SmartPlant 3D Structure Reference Data

Student Workbook

Process, Power & Marine

INTERGRAPH

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Huntsville, Alabama 35894-0001

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Table of Contents

Preface

This document is designed as an aid for students attending the SmartPlant 3D Structure Reference Data presented by Intergraph Corporation, and it's a supplement to the standard product documentation.

Objective

This document is designed to provide comprehensive information of what is in SmartPlant 3D Structure Reference Data version 2009

Course description

The Structure Reference Data exercises presented here are intended to introduce the new user to the SmartPlant 3D Catalog, member section concepts and the Symbol 2D utility. These exercises cover on the most common workflows involving in the configuration of the structure reference data, such as adding user-defined structure section, creating pre-defined openings and adding new slab types. This book does not cover the other structure objects such as stairs/ladders, handrails, equipment foundations, and footings that are available in the structure task environment.

Course Reference Material

- Structure Reference Data Guide
- SmartPlant 2D Symbols User's Guide

Questions or suggestions relating to this document should be directed to:

SmartPlant 3D Training Services

Lab 1 - Creating Company Reference Standard

Objective

After completing this lab, you will be able to:

- Create a new Reference Standard Library

1. Open the StructCrossSections-AISC-LRFD-3.1.xls Excel Workbook located in <Install Directory>\SmartPlant\3D\ CatalogData\BulkLoad\DataFiles.

2. Copy the CustomInterfaces, W, C, ReferenceStandard, ClassNodeType, R-Hierarchy and the GUIDs sheets into a new workbook.

3. Save the new workbook as CompanyStandardReferenceProject.xls

4. Go the ReferenceStandard sheet and add/edit the following entry.

Head	Name	Description	Organization	Date	Version
Start					
	Project-001-AISC-LRFD-3.1	Allowable Steels for Project 001 -AISC-LRFD 3.1	AISC	2003	3.1
End					

5. Go the R-Hierarchy sheet and add the following entry.

Head	RelationSource	RelationDestination
Start		
	CatalogRoot	RefDataStructRoot
	RefDataStructRoot	ShapesNode
	ShapesNode	Project-001-AISC-LRFD-3.1
End		

6. Go to the W, and C sheets and change the Reference Standard from AISC-LRFD-3.1 to Project-001-AISC-LRFD-3.1

7. Go to the W sheet and add only the following sections:

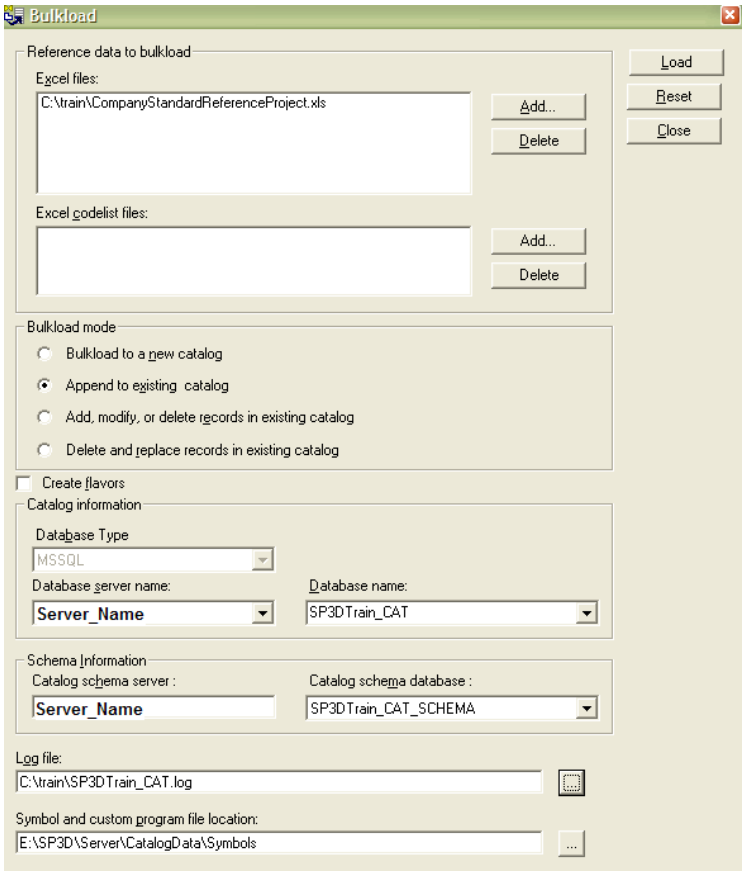
   W24X55
   W16X26
   W12X40
   W12X30
   W12X22
   W10X26

W10X22

8. Go to the C sheet and add only the following sections:

   C8x11.5
   C5x9

9. Save the changes and use the Bulkload Utility to load the new reference standard library. Make sure to select the Append Mode. Find your catalog server name and database/schema names from the pull down menus. Obtain these names from the instructor.



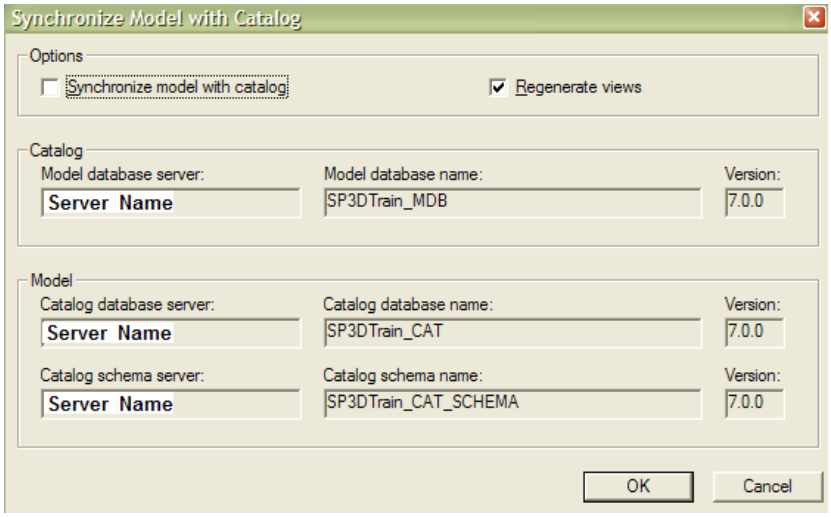
10. Hit "Load" button. Once the bulkload process is complete, review the log file.

11. Run the Project Management Task. Select the Model in the hierarchy.

12. Select Tools -> Synchronize Model with the Catalog.

13. Uncheck the Synchronize Model with the Catalog option.

    Note: You just need to update the views in the model.



14. Hit “OK” Button.

15. Once the process is complete. Right click on the model and select regenerate the report database.

16. Hit “OK” Button.

17. Once the process is complete. Go to the Structure Task and place the W section from the company reference standard library.

Lab 2 - Working with the Custom Interface Sheet

Objectives

After completing this lab, you will be able to:

- Add user-defined code list
- Add custom attributes to system class

1. Open the AllCodelist.xls Excel Workbook.
2. Copy the Property Categories sheet into a new workbook.

3. Add the following entry.

HEAD	PropertyCategories ShortDescription	PropertyCategories LongDescription	Codelist Number	Sort Order
START				
!				
!	User reference data codes from 10 000			
	CompanyStd	Company Standard	10001	
End				

4. Create a sheet called PaintingRequirement

5. Add the following entries to create the Painting Requirement Code list:

HEAD	PaintingRequirement ShortDescription	PaintingRequirement LongDescription	Codelist Number	Sort Order
START				
	AA	AA	1	
	BB	BB	2	
End				

6. Save the new workbook as CompanyCodelist.xls

7. Open the Systems.xls Excel Workbook located at [Install Directory]\SmartPlant\3D\CatalogData\BulkLoad\SampleDataFiles

8. Add/Edit the following interface in the Custom Interface sheet:

InterfaceName	CategoryName	AttributeName	AttributeUserName	Type
IJUAMemberPartCustom	CompanyStd	Vendor	Vendor	Long
		PaintingRequirement	Painting Requirement	Long

UnitsType	PrimaryUnits	CodeList	codelisttablenamespace	OnPropertyPage	ReadOnly	SymbolParameter
0	0	Vendor	REFDAT	TRUE	FALSE	
0	0	Painting Requirement	UDP	TRUE	FALSE	

9. Go to the CustomClassInterfaceList sheet and add/edit the following:

HEAD	ClassName	InterfaceName
Start		
	CSPSMemberPartPrismatic	IJUAMemberPartCustom
	CSPSMemberPartCurve	IJUAMemberPartCustom
End		

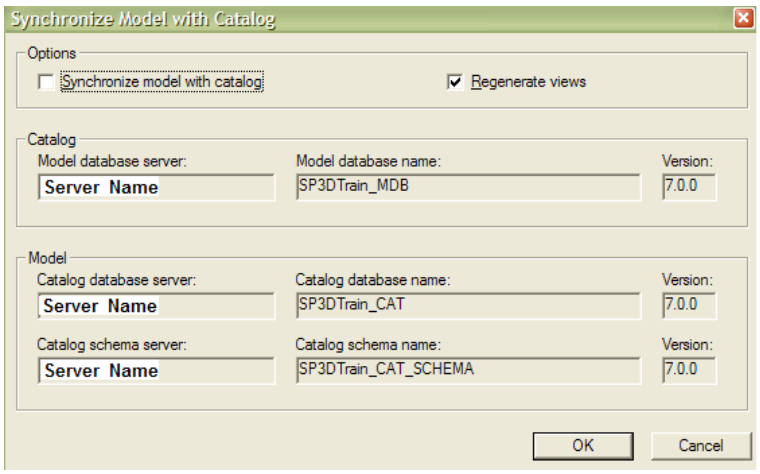
10. Save the changes and use the Bulkload Utility to load the workbooks. Make sure to select the Append Mode. Once the bulkload process is complete, review the log file.

11. Run the Project Management Task. Select the Model in the hierarchy.

12. Select Tools -> Synchronize Model with the Catalog.

13. Uncheck the Synchronize Model with the Catalog option.

    Note: You just need to update the views in the model.

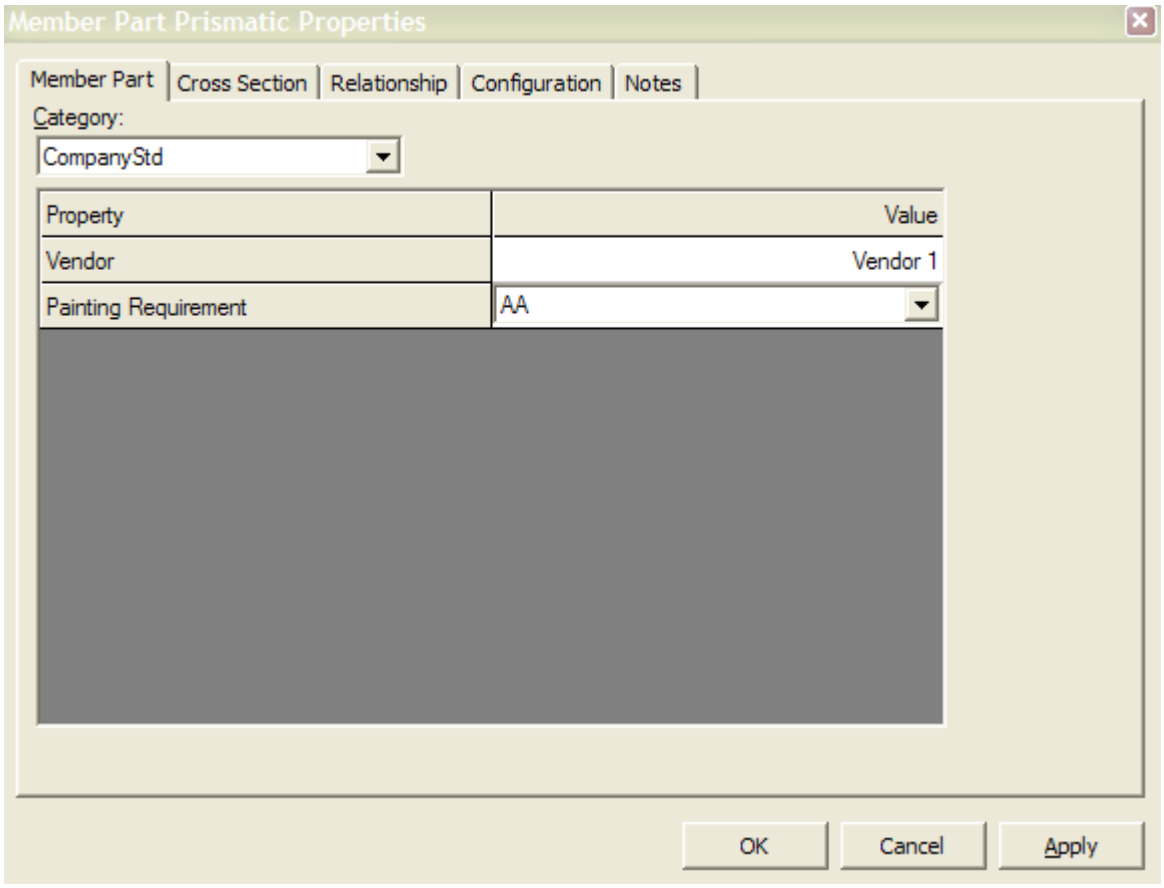


14. Hit “OK” Button.

15. Once the process is complete. Right click on the model and select regenerate the report database.

16. Hit “OK” Button.

17. Once the process is complete. Go to the Structure Task and open the properties page of a member part. You should see your custom attributes.



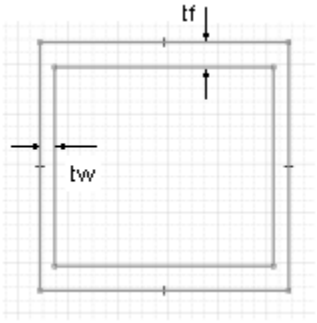
Lab 3 - Member Cross Section

Objectives

After completing this lab, you will be able to:

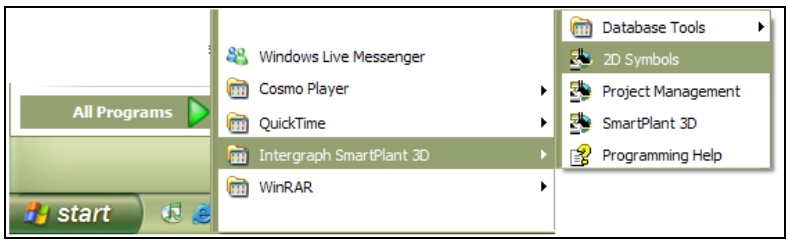
- Use the SmartPlant 2D Symbol utility to create new member cross sections.
- Add new member cross sections into the existing Company Reference Standard Library.

Section A - Hollow rectangular cross section with unequal wall thickness

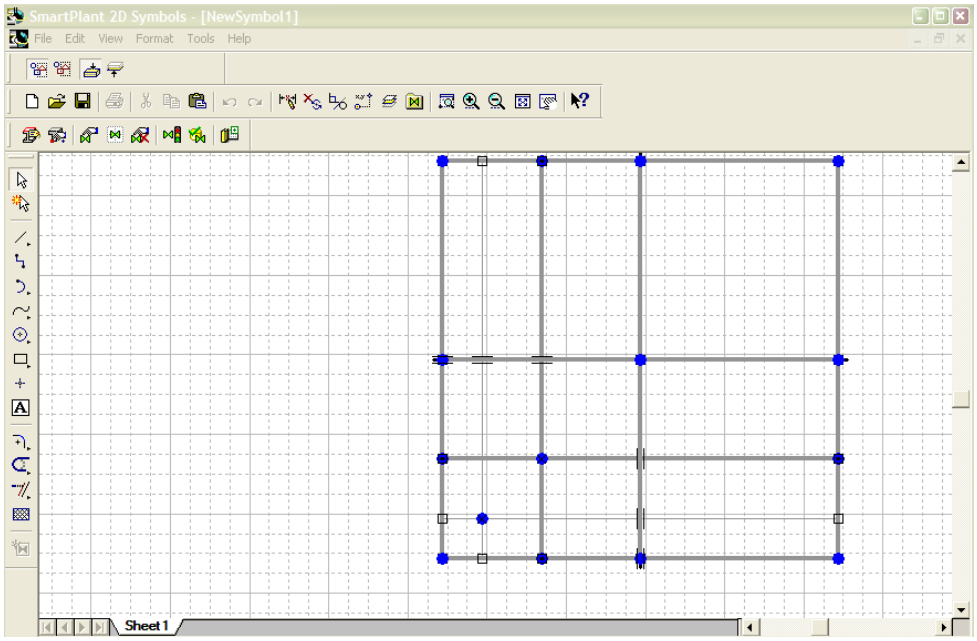


Part 1: Using SmartPlant 2D Symbol Utility to create a new member cross-section.

