[DRAFT] Structural Modeling Project General Modeling Software Application [DRAFT]
Strict Order – One Object Per Class [Auto]
11-15-2016

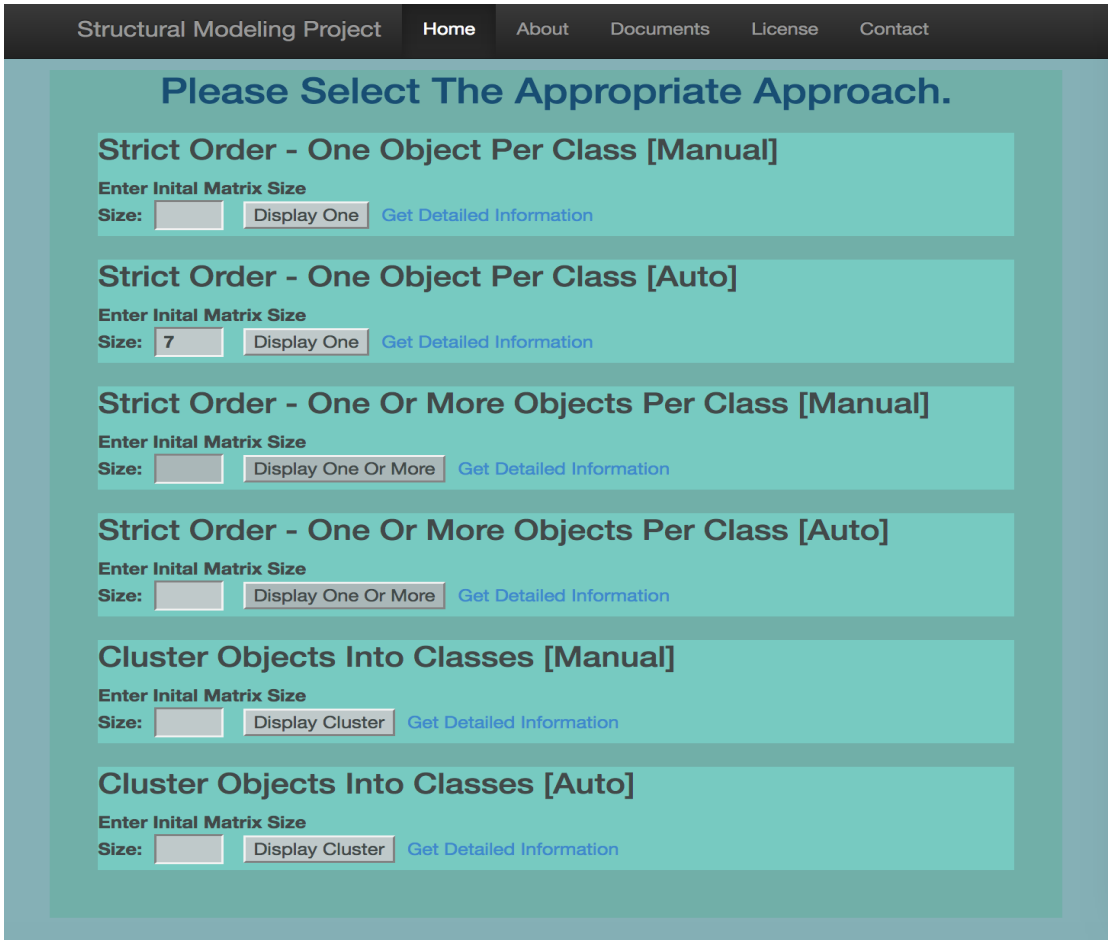
Introduction:
This document provides a quick introduction and complete overview of a simple system structuring problem. The selected structuring problem is taken from Appendix 2 of 'The Handbook of Interactive Management', section A2.2.1 of the Handbook of Interactive Management. A digital copy of the Handbook is located at:

http://demosophia.com/wp-content/uploads/2012/09/Handbook-of-Interactive-Management.pdf

This problem, in Appendix 2, is associated with the DOMODEL command of the GSM ISM software. In the example presented here, the Strict Order – One Object Per Class web application approach will be used to demonstrate the problem solution. The 'is heaver than' (IHT) natural language system structuring relationship is used in this case. The weight of an object is determined by a gravity force field that interacts with the mass of each object. This is viewed as a global structuring relationship with the following logical properties:

