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СУПЕРКОМПЬЮТЕРНЫЙ ЦЕНТР

Южно-Уральского государственного университета

Пакет инженерного анализа DEFORM

Лабораторные работы:
обработка результатов расчёта в постпроцессоре

1. Запуск постпроцессора

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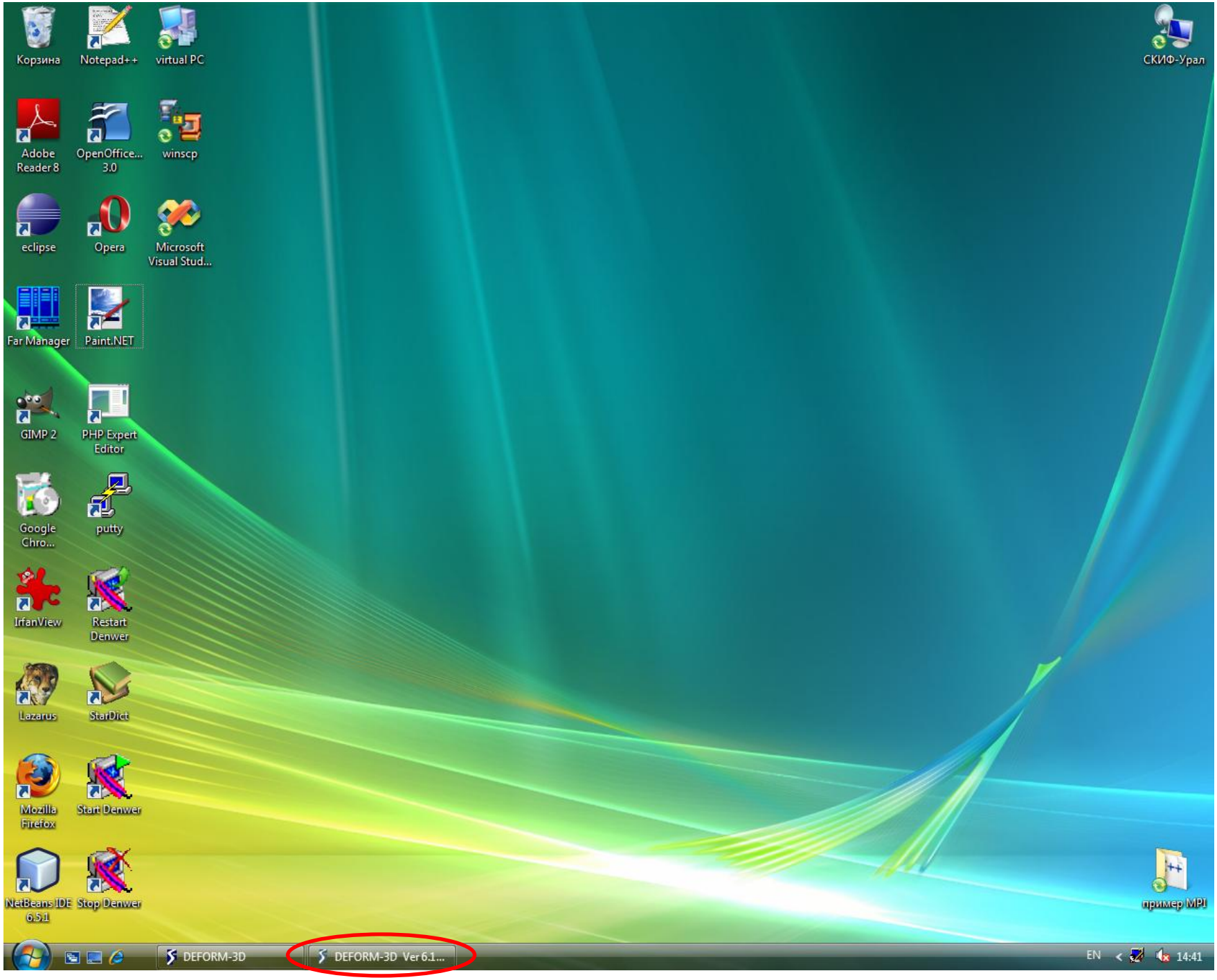

Корзина
Notepad++
virtual PC
СКИФ-Урал
Adobe Reader 8
OpenOffice... 3.0
winscp
eclipse
Opera
Microsoft Visual Stud...
Far Manager
Paint.NET
GIMP 2
PHP Expert Editor
Google Chro...
putty
IrfanView
Restart Denwer
Lazarus
StarDict
Mozilla Firefox
Start Denwer
NetBeans IDE 6.5.1
Stop Denwer
пример MPI
DEFORM-3D
DEFORM-3D Ver 6.1...
EN
14:41

DEFORM-3D Ver 6.1 (Service Pack 3)

File Simulation Tool View Option Help

C:\DEFORM3D\PROBLEM

Explore | Database | Recent

Directory

PROBLEM

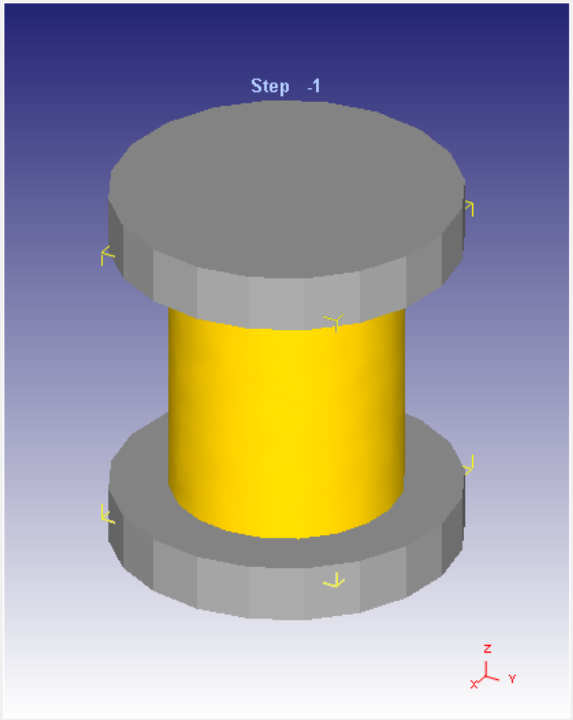
immersion12

immersion12.DB

dbg_surf.2
DEF_MAIL.INI
DEFORM3D.PROB
DENSTY.DST
frgen3d.diag.p0001
immersion12.PNG
meshqual.diag
surf.3
surf.4
surf.5
surf.6

Problem ID: immersion12

Summary | Preview | Message | Log | Memo



Pre Processor

DEFORM-3D Pre
Machining [Cutting]
Forming
Die Stress Analysis
Cogging
Shape Rolling
Ring Rolling
Heat Treatment

Tool

Inverse Heat
Preform Wizard

Simulator

Run
Run (options)
Stop
Continue
Process Monitor
Simulation Graphics

Batch Queue
Add to Queue

Run Remotely
Remote Process Monitor

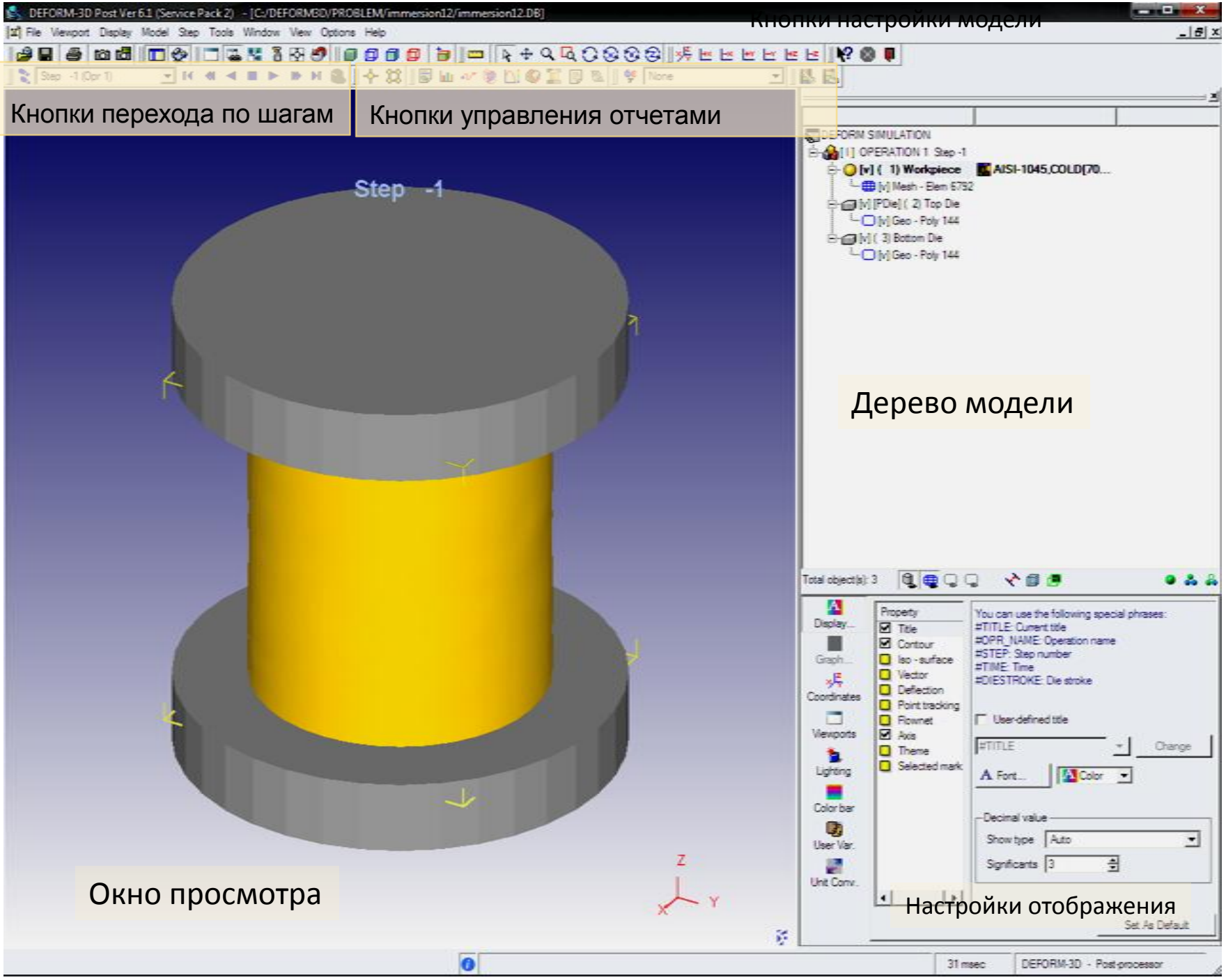
Monitor Floating License

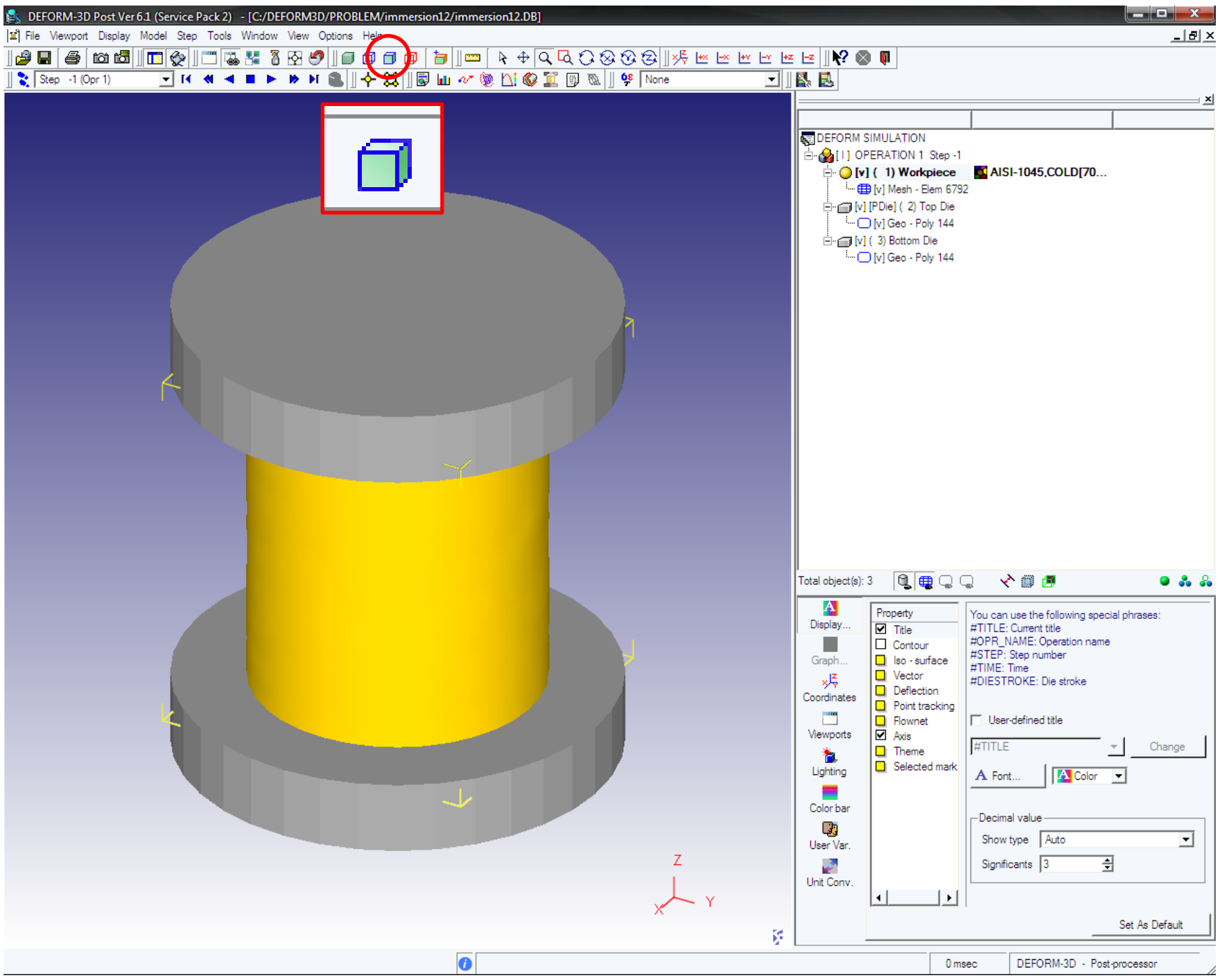
Post Processor

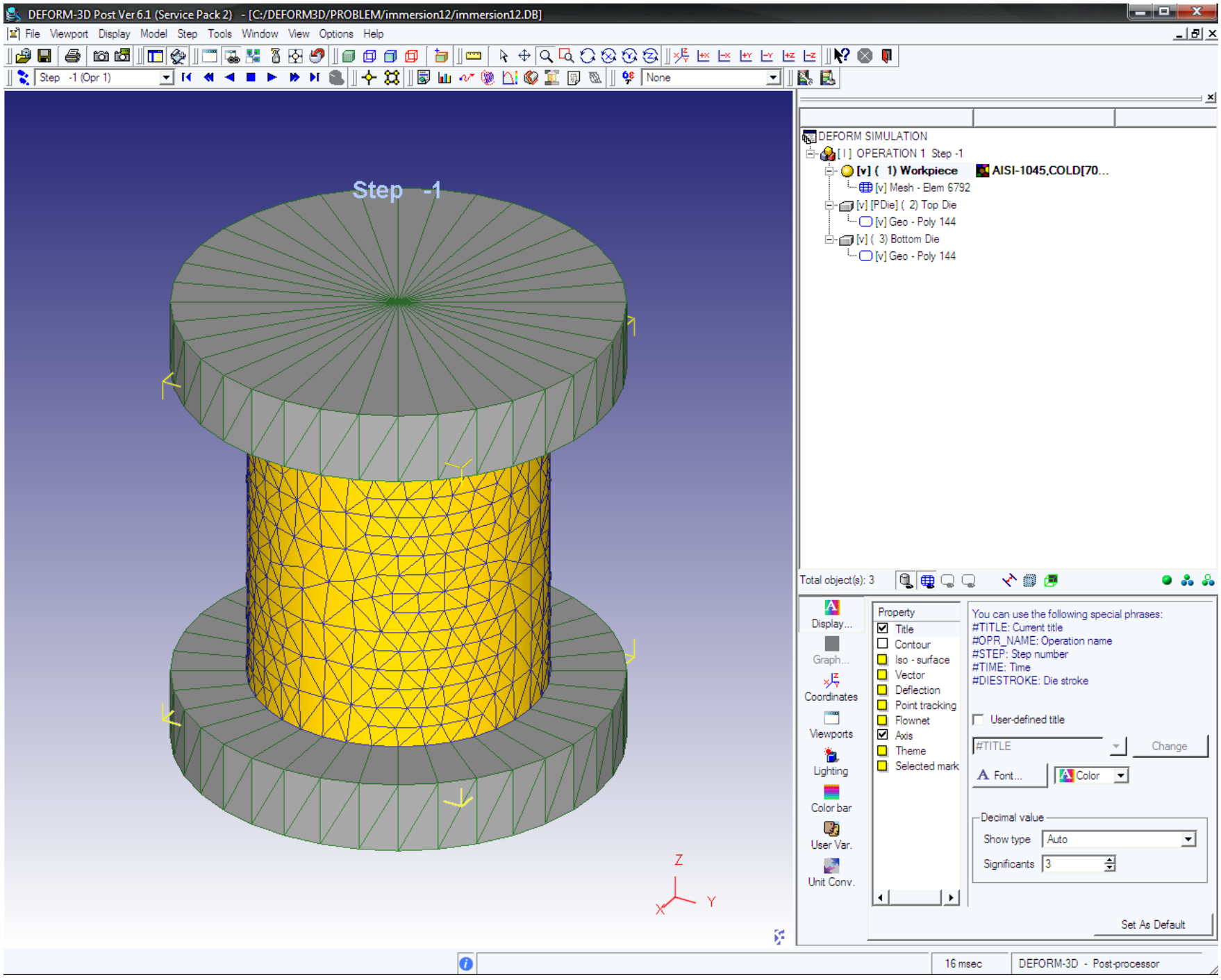
DEFORM-3D Post
Microstructure

C:\DEFORM3D\PROBLEM\immersion12\immersion12.DB Version: 6.01 Modified: 24.06.2009 14:31:04 Size: 15602 KB

