

RAMSES test suite results

rt3504

June 11, 2023

Commit hash: [ebcb67](#)

Test run summary using 4 processor(s)

	Test name	Run time	Total time	Status
1	hydro/barotrop	0h0m2s	0h0m38s	passed
2	hydro/cooling-frig	0h0m41s	0h1m33s	passed
3	hydro/implosion	0h0m33s	0h1m8s	passed
4	hydro/isothermal	0h0m5s	0h0m38s	passed
5	hydro/sod-tube	0h0m1s	0h0m33s	passed
6	mhd/imhd-tube	0h0m3s	0h0m37s	passed
7	mhd/orszag-tang	0h0m52s	0h1m30s	passed
8	rt/stromgren2d	0h0m15s	0h0m57s	passed
9	turb/driving	0h0m45s	0h1m38s	passed
10	tracer/sedov	0h0m46s	0h1m22s	passed

Total run time (including compilations): 0h10m39s



Figure 1: hydro/barotrop test

Table 1: barotrop error summary

Variable	This run	Reference	Error	Tolerance
boxlen	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
density	1.6794314781800492e+03	1.6794314781792584e+03	4.7087699228366635e-13	2.0000000000000000e-12
dx	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
level	8.3320000000000000e+03	8.3320000000000000e+03	0.0000000000000000e+00	2.999999999999998e-13
ncells	7.8400000000000000e+02	7.8400000000000000e+02	0.0000000000000000e+00	2.999999999999998e-13
pressure	6.0188902556779146e+02	6.0188902556693643e+02	1.4205919533071547e-12	2.0000000000000000e-12
time	4.9053079624299697e-04	4.9053079624279097e-04	4.1995000996896793e-13	2.0000000000000000e-12
unit d	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit l	3.0857000000000000e+18	3.0857000000000000e+18	0.0000000000000000e+00	2.999999999999998e-13
unit t	3.1556926000000000e+13	3.1556926000000000e+13	0.0000000000000000e+00	2.999999999999998e-13
velocity x	1.0539070571590826e+04	1.0539070571585386e+04	5.1623122447573017e-13	2.0000000000000000e-12
x	3.9200000000000000e+02	3.9200000000000000e+02	0.0000000000000000e+00	2.999999999999998e-13
y	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13



Figure 2: hydro/cooling-frig test

Table 2: cooling-frig error summary

Variable	This run	Reference	Error	Tolerance
boxlen	5.000000000000000e+02	5.000000000000000e+02	0.000000000000000e+00	2.999999999999998e-13
density	-1.4250982321254784e+04	-1.4250982321254638e+04	1.0211166430726244e-14	2.999999999999998e-13
dx	5.120000000000000e+05	5.120000000000000e+05	0.000000000000000e+00	2.999999999999998e-13
level	1.638400000000000e+05	1.638400000000000e+05	0.000000000000000e+00	2.999999999999998e-13
ncells	3.276800000000000e+04	3.276800000000000e+04	0.000000000000000e+00	2.999999999999998e-13
pressure	1.5788229607209752e+05	1.5788229607209750e+05	1.8433878389660194e-16	2.999999999999998e-13
time	6.2181777872549604e-01	6.2181777872549504e-01	1.6069027878402681e-15	2.999999999999998e-13
unit d	2.324743400000000e-24	2.324743400000000e-24	0.000000000000000e+00	2.999999999999998e-13
unit l	3.085700000000000e+18	3.085700000000000e+18	0.000000000000000e+00	2.999999999999998e-13
unit t	2.539507900000000e+15	2.539507900000000e+15	0.000000000000000e+00	2.999999999999998e-13
velocity x	2.0560963580686219e+07	2.0560963580686357e+07	6.7037588244437025e-15	2.999999999999998e-13
velocity y	1.7589792977584463e+07	1.7589792977584992e+07	3.0073760564192616e-14	2.999999999999998e-13
velocity z	1.4009448254150467e+07	1.4009448254150048e+07	2.9915179454181280e-14	2.999999999999998e-13
x	8.192000000000000e+06	8.192000000000000e+06	0.000000000000000e+00	2.999999999999998e-13
y	8.192000000000000e+06	8.192000000000000e+06	0.000000000000000e+00	2.999999999999998e-13
z	8.192000000000000e+06	8.192000000000000e+06	0.000000000000000e+00	2.999999999999998e-13



