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SimScale incorporates Simulation Modeling Suite(TM) software by Simmetrix Inc. © 1997-2025. All Rights Reserved.

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Model import took 3.043858739s.

Maximum precision of model and its entities: 1e-08 m.

Absolute small feature tolerance: 0.009949998010000407 m.

Surface meshing took 28.670157238s.

Number of cells after 43.019113922s: 291843

Number of cells after 57.35412304s: 345843

Number of cells after 1m11.682235533s: 346200

Meshing took 1m20.734799178s. Starting mesh export.

Mesh quality metrics:

Non Orthogonality

Acceptable range: 0.0 to 88.0

min: 4.0

max: 90.0

average: 34.3

99.99-th percentile: 90.0

Edge Ratio

Acceptable range: 0.0 to 100.0

min: 1.1

max: 86.9

average: 1.9

99.99-th percentile: 86.9

Volume Ratio

Acceptable range: 0.0 to 100.0

min: 1.0

max: 1581.8

average: 2.0

99.99-th percentile: 1581.8

Aspect Ratio

Acceptable range: 0.0 to 100.0

min: 6.1

max: 8189.6

average: 10.6

99.99-th percentile: 8189.6

Tetrahedral Aspect Ratio

Acceptable range: 0.0 to 100.0

min: 6.1

max: 8189.6

average: 10.6

99.99-th percentile: 8189.6

Skewness

Acceptable range: 0.0 to 100.0

min: 0.0

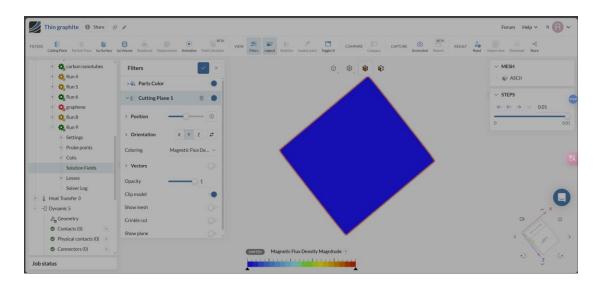
max: 27.6

average: 0.3

99.99-th percentile: 27.6

Min Edge Length: 0

Mesh export took 18.900466578s.



Setting the resources path

Loading resources path

Resources Loaded

Setting the XML file path:

Initializing Study

Loading study properties...

Set study definition...

Getting study element data...

Getting study name...

Setting study type...

Setting mesh ID...

Setting product full version (Formatted: Year/Date Code)...

Preparing to separate product version date code...

Setting product version year...

Extracting document name...

Setting document name: SimScaleElectromagnetics

Extracting mesh file name

Setting mesh file name: mesh

Initializing log file

Initializing dev file...

Dev file initialized

Log file initialized

Initializing temp file

Temp file initialized

Started on: Tue Feb 4 09:24:31 2025

Initializing study properties

Non Linear Residual Error: 1e-06

1 Solid(s) found in the current study

EMW\_ERROR\_25: No solid body found or no material applied

Type: Error!

Cure: Check the input file or model to ensure that it is properly formatted and that all necessary data is included. Make sure that the model includes at least one solid geometry. Verify the material assignment to ensure that it is accurate and complete. Ensure that all elements are correctly assigned to the appropriate material properties.

Ended on: Tue Feb 4 09:24:31 2025

EMW\_WARNING\_60017: Resources estimation is not done for this solving session. Consider using the argument -RunMode with value Estimation, before doing full run to check if resources are available.

Type: Warning!

Start fill elements an node arrays from json mesh file

Getting Points (Nodes) coordinates from the mesh

Start reading global surface mesh faces

Filling the elements array

Start reading global volume mesh

End reading global volume mesh

number of elements: 346230

number of nodes: 107696

Compute security key done

Preparing mesh database

Preparing database... (0/14)...

Preparing database... (1/14)...

Preparing database... (2/14)...

Creating tets

Number of vertices: 107696

Vertices created

Number of edges: 548531

Number of triangels: 787066

Number of tets: 346230

Preparing database... (3/14)...

Preparing database... (4/14)...

Preparing database... (5 / 14) ...

Preparing database... (6 / 14) ...

Euler characteristic of the complex is: 1

Is the complex connected: 1

Preparing database... (7/14)...

Preparing database... (8 / 14) ...

