iness
INtegrated European Signalling System

INESS GSN Tool Manual

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GSN Tool – Manual

Context

1 Installation

To install the INESS Tool chain the following requirements should be met:

- Computer with 2GB RAM, 4GB recommended
- 1 GB of free disk space for the installation
- 100s GB for documents
- Java 7 to run the GSN Tool

1.1 Install Alfresco

Download the package from www.alfresco.com.

http://wiki.alfresco.com/wiki/Download_Community_Edition

This page offers installation packages for Windows, Mac OS X and Linux. Follow the instructions for installation on the web page.

Depending on your operating system you will be provided with scripts to start the server processes automatically. In Windows they can be found in the Start Menu.

Once the servers are running, you can check as described in chapter 2. Or as mentioned on the Alfresco website.

1.2 Install Java 7

http://www.oracle.com/technetwork/java/javase/downloads/index.html

Installers are available for Windows and Linux. The Mac OS X version is not yet final (Jan 2012).

1.3 Install the GSN Tool

The GSN Tool is a ZIP Archive. You just have to unpack it and put it anywhere on your hard drive. Double clicking on the batch file will start the program. The ZIP should be available via mydnsphere.

2 Alfresco Share

2.1 Alfresco Share Web Browser View

The Alfresco Share Web Browser View can be accessed via

http://ServerName:Port/share/page/site-index

Enter User Name and Password on the start screen. The main screen of the Alfresco Share is the Dashboard displayed in Figure 1.