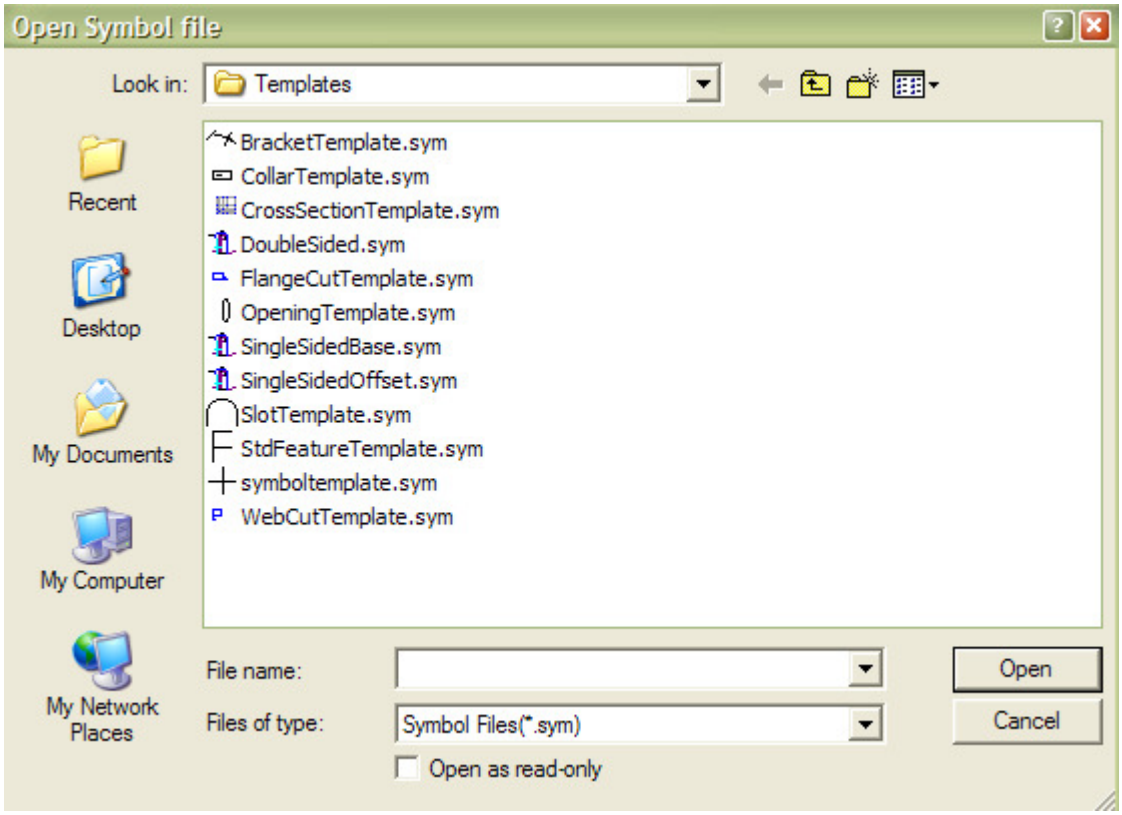
1. Run the SmartPlant 2D symbol utility by selecting the START Menu -> Programs -> Intergraph SmartPlant 3D -> 2D Symbols as shown below:



The system automatically opens the SmartPlant 2D symbols environment.

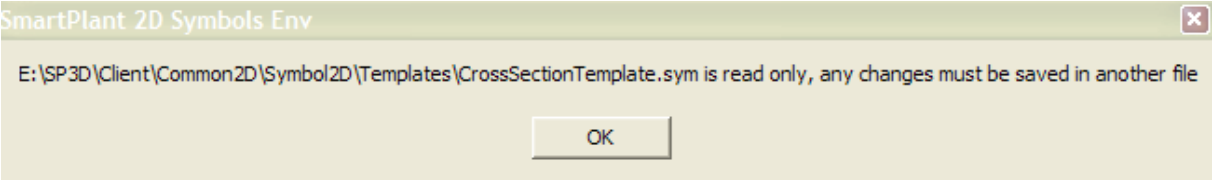


2. Go to the Main Menu and select **File -> Open**
3. The system opens the Open Symbol File dialog box and displays all the delivered templates located at [Install Directory]\SmartPlant\3D*Symbol2D\templates*.

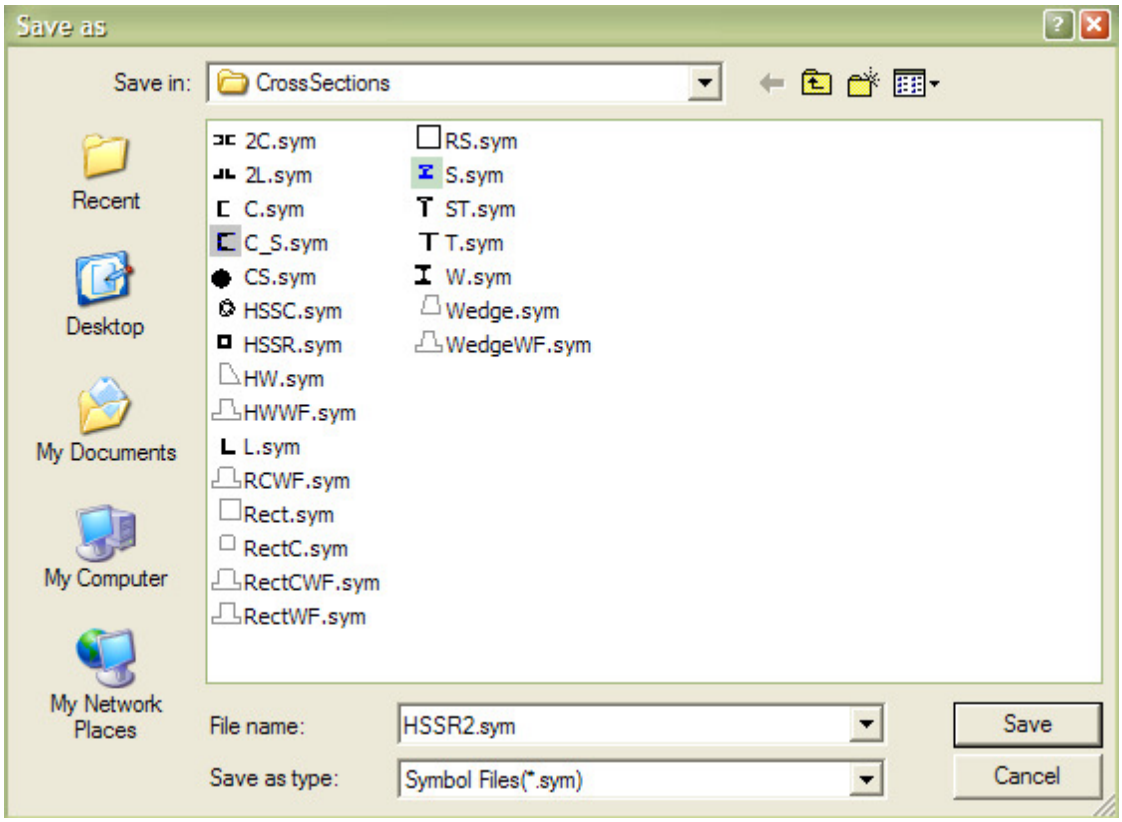


4. Select the **CrossSectionTemplate.sym** from the list and Hit the **Open** button.

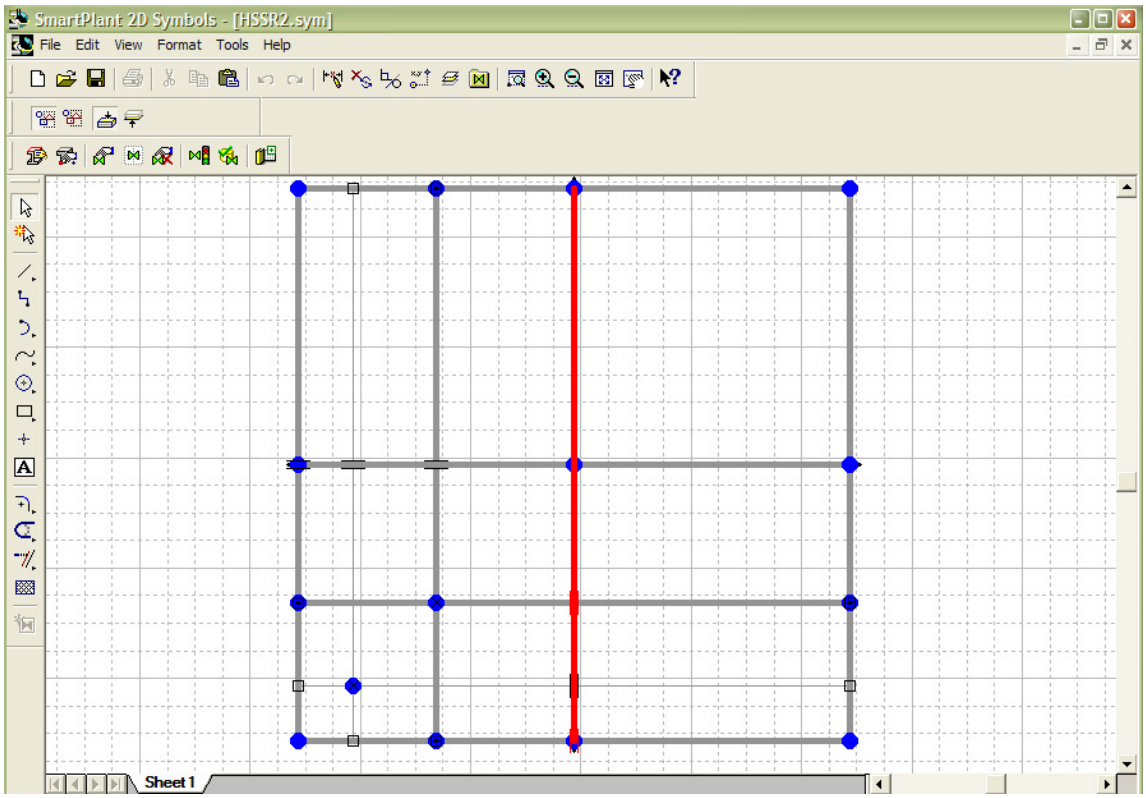
The system displays a message that the template is read only.



5. Hit **OK** button to close the message dialog box.
6. Go to the Main Menu and select **File -> Save As** to open the Save as dialog box.
7. Key in **HSSR2.sym** in the filename field and change the path \\Symbols Share*CrossSections*.



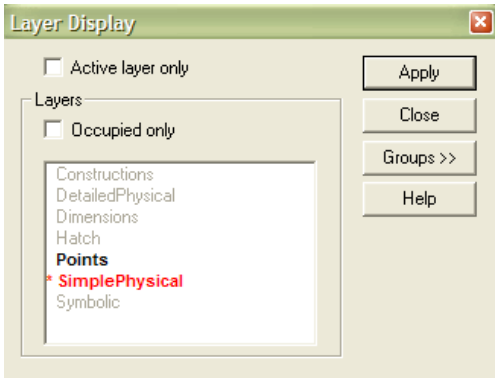
8. Hit the **Save** button.
9. Your View should now resemble the following graphic.



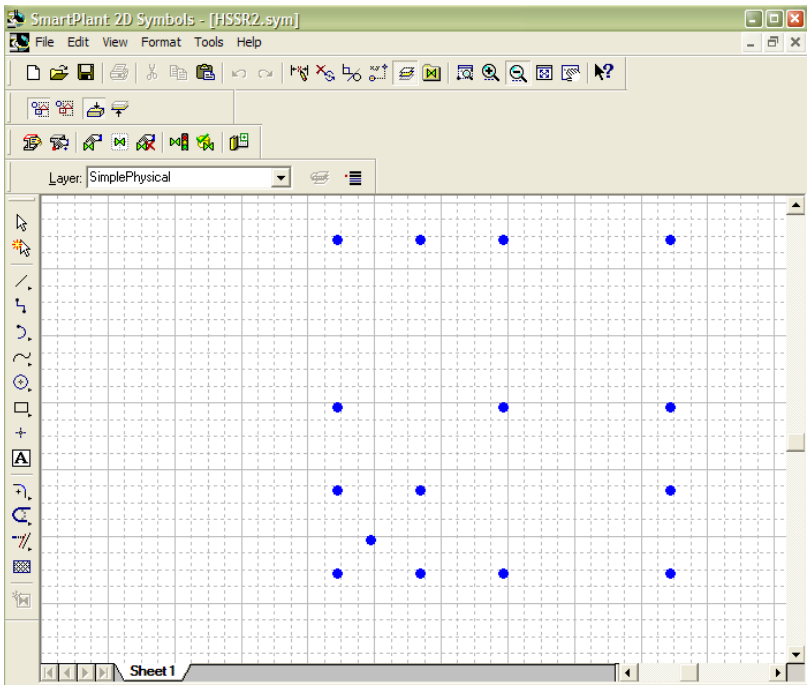
10. Go to Main Menu and select **Tools -> Layer** to open the layer ribbon bar.
11. Layers can help group elements so they can be manipulated more easily on the drawing sheet.

Layer Status icon.

12. Select the open layer status icon to access the Layer Display dialog box.
13. This dialog box has a layer list that can be used to display or hide layers on the drawing sheet. Set to display only Points and Simple Physical layers on the drawing sheet.
14. Set the active layer to Simple Physical layer on the drawing sheet. (Display in RED color).

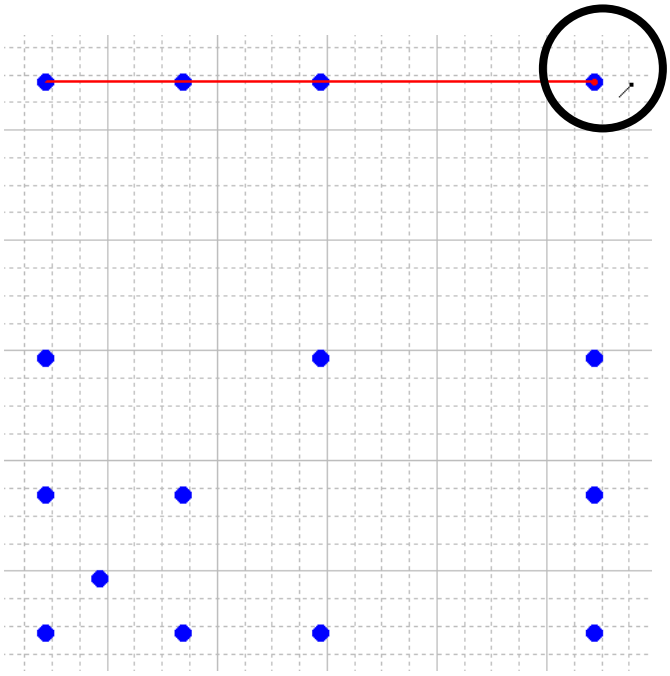


Your View should now resemble the following graphic.

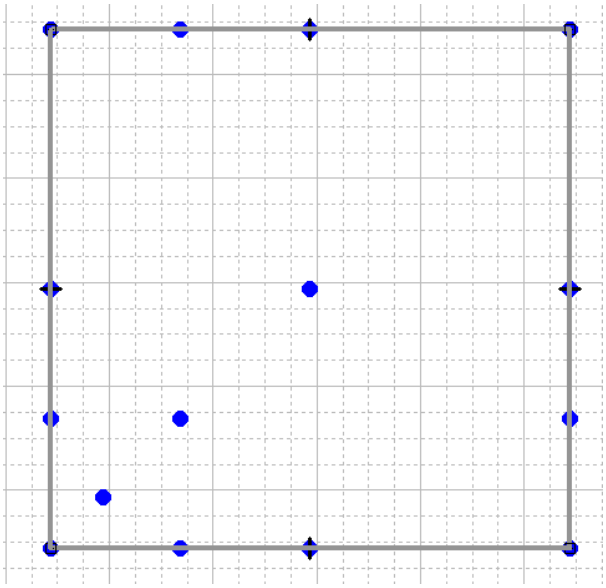


15. Draw a square shape as shown below:

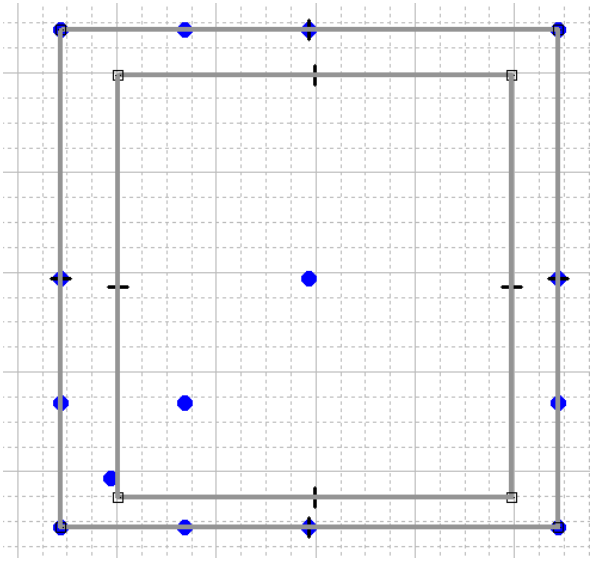
16. Use the **Place Line**  **Command** to draw the square shape.
17. Make sure you select the points on the drawing sheet (Key point SmartSketch glyph) as you draw the lines.



Your View should now resemble the following graphic.

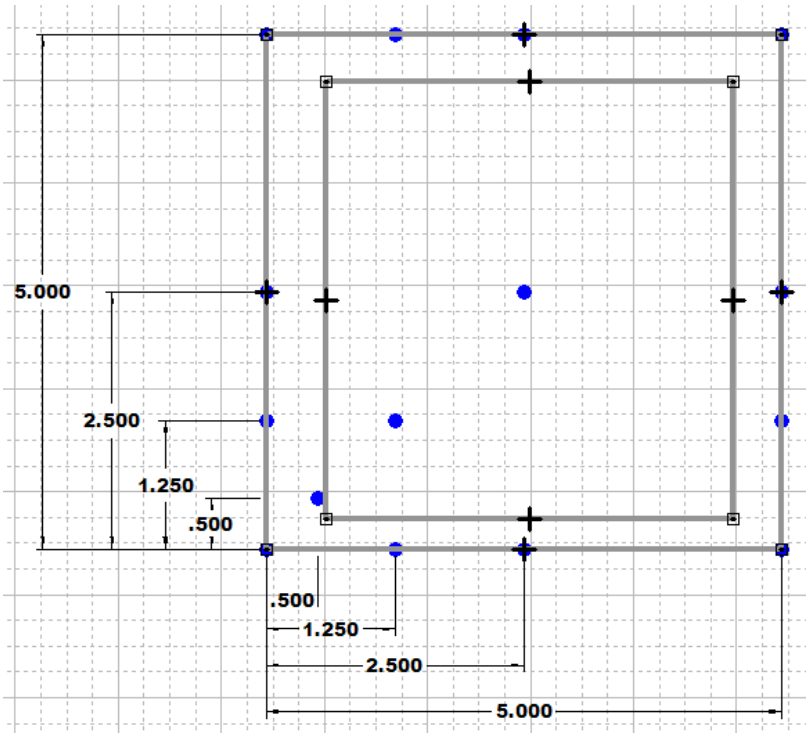


18. Use the Place line command to draw the inner rectangular shape as shown below:



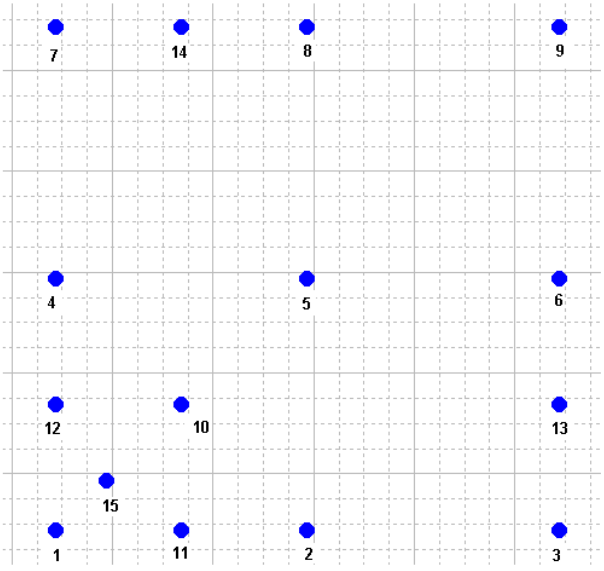
19. Set the active layer to Dimensions layer on the drawing sheet using the layer ribbon bar.