Figure 3: hydro/implosion test

Table 3: implosion error summary

Variable	This run	Reference	Error	Tolerance
boxlen	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
density	-3.2489384827987228e+03	-3.2489384827987228e+03	0.0000000000000000e+00	2.999999999999998e-13
dx	9.7671875000000000e+01	9.7671875000000000e+01	0.0000000000000000e+00	2.999999999999998e-13
level	1.1594500000000000e+05	1.1594500000000000e+05	0.0000000000000000e+00	2.999999999999998e-13
ncells	1.5349000000000000e+04	1.5349000000000000e+04	0.0000000000000000e+00	2.999999999999998e-13
pressure	-9.8425832051307543e+02	-9.8425832051307543e+02	0.0000000000000000e+00	2.999999999999998e-13
time	5.0041662782999197e+00	5.0041662782999197e+00	0.0000000000000000e+00	2.999999999999998e-13
unit d	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit l	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit t	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
velocity x	8.0459072052113027e+02	8.0459072052113027e+02	0.0000000000000000e+00	2.999999999999998e-13
velocity y	8.0459072052125236e+02	8.0459072052125236e+02	0.0000000000000000e+00	2.999999999999998e-13
x	4.9655703125000000e+03	4.9655703125000000e+03	0.0000000000000000e+00	2.999999999999998e-13
y	4.9655703125000000e+03	4.9655703125000000e+03	0.0000000000000000e+00	2.999999999999998e-13
z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13



Figure 4: hydro/isothermal test

Table 4: isothermal error summary

Variable	This run	Reference	Error	Tolerance
boxlen	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
density	1.6311954187712895e+03	1.6311954187664121e+03	2.9900725908250087e-12	4.999999999999997e-12
dx	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
level	8.4900000000000000e+03	8.4900000000000000e+03	0.0000000000000000e+00	2.999999999999998e-13
ncells	7.9400000000000000e+02	7.9400000000000000e+02	0.0000000000000000e+00	2.999999999999998e-13
pressure	4.9146152387489883e+02	4.9146152387002013e+02	9.9269217906402560e-12	9.999999999999994e-12
time	4.9054716112689604e-04	4.9054716112737103e-04	9.6828400897223431e-13	2.000000000000000e-12
unit d	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit l	3.0857000000000000e+18	3.0857000000000000e+18	0.0000000000000000e+00	2.999999999999998e-13
unit t	3.1556926000000000e+13	3.1556926000000000e+13	0.0000000000000000e+00	2.999999999999998e-13
velocity x	1.0798863269643682e+04	1.0798863269655247e+04	1.0709585202597123e-12	2.000000000000000e-12
x	3.9700000000000000e+02	3.9700000000000000e+02	0.0000000000000000e+00	2.999999999999998e-13
y	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13



Figure 5: hydro/sod-tube test

Table 5: sod-tube error summary

Variable	This run	Reference	Error	Tolerance
boxlen	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
density	-6.2283208883831371e+01	-6.2283208883831371e+01	0.0000000000000000e+00	2.999999999999998e-13
dx	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
level	1.1010000000000000e+03	1.1010000000000000e+03	0.0000000000000000e+00	2.999999999999998e-13
ncells	1.4200000000000000e+02	1.4200000000000000e+02	0.0000000000000000e+00	2.999999999999998e-13
pressure	-6.8864503408245511e+01	-6.8864503408245525e+01	2.0635964846731855e-16	2.999999999999998e-13
time	2.4504723587196500e-01	2.4504723587196500e-01	0.0000000000000000e+00	2.999999999999998e-13
unit d	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit l	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit t	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
velocity x	8.7630269431102121e+01	8.7630269431102136e+01	1.6216833301391432e-16	2.999999999999998e-13
x	9.0823242187500000e+01	9.0823242187500000e+01	0.0000000000000000e+00	2.999999999999998e-13
y	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13



