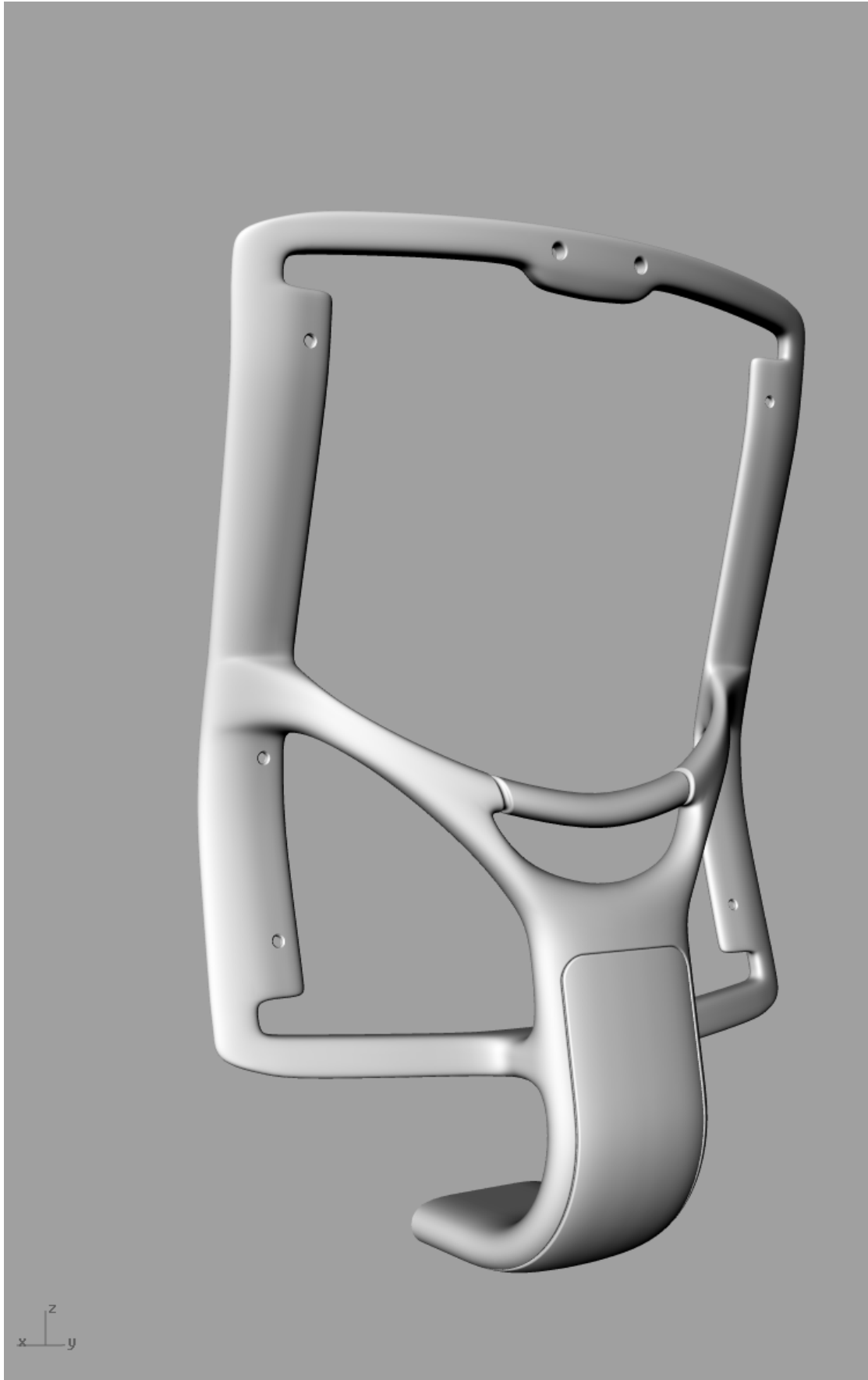


Scan&Solve™ Simulation Summary

Tue Sep 20, 2011 09:39:29

Geometry



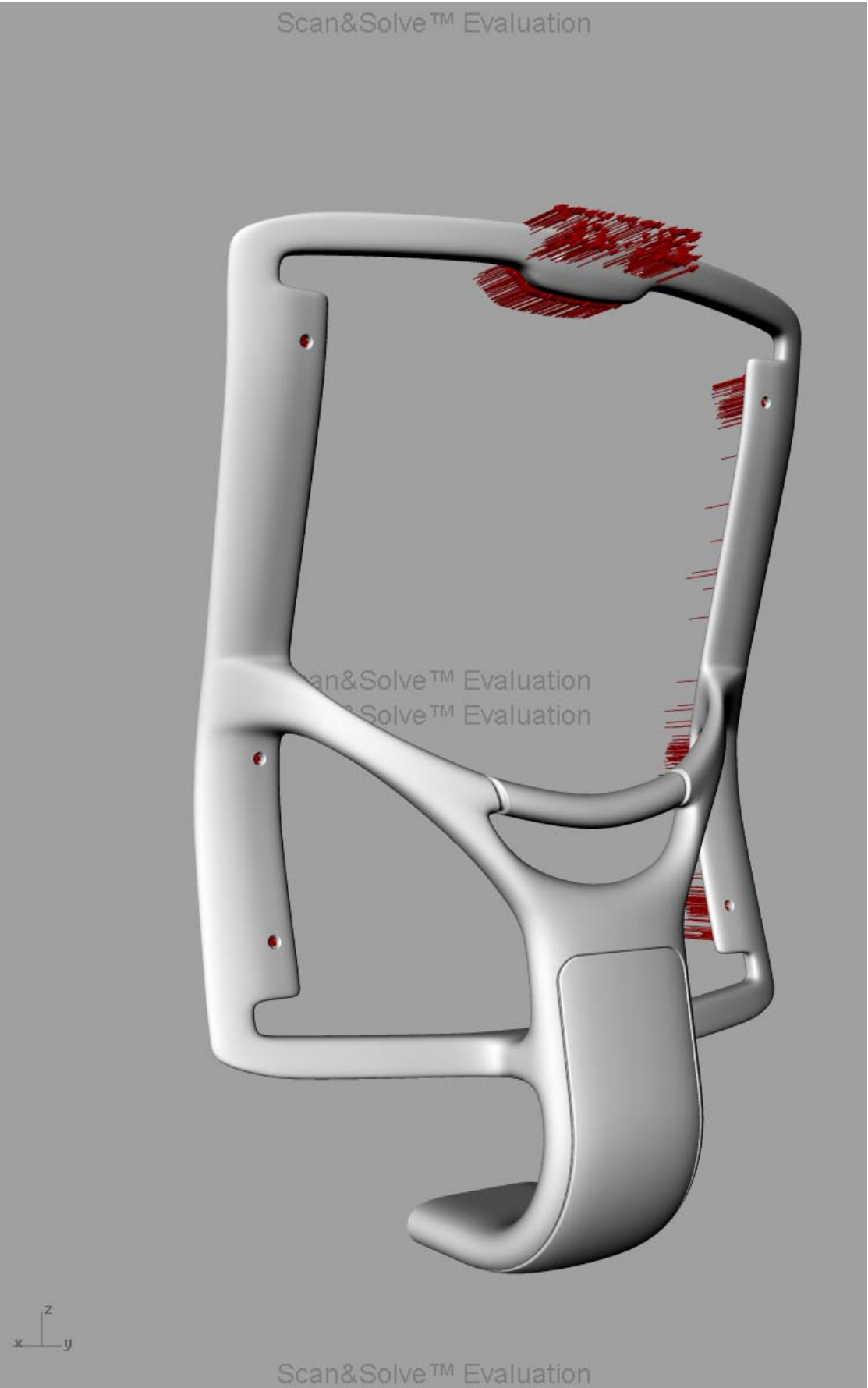
Geometry Summary

Quantity	Unit
Volume	1.96854e+06 mm ³
Surface Area	358008 mm ²
Mass	0.00275596 Mg
Bounding Box	
min. corner	{-236.969,111.234,307.77}
max. corner	{236.976,280.519,976.616}

Material Properties

Property	Value
Description	Nylon 610
Density	1.4e-09 Mg/mm ³
Elastic Modulus	8300 MPa
Poisson Ratio	0.28
Default Failure Criterion	von Mises
Tensile Yield Strength	139 MPa