Your View should now resemble the following graphic.



20. The Dimensions in the drawing sheet supply the distance between the points. These dimensions are associative to the points they refer to, so distance changes can be made easily.

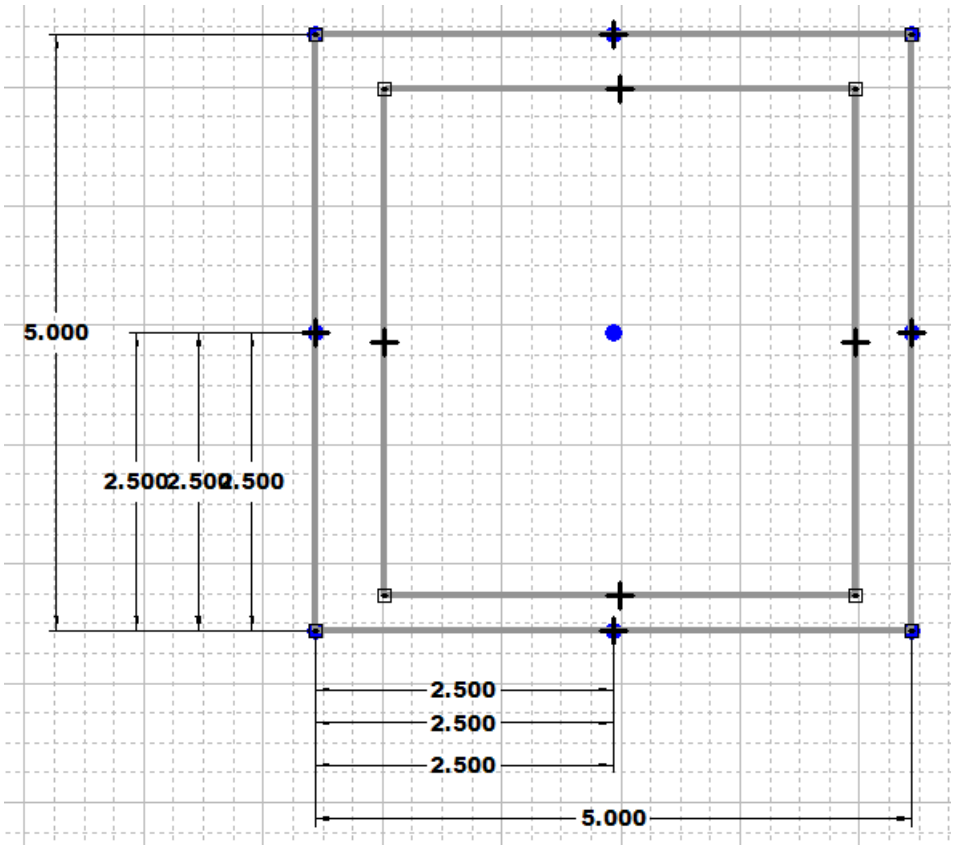
21. Select the Dimension text that dimensions the center of gravity points (10,11,12,13,14,15).



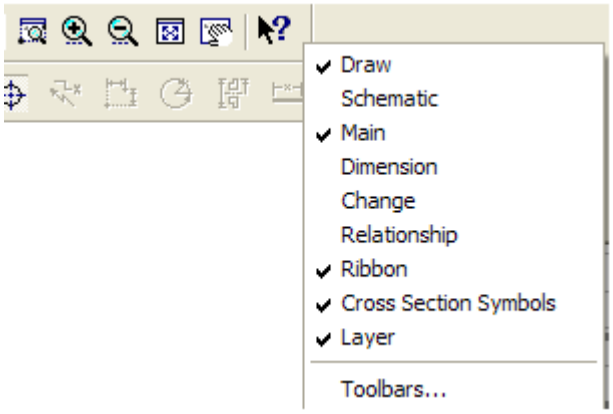
The system opens the key-in ribbon bar.

22. Key-in the appropriate dimensions to move the center of gravity points.

Your View should now resemble the following graphic.



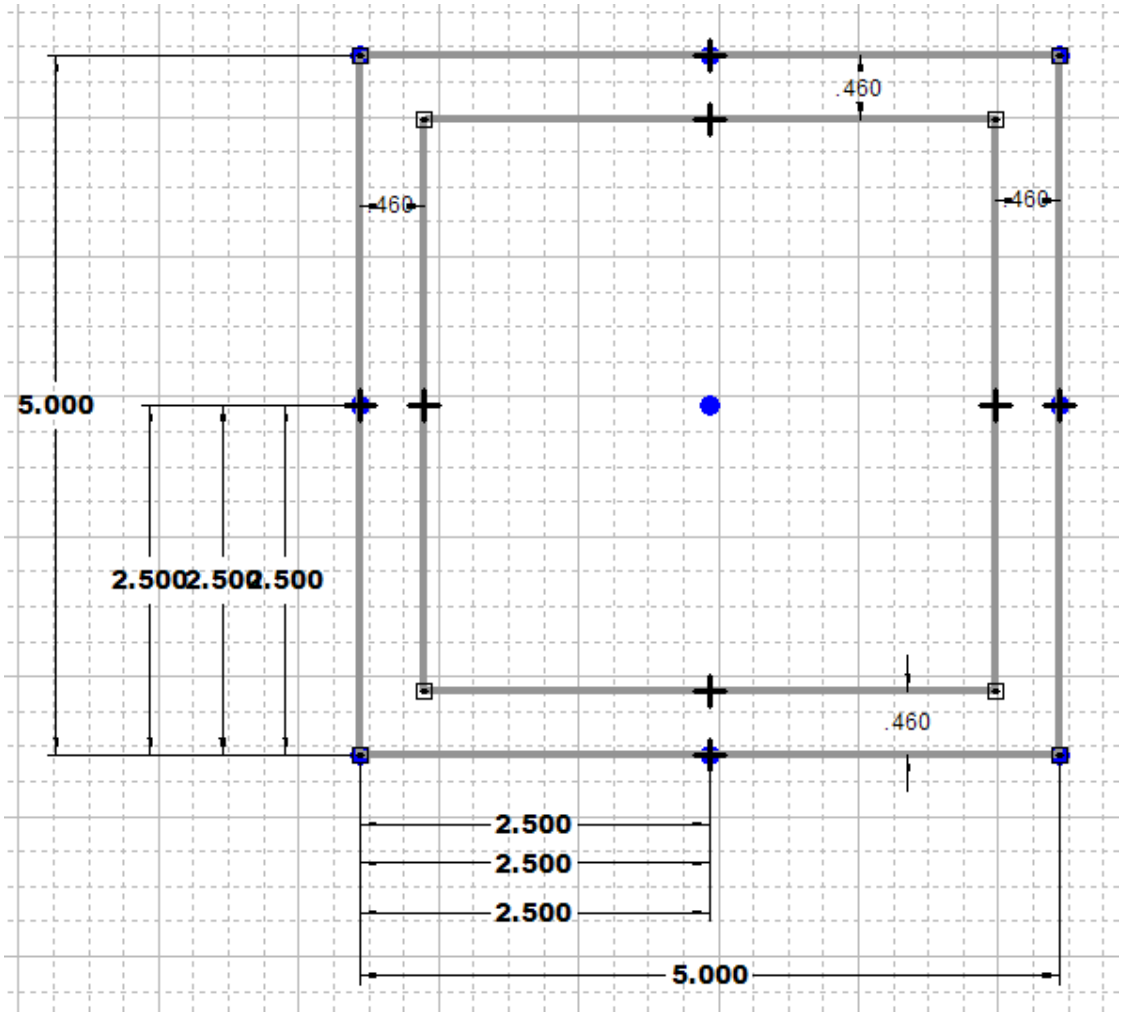
23. Right mouse click at the end of the main toolbar.



24. Select the **Dimension** option to open the dimension palette.

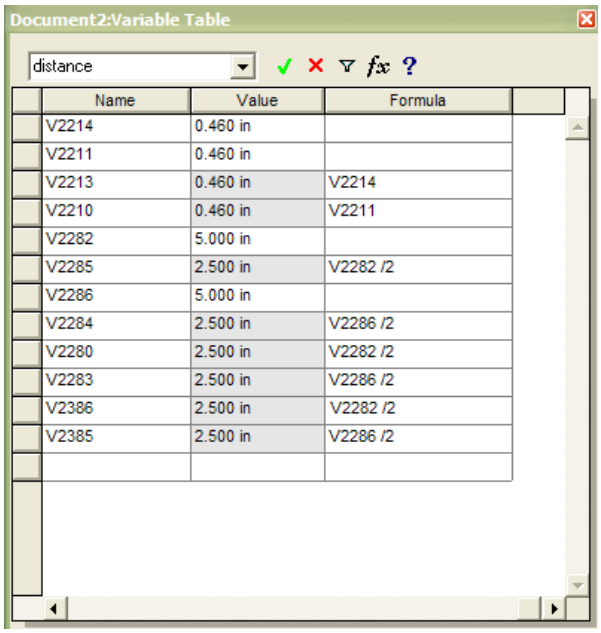
25. Select the **Distance in between dimension command** to dimension the symbol as shown below:

Your View should now resemble the following graphic.



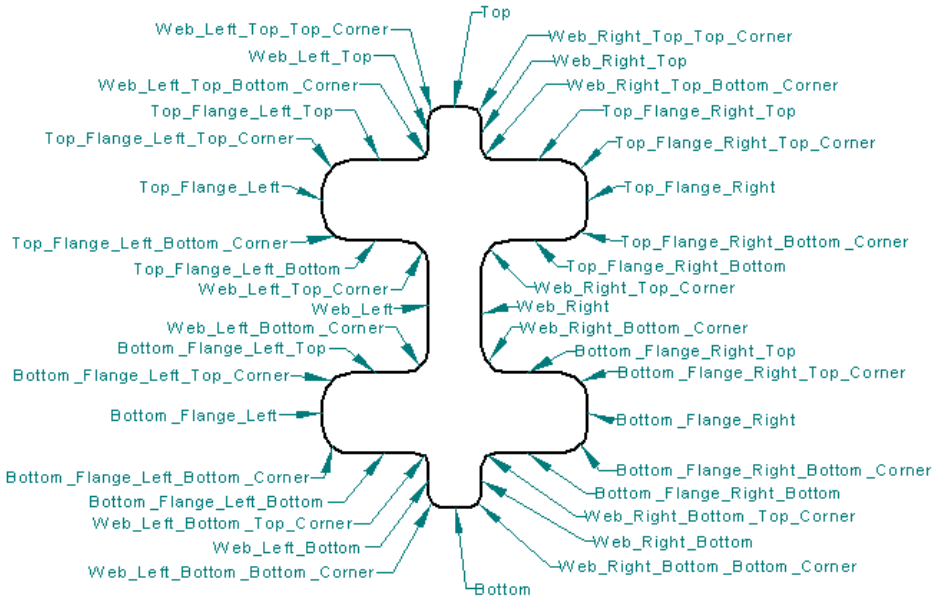
26. Go to the Main Menu and select **Tools -> Variables** to open the Variable table dialog box. The variable table displays, defines, and manipulates the dimension variables.

27. Add the appropriate formulas to the variables that will be driven by cross section properties.



28. From the **Cross-Section Add-in toolbar**, choose the **Name Geometry** button and name the edges for all the elements in the Simple Physical layer.

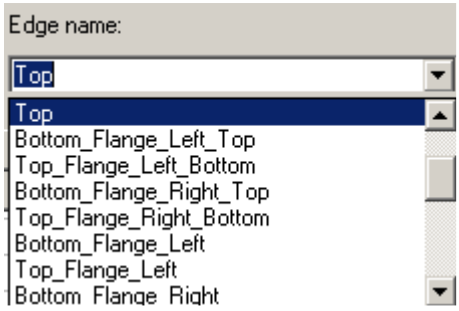
Standard edges for a cross-section.



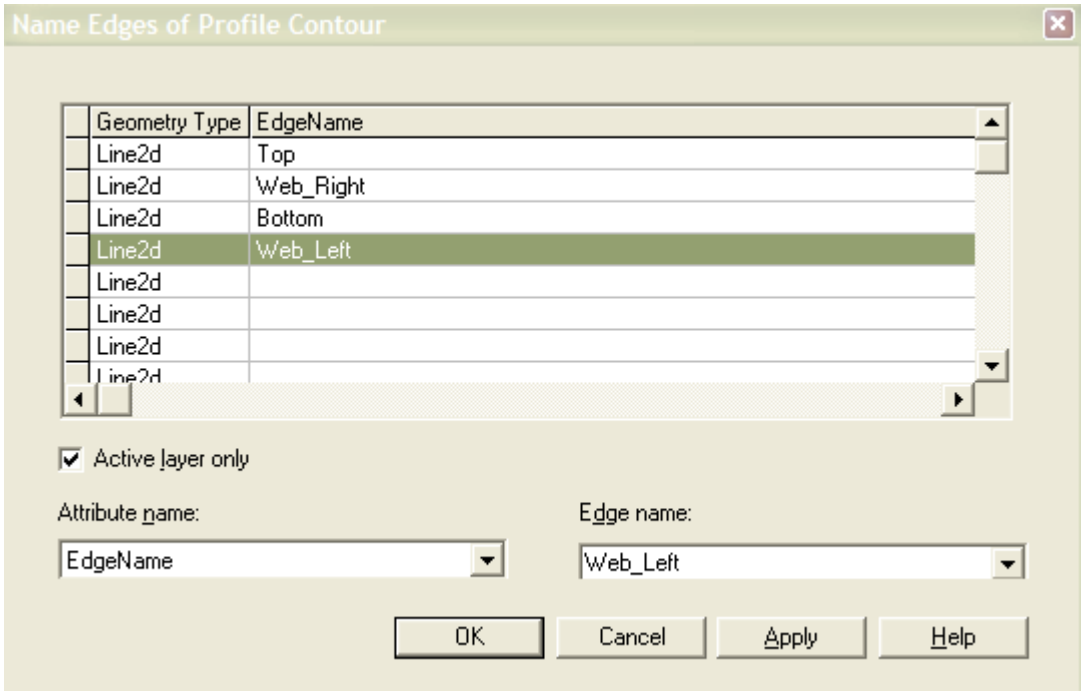
29. Set the active layer to Simple Physical layer on the drawing sheet using the layer ribbon bar.

30. Turn on the active layer only in the Name Edges of Profile Contour dialog box.

31. Select the first geometry element in the Geometry Type column.
32. Select the appropriate edge name.



33. Continue the above steps to name each geometric element in the Simple Physical layer.

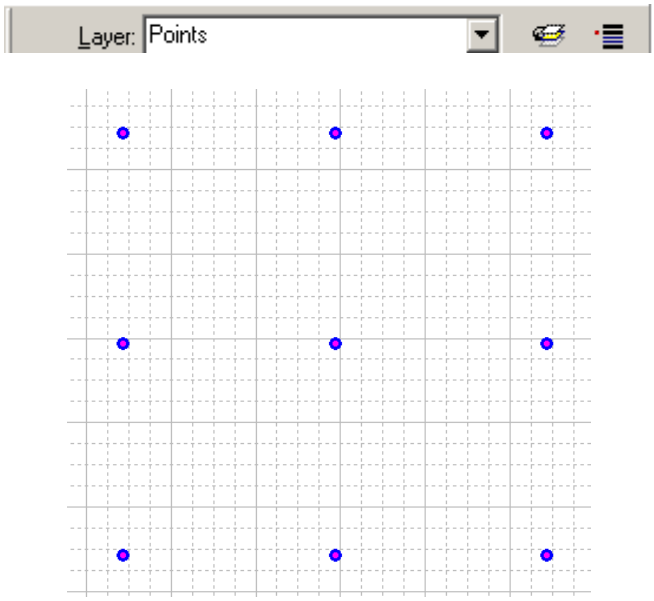


34. Hit **OK** button.

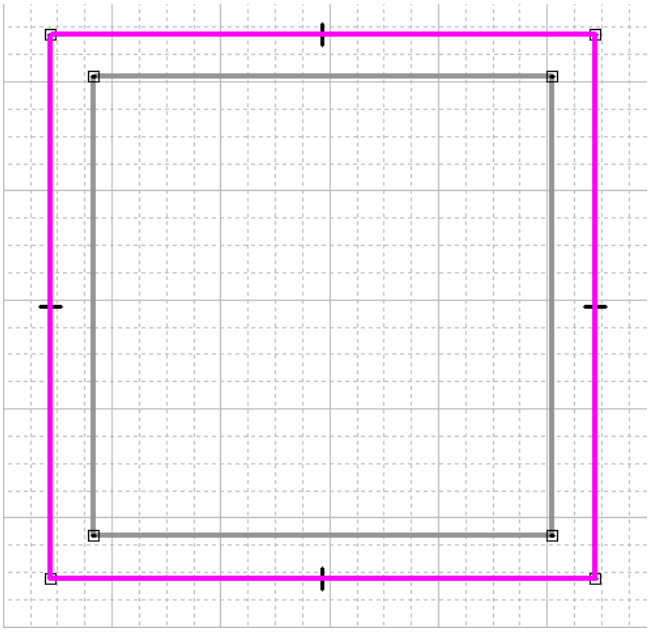
35. Right mouse click at the end of the main toolbar.
36. Select the **Change** option to open the Change palette.

