

ExoVista Change Log

V2.1

Added an RNG “seed” parameter to defaults.py.

Added an “eecprob” parameter to defaults.py that sets the overall likelihood that a planet in the EEC bounding box is in fact an EEC. (Default: 1.0.) Also works if different EECs have different bounding boxes.

Added PDF versions of the User Guide and Change Log.

Split defaults.py into a constants.py parameter list containing values that should not be changed, and a settings.py dataclass containing all of the values that should be user-settable.

Added various parameters to the Settings dataclass: planet parameter limits emin/emax, imin/imax, sysimin/sysimax, sysPAmin/sysPAmx; also disk particle size minsize/maxsize; also all of the hard-coded disk profile parameters.

Cleaned up the variable lists in constants and settings.

Added a 10-object target list for testing purposes.

Replaced the file-based MyRng with a seeded Numpy RNG.

Removed the unused sag13_eta_grid() function from generate_planets.py.

Removed the wrapper function for generate_scene() from ExoVista.py.

Added a total iteration cap of 200 on the planet creation loop. (Adding a massive planet can render multiple small planets unstable, decreasing the total planet count. A planet added on the next iteration will reset the “non-increasing” step count without a net increase in planet count.)

Tested the stability of the longitude (as opposed to argument) of periastron at low inclinations.

Modified readfits.py to not output the phase curve plot if there is only one timestep in the FITS file.

Moved all of the user controls in readfits.py to the beginning of the script.

Created a basic user interface for readfits.py to select a FITS file from the command line.

Updated the documentation.

V2.0.1

Tested load_scene.py on v1.3 outputs.

Changed the file read by the MyRNG routine from 10 million random numbers to 1 million in order to comply with Github’s file size limits.

Added change log.

Added README instructions.

V2.0

First public Python release.