[DRAFT] Structural Modeling Project General Modeling Software Application [DRAFT]
Strict Order – One Or More Objects Per Class
10-25-2016

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 A2.4.1 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

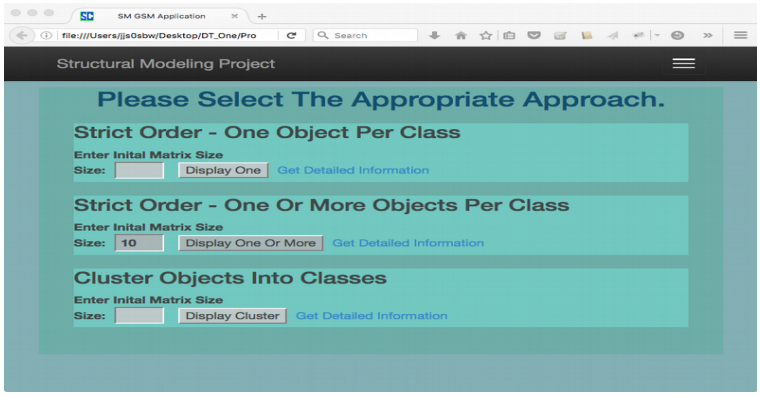
This problem, in Appendix 2, is associated with the DOPRIOR command of the GSM ISM software. In the example presented here, the Strict Order – One Or More Objects Per Class web application approach will be used to demonstrate the problem solution. The 'is of equal or higher priority' (IEHP) natural language system structuring relationship is used in this case. The priority of an object is determined in a manner that evaluates all objects of interest and presents a single thread of structure through the system graph. This is viewed as a global structuring relationship with the following logical properties:

- irreflexive
- asymmetric
- transitive.

Two objects can have the same priority, so one or more objects can populate a single priority class. There will be clusters where there are more than one object in a priority class.

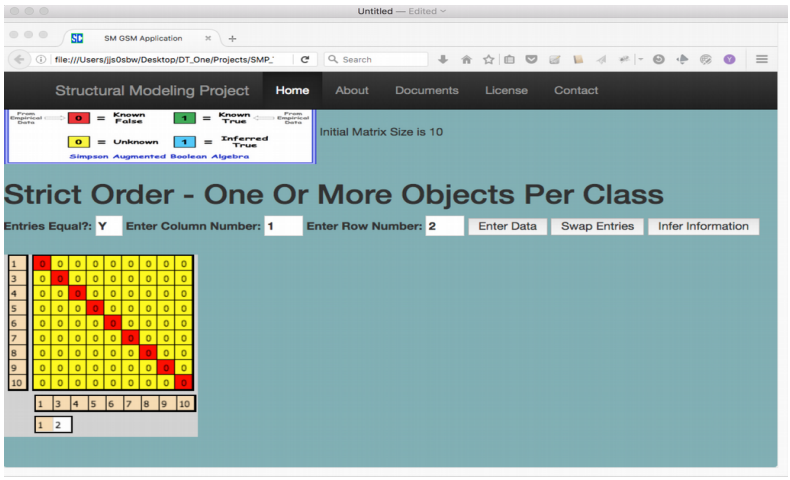
Step One:
Enter the number 10 into the size text box in the Strict Order – One Or More Objects Per Class section of the SM GSM Application.

Step Two:
Press the "Display One Or More" button.

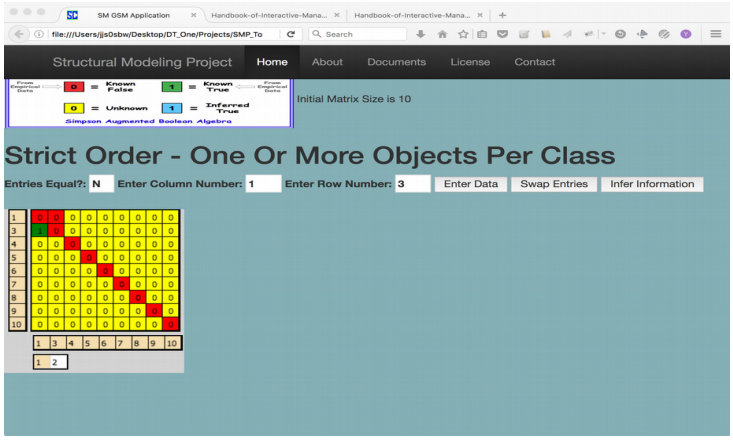


Step Three:
Begin to gather empirical information about the objects of interest. The empirical sampling proceeds in a structured fashion starting at the top with object one (1) and moving down through the objects of interest in a measured fashion. This is the manual algorithm approach.
Is 1 a higher priority than 2? No (Do not enter anything in the application interface.)
Is 1 the same priority as 2? Yes

Step Four:
Enter Y in the “Entries Equal?” text input box. Enter the number 1 in the “Enter Column Number” text input box. Enter the number 2 in the “Enter Row Number” text input box.
Step Five:
Press the “Enter Data” button.