37. Using the **Group** button from the change palette and groups the following:

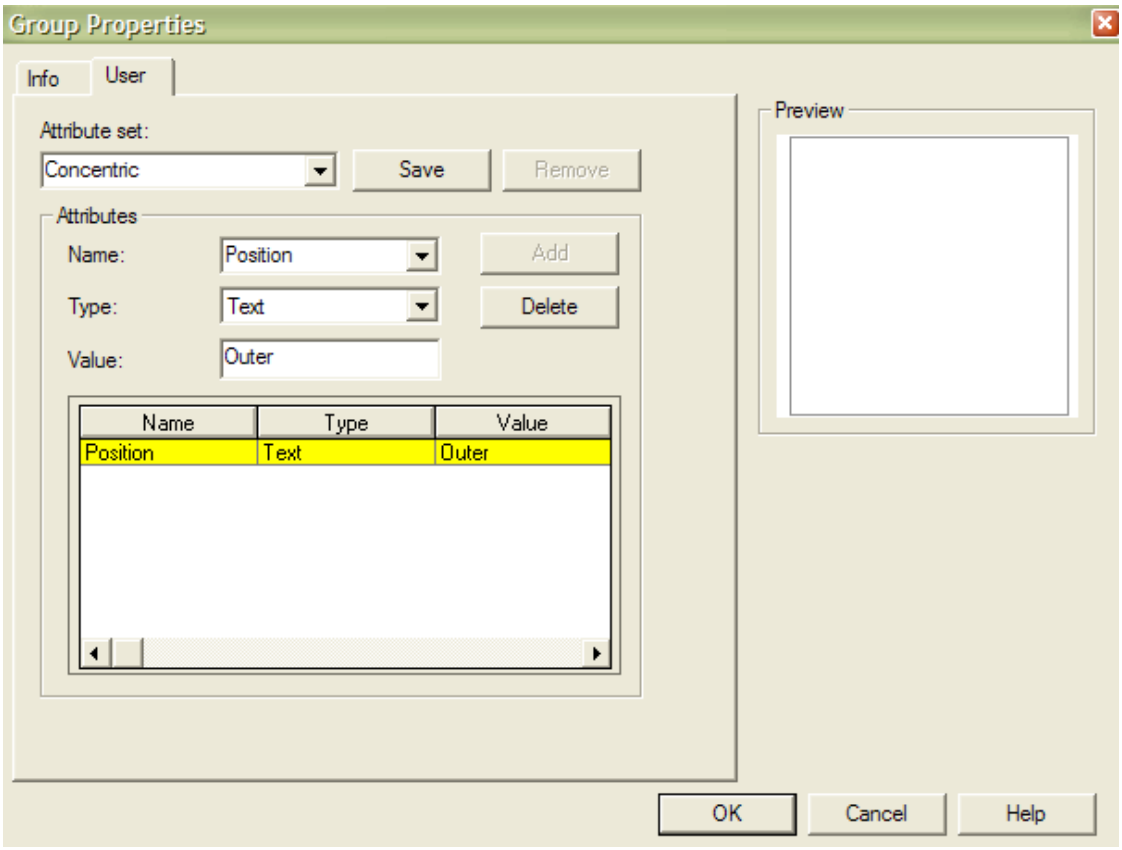
All points on the points layer: Use the active layer ribbon bar to display only the points layer, fence in all points to select all the points and hit the Group button.



All geometry elements for the first shape on the Simple Physical layer: Use the active layer ribbon bar to display only the Simple Physical layer. Hold down the Crtl-key and select all geometry elements for the first shape and hit the Group button.

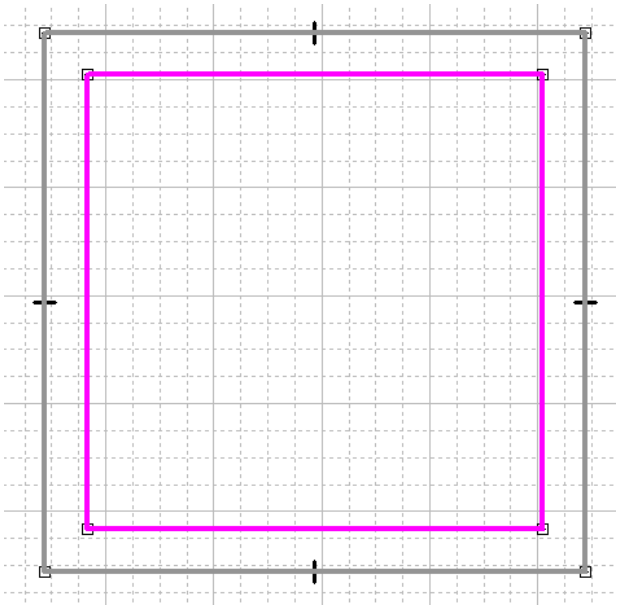


38. Select the outer shape and go to ***Edit->Properties*** to open the Group properties dialog box. Key in the following data. Then, select "Add" button.



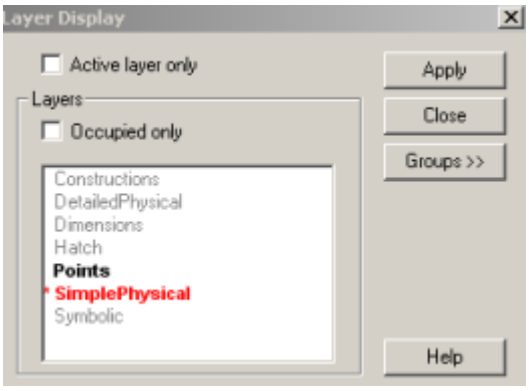
Hit "OK" button.

All geometry elements for the second shape on the Simple Physical layer: Use the active layer ribbon bar to display only the Simple Physical layer. Hold down the Crtl-key and select all geometry elements for the second shape and hit the Group button.

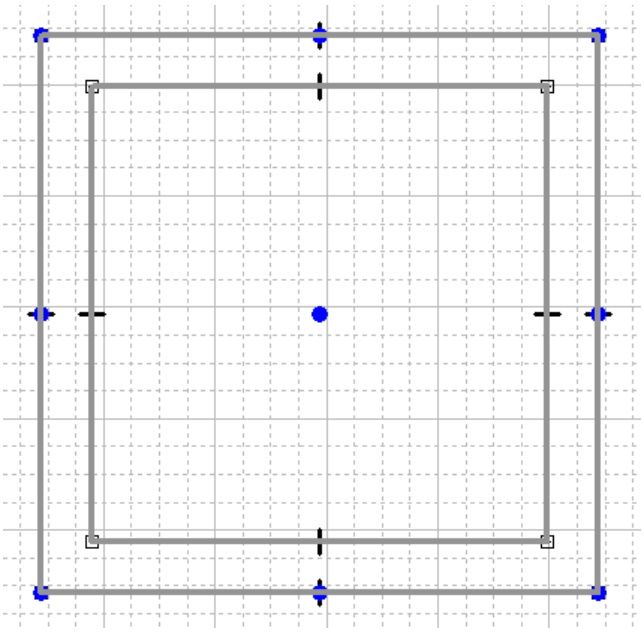


Compound nested the two shapes on the Simple Physical layer: Use the active layer ribbon bar to display only the Simple Physical layer. Hold down the Crtl-key and select both groups and hit the Group button.

39. Select the open layer status icon to access the Layer Display dialog box.
40. Set to display only Points and Simple Physical layers on the drawing sheet.

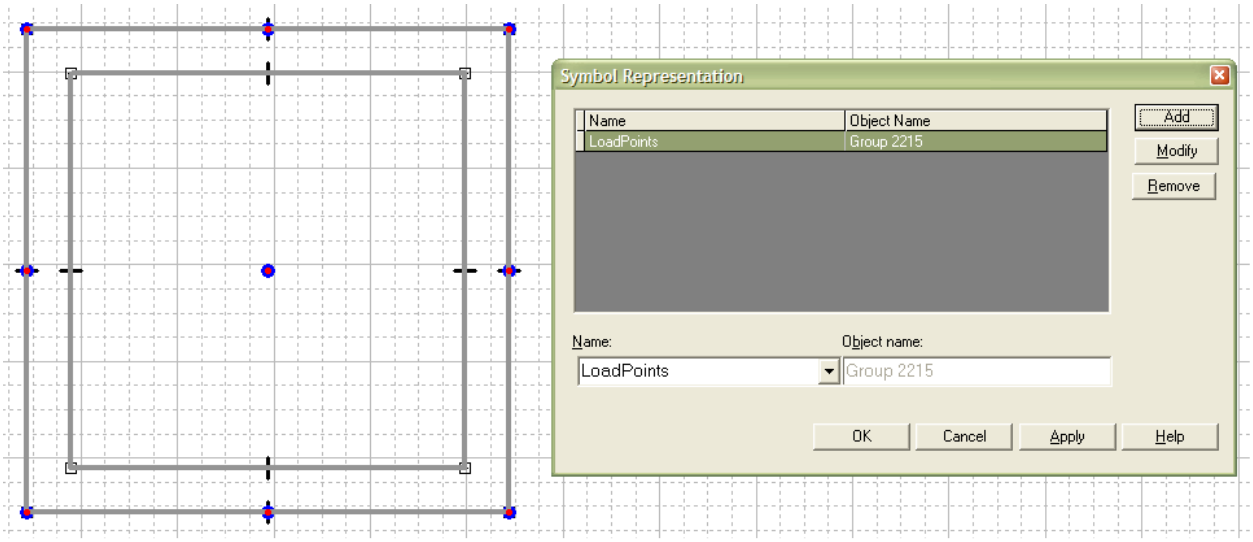


Your View should now resemble the following graphic.



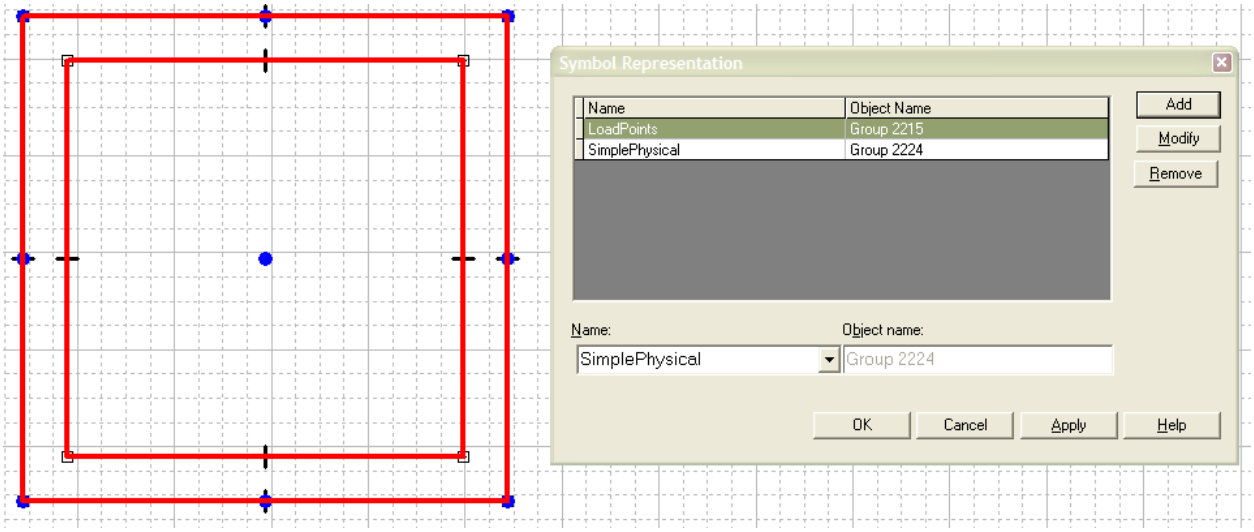
41. From the **Cross-Section Add-in toolbar**, choose the **Symbol Representation** icon to open the Symbol Representation dialog box and add the above groups.

Load Points group: Select the Load point group in the Name combo box. Then, select the center point graphically in the view. All the points will be selected since the points are grouped. Select **Add** button. (Note: Use the quick pick tool to select the point group)



Simple Physical group: Select the Simple Physical group in the Name combo box. Then, select a line graphically in the view. Make sure you select a line that belongs to the

Compound Nested group. All the geometry elements in the compound nested group will be selected since they are grouped. Select Add button.

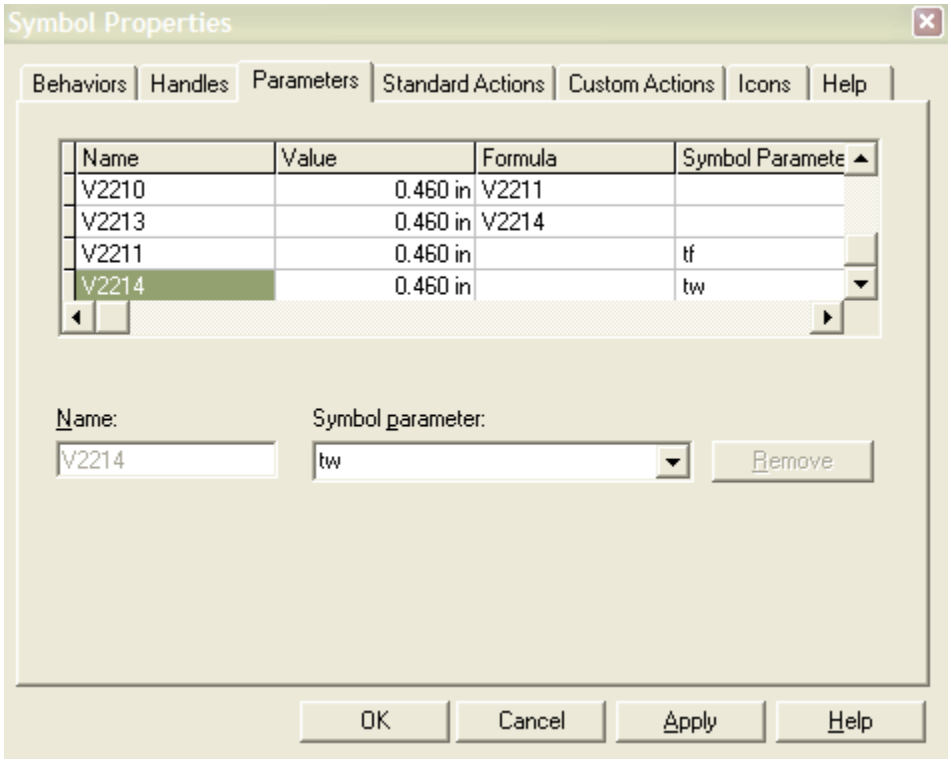


42. Hit OK button to close the dialog box.

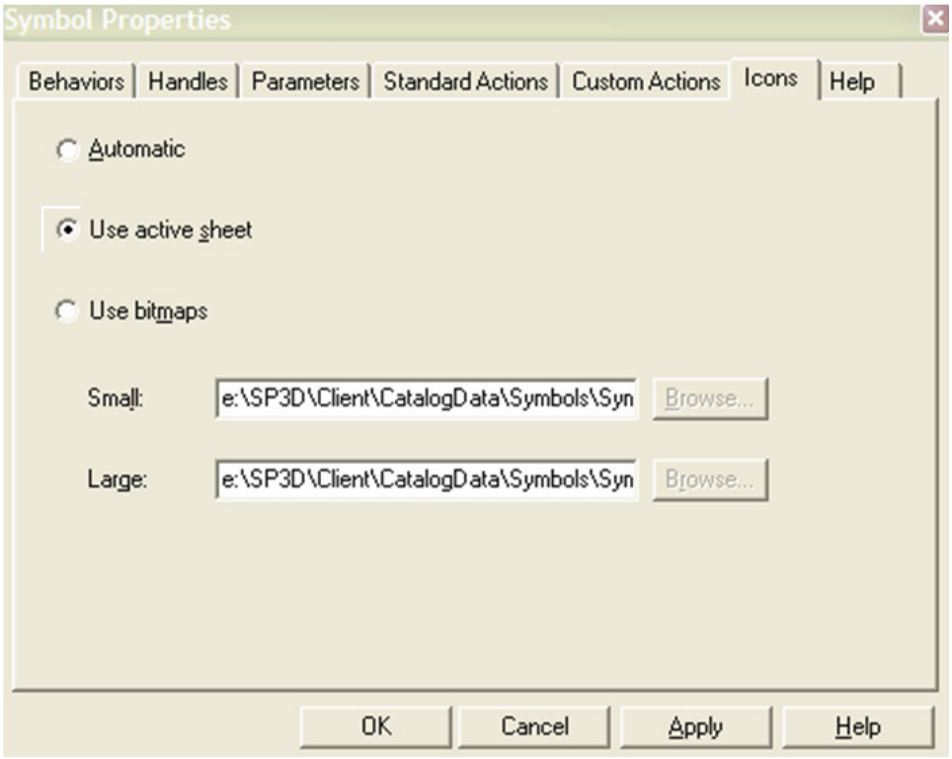
43. The Define Symbol Properties form displays all variables and their names, values, and formulas in the symbol. **Symbol parameters** are also defined on this form; these are the symbol properties that are externalized to the Excel spreadsheet bulkload file.

