

Section	REF	0x0	10x10	20x10	30x10	40x2	40x5	40x7	40x10	40x20	40x30	40x40	40x50	40x60	40x80	40x100	40x120
TOTAL	2050.92	0.97	1.02	0.98	0.97	0.96	0.94	0.99	0.93	0.95	0.96	0.97	0.96	0.97	0.96	0.96	0.98
iom_put	1130.38	0.99	0.98	0.99	0.98	0.98	0.98	0.94	0.93	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.99
dia_ptr	186.72	0.83	0.97	0.86	0.87	0.92	0.82	0.82	0.81	0.79	0.79	0.80	0.79	0.81	0.81	0.81	0.83
tra_ldf	100.43	1.04	1.50	0.97	0.96	0.79	0.68	0.68	0.69	0.84	0.92	0.95	0.94	0.98	0.98	0.97	1.04
stp	93.28	0.93	1.01	1.15	1.25	1.07	1.05	0.90	0.90	1.04	1.13	1.16	1.07	1.14	1.00	1.02	1.01
zdf_phy	90.84	1.00	1.00	1.01	1.00	1.00	1.00	1.01	1.01	1.00	1.00	1.01	0.99	1.00	1.00	0.99	1.00
ldf_slp	83.36	0.97	0.95	0.96	0.95	0.98	0.98	0.99	0.96	0.95	0.95	0.95	0.94	0.95	0.95	0.95	0.95
dyn_spg	44.55	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.00	1.00	1.00	1.01	0.99	1.00	1.00	0.99	1.00
tra_adv	44.47	1.00	1.54	1.00	0.95	0.74	0.67	0.66	0.68	0.70	0.73	0.79	0.82	0.90	0.90	0.94	1.00
dyn_zdf	44.32	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.99	1.00	0.99	1.00	1.00
dyn_atf	34.50	1.00	1.00	1.01	1.00	1.01	1.00	1.01	1.01	0.99	1.00	1.00	0.99	0.99	1.00	0.99	1.00
tra_zdf	32.39	0.99	0.77	0.51	0.50	0.40	0.34	0.33	0.35	0.45	0.55	0.65	0.64	0.82	0.81	0.85	1.00
rab_3d	19.71	1.06	1.06	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.06	1.06	1.05	1.05	1.05	1.06	1.05
bn2	15.75	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.00	1.00	1.01	1.00	1.00	1.00	1.00	1.01
tra_atf	14.90	1.01	1.03	1.05	1.03	1.05	1.05	1.06	1.06	1.04	1.04	1.04	1.03	1.02	1.04	1.04	1.00
dyn_ldf	14.74	1.00	1.00	1.02	1.00	1.00	1.00	1.02	1.01	0.99	1.00	1.01	0.99	0.99	1.00	0.99	1.00
dyn_zad	13.86	1.00	1.00	1.02	1.00	1.00	0.99	1.02	1.00	0.99	1.00	1.00	0.99	1.00	0.99	0.99	1.00
tra_qsr	11.72	1.01	1.16	0.99	0.97	0.93	0.90	0.90	0.89	0.87	0.89	0.95	0.89	0.97	0.93	0.89	0.98
div_hor	11.38	1.00	1.00	1.02	0.99	1.00	1.00	1.02	1.00	0.99	1.00	1.00	0.98	0.99	0.99	0.99	1.00
dyn_keg	10.11	0.98	1.00	1.01	0.99	0.98	0.97	1.01	0.99	1.00	1.00	0.98	0.99	1.00	0.98	0.99	1.00
dyn_hpg	9.91	0.99	1.00	1.02	1.00	0.99	0.99	1.01	1.00	1.00	1.00	0.99	0.99	1.00	1.00	0.99	1.01
eos_pot	8.01	1.08	1.07	1.07	1.07	1.07	1.08	1.08	1.08	1.06	1.07	1.08	1.06	1.05	1.07	1.06	1.06
dyn_vor	7.77	1.00	1.00	1.03	1.00	1.00	1.00	1.04	1.01	0.99	1.00	1.01	0.98	0.99	1.00	0.99	1.00
eos_insitu	7.33	0.97	0.98	0.98	0.97	0.97	0.97	0.98	0.97	0.97	0.98	0.97	0.97	0.97	0.97	0.98	0.97
dia_wri	6.45	0.61	0.57	0.61	0.60	0.63	0.61	0.63	0.62	0.60	0.61	0.61	0.59	0.59	0.62	0.59	0.61
wzv	5.74	0.97	1.00	1.01	0.99	0.98	0.97	1.00	0.98	0.99	1.00	0.98	0.99	1.00	0.97	0.99	1.00
sbc	3.61	1.00	1.00	1.01	0.99	0.99	0.99	1.02	1.14	0.99	1.00	1.01	0.99	1.01	0.99	0.99	1.00
tra_sbc	2.73	0.93	0.95	0.79	0.74	0.78	0.68	0.69	0.67	0.66	0.68	0.69	0.72	0.74	0.84	0.94	0.99
ssh_nxt	1.13	0.99	1.00	1.01	1.00	1.00	0.99	1.01	1.00	0.99	1.00	1.00	0.98	0.99	0.99	0.98	1.00
nemo_init	0.40	0.48	0.48	0.51	0.46	0.51	0.48	0.57	0.41	0.56	0.43	0.88	1.77	0.40	0.47	0.52	0.45
dia_ar5	0.15	1.59	1.58	1.59	1.58	1.57	1.58	1.56	1.60	1.58	1.58	1.59	1.57	1.58	1.59	1.58	1.59
ssh_atf	0.11	0.99	0.96	1.34	0.97	0.97	0.96	1.34	0.97	0.97	0.98	0.98	0.98	0.98	0.98	0.97	0.99
dyn_adv	0.06	1.00	0.97	1.14	1.00	1.01	1.01	1.14	1.02	0.98	0.98	0.99	1.01	0.98	1.01	0.98	0.97
day	0.06	0.06	1.98	1.23	0.90	1.35	1.30	1.01	1.01	1.39	1.00	1.35	1.00	1.11	1.68	0.94	1.62
dia_hth	0.00	1.48	1.61	1.23	1.31	1.70	2.12	1.91	1.40	1.52	1.41	1.78	1.32	1.33	1.48	1.44	1.82
dom_hgr	0.00	1.00	1.00	1.23	0.98	1.01	1.03	1.04	1.03	1.00	1.05	0.98	1.03	0.99	1.00	0.97	1.00