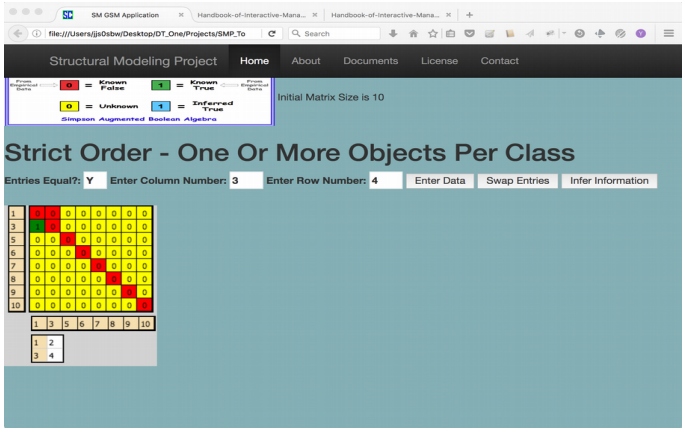


Step Six:
Is 1 a higher priority than 3? Yes
Step Seven:
Enter N in the “Entries Equal?” text input box. Enter the number 1 in the “Enter Column Number” text input box. Enter the number 3 in the “Enter Row Number” text input box.
Step Eight:
Press the “Enter Data” button.



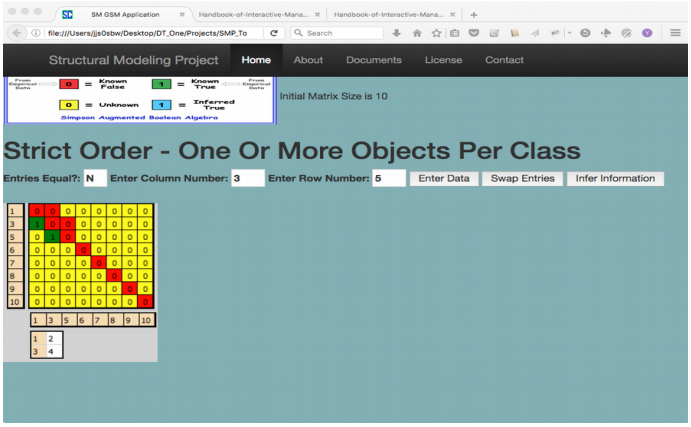
Step Nine:
Is 4 a higher priority than 1? No (Do not enter anything in the application interface.)
Is 4 the same priority as 1? No (Do not enter anything in the application interface.)
Is 3 a higher priority than 4? No (Do not enter anything in the application interface.)
Is 3 the same priority as 4? Yes
Step Ten:
Enter Y in the “Entries Equal?” text input box. Enter the number 3 in the “Enter Column Number” text input box. Enter the number 4 in the “Enter Row Number” text input box.

Step Eleven:
Press the “Enter Data” button.



Step Twelve:
Is 3 a higher priority than 5? Yes
Step Thirteen:
Enter N in the “Entries Equal?” text input box. Enter the number 3 in the “Enter Column Number” text input box. Enter the number 5 in the “Enter Row Number” text input box.

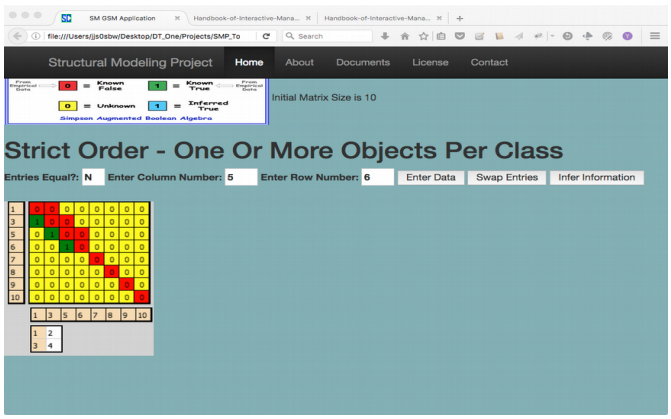
Step Fourteen:
Press the “Enter Data” button.