44. From the **Cross-Section Add-in toolbar**, choose the **Symbol Properties** icon to open the Symbol Property dialog box. Select the **Parameters tab** and define the symbol parameter as follows:

Name	Symbol Parameter
V2282	Depth
V2286	Width
V2211	tf
V2214	tw

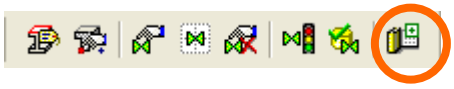


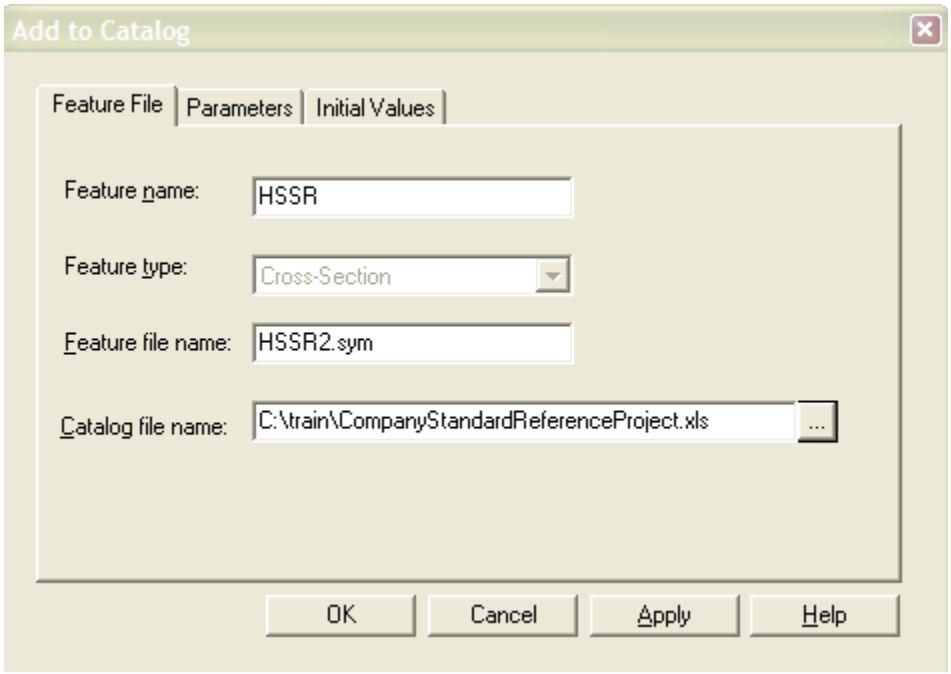
45. Select the **Icons tab** and select Use active sheet option as shown below:



46. Hit OK **button** to close the dialog box.

47. From the **Cross-Section Add-in** toolbar, choose the Add to Catalog icon to open the Add to Catalog dialog box. Fill in the appropriate fields on the **Feature file tab** and select the Apply button.

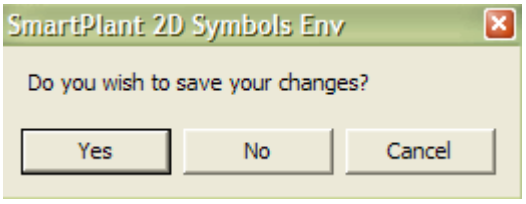




Note: Catalog filename is the CompanyStandardReferenceProject.xls.

48. Hit the **OK** button to close the Add to Catalog dialog box.

49. Go to the Main Menu and select **File -> Exit**. The system prompts you to save the file.



50. **Select Yes button to save the symbol** and exit the 2D symbol environment.

<u>Part 1I: Add the cross section properties in the catalog.</u>

51. Open the Excel workbook CompanyStandardReferenceProject1.xls that the HSSR2 symbol was written too. Delete the user attributes (example DepthA, WidthA, tfA, twA and Custom).
52. Go to the Custom Interface sheet and delete the following entries:

WidthA		Double	Distance	in	0		1	0	Width
DepthA		Double	Distance	in	0		1	0	Depth
tfA		Double	Distance	in	0		1	0	tf
twA		Double	Distance	in	0		1	0	tw

53. Modify the HSSR sheet to only include the following data:

Definition	*PartClassType*	*SymbolDefinition*	*SymbolIcon*	*ReferenceStandard*
	CrossSectionClass	StructGenericSymbol.GenericSymbol|CrossSections\HSSR2.sym	CrossSections\HSSR2.bmp	Project-001-AISC-LRFD-3.1

Head	*SectionName*	ShortName	EDIName	GroupId
Start				
	HSSR2-32x24x625	HSSR2-32	HSSR2-32x24x625	Group1
	HSSR2-32x24x500	HSSR2-32	HSSR2-32x24x500	Group1
End				

Width	*Depth*	*tw*	*tf*	UnitWeight	Area	Perimeter
32	24	0.625	0.3125	225.8	66.4	112
32	24	0.5	0.25	183.5	53.9	112

Hint: Use the Cut and Paste method and copy the engineering attributes from the HSSR sheet. Save the Excel workbook. Modify the tw and tf values appropriately.

54. Optional: create the HSSR2.bmp file and place it in the following path: \\Symbols Share*CrossSections*

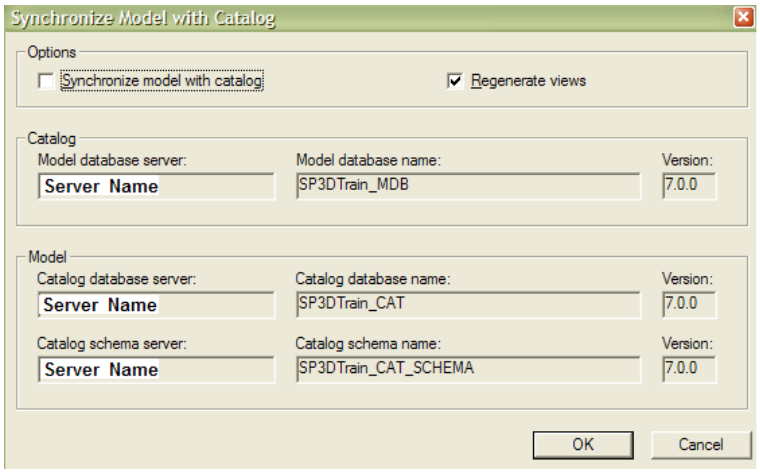
55. Use the Bulkload utility and load the new cross section to the Training catalog database.
56. Make sure to select the Append Mode. Once the bulkload process is complete, review the log file.

57. Run the Project Management Task. Select the Model in the hierarchy.

58. Select Tools -> Synchronize Model with the Catalog.

59. Uncheck the Synchronize Model with the Catalog option.

Note: You just need to update the views in the model.



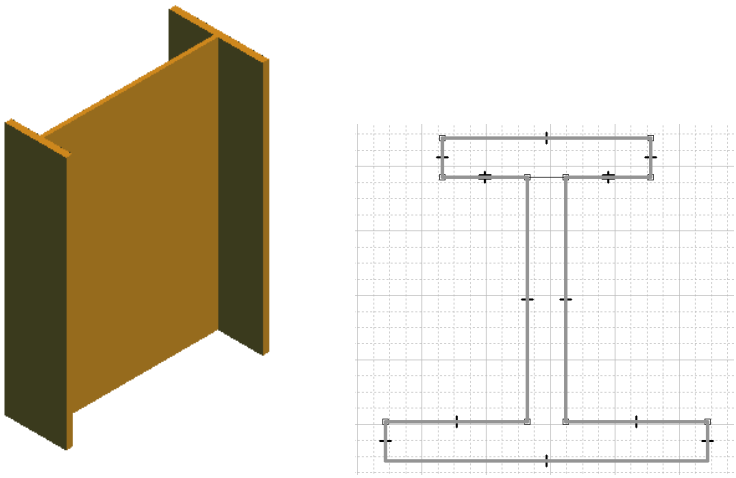
60. Hit “OK” Button.

61. Once the process is complete. Right click on the model and select regenerate the report database.

62. Hit “OK” Button.

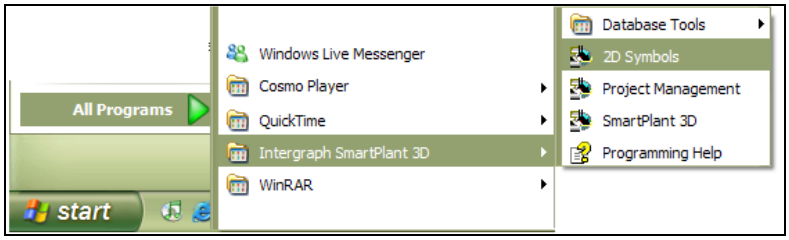
63. Once the process is complete. Go to the Structure Task and place this section from the company reference standard library.

Section B - W section with difference flange sizes (Optional)

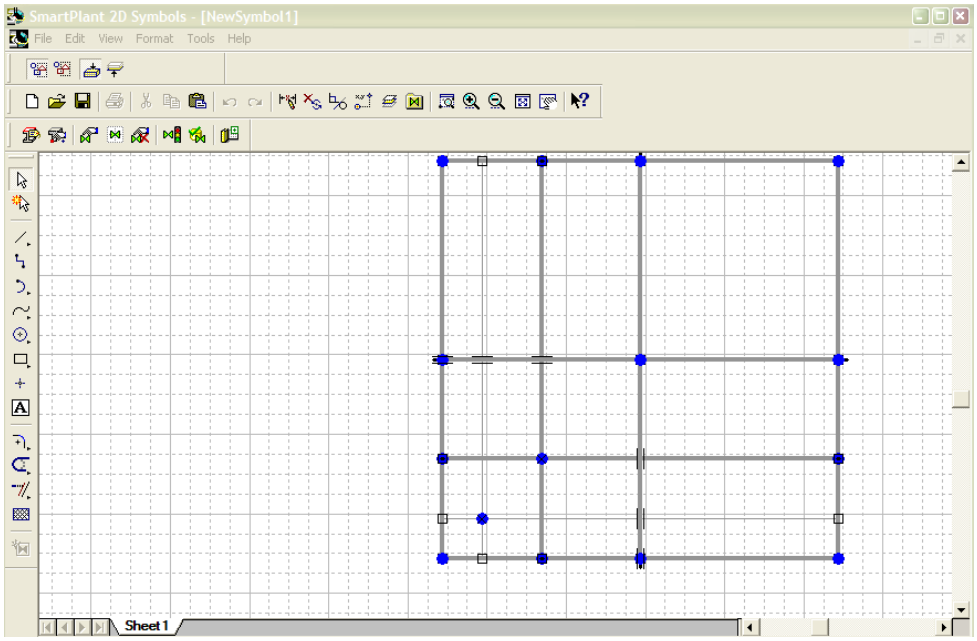


Part 1: Using SmartPlant 2D Symbol Utility to create a new member cross-section.

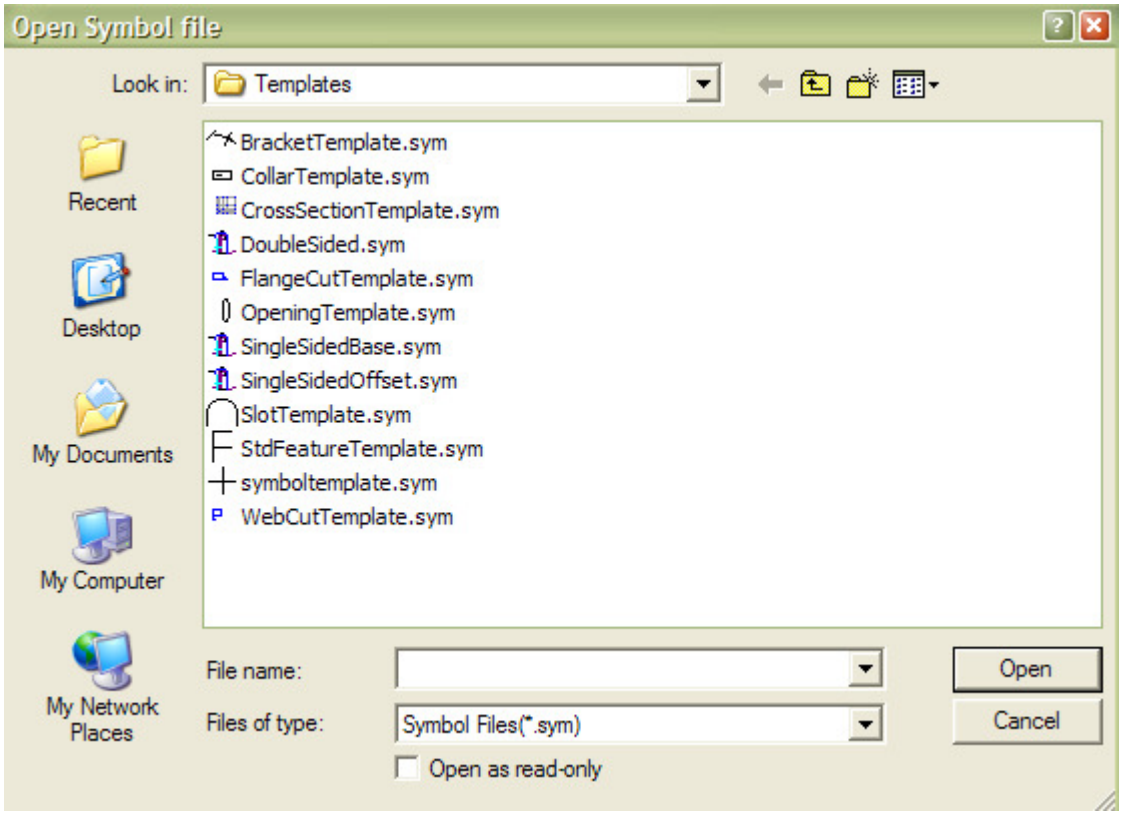
1. Run the SmartPlant 2D symbol utility by selecting the START Menu -> Programs -> Intergraph SmartPlant 3D -> 2D Symbols as shown below:



The system automatically opens the SmartPlant 2D symbols environment.

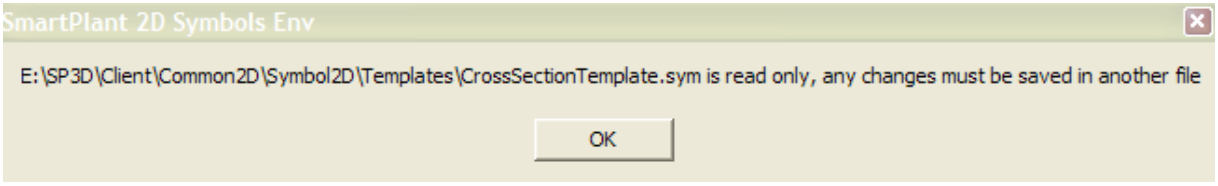


2. Go to the Main Menu and select **File -> Open**
3. The system opens the Open Symbol File dialog box and displays all the delivered templates located at [Install Directory]\SmartPlant\3D*Symbol2D\templates*.



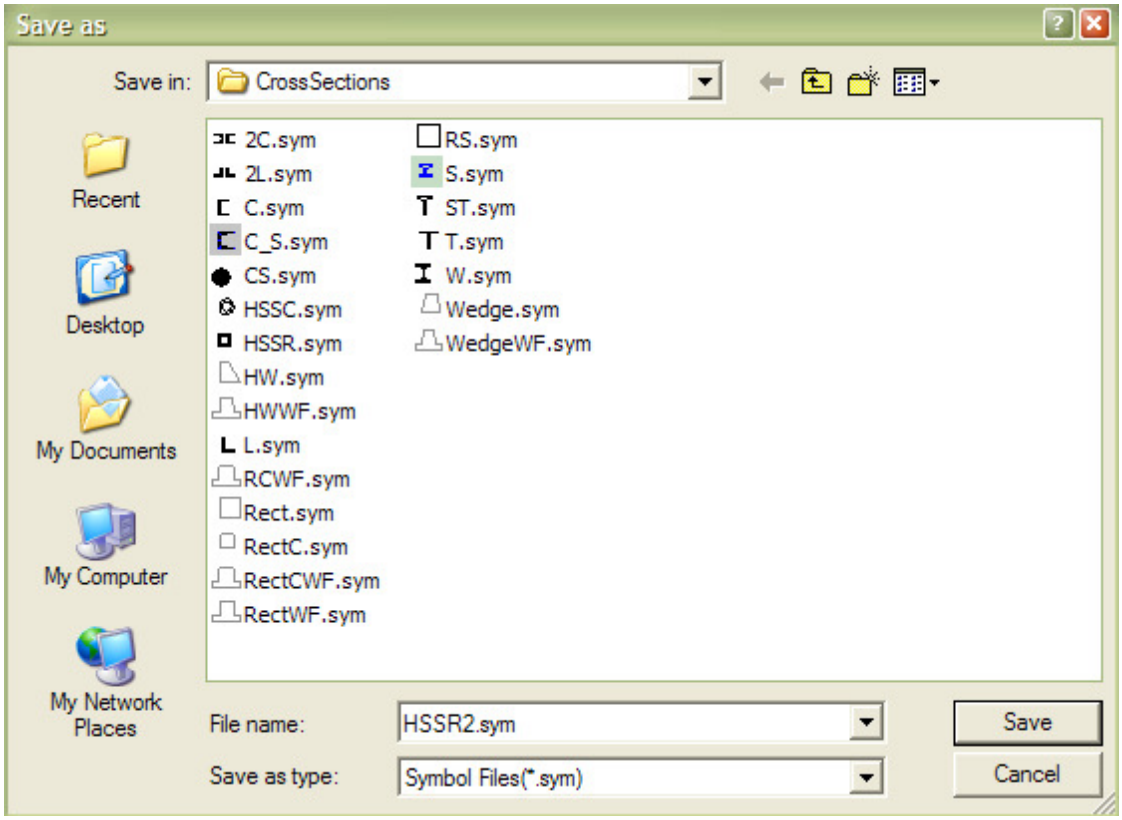
4. Select the **CrossSectionTemplate.sym** from the list and Hit the **Open** button.

The system displays a message that the template is read only.