Table 1: Elapsed time per NEMO section as a percentage of the reference run ("REF"). Results are shown for 180-day simulations with a local domain size of jpi, jpj = (42, 122) and a processor decomposition of jpni, jpnj = (6, 3). Horizontal lines denote where the section time in the reference run is 10%, 1%, 0.1% and 0.01% of the total time. Values are coloured where they are greater than 1.1 (red), and where they are less than 0.9 (green) and where these are lowest (blue).

Job	REF	tra_ldf, "tra_ldf".jobs															
		0x0	10x10	20x10	30x10	40x2	40x5	40x7	40x10	40x20	40x30	40x40	40x50	40x60	40x80	40x100	40x120
blp.triad.msc	238.60	1.02	1.03	1.02	1.02	1.02	1.02	1.03	1.02	1.03	1.03	1.03	1.03	1.02	1.03	1.03	1.02
blp.triad.botmix.msc	231.45	1.03	1.02	1.03	1.02	1.03	1.02	1.03	1.03	1.03	1.03	1.03	1.03	1.02	1.03	1.03	1.03
blp.iso.msc	180.39	1.04	1.04	1.03	1.04	1.02	1.04	1.03	1.03	1.03	1.04	1.04	1.03	1.04	1.04	1.04	1.04
lap.triad	153.41	1.02	1.49	0.91	0.93	0.69	0.63	0.62	0.61	0.67	0.75	0.88	0.89	0.97	0.96	1.02	1.03
lap.triad.msc	152.67	1.03	1.49	0.93	0.92	0.70	0.63	0.63	0.61	0.67	0.76	0.88	0.92	1.00	0.98	0.97	1.03
lap.triad.botmix.msc	149.28	1.03	1.49	0.92	0.92	0.69	0.63	0.62	0.60	0.65	0.75	0.89	0.90	1.00	0.97	0.96	1.02
lap.triad.botmix	149.16	1.03	1.49	0.91	0.93	0.69	0.63	0.62	0.61	0.66	0.75	0.88	0.91	0.99	0.97	0.96	1.02
lap.iso.msc	103.70	1.04	1.24	0.89	0.92	-	0.64	0.66	0.70	0.86	0.93	0.96	0.95	0.99	0.98	0.99	1.03
lap.iso	100.41	1.04	1.23	0.90	0.93	0.72	0.66	0.67	0.71	0.88	0.94	0.96	0.96	1.00	0.99	1.00	1.04
blp.lew	72.18	0.99	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.98	0.97	0.98	0.97	0.98	0.98	0.99
blp.hor	71.59	0.99	0.98	0.99	0.98	0.97	0.98	0.98	0.97	0.97	0.98	0.98	0.99	0.99	0.99	1.00	0.99
lap.hor	43.16	1.00	0.67	0.49	0.53	0.44	0.40	0.41	0.42	-	-	0.69	0.72	0.84	0.85	0.90	1.00
lap.lew	43.07	1.00	0.67	0.49	0.53	0.44	0.40	0.41	0.42	0.52	0.61	0.69	0.71	0.83	0.85	0.90	0.99