Preparing database... (9/14)...

```
Preparing database... (10/14)...
Preparing database... (11 / 14) ...
Preparing database... (12/14)...
Number of cohomology generators = 0
Preparing database... (13 / 14) ...
Preparing database... (14/14)...
Start filling elements boundary conditions
End filling elements boundary conditions
Finish preparing mesh dataBase
EstimatedRunTime:1121.87s
Progress: 1%
Estimated Time: 0:18:42
Remaining Time: 0:18:42
Available Memory(GB): 12.87
Available Memory 0 Mb
----- CTransientMagneticStudy::Run 1>-----
----- CTransientMagneticStudy::Run 2>-----
----- CTransientMagneticStudy::Run 3>-----
Checking component and materials status
Checking Components and mesh availability
Checking Load/Restraint mesh
EMW_INFO_30009: Number of mesh faces found in the Boundary Condition Tangential
Flux - 1 is: 546271
Type: Info
EMW_INFO_30009: Number of mesh faces found in the Boundary Condition is:
546271
Type: Info
```

```
Finish All mesh checking
----- CTransientMagneticStudy::Run 4>-----
Setting Coils parameters...
Getting Coils mesh data
----- CTransientMagneticStudy::Run 6>-----
Getting Gauss values
----- CTransientMagneticStudy::Run 7>-----
Checking material non linear status
----- CTransientMagneticStudy::Run 8>-----
Solving Coils conduction problem...
Forming Coils Support Regions
Preparing linear system...
Get Degree of Coupling For Conduction Timing: 00:00:00
>>> Nbr of used cores: 4
Solver in progress...
>> end ScanDataFromFiles
>> Number of Cpus 4
>> Start Solving
>>>Solver :: Multi_Cores Pardiso Direct Solver
Multi_Cores Pardiso Direct Solver:Total spent Cpu Time 0.139806
Multi_Cores Pardiso Direct Solver:Total spent Wall Time 0.043000
>>End Solving
Solving
         00:00:01 Dimension 13088 Non_Zeroes 44146
reading file
Main call: Finished scanning the solution file for the multi-core solver: Dimension =
13088 File size = 104704 Timing: 00:00:00
```

0 timing on seconds Done solving conduction for Coil 1 ----- CTransientMagneticStudy::Run 9>-----Intermediate Steps before the main solver ----- CTransientMagneticStudy::Run 10>-----Start Prepare Linear system for vector TS PrepareLinearSystemForVectorTS 1 PrepareLinearSystemForVectorTS 1 NumberGlobalForVectorTs 1 NumberGlobalForVectorTs 1 NumberGlobalForVectorTs 2 NumberGlobalForVectorTs 2 NumberGlobalForVectorTs 3 NumberGlobalForVectorTs 3 PrepareLinearSystemForVectorTS 2 PrepareLinearSystemForVectorTS 2 PrepareLinearSystemForVectorTS 3 PrepareLinearSystemForVectorTS 3 PrepareLinearSystemForVectorTS 4 PrepareLinearSystemForVectorTS 4 >>> Nbr of used cores: 4 Finish Prepare linear system for vector TS Distributing the currents for Coil 1 >> end ScanDataFromFiles >> Number of Cpus 4 >> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

```
>> WriteSolverParameters
>> RunIterativeSolver
Number of iterations: 133, true residual: 2.47829e-07
Multi_Cores Iterative Solver:Total spent Cpu Time 0.135986
Multi_Cores Iterative Solver:Total spent Wall Time 0.165000
>>End Solving
                               00:00:00 Dimension 119796 Non Zeroes 1403924
  Solving
reading file
  Main call: Finished scanning the solution file for the multi-core solver: Dimension =
119796 File size = 958368 Timing: 00:00:00
0 timing on seconds
reading file
Distributed Current successfully for Coil 1
 Done Distributing the currents
IMT Fix Order TransientMagnetic Timing:
                                                                                                                    0: 0: 0
Number of cohomology generators = 0
Get degree of coupling for transient magnetic
                                                                                                                                 Timing:
                                                                                                                                                              0:0:0
>>> Nbr of used cores: 4
Start solving for TOmega 0.000000e+00
Assembling matrices for Time 0.000000e+00
Assembling matrices for Time 0.000000e+00
  CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore
                                        0: 0: 1
Timing:
CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Metallic Magnetic Study:: Assemble Global For Transient Magnetic Magnetic For Transient Magnetic Mag
mory Used = 0
```

>> Set Iterative Parameters

Solving matrices for Time0.000000e+00

Solving matrices for Time0.000000e+00

Solver in progress...

- >> end ScanDataFromFiles
- >> Number of Cpus 4
- >> Start Solving
- >>>Solver :: Multi\_Cores Iterative Solver
- >> Set Iterative Parameters
- >> WriteSolverParameters
- >> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005020

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

>>>>>

CTransient Magnetic Study:: Assemble Global For Transient Inductance December 2017

Timing: 0: 0: 0

- >> end ScanDataFromFiles
- >> Number of Cpus 4
- >> Start Solving
- >>>Solver :: Multi\_Cores Iterative Solver
- >> Set Iterative Parameters
- >> WriteSolverParameters
- >> RunlterativeSolver

Number of iterations: 26 , true residual: 2.40595e-20

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004882

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 0.000000e+00

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2178.000000ms

Start solving for TOmega 1.000000e-04

Assembling matrices for Time 1.000000e-04

Assembling matrices for Time 1.000000e-04

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time1.000000e-04

Solving matrices for Time1.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004993

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.000000e-04

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2376.000000ms

Start solving for TOmega 2.000000e-04

Assembling matrices for Time 2.000000e-04

Assembling matrices for Time 2.000000e-04

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.000000e-04

Solving matrices for Time2.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004992