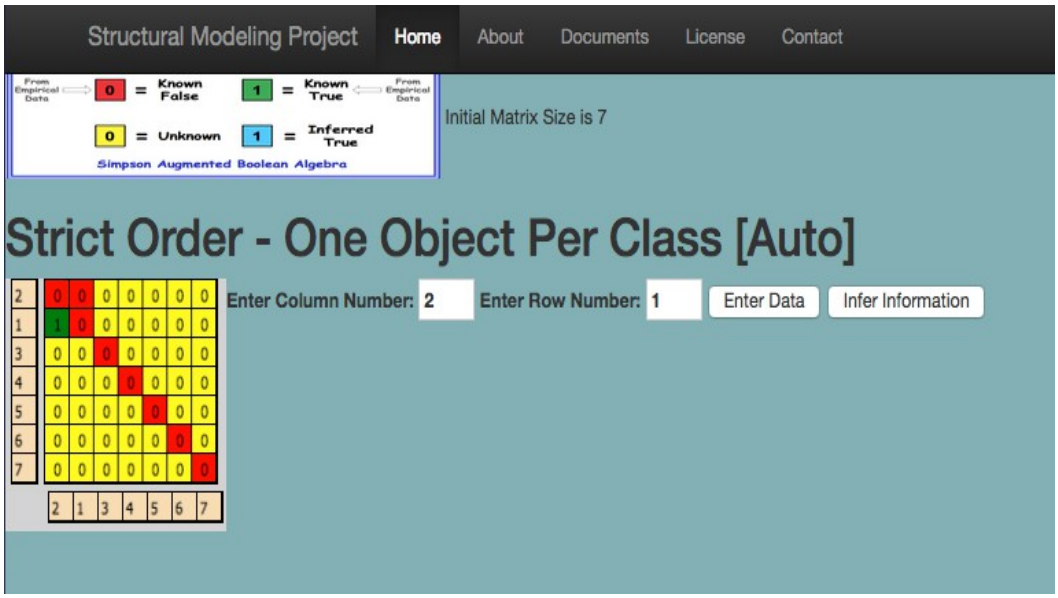
- irreflexive
- asymmetric
- transitive.

No two objects weight the same, so only one object in each weight class and one path through the system structure. There will be no clusters because there is only one element per class.

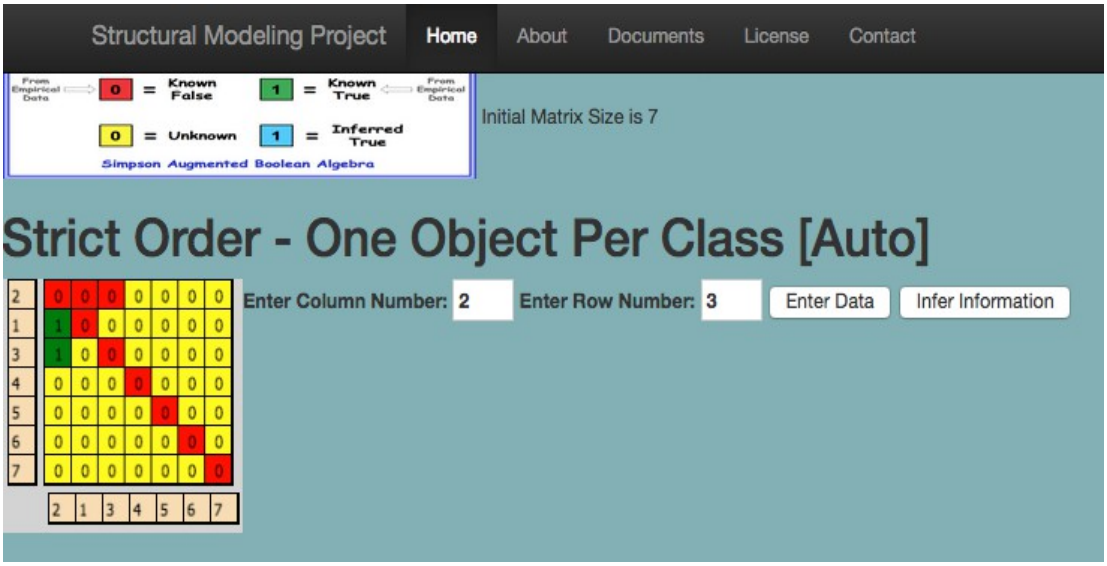


Step One:
Enter the number 7 into the size text box in the Strict Order – One Object Per Class section of the SM GSM Application.
Step Two:
Press the "Display One" button.