DEFORM-3D - Main


Кнопки настройки модели
Кнопки перехода по шагам
Кнопки управления отчетами
Step -1
Дерево модели
Окно просмотра
Настройки отображения


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step -1 (Opr 1)
None
DEFORM SIMULATION
[!] OPERATION 1 Step -1
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Total object(s): 3
Display...
Graph...
Coordinates
Viewports
Lighting
Color bar
User Var.
Unit Conv.
Property
Title
Contour
Iso - surface
Vector
Deflection
Point tracking
Flownet
Axis
Theme
Selected mark
You can use the following special phrases:
#TITLE: Current title
#OPR_NAME: Operation name
#STEP: Step number
#TIME: Time
#DIESTROKE: Die stroke
User-defined title
#TITLE
Change
Font...
Color
Decimal value
Show type
Auto
Significants
3
Set As Default
Z
Y
X
0 msec
DEFORM-3D - Post-processor


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step -1 (Opr 1)
None
Step -1
DEFORM SIMULATION
[!] OPERATION 1 Step -1
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Total object(s): 3
Display...
Graph...
Coordinates
Viewports
Lighting
Color bar
User Var.
Unit Conv.
Property
Title
Contour
Iso - surface
Vector
Deflection
Point tracking
Flownet
Axis
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#STEP: Step number
#TIME: Time
#DIESTROKE: Die stroke
User-defined title
#TITLE
Change
Font...
Color
Decimal value
Show type
Auto
Significants
3
Set As Default
Z
Y
X
16 msec
DEFORM-3D - Post-processor

2. Перемещение по шагам

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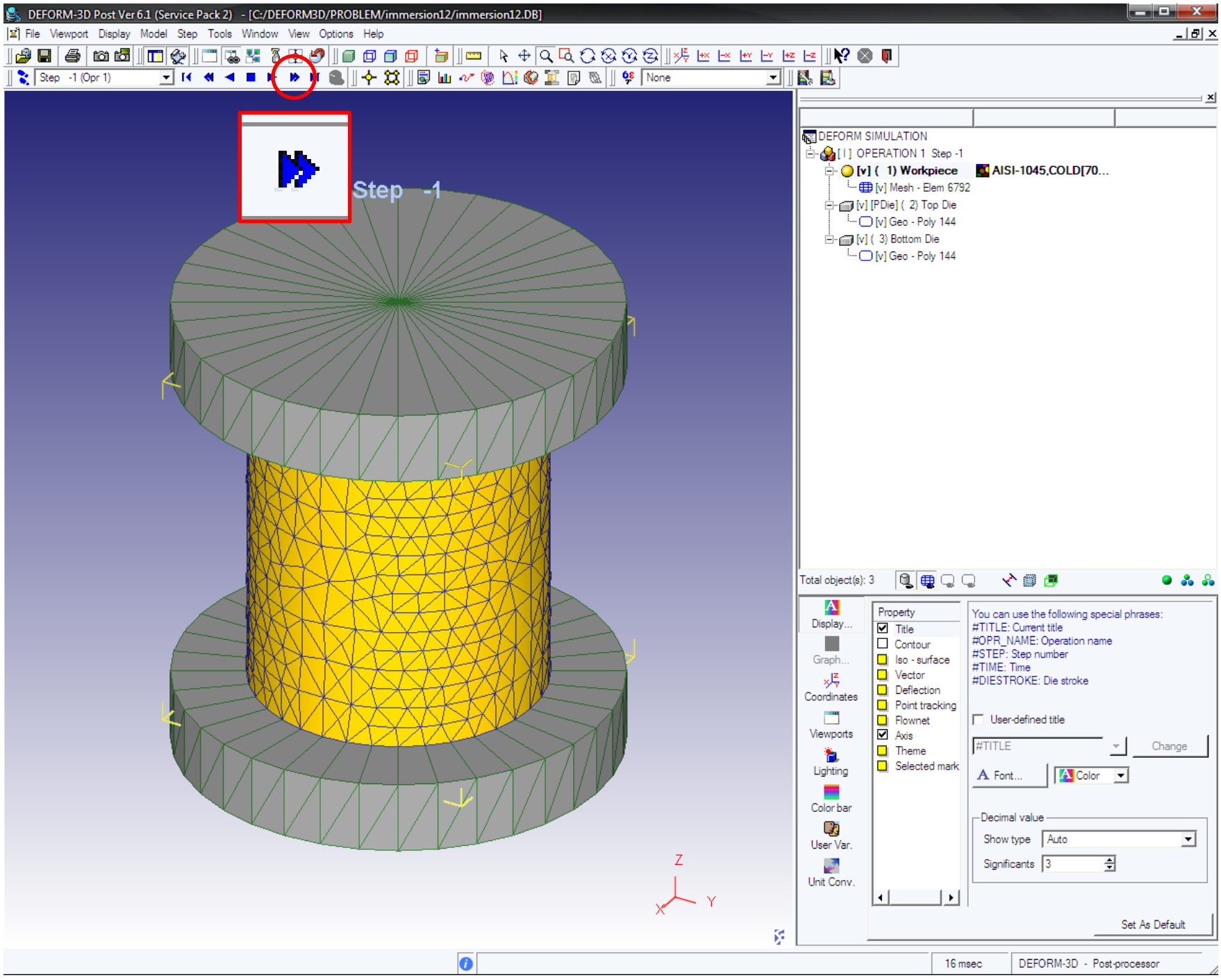
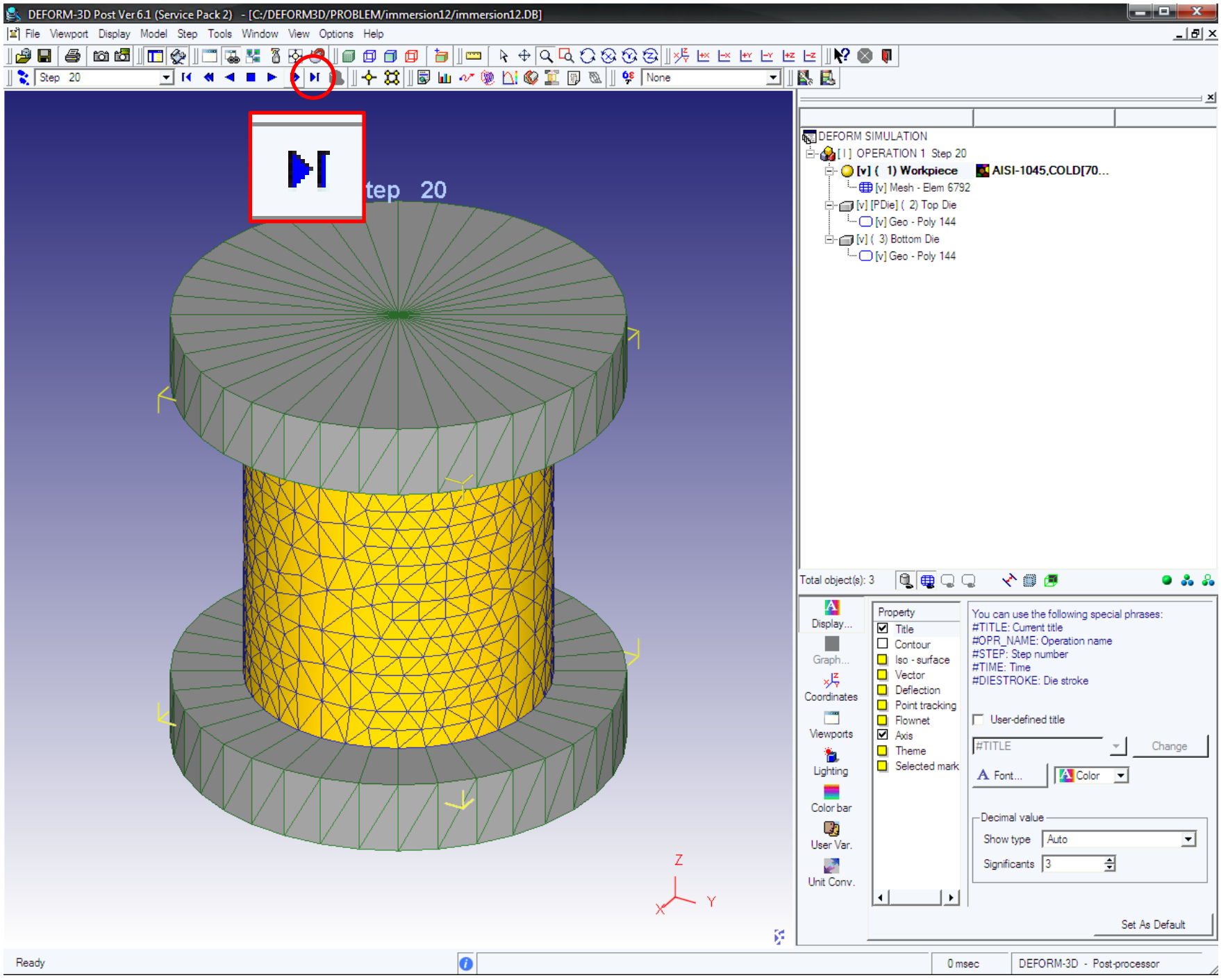
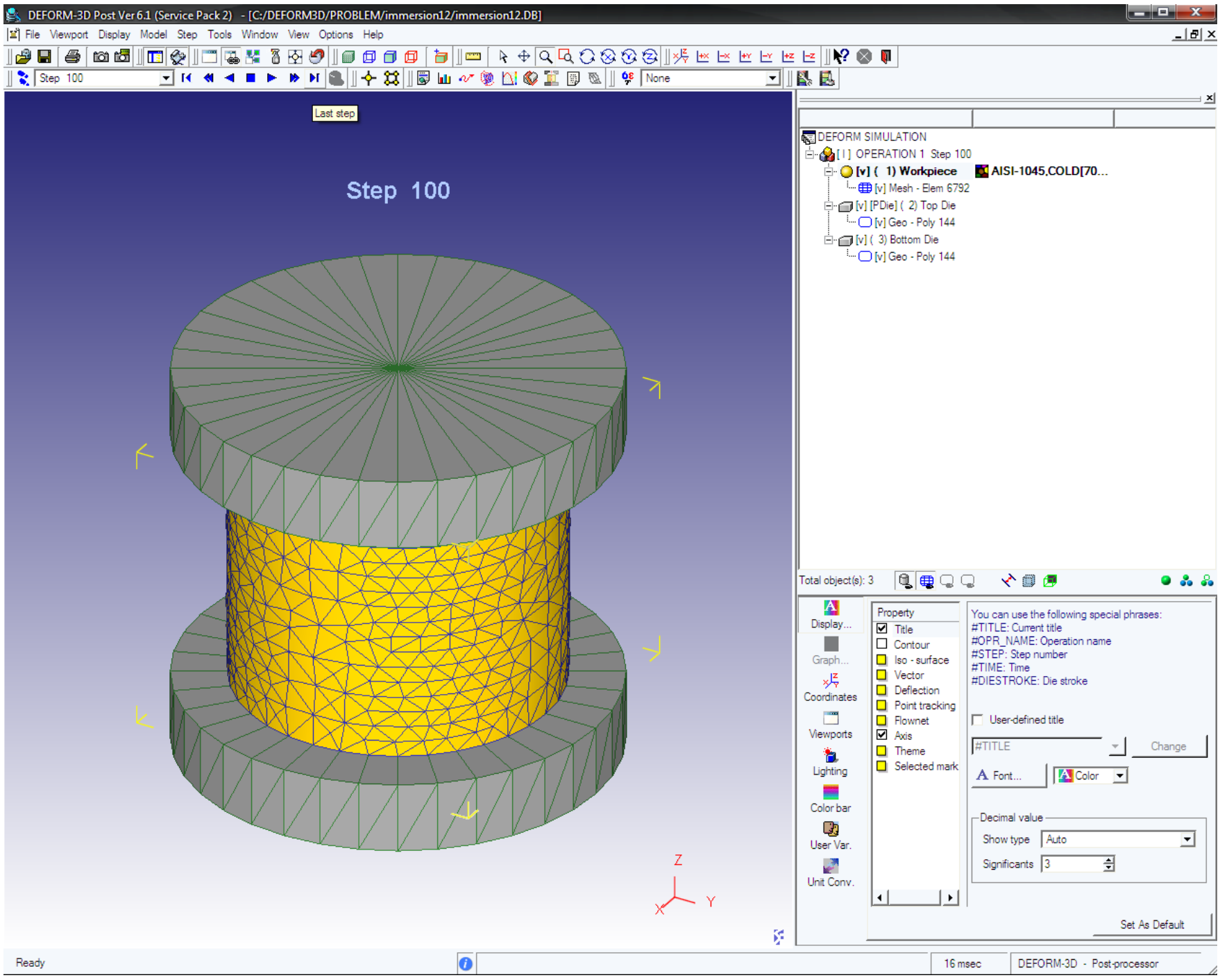

DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step -1 (Opr 1)
None
Step -1
DEFORM SIMULATION
[!] OPERATION 1 Step -1
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Total object(s): 3
Display...
Graph...
Coordinates
Viewports
Lighting
Color bar
User Var.
Unit Conv.
Property
Title
Contour
Iso - surface
Vector
Deflection
Point tracking
Flownet
Axis
Theme
Selected mark
You can use the following special phrases:
#TITLE: Current title
#OPR_NAME: Operation name
#STEP: Step number
#TIME: Time
#DIESTROKE: Die stroke
User-defined title
#TITLE
Change
Font...
Color
Decimal value
Show type
Auto
Significants
3
Set As Default
Z
Y
X
16 msec
DEFORM-3D - Post-processor


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 20
None
tep 20
DEFORM SIMULATION
[!] OPERATION 1 Step 20
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Total object(s): 3
Display...
Graph...
Coordinates
Viewports
Lighting
Color bar
User Var.
Unit Conv.
Property
Title
Contour
Iso - surface
Vector
Deflection
Point tracking
Flownet
Axis
Theme
Selected mark
You can use the following special phrases:
#TITLE: Current title
#OPR_NAME: Operation name
#STEP: Step number
#TIME: Time
#DIESTROKE: Die stroke
User-defined title
#TITLE
Change
Font...
Color
Decimal value
Show type
Auto
Significants
3
Set As Default
Z
X
Y
Ready
0 msec
DEFORM-3D - Post-processor


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
None
Last step
Step 100
DEFORM SIMULATION
[!] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Total object(s): 3
Display...
Graph...
Coordinates
Viewports
Lighting
Color bar
User Var.
Unit Conv.
Property
Title
Contour
Iso - surface
Vector
Deflection
Point tracking
Flownet
Axis
Theme
Selected mark
You can use the following special phrases:
#TITLE: Current title
#OPR_NAME: Operation name
#STEP: Step number
#TIME: Time
#DIESTROKE: Die stroke
User-defined title
#TITLE
Change
Font...
Color
Decimal value
Show type
Auto
Significants
3
Set As Default
Z
Y
X
Ready
16 msec
DEFORM-3D - Post-processor