Figure 6: mhd/imhd-tube test

Table 6: imhd-tube error summary

Variable	This run	Reference	Error	Tolerance
B x left	4.370000000000000e+02	4.370000000000000e+02	0.000000000000000e+00	2.999999999999998e-13
B x right	4.370000000000000e+02	4.370000000000000e+02	0.000000000000000e+00	2.999999999999998e-13
B y left	2.3391683489759890e+02	2.3391683489759890e+02	0.000000000000000e+00	2.999999999999998e-13
B y right	2.3391683489759890e+02	2.3391683489759890e+02	0.000000000000000e+00	2.999999999999998e-13
B z left	4.5872245532670718e+01	4.5872245532670732e+01	3.0979200059174945e-16	2.999999999999998e-13
B z right	4.5872245532670718e+01	4.5872245532670732e+01	3.0979200059174945e-16	2.999999999999998e-13
boxlen	3.500000000000000e+00	3.500000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
density	-1.4066192896319757e+02	-1.4066192896319757e+02	0.000000000000000e+00	2.999999999999998e-13
dx	3.500000000000000e+00	3.500000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
level	4.906000000000000e+03	4.906000000000000e+03	0.000000000000000e+00	2.999999999999998e-13
ncells	4.370000000000000e+02	4.370000000000000e+02	0.000000000000000e+00	2.999999999999998e-13
pressure	-1.2848475642042584e+02	-1.2848475642042584e+02	0.000000000000000e+00	2.999999999999998e-13
time	4.0066021201843099e-01	4.0066021201843099e-01	0.000000000000000e+00	2.999999999999998e-13
unit d	1.000000000000000e+00	1.000000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
unit l	1.000000000000000e+00	1.000000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
unit t	1.000000000000000e+00	1.000000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
velocity x	1.9389631695548837e+02	1.9389631695548837e+02	0.000000000000000e+00	2.999999999999998e-13
velocity y	4.0503914358611451e+02	4.0503914358611451e+02	0.000000000000000e+00	2.999999999999998e-13
velocity z	4.4181525014765903e+01	4.4181525014765903e+01	0.000000000000000e+00	2.999999999999998e-13
x	7.1933459472656250e+02	7.1933459472656250e+02	0.000000000000000e+00	2.999999999999998e-13
y	0.000000000000000e+00	0.000000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
z	0.000000000000000e+00	0.000000000000000e+00	0.000000000000000e+00	2.999999999999998e-13



Figure 7: mhd/orzag-tang test

Table 7: orzag-tang error summary

Variable	This run	Reference	Error	Tolerance
B x left	2.2678255644469846e+04	2.2678255644469846e+04	0.0000000000000000e+00	2.999999999999998e-13
B x right	2.2678255644469846e+04	2.2678255644469846e+04	0.0000000000000000e+00	2.999999999999998e-13
B y left	2.4171115525910489e+04	2.4171115525910489e+04	0.0000000000000000e+00	2.999999999999998e-13
B y right	2.4171115525910489e+04	2.4171115525910489e+04	0.0000000000000000e+00	2.999999999999998e-13
B z left	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
B z right	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
boxlen	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
density	-6.8695267744666649e+04	-6.8695267744666649e+04	0.0000000000000000e+00	2.999999999999998e-13
dx	2.8000000000000000e+02	2.8000000000000000e+02	0.0000000000000000e+00	2.999999999999998e-13
level	8.6243200000000000e+05	8.6243200000000000e+05	0.0000000000000000e+00	2.999999999999998e-13
ncells	1.0006600000000000e+05	1.0006600000000000e+05	0.0000000000000000e+00	2.999999999999998e-13
pressure	-8.8280494263311819e+04	-8.8280494263311819e+04	0.0000000000000000e+00	2.999999999999998e-13
time	5.0191436955161295e-01	5.0191436955161295e-01	0.0000000000000000e+00	2.999999999999998e-13
unit d	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit l	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
unit t	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
velocity x	3.8430367312560731e+04	3.8430367312560731e+04	0.0000000000000000e+00	2.999999999999998e-13
velocity y	3.6141593808548649e+04	3.6141593808548649e+04	0.0000000000000000e+00	2.999999999999998e-13
velocity z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13
x	5.0033000000000000e+04	5.0033000000000000e+04	0.0000000000000000e+00	2.999999999999998e-13
y	5.0033000000000000e+04	5.0033000000000000e+04	0.0000000000000000e+00	2.999999999999998e-13
z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	2.999999999999998e-13



