

---

# **smecv-grid Documentation**

**Wolfgang Preimesberger**

**Aug 24, 2020**



---

## Contents

---

<b>1</b>	<b>Description</b>	<b>3</b>
<b>2</b>	<b>Note</b>	<b>5</b>
<b>3</b>	<b>Loading and using the smecv grid</b>	<b>7</b>
3.1	Loading the grid . . . . .	8
<b>4</b>	<b>Contents</b>	<b>9</b>
4.1	License . . . . .	9
4.2	Developers . . . . .	9
4.3	Changelog . . . . .	10
4.4	smevcv_grid . . . . .	10
<b>5</b>	<b>Indices and tables</b>	<b>11</b>



Grid definition of the Discrete Global Grid (DGG) used for the creation of the CCI soil moisture products and the Copernicus Climate Change Service products.



# CHAPTER 1

---

## Description

---

The DGG is a regular 0.25 degree grid utilizing cell partitioning.



## CHAPTER 2

---

### Note

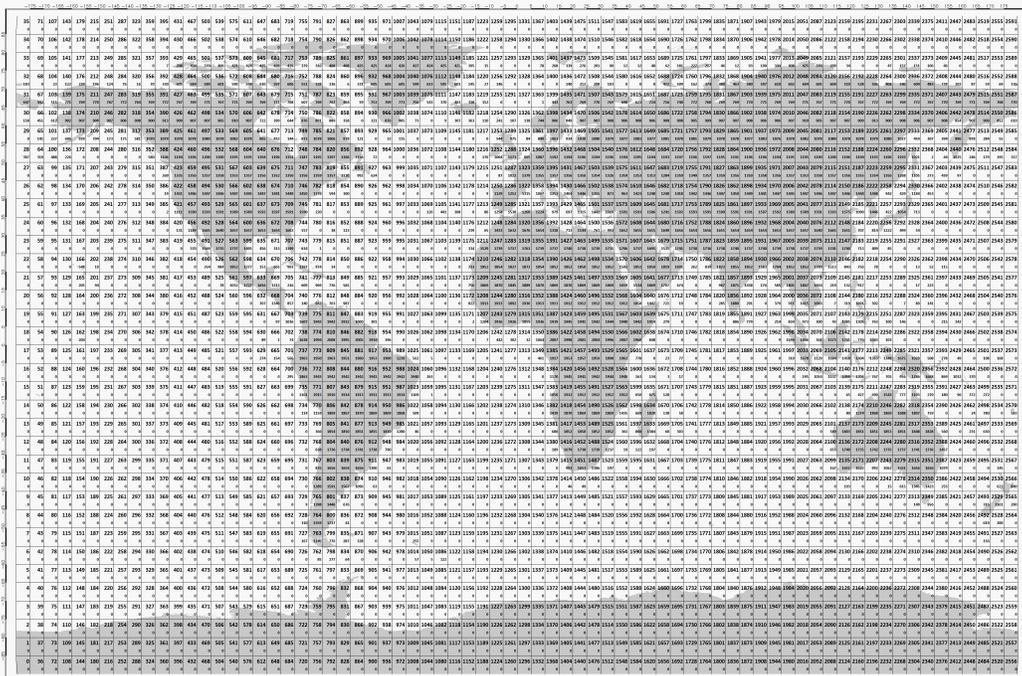
---

This project has been set up using PyScaffold 2.5.11. For details and usage information on PyScaffold see <http://pyscaffold.readthedocs.org/>.



## Loading and using the smecv grid

The `smevcv_grid` package contains the global quarter degree (0.25x0.25 DEG) grid definition, used for organising the ESA CCI SM and C3S SM data products. It contains masks for land points (default) and dense vegetation. Grid points are arranged in 5x5 degree cells with 400 grid points per cell.



For more information on grid definitions, and the usage of grids, we refer to the `pygeogrids` package in the background.

## 3.1 Loading the grid

For loading the grid, simply run the following code. Then use it as described in [pygeogrids](#)

```
from smecv_grid.grid import SMECV_Grid_v042
land_grid = SMECV_Grid_v042(subset_flag='land')
rainforest_grid = SMECV_Grid_v042(subset_flag='rainforest')
```

### 4.1 License

The MIT License (MIT)

Copyright (c) 2018 TU Wien

Permission **is** hereby granted, free of charge, to **any** person obtaining a copy of this software **and** associated documentation files (the "**Software**"), to deal **in** the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, **and/or** sell copies of the Software, **and** to permit persons to whom the Software **is** furnished to do so, subject to the following conditions:

The above copyright notice **and** this permission notice shall be included **in all** copies **or** substantial portions of the Software.

THE SOFTWARE IS PROVIDED "**AS IS**", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

### 4.2 Developers

- Christoph Reimer <christoph.reimer@eodc.eu>
- Christoph Paulik <christoph.paulik@geo.tuwien.ac.at>
- Wolfgang Preimesberger <wolfgang.preimesberger@geo.tuwien.ac.at>

## 4.3 Changelog

### 4.3.1 Version 0.x

- 

### 4.3.2 Version 0.1

- First version of package, including grid version 04.2
- Basic documentation
- Public pypi release

## 4.4 smecv\_grid

### 4.4.1 smecv\_grid package

Submodules

smecv\_grid.grid module

Module contents

## CHAPTER 5

---

### Indices and tables

---

- `genindex`
- `modindex`
- `search`