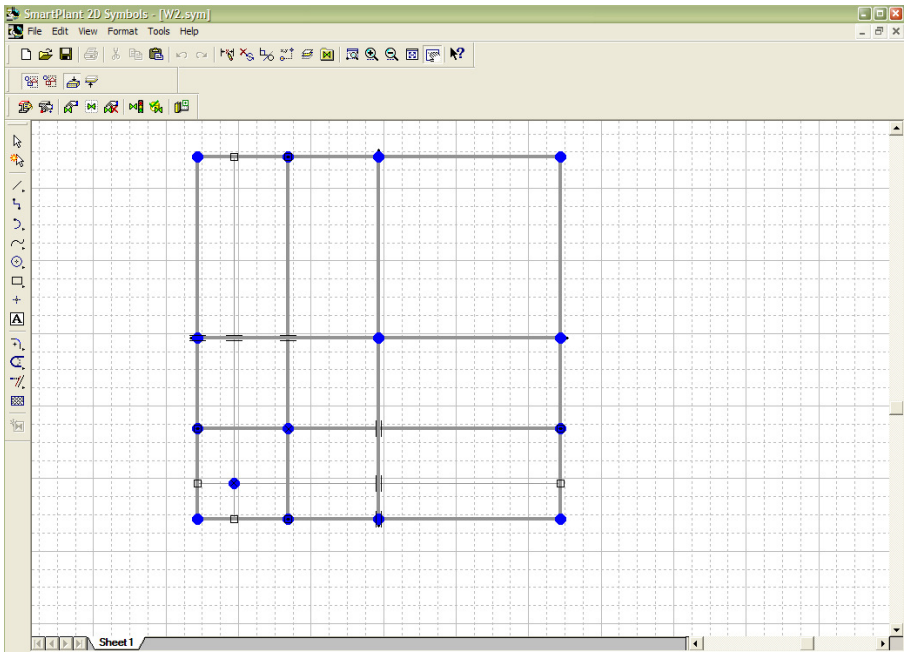


5. Hit **OK** button to close the message dialog box.

6. Go to the Main Menu and select **File -> Save As** to open the Save as dialog box.
7. Key in **W2.sym** in the filename field and change the path to \\Symbols Share*CrossSections*



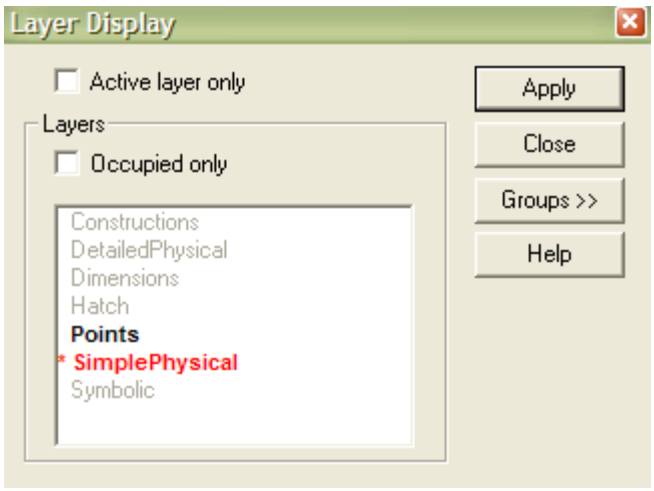
8. Hit the **Save** button.
   Your View should now resemble the following graphic.



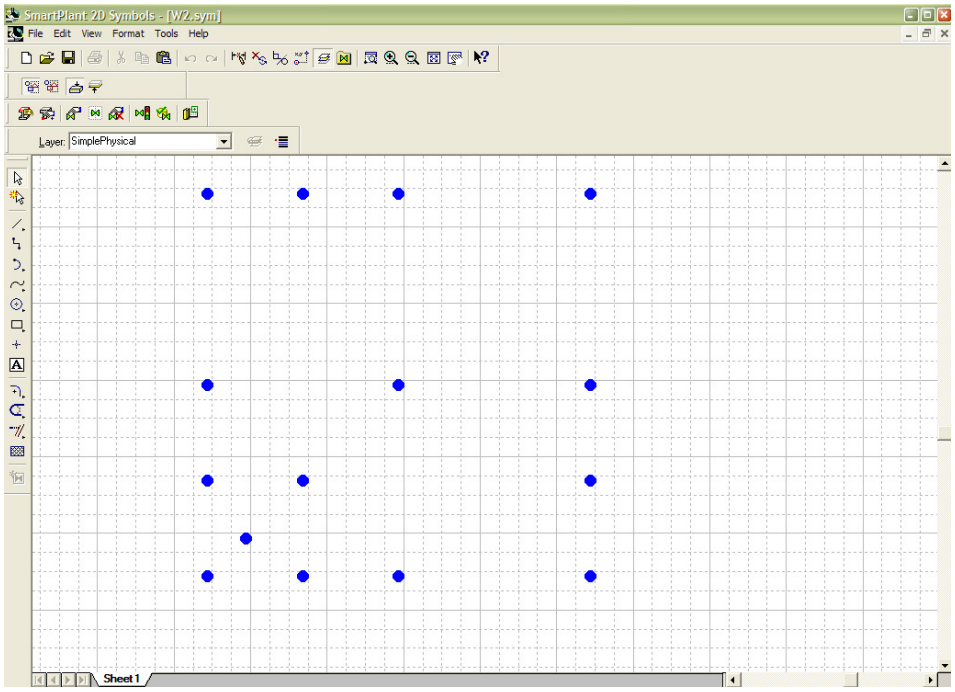
9. Go to Main Menu and select **Tool -> Layer** to open the layer ribbon bar.
10. Layers can help group elements so they can be manipulated more easily on the drawing sheet.

Layer Status icon.

11. Select the open layer status icon to access the Layer Display dialog box.
12. This dialog box has a layer list that can be used to display or hide layers on the drawing sheet. Set to display only Points and Simple Physical layers on the drawing sheet.
13. Set the active layer to Simple Physical layer on the drawing sheet. (Display in RED color).

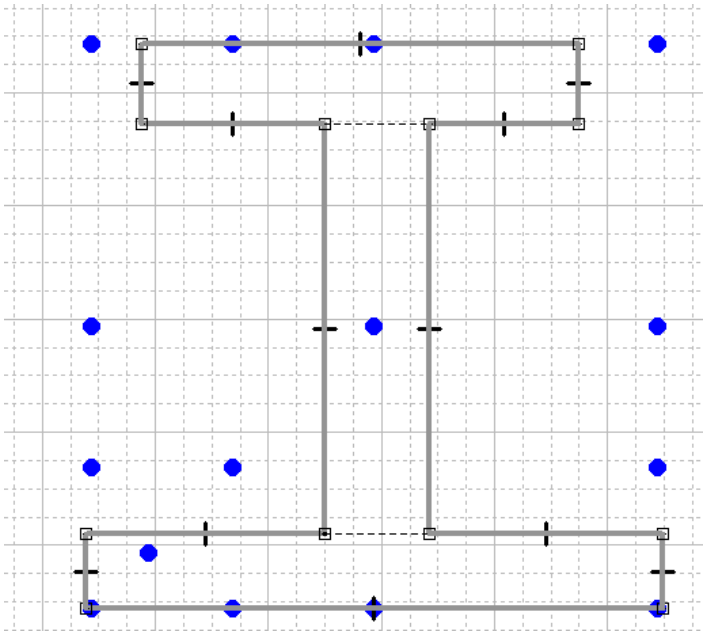


Your View should now resemble the following graphic.



14. Draw a I shape as shown below:

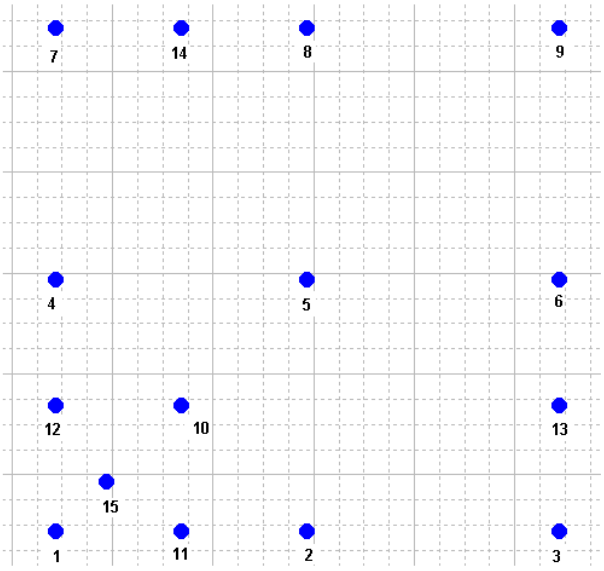
15. Use the **Place Line**  **Command** to draw the shape.
16. Make sure you select the points on the drawing sheet (Key point SmartSketch glyph) as you draw the lines. Your View should now resemble the following graphic.



17. Set the active layer to Dimensions layer on the drawing sheet using the layer ribbon bar.

18. The Dimensions in the drawing sheet supply the distance between the points. These dimensions are associative to the points they refer to, so distance changes can be made easily.

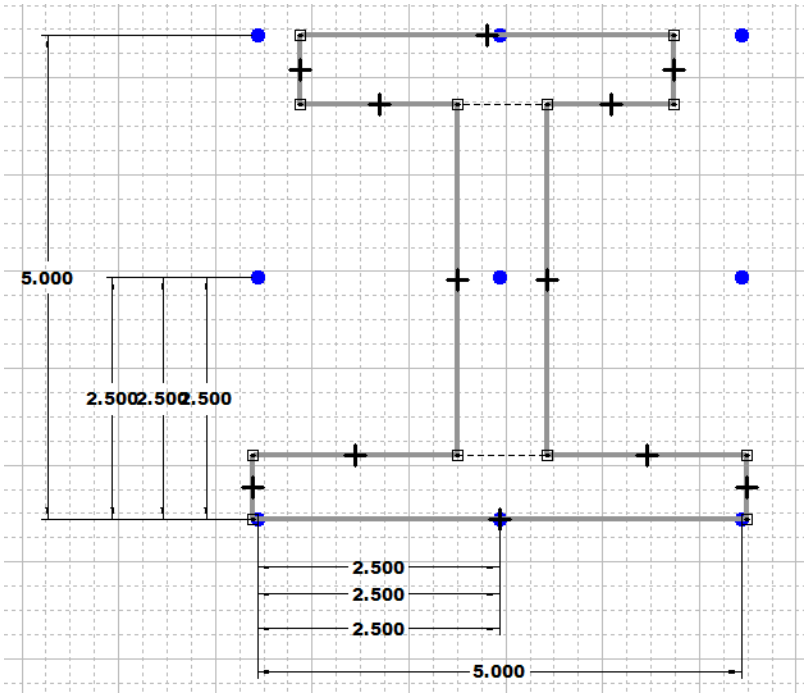
19. Select the Dimension text that dimensions the center of gravity points (10,11,12,13,14,15).



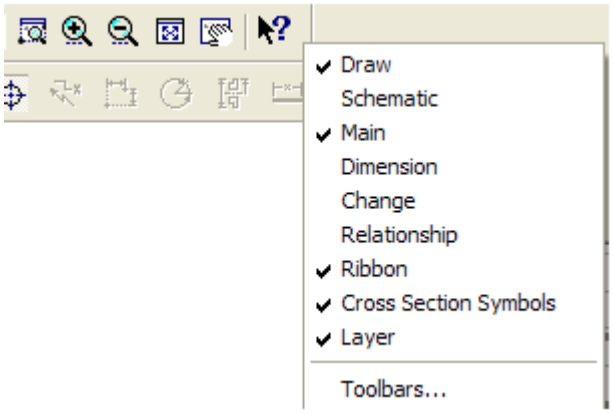
The system opens the key-in ribbon bar.

20. Key-in the appropriate dimensions to move the center of gravity points.

Your View should now resemble the following graphic.



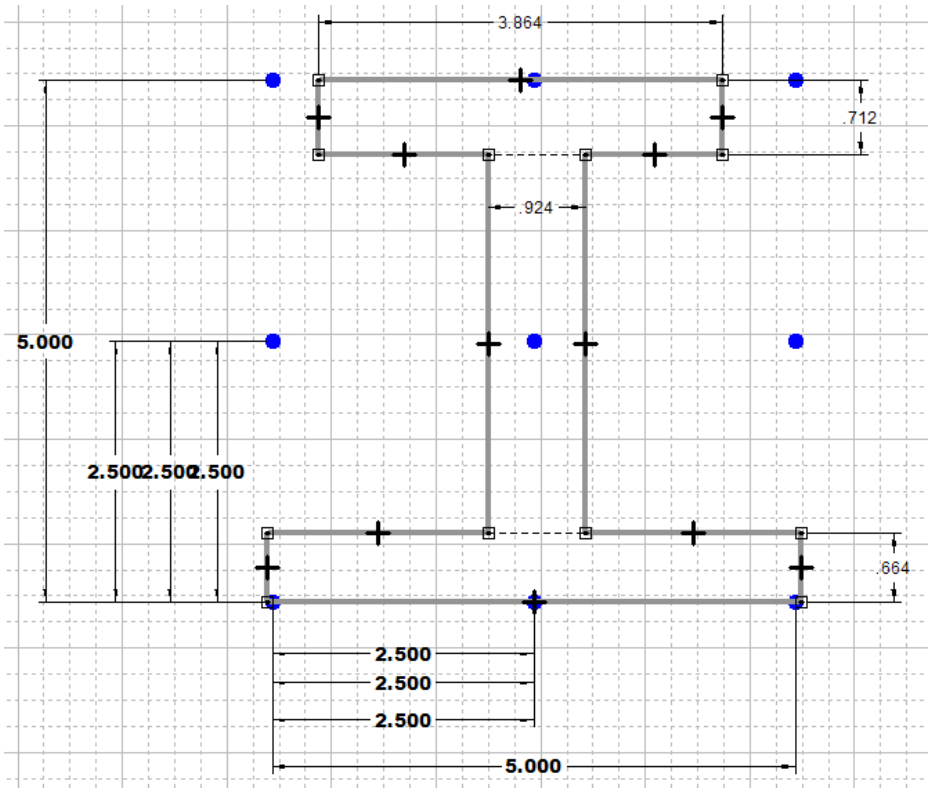
21. Right mouse click at the end of the main toolbar.



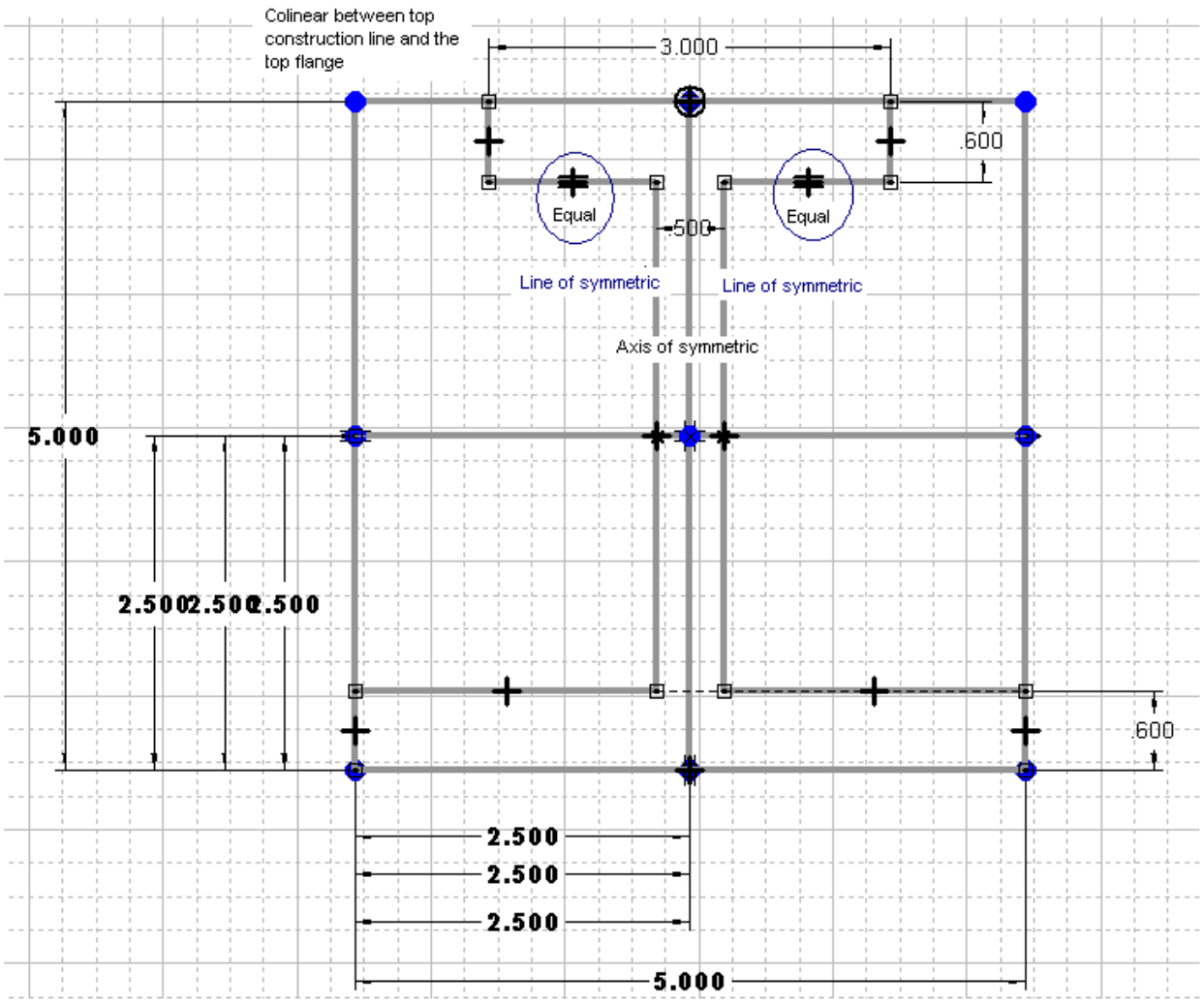
22. Select the **Dimension** option to open the dimension palette.

23. Select the **Distance in between dimension command** to dimension the symbol as shown below:

Your View should now resemble the following graphic.

