

INFO: Initializing Program: rhsTest

Dimensionality = 4

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nDimsX = 3   nDimsE = 1

nX(1) = 0012   nX(2) = 0012   nX(3) = 0012   nE = 0006  
swX(1) =    1   swX(2) =    1   swX(3) =    1   swE =    0

Degrees of Freedom / Element / Field

nNodes = 04

i = 1, nNodesX(1) = 04  
i = 2, nNodesX(2) = 04  
i = 3, nNodesX(3) = 04  
      nNodesE    = 04

nDOFX = 0064   nDOFE = 0004   nDOF = 0256

Computational Domain

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Spatial Domain:

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

MIN/MAX dx(1) = 8.33E-02 / 8.33E-02

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

MIN/MAX dx(2) = 8.33E-02 / 8.33E-02

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

MIN/MAX dx(3) = 8.33E-02 / 8.33E-02

Spectral Domain:

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

MIN/MAX de = 1.67E+00 / 1.67E+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

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#### 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

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Opacities: IDEAL

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Gravity Solver: Dummy

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Fluid Riemann Solver: LLF

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Radiation Riemann Solver: LLF

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

InitializeReferenceElement\_Lagrange: 1.2308E-02

INFO: rhsTest

InitializeFields: 5.0542E-01

Timers:

ComputeRHS: 4.1644E+00

Volume Term: 2.3808E+00

Add 1: 2.2989E+00

Surface Term: 1.7529E+00

Interp: 6.9470E-01

Left: 3.0257E-02

Right: 2.9857E-02

Flux: 6.8405E-03

Add 2: 4.8951E-01

Add 3: 4.8941E-01

Inverse Mass: 3.0039E-02

Sum: 4.1637E+00

ErrorL1: 2.2234E-03

ErrorIn: 4.9330E-03