



Astah GSN ご紹介



2014/3/18
チェンジビジョン
平鍋健児
岩永 寿来



- UMLを中心に、ERD、マインドマップなどソフトウェア設計を支援



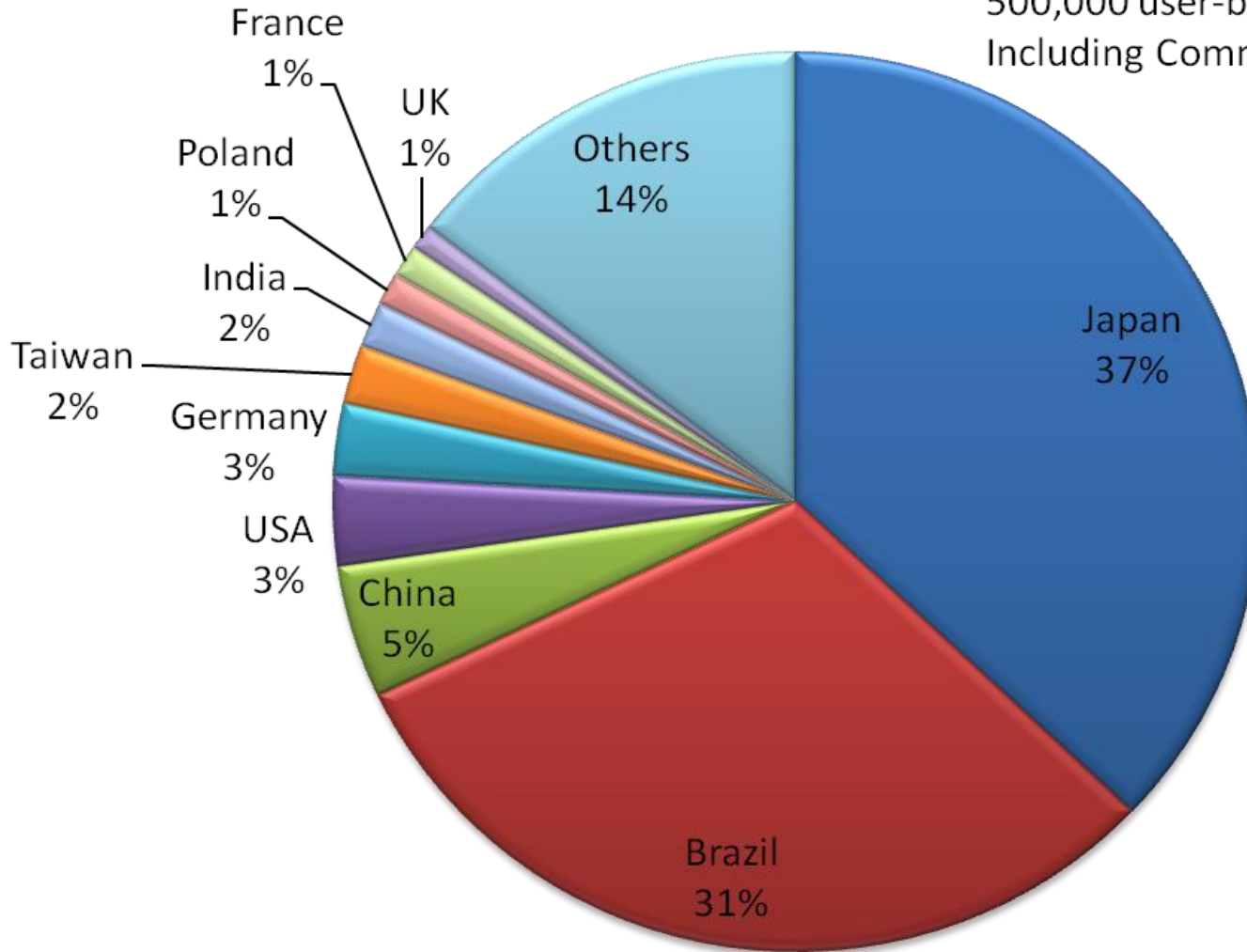
- 昨年発表の新エディション。組込み系、自動車、軍事、スマートハウスなど、メカ・エレキ・ソフトを広くモデリング。