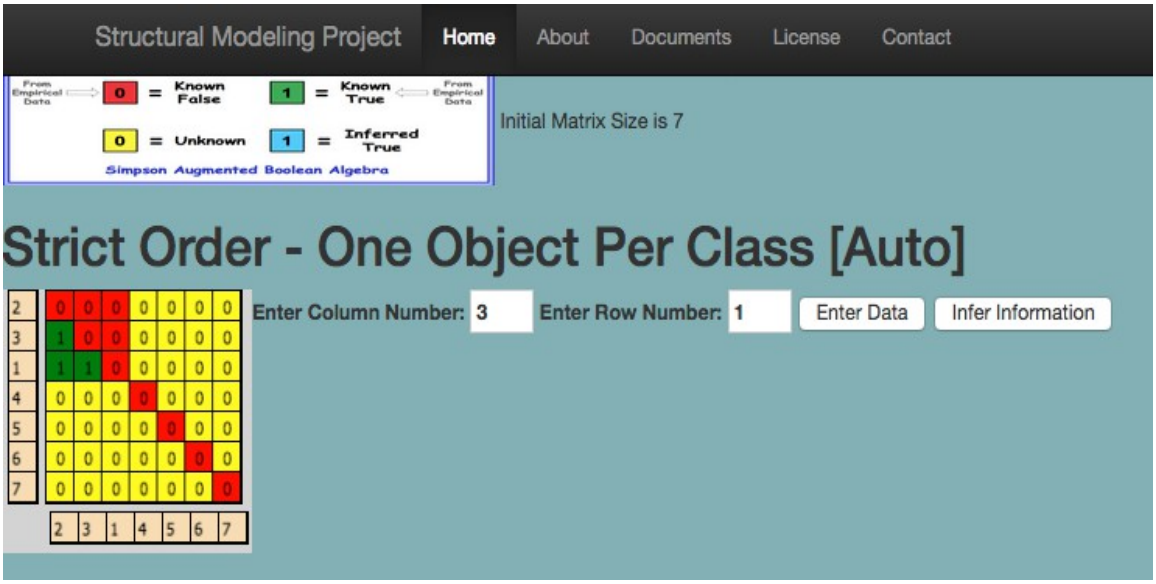
Step Three:
Begin to gather empirical information about the objects of interest. The empirical sampling proceeds in a structured fashion starting at the top with object one (1) and moving down through the objects of interest in a measured fashion. This is the manual algorithm approach.
Is 1 heaver than 2? No (Do not enter anything in the application interface.)
Is 2 heaver than 1? Yes
Step Four:
Enter the number 2 in the "Enter Column Number" text input box. Enter the number 1 in the "Enter Row Number" text input box.
Step Five:
Press the "Enter Data" button.



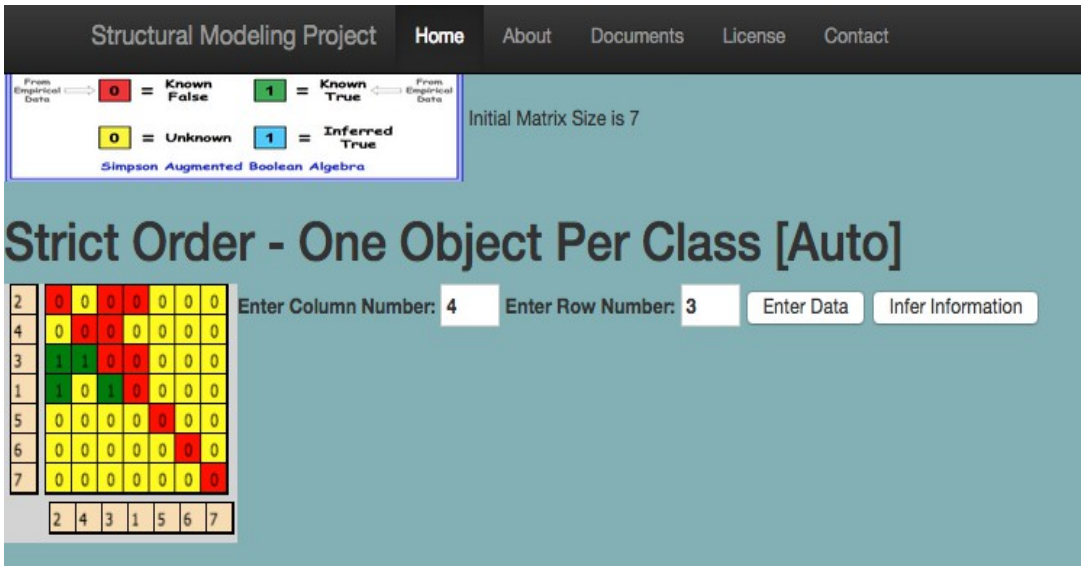
Step Six:
Is 2 heaver than 3? Yes
Step Seven:
Enter the number 2 in the "Enter Column Number" text input box. Enter the number 3 in the "Enter Row Number" text input box.
Step Eight:
Press the "Enter Data" button.