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.000000e-04

Progress: 1%

Estimated Time: 0:18:42

Remaining Time: 0:18:22

Available Memory(GB): 12.61

Current CPU Percentage: 42.30

Average cores per hour: 1.69

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2455.000000ms

Start solving for TOmega 3.000000e-04

Assembling matrices for Time 3.000000e-04

Assembling matrices for Time 3.000000e-04

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time3.000000e-04

Solving matrices for Time3.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004927

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.000000e-04

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2388.000000ms

Start solving for TOmega 4.000000e-04

Assembling matrices for Time 4.000000e-04

Assembling matrices for Time 4.000000e-04

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measure of the contraction of the con

mory Used = 0

Solving matrices for Time4.000000e-04

Solving matrices for Time4.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004961

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:01 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.000000e-04

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2413.000000ms

Start solving for TOmega 5.000000e-04

Assembling matrices for Time 5.000000e-04

Assembling matrices for Time 5.000000e-04

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{eq:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time5.000000e-04

Solving matrices for Time5.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004953

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:01 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.000000e-04

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2512.000000ms

Start solving for TOmega 6.000000e-04

Assembling matrices for Time 6.000000e-04

Assembling matrices for Time 6.000000e-04

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time6.000000e-04

Solving matrices for Time6.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004961

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

**Computing Circuit Quantities** 

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.000000e-04

Progress: 3%

Estimated Time: 0:18:42

Remaining Time: 0:18:2

Available Memory(GB): 12.51

Current CPU Percentage: 43.23

Average cores per hour: 1.73

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2364.000000ms

Start solving for TOmega 7.000000e-04

Assembling matrices for Time 7.000000e-04

Assembling matrices for Time 7.000000e-04

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time7.000000e-04

Solving matrices for Time7.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004936

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:01 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.000000e-04

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2351.000000ms

Start solving for TOmega 8.000000e-04

Assembling matrices for Time 8.000000e-04

Assembling matrices for Time 8.000000e-04

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time8.000000e-04

Solving matrices for Time8.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005031

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.000000e-04

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2421.000000ms

Start solving for TOmega 9.000000e-04

Assembling matrices for Time 9.000000e-04

Assembling matrices for Time 9.000000e-04

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time9.000000e-04

Solving matrices for Time9.000000e-04

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005006

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.000000e-04

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2404.000000ms

Start solving for TOmega 1.000000e-03

Assembling matrices for Time 1.000000e-03

Assembling matrices for Time 1.000000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time1.000000e-03

Solving matrices for Time1.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004969

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.000000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2354.000000ms

Start solving for TOmega 1.100000e-03

Assembling matrices for Time 1.100000e-03

Assembling matrices for Time 1.100000e-03

Progress: 5%

Estimated Time: 0:18:42

Remaining Time: 0:17:42

Available Memory(GB): 12.50

Current CPU Percentage: 44.18

Average cores per hour: 1.77

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Method of the Company of the Company

mory Used = 0

Solving matrices for Time1.100000e-03

Solving matrices for Time1.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004433

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.100000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2418.000000ms

Start solving for TOmega 1.200000e-03

Assembling matrices for Time 1.200000e-03

Assembling matrices for Time 1.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time1.200000e-03

Solving matrices for Time1.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005018

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.200000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2414.000000ms

Start solving for TOmega 1.300000e-03

Assembling matrices for Time 1.300000e-03

Assembling matrices for Time 1.300000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time1.300000e-03

Solving matrices for Time1.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004875

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.300000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2381.000000ms

Start solving for TOmega 1.400000e-03

Assembling matrices for Time 1.400000e-03

Assembling matrices for Time 1.400000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time1.400000e-03

Solving matrices for Time1.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.006018

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.400000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2439.00000ms

Start solving for TOmega 1.500000e-03

Assembling matrices for Time 1.500000e-03

Assembling matrices for Time 1.500000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Metallic Magnetic Study:: Assemble Global For Transient Magnetic Magnetic For Transient Magnetic Magmory Used = 0

Solving matrices for Time1.500000e-03

Solving matrices for Time1.500000e-03

Solver in progress...

Progress: 7%

Estimated Time: 0:18:42

Remaining Time: 0:17:22

Available Memory(GB): 12.36

Current CPU Percentage: 43.46

Average cores per hour: 1.74

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004818

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.500000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2409.00000ms

Start solving for TOmega 1.600000e-03

Assembling matrices for Time 1.600000e-03

Assembling matrices for Time 1.600000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time1.600000e-03

Solving matrices for Time1.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004915

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.600000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2408.00000ms

Start solving for TOmega 1.700000e-03

Assembling matrices for Time 1.700000e-03

Assembling matrices for Time 1.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Methods and the study of the following study of the study

mory Used = 0

Solving matrices for Time1.700000e-03

Solving matrices for Time1.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005036

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.700000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2440.00000ms

Start solving for TOmega 1.800000e-03

Assembling matrices for Time 1.800000e-03

Assembling matrices for Time 1.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time1.800000e-03

Solving matrices for Time1.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.006544

Multi\_Cores Iterative Solver:Total spent Wall Time 0.012000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2359.000000ms

Start solving for TOmega 1.900000e-03

Assembling matrices for Time 1.900000e-03

Assembling matrices for Time 1.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time1.900000e-03