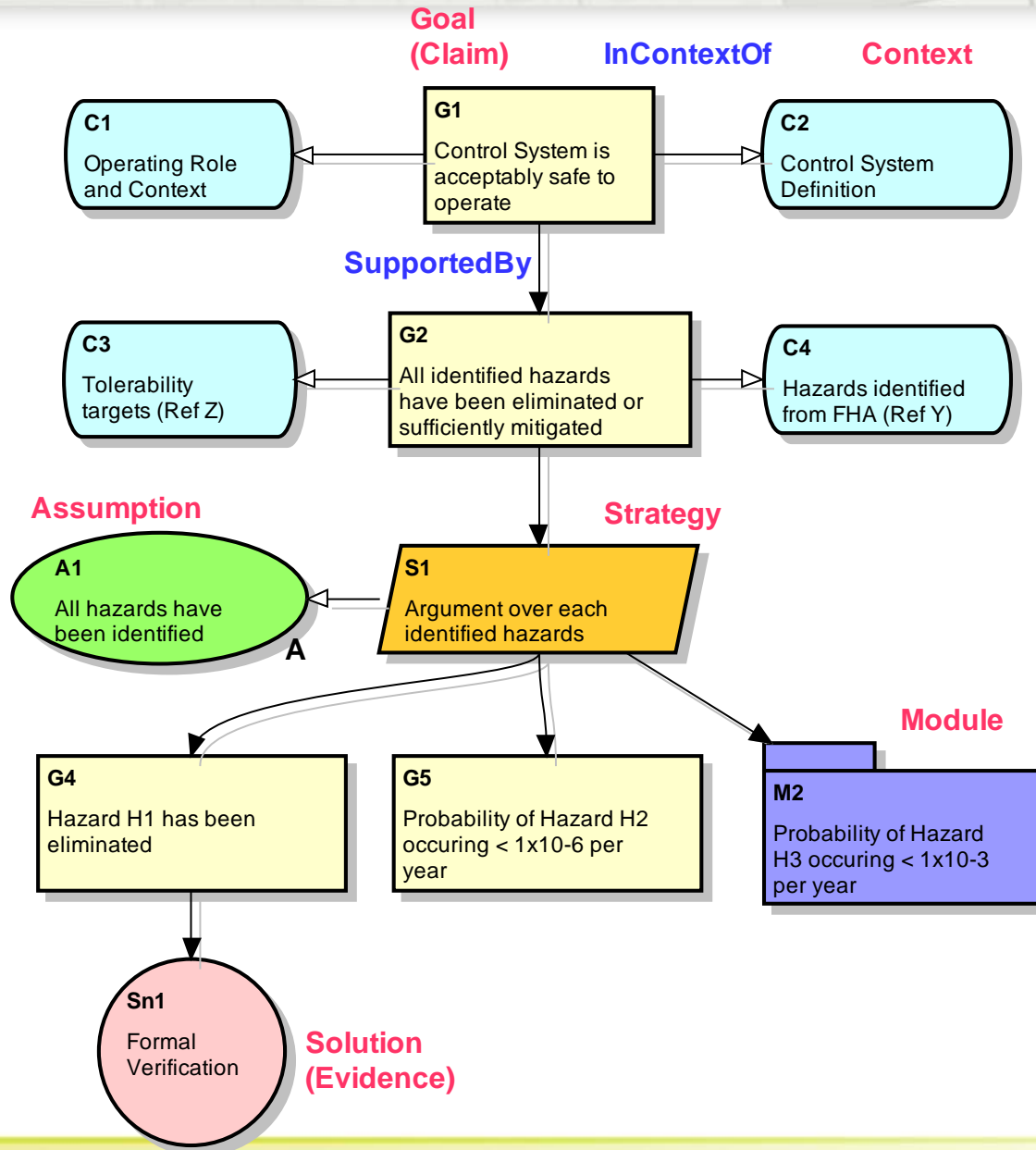
- 昨年発表の新エディション(β)。航空、自動車、鉄道など安全性を保証する「セーフティケース」のグラフィカルな記述(GSN)

ChangeVision Members by Country

500,000 user-base
Including Community Edition



Example GSN(and Legend)



- “GSN COMMUNITY STANDARD V1” に準拠。
- マルチプラットフォーム
 - Mac/Linux/Win
- “Yorkish” スタイルのダイアグラム。
- モジュール対応
- ユーザビリティにフォーカス
 - サジェスト機能、整列機能
- Office (Word/Excel/PowerPoint) フレンドリ
 - コピーペースト、メタファイル
- OMG “SACM” XMI import/export
- マインドマップからのD&D
- 他ファイルをD&Dしてハイパーリンク

Structure

- gsn-sample-omg
 - SysML
 - GSN sample**
 - G1
 - G2
 - G3
 - G4
 - G5
 - G6
 - G7
 - G8
 - S1