3. Отображение результатов решения

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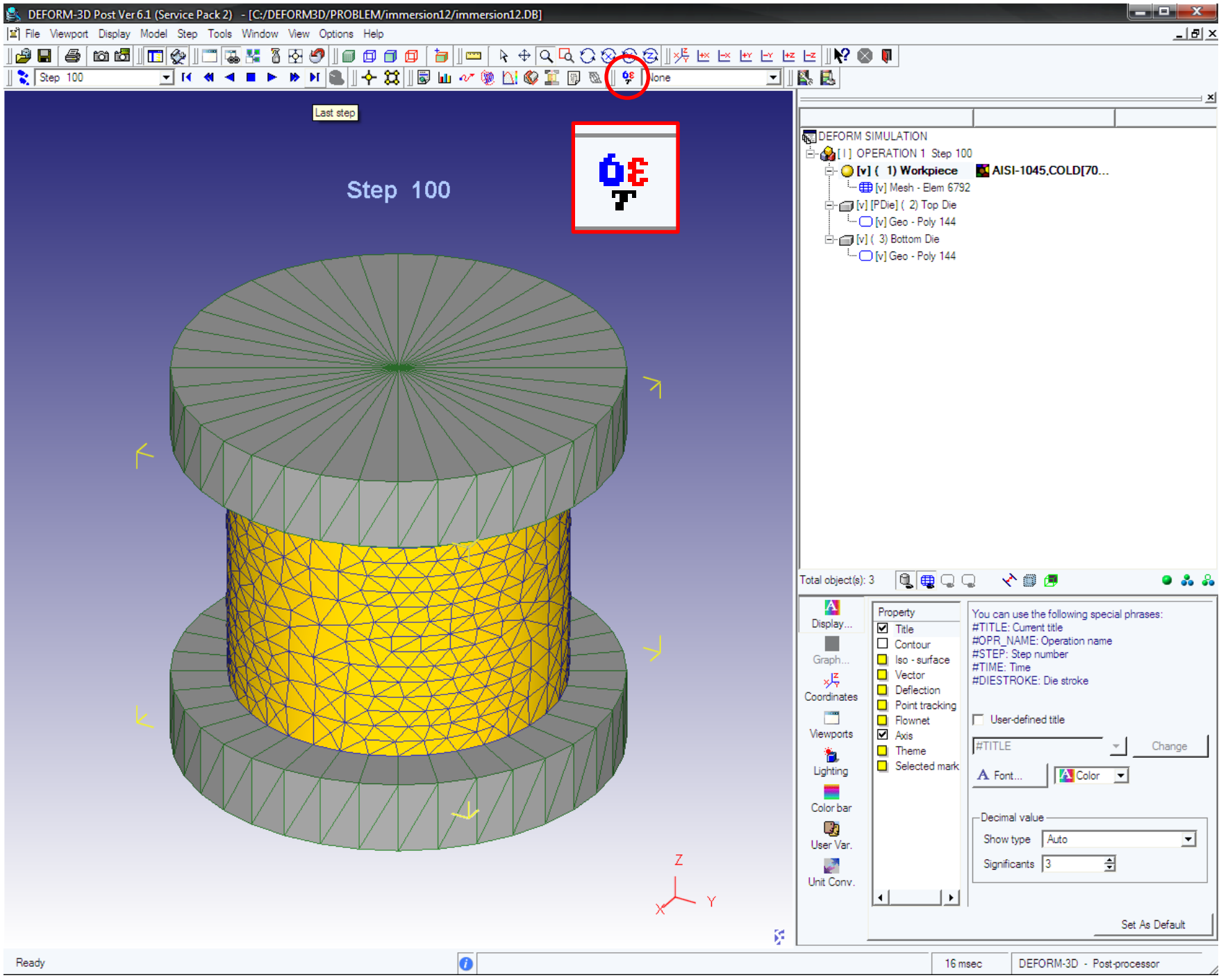
DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
None
Last step
Step 100
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Total object(s): 3
Display...
Graph...
Coordinates
Viewports
Lighting
Color bar
User Var.
Unit Conv.
Property
Title
Contour
Iso - surface
Vector
Deflection
Point tracking
Flownet
Axis
Theme
Selected mark
You can use the following special phrases:
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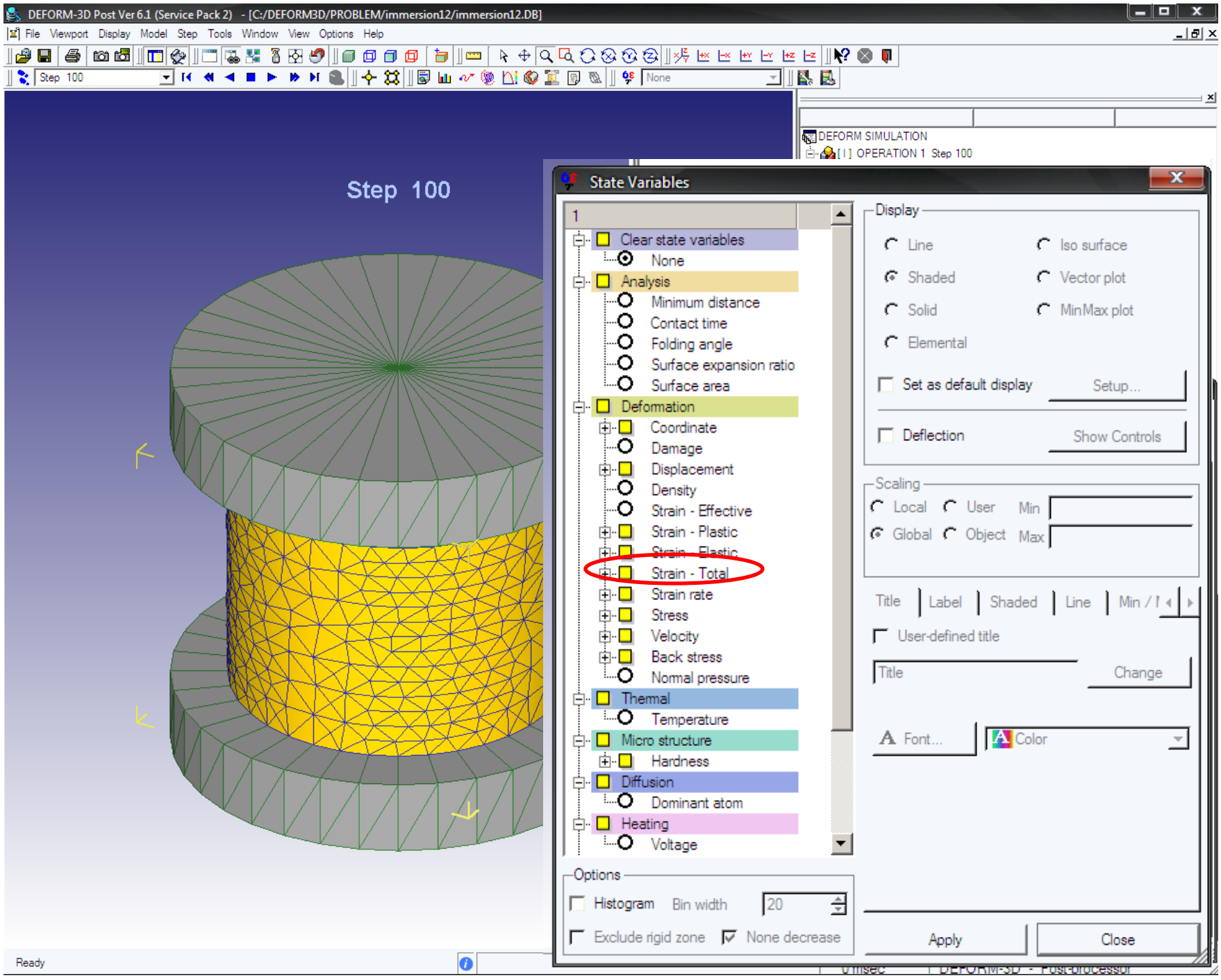
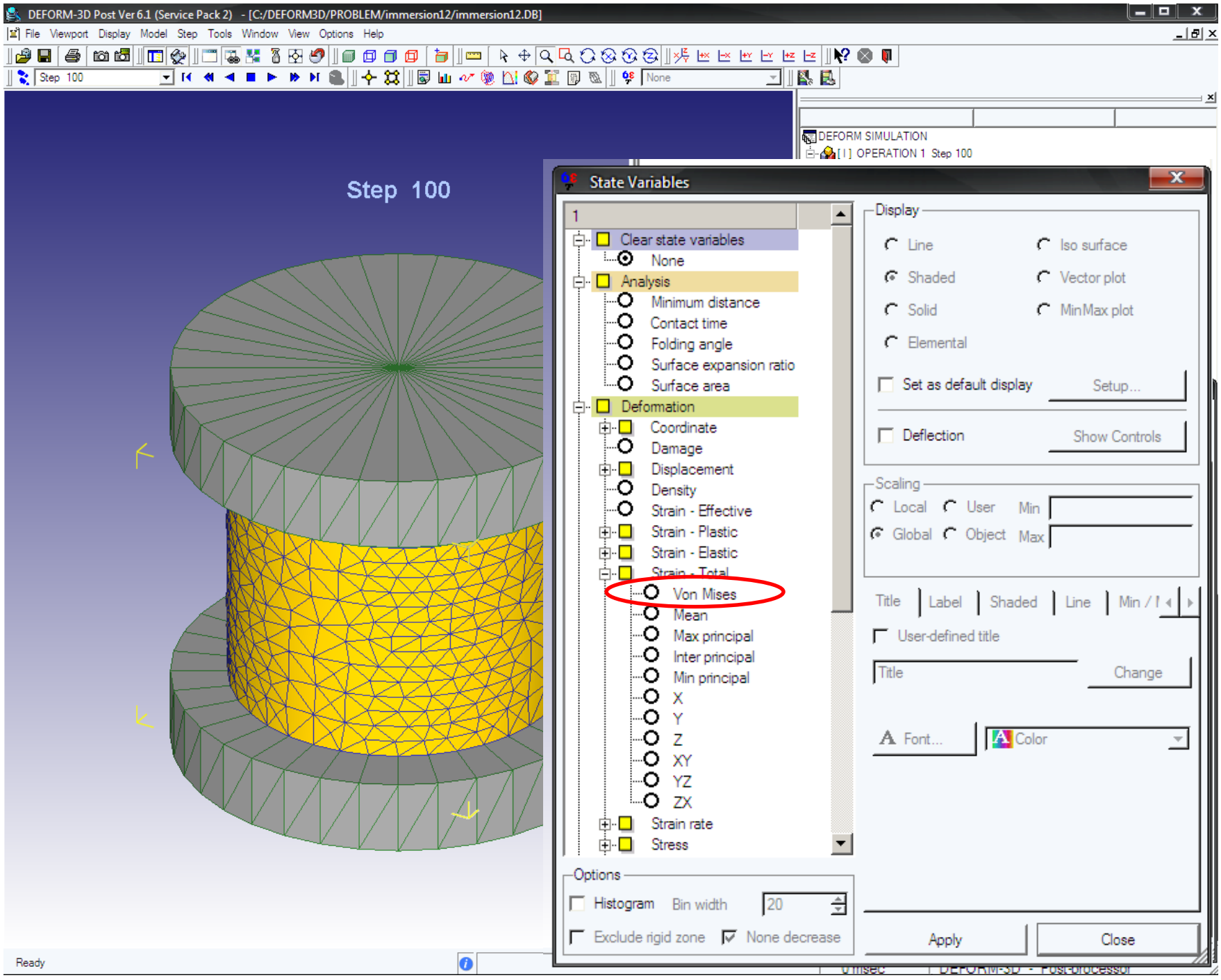
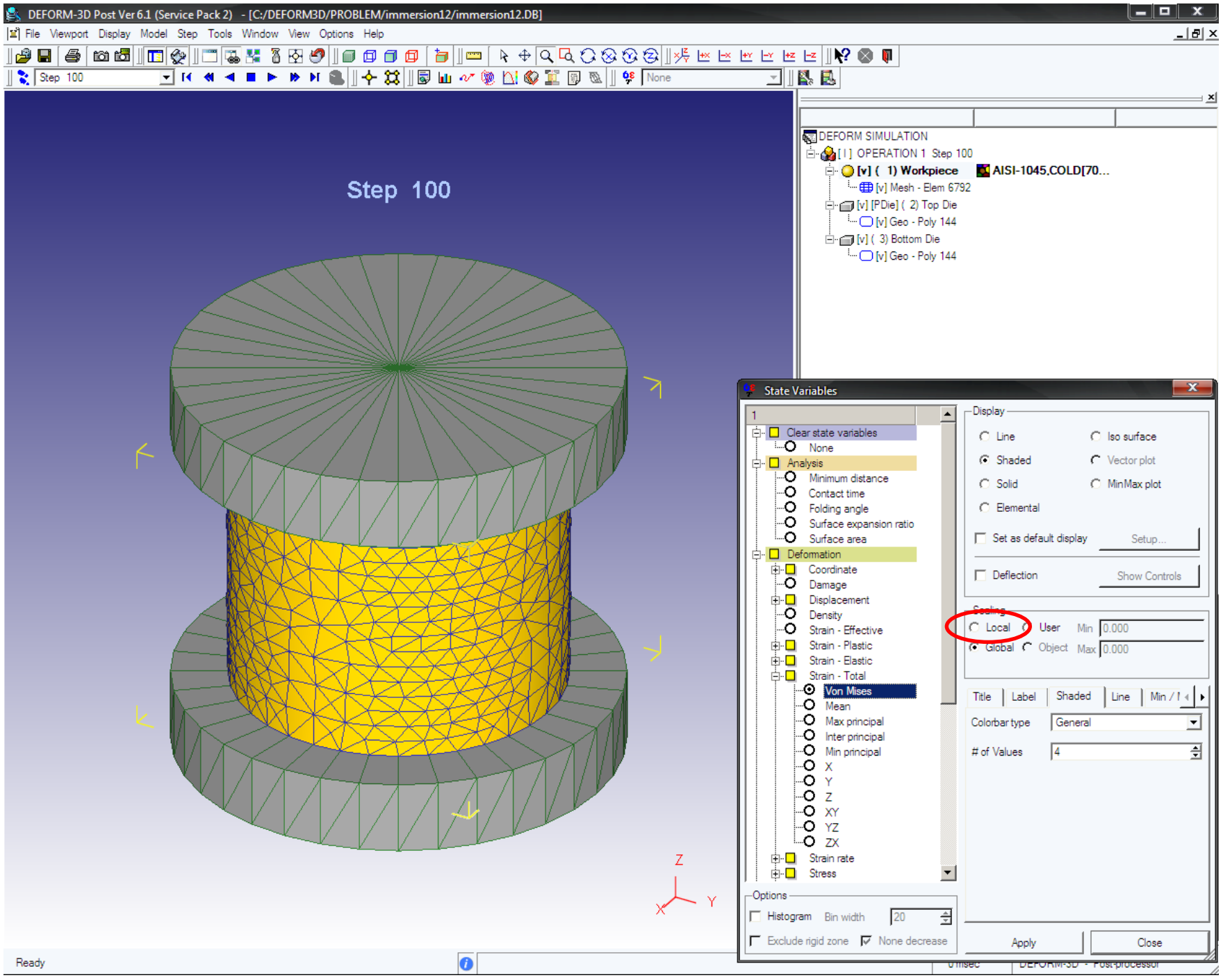
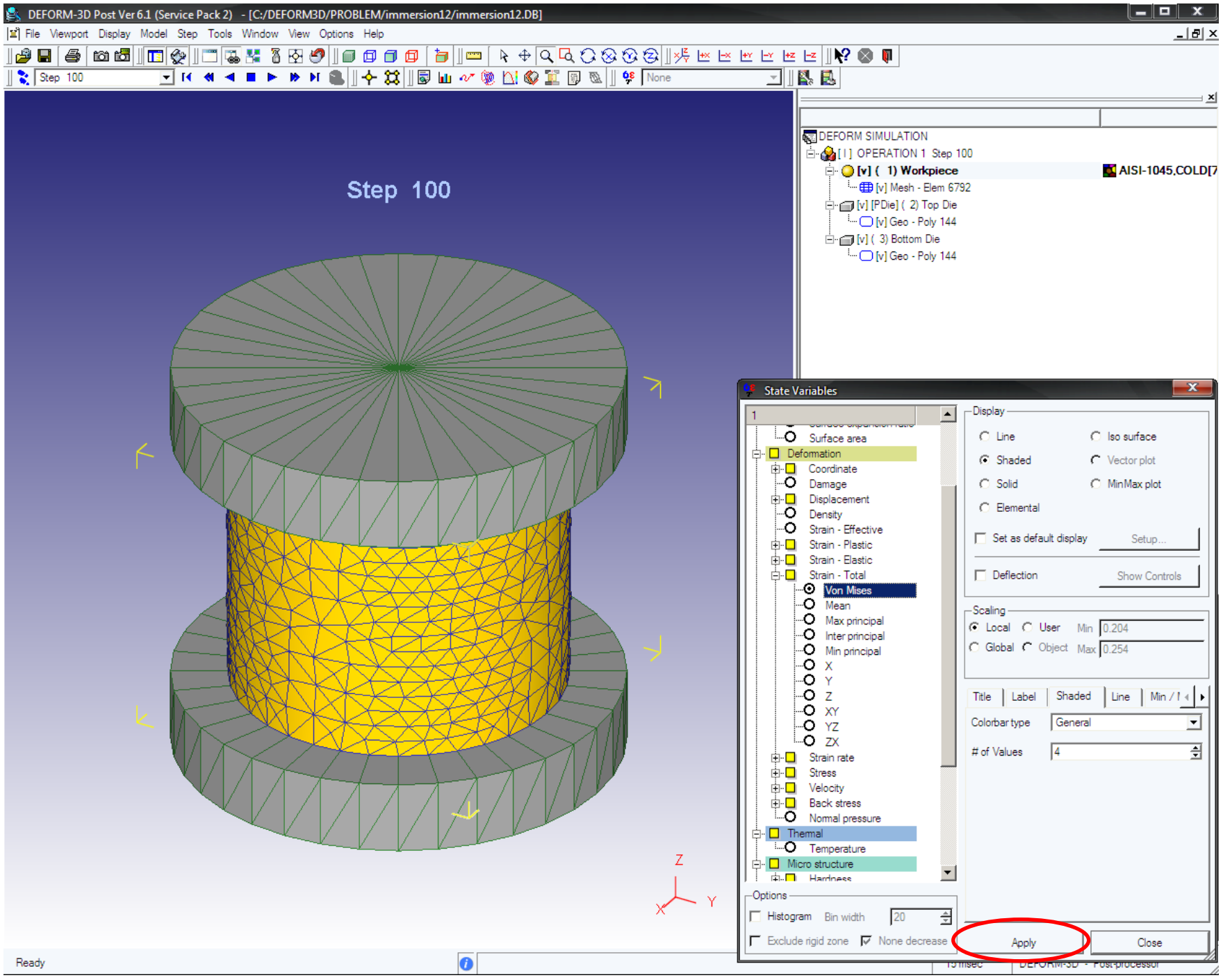
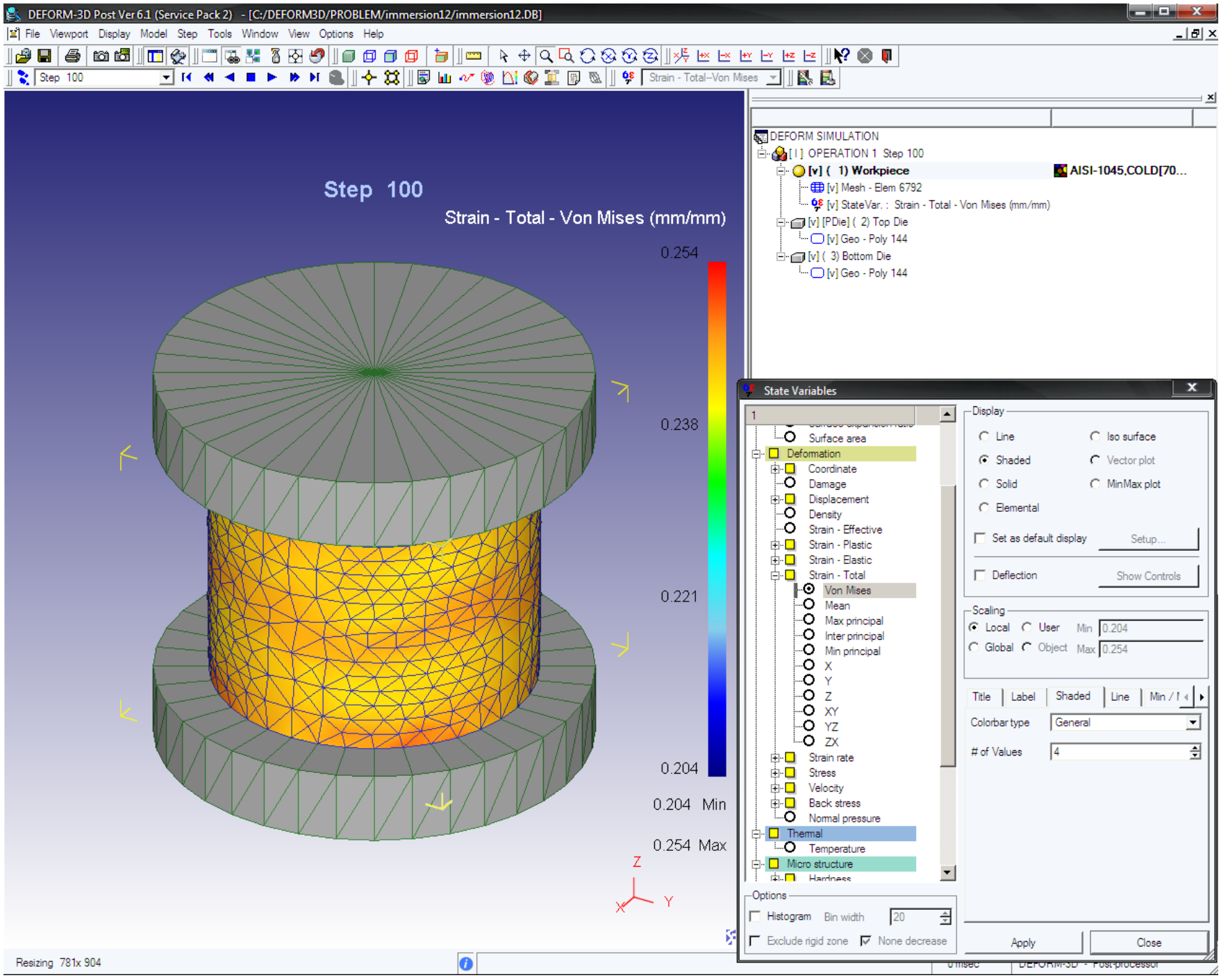
#STEP: Step number
#TIME: Time
#DIESTROKE: Die stroke
User-defined title
#TITLE
Change
Font...
Color
Decimal value
Show type
Auto
Significants
3
Set As Default
Z
Y
X
Ready
16 msec
DEFORM-3D - Post-processor