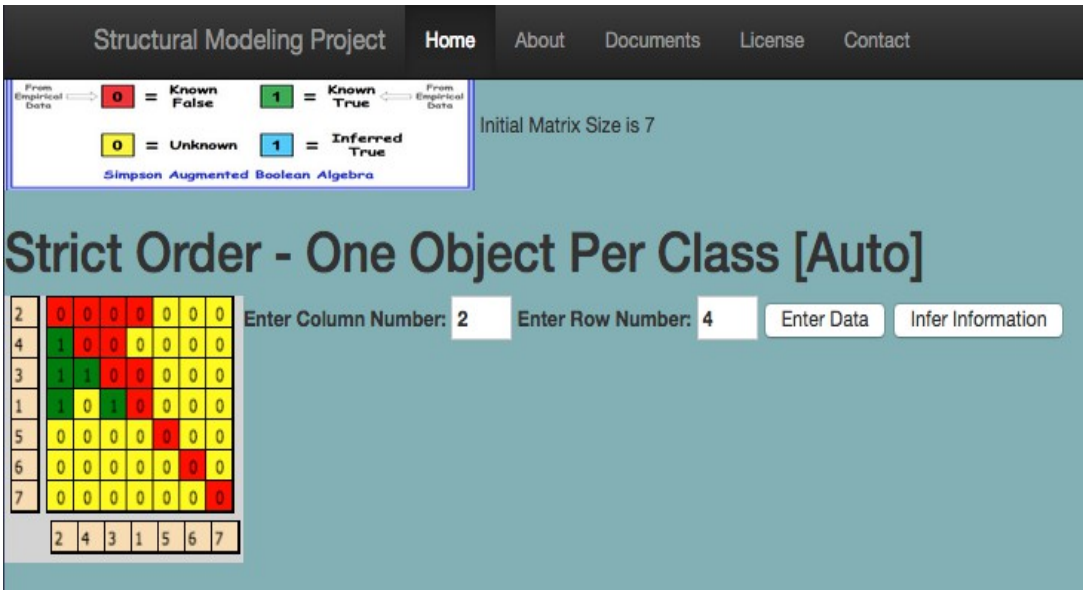
Step Nine:
Is 1 heaver than 3? No (Do not enter anything in the application interface.)
Is 3 heaver than 1? Yes
Step Ten:
Enter the number 3 in the “Enter Column Number” text input box. Enter the number 1 in the “Enter Row Number” text input box.
Step Eleven:
Press the “Enter Data” button.



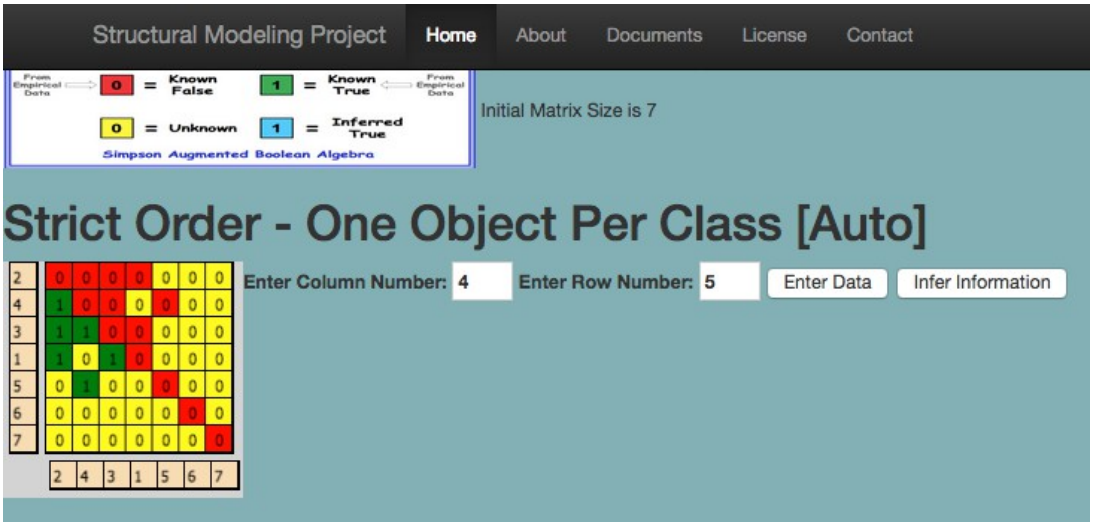
Step Twelve:
Is 3 heaver than 4? No (Do not enter anything in the application interface.)
Is 4 heaver than 3? Yes
Step Thirteen:
Enter the number 4 in the “Enter Column Number” text input box. Enter the number 3 in the “Enter Row Number” text input box.
Step Fourteen:
Press the “Enter Data” button.



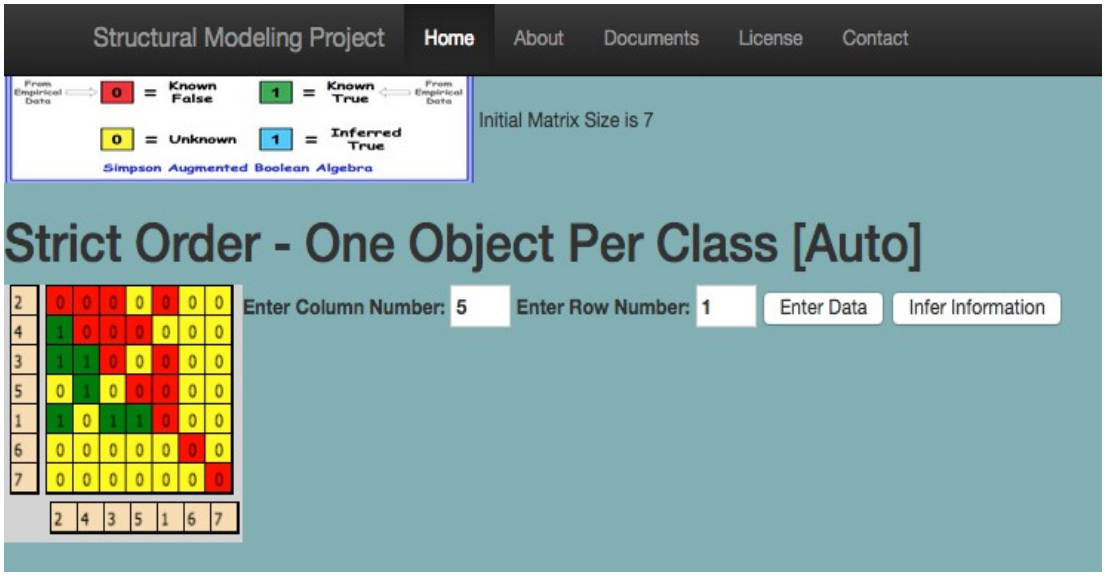
Step Fifteen:
Is 2 heaver than 4? Yes
Step Sixteen:
Enter the number in the “Enter Column Number” text input box. Enter the number 4 in the “Enter Row Number” text input box.
Step Seventeen:
Press the “Enter Data” button.