Solving matrices for Time1.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005059

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 8%

Estimated Time: 0:18:42

Remaining Time: 0:17:2

Available Memory(GB): 12.43

Current CPU Percentage: 43.30

Average cores per hour: 1.73

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.900000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2425.000000ms

Start solving for TOmega 2.000000e-03

Assembling matrices for Time 2.000000e-03

Assembling matrices for Time 2.000000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.000000e-03

Solving matrices for Time2.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi Cores Iterative Solver:Total spent Cpu Time 0.004941

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.000000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2422.000000ms

Start solving for TOmega 2.100000e-03

Assembling matrices for Time 2.100000e-03

Assembling matrices for Time 2.100000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.100000e-03

Solving matrices for Time2.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004998

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.100000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2385.000000ms

Start solving for TOmega 2.200000e-03

Assembling matrices for Time 2.200000e-03

Assembling matrices for Time 2.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time2.200000e-03

Solving matrices for Time2.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004937

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.200000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2350.000000ms

Start solving for TOmega 2.300000e-03

Assembling matrices for Time 2.300000e-03

Assembling matrices for Time 2.300000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.300000e-03

Solving matrices for Time2.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004985

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 10%

Estimated Time: 0:18:42

Remaining Time: 0:16:42

Available Memory(GB): 12.36

Current CPU Percentage: 43.41

Average cores per hour: 1.74

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.300000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2346.000000ms

Start solving for TOmega 2.400000e-03

Assembling matrices for Time 2.400000e-03

Assembling matrices for Time 2.400000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.400000e-03

Solving matrices for Time2.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004361

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.400000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2428.000000ms

Start solving for TOmega 2.500000e-03

Assembling matrices for Time 2.500000e-03

Assembling matrices for Time 2.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.500000e-03

Solving matrices for Time2.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.006113

Multi\_Cores Iterative Solver:Total spent Wall Time 0.012000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.500000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2432.000000ms

Start solving for TOmega 2.600000e-03

Assembling matrices for Time 2.600000e-03

Assembling matrices for Time 2.600000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.600000e-03

Solving matrices for Time2.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005003

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

**Computing Circuit Quantities** 

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.600000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2380.000000ms

Start solving for TOmega 2.700000e-03

Assembling matrices for Time 2.700000e-03

Assembling matrices for Time 2.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnetic

mory Used = 0

Solving matrices for Time2.700000e-03

Solving matrices for Time2.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005020

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 12%

Estimated Time: 0:18:42

Remaining Time: 0:16:22

Available Memory(GB): 12.39

Current CPU Percentage: 43.39

Average cores per hour: 1.74

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.700000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2368.000000ms

Start solving for TOmega 2.800000e-03

Assembling matrices for Time 2.800000e-03

Assembling matrices for Time 2.800000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time2.800000e-03

Solving matrices for Time2.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.006259

Multi\_Cores Iterative Solver:Total spent Wall Time 0.013000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.800000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2408.00000ms

Start solving for TOmega 2.900000e-03

Assembling matrices for Time 2.900000e-03

Assembling matrices for Time 2.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time2.900000e-03

Solving matrices for Time2.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004925

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 2.900000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2357.000000ms

Start solving for TOmega 3.000000e-03

Assembling matrices for Time 3.000000e-03

Assembling matrices for Time 3.000000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time3.000000e-03

Solving matrices for Time3.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004365

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.000000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2338.000000ms

Start solving for TOmega 3.100000e-03

Assembling matrices for Time 3.100000e-03

Assembling matrices for Time 3.100000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time3.100000e-03

Solving matrices for Time3.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004377

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 14%

Estimated Time: 0:18:42

Remaining Time: 0:16:2

Available Memory(GB): 12.33

Current CPU Percentage: 43.53

Average cores per hour: 1.74

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.100000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2348.000000ms

Start solving for TOmega 3.200000e-03

Assembling matrices for Time 3.200000e-03

Assembling matrices for Time 3.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time3.200000e-03

Solving matrices for Time3.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004520

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.200000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2467.000000ms

Start solving for TOmega 3.300000e-03

Assembling matrices for Time 3.300000e-03

Assembling matrices for Time 3.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time3.300000e-03

Solving matrices for Time3.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004887

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.300000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2339.000000ms

Start solving for TOmega 3.400000e-03

Assembling matrices for Time 3.400000e-03

Assembling matrices for Time 3.400000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time3.400000e-03

Solving matrices for Time3.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26 , true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004959

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.400000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2385.000000ms

Start solving for TOmega 3.500000e-03

Assembling matrices for Time 3.500000e-03

Assembling matrices for Time 3.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time3.500000e-03

Solving matrices for Time3.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004384

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:01 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 16%

Estimated Time: 0:18:42

Remaining Time: 0:15:42

Available Memory(GB): 12.29

Current CPU Percentage: 43.45

Average cores per hour: 1.74

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.500000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2365.000000ms

Start solving for TOmega 3.600000e-03

Assembling matrices for Time 3.600000e-03

Assembling matrices for Time 3.600000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time3.600000e-03

Solving matrices for Time3.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004938

