2xkjack123 / rep_sur Private

Home

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Edit New Page

The **rep_sur** is a python script used to deal with surface conflicts between MCNP input files that generated with different decimal precision.

Assuming that there are two mcnp input files: the OLD and the NEW, where

- The OLD is generated from MCAM, where the float data have 15 digits. It contains the major structure of a model.
- The **NEW** is generated from MCCAD, where the float data have 7 digits. It contains the detail geometry of a part of model descripted in the **OLD**.

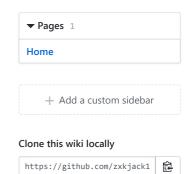
Now, we want to insert the cells and surfaces of the **NEW** into the **OLD**. However, there are some surfaces are defined both in the **NEW** and the **OLD**, but they have different digits. This leads to *gaps* and *overlaps* in the geometry. Therefore, we have to replace these surfaces in **NEW** using the correspondents form **OLD**.

Usage:

- 1. Keep just the **surfaces and cells** information of the **OLD**. Delete all the other information from the file. Make sure to back before delete.
- 2. Keep just the **surfaces** information part of the **NEW**. Delete all the other information from the file. Make sure to back before delete.
- 3. Add a comment lines:
 - Add a comment line: CELL START before the cell card of the OLD.
 - Add a comment line: CELL END after the cell card part of the OLD.
 - Add a comment line: SURFACE CARD START before the surfaces card part of both the OLD and the NEW.
 - Add a comment line: SURFACE CARD END after the surfaces card part of both the OLD and the NEW.
- 4. Open the rep_sur.py and change the old_sur_file and new_sur_file name to the correspondents.
- 5. Run the rep_sur.py by python rep_sur.py, and then the result will be in the output.
- 6. Copy the replaced surfaces in output into the finial file
- 7. Copy the cells information in NEW into the finial file

Please inform Xiaokang Zhang if there are bugs.





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