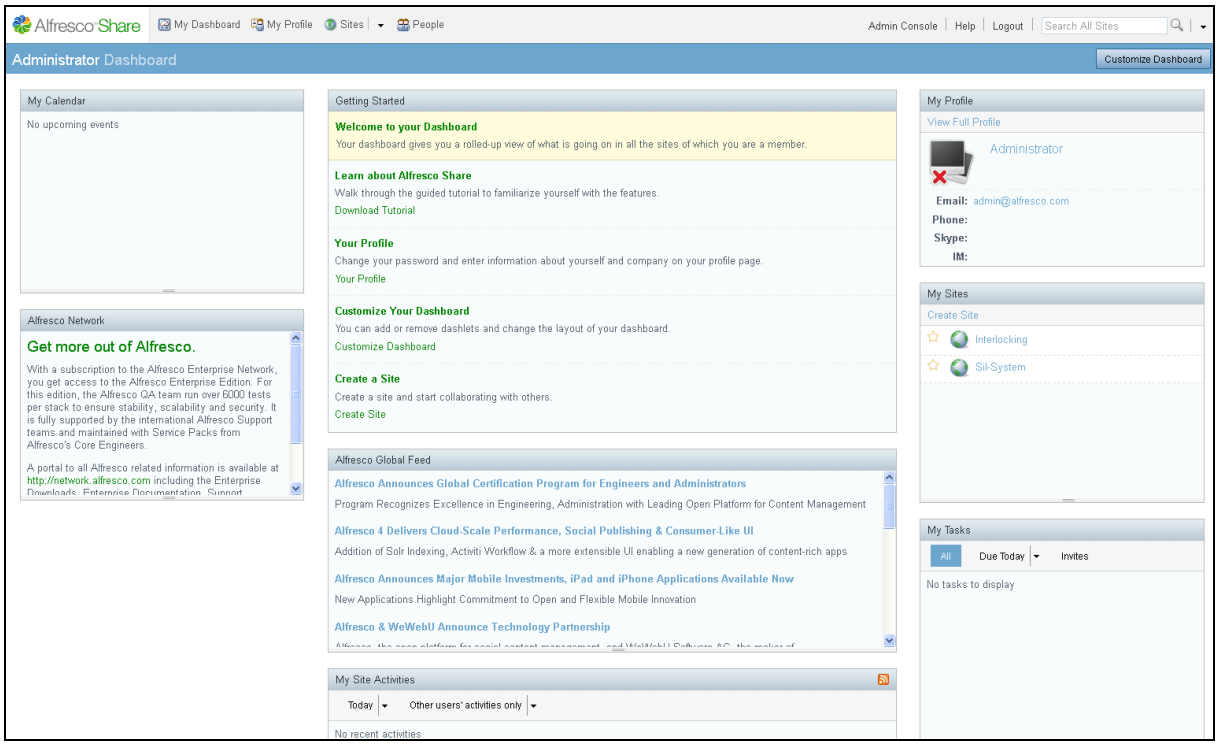


Figure 1: Alfresco Share Dashboard

2.2 Sites in Alfresco

The document structure in Alfresco Share is organised with *Sites*. The list of existing Sites is displayed in the slide *My Sites* in the Alfresco Share Dashboard (see Figure 1). To create a new Site, you have to select *Create Site*. To add documents to an existing Site you first have to select a Site and then select *Document Library*. In The Document Library of the Site existing documents are displayed and further documents can be uploaded via *Upload* (see Figure 2).

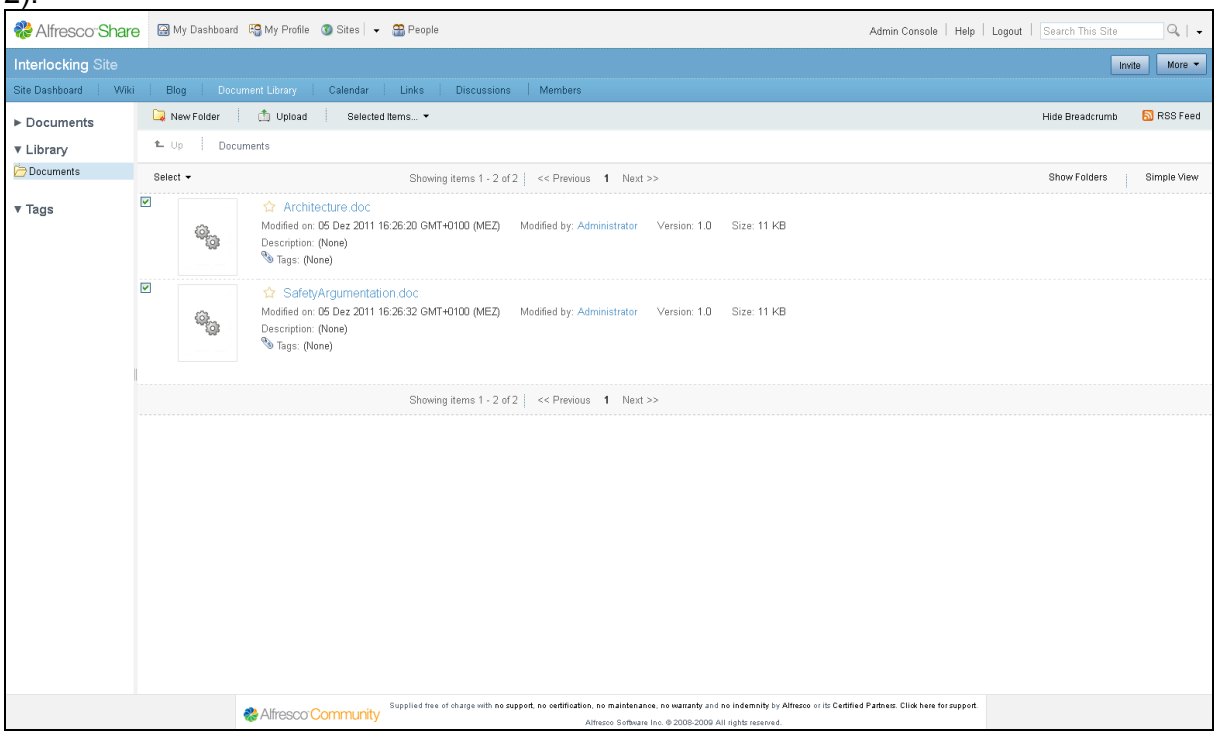


Figure 2: Document Library View

3 GSN Tool

3.1 Tool Structure

To start the GSN Tool you have to execute the *startGSNTool.cmd*. The start window is displayed in Figure 3. The main sections are