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.600000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2364.000000ms

Start solving for TOmega 3.700000e-03

Assembling matrices for Time 3.700000e-03

Assembling matrices for Time 3.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time3.700000e-03

Solving matrices for Time3.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26 , true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004368

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.700000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2742.000000ms

Start solving for TOmega 3.800000e-03

Assembling matrices for Time 3.800000e-03

Assembling matrices for Time 3.800000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time3.800000e-03

Solving matrices for Time3.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005157

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2369.00000ms

Start solving for TOmega 3.900000e-03

Assembling matrices for Time 3.900000e-03

Assembling matrices for Time 3.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time3.900000e-03

Solving matrices for Time3.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004966

Multi Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 17%

Estimated Time: 0:18:42

Remaining Time: 0:15:22

Available Memory(GB): 12.25

Current CPU Percentage: 43.10

Average cores per hour: 1.72

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 3.900000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2401.000000ms

Start solving for TOmega 4.000000e-03

Assembling matrices for Time 4.000000e-03

Assembling matrices for Time 4.000000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time4.000000e-03

Solving matrices for Time4.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004966

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.000000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2380.000000ms

Start solving for TOmega 4.100000e-03

Assembling matrices for Time 4.100000e-03

Assembling matrices for Time 4.100000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnetic Study:: Assemble Global For Transient Magnetic Magnetic Magnetic Magnetic Magnetic Magnetic M

mory Used = 0

Solving matrices for Time4.100000e-03

Solving matrices for Time4.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005030

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.100000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2409.00000ms

Start solving for TOmega 4.200000e-03

Assembling matrices for Time 4.200000e-03

Assembling matrices for Time 4.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time4.200000e-03

Solving matrices for Time4.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004948

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.200000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2359.000000ms

Start solving for TOmega 4.300000e-03

Assembling matrices for Time 4.300000e-03

Assembling matrices for Time 4.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time4.300000e-03

Solving matrices for Time4.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004457

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 19%

Estimated Time: 0:18:42

Remaining Time: 0:15:2

Available Memory(GB): 12.25

Current CPU Percentage: 43.46

Average cores per hour: 1.74

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.300000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2401.000000ms

Start solving for TOmega 4.400000e-03

Assembling matrices for Time 4.400000e-03

Assembling matrices for Time 4.400000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Method of the Company of the Company

mory Used = 0

Solving matrices for Time4.400000e-03

Solving matrices for Time4.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004979

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.400000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2358.000000ms

Start solving for TOmega 4.500000e-03

Assembling matrices for Time 4.500000e-03

Assembling matrices for Time 4.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time4.500000e-03

Solving matrices for Time4.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005095

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.500000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2433.000000ms

Start solving for TOmega 4.600000e-03

Assembling matrices for Time 4.600000e-03

Assembling matrices for Time 4.600000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time4.600000e-03

Solving matrices for Time4.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005441

Multi\_Cores Iterative Solver:Total spent Wall Time 0.011000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.600000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2350.000000ms

Start solving for TOmega 4.700000e-03

Assembling matrices for Time 4.700000e-03

Assembling matrices for Time 4.700000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time4.700000e-03

Solving matrices for Time4.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004421

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.700000e-03

Progress: 21%

Estimated Time: 0:18:42

Remaining Time: 0:14:42

Available Memory(GB): 12.21

Current CPU Percentage: 43.86

Average cores per hour: 1.75

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2353.000000ms

Start solving for TOmega 4.800000e-03

Assembling matrices for Time 4.800000e-03

Assembling matrices for Time 4.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time4.800000e-03

Solving matrices for Time4.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi Cores Iterative Solver: Total spent Cpu Time 0.004333

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2382.000000ms

Start solving for TOmega 4.900000e-03

Assembling matrices for Time 4.900000e-03

Assembling matrices for Time 4.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time4.900000e-03

Solving matrices for Time4.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004998

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 4.900000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2404.000000ms

Start solving for TOmega 5.000000e-03

Assembling matrices for Time 5.000000e-03

Assembling matrices for Time 5.000000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time5.000000e-03

Solving matrices for Time5.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004975

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.000000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2380.00000ms

Start solving for TOmega 5.100000e-03

Assembling matrices for Time 5.100000e-03

Assembling matrices for Time 5.100000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measure of the property of the prope

mory Used = 0

Solving matrices for Time5.100000e-03

Solving matrices for Time5.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004386

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.100000e-03

Progress: 23%

Estimated Time: 0:18:42

Remaining Time: 0:14:22

Available Memory(GB): 12.14

Current CPU Percentage: 44.47

Average cores per hour: 1.78

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2435.000000ms

Start solving for TOmega 5.200000e-03

Assembling matrices for Time 5.200000e-03

Assembling matrices for Time 5.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time5.200000e-03

Solving matrices for Time5.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005058

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.200000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2461.000000ms

Start solving for TOmega 5.300000e-03

Assembling matrices for Time 5.300000e-03

Assembling matrices for Time 5.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time5.300000e-03

Solving matrices for Time5.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005170

Multi\_Cores Iterative Solver:Total spent Wall Time 0.010000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.300000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2432.000000ms