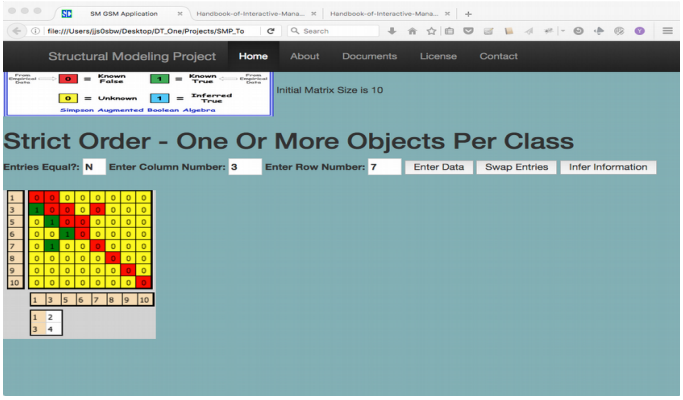
Step Fifteen:
Is 6 a higher priority than 3? No (Do not enter anything in the application interface.)
Is 6 the same priority as 3? No (Do not enter anything in the application interface.)
Is 5 a higher priority than 6? Yes

Step Sixteen:
Enter N in the “Entries Equal?” text input box. Enter the number 5 in the “Enter Column Number” text input box. Enter the number 6 in the “Enter Row Number” text input box.

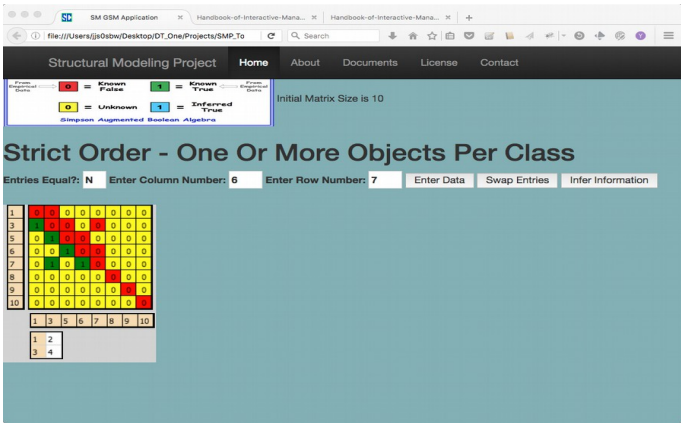
Step Seventeen:
Press the “Enter Data” button.



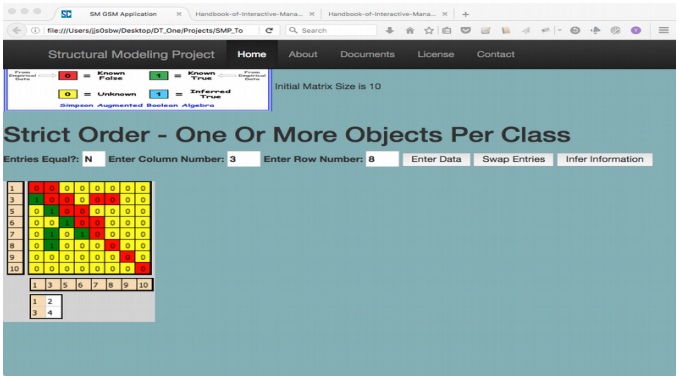
Step Eighteen:
Is 3 a higher priority than 7? Yes
Step Nineteen:
Enter N in the “Entries Equal?” text input box. Enter the number 3 in the “Enter Column Number” text input box. Enter the number 7 in the “Enter Row Number” text input box.
Step Twenty:
Press the “Enter Data” button.



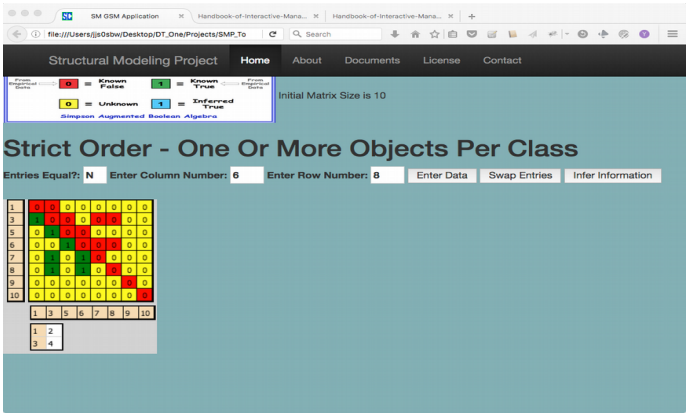
Step Twenty One:
Is 6 a higher priority than 7? Yes
Step Twenty Two:
Enter N in the “Entries Equal?” text input box. Enter the number 6 in the “Enter Column Number” text input box. Enter the number 7 in the “Enter Row Number” text input box.
Step Twenty Three:
Press the “Enter Data” button.



