

```
class finch.processes.xclim.cdd_Ensemble_Bbox_Process
    ensemble_bbox_cdd unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cdd_Ensemble_GridPoint_Process
    ensemble_grid_point_cdd unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cdd_Ensemble_Polygon_Process
    ensemble_polygon_cdd unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cold_spell_days_Ensemble_Bbox_Process
    ensemble_bbox_cold_spell_days unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **window**(*integer*, *optional*) – Window
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cold_spell_days_Ensemble_GridPoint_Process
    ensemble_grid_point_cold_spell_days unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cold_spell_days_Ensemble_Polygon_Process
    ensemble_polygon_cold_spell_days unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cold_spell_duration_index_Ensemble_Bbox_Process
    ensemble_bbox_cold_spell_duration_index unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cold_spell_duration_index_Ensemble_GridPoint_Process
    ensemble_grid_point_cold_spell_duration_index unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cold_spell_duration_index_Ensemble_Polygon_Process
    ensemble_polygon_cold_spell_duration_index unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.consecutive_frost_days_Ensemble_Bbox_Process
    ensemble_bbox_consecutive_frost_days unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.consecutive_frost_days_Ensemble_GridPoint_Process
ensemble_grid_point_consecutive_frost_days unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.consecutive_frost_days_Ensemble_Polygon_Process
    ensemble_polygon_consecutive_frost_days unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cooling_degree_days_Ensemble_Bbox_Process
    ensemble_bbox_cooling_degree_days unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.

- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cooling_degree_days_Ensemble_GridPoint_Process
ensemble_grid_point_cooling_degree_days unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cooling_degree_days_Ensemble_Polygon_Process
    ensemble_polygon_cooling_degree_days unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cwd_Ensemble_Bbox_Process
    ensemble_bbox_cwd unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cwd_Ensemble_GridPoint_Process
    ensemble_grid_point_cwd unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.cwd_Ensemble_Polygon_Process
    ensemble_polygon_cwd unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dlyfrzthw_Ensemble_Bbox_Process
    ensemble_bbox_dlyfrzthw unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.

- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmax** (*string, optional*) – Threshold
- **thresh_tasmin** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dlyfrzthw_Ensemble_GridPoint_Process
    ensemble_grid_point_dlyfrzthw unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.

- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmax** (string, optional) – Threshold
- **thresh_tasmin** (string, optional) – Threshold
- **freq** (string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.dlyfrzthw_Ensemble_Polygon_Process
    ensemble_polygon_dlyfrzthw unicode.unicode (v0.1)
```

Parameters

- **shape** (application/vnd.geo+json) – Polygon contour, as a geojson string.
- **start_date** (string, optional) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (string, optional) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (string, optional) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmax** (string, optional) – Threshold
- **thresh_tasmin** (string, optional) – Threshold
- **freq** (string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dtr_Ensemble_Bbox_Process
    ensemble_bbox_dtr unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dtr_Ensemble_GridPoint_Process
    ensemble_grid_point_dtr unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dtr_Ensemble_Polygon_Process
    ensemble_polygon_dtr unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency

- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dtrvar.EnsembleBboxProcess
    ensemble_bbox_dtrvar unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dtrvar.EnsembleGridPointProcess
    ensemble_grid_point_dtrvar unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.dtrvar.Ensemble_Polygon_Process
    ensemble_polygon_dtrvar unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2',

'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.etr_Ensemble_Bbox_Process
    ensemble_bbox_etr unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}*, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}*, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.etr_Ensemble_GridPoint_Process
    ensemble_grid_point_etr unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.etr_Ensemble_Polygon_Process
    ensemble_polygon_etr unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)

- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.freshet_start_Ensemble_Bbox_Process
    ensemble_bbox_freshet_start unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (`{'bccaqv2'}`, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (`{'rcp26', 'rcp45', 'rcp85'}`) – Representative Concentration Pathway (RCP)
- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **window** (*integer*, *optional*) – Window
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.

- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.freshet_start_Ensemble_GridPoint_Process
    ensemble_grid_point_freshet_start unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.freshet_start_Ensemble_Polygon_Process
    ensemble_polygon_freshet_start unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.frost_days_Ensemble_Bbox_Process
    ensemble_bbox_frost_days unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.frost_days_Ensemble_GridPoint_Process
    ensemble_grid_point_frost_days unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.frost_days_Ensemble_Polygon_Process
    ensemble_polygon_frost_days unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.growing_degree_days_Ensemble_Bbox_Process
    ensemble_bbox_growing_degree_days unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)

- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.growing_degree_days_Ensemble_GridPoint_Process
    ensemble_grid_point_growing_degree_days unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (`{'bccaqv2'}`, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (`{'rcp26', 'rcp45', 'rcp85'}`) – Representative Concentration Pathway (RCP)
- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.growing_degree_days_Ensemble_Polygon_Process
    ensemble_polygon_growing_degree_days unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_frequency_Ensemble_Bbox_Process
    ensemble_bbox_heat_wave_frequency unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_frequency_Ensemble_GridPoint_Process
    ensemble_grid_point_heat_wave_frequency unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **thresh_tasmin**(*string, optional*) – Threshold
- **thresh_tasmax**(*string, optional*) – Threshold
- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({*'netcdf', 'csv'*}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_frequency_Ensemble_Polygon_Process
    ensemble_polygon_heat_wave_frequency unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({*'bccaqv2'*}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({*'rcp26', 'rcp45', 'rcp85'*}) – Representative Concentration Pathway (RCP)
- **models** ({*'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..*}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin**(*string, optional*) – Threshold
- **thresh_tasmax**(*string, optional*) – Threshold
- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({*'netcdf', 'csv'*}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_index_Ensemble_Bbox_Process
    ensemble_bbox_heat_wave_index unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_index_Ensemble_GridPoint_Process
    ensemble_grid_point_heat_wave_index unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_index_Ensemble_Polygon_Process
    ensemble_polygon_heat_wave_index unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold

- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({*'netcdf', 'csv'*}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_max_length_Ensemble_Bbox_Process
    ensemble_bbox_heat_wave_max_length unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({*'bccaqv2'*}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({*'rcp26', 'rcp45', 'rcp85'*}) – Representative Concentration Pathway (RCP)
- **models** ({*'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..*}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **output_format** ({*'netcdf', 'csv'*}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_max_length_Ensemble_GridPoint_Process
    ensemble_grid_point_heat_wave_max_length unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_max_length_Ensemble_Polygon_Process
    ensemble_polygon_heat_wave_max_length unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

class finch.processes.xclim.heat_wave_total_length_Ensemble_Bbox_Process
ensemble_bbox_heat_wave_total_length unicode.unicode (v0.1)

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2',*

`'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **thresh_tasmin**(*string*, *optional*) – Threshold
- **thresh_tasmax**(*string*, *optional*) – Threshold
- **window**(*integer*, *optional*) – Window
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_total_length_Ensemble_GridPoint_Process
    ensemble_grid_point_heat_wave_total_length unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (`{'bccaqv2'}`, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (`{'rcp26', 'rcp45', 'rcp85'}`) – Representative Concentration Pathway (RCP)
- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin**(*string*, *optional*) – Threshold
- **thresh_tasmax**(*string*, *optional*) – Threshold
- **window**(*integer*, *optional*) – Window
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heat_wave_total_length_Ensemble_Polygon_Process
    ensemble_polygon_heat_wave_total_length unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heating_degree_days_Ensemble_Bbox_Process
    ensemble_bbox_heating_degree_days unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heating_degree_days_Ensemble_GridPoint_Process
    ensemble_grid_point_heating_degree_days unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)

- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.heating_degree_days_Ensemble_Polygon_Process
    ensemble_polygon_heating_degree_days unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (`{'bccaqv2'}`, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (`{'rcp26', 'rcp45', 'rcp85'}`) – Representative Concentration Pathway (RCP)
- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.ice_days_Ensemble_Bbox_Process
    ensemble_bbox_ice_days unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.ice_days_Ensemble_GridPoint_Process
    ensemble_grid_point_ice_days unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.

- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.ice_days_Ensemble_Polygon_Process
    ensemble_polygon_ice_days unicode.unidecode (v0.1)
```

Parameters

- **shape** (application/vnd.geo+json) – Polygon contour, as a geojson string.
- **start_date** (string, optional) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (string, optional) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (string, optional) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.liquidprcptot_Ensemble_Bbox_Process
    ensemble_bbox_liquidprcptot unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.liquidprcptot_Ensemble_GridPoint_Process
    ensemble_grid_point_liquidprcptot unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.liquidprcptot_Ensemble_Polygon_Process
    ensemble_polygon_liquidprcptot unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.

- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.max_n_day_precipitation_amount_Ensemble_Bbox_Process
    ensemble_bbox_max_n_day_precipitation_amount unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.max_n_day_precipitation_amount_Ensemble_GridPoint_Process
    ensemble_grid_point_max_n_day_precipitation_amount unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.max_n_day_precipitation_amount_Ensemble_Polygon_Process
    ensemble_polygon_max_n_day_precipitation_amount unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **window** (*integer, optional*) – Window
- **freq** (*string, optional*) – Resampling frequency

- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.prcptot_Ensemble_Bbox_Process
    ensemble_bbox_prcptot unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.prcptot_Ensemble_GridPoint_Process
    ensemble_grid_point_prcptot unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.prcptot_Ensemble_Polygon_Process
    ensemble_polygon_prcptot unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2',

'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.rain_frzgr_Ensemble_Bbox_Process
    ensemble_bbox_rain_frzgr unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}*, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}*, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.rain_frzgr_Ensemble_GridPoint_Process
    ensemble_grid_point_rain_frzgr unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.rain_frzgr_Ensemble_Polygon_Process
    ensemble_polygon_rain_frzgr unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

class finch.processes.xclim.**rx1day_Ensemble_Bbox_Process**
ensemble_bbox_rx1day unicode.unicode (v0.1)

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.rx1day_Ensemble_GridPoint_Process
    ensemble_grid_point_rx1day unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.rx1day_Ensemble_Polygon_Process
    ensemble_polygon_rx1day unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.sdii_Ensemble_Bbox_Process
    ensemble_bbox_sdii unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency

- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.sdii_Ensemble_GridPoint_Process
    ensemble_grid_point_sdii unicode.unicode (v0.1)
```

Parameters

- **lat** (string) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (string) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (string, optional) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (string, optional) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (string, optional) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (string, optional) – Threshold
- **freq** (string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.sdii_Ensemble_Polygon_Process
    ensemble_polygon_sdii unicode.unicode (v0.1)
```

Parameters

- **shape** (application/vnd.geo+json) – Polygon contour, as a geojson string.

- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.solidprcptot_Ensemble_Bbox_Process
    ensemble_bbox_solidprcptot unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)

- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.solidprcptot_Ensemble_GridPoint_Process
    ensemble_grid_point_solidprcptot unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (`{'bccaqv2'}`, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (`{'rcp26', 'rcp45', 'rcp85'}`) – Representative Concentration Pathway (RCP)
- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.solidprcptot_Ensemble_Polygon_Process
    ensemble_polygon_solidprcptot unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg10p_Ensemble_Bbox_Process
    ensemble_bbox_tg10p unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.

- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg10p_Ensemble_GridPoint_Process
    ensemble_grid_point_tg10p unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg10p_Ensemble_Polygon_Process
    ensemble_polygon_tg10p unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg90p_Ensemble_Bbox_Process
    ensemble_bbox_tg90p unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.

- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg90p_Ensemble_GridPoint_Process
    ensemble_grid_point_tg90p unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg90p_Ensemble_Polygon_Process
    ensemble_polygon_tg90p unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg_Ensemble_Bbox_Process
    ensemble_bbox_tg unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg_Ensemble_GridPoint_Process
    ensemble_grid_point_tg unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg_Ensemble_Polygon_Process
    ensemble_polygon_tg unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg_mean_Ensemble_Bbox_Process
    ensemble_bbox_tg_mean unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg_mean_Ensemble_GridPoint_Process
    ensemble_grid_point_tg_mean unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency

- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tg_mean_Ensemble_Polygon_Process
    ensemble_polygon_tg_mean unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn10p_Ensemble_Bbox_Process
    ensemble_bbox_tn10p unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn10p_Ensemble_GridPoint_Process
    ensemble_grid_point_tn10p unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2',

'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn10p_Ensemble_Polygon_Process
    ensemble_polygon_tn10p unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}*, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}*, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn90p_Ensemble_Bbox_Process
    ensemble_bbox_tn90p unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.

- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn90p_Ensemble_GridPoint_Process
    ensemble_grid_point_tn90p unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)

- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn90p_Ensemble_Polygon_Process
    ensemble_polygon_tn90p unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (`{'bccaqv2'}`, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (`{'rcp26', 'rcp45', 'rcp85'}`) – Representative Concentration Pathway (RCP)
- **models** (`{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}`, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (`{'netcdf', 'csv'}`, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_days_below_Ensemble_Bbox_Process
    ensemble_bbox_tn_days_below unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.

- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_days_below_Ensemble_GridPoint_Process
    ensemble_grid_point_tn_days_below unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.

- **dataset_name** (*{'bccaqv2'}*, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}*, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_days_below_Ensemble_Polygon_Process
    ensemble_polygon_tn_days_below unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}*, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}*, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.

- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_max_Ensemble_Bbox_Process
    ensemble_bbox_tn_max unicode.unicode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_max_Ensemble_GridPoint_Process
    ensemble_grid_point_tn_max unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_max_Ensemble_Polygon_Process
    ensemble_polygon_tn_max unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_mean.EnsembleBboxProcess
    ensemble_bbox_tn_mean unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_mean.EnsembleGridPointProcess
    ensemble_grid_point_tn_mean unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_mean_Ensemble_Polygon_Process
    ensemble_polygon_tn_mean unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency

- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.tn_min_Ensemble_Bbox_Process
    ensemble_bbox_tn_min unicode.unicode (v0.1)
```