Start solving for TOmega 5.400000e-03

Assembling matrices for Time 5.400000e-03

Assembling matrices for Time 5.400000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time5.400000e-03

Solving matrices for Time5.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004992

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.400000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2403.000000ms

Start solving for TOmega 5.500000e-03

Assembling matrices for Time 5.500000e-03

Assembling matrices for Time 5.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time5.500000e-03

Solving matrices for Time5.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005142

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.500000e-03

Progress: 24%

Estimated Time: 0:18:42

Remaining Time: 0:14:2

Available Memory(GB): 12.12

Current CPU Percentage: 43.64

Average cores per hour: 1.75

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2369.00000ms

Start solving for TOmega 5.600000e-03

Assembling matrices for Time 5.600000e-03

Assembling matrices for Time 5.600000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time5.600000e-03

Solving matrices for Time5.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004986

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.600000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2347.000000ms

Start solving for TOmega 5.700000e-03

Assembling matrices for Time 5.700000e-03

Assembling matrices for Time 5.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time5.700000e-03

Solving matrices for Time5.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004600

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.700000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2418.000000ms

Start solving for TOmega 5.800000e-03

Assembling matrices for Time 5.800000e-03

Assembling matrices for Time 5.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time5.800000e-03

Solving matrices for Time5.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi Cores Iterative Solver:Total spent Cpu Time 0.005005

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2338.000000ms

Start solving for TOmega 5.900000e-03

Assembling matrices for Time 5.900000e-03

Assembling matrices for Time 5.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time5.900000e-03

Solving matrices for Time5.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004319

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 5.900000e-03

Progress: 26%

Estimated Time: 0:18:42

Remaining Time: 0:13:42

Available Memory(GB): 12.06

Current CPU Percentage: 44.60

Average cores per hour: 1.78

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2390.000000ms

Start solving for TOmega 6.000000e-03

Assembling matrices for Time 6.000000e-03

Assembling matrices for Time 6.000000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time6.000000e-03

Solving matrices for Time6.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004946

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.000000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2408.00000ms

Start solving for TOmega 6.100000e-03

Assembling matrices for Time 6.100000e-03

Assembling matrices for Time 6.100000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time6.100000e-03

Solving matrices for Time6.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004940

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.100000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2377.000000ms

Start solving for TOmega 6.200000e-03

Assembling matrices for Time 6.200000e-03

Assembling matrices for Time 6.200000e-03

CTransient Magnetic Study :: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time6.200000e-03

Solving matrices for Time6.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004385

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.200000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2365.000000ms

Start solving for TOmega 6.300000e-03

Assembling matrices for Time 6.300000e-03

Assembling matrices for Time 6.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time6.300000e-03

Solving matrices for Time6.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004933

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.300000e-03

Progress: 28%

Estimated Time: 0:18:42

Remaining Time: 0:13:22

Available Memory(GB): 12.04

Current CPU Percentage: 44.42

Average cores per hour: 1.78

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2344.00000ms

Start solving for TOmega 6.400000e-03

Assembling matrices for Time 6.400000e-03

Assembling matrices for Time 6.400000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time6.400000e-03

Solving matrices for Time6.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004501

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:01 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.400000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2389.00000ms

Start solving for TOmega 6.500000e-03

Assembling matrices for Time 6.500000e-03

Assembling matrices for Time 6.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time6.500000e-03

Solving matrices for Time6.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004945

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.500000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2353.000000ms

Start solving for TOmega 6.600000e-03

Assembling matrices for Time 6.600000e-03

Assembling matrices for Time 6.600000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time6.600000e-03

Solving matrices for Time6.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004354

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.600000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2366.00000ms

Start solving for TOmega 6.700000e-03

Assembling matrices for Time 6.700000e-03

Assembling matrices for Time 6.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time6.700000e-03

Solving matrices for Time6.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004985

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.700000e-03

Progress: 30%

Estimated Time: 0:18:42

Remaining Time: 0:13:2

Available Memory(GB): 12.00

Current CPU Percentage: 43.58

Average cores per hour: 1.74

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2345.000000ms

Start solving for TOmega 6.800000e-03

Assembling matrices for Time 6.800000e-03

Assembling matrices for Time 6.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time6.800000e-03

Solving matrices for Time6.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004449

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2333.000000ms

Start solving for TOmega 6.900000e-03

Assembling matrices for Time 6.900000e-03

Assembling matrices for Time 6.900000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time6.900000e-03

Solving matrices for Time6.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004963

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 6.900000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2386.000000ms

Start solving for TOmega 7.000000e-03

Assembling matrices for Time 7.000000e-03

Assembling matrices for Time 7.000000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Magne

mory Used = 0

Solving matrices for Time7.000000e-03

Solving matrices for Time7.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26 , true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004965

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.000000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2425.000000ms

Start solving for TOmega 7.100000e-03

Assembling matrices for Time 7.100000e-03

Assembling matrices for Time 7.100000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time7.100000e-03

Solving matrices for Time7.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005011