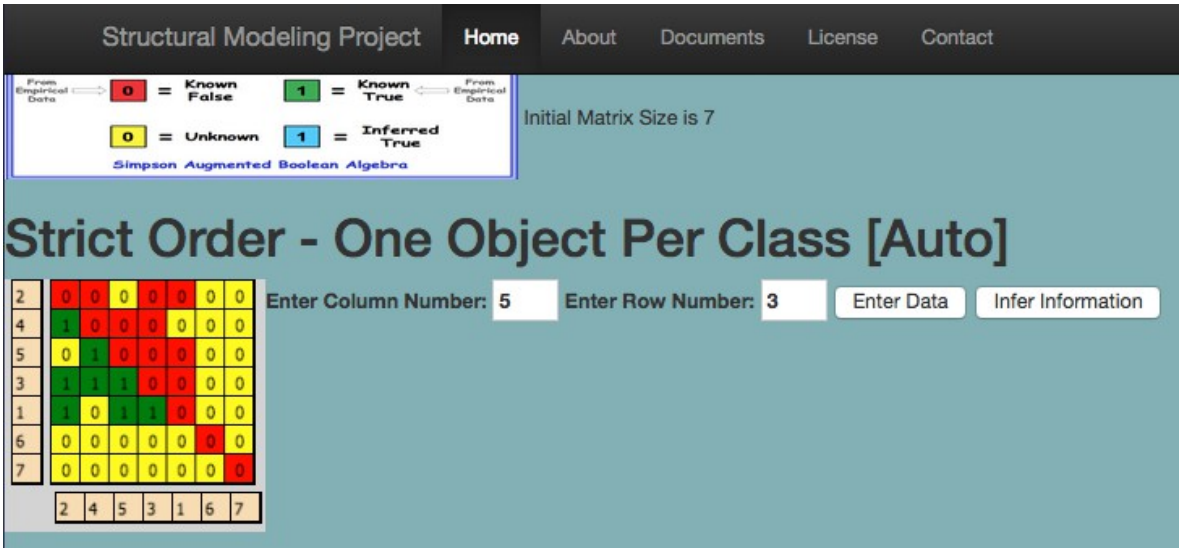
Step Eighteen:
Is 4 heaver than 5? Yes
Step Nineteen:
Enter the number 2 in the “Enter Column Number” text input box. Enter the number 4 in the “Enter Row Number” text input box.
Step Twenty:
Press the “Enter Data” button.



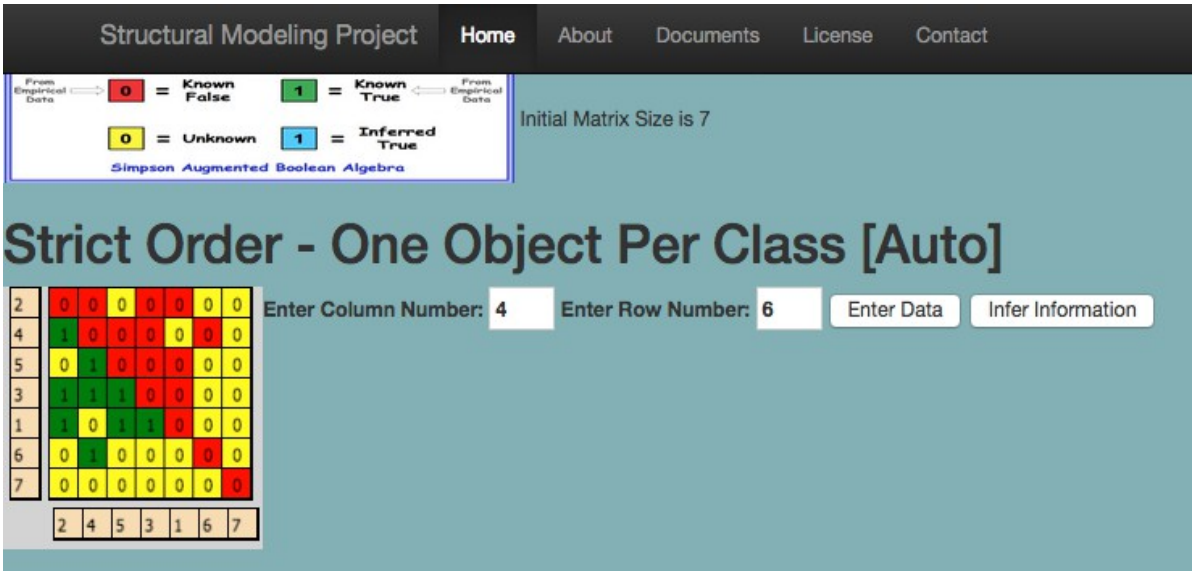
Step Twenty One:
Is 5 heaver than 1? Yes
Step Twenty Two:
Enter the number 5 in the “Enter Column Number” text input box. Enter the number 1 in the “Enter Row Number” text input box.
Step Twenty Three:
Press the “Enter Data” button.