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
DEFORM SIMULATION
[1] OPERATION 1 Step 100
Step 100
State Variables
1
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Strain rate
Stress
Velocity
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Diffusion
Dominant atom
Heating
Voltage
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
Global
Object
Max
Title
Label
Shaded
Line
Min / M
User-defined title
Title
Change
Font...
Color
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Apply
Close
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
DEFORM SIMULATION
[1] OPERATION 1 Step 100
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
Global
Object
Max
Title
Label
Shaded
Line
User-defined title
Title
Change
Font...
Color
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Apply
Close
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
DEFORM SIMULATION
[!] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
Step 100
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
0.000
Global
Object
Max
0.000
Title
Label
Shaded
Line
Colorbar type
General
# of Values
4
Apply
Close
Z
Y
X
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Step 100
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[7
[v] Mesh - Elem 6792
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min 0.204
Global
Object
Max 0.254
Title
Label
Shaded
Line
Colorbar type
General
# of Values
4
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Apply
Close
Z
X
Y
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
0.238
0.221
0.204
0.204 Min
0.254 Max
Z
X
Y
DEFORM SIMULATION
[!] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min 0.204
Global
Object
Max 0.254
Title
Label
Shaded
Line
Colorbar type
General
# of Values
4
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Apply
Close
Resizing 781x 904

