

9.2.6 Using variable cell sizes

- Relative cell area grid **rca** may be given, if not is is generated from **csx** and **csy**. If these grids are not given, too, it is generated containing in all cells the value 1.0
- grid of cellsize in x direction **csx**: It may be given together with the **rca** grid and the **csy** grid. It contains the absolute cell size in x direction in m for each cell. In case of given **csx** and **csy** files, **rca** is checked - or generated, if not given, using the default cell size given in the zone grid to calculate the relative area by $csx*csy/cellsz$
- grid of cell size in y direction **csy**: the same like for **csx** but in y-direction.
- grid with x coordinates of cells **cx**: This grid is generated during model initialization. It considers the different cell sizes, using the left and the bottom edge of the grid as orientation (assuming South-North-direction for the left edge and West-East-direction for the bottom edge)
- grid with y coordinates of cells **cy**: See above under **cx**-grid
- generation of these grids -> **rca** and **csx** and **csy**, or **rca** and one of **csx** or **csy**, or only **rca** or only one of **csx** or **csy** or none of these grids (then no variable cell size is assumed): If only one of **csx** or **csy** is read in and no **rca** is given, then the relative cell size is estimated using the standard cell size and the value given in **csx** or **csy**, resp.
- changes in the control file: read in as standard grid: **rca**-grid and/or one of **csx**/**csy** or both.
- using rotated coordinates in meteorological interpolations. All coordinate dependend functions have been updated to use the real coordinates. This is in particular done for the interpolation methods IDW, THIESSEN, Bilinear Interpolation and BIGRES.
- the control file should be changed in the following way (only those grids must appear as standard grids, which are really there, mostly recommended is the **csx** and **csy** - combination

```
[standard grids]
0          # number of standard grids
# path    # identification # fillcode 0=no, 1=yes (fill with values of nearest neighbor)
$inpath//RelCellArea grid      RelCellArea  1 # grid with relative cell area
$inpath//CellSizeX grid       CellSizeX    1 # grid with cellsize in x-direction (in meter)
$inpath//CellSizeY grid       CellSizeY    1 # grid with cellsize in y-direction (in meter)
...
...
```