Parameters

- **lat0** (float) – Minimum latitude.
- **lat1** (float) – Maximum latitude.
- **lon0** (float) – Minimum longitude.
- **lon1** (float) – Maximum longitude.
- **start_date** (string, optional) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (string, optional) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (string, optional) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.tn_min_Ensemble_GridPoint_Process
    ensemble_grid_point_tn_min unicode.unicode (v0.1)
```

Parameters

- **lat** (string) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tn_min_Ensemble_Polygon_Process
    ensemble_polygon_tn_min unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2',

'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tropical_nights_Ensemble_Bbox_Process
    ensemble_bbox_tropical_nights unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}*, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}*, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}*, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tropical_nights_Ensemble_GridPoint_Process
    ensemble_grid_point_tropical_nights unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tropical_nights_Ensemble_Polygon_Process
    ensemble_polygon_tropical_nights unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(string, optional) – Threshold
- **freq**(string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (application/x-netcdf, application/zip) – The format depends on the 'output_format' input parameter.
- **output_log** (text/plain) – Collected logs during process run.

```
class finch.processes.xclim.tx10p_Ensemble_Bbox_Process
    ensemble_bbox_tx10p unicode.unidecode (v0.1)
```

Parameters

- **lat0** (float) – Minimum latitude.
- **lat1** (float) – Maximum latitude.
- **lon0** (float) – Minimum longitude.
- **lon1** (float) – Maximum longitude.
- **start_date** (string, optional) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (string, optional) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (string, optional) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, optional) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq**(string, optional) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, optional) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx10p_Ensemble_GridPoint_Process
    ensemble_grid_point_tx10p unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx10p_Ensemble_Polygon_Process
    ensemble_polygon_tx10p unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.

- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx90p_Ensemble_Bbox_Process
    ensemble_bbox_tx90p unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx90p_Ensemble_GridPoint_Process
ensemble_grid_point_tx90p unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx90p_Ensemble_Polygon_Process
ensemble_polygon_tx90p unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_days_above_Ensemble_Bbox_Process
    ensemble_bbox_tx_days_above unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_days_above_Ensemble_GridPoint_Process
    ensemble_grid_point_tx_days_above unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh**(*string*, *optional*) – Threshold
- **freq**(*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_days_above_Ensemble_Polygon_Process
    ensemble_polygon_tx_days_above unicode.unicode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_max_Ensemble_Bbox_Process
    ensemble_bbox_tx_max unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.

- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_max_Ensemble_GridPoint_Process
    ensemble_grid_point_tx_max unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_max_Ensemble_Polygon_Process
    ensemble_polygon_tx_max unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_mean_Ensemble_Bbox_Process
    ensemble_bbox_tx_mean unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.

- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_mean_Ensemble_GridPoint_Process
    ensemble_grid_point_tx_mean unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_mean_Ensemble_Polygon_Process
    ensemble_polygon_tx_mean unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_min_Ensemble_Bbox_Process
    ensemble_bbox_tx_min unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_min_Ensemble_GridPoint_Process
    ensemble_grid_point_tx_min unicode.unicode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string*, *optional*) – Resampling frequency

- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_min_Ensemble_Polygon_Process
    ensemble_polygon_tx_min unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_tn_days_above_Ensemble_Bbox_Process
    ensemble_bbox_tx_tn_days_above unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.

- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string*, *optional*) – Threshold
- **thresh_tasmax** (*string*, *optional*) – Threshold
- **freq** (*string*, *optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf*, *application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_tn_days_above_Ensemble_GridPoint_Process
    ensemble_grid_point_tx_tn_days_above unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string*, *optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string*, *optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string*, *optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.tx_tn_days_above_Ensemble_Polygon_Process
    ensemble_polygon_tx_tn_days_above unicode.unidecode (v0.1)
```

