NAME

prepros − check contour input data for the nuages reconstruction package

SYNOPSIS

prepros *cnt_file_in* [*cnt_file_out*] [**−i** *int_file_out*] [**−n**] [**−d** *value*] [**−s**] [**−S** *value*] [**−pixel**] [**−approx** *value*] [**−x** *value*] [**−y** *value*] [**−c** *value*] [**−m** *value*]

DESCRIPTION

The *prepros* preprocessor looks for intersecting contour segments, corrects contour orientation if necessary, deletes incident vertices, reports some statistics and, optionally, approximates contours with a given error, deletes co_linear or almost co_linear vertices, perturbs identical vertices in adjacent cross-sections, puts additional vertices on contour segments and fills the contours with internal vertices.

OPTIONS

cnt_file_in Contour input. Format:

```
s 23          23 cross-sections
v 17 z 0.2    17 vertices in first
              cross-section, z=0.2
{             begin first contour
143.00 13.72  x,y of first vertex
 .
 .
}             end first contour
{             begin second contour
 .
 .
}             end second contour
v 24 z 8.3    24 vertices in second
              cross-section, z=8.3
 .
```

cnt_file_out output of processed data. Same format as *cnt_file_in*.

−pixel approximate contours with line segments. Vertices are removed if its distance to the new line segment is smaller than a given error value. The procedure is highly recommended for pixel-by-pixel contours.

−approx *value* set the error value for contour approximations to *value*. Default is 0.5.

−d *value* delete segments with orientation difference smaller than *value* degrees. Default is 1.0.

−n no suppression of co_linear vertices

−s perturb identical vertices in adjacent planes by a default value. The default value is Min(smallest_cont_segment / 250.0, 4e-3)

−S *value* perturb identical vertices in adjacent planes by *value*.

−x *value* put internal vertices at x−distance *value*. Default is 10.0.

−y *value* put internal vertices at y−distance *value*. Default is 10.0.

−i *int_file_out* output of internal vertices. The inside of the contours is filled with vertices on a regular grid. This may be useful to get a regular tetrahedrization (see *repros(1)* with option +int).

−c *value* put additional vertices on contour segments at distance *value*.

−m *value* Set the maxnumber of contours per plane to *value*. Default is 200.

DIAGNOSTICS

Comments and exits with nonzero status for various trouble conditions.

SEE ALSO

repros(1), repros2visu(1), repros2tetra(1), nuages(1)

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