

Fill slicing debug 2 (25.03.2026)

Foreword

After the implementation of the reduction of points per trace (PR 92¹), a new error appeared during testing. It's been resolved in the PR 96².

Error

Explanation

When processing the clown texture, the following error appeared:

```
shapely.errors.GEOSEException: TopologyException:  
side location conflict at 0.62652522935779809 0.19902522935779812
```

This exception happen because Shapely is working on an **invalid** polygon. The source of these invalid polygons is the contour simplification. It sometimes produces self-intersecting or unvalid geometries³.

Solution

Use a validity check on the polygon before using it. If the polygon is invalid, use the `shapely.make_valid()` method to cope with it.

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Conclusion

The chages made with the reduction created an unforeseen issue. Up to my actual tests and knowledge, the current implementation is working. However I can't garanty a total efficiency and therefore suggest to make, if time allow, a systematic test over diverse generated textures to ensure reliability.

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¹[PR 92 — reduce number of points in contours](#)

²[PR 96 — fill slicing debug 2](#)

³[shapely.make_valid documentation](#)