4. Создание сечений

5. Отображение результатов решения по шагам

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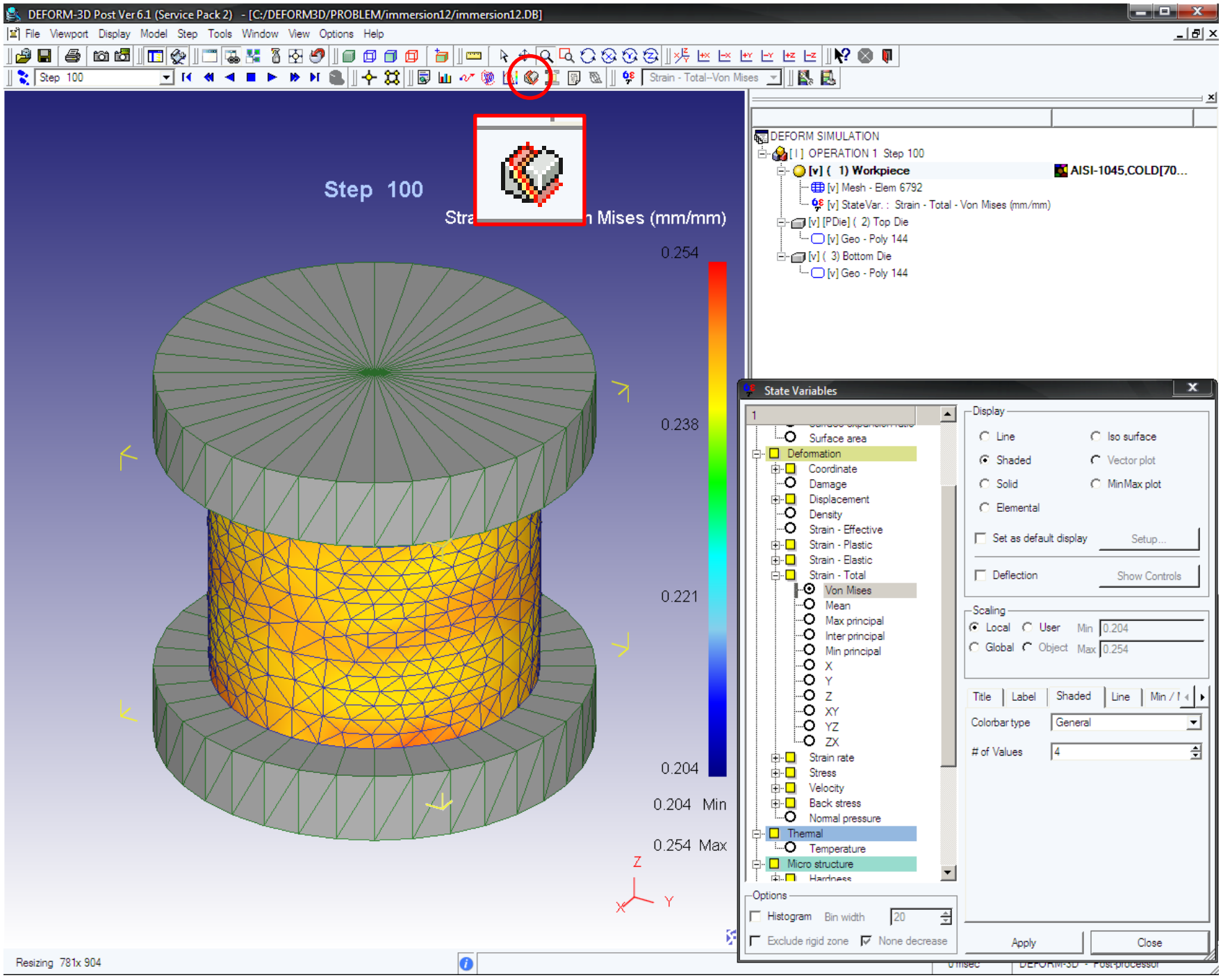
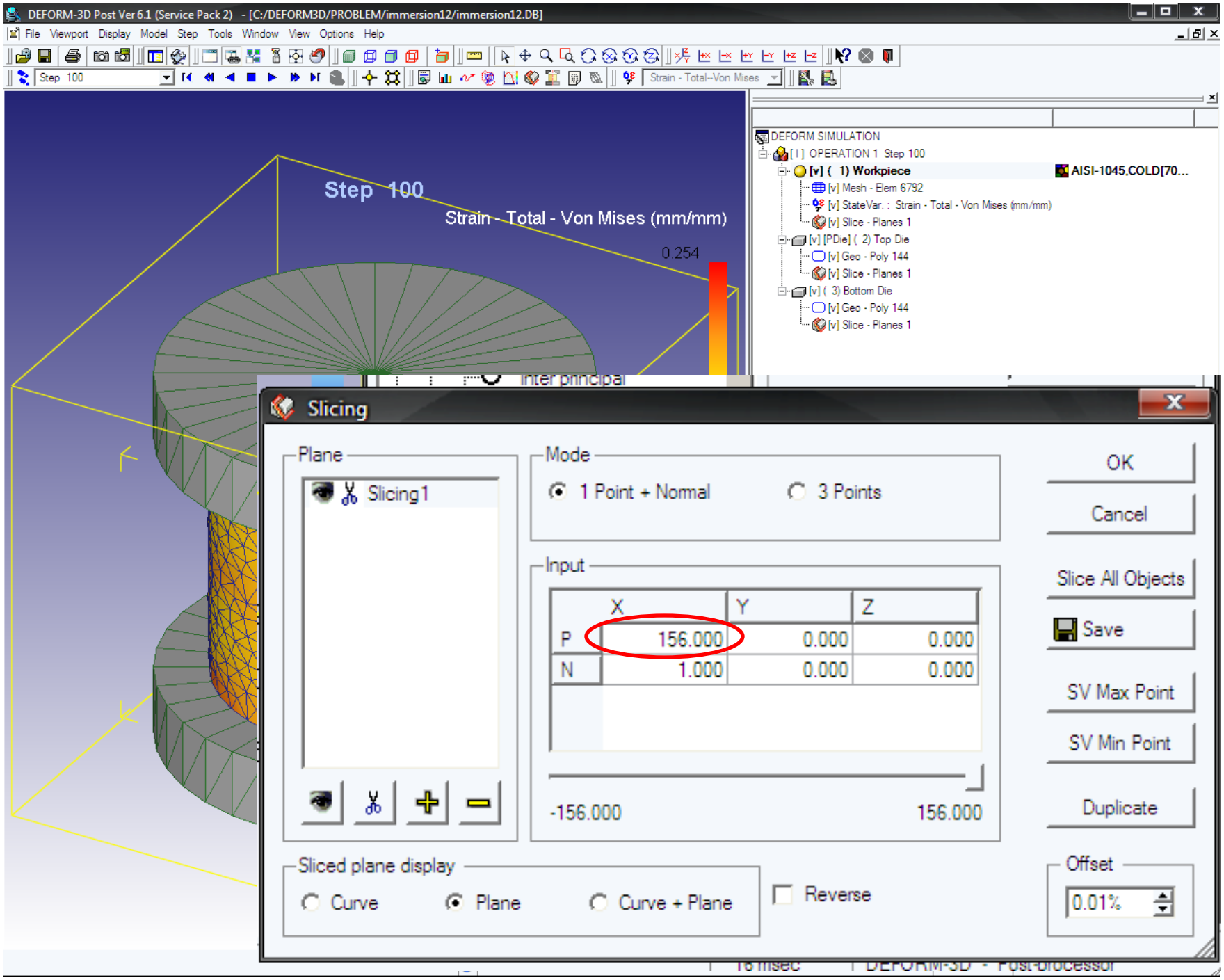
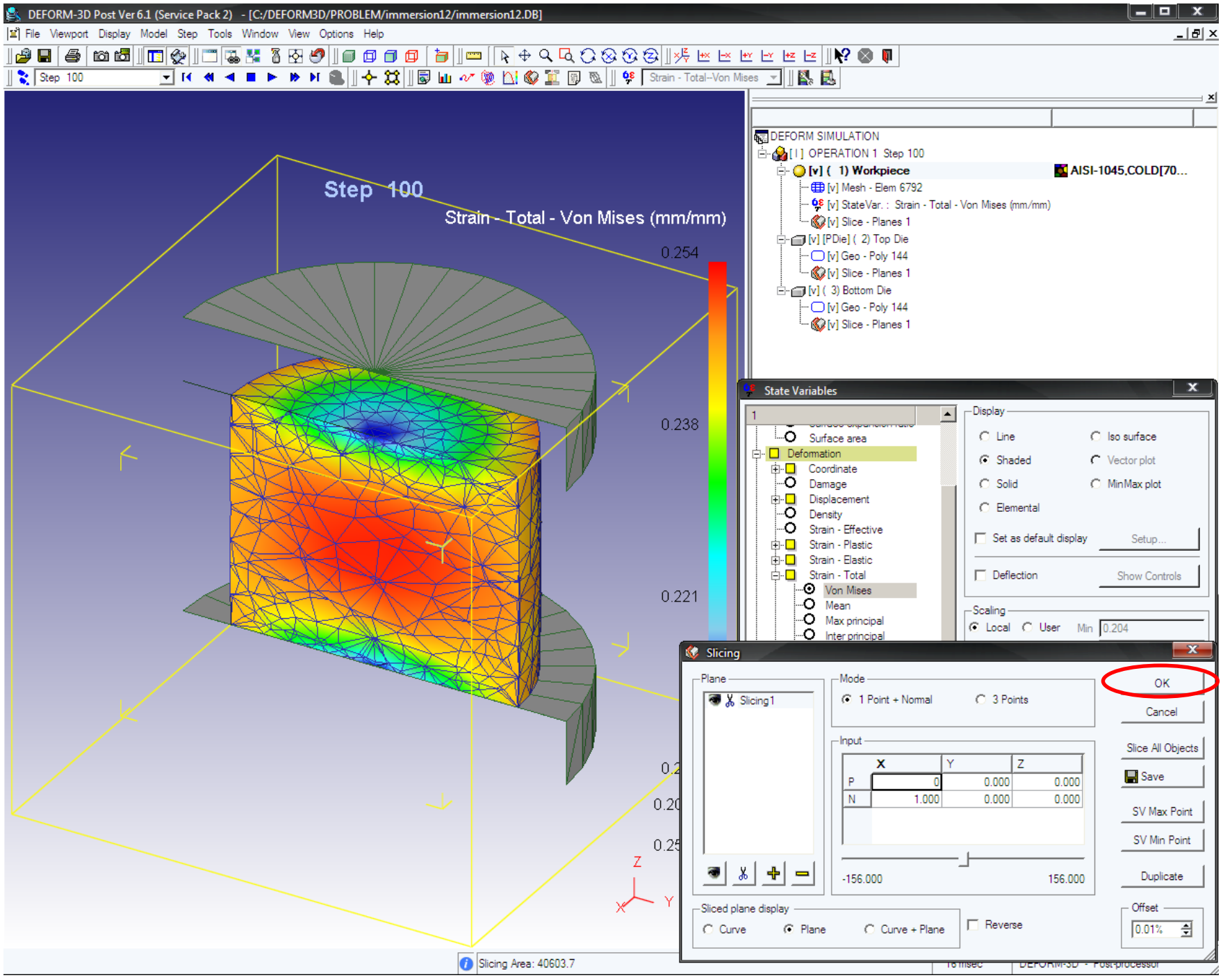
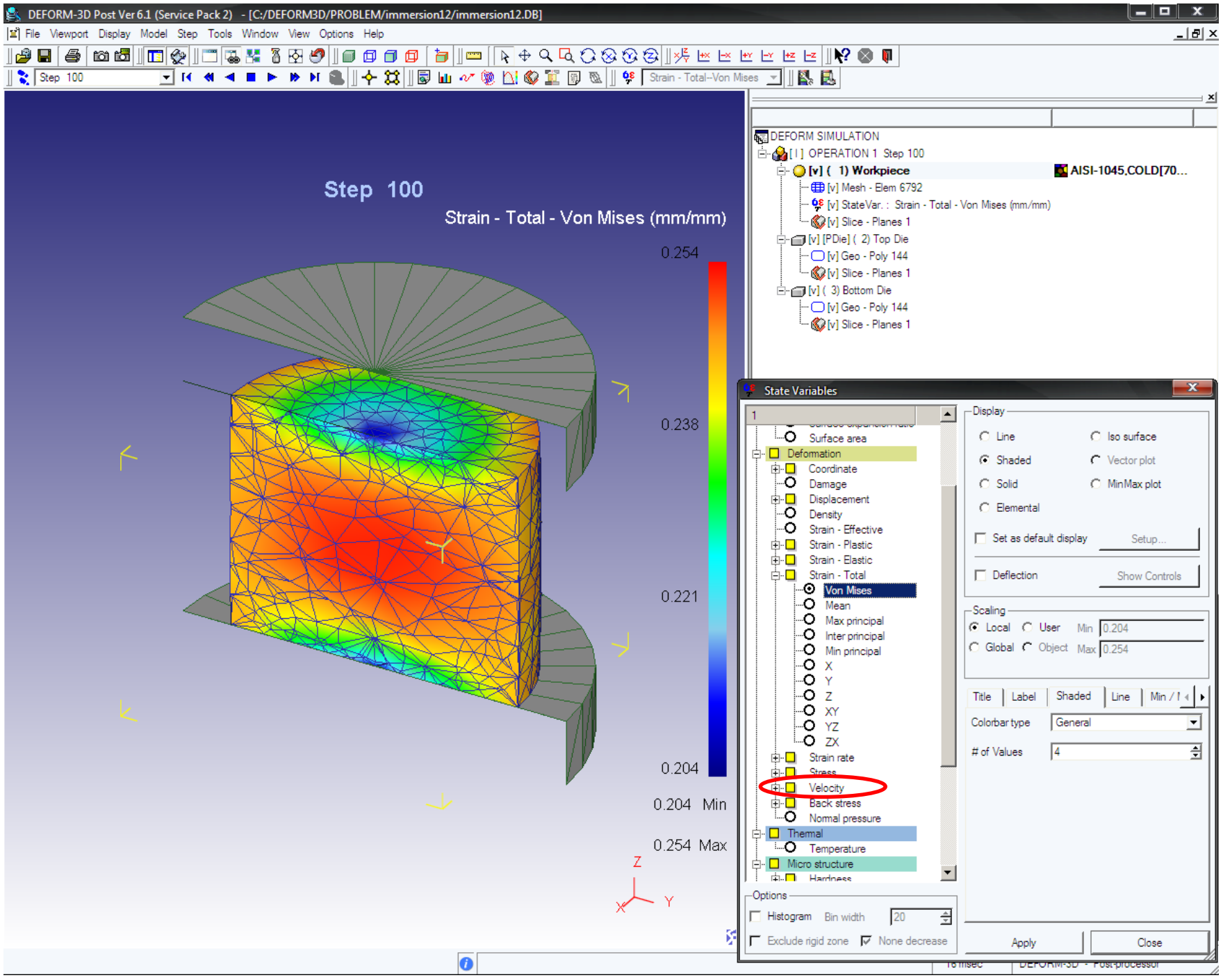
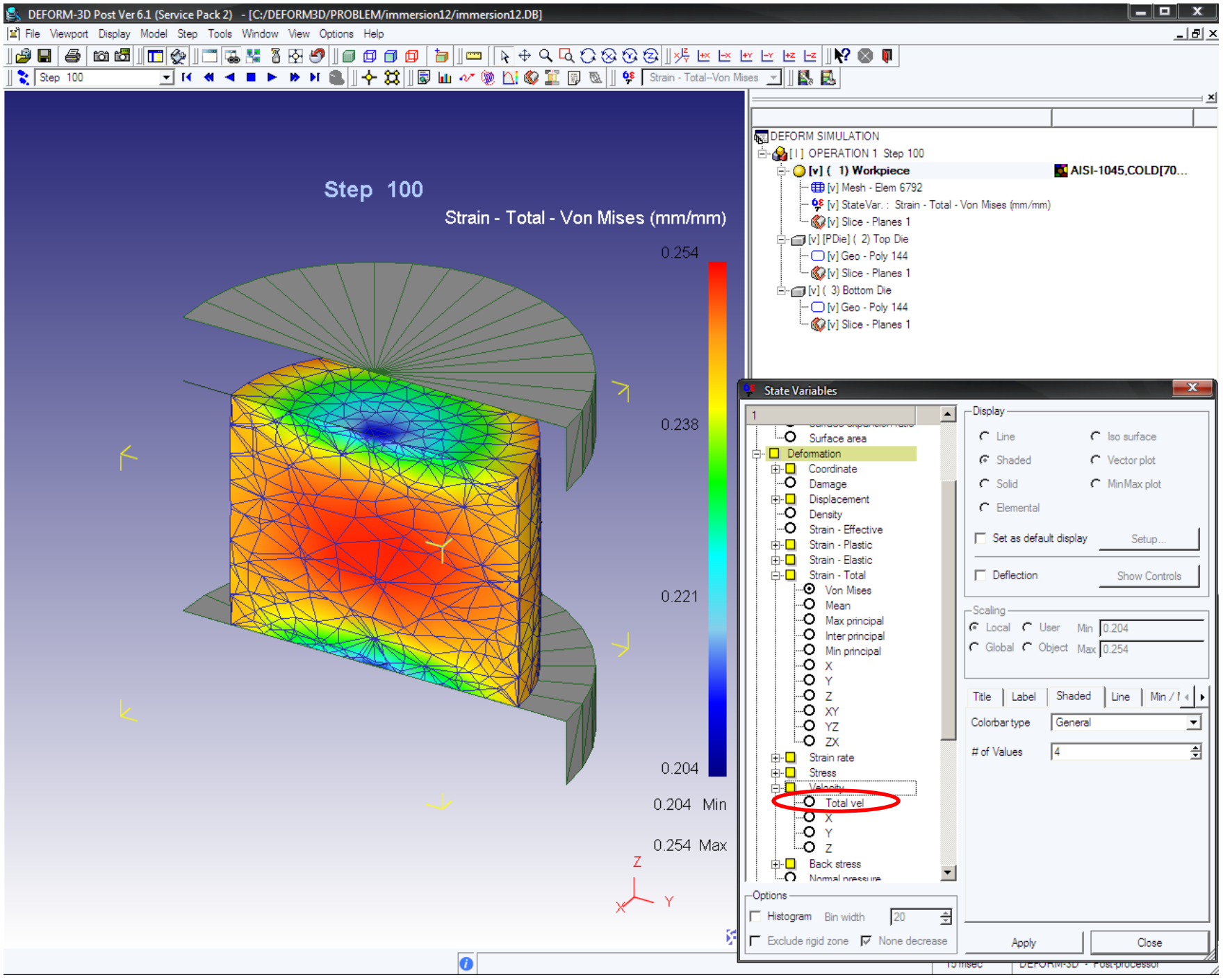
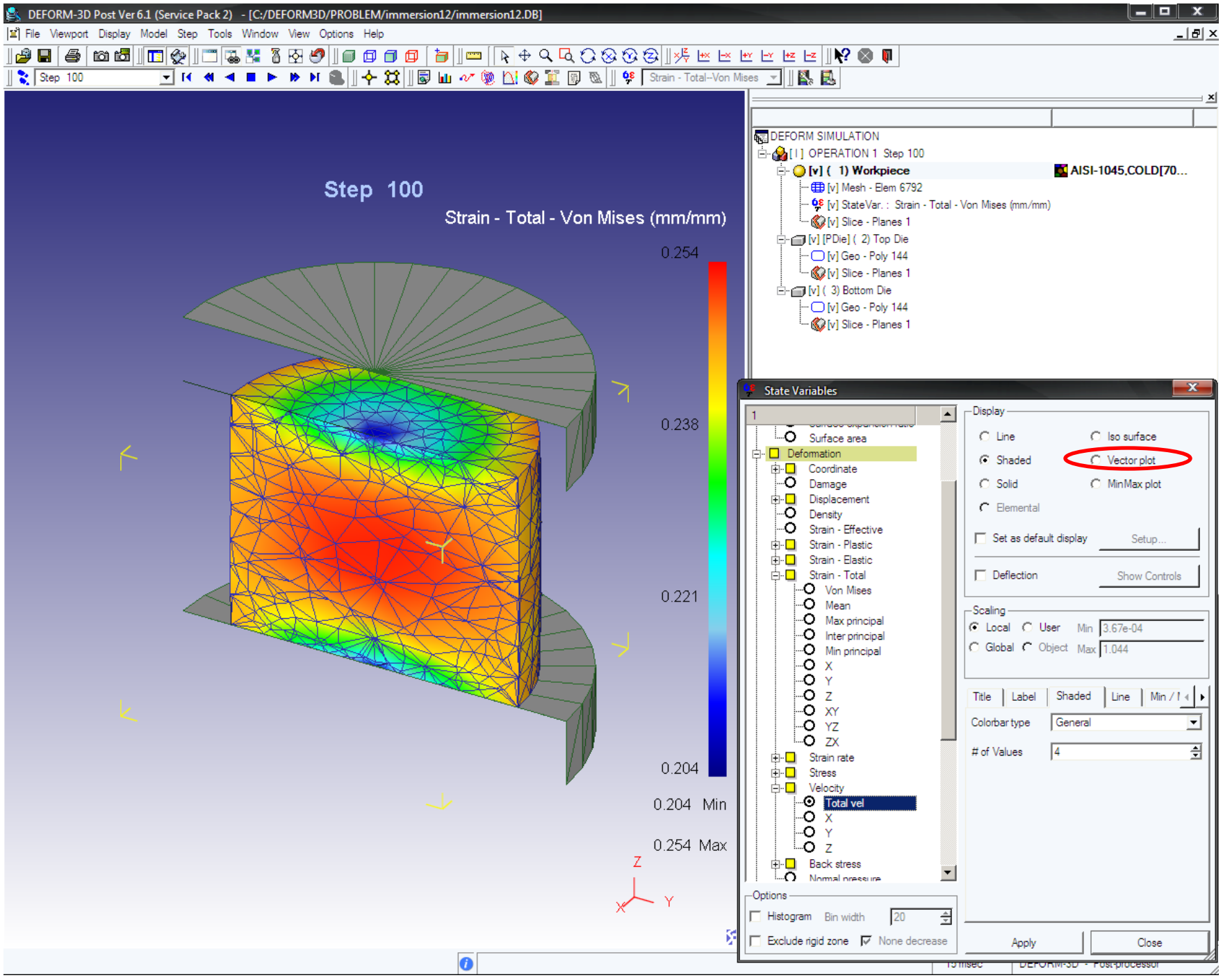

DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total--Von Mises
Step 100
Mises (mm/mm)
0.254
0.238
0.221
0.204
0.204 Min
0.254 Max
DEFORM SIMULATION
[!] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] (3) Bottom Die
[v] Geo - Poly 144
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
0.204
Global
Object
Max
0.254
Title
Label
Shaded
Line
Colorbar type
General
# of Values
4
Apply
Close
Resizing 781x 904

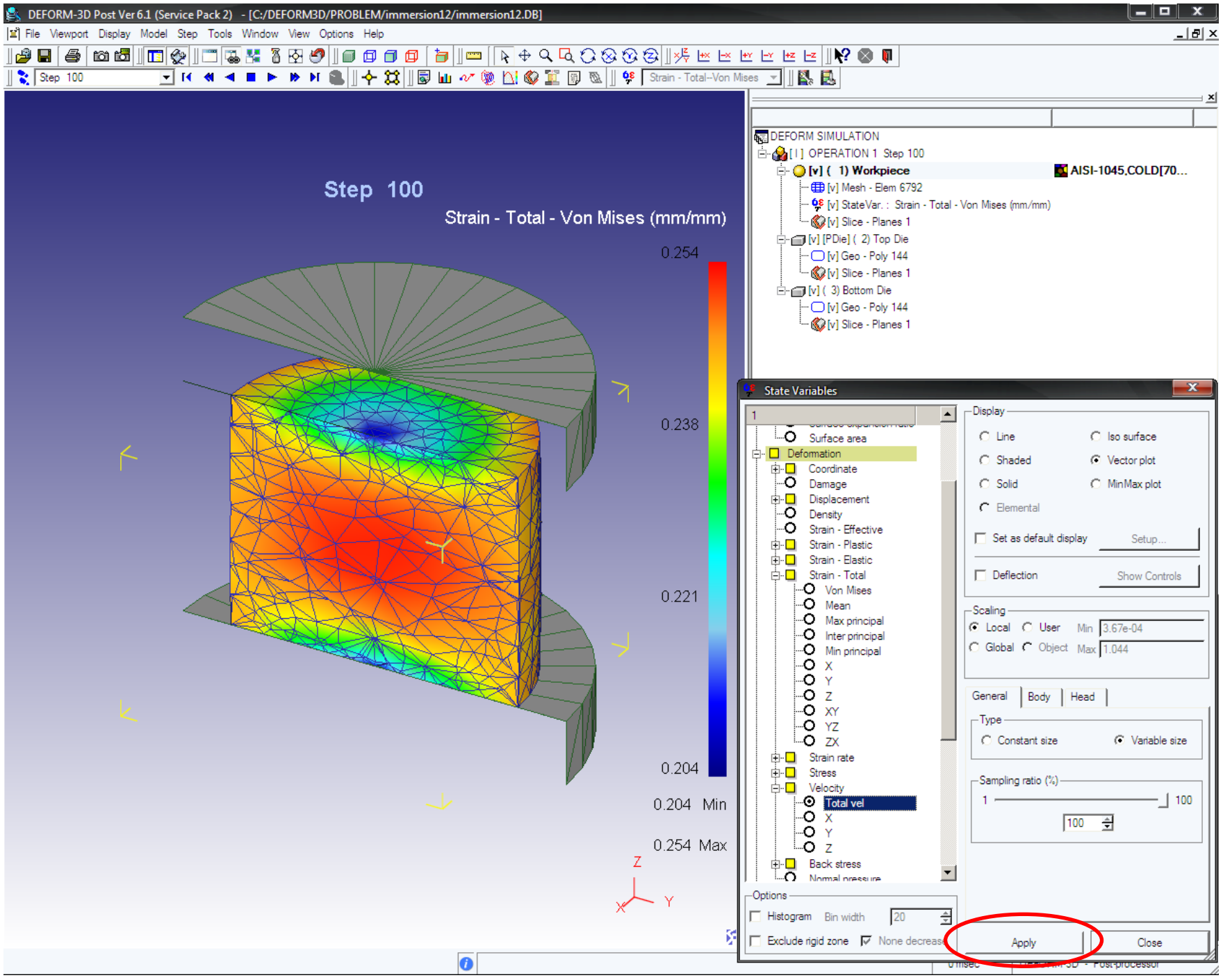

DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
DEFORM SIMULATION
[!] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
Slicing
Plane
Slicing1
Mode
1 Point + Normal
3 Points
Input
X
Y
Z
P
156.000
0.000
0.000
N
1.000
0.000
0.000
-156.000
156.000
OK
Cancel
Slice All Objects
Save
SV Max Point
SV Min Point
Duplicate
Sliced plane display
Curve
Plane
Curve + Plane
Reverse
Offset
0.01%