1. Menu bar
2. Folder Tree
3. Tool bar
4. Bird's Eye View
5. Graphical View
6. Patterns View
7. Property View

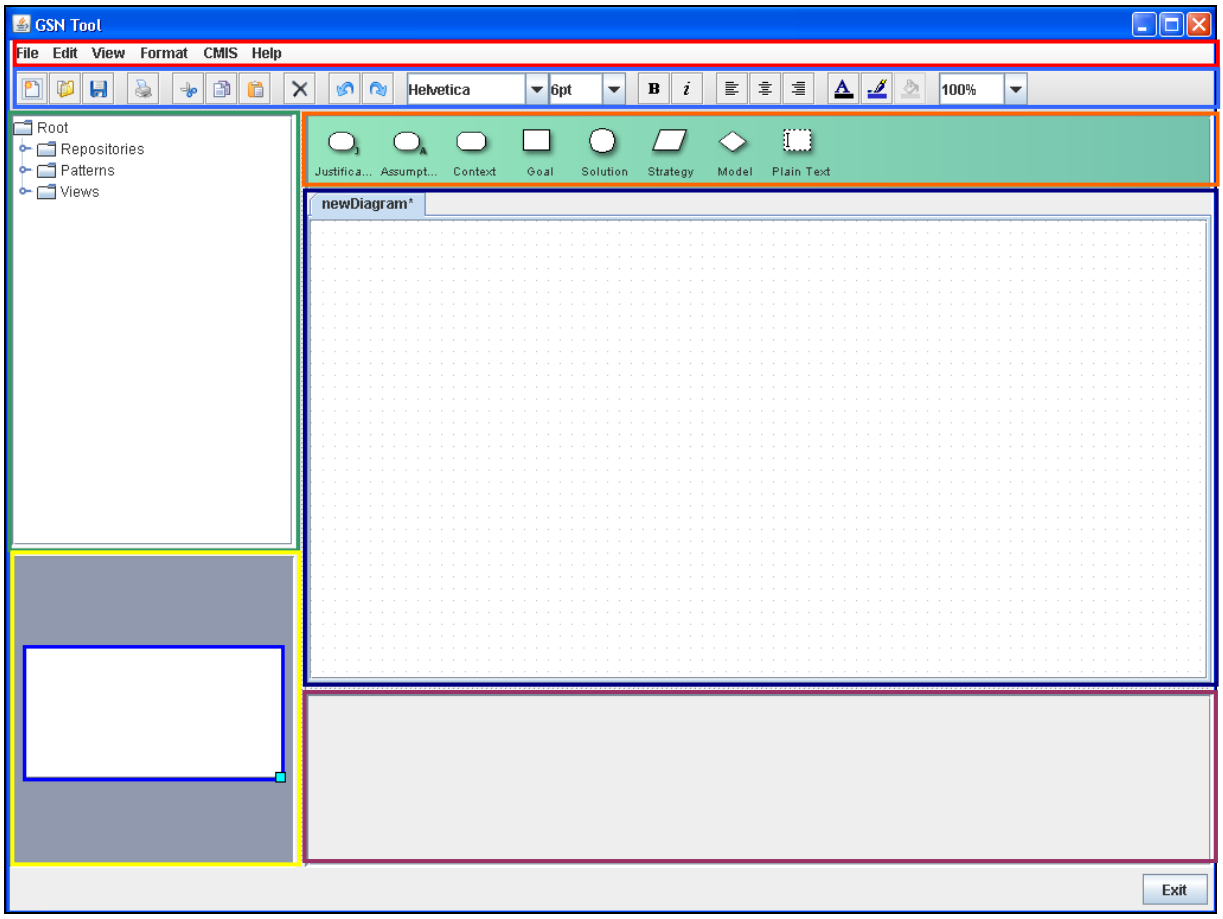


Figure 3: GSN Tool start window

3.2 Connecting to a Document Management System (DMS)

The GSN Tool can be connected to a DMS supporting the standardized CMIS Interface. To connect the DMS you have to select *CMIS -> Connect…* in the menu bar to get to the *GNS Tool Login* window. By choosing *Repository Type*, *Binding Type*, *URL/Port*, *sharepointRepositoryId*, *Name* and *Password* the GSN Tool can be connected to a DMS Repository. Till date only the Repository Type Alfresco is supported.