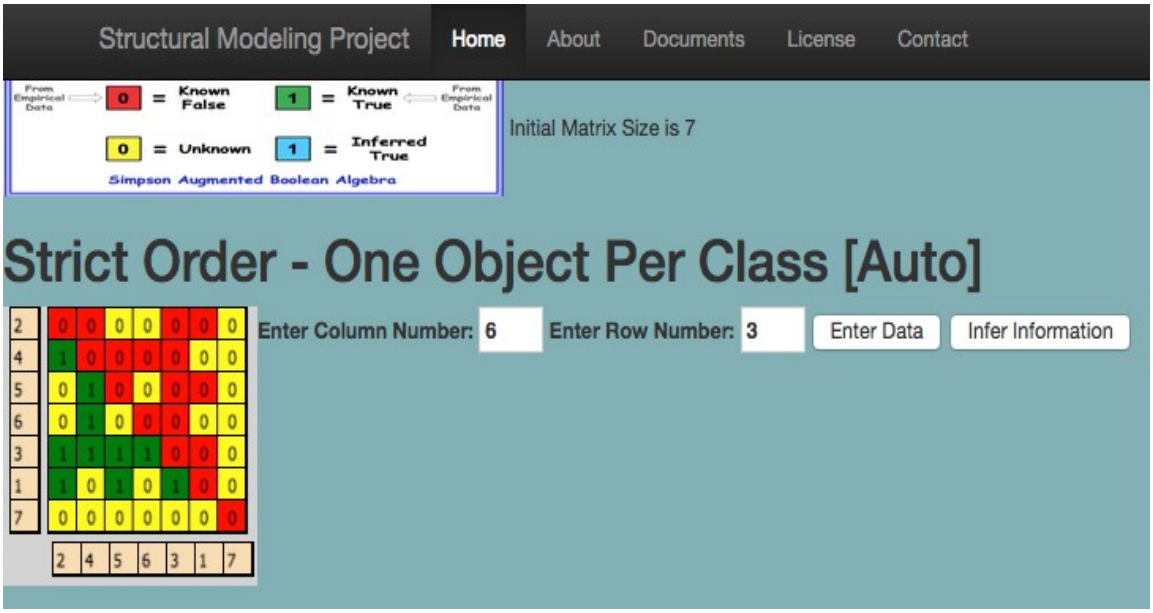
Step Twenty Four:
Is 5 heaver than 3? Yes
Step Twenty Five:
Enter the number 5 in the “Enter Column Number” text input box. Enter the number 3 in the “Enter Row Number” text input box.
Step Twenty Six:
Press the “Enter Data” button.



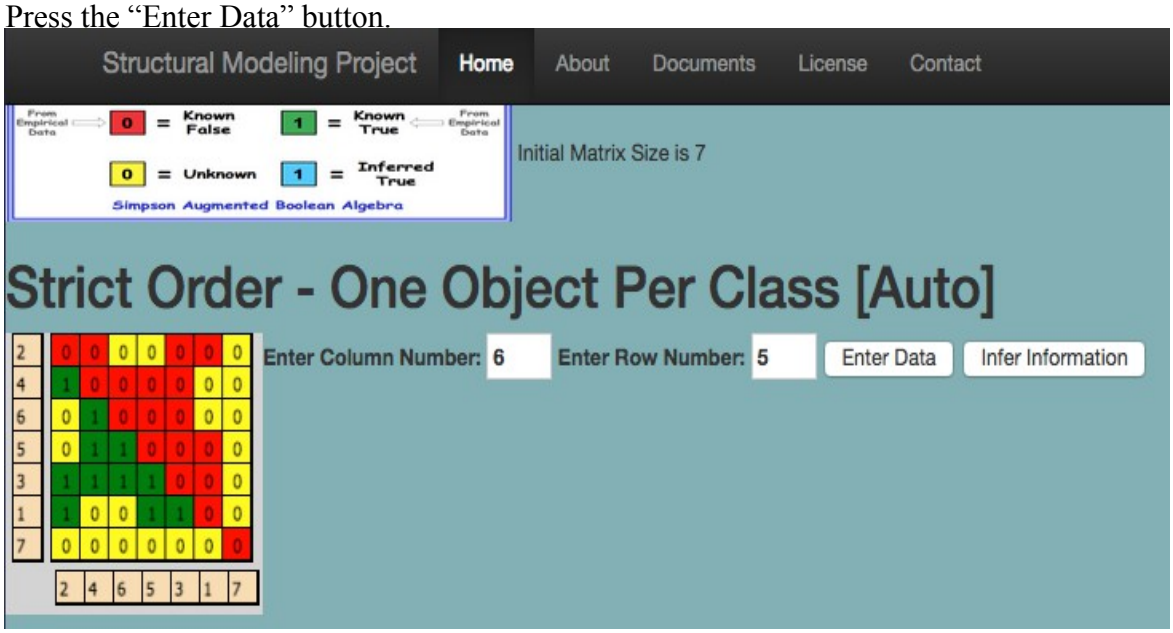
Step Twenty Seven:
Is 4 heaver than 6? Yes
Step Twenty Eight:
Enter the number 4 in the “Enter Column Number” text input box. Enter the number 6 in the “Enter Row Number” text input box.
Step Twenty Nine:
Press the “Enter Data” button.



