Visio to CSIM
Import / Export Utility
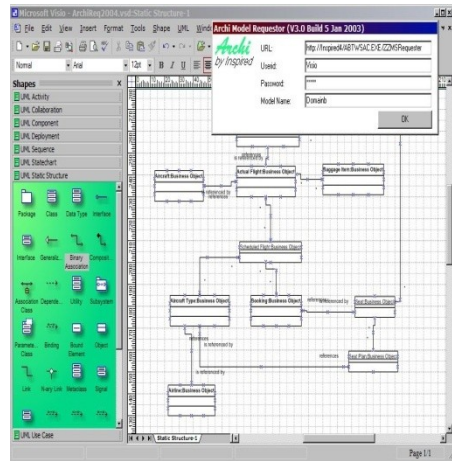
Initial Beta Capability
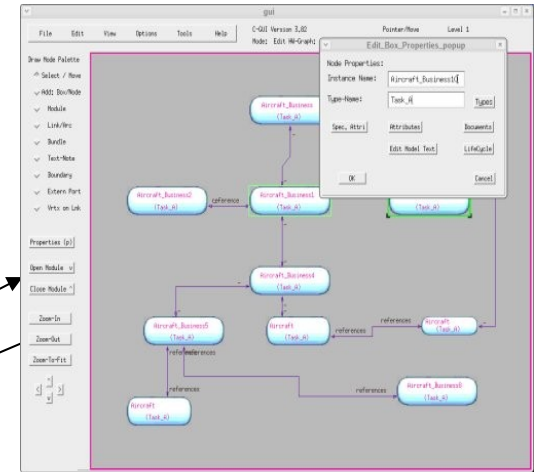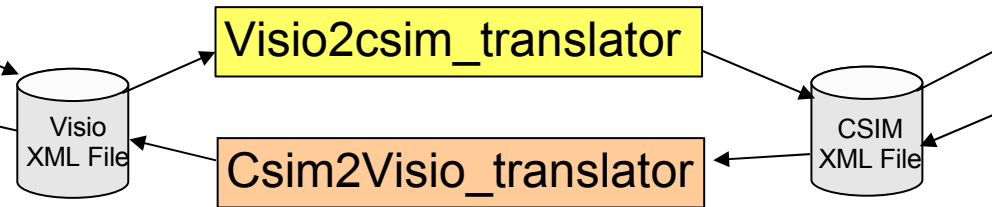
May 23, 2011

Y.P.
C.S.

Scope, Purpose, Goals

· **Some users are already familiar with Visio diagram editor**
   · Convenient for entering & editing work-flow & task diagrams
   · Some number of Visio diagrams already exist
   · Visio diagrams cannot be simulated (directly)

· **CSIM contains a diagram editor, but no familiar to all users**
   · CSIM diagrams can be directly simulated

· **Task: Create a Visio-to-CSIM translator**
   · Both Visio and CSIM use XML, but different structures

· **Translator enables Visio diagrams to be simulated**
   · Users may maintain/adjust diagrams in Visio or CSIM

· **Through automatic scripts or GUI, translation process will
   eventually become transparent + seamless**

Visio to CSIM Import / Export

• **Two Translator Tools Constructed**

Visio GUI

Visio2csim_translator

Csim2Visio_translator

Visio XML File

CSIM XML File

CSIM GUI

Status:

1. Created two translators, for bi-directional conversion.
   - Status: Beta - Operational
   - Converts roughly 98% of diagram data
   - Preserves diagram names, box names, attributes, diagram layouts
   - Converts all diagrams w/hierarchy contained in given file
   - Some attributes need to be added to diagram for simulation

2. Converts Visio diagrams to CSIM format and Vice Versa

3. Translators are fairly general purpose,
   but may require adaptation for new box shapes

Usage:

1. The Visio2CSIM diagram converter tool is presently distributed as source under the *csim/tools/source_code* directory.   (as of CSIM v3.90)

2. Unzip the *visio2csim.zip*   file.

3. Go into the unpacked directory and run *make*
    (This compiles the two tools for your platform.)

4. Access the tools as described in the following pages.

Note: Future versions will be more turn-key.
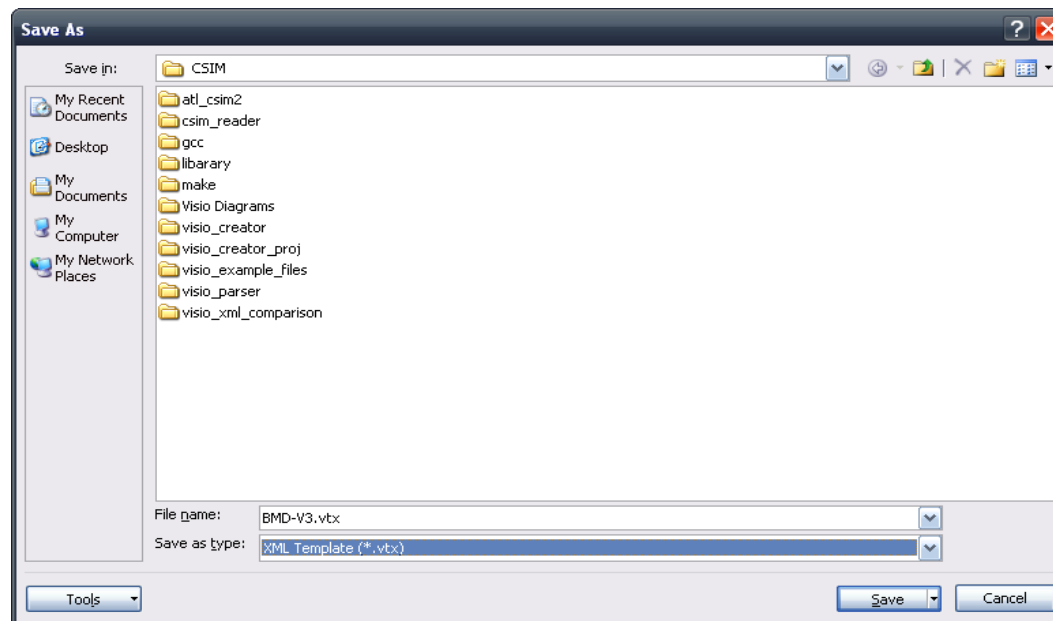   This initial beta version is primarily intended for advanced users.