Base TaggedValue

Namespace

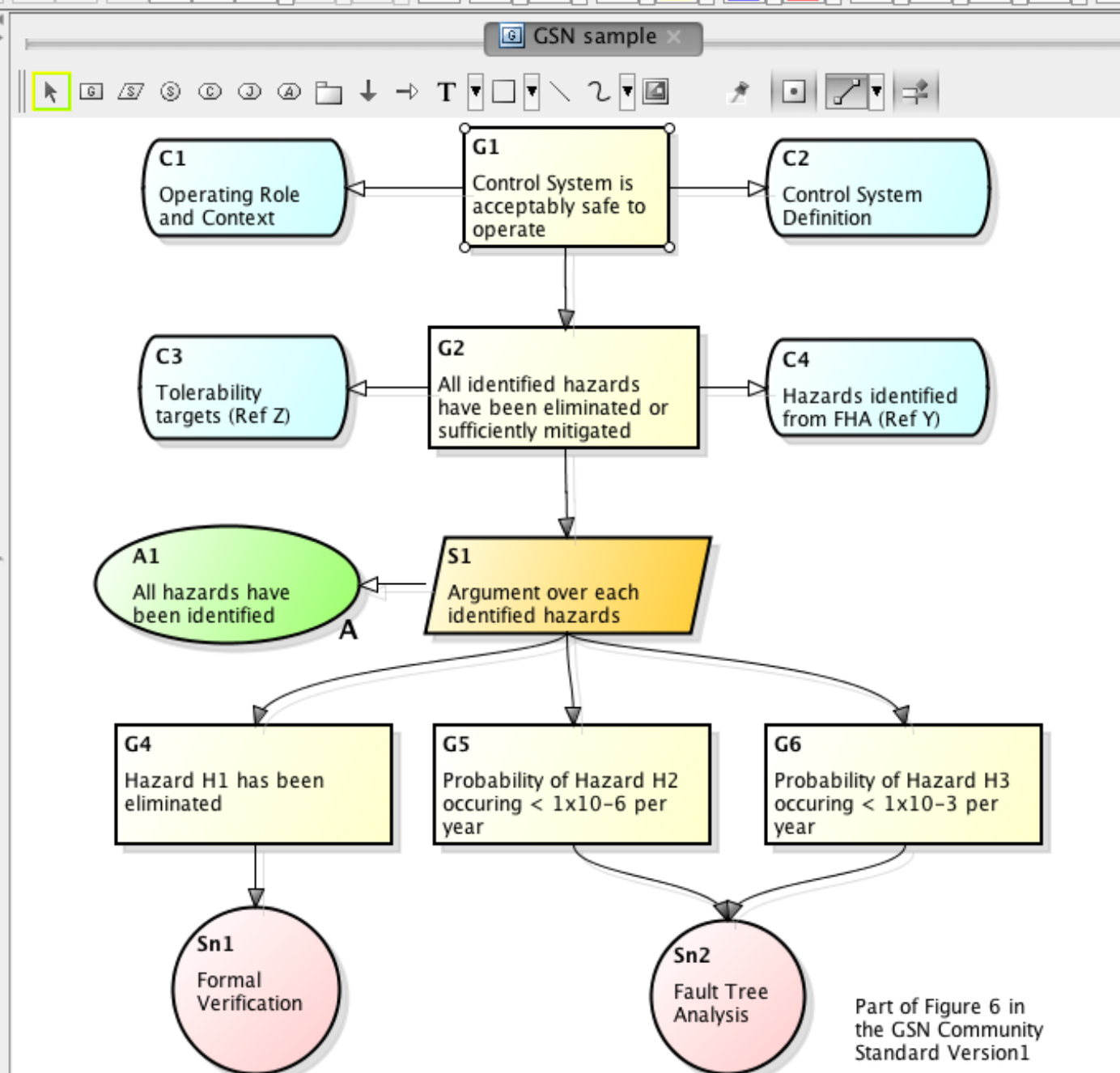
ID

Undeveloped

Public

Statement

Control System is acceptably safe to operate

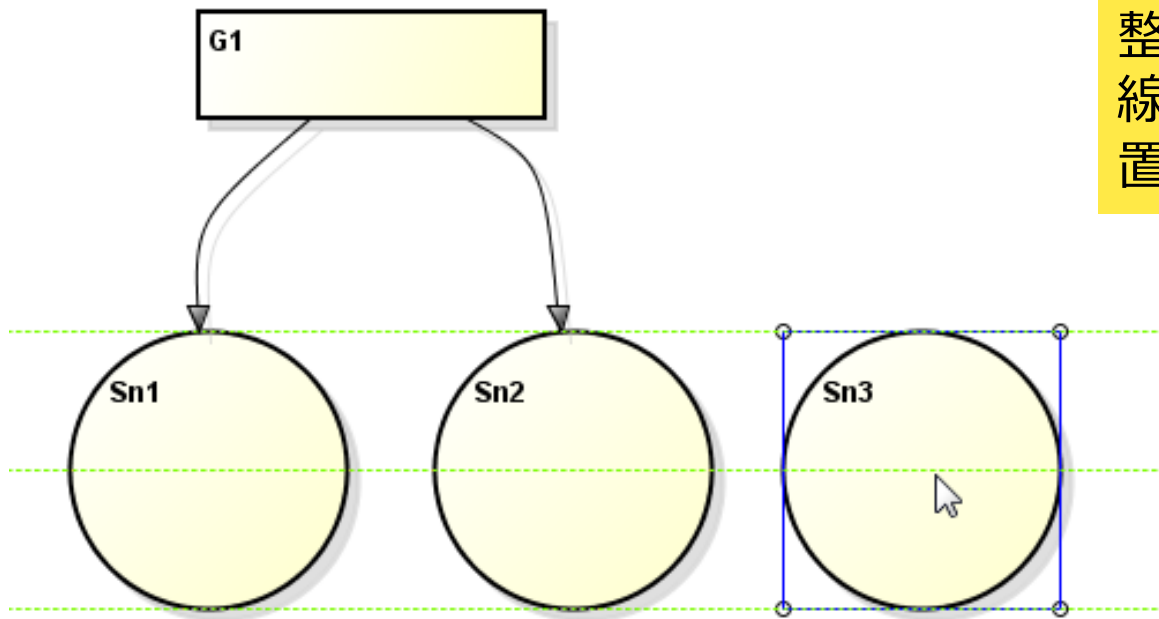


Part of Figure 6 in the GSN Community Standard Version1

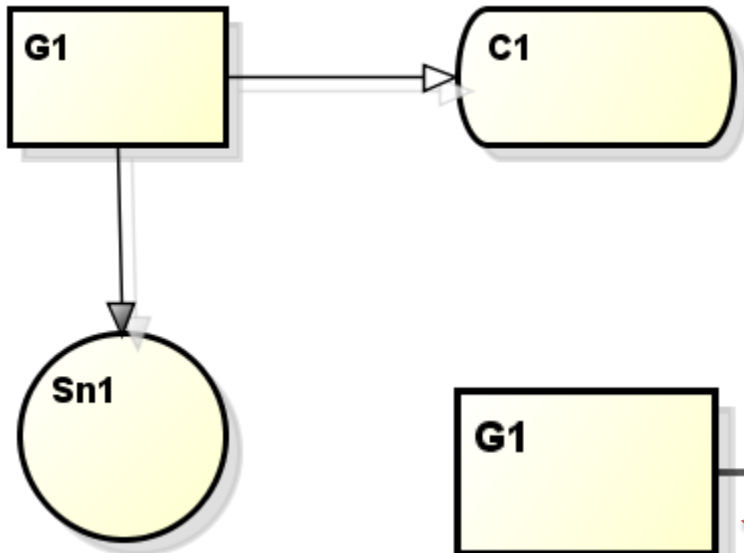


Demo



