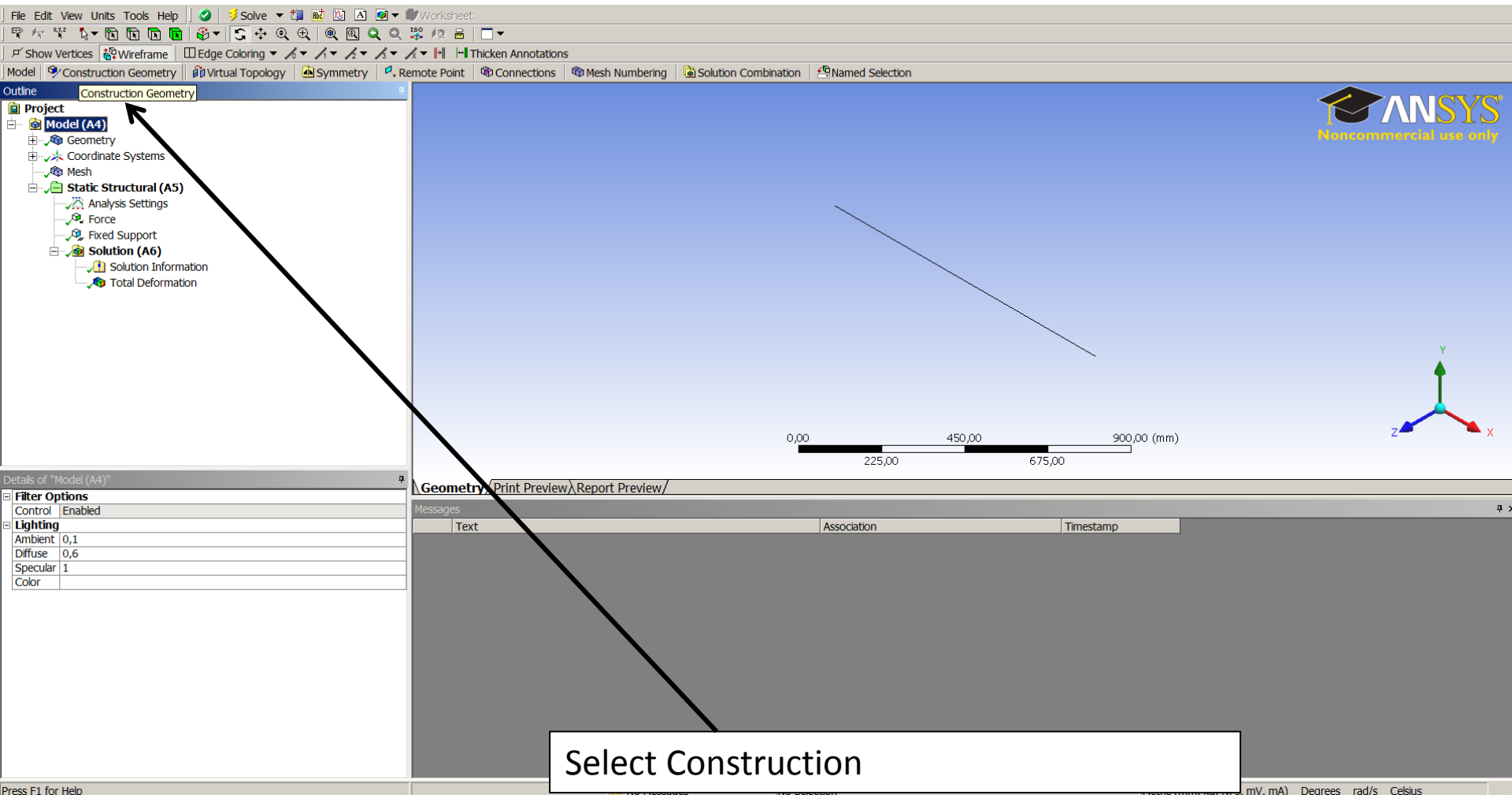


Plot Shear-Moment Diagram
Workbench 14.0

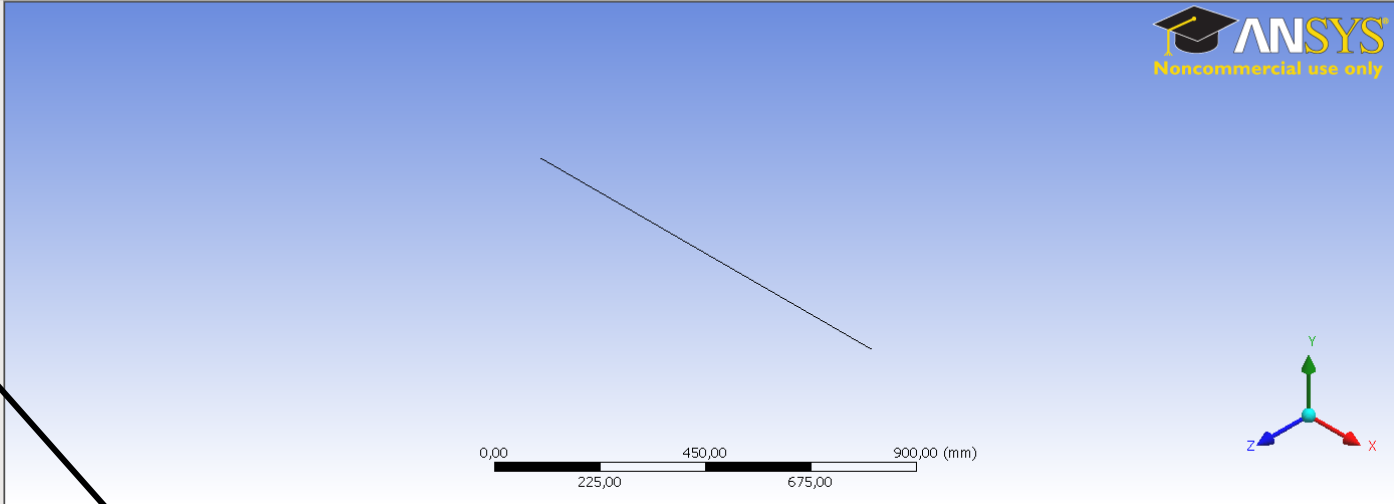
Aalborg Universitet Esbjerg
Søren Heide Lambertsen



Select Construction

Outline

- Project
 - Model (A4)
 - Geometry
 - Construction Geometry
 - Coordinate Systems
 - Mesh
 - Static Structural (A5)
 - Analysis Settings
 - Force
 - Fixed Support
 - Solution (A6)
 - Solution Information
 - Total Deformation



Details of "Construction Geometry"