Visio Diagram Export + Translate Procedure

1. Open a *.vsd* file in Visio
2. Save as *inputfile.vtx* file
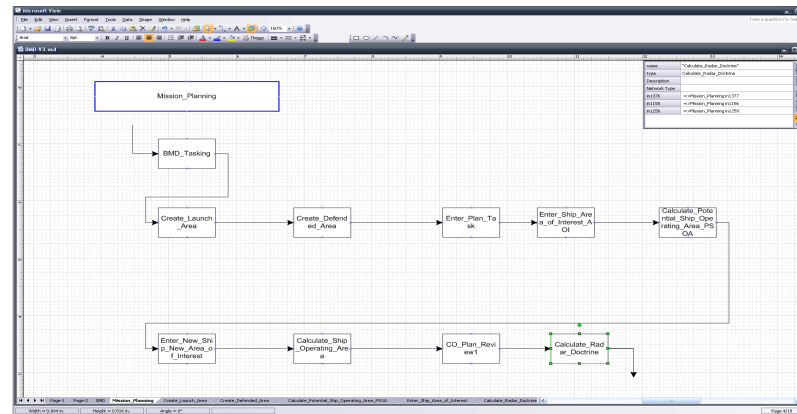   (Which is XML format.)
3. On a command prompt, type

   visio_parser.exe   inputfilename.vtx   outputfilename.sim

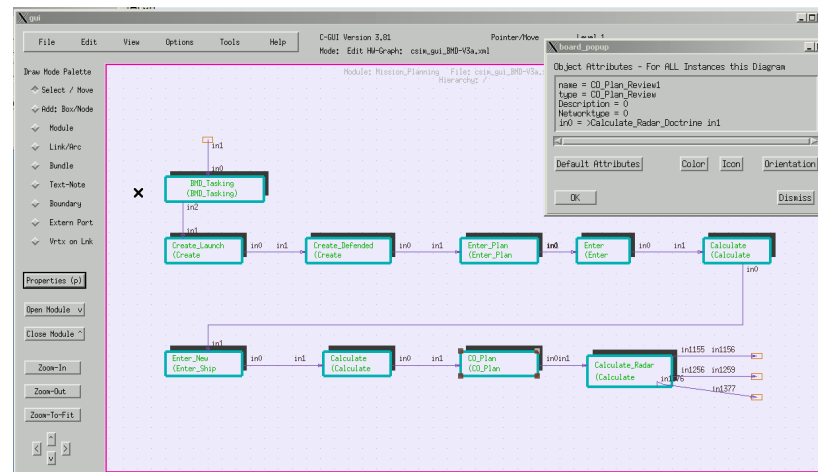   The *inputfilename.vtx* corresponds to the file from step 2.
   The *outputfilename.sim* file will be created as the program is executed.

Examples

Visio

CSIM GUI

Example

- **Forward Conversion: Import to CSIM**
   1. Open existing Visio diagram file (.vsd) in Visio
   2. Save diagram as (.vtx)
   3. Run *Visio2CSIM* translator on .vtx file to create .sim file
   4. Open new .sim file in CSIM-GUI.
   5. See how attributes + hierarchy were imported.
       Diagrams can now be altered.

- **Reverse Conversion: Export to Visio**
   1. Save modified diagram from CSIM-GUI
   2. Run CSIM2Visio converter.
   – Open in *.vtx* Visio

Present Status & Remaining Issues

- **Initial basic Visio Import/Export Translator created & demonstrated**

- **Connector routing**
  - The connector (link) is currently drawn *point-to-point* using simple algorithm. Can be adjusted manually in diagram editor after translation.

- **Generic task font size**
  - The font size of the generic task needs to be reduced.

- **Link attribute**
  - Link attributes still needs to be read in.
  - Attributes appearing in Visio as In/Out should appear in CSIM as Link Attributes rather than task-node attributes.

- **Some attributes may need to be added/adjusted for simulation**

- **Clean up code**
  - The code will be cleaned up using more function calls.

Future Tasks + Capabilities

· Finalize translators, based on remaining issues and test-feedback

· Add Translator GUI or script(s) – to make it easy (one mouse-click)