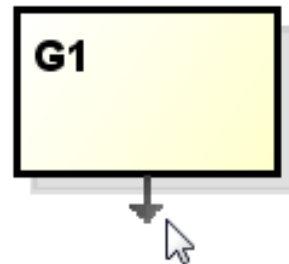


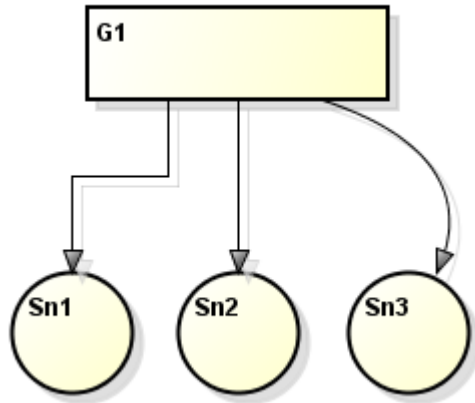
整列ガイド（緑の点線）で、図要素の位置揃えが簡単に



ユーザーが気持ちよく作図できるように、
 細かな配慮を適用したサジェスト機能

- Goalの左右からはInContextOf
- Goalの上下からはSupportedBy

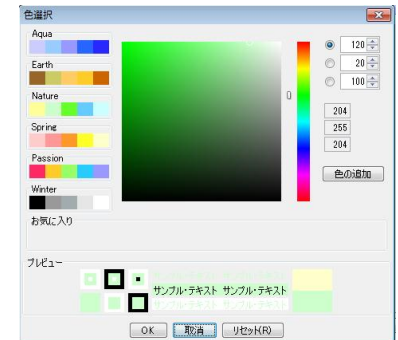
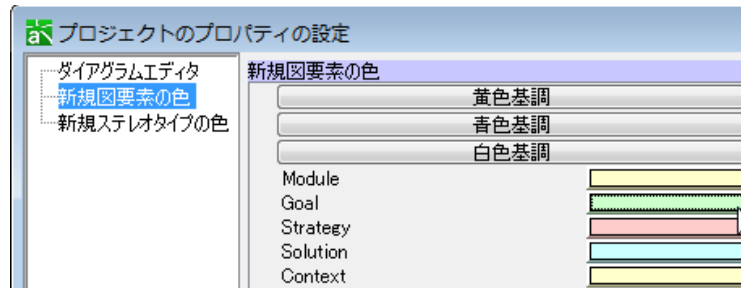
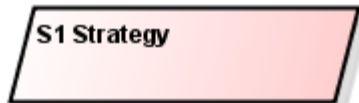