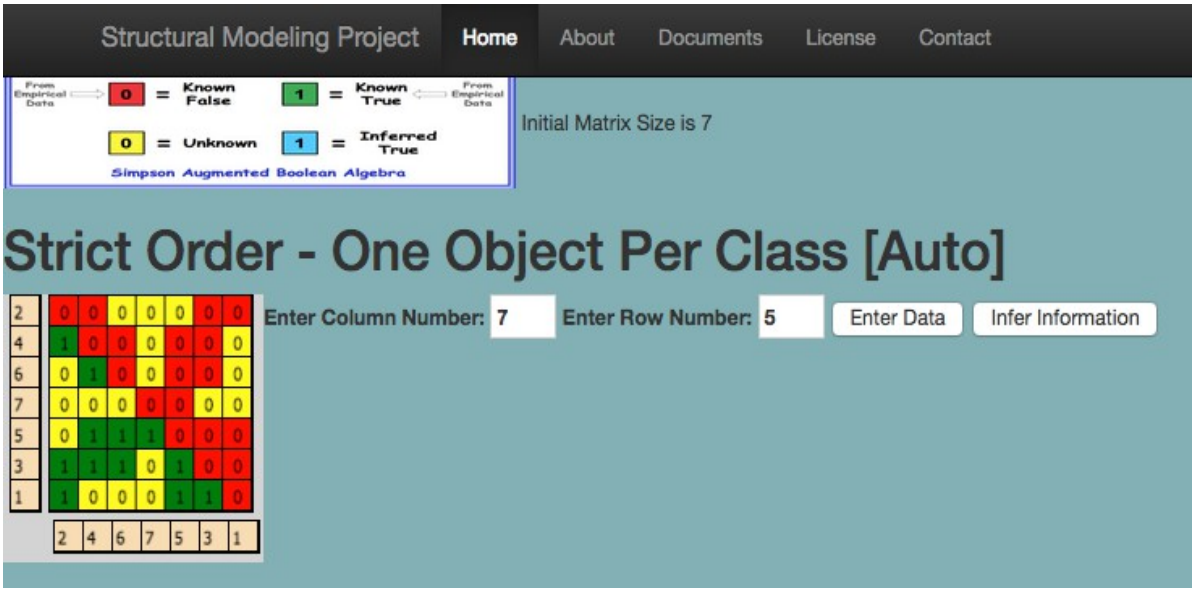
Step Thirty:
Is 3 heaver than 6? No (Do not enter anything in the application interface.)
Is 6 heaver than 3? Yes
Step Thirty One:
Enter the number 6 in the “Enter Column Number” text input box. Enter the number 3 in the “Enter Row Number” text input box.
Step Thirty Two:
Press the “Enter Data” button.