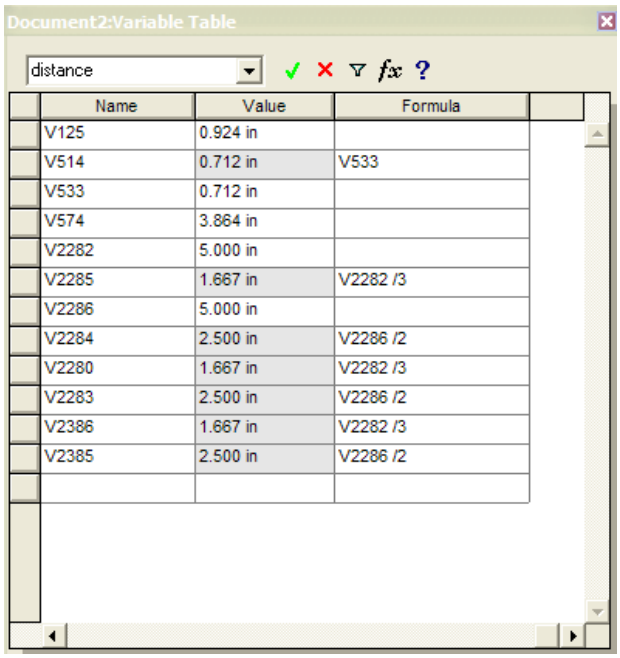


24. Turn on the Constructions layer using the layer ribbon bar.
25. Right mouse click at the end of the main toolbar.
26. Select the **Relationship** option to open the Relationship palette.
27. Add Equal, Symmetric, and Collinear relationships so that all geometry elements are symmetric and associated. Your View should now resemble the following graphic.

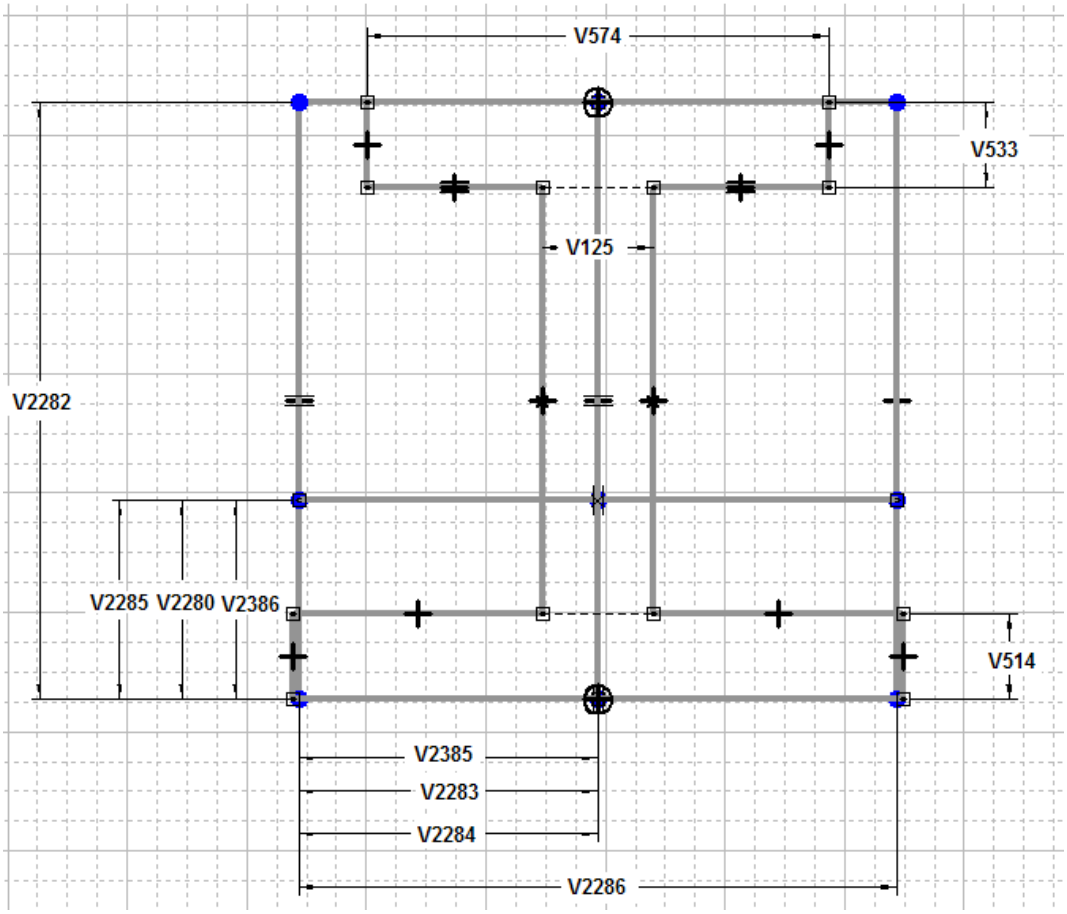


28. Go to the Main Menu and select **Tools -> Variables** to open the Variable table dialog box. The variable table displays, defines, and manipulates the dimension variables.

29. Add the appropriate formulas to the variables that will be driven by cross section properties.

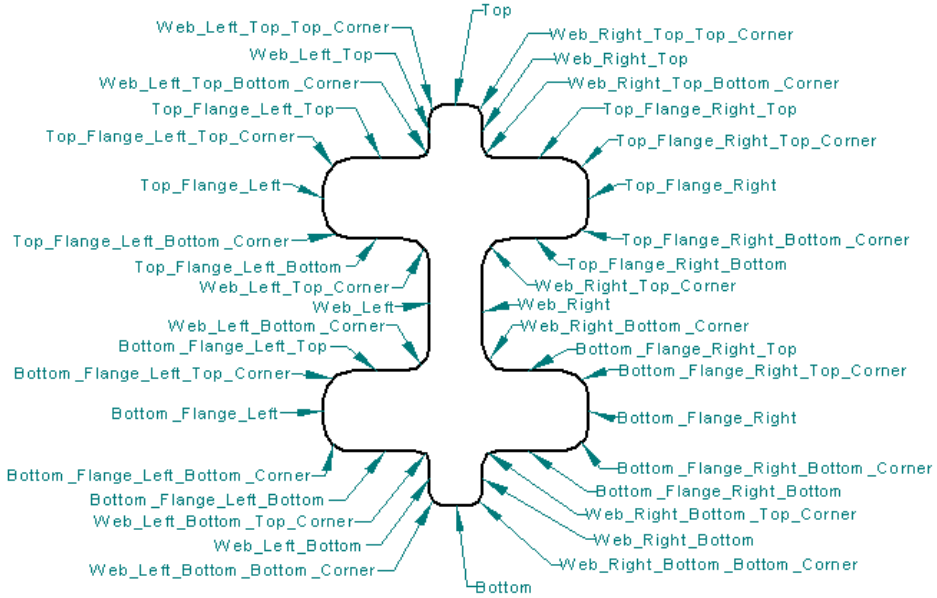


Name	Value	Formula
V125	0.924 in	
V514	0.712 in	V533
V533	0.712 in	
V574	3.864 in	
V2282	5.000 in	
V2285	1.667 in	V2282 /3
V2286	5.000 in	
V2284	2.500 in	V2286 /2
V2280	1.667 in	V2282 /3
V2283	2.500 in	V2286 /2
V2386	1.667 in	V2282 /3
V2385	2.500 in	V2286 /2



30. From the **Cross-Section Add-in toolbar**, choose the **Name Geometry** button and name the edges for all the elements in the Simple Physical layer.

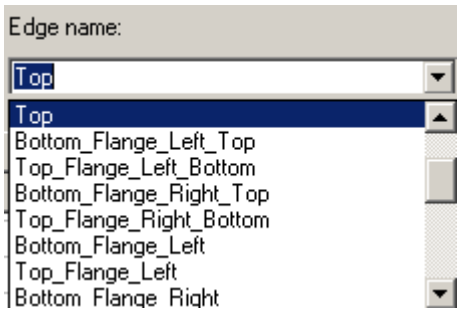
Standard edges for a cross-section.



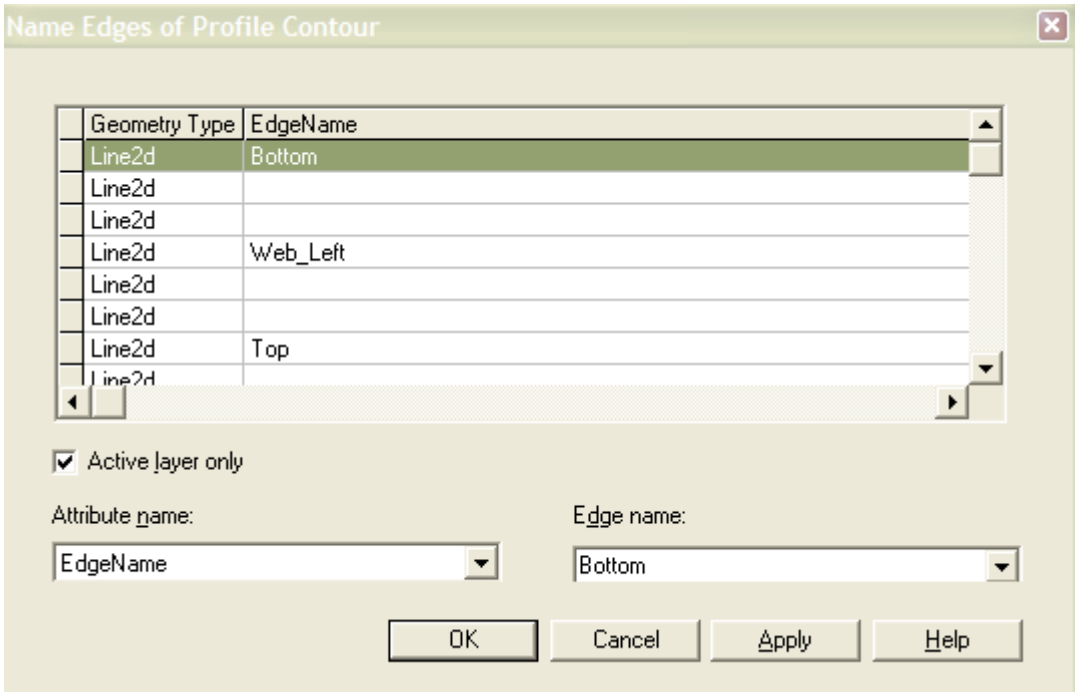
31. Set the active layer to Simple Physical layer on the drawing sheet using the layer ribbon bar.

32. Turn on the active layer only in the Name Edges of Profile Contour dialog box.

33. Select the first geometry element in the Geometry Type column.
34. Select the appropriate edge name.

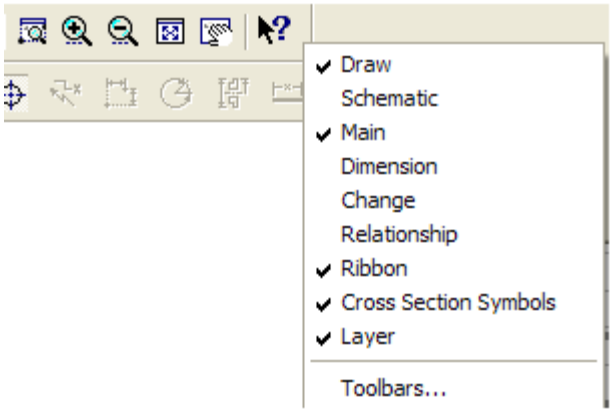


35. Continue the above steps to name each geometric element in the Simple Physical layer.



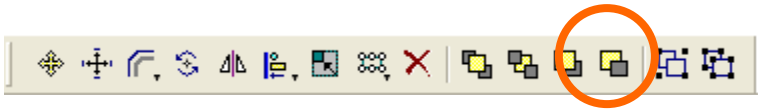
36. Hit **OK** button.

37. Right mouse click at the end of the main toolbar.

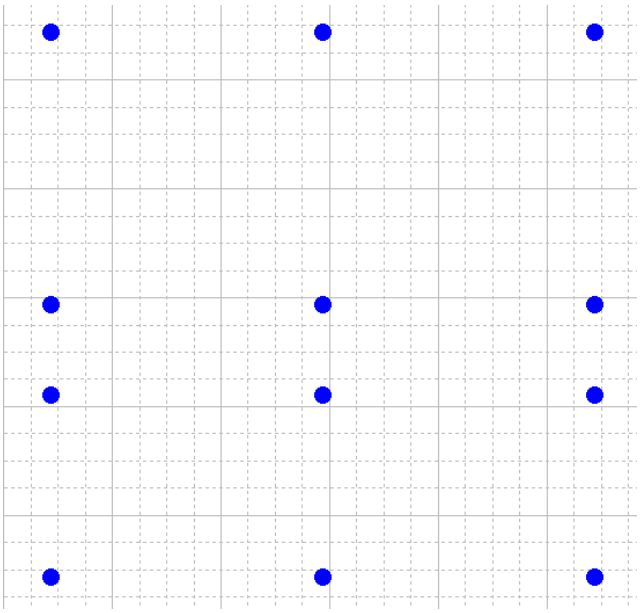


38. Select the **Change** option to open the Change palette.

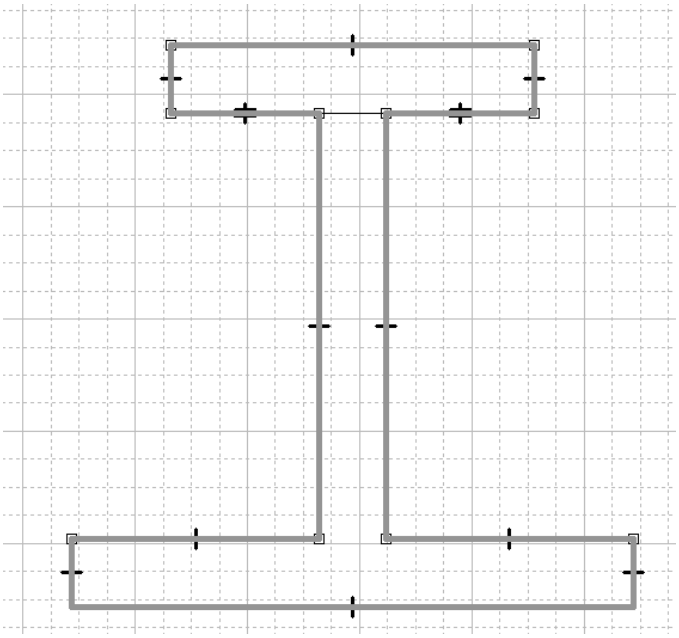
39. Using the **Group** button from the change palette and groups the following:



All points on the points layer: Use the active layer ribbon bar to display only the points layer, fence in all points to select all the points and hit the Group button.

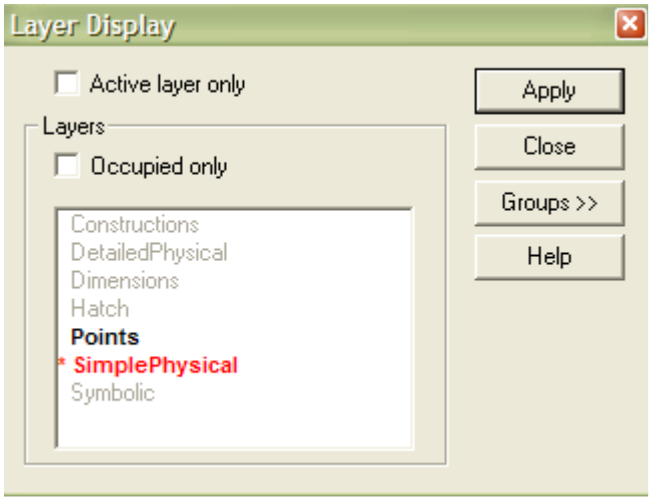


All geometry elements on the Simple Physical layer: Use the active layer ribbon bar to display only the Simple Physical layer, fence in all geometry elements to select all the geometry elements and hit the Group button.

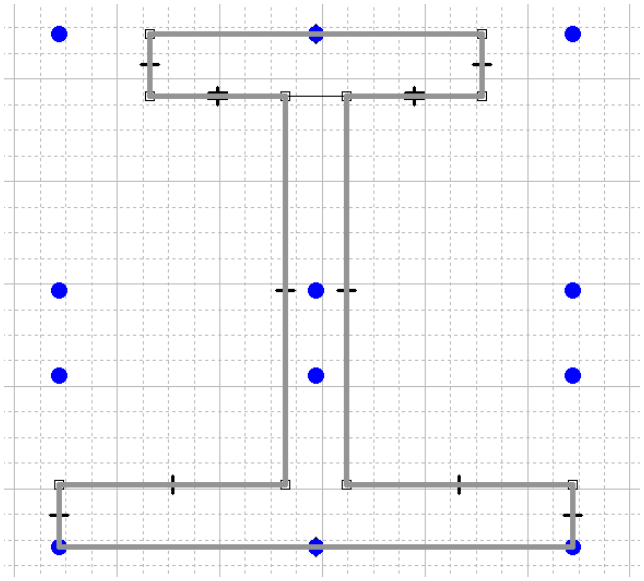


40. Select the open layer status icon to access the Layer Display dialog box.

41. Set to display only Points and Simple Physical layers on the drawing sheet.

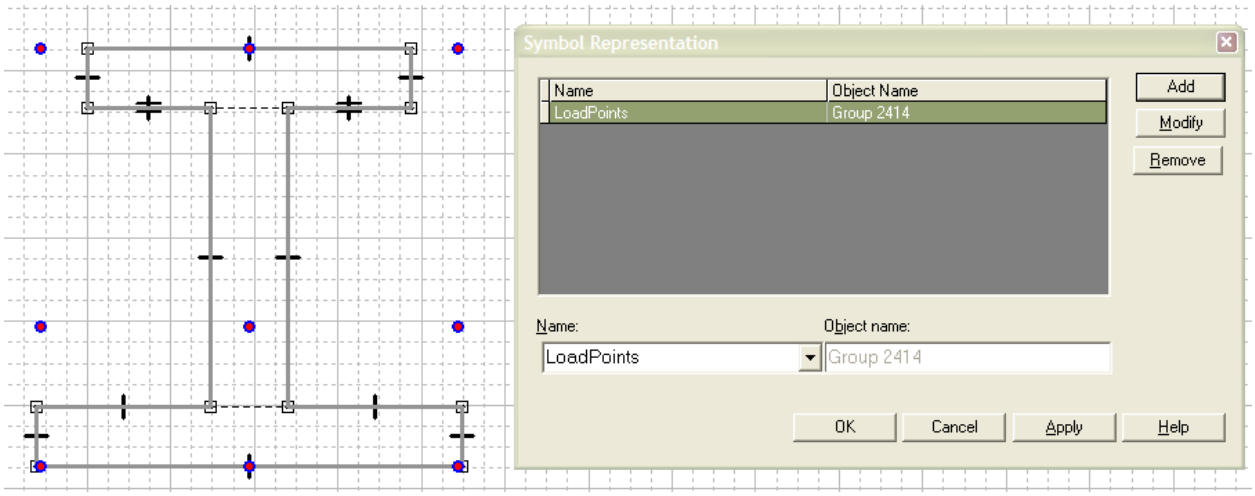


Your View should now resemble the following graphic.

