XXXXXXX.txt (region output)

HYPE region output files are one of the standard result files for time series output from HYPE, the other are basin output files, map output files and time output files.

Region output files each contain results for multiple variables of a single output region (as defined in Outregions.txt). This makes it different from time and map output files which always contain results for the whole model domain. To write region output files, specify a `regionoutput` for the variables of interest in the info.txt file.

Example snippet of a info.txt file:

```
!! region outputs for yearly snow and runoff
regionoutput variable snow crun
regionoutput outregion 1
regionoutput meanperiod 1
regionoutput decimals 3
regionoutput outregion 74
```

Region output files are written to the resultdir folder. **XXXXXXX** in the file name is substituted by the outregion ID (same ID as used in info.txt with leading zeros for OUTREGID with less than 7 digits, for example *0000001.txt*. Note that outregid:s may not overlap subid:s.

Region output files contain tab-separated data with column-wise HYPE variables and row-wise time periods. All HYPE variable IDs are described in the **list of HYPE variables**. Of these the corresponding output regional variables (e.g. `rgcrun`) may be included in the region output.

Region output files are tab-separated and contain two header rows. The first header contains variable IDs. The second header contains variable units. Below the headers follow the model results. The first column contains a date-time string (format depending on `meanperiod` and `writetimeformat` specified in info.txt), following columns contain model results of the chosen variables. Missing values are given as -9999.

Example structure of a region output file with daily variables, corresponding to the *info.txt* file example above:

```
DATE       rgsnow  rgcrun
UNITS      mm       mm
2003-01-01 5.511  0.082
2003-01-02 3.403  0.319
2003-01-03 2.31   0.273
2003-01-04 2.244  0.047
2003-01-05 0.22   0.226
...        ...    ...
```

It is possible to print out region output files for several mean periods at the same time. This is controlled from the info-file by numbering the different output information rows for the different types (see info.txt for example). If this option is used the second and following outputs will be separated from the first by adding the mean period as a code in the file name, e.g. 0000748_YR.txt holds yearly average (or sum) of variables specified for output region 748.

When ensemble or sequence simulations are made, the results from simulations (I = 1 .. *n* or I = sequence number > 0) are written to files named *XXXXXXX_00I.txt*, where *n* is defined by `num_ens` in optpar.txt. Alternatively, if a Monte Carlo simulation is done with task set to write all simulations (`task WS` in optpar.txt) files will be named *XXXXXXX_000000I.txt*. In this case up to 9999999 simulations can be saved.