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh_tasmin** (*string, optional*) – Threshold
- **thresh_tasmax** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.wetdays_Ensemble_Bbox_Process
    ensemble_bbox_wetdays unicode.unidecode (v0.1)
```

Parameters

- **lat0** (*float*) – Minimum latitude.
- **lat1** (*float*) – Maximum latitude.
- **lon0** (*float*) – Minimum longitude.
- **lon1** (*float*) – Maximum longitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** (*{'bccaqv2'}, optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** (*{'rcp26', 'rcp45', 'rcp85'}*) – Representative Concentration Pathway (RCP)
- **models** (*{'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the ‘output_format’ input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

```
class finch.processes.xclim.wetdays_Ensemble_GridPoint_Process
    ensemble_grid_point_wetdays unicode.unidecode (v0.1)
```

Parameters

- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.

- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.
- **thresh** (*string, optional*) – Threshold
- **freq** (*string, optional*) – Resampling frequency
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

class finch.processes.xclim.wetdays_Ensemble_Polygon_Process
ensemble_polygon_wetdays unicode.unicode (v0.1)

Parameters

- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **ensemble_percentiles** (*string, optional*) – Ensemble percentiles to calculate for input climate simulations. Accepts a comma separated list of integers.
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}) – Representative Concentration Pathway (RCP)
- **models** ({'24MODELS', 'PCIC12', 'BNU-ESM', 'CCSM4', 'CESM1-CAM5', 'CNRM-CM5', 'CSIRO-Mk3-6-0', 'CanESM2', 'FGOALS-g2', 'GFDL-CM3', ..}, *optional*) – When calculating the ensemble, include only these models. By default, all 24 models are used.

- **thresh**(*string, optional*) – Threshold
- **freq**(*string, optional*) – Resampling frequency
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns

- **output** (*application/x-netcdf, application/zip*) – The format depends on the 'output_format' input parameter.
- **output_log** (*text/plain*) – Collected logs during process run.

4.5.3 Other Processes

class `finch.processes.xclim.BCCAQV2HeatWave`

BCCAQv2_heat_wave_frequency_gridpoint BCCAQv2 grid cell heat wave frequency computation***Deprecated*** to be removed in a future release (v0.1)

Compute heat wave frequency for all the BCCAQv2 datasets for a single grid cell.

Parameters

- **thresh_tasmin**(*string, optional*) – Threshold
- **thresh_tasmax**(*string, optional*) – Threshold
- **window**(*integer, optional*) – Window
- **freq**(*string, optional*) – Resampling frequency
- **lon**(*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lat**(*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **y0**(*integer, optional*) – Initial year for temporal subsetting. Defaults to first year in file.
- **y1**(*integer, optional*) – Final year for temporal subsetting. Defaults to last year in file.
- **output_format** (*{'netcdf', 'csv'}, optional*) – Choose in which format you want to receive the result

Returns **output** – The format depends on the 'output_format' input parameter.

Return type *application/x-netcdf, application/zip*

class `finch.processes.xclim.SubsetBboxBCCAQV2Process`

subset_ensemble_bbox_BCCAQv2 Subset of BCCAQv2 datasets, using a bounding box (v0.1)

For the BCCAQv2 datasets, return the data for which grid cells intersect the bounding box for each input dataset as well as the time range selected.

Parameters

- **variable**(*{'tasmin', 'tasmax', 'pr'}, optional*) – Name of the variable in the NetCDF file.
- **rcp**(*{'rcp26', 'rcp45', 'rcp85'}, optional*) – Representative Concentration Pathway (RCP)

- **lon0** (*float, optional*) – Minimum longitude.
- **lon1** (*float, optional*) – Maximum longitude.
- **lat0** (*float, optional*) – Minimum latitude.
- **lat1** (*float, optional*) – Maximum latitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

Returns **output** – The format depends on the ‘output_format’ input parameter.

Return type *application/x-netcdf, text/plain*