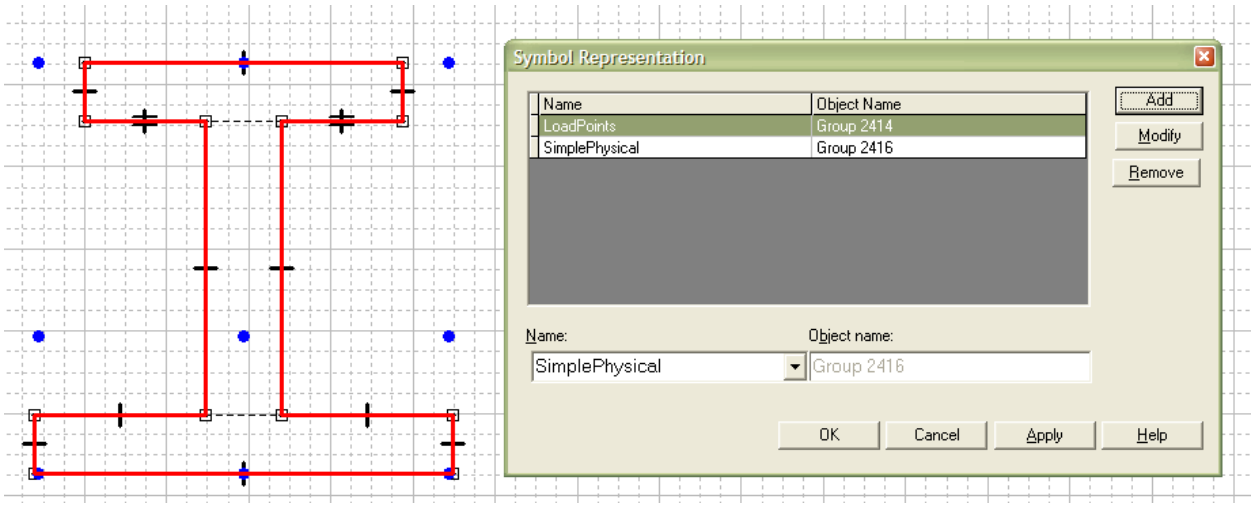


42. From the **Cross-Section Add-in toolbar**, choose the **Symbol Representation** icon to open the Symbol Representation dialog box and add the above groups.

Load Points group: Select the Load point group in the Name combo box. Then, select the center point graphically in the view. All the points will be selected since the points are grouped. Select **Add** button. (Note: Use the quick pick tool to select the point group)



Simple Physical group: Select the Simple Physical group in the Name combo box. Then, select a line graphically in the view. Make sure you select a line that belongs to the group. All the geometry elements in the group will be selected since they are grouped. Select Add button.

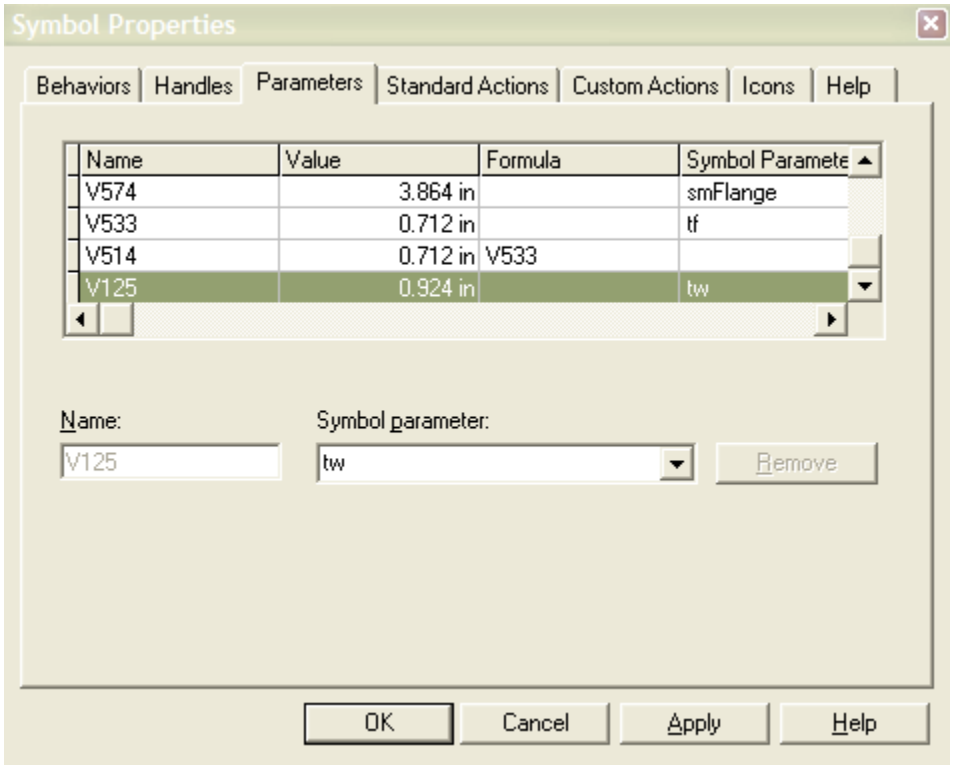


43. Hit OK button to close the dialog box.

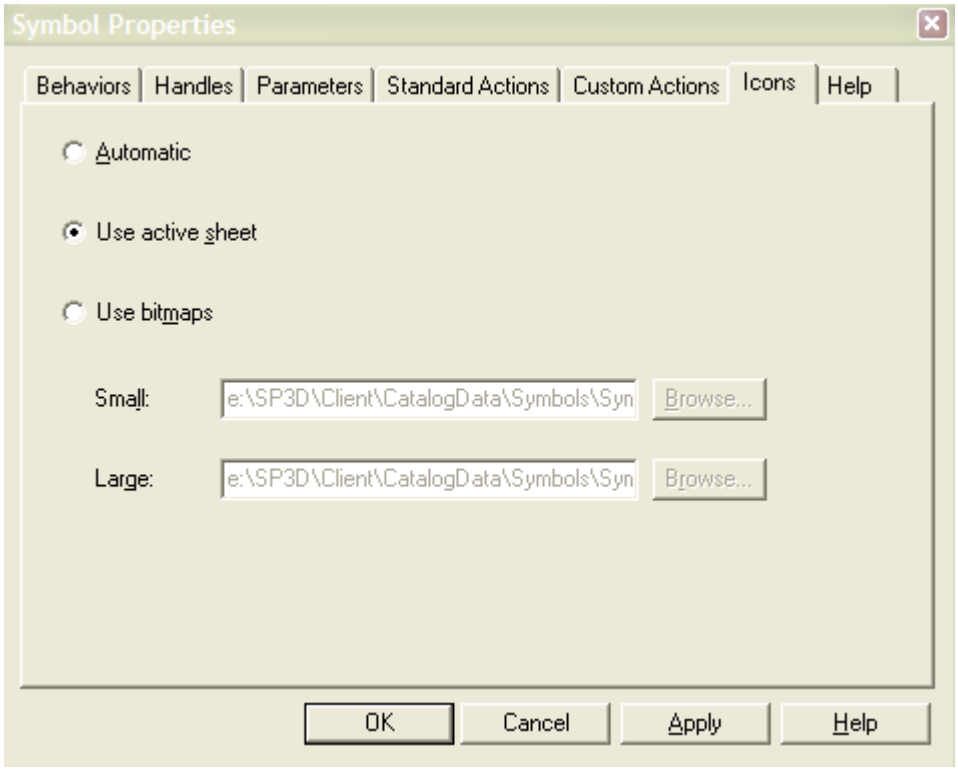
44. The Define Symbol Properties form displays all variables and their names, values, and formulas in the symbol. **Symbol parameters** are also defined on this form; these are the symbol properties that are externalized to the Excel spreadsheet bulkload file.

45. From the **Cross-Section Add-in toolbar**, choose the **Symbol Properties** icon to open the Symbol Property dialog box. Select the **Parameters tab** and define the symbol parameter as follows:

Name	Symbol Parameter
V2282	Depth
V2286	Width
V574	smFlange
V533	tf
V125	tw

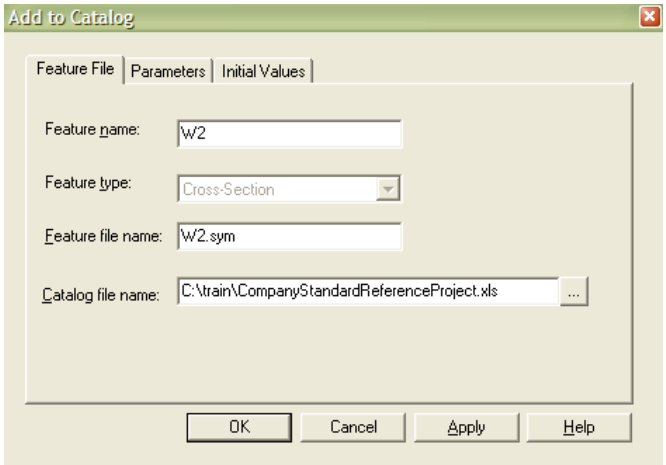


46. Select the **Icons tab** and select Use active sheet option as shown below:



47. Hit OK **button** to close the dialog box.

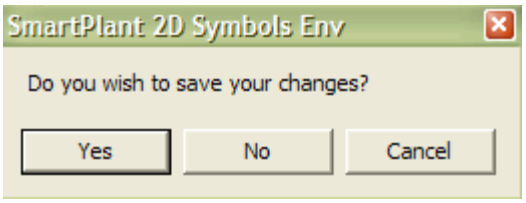
48. From the **Cross-Section Add-in** toolbar, choose the Add to Catalog icon to open the Add to Catalog dialog box. Fill in the appropriate fields on the **Feature file tab** and select the Apply button.



Note: Catalog filename is the CompanyStandardReferenceProject1.xls.

49. Hit the **OK** button to close the Add to Catalog dialog box.

50. Go to the Main Menu and select **File -> Exit**. The system prompts you to save the file.



51. **Select Yes button to save the symbol** and exit the 2D symbol environment.

Part 1I: Add the cross section properties in the catalog.

52. Open the Excel workbook CompanyStandardReferenceProject1.xls that the W2 symbol was written too.

53. Go to the Custom Interface sheet and delete the following entries:

WidthA		Double	Distance	in	0	1	0	Width
DepthA		Double	Distance	in	0	1	0	Depth
smFlangeA		Double	Distance	in	0	1	0	smFlange
tfA		Double	Distance	in	0	1	0	tf
twA		Double	Distance	in	0	1	0	tw

54. Add the following entry in the custom interface:

InterfaceName	CategoryName	AttributeName	AttributeUserNam	Type	UnitsType	PrimaryUnits	CodeList	codelisttablenames	OnPropertyPage	ReadOnly	SymbolParameter
IJUAW2		smFlange	small Flange size	Double	Distance	in			1	0	smFlange

55. Modify the W2 sheet to only include the following data:

Definition	PartClassType	SymbolDefinition	SymbolIcon	ReferenceStandard
	CrossSectionClass	StructGenericSymbol.GenericSymbol|CrossSections\W2.sym	CrossSections\W2.bmp	Project-001-AISC-LRFD-3.1

Head	SectionName	ShortName	EDIName	GroupId	UnitWeight	Width	Depth	smFlange	tf	tw
Start										
	W12x30	W12	W12	Group1	30.0000	6.52	12.34	3.52	0.44	0.26
	W12x26	W12	W12	Group1	26.0000	6.49	12.22	3.49	0.38	0.23
End										

Hint: Use the Cut and Paste method and copy the engineering attributes from the W sheet. Save the Excel workbook.

56. Optional: create the W2.bmp file and place it in the following path:
    \\Symbols Share*CrossSections*

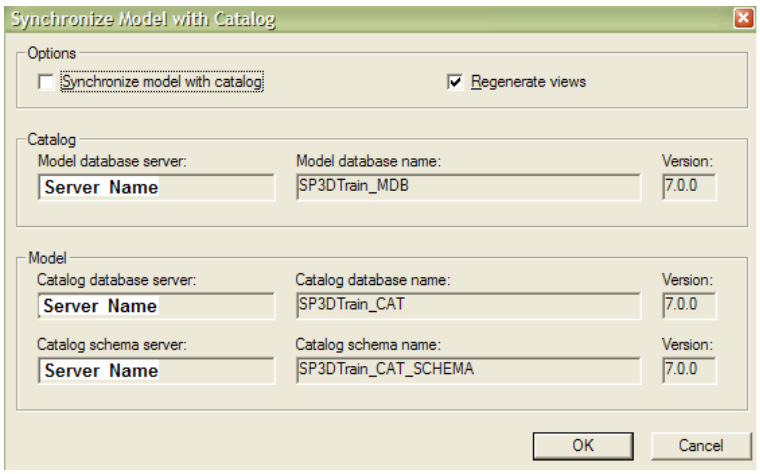
57. Use the Bulkload utility and load the new cross section to the Training catalog database.
58. Make sure to select the Append Mode. Once the bulkload process is complete, review the log file.

59. Run the Project Management Task. Select the Model in the hierarchy.

60. Select Tools -> Synchronize Model with the Catalog.

61. Uncheck the Synchronize Model with the Catalog option.

    Note: You just need to update the views in the model.

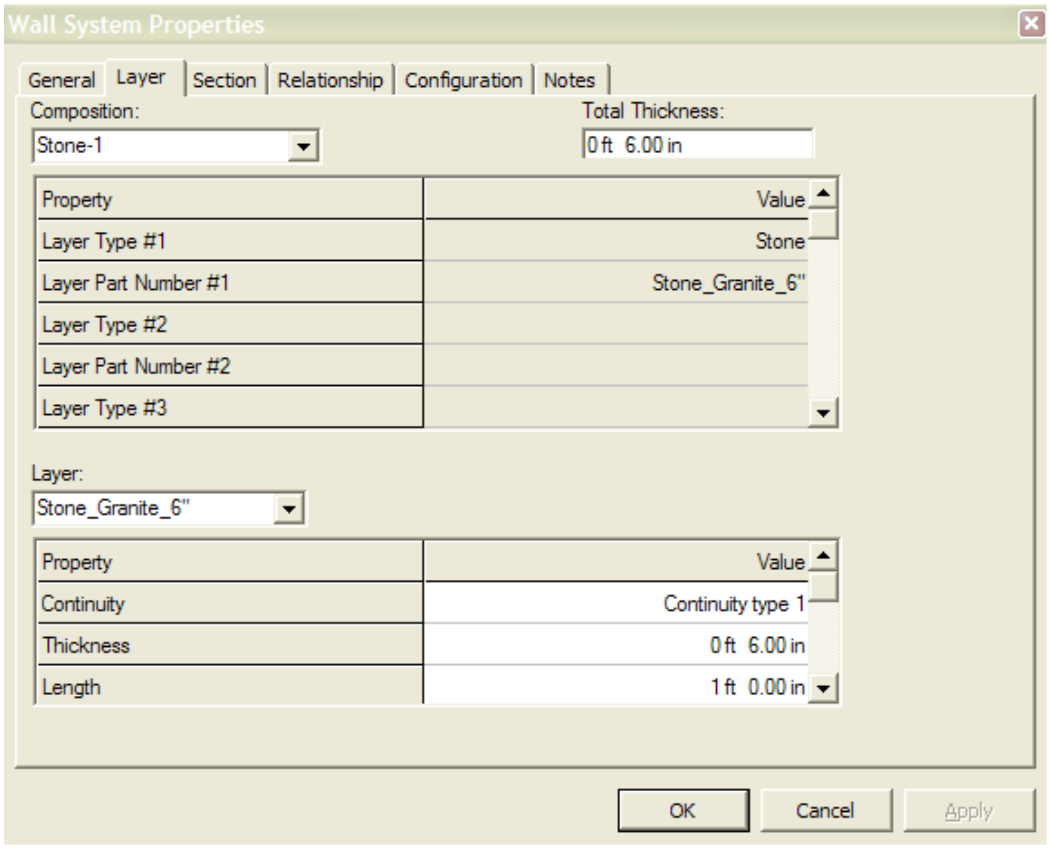


62. Hit “OK” Button.

63. Once the process is complete. Right click on the model and select regenerate the report database.

64. Hit “OK” Button.

65. Once the process is complete. Go to the Structure Task and place this section from the company reference standard library.


Wall System Properties
General
Layer
Section
Relationship
Configuration
Notes
Composition:
Stone-1
Total Thickness:
0 ft 6.00 in
Property
Value
Layer Type #1
Stone
Layer Part Number #1
Stone_Granite_6"
Layer Type #2
Layer Part Number #2
Layer Type #3
Layer:
Stone_Granite_6"
Property
Value
Continuity
Continuity type 1
Thickness
0 ft 6.00 in
Length
1 ft 0.00 in
OK
Cancel
Apply