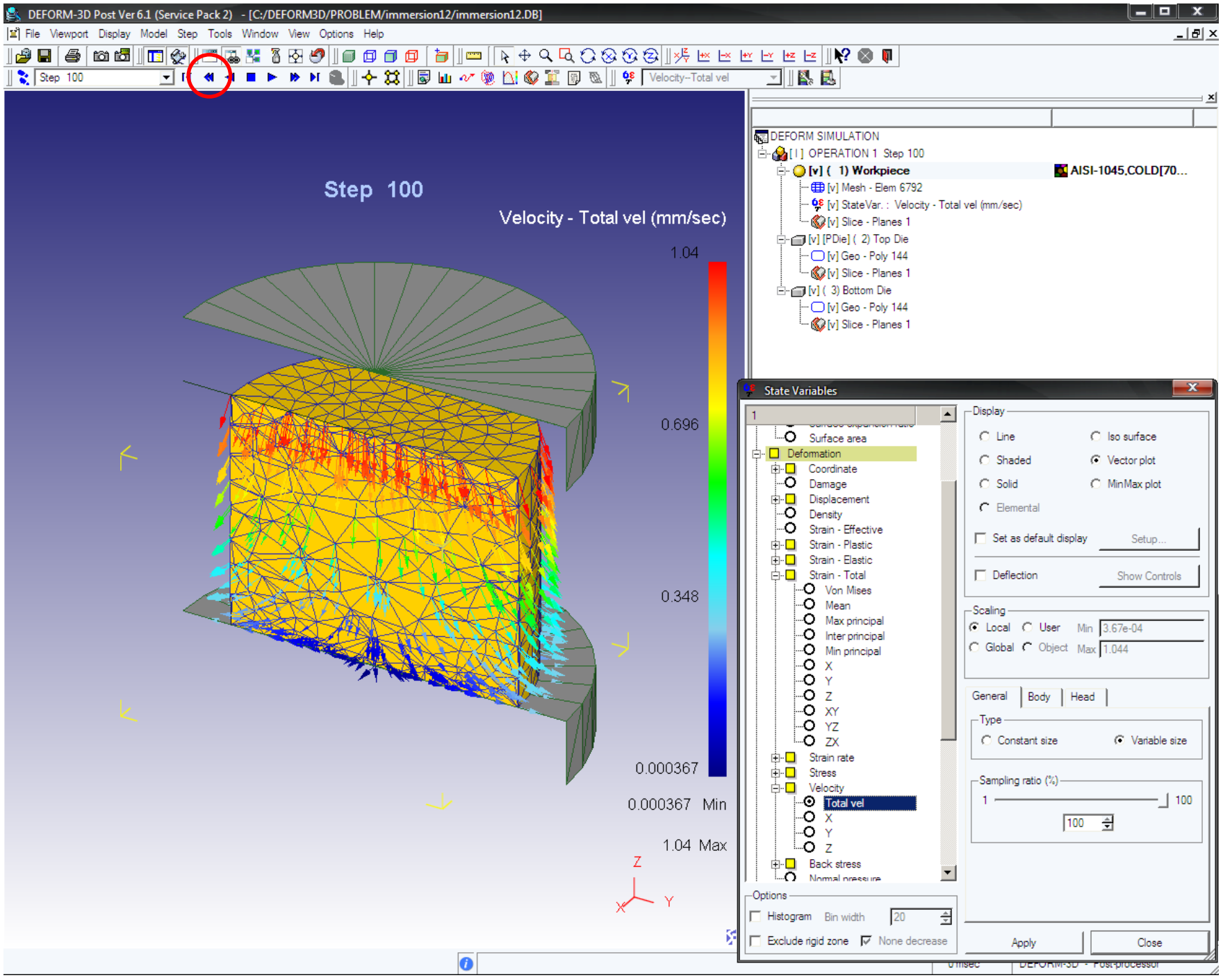

DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
0.238
0.221
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
0.204
Slicing
Plane
Slicing1
Mode
1 Point + Normal
3 Points
Input
X
Y
Z
P
0
0.000
0.000
N
1.000
0.000
0.000
-156.000
156.000
OK
Cancel
Slice All Objects
Save
SV Max Point
SV Min Point
Duplicate
Sliced plane display
Curve
Plane
Curve + Plane
Reverse
Offset
0.01%
Slicing Area: 40603.7

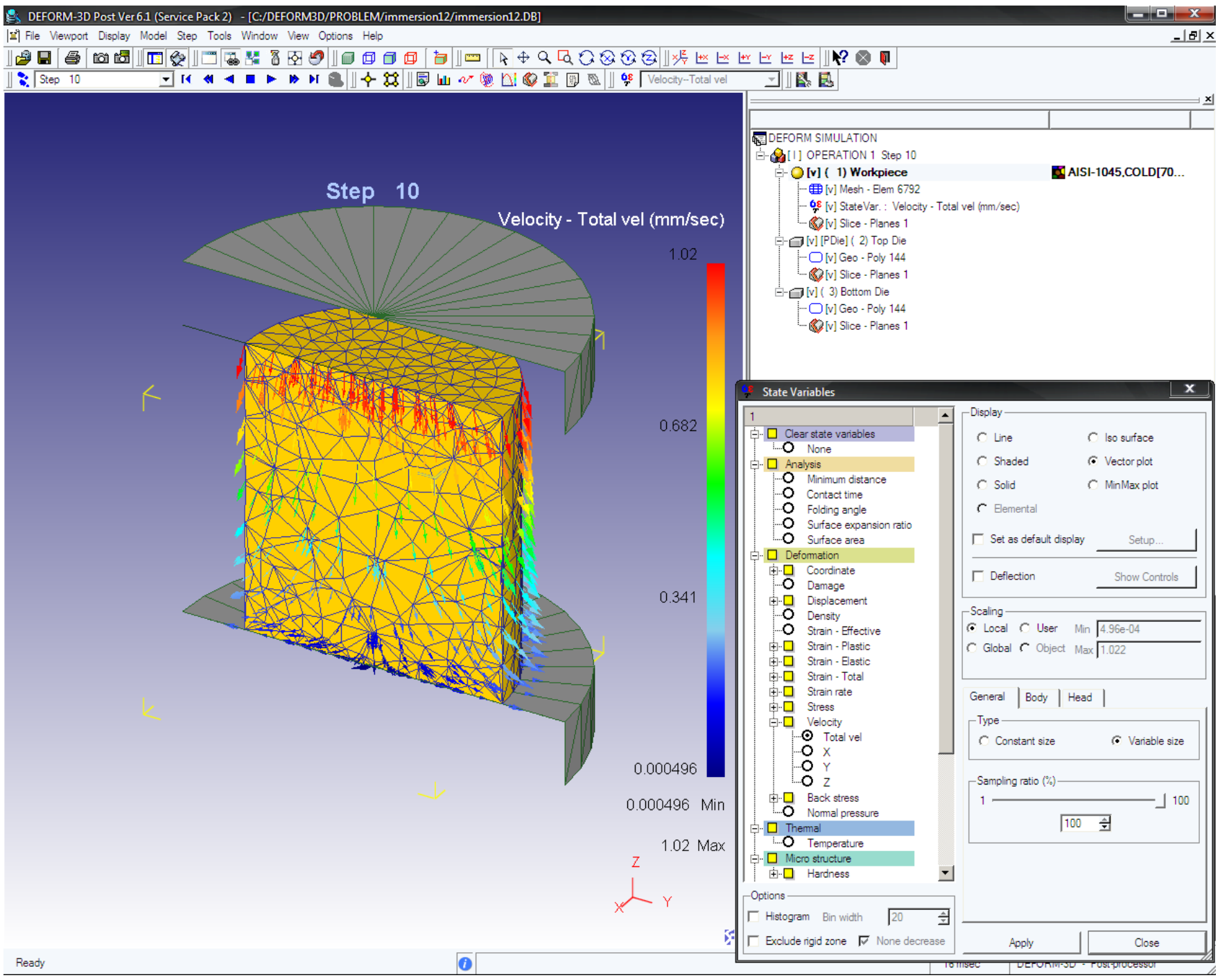

DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
0.238
0.221
0.204
0.204 Min
0.254 Max
Z
X
Y
DEFORM SIMULATION
[!] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
0.204
Global
Object
Max
0.254
Title
Label
Shaded
Line
Min / M
Colorbar type
General
# of Values
4
Apply
Close


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
0.238
0.221
0.204
0.204 Min
0.254 Max
Z
X
Y
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
0.204
Global
Object
Max
0.254
Title
Label
Shaded
Line
Min /
Colorbar type
General
# of Values
4
Apply
Close


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
0.238
0.221
0.204
0.204 Min
0.254 Max
Z
X
Y
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
3.67e-04
Global
Object
Max
1.044
Title
Label
Shaded
Line
Min / M
Colorbar type
General
# of Values
4
Apply
Close


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Strain - Total-Von Mises
Step 100
Strain - Total - Von Mises (mm/mm)
0.254
0.238
0.221
0.204
0.204 Min
0.254 Max
Z
X
Y
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Strain - Total - Von Mises (mm/mm)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Options
Histogram
Bin width
20
Exclude rigid zone
None decreas
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
3.67e-04
Global
Object
Max
1.044
General
Body
Head
Type
Constant size
Variable size
Sampling ratio (%)
1
100
100
Apply
Close


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 100
Velocity--Total vel
Step 100
Velocity - Total vel (mm/sec)
1.04
0.696
0.348
0.000367
0.000367 Min
1.04 Max
Z
X
Y
DEFORM SIMULATION
[ ] OPERATION 1 Step 100
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Velocity - Total vel (mm/sec)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Von Mises
Mean
Max principal
Inter principal
Min principal
X
Y
Z
XY
YZ
ZX
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
3.67e-04
Global
Object
Max
1.044
General
Body
Head
Type
Constant size
Variable size
Sampling ratio (%)
1
100
100
Apply
Close


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 10
Velocity--Total vel
Step 10
Velocity - Total vel (mm/sec)
1.02
0.682
0.341
0.000496
0.000496 Min
1.02 Max
Z
X
Y
DEFORM SIMULATION
[!] OPERATION 1 Step 10
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Velocity - Total vel (mm/sec)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
4.96e-04
Global
Object
Max
1.022
General
Body
Head
Type
Constant size
Variable size
Sampling ratio (%)
1
100
100
Apply
Close
Ready

