



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 Jan 7 11:03:28 2025

Initializing study properties

Non Linear Residual Error: 1e-06

1 Solid(s) found in the current study

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 and 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: 64196

number of nodes: 11968

partner info: 1788

Compute security key done

EstimatedRunTime:17.0005s

Progress: 1%

Estimated Time: 0:0:18

Remaining Time: 0:0:18

Available Memory(GB): 29.42

Initializing solver...

Study Run...

Checking component and materials status

Preparing mesh database

Starting fill edge array

Finish fill edge array

EMW_INFO_30006: Mesh Elements: = 64196

Type: Info

EMW_INFO_30005: Mesh Nodes: = 11968

Type: Info

EMW_INFO_30007: Number of faces = 78424

Type: Info

EMW_INFO_30008: Number of edges = 130653

Type: Info

Start filling elements boundary conditions

End filling elements boundary conditions

Finish preparing mesh dataBase

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: 4522

Type: Info

EMW_INFO_30009: Number of mesh faces found in the Boundary Condition is: 3539

Type: Info

Finish All mesh checking

Checking Force torque mesh

Done with the Main Study Run

Setting Coils parameters...

Getting Coils mesh data

Getting Coils mesh data

Checking materials non linear status...

Solving 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 4.997637

Multi_Cores Pardiso Direct Solver:Total spent Wall Time 1.562000

>>End Solving

Solving 00:00:01 Dimension 81346 Non_Zeroes 1136305

reading file

Main call: Finished scanning the solution file for the multi-core solver: Dimension =
81346 File size = 650768 Timing: 00:00:00

0 timing on seconds

Done solving conduction for Coil 1

Done solving conduction

Solving Vector-TS problem...

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

Progress: 16%

Estimated Time: 0:0:18

Remaining Time: 0:0:15

Available Memory(GB): 28.94

Current CPU Percentage: 12.58

Average cores per hour: 0.50

Distributing the currents for Coil 1

Progress: 33%

Estimated Time: 0:0:18

Remaining Time: 0:0:12

Available Memory(GB): 28.95

Current CPU Percentage: 0.17

Average cores per hour: 0.01

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 7306 , true residual: 5.06261e-19

Multi_Cores Iterative Solver:Total spent Cpu Time 4.298946

Multi_Cores Iterative Solver:Total spent Wall Time 4.367000

>>End Solving

Solving 00:00:04 Dimension 73067 Non_Zeroes 1155303

reading file

EMW_ERROR_113: Failed to open the file : /srvtc/job-data/f93eeba4-f800-4b70-b0c0-12a7d61fc95e/Output/SimScaleElectromagnetics_Generic_SOL1

Type: Error!

Cure: Double-check the file path specified in the software to ensure that it is correct. Ensure that the file name specified in the software is correct and matches the actual file name. Ensure that the file format is compatible with the software.

0 timing on seconds

reading file

Distributed Current successfully for Coil 1

Done solving Vector-TS

Invoking The Main Magnetostatic Solver...

Solving for TOmega linear...

SolveForTOmega 1

SolveForTOmega 1

PrepareLinearSystemForTOmega 1

PrepareLinearSystemForTOmega 1

NumberGlobalForTOmegaEqs 1

NumberGlobalForTOmegaEqs 1

NumberGlobalForTOmegaEqs 2

NumberGlobalForTOmegaEqs 2

NumberGlobalForTOmegaEqs 3

NumberGlobalForTOmegaEqs 3

NumberGlobalForTOmegaEqs 4

NumberGlobalForTOmegaEqs 4

PrepareLinearSystemForTOmega 2

PrepareLinearSystemForTOmega 2

PrepareLinearSystemForTOmega 2~

PrepareLinearSystemForTOmega 2~

PrepareLinearSystemForTOmega 3

PrepareLinearSystemForTOmega 3

Get Degree of Coupling EMWSolver Timing: 00:00:01

Get Degree of Coupling EMWSolver Timing: 00:00:01

>>> Nbr of used cores: 4

PrepareLinearSystemForTOmega 5

PrepareLinearSystemForTOmega 5

SolveForTOmega 2

SolveForTOmega 2

SolveForTOmega 3

SolveForTOmega 3

SolveForTOmega 3-11

SolveForTOmega 3-11

Assemble Global For TOmega Timing: 00:00:00

140 ms

SolveForTOmega 3-12

SolveForTOmega 3-12

AssembleRHSTOmega - 4-A

AssembleRHSTOmega - 4-A

AssembleRHSTOmega - 4 - C

AssembleRHSTOmega - 4 - C

Assemble RHS TOmega Timing: 00:00:00

Assemble RHS TOmega Timing: 43 ms

>> end ScanDataFromFiles

>> Number of Cpus 4

>> Start Solving

>>>Solver :: Multi_Cores Iterative Solver

>> Set Iterative Parameters

>> WriteSolverParameters

>> RunIterativeSolver

Number of iterations: 1 , true residual: 0

Multi_Cores Iterative Solver:Total spent Cpu Time 0.007917

Multi_Cores Iterative Solver:Total spent Wall Time 0.028000

>>End Solving

Solving 00:00:00 Dimension 83217 Non_Zeroes 2258611

reading file

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

83217 File size = 665736 Timing: 00:00:00

0 timing on seconds

Store TOmega Solution Timing: 00:00:00

SolveForTOmega 3-A

SolveForTOmega 3-A

Computing force and torques quantities...

SolveForTOmega 3-A-1

SolveForTOmega 3-A-1

Compute HDB Energy Timing: 0 : 0 : 0

SolveForTOmega 3-A-2

SolveForTOmega 3-A-2

Compute Forces And Torques Timing: 00:00:00

SolveForTOmega 3-A-3

SolveForTOmega 3-A-3

SolveForTOmega 3-A-4

SolveForTOmega 3-A-4

Done solving for TOmega linear

Computing postprocessor quantities...

Writing Solution...

Writing Solution... Timing: 0:0:1

Writing Solution... Timing: 232.000000ms

Done Writing Solution.

-----< FreeMemory 1>-----

-----< FreeMemory 5>-----

-----< FreeMemory 6>-----

-----< FreeMemory 7>-----

-----< FreeMemory 8>-----

-----< FreeMemory 9>-----
-----< FreeMemory 10>-----
-----< FreeMemory 11>-----
-----< FreeMemory 12>-----
-----< FreeMemory 13>-----
-----< FreeMemory 14>-----
-----< FreeMemory 15>-----

Begin: Free Memory of Study's Solver

End: Free Memory of Study's Solver

Done Solving Successfully

Total simulation time: 0:0:9

***** 1 *****