

Modification of the ODEH system in Exercise 4 to us a finer grid

As a continuation of Exercise 3, make the following modifications to the input file ODEH.DATA:

- Refine the grid so that:
 - The horizontal grid is extended from 10 x 10 blocks to 20 by 20 blocks
 - The vertical grid is refined by a factor of 10 (ie. to a total of 30 grid layers)
 - Properties are the same as for the layer in the original grid (ie. the 10 first new vertical grid layers have same properties as the original first layer, etc.)
 - The transmissibilities between original layers are reduced by a factor (MULTZ).
These multiplication factors now apply to interfaces between layer 10/11 and 20/21.
- The injection well is in still in block (1,1), but perforates layers (1-10)
- The production well is now in block (20,20), but perforates layers (21-30)

Assignment

1. Make the same run as before, with the no-resolution option (DRDST=0)
2. Make plots of GOR vs. time and production rate for the old grid and the new grid
3. Discuss the results (numerical dispersion effects)