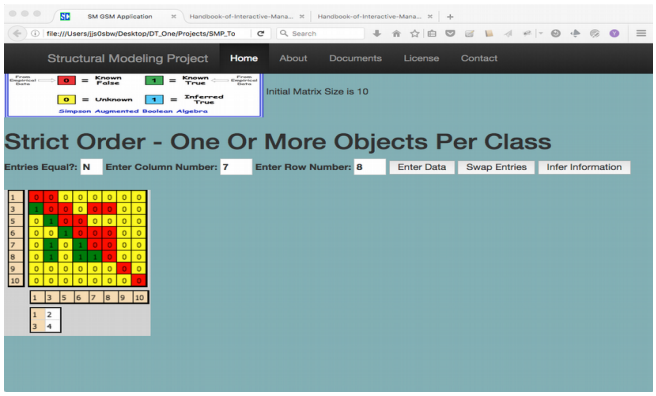
Step Twenty Four:
Is 3 a higher priority than 8? Yes
Step Twenty Five:
Enter N in the “Entries Equal?” text input box. Enter the number 3 in the “Enter Column Number” text input box. Enter the number 8 in the “Enter Row Number” text input box.
Step Twenty Six:
Press the “Enter Data” button.



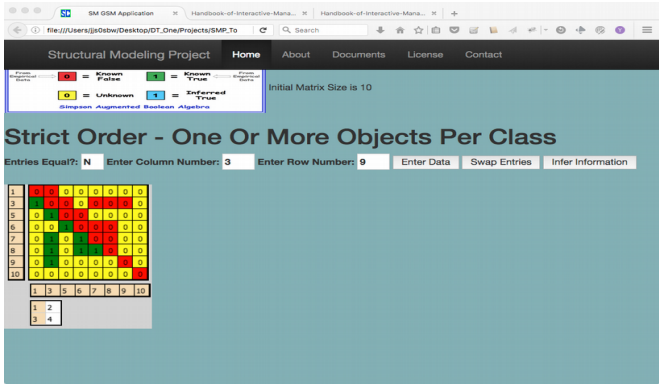
Step Twenty Seven:
Is 6 a higher priority than 8? Yes
Step Twenty Eight:
Enter N in the “Entries Equal?” text input box. Enter the number 6 in the “Enter Column Number” text input box. Enter the number 8 in the “Enter Row Number” text input box.
Step Twenty Nine:
Press the “Enter Data” button.



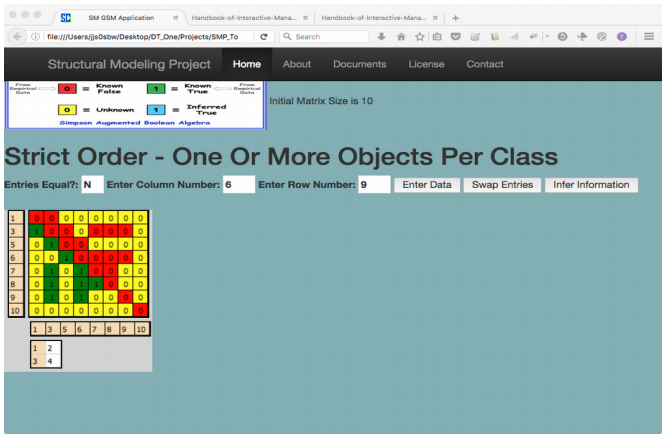
Step Thirty:
Is 7 a higher priority than 8? Yes
Step Thirty One:
Enter N in the “Entries Equal?” text input box. Enter the number 7 in the “Enter Column Number” text input box. Enter the number 8 in the “Enter Row Number” text input box.
Step Thirty Two:
Press the “Enter Data” button.