Display Show Mesh | No

Geometry | Print Preview | Report Preview |

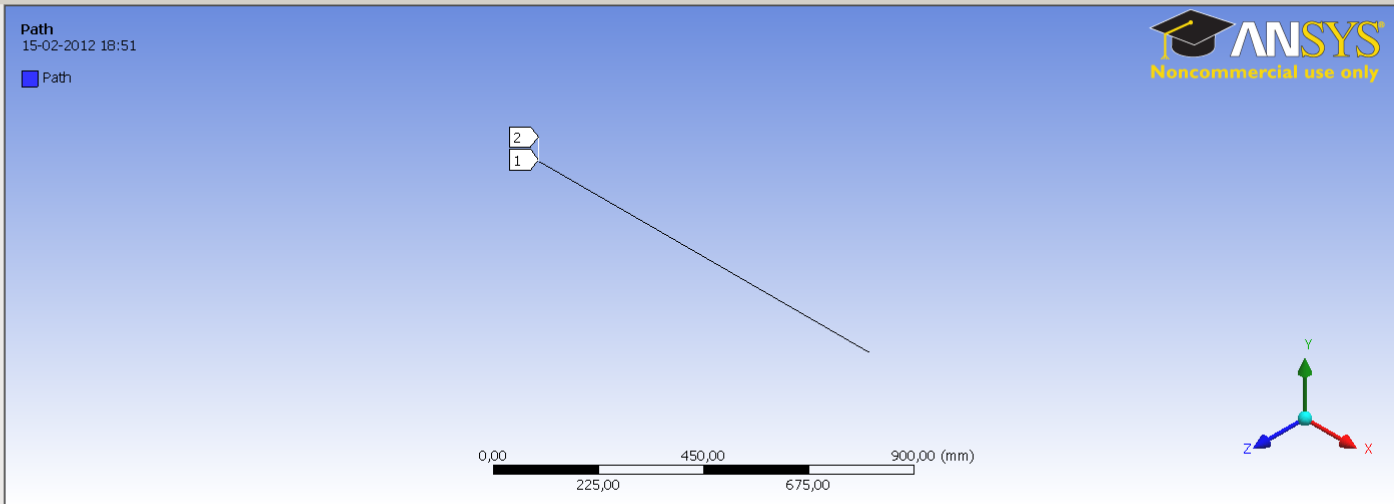
Messages

Text	Association	Timestamp
------	-------------	-----------

Select then Path

Outline

- Project
 - Model (A4)
 - Geometry
 - Construction Geometry
 - Path
 - Coordinate Systems
 - Mesh
 - Static Structural (A5)
 - Analysis Settings
 - Force
 - Fixed Support
 - Solution (A6)
 - Solution Information
 - Total Deformation



Details of "Path"

Definition

Path Type	Two Points
Path Coordinate System	Two Points
Number of Sampling Points	Edge
Suppressed	X Axis Intersection

Start

Coordinate System	Global Coordinate System
Start X Coordinate	0, mm
Start Y Coordinate	0, mm
Start Z Coordinate	0, mm
Location	Click to Change

End

Coordinate System	Global Coordinate System
End X Coordinate	0, mm
End Y Coordinate	0, mm
End Z Coordinate	0, mm
Location	Click to Change

Messages

	Text	Association	Timestamp
Error	Your Shear-Moment Diagram can only be generated for a beam element.	Project>Model>Static Structural>Solution	2/15/2012 6:51:02 PM

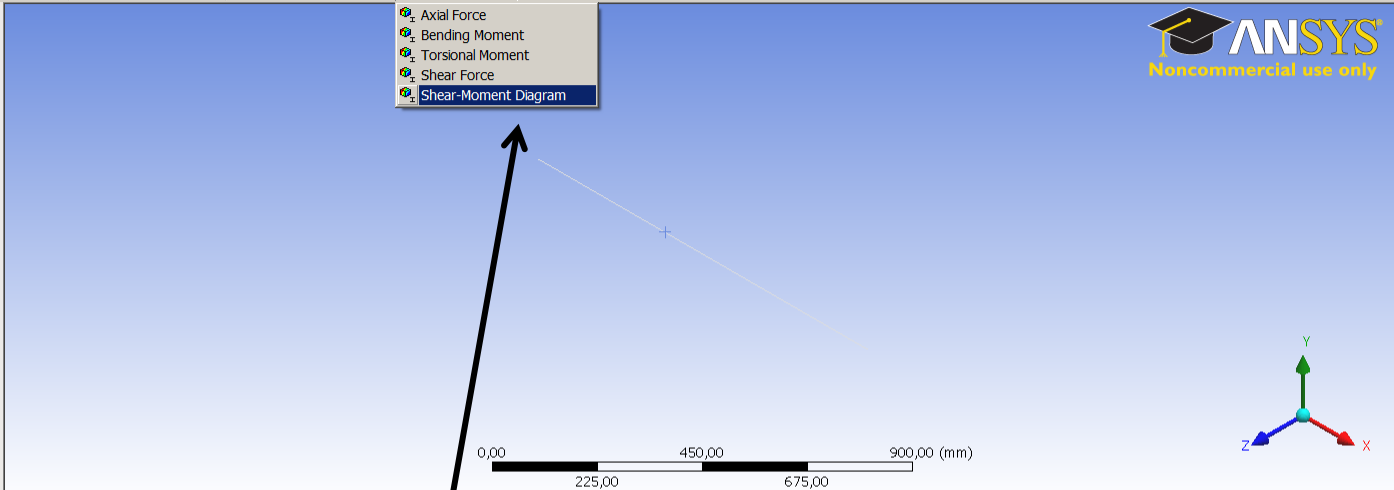
Select Edge and select the beam

Outline

- Project
 - Model (A4)
 - Geometry
 - Construction Geometry
 - Path
 - Coordinate Systems
 - Mesh
 - Static Structural (A5)
 - Analysis Settings
 - Force
 - Fixed Support
 - Solution (A6)
 - Solution Information
 - Total Deformation