Loads & Restraints



Load Summary

Description	Type	Definition
Load 0	Vector Force	{0,2000,100} N

Restraint Summary

Description	Definition
Restraint 0	X-Fixed,Y-Fixed,Z-Fixed

Simulation Summary

Settings

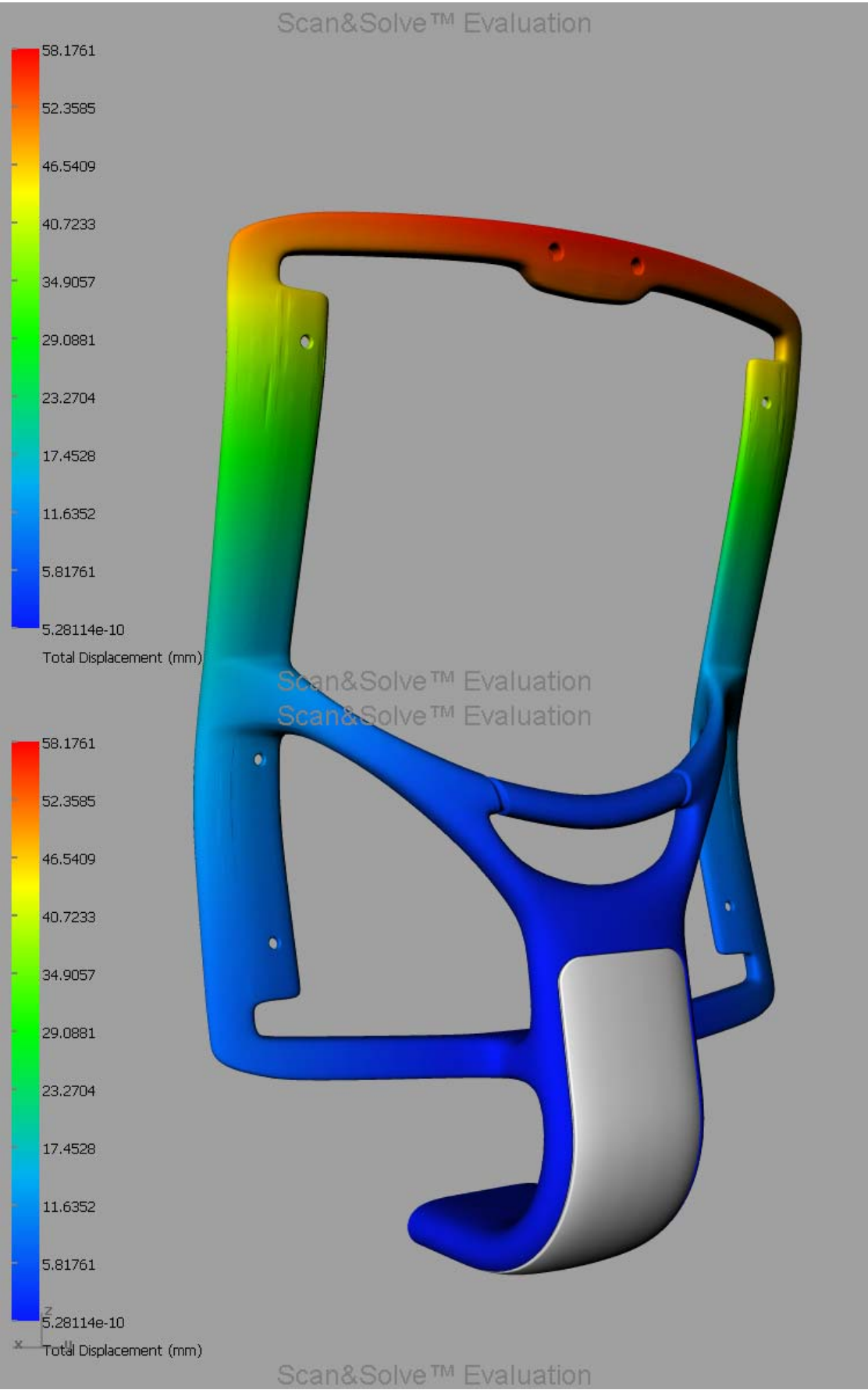
Basis Functions	
Degree	1
nx	62
ny	23
nz	87
Element size	{7.81576,7.81576,7.81576}
Resolution setting	9984
Computation Box	
min. corner	{-242.326,105.969,302.18}
max. corner	{242.251,285.732,982.152}

