

INFO: Initializing Program: rhsTest

Dimensionality = 4

nDimsX = 3 nDimsE = 1

nX(1) = 0016 nX(2) = 0016 nX(3) = 0016 nE = 0008
swX(1) = 1 swX(2) = 1 swX(3) = 1 swE = 0

Degrees of Freedom / Element / Field

nNodes = 03

i = 1, nNodesX(1) = 03
i = 2, nNodesX(2) = 03
i = 3, nNodesX(3) = 03
 nNodesE = 03

nDOFX = 0027 nDOFE = 0003 nDOF = 0081

Computational Domain

Spatial Domain:

xL(1) = 0.00E+00 , xR(1) = 1.00E+00 , ZoomX(1) = 1.0000E+00

MIN/MAX dx(1) = 6.25E-02 / 6.25E-02

xL(2) = 0.00E+00 , xR(2) = 1.00E+00 , ZoomX(2) = 1.0000E+00

MIN/MAX dx(2) = 6.25E-02 / 6.25E-02

xL(3) = 0.00E+00 , xR(3) = 1.00E+00 , ZoomX(3) = 1.0000E+00

MIN/MAX dx(3) = 6.25E-02 / 6.25E-02

Spectral Domain:

eL = 0.00E+00 , eR = 1.00E+01 , ZoomE = 1.0000E+00

MIN/MAX de = 1.25E+00 / 1.25E+00

Geometry Fields

- Newtonian Potential
- Spatial Metric Component (11)
- Spatial Metric Component (22)
- Spatial Metric Component (33)
- Contravariant Spatial Metric Component
- Lapse Function
- Shift Vector (1)
- Shift Vector (2)
- Shift Vector (3)
- Conformal Factor

Coordinate System: CARTESIAN

Fluid Fields (Conserved)

- Conserved Baryon Density
- Conserved Momentum Density (1)
- Conserved Momentum Density (2)
- Conserved Momentum Density (3)
- Conserved Energy Density
- Conserved Electron Density

Fluid Fields (Primitive)

- Comoving Baryon Density
- Three-Velocity (1)
- Three-Velocity (2)
- Three-Velocity (3)
- Internal Energy Density
- Comoving Electron Density

Fluid Fields (Auxiliary)

- Pressure
- Temperature
- Electron Fraction
- Entropy Per Baryon
- Specific Internal Energy
- Electron Chemical Potential
- Proton Chemical Potential
- Neutron Chemical Potential
- Proton Mass Fraction
- Neutron Mass Fraction
- Alpha Mass Fraction
- Heavy Mass Fraction
- Ratio of Specific Heats (Gamma)
- Sound Speed

Radiation Fields (Conserved)

Eulerian Number Density
Eulerian Number Flux Density (1)
Eulerian Number Flux Density (2)
Eulerian Number Flux Density (3)

Radiation Fields (Primitive)

Lagrangian Number Density
Lagrangian Number Flux Density (1)
Lagrangian Number Flux Density (2)
Lagrangian Number Flux Density (3)

Radiation Fields (Auxiliary)

Lagrangian Flux Factor
Lagrangian Eddington Factor

Equation Of State: IDEAL

Opacities: IDEAL

Gravity Solver: Dummy

Fluid Riemann Solver: LLF

Radiation Riemann Solver: LLF

Evolve Gravity = F
Evolve Fluid = F
Evolve Radiation = F

InitializeReferenceElement_Lagrange: 9.8970E-04

INFO: rhsTest

InitializeFields: 4.3498E-01

Timers:

ComputeRHS: 1.5833E+00

Volume Term: 7.8594E-01

Add 1: 7.0028E-01

Surface Term: 7.6520E-01

Interp: 2.9663E-01

Left: 3.9860E-02

Right: 3.9751E-02

Flux: 9.4810E-03

Add 2: 1.8063E-01

Add 3: 1.8087E-01

Inverse Mass: 3.0140E-02

Sum: 1.5813E+00

ErrorL1: 1.7154E-02

ErrorIn: 3.7804E-02