直角、曲線、直線など、さまざまな線種を用意

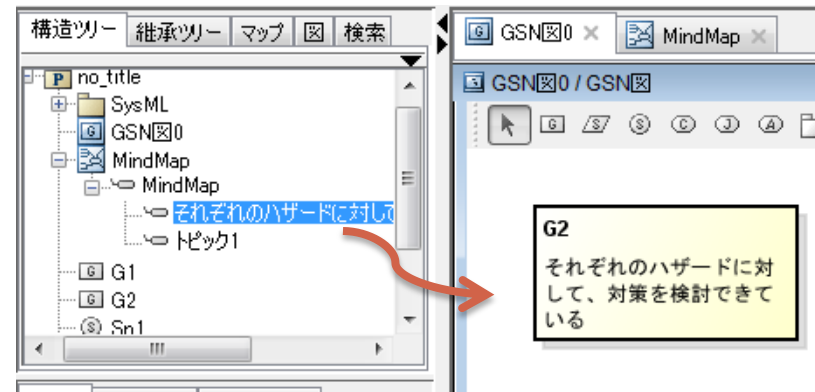
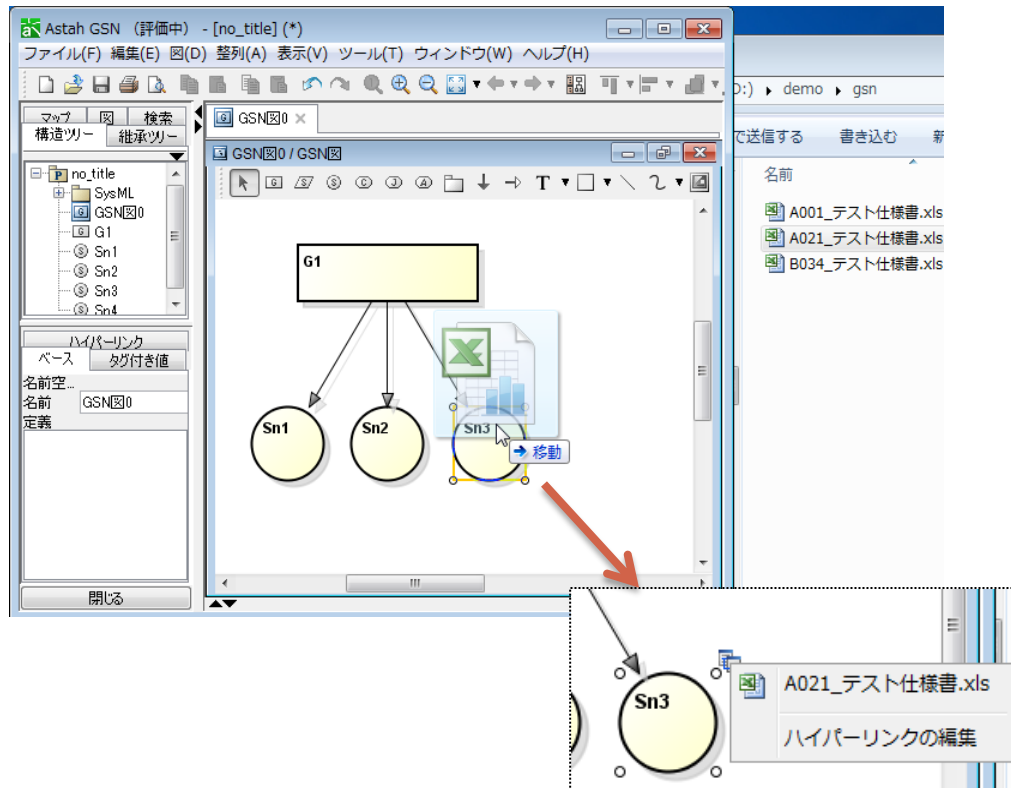


