Files

* **d3d\_167247\_saz\_grid\_v2**: My grid file, which was actually made for #167247 instead of the shot under consideration, 167277. Shapes were identical, so grid was reused.
* **d3d-167277-bkg-006-fs.d6i**: OSM input file
* **d3d-167277-inj-grid64-fs.d6i**: DIVIMP input file
* **d3d\_bkg.d60**: OUT input file. Pretty basic, never learned how to use OUT though.
* **Makefile.iris**: My Makefile for the iris cluster (specific to my utk2 branch). Just thought maybe it would help to compare to yours. I believe there are some flags in there that help with debugging errors. Jake did a lot of the heavy lifting with the compiler options.
* **rundiv.iris**: My run file. May or may not help, just thought I’d include it anyways.

This *should* work for your distribution if it is up to date with the trunk. But there could be some hiccups along the way as I have tested these simulations only on my branch (called utk and utk2), and it is possible I had changed some of the code over the years. But nothing major in the code beyond some potential one-liners.

In the input files I scattered some comments to help orient yourself. There are a few additional options I have turned on in these runs, most notably I have shifted the midpoint of the rings towards the OMP to align better with the observation that power crosses the separatrix nearer to the OMP, so Te should peak around there instead of at the top crown. In the DIVIMP runs I also have imposed relatively fast inner target flows characteristic of those typically seen in LSN “favorable” BT configuration (BxgradB drift towards X-point). You can probably turn these off in your runs for now, but good to know they exist for your future, production level work.

Note at the end of the grid file are coordinates for the “NEUTRAL WALL”, which are just the wall coordinates (order matters!!!). These get used to handle neutrals launching from the wall. Otherwise, I am not certain how the code knows what the wall coordinates are since grids do not ever fill in the whole space. This may be tied to an input option; I do remember spending some time with this but can’t recall the details.

The grid has been generated via the standard DG/Carre approach. NEUTRAL WALL was copy/pasted to the end of the file.

Also, you’ll need to locate the ADAS folder at AUG if you haven’t already for all your ionization coefficients and such. This is the path in ADASCENT in your rundiv.aug script.

I would recommend using these files as templates to build AUG runs on, changing just one input option at a time. The .dat output file often has a lot of useful info in it, so make sure to scan it regularly. The .lim file has a ton of stuff in it, but if your runs keep crashing it’s a good place to start to see what the last thing printed out was.

I am assuming your rundiv.aug file is setup correctly. To generate the OSM background the command is:

rundiv.aug d3d-167277-bkg-006-fs d3d\_bkg d3d\_167247\_saz\_grid\_v2 none none none

And then to run DIVIMP with this background:

rundiv.aug d3d-167277-inj-grid64-fs d3d\_bkg d3d\_167247\_saz\_grid\_v2 none none d3d-167277-bkg-006-fs

The resulting outputs have also been tested in my plotting scripts, so I wouldn’t anticipate many issues there, just make sure you sync with the github.