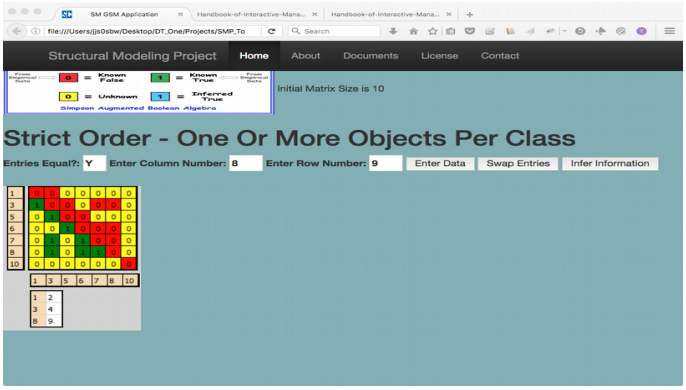
Step Thirty Three:
Is 3 a higher priority than 9? Yes
Step Thirty Four:
Enter N in the “Entries Equal?” text input box. Enter the number 3 in the “Enter Column Number” text input box. Enter the number 9 in the “Enter Row Number” text input box.
Step Thirty Five:
Press the “Enter Data” button.



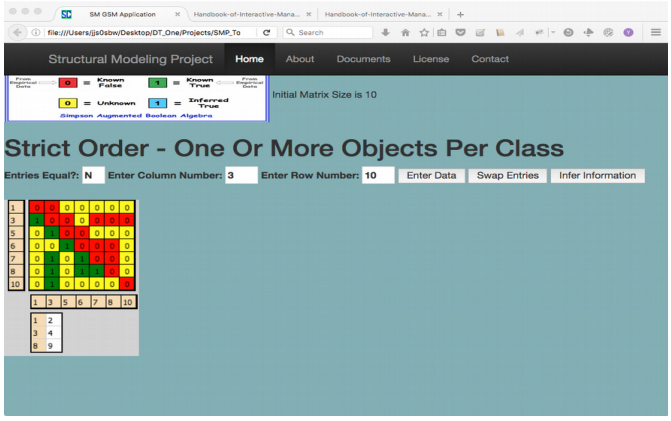
Step Thirty Six:
Is 6 a higher priority than 9? Yes
Step Thirty Seven:
Enter N in the “Entries Equal?” text input box. Enter the number 6 in the “Enter Column Number” text input box. Enter the number 9 in the “Enter Row Number” text input box.
Step Thirty Eight:
Press the “Enter Data” button.



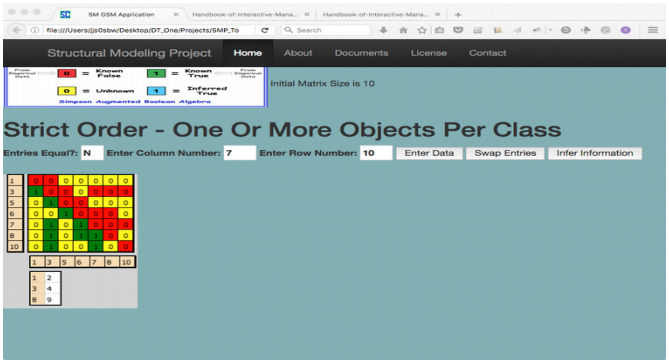
Step Thirty Nine:
Is 8 a higher priority than 9? No (Do not enter anything in the application interface.)
Is 8 the same priority as 9? Yes
Step Forty:
Enter Y in the “Entries Equal?” text input box. Enter the number 8 in the “Enter Column Number” text input box. Enter the number 9 in the “Enter Row Number” text input box.
Step Forty One:
Press the “Enter Data” button.



Step Forty Two:
Is 3 a higher priority than 10? Yes
Step Forty Three:
Enter N in the “Entries Equal?” text input box. Enter the number 3 in the “Enter Column Number” text input box. Enter the number 10 in the “Enter Row Number” text input box.
Step Forty Four:
Press the “Enter Data” button.



Step Forty Six:
Is 7 a higher priority than 10? Yes
Step Forty Seven:
Enter N in the “Entries Equal?” text input box. Enter the number 7 in the “Enter Column Number” text input box. Enter the number 10 in the “Enter Row Number” text input box.
Step Forty Eight:
Press the “Enter Data” button.



Step Forty Nine:
Is 8 a higher priority than 10? Yes
Step Fifty:
Enter N in the “Entries Equal?” text input box. Enter the number 8 in the “Enter Column Number” text input box. Enter the number 10 in the “Enter Row Number” text input box.
Step Fifty One:
Press the “Enter Data” button.

Process Complete.