

Structural Modeling Project Agenda
07-01-2017

Introductions:

New web site (pre-alpha):

– <https://conceptsystem.us>

– List of System Concepts Technical Reports:

<https://conceptsystem.us/papers/reports/reports.html>

New Google Group email list: structural-modeling@googlegroups.com

Current Activity Overview:

The July Read Ahead:

Technical Report, SC_TR_0010: Technical Report SC_TR_0010 Structural Modeling Project - Overview

The July document provides an overview of the Structural Modeling Project to date. Common themes are discussed and evaluated.

Looking for team participation in the next few months as these attributes are evaluated and reduced to structured graphic and mathematical forms. Then, in the fall, looking for an opportunity to apply these techniques in a real group problem solving situation.

Structural Modeling Project Agenda
05-06-2017

Introductions:

New Google Group email list: structural-modeling@googlegroups.com

Current Activity Overview:

The May Read Ahead:

Technical Report, SC_TR_008 Application Structural Types and Their Attributes.

https://www.researchgate.net/publication/316277345_Technical_Report_SC_TR_0008_Application_Structural_Types_and_Their_Attributes

The May document provides an overview of Application Structural Types. Common attributes are discussed and evaluated.

Looking for team participation in the next few months as these attributes are evaluated and reduced to structured graphic and mathematical forms. Then, in the fall, looking for an opportunity to apply these techniques in a real group problem solving situation.

Structural Modeling Project Agenda
04-01-2017

Introductions:

New Google Group email list: structural-modeling@googlegroups.com

Current Activity Overview:

Conference on Systems Engineering Research 2017, paper comments.

April Technical Report will be posted before the meeting.

Topic Implication Matrix development and application.

- Scanning Method (Warfield)
- Coupling Method (Warfield)
- Dynamic Object Insertion Method (Simpson)

Main issues are how to start and initialize the first matrix set.

The transitive bordering and the iterative bordering methods appear to have issues.

The Dynamic Object Insertion Method was developed to address or by-pass some of these issues.

The Dynamic Object Insertion method is viewed as the third, and maybe last, of the basic system structuring methods. These three methods are, 1) Strict Order (one object per class), 2) Clustering (group objects of the same class), 3) Dynamic Object Insertion (adapt system structure in an iterative fashion.)

Structural Modeling Project Agenda
03-04-2017

Introductions:

New Google Group email list: structural-modeling@googlegroups.com

Current Activity Overview:

March 2017 Read Ahead document available at:

https://www.researchgate.net/publication/313859387_Technical_Report_SC_TR_0006-Detailed_Matrix_Analysis_The_Inclusion_Subordination_and_Adjacency_Matrices

February 2017 Read Ahead document available at:

https://www.researchgate.net/publication/313006165_Technical_Report_SC_TR_0005_The_Enhanced_Reachability_Matrix

January 2017 Read Ahead document available at:

https://www.researchgate.net/publication/311984805_Structural_Integration_Modeling_Strengthening_the_Foundations_of_Systems_Science_and_Systems_Engineering_-_Technical_Report_SC_TR_0004

February 2017 Read Ahead document available at:

https://www.researchgate.net/publication/313006165_Technical_Report_SC_TR_0005_The_Enhanced_Reachability_Matrix

Analysis of sagemath and jupyter notebooks to support static and interactive publications.

Sagemath link:

<http://www.sagemath.org/>

Jupyter notebooks link:

<http://jupyter.org/>

Review of open actions:

Structural Modeling Project Agenda

02-04-2017

Introductions:

New Google Group email list: structural-modeling@googlegroups.com

Current Activity Overview:

January 2017 Read Ahead document available at:

https://www.researchgate.net/publication/311984805_Structural_Integration_Modeling_Strengthening_the_Foundations_of_Systems_Science_and_Systems_Engineering_--_Technical_Report_SC_TR_0004

February 2017 Read Ahead document available at:

https://www.researchgate.net/publication/313006165_Technical_Report_SC_TR_0005_The_Enhanced_Reachability_Matrix

Software Requirements:

Software Evaluation Techniques:

The software has three basic configurations..

- [C1] -Non-automated algorithm development configuration. (all logical analysis completed by user)
- [C2] Semi-automated algorithm implementation configuration.
(the matrix row-column swapping function is automated all other operations are manual)
- [C3] Fully automated algorithm implementation configuration.
(the software system asks for specific information - the user enters the information.)

Future Activities:

- Further develop the concepts of global, local and relationship precision. (in work)
- Organize application structural types into primary and compound. (done)

- Map primary application structural types to mathematical structural types. (in work)
- Map SMP software commands to the mathematical structural types. (to do)
- Explore any missing mathematical structural types needed to fully support all application structural types. (to do)
- Work definition of inclusion matrix, subordination matrix, adjacency matrix and implication matrix. Some of this work will be included in the March Read Ahead document. The remainder of the work, not in the March document will be placed in the April Read Ahead document. (in work)

Structural Modeling Project Agenda

01-07-2017

Introductions:

Current Activity Overview:

- Software Project (main development in progress)
- SeaGL software version (first cut complete)
- smp_phase_one software version (first cut complete)
- Administrative changes: new google group list – main list of record
structural-modeling@googlegroups.com

Future Activities:

- Further develop the concepts of global, local and relationship precision. (in work)
- Organize application structural types into primary and compound. (in work)
- Map primary application structural types to mathematical structural types. (in work)
- Map SMP software commands to the mathematical structural types. (to do)
- Explore any missing mathematical structural types needed to fully support all application structural types. (to do)

Structural Modeling Project Agenda

12-03-2016

Introductions:

Current Activity Overview:

- Software Project
- SeaGL software version
- smp_phase_one software version

Future Activities:

- Further develop the concepts of global, local and relationship precision.
- Organize application structural types into primary and compound.
- Map primary application structural types to mathematical structural types.
- Map SMP software commands to the mathematical structural types.
- Explore any missing mathematical structural types needed to fully support all application

structural types.

Other Topics?