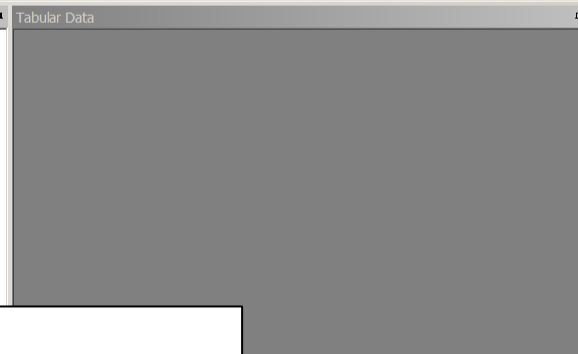
- Axial Force
- Bending Moment
- Torsional Moment
- Shear Force
- Shear-Moment Diagram



Details of "Solution (A6)"

Adaptive Mesh Refinement	
Max Refinement Loops	1.
Refinement Depth	2.
Information	
Status	Done

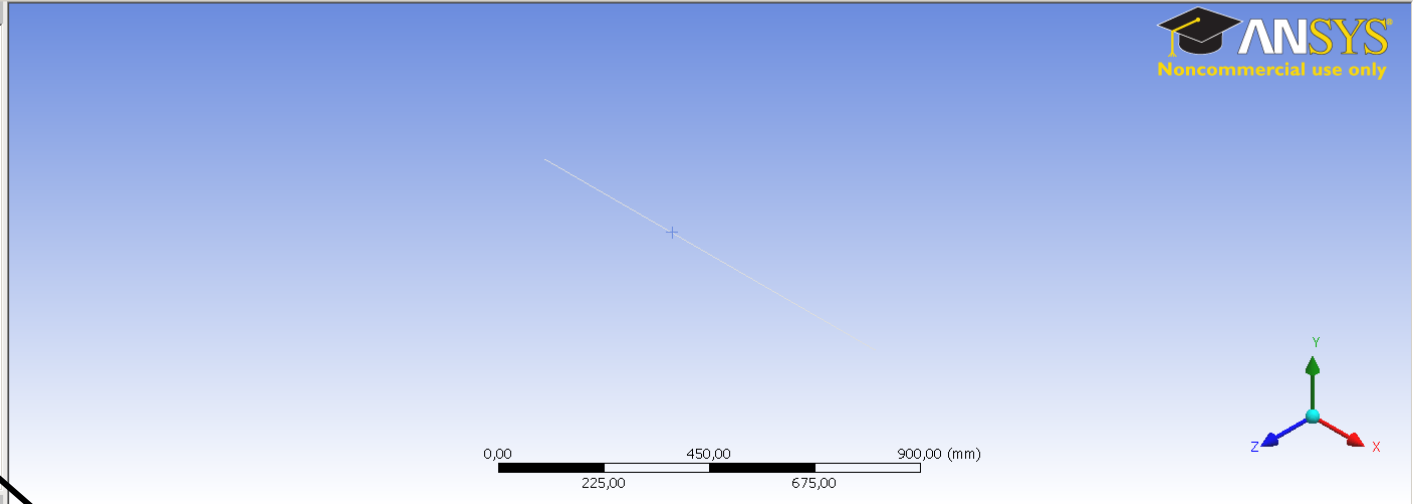
Geometry Print Preview Report Preview



Select Shear-Moment Diagram

Outline

- Project
 - Model (A4)
 - Geometry
 - Construction Geometry
 - Path
- Static Structural (A5)
 - Analysis Settings
 - Force
 - Fixed Support
- Solution (A6)
 - Solution Information
 - Total Deformation
 - Total Shear-Moment Diagram



Details of "Total Shear-Moment Diagram"

Scope	
Scoping Method	Path
Path	Path
Geometry	Path

Definition	
Type	Total Shear-Moment Diagram
Graphics Display	Total Shear Force
By	Time
Display Time	Last
Calculate Time History	Yes