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.100000e-03

Progress: 32%

Estimated Time: 0:18:42

Remaining Time: 0:12:42

Available Memory(GB): 11.94

Current CPU Percentage: 43.45

Average cores per hour: 1.74

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2365.000000ms

Start solving for TOmega 7.200000e-03

Assembling matrices for Time 7.200000e-03

Assembling matrices for Time 7.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time7.200000e-03

Solving matrices for Time7.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004368

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.200000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2453.000000ms

Start solving for TOmega 7.300000e-03

Assembling matrices for Time 7.300000e-03

Assembling matrices for Time 7.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time7.300000e-03

Solving matrices for Time7.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26 . true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004968

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.300000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2361.000000ms

Start solving for TOmega 7.400000e-03

Assembling matrices for Time 7.400000e-03

Assembling matrices for Time 7.400000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time7.400000e-03

Solving matrices for Time7.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004384

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.400000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2466.000000ms

Start solving for TOmega 7.500000e-03

Assembling matrices for Time 7.500000e-03

Assembling matrices for Time 7.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time7.500000e-03

Solving matrices for Time7.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005070

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.500000e-03

Progress: 33%

Estimated Time: 0:18:42

Remaining Time: 0:12:22

Available Memory(GB): 11.92

Current CPU Percentage: 43.34

Average cores per hour: 1.73

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2347.000000ms

Start solving for TOmega 7.600000e-03

Assembling matrices for Time 7.600000e-03

Assembling matrices for Time 7.600000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time7.600000e-03

Solving matrices for Time7.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi Cores Iterative Solver:Total spent Cpu Time 0.005022

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.600000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2386.000000ms

Start solving for TOmega 7.700000e-03

Assembling matrices for Time 7.700000e-03

Assembling matrices for Time 7.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time7.700000e-03

Solving matrices for Time7.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004551

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.700000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2439.00000ms

Start solving for TOmega 7.800000e-03

Assembling matrices for Time 7.800000e-03

Assembling matrices for Time 7.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me

mory Used = 0

Solving matrices for Time7.800000e-03

Solving matrices for Time7.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005186

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2367.000000ms

Start solving for TOmega 7.900000e-03

Assembling matrices for Time 7.900000e-03

Assembling matrices for Time 7.900000e-03

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time7.900000e-03

Solving matrices for Time7.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004961

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 7.900000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2381.000000ms

Start solving for TOmega 8.000000e-03

Assembling matrices for Time 8.000000e-03

Assembling matrices for Time 8.000000e-03

Progress: 35%

Estimated Time: 0:18:42

Remaining Time: 0:12:2

Available Memory(GB): 11.87

Current CPU Percentage: 43.62

Average cores per hour: 1.75

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time8.000000e-03

Solving matrices for Time8.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004963

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.000000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2385.000000ms

Start solving for TOmega 8.100000e-03

Assembling matrices for Time 8.100000e-03

Assembling matrices for Time 8.100000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time8.100000e-03

Solving matrices for Time8.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005052

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.100000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2454.000000ms

Start solving for TOmega 8.200000e-03

Assembling matrices for Time 8.200000e-03

Assembling matrices for Time 8.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time8.200000e-03

Solving matrices for Time8.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004989

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.200000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2425.000000ms

Start solving for TOmega 8.300000e-03

Assembling matrices for Time 8.300000e-03

Assembling matrices for Time 8.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time8.300000e-03

Solving matrices for Time8.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005018

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.300000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2398.000000ms

Start solving for TOmega 8.400000e-03

Assembling matrices for Time 8.400000e-03

Assembling matrices for Time 8.400000e-03

Progress: 37%

Estimated Time: 0:18:42

Remaining Time: 0:11:42

Available Memory(GB): 11.83

Current CPU Percentage: 43.82

Average cores per hour: 1.75

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time8.400000e-03

Solving matrices for Time8.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004889

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.400000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2392.000000ms

Start solving for TOmega 8.500000e-03

Assembling matrices for Time 8.500000e-03

Assembling matrices for Time 8.500000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time8.500000e-03

Solving matrices for Time8.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004911

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.500000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2354.000000ms

Start solving for TOmega 8.600000e-03

Assembling matrices for Time 8.600000e-03

Assembling matrices for Time 8.600000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time8.600000e-03

Solving matrices for Time8.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi Cores Iterative Solver:Total spent Cpu Time 0.004381

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.600000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2375.000000ms

Start solving for TOmega 8.700000e-03

Assembling matrices for Time 8.700000e-03

Assembling matrices for Time 8.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time8.700000e-03

Solving matrices for Time8.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004940

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.700000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2464.000000ms

Start solving for TOmega 8.800000e-03

Assembling matrices for Time 8.800000e-03

Assembling matrices for Time 8.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Mention of the property of the prope

mory Used = 0

Solving matrices for Time8.800000e-03

Solving matrices for Time8.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004979

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Progress: 39%

Estimated Time: 0:18:42

Remaining Time: 0:11:22

Available Memory(GB): 11.81

Current CPU Percentage: 43.49

Average cores per hour: 1.74

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2460.00000ms

Start solving for TOmega 8.900000e-03

Assembling matrices for Time 8.900000e-03

Assembling matrices for Time 8.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time8.900000e-03

