GRASS: "Raster" (r.*) Manipulation Commands

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r.agnps.input
: menu driven interface between GRASS and AGNPS. It generates, in one's GRASS mapset directory, data files required for an AGNPS simulation.

r.agnps.run
: executes an AGNPS simulation.

r.agnps.vis
: menu driven interface that allows AGNPS' output files to be viewed and manipulated by GRASS commands.

r.answers:
: menu driven interface between GRASS and ANSWERS.

r.average:
: finds average of values in a cover map.

r.basins.fill:
: generates a raster map layer showing watershed subbasins (requires that several support layers already exist).

r.buffer:
: creates a raster map layer showing buffer zones surrounding cells containing non-zero category values.

r.calc:
: performs arithmetic on raster map layers.

r.cats:
: output category values and labels for user-specified raster map layer.

r.clump:
: recategorize raster map layer by grouping cells that form physically discrete areas into unique categories.

r.cn:
: generate an SCS Curve Number map layer.

r.coin:
: tabulates the mutual occurrence (coincidence) of categories for two raster map layers.

r.colors:
: creates/modifies color table of a raster map layer.

r.combine:
: allows category values from several raster map layers to be combined.

r.compress:
: compresses/decompresses raster files.

r.contour:
: produce a GRASS vector map of specified contours from raster map layer.

r.cost:
: creates a raster map layer showing cumulative cost of moving between geographic locations on an input raster map layer whose cell category values represent cost.

r.covar:

outputs a covariance/correlation matrix for user-specified raster map layer(s).

r.cross:
creates cross product of category values from multiple raster map layers.

r.describe:
prints terse list of category values in a raster map layer (*r.cats* is more informative).

r.digit:
interactive interface to draw and save vector features shown on a graphics monitor.

r.drain:
traces flow path of surface water on an elevation raster map layer.

r.flow:
constructs flowlines and raster maps of flowpath length and flowline densities from a raster elevation file.

r.grow:
generates and output raster map layer by adding one cell around the perimeters of all areas in a user-specified raster map layer.

r.in.ascii:
convert an ASCII raster text file into a raster map layer (binary).

r.in.ll:
converts raster data referenced using latitude and longitude coordinates to a UTM-reference map layer; *r.in.utm* does the reverse.

r.in.poly:
create raster maps from ASCII polygon/line data files.

r.in.sunrast:
converts a SUN raster (image) file to a GRASS raster file.

r.in.utm:
converts raster data with UTM-referenced coordinates to a latitude and longitude map layer; *r.in.ll* does the reverse.

r.infer:
outputs a raster map whose category values represent application of user-specified criteria (rules) concerning other raster map layers' category values.

r.info:
outputs basic information about a user-specified raster map layer.

r.los:
generates a raster map output in which cells visible from a user-specified observer location are marked with integer values representing the vertical angle (in degrees) required to see those cells.

r.mask:
establishes or removes the current working mask.

r.mask.points:
filters lists of points constituting lines to determine if they fall within current region and mask.

r.median:
finds median of values in a cover map within areas assigned the same category value.

r.mfilter:
raster file matrix filter.

r.mode:
finds mode of values in a cover map within areas assigned the same category value.

r.neighbors:
makes each cell category value a function of category values of its surrounding cells.

r.out.ascii:

converts a raster map layer into an ASCII text file.

r.patch:
: creates a composite raster map layer by using known category values from one (or more) map layers to fill in areas of "no data" in another map layer.

r.poly:
: extracts area edges from a raster map layer and creates a vector map layer.

r.profile:
: outputs the raster map layer values lying on user defined lines.

r.random:
: creates a raster map layer and site list file containing coordinates of points whose location have been randomly determined.

r.reclass:
: creates a new map layer with category values based upon the user's reclassification desires.

r.report:
: output statistics for raster map layer(s).

r.resample:
: generate a new raster map layer containing the same data values as the user-specified map layer, but the resolution and extent of the new layer will match those of the current geographic region.

r.rescale:
: generate a new raster map layer containing a reduced number of categories.

r.runoff:
: see *r.cn.*

r.slope.aspect:
: generate raster map layers of slope and aspect from raster map layer of true elevation values.

r.stats:
: outputs area statistics for raster map layer.

r.support:
: create and/or modify raster map layer support files.

r.surf.contour:
: create a raster elevation map from a raster contour map.

r.surf.idw:
: creates a raster file with interpolated/weighted values generated from a user specified raster map file.

r.thin:
: thin non-zero cells that denote linear feature in the user-specified raster map layer.

r.transect:
: output raster map values lying along user-defined transect line(s).

r.volume:
: calculate the volume of data "clumps" (geographic regions).

r.watershed:
: watershed basin analysis program; generates sets of maps.

r.weight:
: raster map overlay program.

r.weighted.cn:
: generate a weighted SCS Curve Number map layer.

r.what:
: outputs category values and category labels for user-specified location(s).

Other special-purpose and/or shell programming "r.*" commands include: r.auto_wshd, r.binfer, r.mask.map, and r.out.tga