class `finch.processes.xclim.SubsetBboxDatasetProcess`

subset_bbox_dataset Subset of a dataset, using a bounding box (v0.1)

For the given dataset, return the data for which grid cells intersect the bounding box for each input dataset as well as the time range selected.

Parameters

- **variable** ({'tasmin', 'tasmax', 'pr'}, *optional*) – Name of the variable in the NetCDF file.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}, *optional*) – Representative Concentration Pathway (RCP)
- **lon0** (*float, optional*) – Minimum longitude.
- **lon1** (*float, optional*) – Maximum longitude.
- **lat0** (*float, optional*) – Minimum latitude.
- **lat1** (*float, optional*) – Maximum latitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day (%Y-%m-%d). Defaults to last day in file.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

Returns **output** – The format depends on the ‘output_format’ input parameter.

Return type *application/x-netcdf, text/plain*

class finch.processes.xclim.SubsetBboxProcess

subset_bbox Subset with bounding box (v0.1)

Return the data for which grid cells intersect the bounding box for each input dataset as well as the time range selected.

Parameters

- **resource** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF files, can be OPeNDAP urls.
- **lon0** (*float, optional*) – Minimum longitude.
- **lon1** (*float, optional*) – Maximum longitude.
- **lat0** (*float, optional*) – Minimum latitude.
- **lat1** (*float, optional*) – Maximum latitude.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **variable** ({'<property object at 0x7f8257b30130>'}, *optional*) – Name of the variable in the NetCDF file.

Returns

- **output** (*application/x-netcdf*) – netCDF output
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

class finch.processes.xclim.SubsetGridPointBCCAQV2Process

subset_ensemble_BCCAQv2 Subset of BCCAQv2 datasets grid cells using a list of coordinates (v0.1)

For the BCCAQv2 datasets, return the closest grid cell for each provided coordinates pair, for the time range selected.

Parameters

- **variable** ({'tasmin', 'tasmx', 'pr'}, *optional*) – Name of the variable in the NetCDF file.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}, *optional*) – Representative Concentration Pathway (RCP)
- **lat** (*string, optional*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string, optional*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lat0** (*string, optional*) – Latitude (deprecated, use 'lat').
- **lon0** (*string, optional*) – Latitude (deprecated, use 'lon').
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.

- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

Returns output – The format depends on the 'output_format' input parameter.

Return type *application/x-netcdf, text/plain*

class finch.processes.xclim.**SubsetGridPointDatasetProcess**

subset_grid_point_dataset Subset of grid cells from a dataset, using a list of coordinates (v0.1)

For the the given dataset, return the closest grid cell for each provided coordinates pair, for the time range selected.

Parameters

- **variable** ({'tasmin', 'tasmax', 'pr'}, *optional*) – Name of the variable in the NetCDF file.
- **rcp** ({'rcp26', 'rcp45', 'rcp85'}, *optional*) – Representative Concentration Pathway (RCP)
- **lat** (*string, optional*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lon** (*string, optional*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lat0** (*string, optional*) – Latitude (deprecated, use 'lat').
- **lon0** (*string, optional*) – Longitude (deprecated, use 'lon').
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **output_format** ({'netcdf', 'csv'}, *optional*) – Choose in which format you want to receive the result
- **dataset_name** ({'bccaqv2'}, *optional*) – Name of the dataset from which to get netcdf files for inputs.

Returns output – The format depends on the 'output_format' input parameter.

Return type *application/x-netcdf, text/plain*

class finch.processes.xclim.**SubsetGridPointProcess**

subset_gridpoint Subset with a grid point (v0.2)

Return the data for which grid cells includes the point coordinates for each input dataset as well as the time range selected.