6. Сохранение графического материала для отчётов

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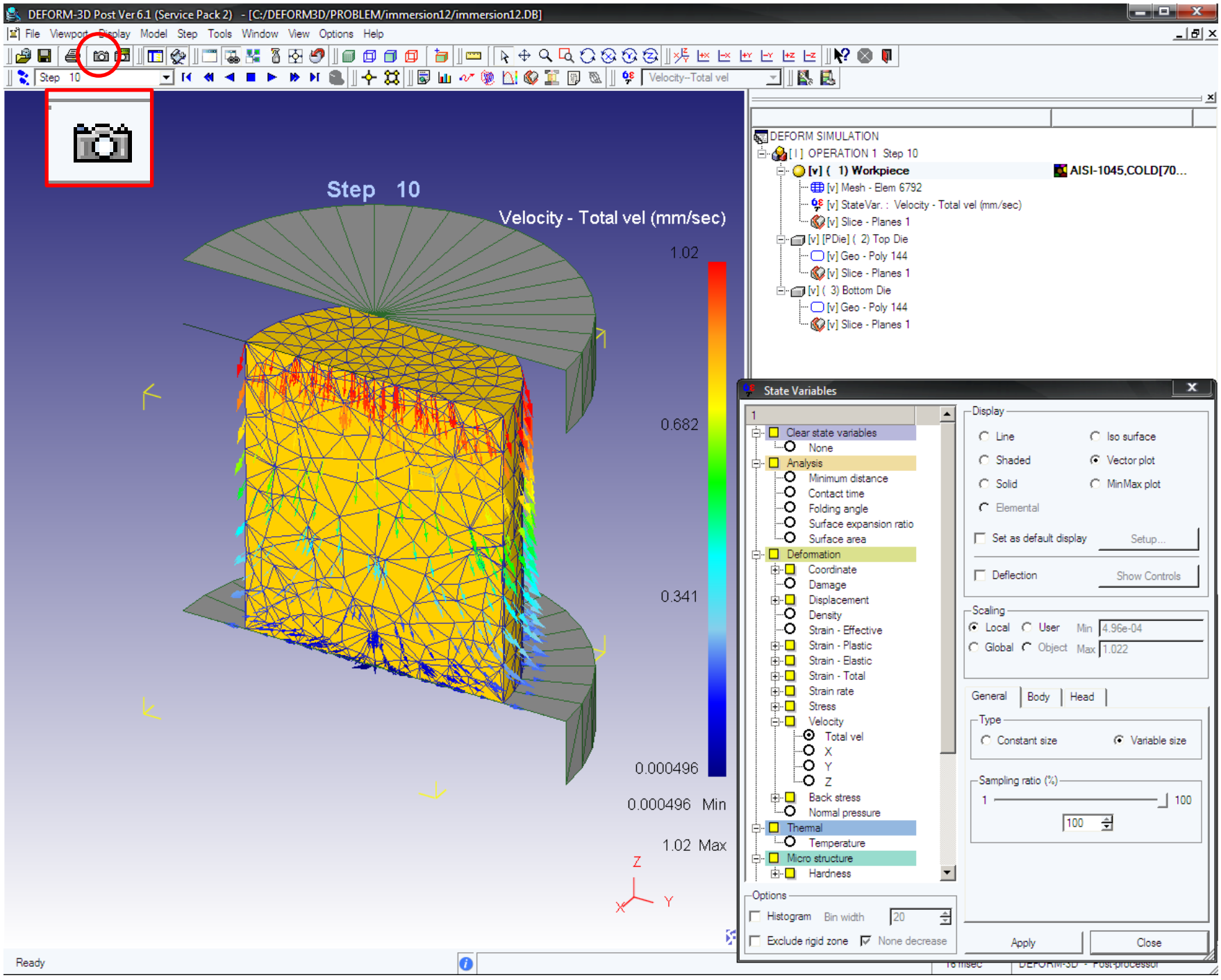
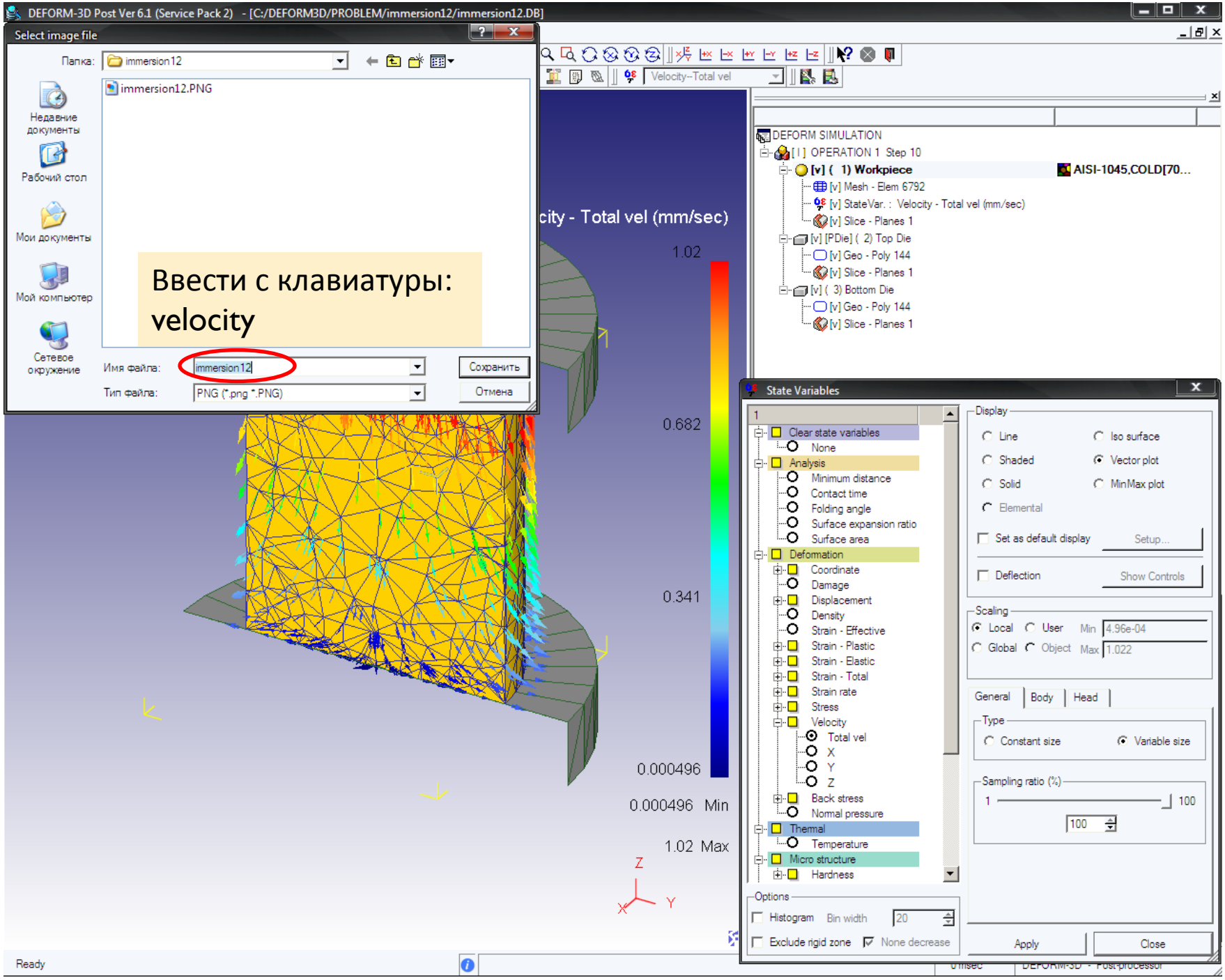
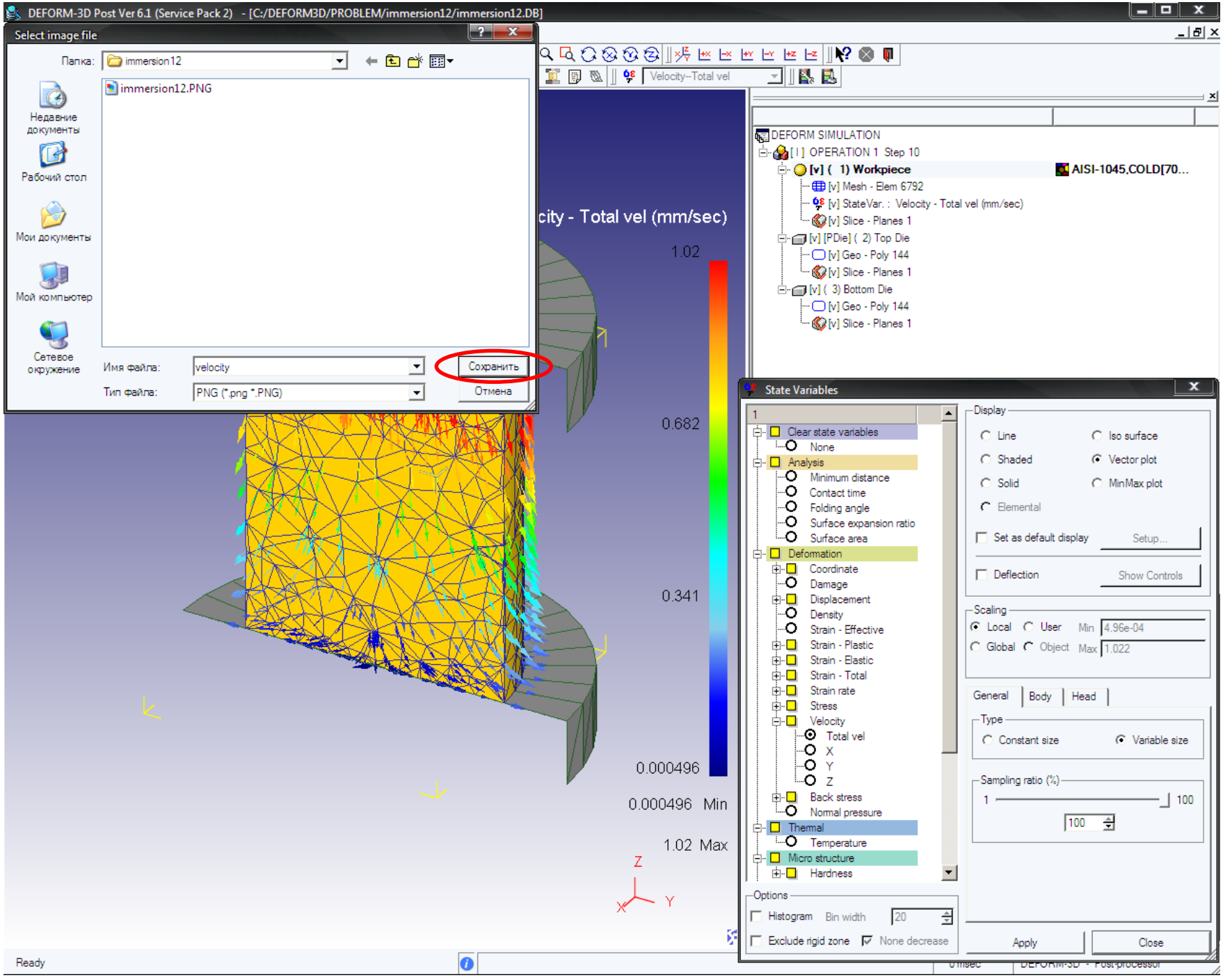
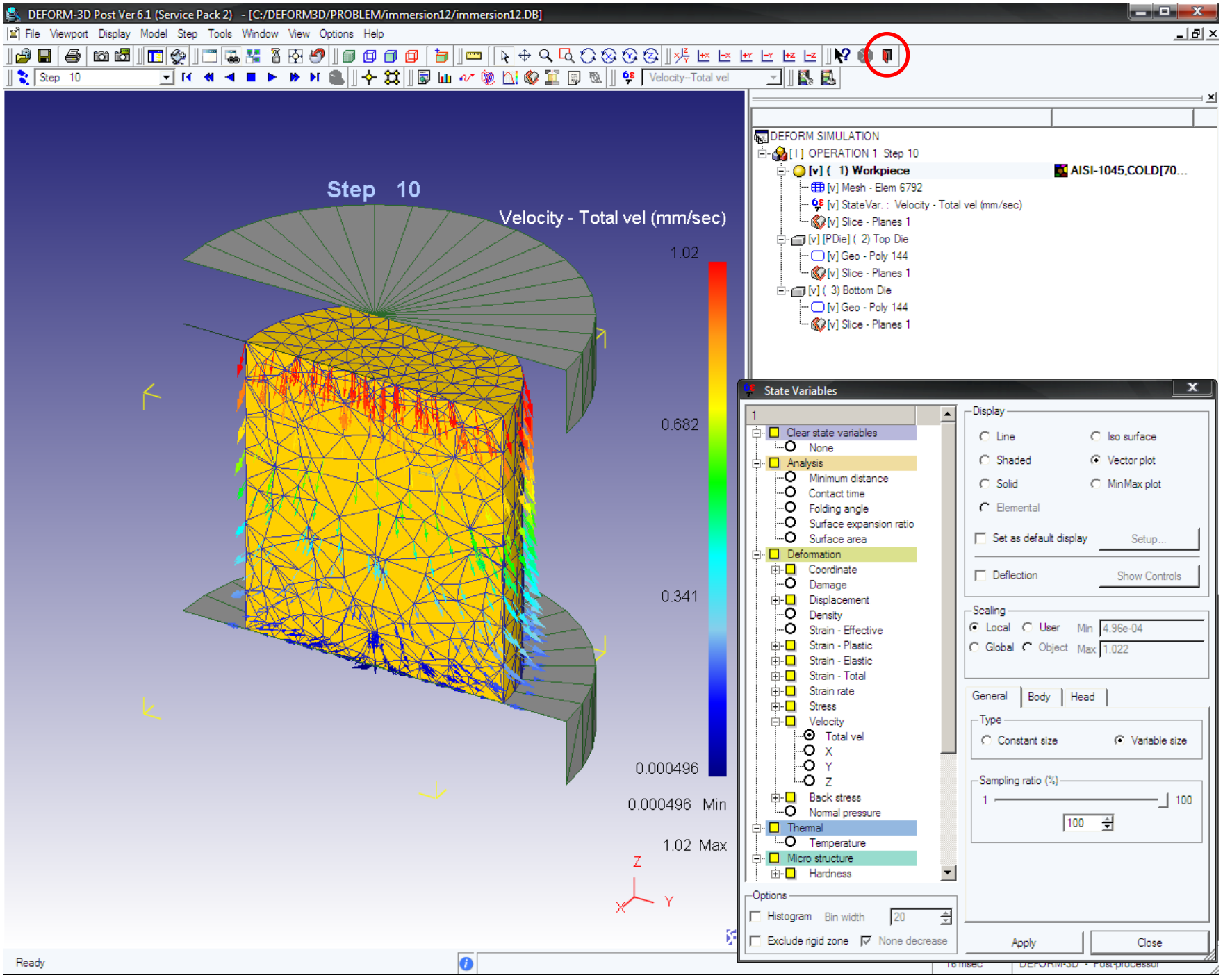

DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 10
Velocity--Total vel
Step 10
Velocity - Total vel (mm/sec)
1.02
0.682
0.341
0.000496
0.000496 Min
1.02 Max
Z
X
Y
DEFORM SIMULATION
[!] OPERATION 1 Step 10
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Velocity - Total vel (mm/sec)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Options
Histogram Bin width 20
Exclude rigid zone None decrease
Display
Line Iso surface
Shaded Vector plot
Solid MinMax plot
Elemental
Set as default display Setup...
Deflection Show Controls
Scaling
Local User Min 4.96e-04
Global Object Max 1.022
General Body Head
Type
Constant size Variable size
Sampling ratio (%)
1 100
100
Apply Close
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
Select image file
Папка: immersion12
immersion12.PNG
Недавние документы
Рабочий стол
Мои документы
Мой компьютер
Сетевое окружение
Ввести с клавиатуры:
velocity
Имя файла: immersion12
Тип файла: PNG (*.png *.PNG)
Сохранить
Отмена
Velocity--Total vel
DEFORM SIMULATION
[!] OPERATION 1 Step 10
[v] (1) Workpiece
AISI-1045.COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Velocity - Total vel (mm/sec)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
city - Total vel (mm/sec)
1.02
0.682
0.341
0.000496
0.000496 Min
1.02 Max
Z
X
Y
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Options
Histogram Bin width 20
Exclude rigid zone None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min 4.96e-04
Global
Object
Max 1.022
General
Body
Head
Type
Constant size
Variable size
Sampling ratio (%)
1
100
100
Apply
Close
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
Select image file
Папка:
immersion12
immersion12.PNG
Недавние документы
Рабочий стол
Мои документы
Мой компьютер
Сетевое окружение
Имя файла:
velocity
Тип файла:
PNG (*.png *.PNG)
Сохранить
Отмена
Velocity--Total vel
DEFORM SIMULATION
[!] OPERATION 1 Step 10
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Velocity - Total vel (mm/sec)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
city - Total vel (mm/sec)
1.02
0.682
0.341
0.000496
0.000496 Min
1.02 Max
Z
X
Y
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Options
Histogram
Bin width
20
Exclude rigid zone
None decrease
Display
Line
Iso surface
Shaded
Vector plot
Solid
MinMax plot
Elemental
Set as default display
Setup...
Deflection
Show Controls
Scaling
Local
User
Min
4.96e-04
Global
Object
Max
1.022
General
Body
Head
Type
Constant size
Variable size
Sampling ratio (%)
1
100
100
Apply
Close
Ready


DEFORM-3D Post Ver 6.1 (Service Pack 2) - [C:/DEFORM3D/PROBLEM/immersion12/immersion12.DB]
File Viewport Display Model Step Tools Window View Options Help
Step 10
Velocity--Total vel
Step 10
Velocity - Total vel (mm/sec)
1.02
0.682
0.341
0.000496
0.000496 Min
1.02 Max
Z
X
Y
DEFORM SIMULATION
[ ] OPERATION 1 Step 10
[v] (1) Workpiece
AISI-1045,COLD[70...
[v] Mesh - Elem 6792
[v] StateVar. : Velocity - Total vel (mm/sec)
[v] Slice - Planes 1
[v] [PDie] (2) Top Die
[v] Geo - Poly 144
[v] Slice - Planes 1
[v] (3) Bottom Die
[v] Geo - Poly 144
[v] Slice - Planes 1
State Variables
Clear state variables
None
Analysis
Minimum distance
Contact time
Folding angle
Surface expansion ratio
Surface area
Deformation
Coordinate
Damage
Displacement
Density
Strain - Effective
Strain - Plastic
Strain - Elastic
Strain - Total
Strain rate
Stress
Velocity
Total vel
X
Y
Z
Back stress
Normal pressure
Thermal
Temperature
Micro structure
Hardness
Options
Histogram Bin width 20
Exclude rigid zone None decrease
Display
Line Iso surface
Shaded Vector plot
Solid MinMax plot
Elemental
Set as default display Setup...
Deflection Show Controls
Scaling
Local User Min 4.96e-04
Global Object Max 1.022
General Body Head
Type
Constant size Variable size
Sampling ratio (%)
1 100
100
Apply Close
Ready

7. Просмотр графического материала

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DEFORM-3D Ver 6.1 (Service Pack 2)

File Simulation Tool View Option Help

C:\DEFORM3D\PROBLEM

Explore | Database | Recent

Directory

PROBLEM

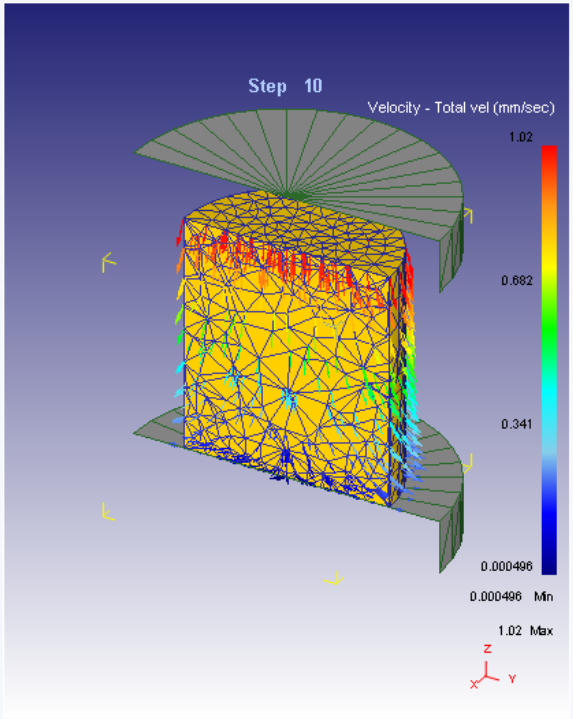
immersion12

immersion12.DB

dbg_surf.2
DEF_MAIL.INI
DEF_MPIenv.DAT
DEFORM3D.PROB
DENSTY.DST
frgen3d.diag.p0001
immersion12.htm
immersion12.PNG
meshqual.diag
surf.3
surf.4
surf.5
velocity.PNG

Problem ID: immersion12

Summary | Preview | Message | Log | Memo



Pre Processor

DEFORM-3D Pre
Machining [Cutting]
Forming
Die Stress Analysis
Cogging
Shape Rolling
Ring Rolling
Heat Treatment

