

ME(SSY)**2: Output files

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Note: This is based on an excerpt of the original documentation written by Marc Freitag.

In the output files xxxxxxxxxx” is the number of the step. The + sign(s) indicate particularly useful output. A – sign indicate a file you will probably never need.

File name	Incr	Format	Role
++ MyRun%xxxxxxx%AMAS.xdr	n	xdr	Cluster structure (masses, velocity, positions of particles)
++ MyRun%xxxxxxx%ETOILES.xdr	n	xdr	Cluster structure (stellar masses, types [MS,WD,NS,BH] and ages)
MyRun%xxxxxxx%TN.xdr	n	xdr	Masses of the “central black hole” and “central gas reservoir”
MyRun%xxxxxxx%MAREE.xdr	n	xdr	Value of tidal truncation radius
MyRun%xxxxxxx%TEMPS.xdr	n	xdr	Individual times of particles
MyRun%xxxxxxx%CONS.xdr	n	xdr	Data to allow accurate tracking of energy conservation in case of restart
MyRun%xxxxxxx%GRILLE.xdr	n	xdr	Radial grids to plot profiles (ρ , σ , β , etc)
– MyRun%xxxxxxx%PG.xdr	n	xdr	Radial grids used by code to estimate ρ and σ
-- MyRun%xxxxxxx%ARBRE.xdr	n	xdr	Binary tree used by code to store rank and potential info
-- MyRun%xxxxxxx%TH.bin	n	bin	Parameters for the selection of particle pairs (for debugging)
– MyRun%xxxxxxx%RAND.asc	n	ASCII	Internal variables of random generator (for restart continuing with same random sequence)
++ MyRun%/Log.asc	y	ASCII	Main log-file containing most of the useful information (also written to stdout)
++ MyRun%/RayLag.asc	y	ASCII	Lagrange radii evolution
+ MyRun%/Segr.asc	y	ASCII	Evolution of average stellar mass in Lagrange spheres
+ MyRun%/AniLag.asc	y	ASCII	Evolution of anisotropy (averaged in Lagrange spheres)
++? MyRun%/LagQuant.asc	y	ASCII	Lagrangian quantities evolution (can replace the previous 3 files)
MyRun%/MSpec.asc	y	ASCII	Some info to track evolution of the mass spectrum
+ MyRun%/MbinRad.asc	y	ASCII	Lagrange radii of particles in various bins of stellar mass
+ MyRun%/SuiviMS.asc	y	ASCII	Lagrange radii, and various quantities in Lagrange spheres for MS stars
+ MyRun%/SuiviWD.asc	y	ASCII	Same for white dwarfs
+ MyRun%/SuiviNS.asc	y	ASCII	Same for neutron stars
+ MyRun%/SuiviBH.asc	y	ASCII	Same for stellar black holes
MyRun%/Tscale.asc	y	ASCII	Some (statistical) info about various time scales
MyRun%/CaptGW.asc	y	ASCII	Info about “extreme mass-ratio inspirals” into central MBH (aka “GW captures”)
MyRun%/Coll.asc	y	ASCII	Info about collisions
MyRun%/CollExcept.asc	y	ASCII	Info about collisions that required special treatment (extrapolation)
MyRun%/Evap.asc	y	ASCII	Info about stars lost from the cluster through “evaporation”
MyRun%/LC.asc	y	ASCII	Info about “loss cone” events (tidal disruptions, inspirals, etc)
MyRun%/NatKicks.asc	y	ASCII	Info about NS and BH natal kicks
MyRun%/StEvol.asc	y	ASCII	Info about stellar evolution (star/particle turning into remnant)
MyRun%/StrongEncounters.asc	y	ASCII	Info about “super encounters” (to simulate 2-body relaxation) with large (cumulative) deflection angles
MyRun%/SuiviSE.asc	y	ASCII	Info about some particles followed very closely
MyRun%/SubPop.asc	y	ASCII	Info about subpopulation followed closely
MyRun%/GlobRelax.asc	y	ASCII	Some global relaxation quantities
MyRun%/Duplic.asc	y	ASCII	Log file of particle duplications
MyRun%/LogSauv.asc	y	ASCII	Log file of “externally” requested snapshots
PID	n	ASCII	PID of run (written once)
PARAMS.asc	n	ASCII	Parameters actually used by run (written once)
CaracCode.asc	n	ASCII	Value of many preprocessor variables at compile time (written once)
Units.asc	n	ASCII	Physical units used by run (written once)

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continued from previous page

File name	Incr	Format	Role
<code>divers.asc</code>	y	ASCII	Bits of info of dubious value (self-described)
<code>_INFO_</code>	y	ASCII	Info about pid, host, start time & date (self-described)
<code>_DONE_</code>	n	ASCII	To indicate that the run has finished (contains time and hostname)
– <code>_test_TMS.asc</code>	n	ASCII	Relation mass–MS lifetime (for checking purposes)
– <code>_test_Remn.asc</code>	n	ASCII	Relation ZAMS mass → remnant mass and type (for checking purposes)
– <code>_test_MRrelMS.asc</code>	n	ASCII	Main-Sequence Mass-Radius relation (for checking purposes)
– <code>_test_ParamStellEvol.asc</code>	n	ASCII	Parameters for stellar evolution (for checking purposes)