Figure 8: rt/stromgren2d test

Table 8: stromgren2d error summary

Variable	This run	Reference	Error	Tolerance
boxlen	1.0000000000000000e+00	1.0000000000000000e+00	0.0000000000000000e+00	3.0000000000000001e-06
density	-1.6452782335621334e+04	-1.6452782335617510e+04	2.3239326019503224e-13	3.0000000000000001e-06
dx	1.2800000000000000e+02	1.2800000000000000e+02	0.0000000000000000e+00	3.0000000000000001e-06
level	1.1468800000000000e+05	1.1468800000000000e+05	0.0000000000000000e+00	3.0000000000000001e-06
metallicity	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.0000000000000001e-06
ncells	1.6384000000000000e+04	1.6384000000000000e+04	0.0000000000000000e+00	3.0000000000000001e-06
pressure	-8.1662884923335063e+04	-8.1662884923947786e+04	7.5030773549187932e-12	3.0000000000000001e-06
scalar 01	4.3828664073005466e+03	4.3828664052645590e+03	4.6453333849868201e-10	3.0000000000000001e-06
scalar 02	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.0000000000000001e-06
scalar 03	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.0000000000000001e-06
time	1.5003966839451200e+01	1.5003966839451200e+01	0.0000000000000000e+00	3.0000000000000001e-06
unit d	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.0000000000000001e-06
unit l	3.0900000000000000e+21	3.0900000000000000e+21	0.0000000000000000e+00	3.0000000000000001e-06
unit t	3.1556926000000000e+13	3.1556926000000000e+13	0.0000000000000000e+00	3.0000000000000001e-06
velocity x	8.7948060487332427e+00	8.7948060465423854e+00	2.4910808285962630e-10	3.0000000000000001e-06
velocity y	8.7948060487332409e+00	8.7948060465423854e+00	2.4910788088168276e-10	3.0000000000000001e-06
x	8.1920000000000000e+03	8.1920000000000000e+03	0.0000000000000000e+00	3.0000000000000001e-06
y	8.1920000000000000e+03	8.1920000000000000e+03	0.0000000000000000e+00	3.0000000000000001e-06
z	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.0000000000000001e-06



Figure 9: turb/driving test

Table 9: driving error summary

Variable	This run	Reference	Error	Tolerance
boxlen	4.000000000000000e+00	4.000000000000000e+00	0.000000000000000e+00	2.999999999999998e-13
density	-1.5970192503110823e+05	-1.5970192503110823e+05	0.000000000000000e+00	2.999999999999998e-13
dx	1.638400000000000e+04	1.638400000000000e+04	0.000000000000000e+00	2.999999999999998e-13
level	1.572864000000000e+06	1.572864000000000e+06	0.000000000000000e+00	2.999999999999998e-13
ncells	2.621440000000000e+05	2.621440000000000e+05	0.000000000000000e+00	2.999999999999998e-13
pressure	-5.3599210405342397e+05	-5.3599210405342397e+05	0.000000000000000e+00	2.999999999999998e-13
time	2.5147260806143501e-01	2.5147260806143501e-01	0.000000000000000e+00	2.999999999999998e-13
unit d	1.5049295743500001e-20	1.5049295743500001e-20	0.000000000000000e+00	2.999999999999998e-13
unit l	3.085700000000000e+18	3.085700000000000e+18	0.000000000000000e+00	2.999999999999998e-13
unit t	3.155692600000000e+13	3.155692600000000e+13	0.000000000000000e+00	2.999999999999998e-13
velocity x	2.2878502213449072e+05	2.2878502213449072e+05	0.000000000000000e+00	2.999999999999998e-13
velocity y	2.2205591253462457e+05	2.2205591253462457e+05	0.000000000000000e+00	2.999999999999998e-13
velocity z	2.1700854906616427e+05	2.1700854906616427e+05	0.000000000000000e+00	2.999999999999998e-13
x	5.242880000000000e+05	5.242880000000000e+05	0.000000000000000e+00	2.999999999999998e-13
y	5.242880000000000e+05	5.242880000000000e+05	0.000000000000000e+00	2.999999999999998e-13
z	5.242880000000000e+05	5.242880000000000e+05	0.000000000000000e+00	2.999999999999998e-13



Figure 10: tracer/sedov test

Table 10: sedov error summary

Variable	This run	Reference	Error	Tolerance
family	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.9999280019439422e-03
levelp	1.2500450000000000e+06	1.2499300000000000e+06	9.2005152288528153e-05	3.9999280019439422e-03
mass	2.5000900000000009e-01	2.4998600000000015e-01	9.2005152288287027e-05	3.9999280019439422e-03
position x	6.3310902343750000e+04	6.3286064453125000e+04	3.9247014077478366e-04	3.9999280019439422e-03
position y	6.3304500000000000e+04	6.3278091796875000e+04	4.1733564295477337e-04	3.9999280019439422e-03
tag	0.0000000000000000e+00	0.0000000000000000e+00	0.0000000000000000e+00	3.9999280019439422e-03