Solving matrices for Time8.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004969

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 8.900000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2346.000000ms

Start solving for TOmega 9.000000e-03

Assembling matrices for Time 9.000000e-03

Assembling matrices for Time 9.000000e-03

CTransient Magnetic Study :: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time9.000000e-03

Solving matrices for Time9.000000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004471

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.000000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2468.000000ms

Start solving for TOmega 9.100000e-03

Assembling matrices for Time 9.100000e-03

Assembling matrices for Time 9.100000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time9.100000e-03

Solving matrices for Time9.100000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi Cores Iterative Solver: Total spent Cpu Time 0.004984

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.100000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2432.000000ms

Start solving for TOmega 9.200000e-03

Assembling matrices for Time 9.200000e-03

Assembling matrices for Time 9.200000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 ${\tt CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measure of the transient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measure of the transient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measure of the transient Magnetic Study:: Assemble Global For Transient Magnetic Study:: Assemble Global$ 

mory Used = 0

Solving matrices for Time9.200000e-03

Solving matrices for Time9.200000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005168

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 40%

Estimated Time: 0:18:42

Remaining Time: 0:11:2

Available Memory(GB): 11.76

Current CPU Percentage: 43.19

Average cores per hour: 1.73

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.200000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2366.000000ms

Start solving for TOmega 9.300000e-03

Assembling matrices for Time 9.300000e-03

Assembling matrices for Time 9.300000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time9.300000e-03

Solving matrices for Time9.300000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004964

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.300000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2398.000000ms

Start solving for TOmega 9.400000e-03

Assembling matrices for Time 9.400000e-03

Assembling matrices for Time 9.400000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 1

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time9.400000e-03

Solving matrices for Time9.400000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.005093

Multi\_Cores Iterative Solver:Total spent Wall Time 0.009000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.400000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2401.000000ms

Start solving for TOmega 9.500000e-03

Assembling matrices for Time 9.500000e-03

Assembling matrices for Time 9.500000e-03

CTransient Magnetic Study :: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time9.500000e-03

Solving matrices for Time9.500000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004717

Multi\_Cores Iterative Solver:Total spent Wall Time 0.010000

>>End Solving

Solving 00:00:01 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.500000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2481.000000ms

Start solving for TOmega 9.600000e-03

Assembling matrices for Time 9.600000e-03

Assembling matrices for Time 9.600000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransientMagneticStudy::AssembleGlobalForTransientMagneticIterativeMulticore :Me mory Used = 0

Solving matrices for Time9.600000e-03

Solving matrices for Time9.600000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004783

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 42%

Estimated Time: 0:18:42

Remaining Time: 0:10:42

Available Memory(GB): 11.65

Current CPU Percentage: 43.22

Average cores per hour: 1.73

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.600000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2390.00000ms

Start solving for TOmega 9.700000e-03

Assembling matrices for Time 9.700000e-03

Assembling matrices for Time 9.700000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Measurement Magnetic Study:: Assemble Global For Transient Magnetic Magnet

mory Used = 0

Solving matrices for Time9.700000e-03

Solving matrices for Time9.700000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004963

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:01 Dimension 13088 Non Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.700000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2400.00000ms

Start solving for TOmega 9.800000e-03

Assembling matrices for Time 9.800000e-03

Assembling matrices for Time 9.800000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time9.800000e-03

Solving matrices for Time9.800000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004995

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

## Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.800000e-03

Write Solution PerPart Timing: 0:0:2

Write Solution PerPart Timing: 2380.000000ms

Start solving for TOmega 9.900000e-03

Assembling matrices for Time 9.900000e-03

Assembling matrices for Time 9.900000e-03

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time9.900000e-03

Solving matrices for Time9.900000e-03

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004430

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

```
>>End Solving
```

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension = 13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 9.900000e-03

Write Solution PerPart Timing: 0:0:3

Write Solution PerPart Timing: 2364.000000ms

Start solving for TOmega 1.000000e-02

Assembling matrices for Time 1.000000e-02

Assembling matrices for Time 1.000000e-02

CTransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore

Timing: 0: 0: 0

 $\label{lem:continuous} CT ransient Magnetic Study:: Assemble Global For Transient Magnetic Iterative Multicore: Memory Used = 0$ 

Solving matrices for Time1.000000e-02

Solving matrices for Time1.000000e-02

Solver in progress...

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi\_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 26, true residual: 2.40595e-19

Multi\_Cores Iterative Solver:Total spent Cpu Time 0.004971

Multi\_Cores Iterative Solver:Total spent Wall Time 0.008000

>>End Solving

Solving 00:00:00 Dimension 13088 Non\_Zeroes 75204

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =

13088 File size = 104704 Timing: 00:00:00

Computing Circuit Quantities

Progress: 44%

Estimated Time: 0:18:42

Remaining Time: 0:10:22

Available Memory(GB): 11.72

Current CPU Percentage: 43.44

Average cores per hour: 1.74

Process To Compute Transient Circuit Parameters: Time Step= 1 Used memory = 0

Done solving for TOmega

Writing Solution... 1.000000e-02