

# CMAQ: Grid Definitions

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## 2. Introduction

On this page the grid definitions employed for CMAQ runs in KBT are listed and described. Lambert Conformal Conic projections are used to define the grids. This projection type is reasonable because it yields grid cells with nearly equal area.

The [Spatial Allocator](#) allows to convert CMAQ input data in different map projections.

## 3. General Grid Definitions in GRIDDESC Files

The CMAQ grids are defined in the GRIDDESC files. At the following pages, the structure of grid definitions in GRIDDESC files is described:

- general: <https://www.cmascenter.org/ioapi/documentation/3.1/html/GRIDS.html>
- example file: <https://www.cmascenter.org/ioapi/documentation/3.1/html/GRIDDESC.txt>
- parameter description: <https://www.cmascenter.org/ioapi/documentation/3.1/html/GRIDDESC.html>

**Different projections** are possible to use in **GRIDDESC** files. These are listed here: [https://www.cmascenter.org/sa-tools/documentation/4.1/html/proj\\_griddesc.html](https://www.cmascenter.org/sa-tools/documentation/4.1/html/proj_griddesc.html)

## 4. Downloads

### 4.1. CD06, CD24, CD72

[cmaq\\_grid\\_lambert.eps](#)

[cmaq\\_grid\\_lambert.png](#)

[cmaq\\_grid\\_mercator.eps](#)

[cmaq\\_grid\\_mercator.png](#)

[make\\_grid\\_plots.zip](#) (script and data to create plots of the grids)

## 5. KBT Grid Definitions

Grid	Long Name	Region	status	Project/Purpose	Comment
CD06	CoastDat 6 km	North Sea	active	MeSmart	
CD24	CoastDat 24 km	N.-W. Europe	active	CNSS/Sail/MeSmart	
CD72	CoastDat 72 km	Europe	active	BC for CD24	boundaries conditions for CD24
CD05	CoastDat 5 km	Europe	active	emissions	base grid for emissions
CD04a	CoastDat 4 km (a)	N. Baltic Sea	active	SHEBA	
CD04b	CoastDat 4 km (b)	S.-E. Baltic Sea	active	SHEBA	
CD16	CoastDat 16 km	Baltic Sea	active	SHEBA	boundaries conditions for CD04
CD64	CoastDat 64 km	Europe	active	SHEBA	boundaries conditions for CD16
AQ24	AQMEII 24 km	Europe	active	AQMEII	for model comparison
NA24	North America 24 km	North America	?		
CN06	China 6 km	N.-E. China (Yantai)	active	China	China Smog Period
CN24	China 24 km	China	active	BC for CN06	China Smog Period
CN72	China 72 km	China	active	BC for CN24	China Smog Period
DRI_4km			?		
EU18	Europe 18 km	North Sea	deprecated		use instead CD06, CD24
EU54	Europe 18 km	Europe	deprecated	BC for EU18	use instead CD24, CD72
NSBS18		N. Europe	?		
BE03			?		