Goal, Strategyなど要素毎にデフォルトの色を指定できる



Excel, Wordなどのファイルを
ドラッグ&ドロップで、モデルと
リンク付けできる

マインドマップのノードを、ド
ラッグ&ドロップで、GSNの図要
素に変換



マインドマップでGoalやStrategyなどを洗
い出してから、DnDでGSNの要素に変換

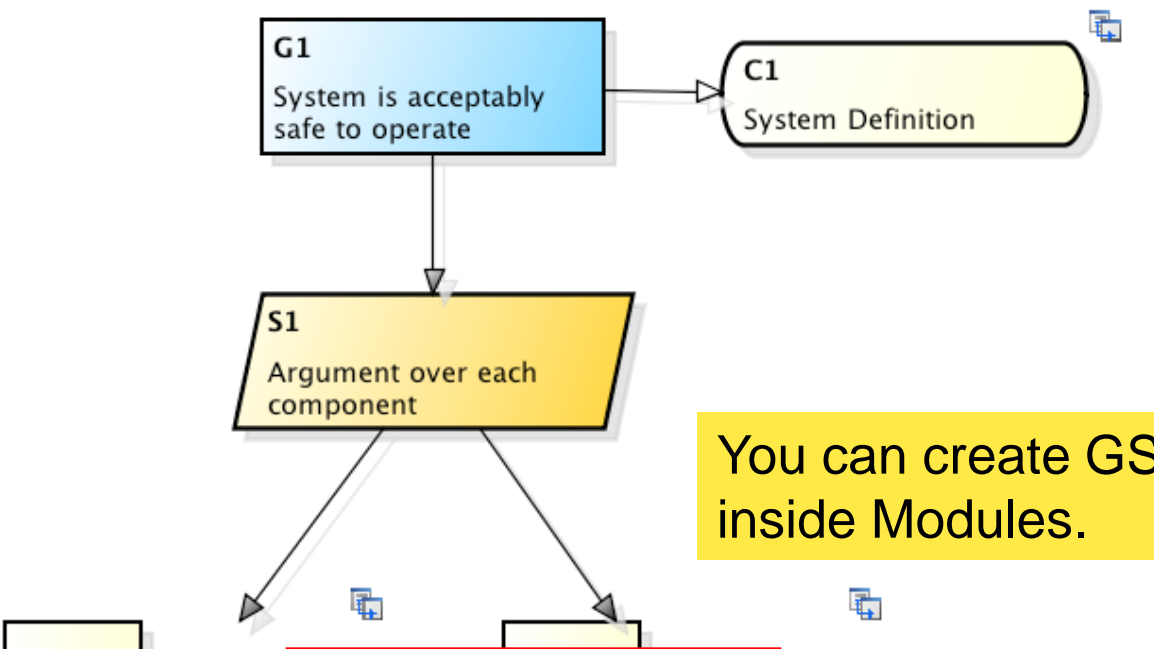
Solutionモデルにテスト結果の
ExcelファイルへのリンクをDnDで
作成

Astah GSN - [/Users/okamura/Desktop/OMG/demo-omg/Astah-GSN-Demo.agml]

Structure

- Astah-GSN-Demo
 - 00_Safety Cases
 - Demo System
 - Control module
 - Robot Module
 - System Safety
 - G1
 - S1
 - C1
 - 01_Requirements
 - 02_Analysis
 - 11_Structure
 - 12_Behavior
 - 21_Design
 - RTC
 - SysML
 - SysML Model Overview
 - SysML Model Overview