Tool

Inverse Heat
Preform Wizard

Simulator

Run
Run (options)
Stop
Continue
Process Monitor
Simulation Graphics

Batch Queue
Add to Queue

Run Remotely
Remote Process Monitor

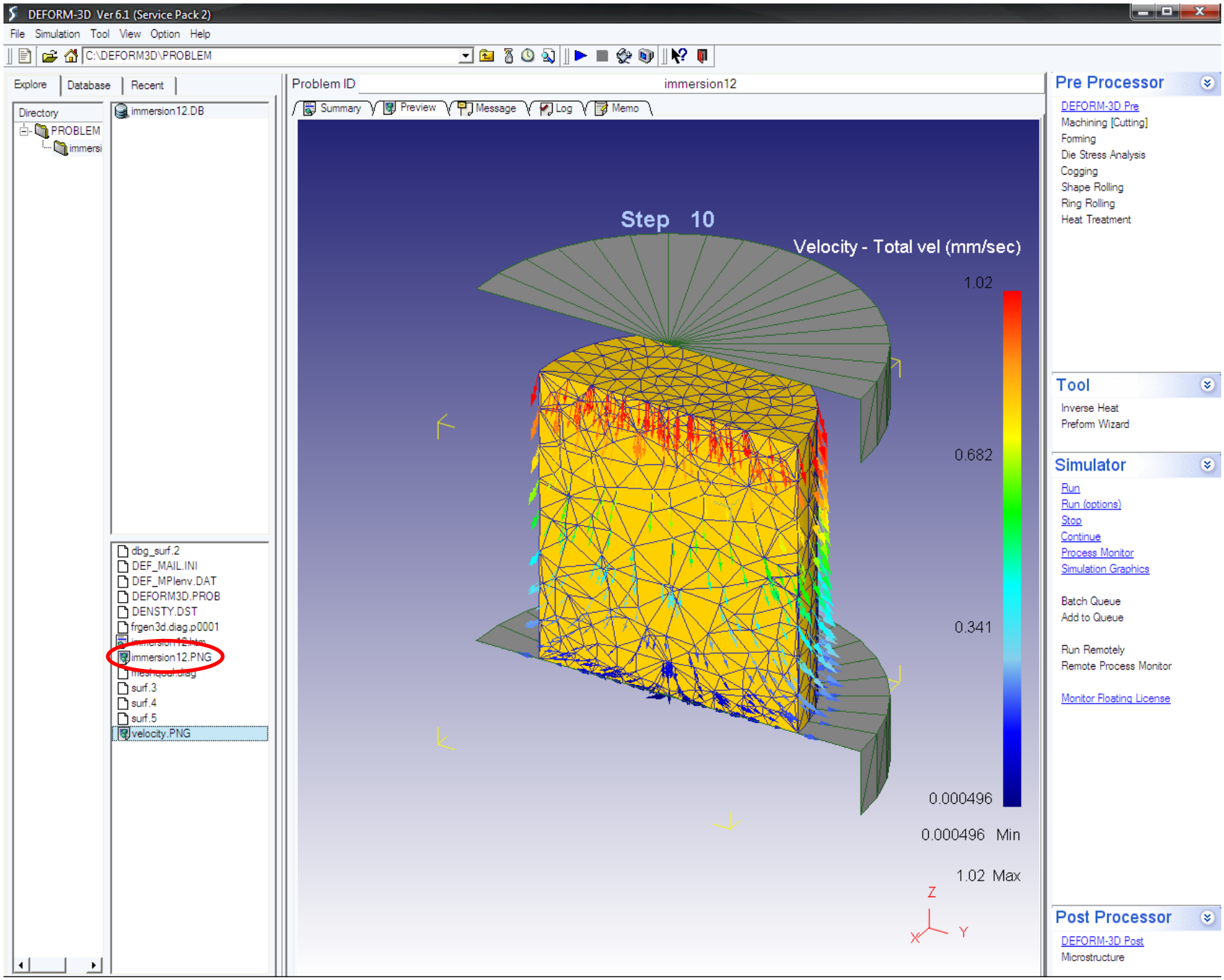
Monitor Floating License

Post Processor

DEFORM-3D Post
Microstructure

C:\DEFORM3D\PROBLEM\immersion12\immersion12.DB Version: 6.01 Modified: 24.06.2009 10:56:27 Size: 20175 KB

DEFORM-3D - Main


DEFORM-3D Ver 6.1 (Service Pack 2)
File Simulation Tool View Option Help
C:\DEFORM3D\PROBLEM
Explore Database Recent
Directory
PROBLEM
immersi
immersion12.DB
dbg_surf.2
DEF_MAIL.INI
DEF_MPIenv.DAT
DEFORM3D.PROB
DENSTY.DST
frgen3d.diag.p0001
immersion12.PNG
surf.3
surf.4
surf.5
velocity.PNG
Problem ID
immersion12
Summary Preview Message Log Memo
Step 10
Velocity - Total vel (mm/sec)
1.02
0.682
0.341
0.000496
0.000496 Min
1.02 Max
Z
X
Y
Pre Processor
DEFORM-3D Pre
Machining [Cutting]
Forming
Die Stress Analysis
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Tool
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File Simulation Tool View Option Help

C:\DEFORM3D\PROBLEM

Explore | Database | Recent

Directory

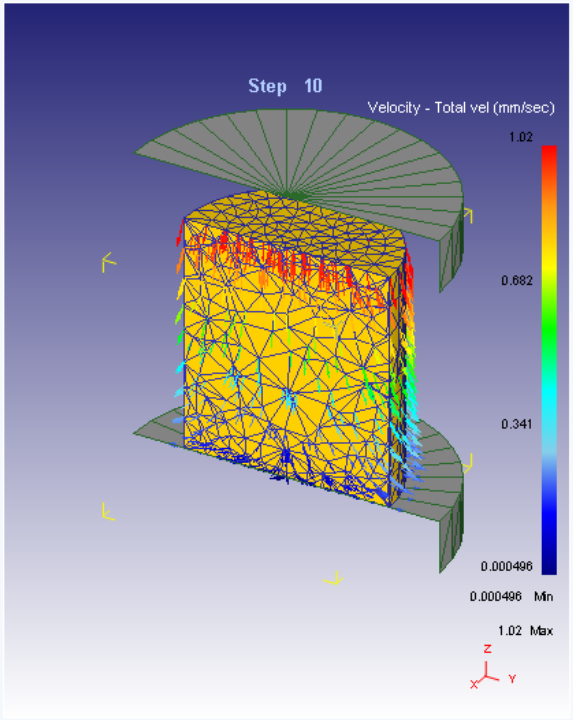
PROBLEM
immersion12

immersion12.DB

dbg_surf.2
DEF_MAIL.INI
DEF_MPIenv.DAT
DEFORM3D.PROB
DENSTY.DST
frgen3d.diag.p0001
immersion12.htm
immersion12.PNG
meshqual.diag
surf.3
surf.4
surf.5
velocity.PNG

Problem ID: immersion12

Summary | Preview | Message | Log | Memo



Pre Processor

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Microstructure

C:\DEFORM3D\PROBLEM\immersion12\immersion12.DB Version: 6.01 Modified: 24.06.2009 10:56:27 Size: 20175 KB

DEFORM-3D - Main

8. Удаление модели

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DEFORM-3D Ver 6.1 (Service Pack 2)

File Simulation Tool View Option Help

C:\DEFORM3D\PROBLEM

Explore | Database | Recent

Directory

PROBLEM

immersion12

immersion12.DB

dbg_surf.2
DEF_MAIL.INI
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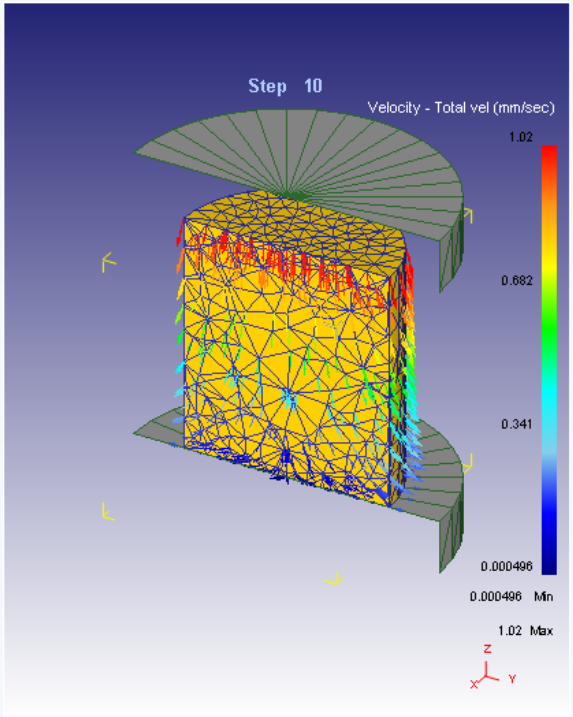
immersion12.PNG
meshqual.diag
surf.3
surf.4
surf.5
velocity.PNG

Problem ID: immersion12

Summary | Preview | Message | Log | Memo



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File Simulation Tool View Option Help

C:\DEFORM3D\PROBLEM

Explore | Database | Recent

Directory

PROBLEM

immersion12

New problem
Refresh
Auto refresh frequency...
Set as browse location
Set as problem home directory
New sub-folder
Delete
Rename
Clean-up files

immersion12.DB

dbg_surf.2
DEF_MAIL.INI
DEF_MPIenv.DAT
DEFORM3D.PROB
DENSTY.DST
frgen3d.diag.p0001
immersion12.htm
immersion12.PNG
meshqual.diag
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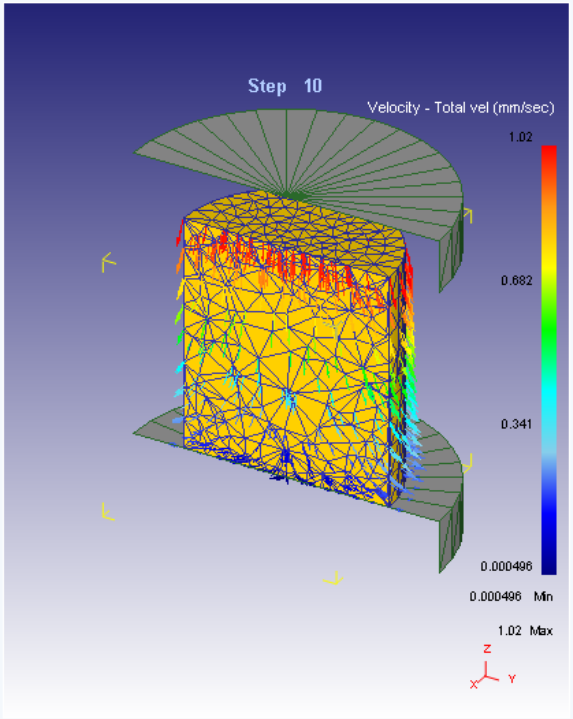
Problem ID immersion12

Summary | Preview | Message | Log | Memo



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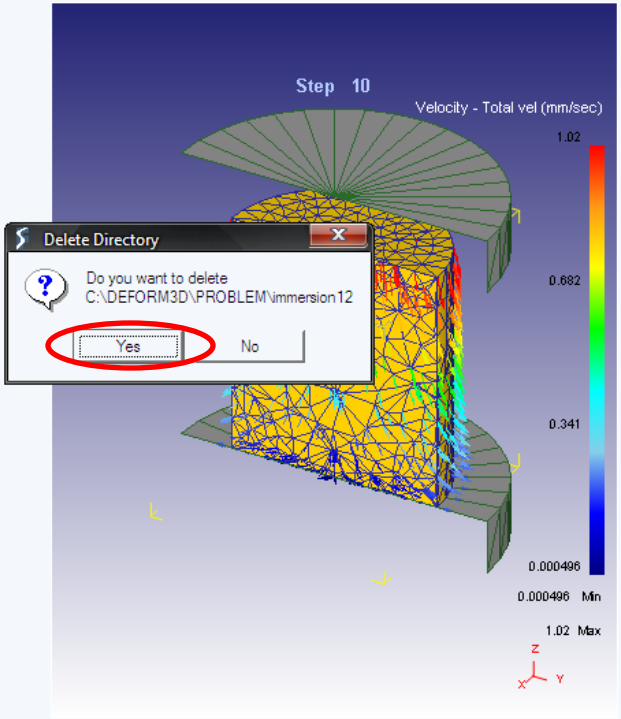

Delete Directory

Do you want to delete
C:\DEFORM3D\PROBLEM\immersion12

Yes No

Pre Processor

DEFORM-3D Pre
Machining [Cutting]
Forming
Die Stress Analysis
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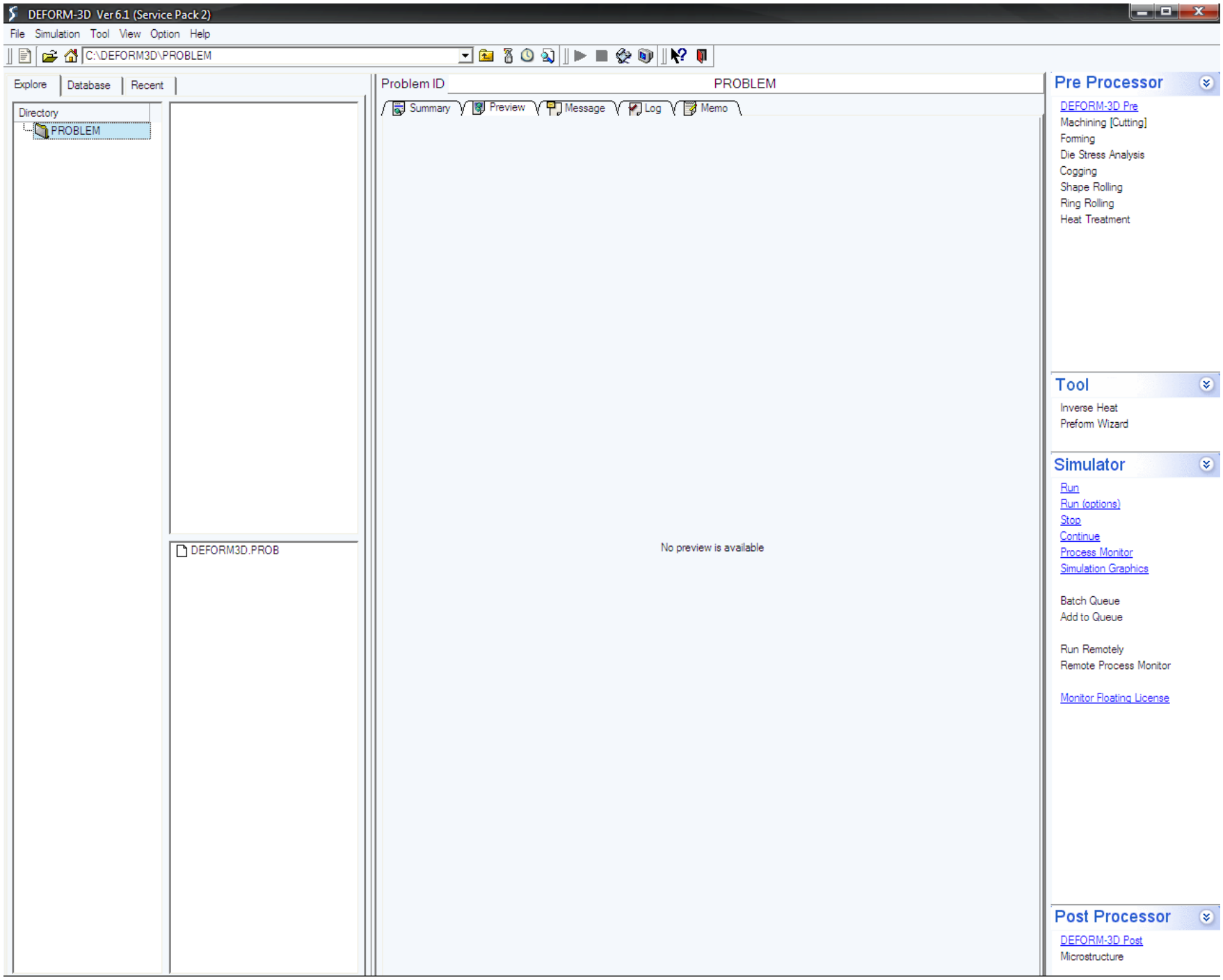
DEFORM-3D Ver 6.1 (Service Pack 2)
File Simulation Tool View Option Help
C:\DEFORM3D\PROBLEM
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PROBLEM
DEFORM3D.PROB
Problem ID
PROBLEM
Summary
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Log
Memo
No preview is available
Pre Processor
DEFORM-3D Pre
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