

# 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 4
regionoutput decimals 3
```

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` 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 ( $l = 1 \dots n$  or  $l =$

sequence number  $> 0$ ) are written to files named `XXXXXXX_00l.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_000000l.txt`. In this case up to 9999999 simulations can be saved.