Metos3D

`data`

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1 Introdution

Metos3D was developed to use data provided by the Transport Matrix Method in the first place [cf. 1]. This original data is maintained by Samar Khatiwala. Metos3D provides already prepared data for usage.

2 Data

Currently a 2.8125° (2.8° for short) spatial resolution is provided. The vector length, the profile count and the maximum number of layers is 52749, 4448 and 15, respectively. The temporal resolution is 3 hours, assuming 360 days and 2880 steps per year.

2.1 Data Hierarchy

The data is organized in a hierarchy of directories starting with the root directory named `TMM`. The **main distinction** between data files is the **spatial resolution**:

```
.../TMM/
    2.8/
```

For a spatial resolution you will find a distinction into **geometry**, **initialization**, **forcing** and **transport** within that directory:

```
.../TMM/2.8/
    Geometry/
    Initialization/
```

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```
    Forcing/
    Transport/
```

The geometry and initialization directories have no further subdirectories. The forcing is divided into **boundary** and **domain conditions**.

```
.../TMM/2.8/Forcing/
    BoundaryCondition/
    DomainCondition/
```

The transport matrices are organized within the transport directory. The first level of subdirectories denote the **kind** of matrices (see [1]). The second distinguishes between **temporal resolutions**.

```
.../TMM/2.8/Transport/
    Matrix5_4/
        1dt/
```

References

[1] S. Khatiwala, M. Visbeck, and M.A. Cane. Accelerated simulation of passive tracers in ocean circulation models. *Ocean Modelling*, 9(1):51–69, 2005.