Table 2: Elapsed time for the "tra_ldf" section, for various "tra_ldf" namelist settings as a percentage of the reference run ("REF"). Results are shown for 180-day simulations with a local domain size of jpi, jpj = (42, 122) and a processor decomposition of jpnj, jpnj = (6, 3). Values are coloured where they are greater than 1.1 (red), and where they are less than 0.9 (green) and where these are lowest (blue).

Job	REF	tra_adv, "tra_adv" jobs															
		0x0	10x10	20x10	30x10	40x2	40x5	40x7	40x10	40x20	40x30	40x40	40x50	40x60	40x80	40x100	40x120
fet_h4_v4	265.02	0.94	0.94	0.94	0.93	0.92	0.93	0.93	0.93	0.93	0.94	0.94	0.94	0.94	0.94	0.94	0.94
fet_zdf_aimp_h4_v4	264.58	0.94	0.93	0.94	0.94	0.93	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
fet_zdf_aimp_h2_v4	244.23	0.93	0.93	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
fet_h2_v4	243.67	0.93	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
fet_zdf_aimp_h4_v2	235.15	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.93	0.94	0.93	0.93	0.93	0.94	0.93	0.93
fet_h4_v2	234.45	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.93	0.93	0.93
fet_zdf_aimp_h2_v2	213.14	0.92	0.92	0.92	0.92	0.91	0.91	0.90	0.91	0.93	0.92	0.93	0.93	0.93	0.93	0.93	0.92
fet_h2_v2	211.82	0.93	0.92	0.92	0.92	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.92	0.92	0.92	0.93	0.93
qck	193.52	1.00	0.99	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	0.99	0.99	1.00	0.99	1.00
ubs_v2	164.57	0.97	0.98	0.98	0.97	0.96	0.97	0.97	0.97	0.98	0.98	0.97	0.98	0.97	0.97	1.00	0.98
mus	142.26	1.01	1.01	1.01	1.00	0.99	1.01	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00
mus_ups	142.08	1.01	1.01	1.01	-	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
ubs_v4	112.64	1.00	0.99	0.99	0.99	0.98	0.99	0.99	0.99	0.99	1.00	0.99	1.00	1.00	0.98	1.00	1.00
cen_h4_v4	97.71	1.00	0.99	1.00	1.00	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
cen_h2_v4	75.46	0.99	1.03	0.72	0.71	0.57	0.53	0.52	0.53	0.63	0.71	0.76	0.77	0.84	0.87	0.92	1.00
cen_h4_v2	66.89	0.99	1.01	1.01	1.00	0.98	0.98	0.98	0.99	1.02	1.00	0.99	1.00	1.01	1.00	1.00	1.00
cen_h2_v2	44.47	1.00	1.54	1.00	0.95	0.74	0.67	0.66	0.68	0.70	0.73	0.79	0.82	0.90	0.90	0.94	1.00

Table 3: Elapsed time for the "tra_adv" section, for various "tra_adv" namelist settings as a percentage of the reference run ("REF"). Results are shown for 180-day simulations with a local domain size of $j_{pi}, j_{pj} = (42, 122)$ and a processor decomposition of $j_{pi}, j_{pj} = (6, 3)$. Values are coloured where they are greater than 1.1 (red), and where they are less than 0.9 (green) and where these are lowest (blue).