Parameters

- **resource** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF files, can be OPeNDAP urls.
- **lon** (*string*) – Longitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **lat** (*string*) – Latitude coordinate. Accepts a comma separated list of floats for multiple grid cells.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **variable** (*{'<property object at 0x7f8257b30130>'}*, *optional*) – Name of the variable in the NetCDF file.

Returns

- **output** (*application/x-netcdf*) – netCDF output
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

class `finch.processes.xclim.SubsetPolygonProcess`
subset_polygon Subset with one or more polygons (v0.1)

Return the data for which grid cells center are within the polygon for each input dataset as well as the time range selected.

Parameters

- **resource** (*application/x-netcdf, application/x-ogc-dods*) – NetCDF files, can be OPeNDAP urls.
- **shape** (*application/vnd.geo+json*) – Polygon contour, as a geojson string.
- **start_date** (*string, optional*) – Initial date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to first day in file.
- **end_date** (*string, optional*) – Final date for temporal subsetting. Can be expressed as year (%Y), year-month (%Y-%m) or year-month-day(%Y-%m-%d). Defaults to last day in file.
- **variable** (*{'<property object at 0x7f8257b30130>'}*, *optional*) – Name of the variable in the NetCDF file.

Returns

- **output** (*application/x-netcdf*) – netCDF output
- **ref** (*application/metalink+xml; version=4.0*) – Metalink file storing all references to output files.

4.6 Changes

4.6.1 0.5.3 (2020-04-23)

- fix to chunk regions of subsetting files

4.6.2 0.5.2 (2020-03-25)

- fix to remove realization coordinate from ensembles
- added chunk datasets for local files also
- update xclim to == 0.15.2

4.6.3 0.5.1 (2020-03-18)

- fix local bccaqv2 files filtering

4.6.4 0.5.0 (2020-03-18)

- update xclim to 0.15.0
- add french translation of processes abstract and descriptions

4.6.5 0.4.1 (2020-03-12)

- fix #103 (drs_filename) add defaults when *project_id* is unknown
- drs_filenames: use dash instead of underscores in variable names
- fix #80 frequency attrs of computed datasets

4.6.6 0.4.0 (2020-03-10)

- Add ensembles processes
- Allow ensemble process to specify which models are included
- Accept multiple files for processing
- Update from latest cookie-cutter template
- Add grid point indicator processes
- Add ensemble bbox processes
- Add support for percentiles inputs
- Update xclim to 0.14
- Pin PyWPS to 4.2.4
- Add DODS to supported formats for resources

4.6.7 0.3.x (2020-01-17)

- Extract common inputs and outputs to `wpsio.py`
- Speed up CSV creation
- Explicitly close thread pool
- Tests for CSV conversion
- Added `subset_shape` process
- Pin PyWPS to ~4.2.3
- Add start and end date to `bccaqv2` subset
- Identifier DAP link by header
- Datetime fix when replacing hour to 12
- deprecate `lon0` and `lat0` for `SubsetGridPointBCCAQV2Process`
- change point subset processes to accept a comma separated list of floats for multiple grid cells

4.6.8 0.2.7 (2019-12-09)

- Fix for segmentation fault in `libnetcdf` (pin version to 4.6.2 until a fix is released)

4.6.9 0.2.6 (2019-12-04)

- Notebooks are tested by Travis-CI
- Bug fix
- Update *xclim* to $\geq 0.12.2$
- Update *pywps* to $> 4.2.3$

4.6.10 0.2.5 (2019-10-03)

- Add test for DAP input to subsetting
- Update notebook to run on the Jenkins test suite

4.6.11 0.2.3 (2019-05-27)

- Allow creating CSV output
- Keep global attributes when computing indices
- Add `BCCAQV2HeatWave` process
- Add basic usage notebook

4.6.12 0.2.1 (2019-05-06)

- Require Python \geq 3.6
- Fix percentages in status update
- Improve login

4.6.13 0.2 (2019-05-02)

- Added subset_gridpoint process
- Support DAP links
- Added bounding box subsetting
- Threshold arguments passed as strings with units
- Added test for heat_wave_frequency
- Use sentry to monitor error messages
- Include Dockerfile
- Use processes instead of threads

4.6.14 0.1 (2018-11-15)

- First release.

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