System Safety



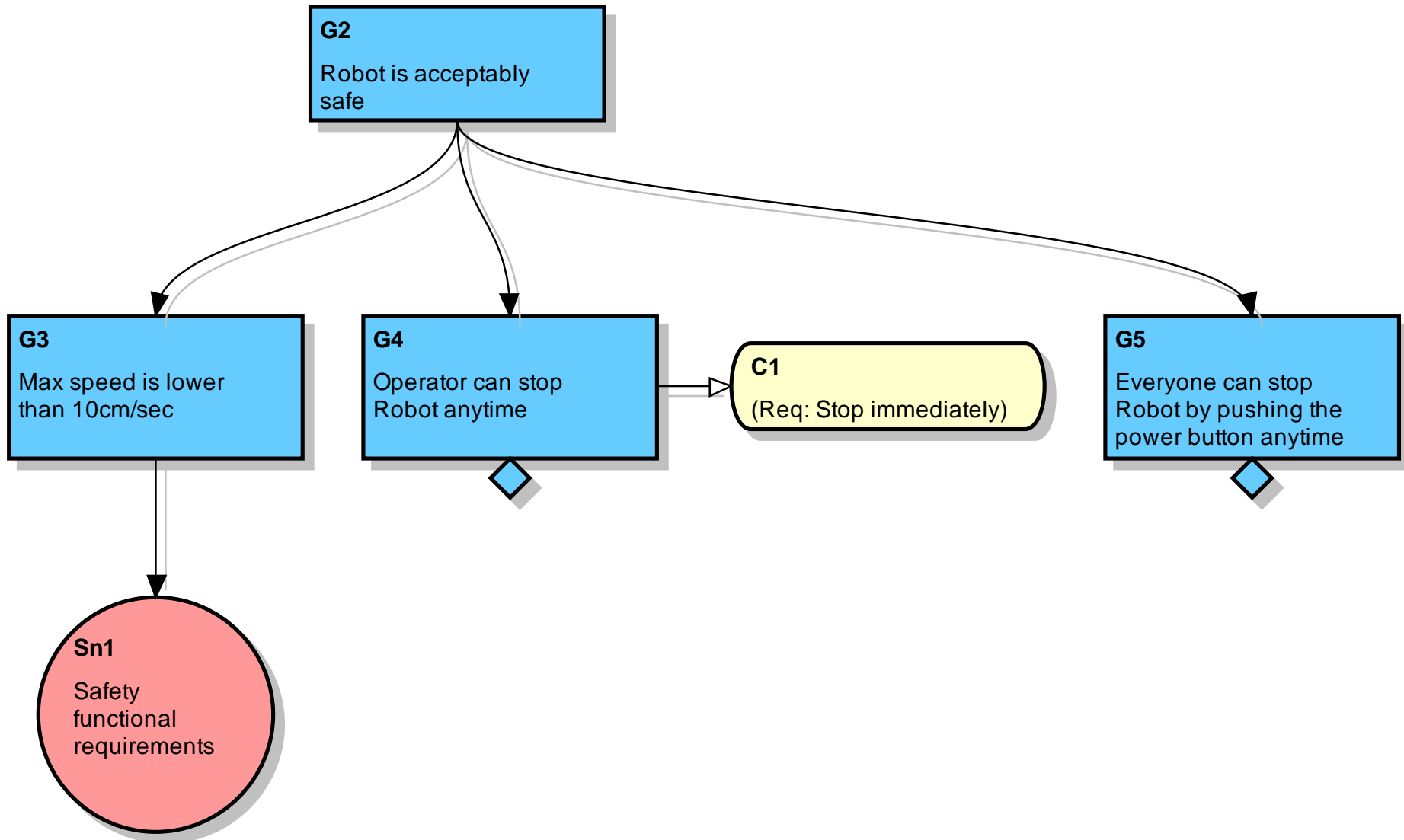
You can create GSN inside Modules.

