CAB (logo, top left)

REAL †cplx   REAL   OPLX

what is set to YES in CMake.vars

Hermes version (set H2D_REAL YES)

→ WITH_UMFPACK	1 ✓	(✓) → OK, correct results			
WITH_TRILINOS	2 R	3 ✓	4 ✓	10 R	11 40/352	12 10/352
... PETSC	5 ✓	13 ✓			
MUMPS	6 ✓	14 ✓			
OPENMP + PARDISO	7 ✓	9 ✓	15 ✓	16 ✓	

all of the above ← (ALL)

ALL: 1 ✓ 2 R 5 ✓ 6 ✓ 7 ✓ 9 ✓ 10 R 13 ✓ 14 ✓ 15 ✓ 21 ✓ | 1 ✓ 2 R 5 ✓ 6 ✓ (7) ✓

PETSC + MPI: 17 ✓ 19 ✓

MUMPS + MPI: 18 B 20 B

ALL + MPI: 17 ✓ 18 B 19 ✓ 20 B | 17 ✓ 18 B

Test # from the table in lower left

Right table (TOTAL CPU TIME (secs.) / COARSE NDOF):

9 (27/352)   10 23/280 R   13 32/352   14 27/352   15 29/352

19 23/352   20 B

→ TOTAL CPU TIME (secs.) COARSE NDOF

there was a problem →

solvers selected in the code (matrix-solver=...)

- UMFPACK
- AMESOS
- AZTECOO-CG   (iterative_method=...)
- AZTECOO-CG-JACOBI
- AZTECOO-BICGS
- AZTECOO-BICGS-JACOBI   (preconditioner=...)
- PETSC
- MUMPS
- PARDISO-OMP 1
- PARDISO-OMP 2
- NOX → export OMP_NUM_THREADS=1 before executing the tutorial

Tutorial number

(07)   13   07-MPI 1   13-MPI 1
1   9   10   40
2   10
3
4
5   13   Test #
6   14   (17)   19
7   15   18   20
8   16

Tutorial was executed with mpirun -np 1

(red box):

R: ZCP Nodes deallocation warning at the end of execution

B: MPI Boost error at the beginning

S: Segmentation violation in PardisoLinearSolver::solve() (not anymore ☺)

OTHER PROBLEMS (magenta):

AMESOS DOES NOT GIVE THE SAME SOLUTION IN TUT.#13 AS THE OTHER SOLVERS.

NOX FAILS WHEN JFNK==TRUE (DOUBLE FREE)

21