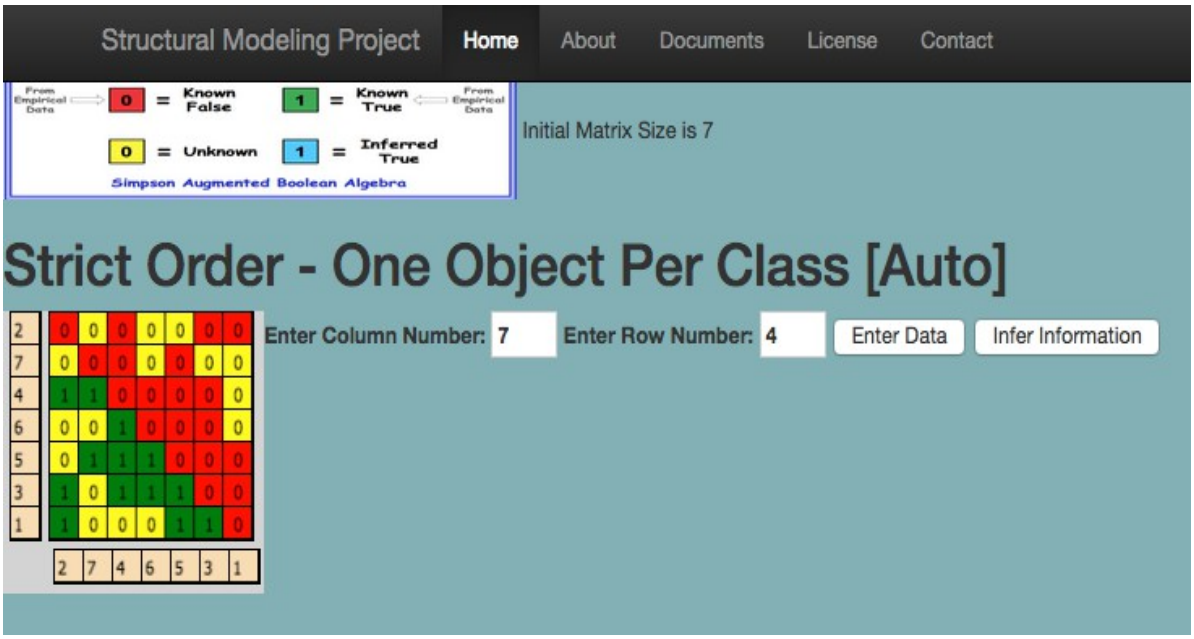
Step Thirty Three:
Is 5 heaver than 6? No (Do not enter anything in the application interface.)
Is 6 heaver than 5? Yes
Step Thirty Four:
Enter the number 6 in the “Enter Column Number” text input box. Enter the number 5 in the “Enter Row Number” text input box.
Step Thirty Five:
Press the “Enter Data” button.



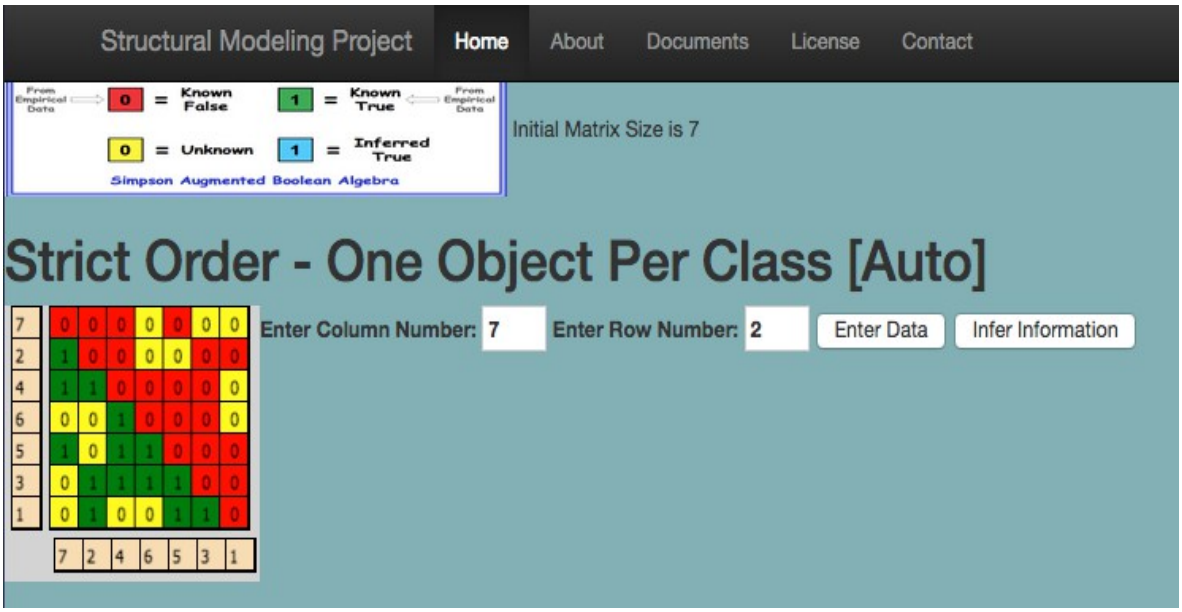
Step Thirty Six:
Is 6 heaver than 7? No (Do not enter anything in the application interface.)
Is 7 heaver than 5? Yes
Step Thirty Seven:
Enter the number 7 in the “Enter Column Number” text input box. Enter the number 5 in the “Enter Row Number” text input box.
Step Thirty Eight:
Press the “Enter Data” button.



Step Thirty Nine:
Is 7 heaver than 4? Yes
Step Forty:
Enter the number 7 in the “Enter Column Number” text input box. Enter the number 4 in the “Enter Row Number” text input box.
Step Forty One:
Press the “Enter Data” button.



Step Forty Two:
Is 2 heaver than 7? No (Do not enter anything in the application interface.)
Is 7 heaver than 2? Yes
Step Forty Three:
Enter the number 7 in the “Enter Column Number” text input box. Enter the number 2 in the “Enter Row Number” text input box.
Step Forty Four:
Press the “Enter Data” button.



Process Complete.