

# Package: PEcAn.CABLE (via r-universe)

September 18, 2024

**Type** Package

**Title** PEcAn package for integration of the CABLE model

**Version** 1.7.3.9000

**Author** Kaitlin Ragosta

**Maintainer** Tony Gardella <tonygard@bu.edu>

**Description** This module provides functions to link the (CABLE) to PEcAn.

**Imports** PEcAn.logger, PEcAn.utils (>= 1.4.8)

**Suggests** testthat (>= 1.0.2)

**SystemRequirements** CABLE

**OS\_type** unix

**License** BSD\_3\_clause + file LICENSE

**Copyright** Authors

**LazyLoad** yes

**LazyData** FALSE

**Encoding** UTF-8

**RoxygenNote** 7.3.2

**Repository** <https://pecanproject.r-universe.dev>

**RemoteUrl** <https://github.com/PecanProject/pecan>

**RemoteRef** HEAD

**RemoteSha** f22a7c4bbc532e4551f7bc9624cef649da317ac1

## Contents

met2model.CABLE . . . . .	2
model2netcdf.CABLE . . . . .	2
read_restart.CABLE . . . . .	3
write.config.CABLE . . . . .	3
write_restart.CABLE . . . . .	4

<b>Index</b>	<b>5</b>
--------------	----------

---

met2model.CABLE      *Write CABLE met files*

---

### Description

Converts a met CF file to a model specific met file. The input files are called <in.path>/<in.prefix>.YYYY.cf

### Usage

```
met2model.CABLE(in.path, in.prefix, outfolder, overwrite = FALSE)
```

### Arguments

in.path	path on disk where CF file lives
in.prefix	prefix for each file
outfolder	location where model specific output is written.

### Value

OK if everything was succesful.

### Author(s)

Rob Kooper

---

model2netcdf.CABLE      *Code to convert CABLE's output into netCDF format*

---

### Description

Convert CABLE output into the NACP Intercomparison format (ALMA using netCDF)

### Usage

```
model2netcdf.CABLE(outdir, sitelat, sitelon, start_date, end_date)
```

### Arguments

outdir	Location of model output
sitelat	Latitude of the site
sitelon	Longitude of the site
start_date	Start time of the simulation
end_date	End time of the simulation

### Author(s)

Rob Kooper

---

read\_restart.CABLE     *Read restart template for SDA*

---

### Description

Read restart files from model.

### Usage

```
read_restart.CABLE(outdir, runid, stop.time, settings, var.names, params)
```

### Arguments

outdir	Output directory
runid	Run ID
stop.time	Year that is being read
settings	PEcAn settings object
var.names	Variable names to be extracted
params	Any parameters required for state calculations

### Value

Forecast numeric matrix

### Author(s)

Alexey Shiklomanov

---

write.config.CABLE     *Write CABLE configuration files*

---

### Description

Writes a CABLE config file.

### Usage

```
write.config.CABLE(defaults, trait.values, settings, run.id)
```

### Arguments

defaults	list of defaults to process
settings	list of settings from pecan settings file
run.id	id of run
trait.samples	vector of samples for a given trait

**Details**

Requires a pft xml object, a list of trait values for a single model run, and the name of the file to create

**Value**

configuration file for CABLE for given run

**Author(s)**

Rob Kooper, Kaitlin Ragosta

---

`write_restart.CABLE`    *Write restart template for SDA*

---

**Description**

Write restart files for model

**Usage**

```
write_restart.CABLE(outdir, runid, start.time, stop.time, settings, new.state)
```

**Arguments**

<code>start.time</code>	Time of current assimilation step
<code>stop.time</code>	Time of next assimilation step
<code>new.state</code>	Analysis state matrix returned by <code>sda.enkf</code>

**Author(s)**

Alexey Shiklomanov

# Index

`met2model.CABLE`, [2](#)

`model2netcdf.CABLE`, [2](#)

`read_restart.CABLE`, [3](#)

`write.config.CABLE`, [3](#)

`write_restart.CABLE`, [4](#)