Integration Point Results	
Display Option	Unaveraged

Results	
<input type="checkbox"/> Minimum	
<input type="checkbox"/> Maximum	

Graph Controls	
X-Axis	S

Information	
-------------	--

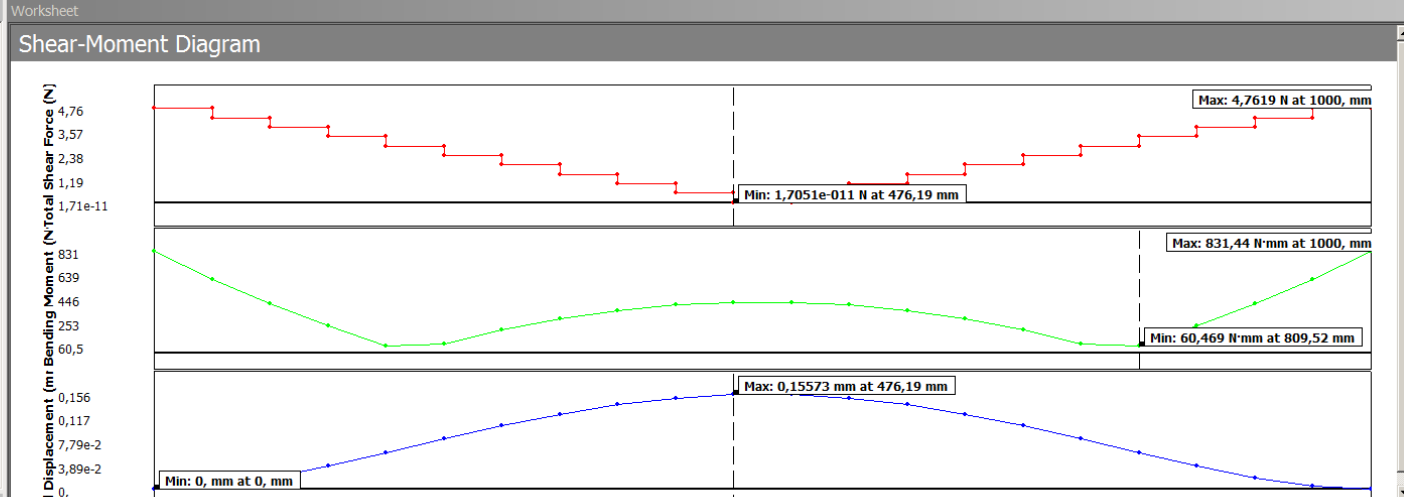
Geometry | Print Preview | Report Preview |

Graph | Tabular Data

Select Path

Project

- Model (A4)
 - Geometry
 - Construction Geometry
 - Path
 - Coordinate Systems
 - Mesh
 - Static Structural (A5)
 - Analysis Settings
 - Force
 - Fixed Support
 - Solution (A6)
 - Solution Information
 - Total Deformation
 - Total Shear-Moment Diagram



Details of "Total Shear-Moment Diagram"

Scope

Scoping Method: Path
 Path: Path
 Geometry: All Line Bodies

Definition

Type: Total Shear-Moment Diagram
 Graphics Display: Total Shear Force
 By: Time
 Display Time: Last
 Calculate Time History: Yes

Integration Point Results

Display Option: Unaveraged

Results

Minimum: 1,7051e-011 N
 Maximum: 4,7619 N

Graph Controls

X-Axis: S

Information

Graphics Worksheet

Graph

Animation 10 Frames 2 Sec (Auto)

Tabular Data

Length [mm]	Total Shear Force [N]	Total Bending Moment [N·mm]	Displacement [mm]
0	4,7619	831,44	0
2	4,7619	604,69	5,1769
3	4,7619	604,69	5,1769
4	4,2857	400,6	1,8629
5	3,8095	400,6	1,8629
6	3,8095	219,2	3,7579
7	3,3333	219,2	3,7579
8	3,3333	60,469	5,9559
9	2,8571	60,469	5,9559
10	2,8571	75,586	8,241e
11	2,381	75,586	8,241e
12	2,381	188,96	0,1042
13	1,9048	188,96	0,1042
		279,67	0,1236
		279,67	0,1236

Done