

SKOPE I - Data processing workflows

Script	Run description	Input files	Input data size	Intermediate files	Intermediate data size	Output files	Output data size	Execution time on Ulysses
process.pl	PPT_water_year	{long}W{lat}N.recon.tif • GeoTIFF format • Example: 113W35N.recon.tif	4810 MB • 155 files (13° x 12°)¹ • Each file²: ◦ 30.8 MB (average) ◦ 120 x 120 pixels ◦ 1° x 1° coverage ◦ 30" x 30" pixel size ◦ 2000 bands (years) ◦ 16 bit integer values ◦ Compressed to ~56% expected size	{long}W_comb_{year}.tif • GeoTIFF format • Example: 113W_comb_1999.tif	8580 MB • 26000 files (13 x 2000) • Each file³: ◦ 308 KB ◦ 120 x 1440 pixels ◦ 1° x 12° coverage ◦ 30" x 30" pixel size ◦ 1 band ◦ 16 bit integer values ◦ Not compressed	merge_{year}.tif • GeoTIFF format • Example: merge_1999.tif	8581 MB • 2000 files (1 per year) • Each file⁴: ◦ 4.3 MB ◦ 1560 x 1440 pixels ◦ 13° x 12° coverage ◦ 30" x 30" pixel size ◦ 1 band ◦ 16 bit integer values ◦ Not compressed	105 minutes

¹The 155 input files nearly form a 13x12 grid, missing just the file that would otherwise occupy the southwest corner of the grid.

²The input files corresponding to the westmost blocks are 1 pixel (30") narrower, i.e. 119 x 120 pixels, 0°59'30" x 1° coverage.

³The intermediate files corresponding to the westmost strips are 1 pixel (30") narrower and 120 pixels (1°) shorter than the other strips, i.e. 119 x 1320 pixels, 0°59'30" x 11° coverage.

⁴The westmost 1-pixel (30") wide column in each output file does not correspond to data in any input file. Nor does the southwest-most 120 x 120 pixel (1° x 1°) block in each file.