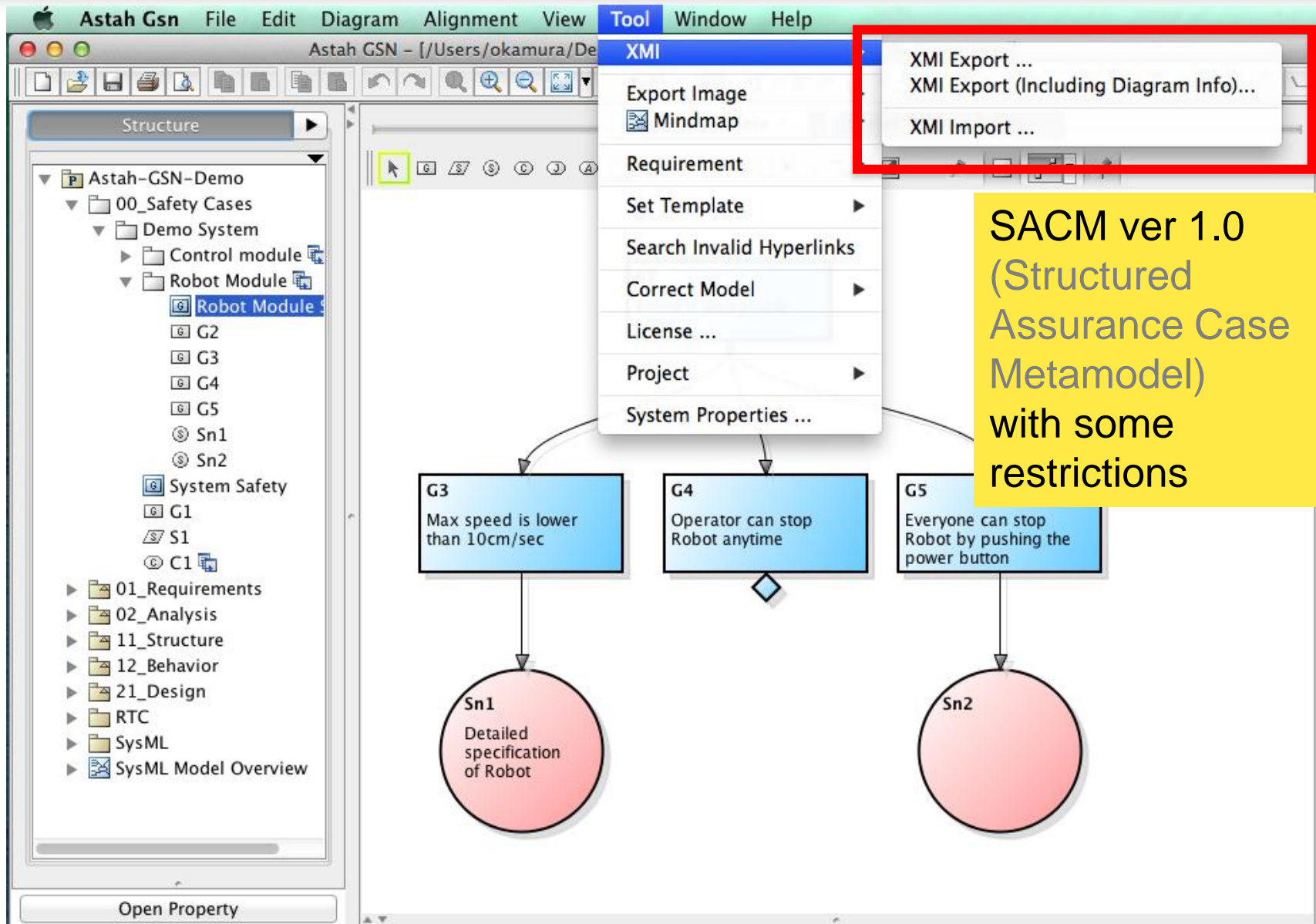
Robot Module
Robot is acceptably safe

Create GSN Diagram

- Delete from Model ⌘D
- Delete from Diagram Delete
- Copy ⌘C
- Copy to Clipboard

Open Property





The screenshot shows the Astah GSN interface with the 'Tool' menu open. The 'XMI' sub-menu is highlighted, containing 'XMI Export ...', 'XMI Export (Including Diagram Info)...', and 'XMI Import ...'. A red box highlights this sub-menu. Below the menu, a SysML diagram is visible, showing a hierarchy of requirements: G3 (Max speed is lower than 10cm/sec) and G5 (Everyone can stop Robot by pushing the power button) are linked to Sn1 (Detailed specification of Robot) and Sn2 respectively. G4 (Operator can stop Robot anytime) is also shown with a diamond symbol below it.

SACM ver 1.0
(Structured Assurance Case Metamodel)
with some restrictions

Diagrams

GSN Diagram

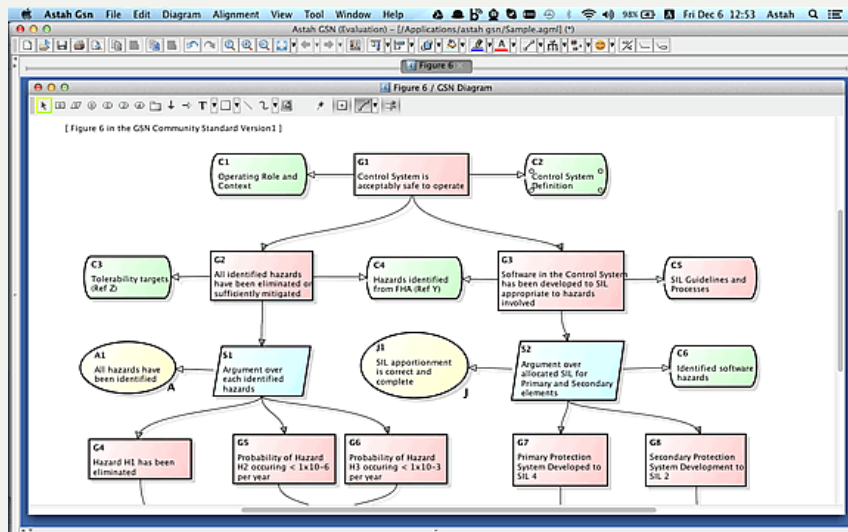
Input-Output

Printing, Print options, Print Preview
Exporting to JPEG, PNG, EMF, SVG files
Exporting Mind Map to PowerPoint

NOTE

Astah GSN is currently in its alpha release, diagrams and features may be changed without notice. Any file created with Astah GSN alpha may not be compatible with future releases.

System Requirements



GSN (Goal Structuring Notation) is a graphical notation developed at the University of York for specifying safety cases for safety critical systems. Several standards such as ISO26262 (Automotive E/E systems) and IEC62278 (Railway) mandate the use of safety cases and GSN supports their argumentation structures and its relation to evidences in a comprehensible yet compelling form.

*Astah GSN was made in collaboration with AIST

alphaリリース無償公開中。
初回起動後、最長20日間は無償で評価利用できます。
さらに、評価延長も可能です。

<http://astah.net/editions/gsn>