Units

Quantity	Unit
Length	mm
Mass	Mg
Force	N
Time	s

Simulation Results

Displacements

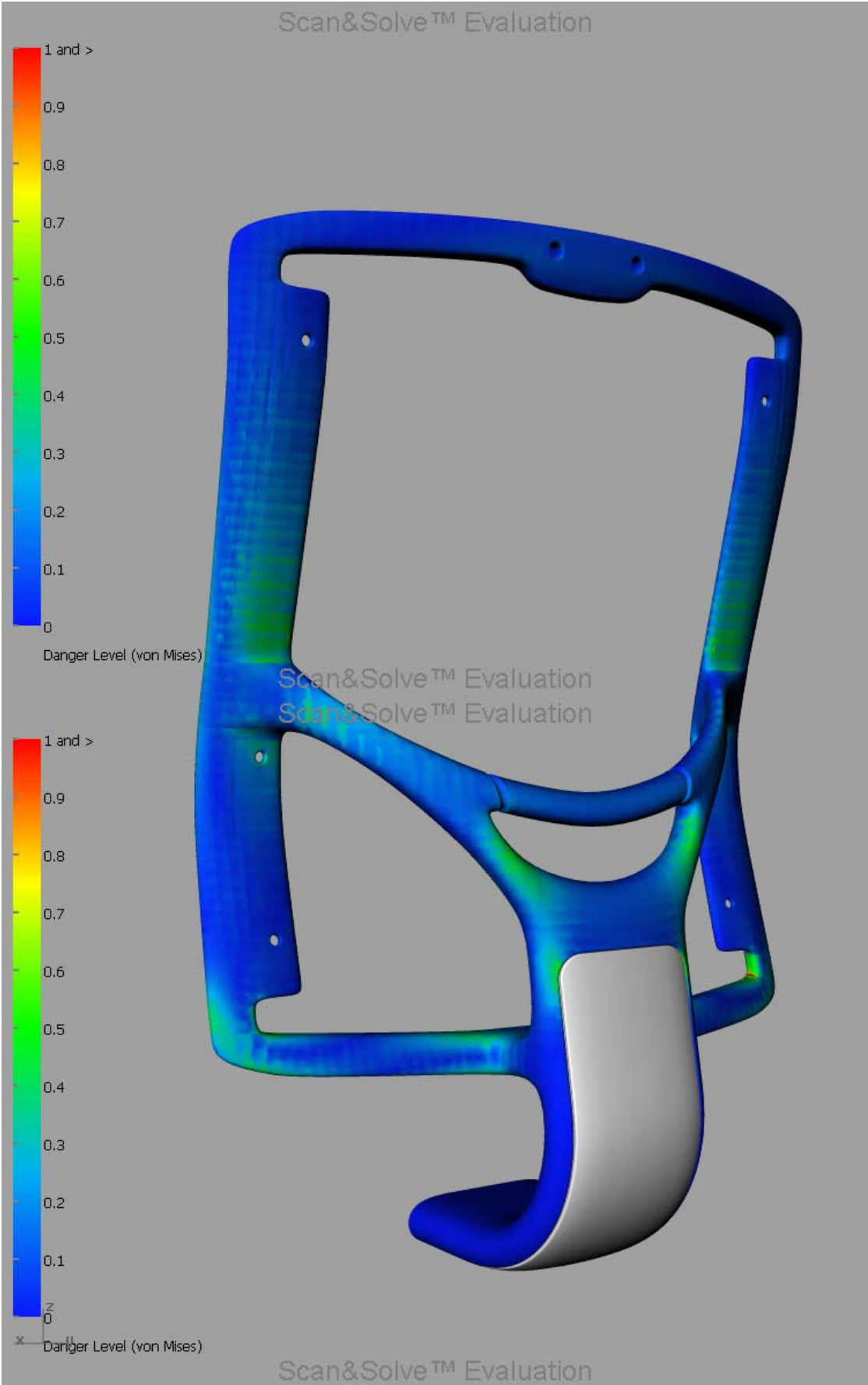


Displacement Summary

	Amount	Location
Minimum	5.28114e-10 mm	{-33.0625,133.21,321.351}

Maximum	58.1761 mm	{3.0706e-13,238.275,976.616}
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Danger Level



Danger Level Summary

	Amount	Location
Minimum	4.29407e-09	{-21.8154,111.727,336.341}
Maximum	Criterion Limit Exceeded	{206.083,161.743,474.228}

Results Extrema

	Minimum	Maximum
X-Displacement	-4.34165 mm	4.33932 mm
Y-Displacement	-0.0788715 mm	57.3443 mm
Z-Displacement	-10.5375 mm	7.88455 mm
Total Displacement	5.28114e-10 mm	58.1761 mm
Von Mises Stress	5.96876e-07 MPa	174.374 MPa
Max. Principal Stress	-27.0728 MPa	200.012 MPa
Mid. Principal Stress	-44.201 MPa	45.8307 MPa
Min. Principal Stress	-103.483 MPa	29.644 MPa
Danger Level (von Mises)	4.29407e-09	Criterion Limit Exceeded
Danger Level (Max. Shear Stress)	9.51305e-09	Criterion Limit Exceeded

CAUTION

Design decisions require experimental data and substantial experience; they should never be made based solely on a software simulation. Simulation is not intended to replace physical testing of prototypes, which is required to validate any design.