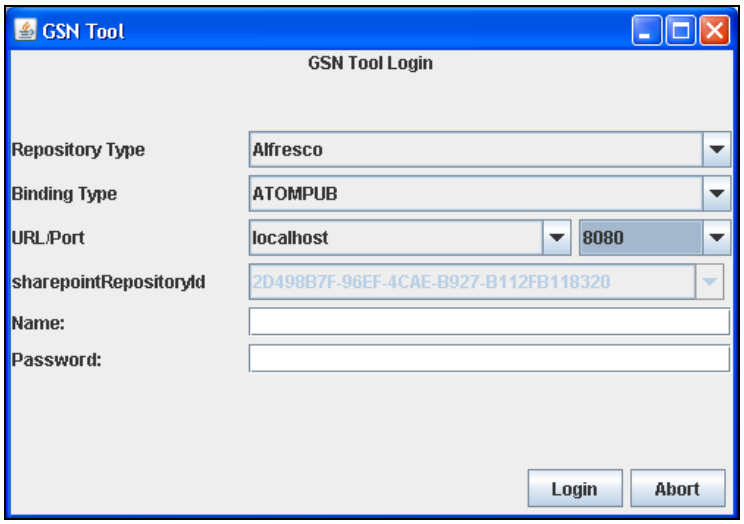


Figure 4: GSN Tool Login window

When the GSN Tool is connected to a DMS, you can see the repository in the Tree View (see Figure 5).

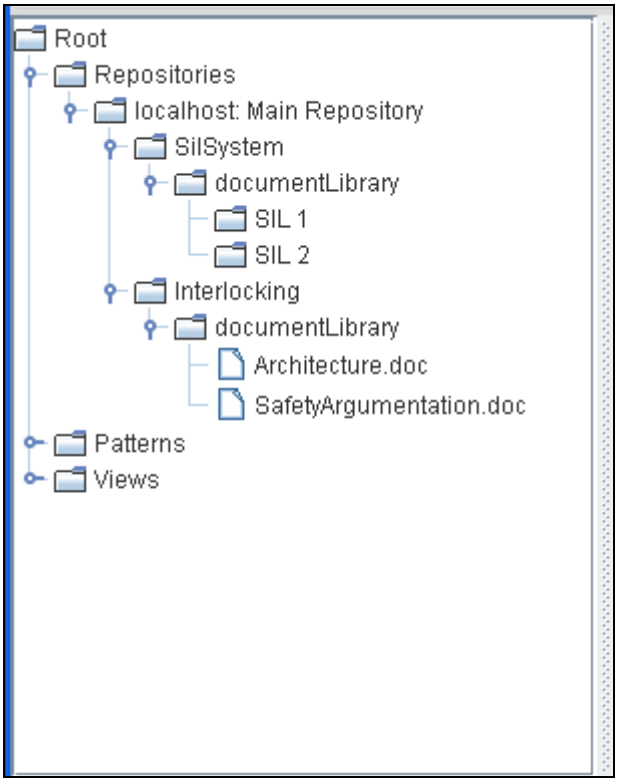


Figure 5: DMS repository in Tree View

3.3 Create a GSN Tree

To create a GSN Tree in the graphical view you have to Drag&Drop an element from the patterns view to the graphical view. Available elements of a GSN tree are described in tabular 1.

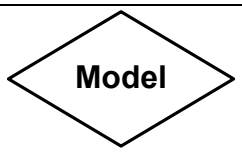
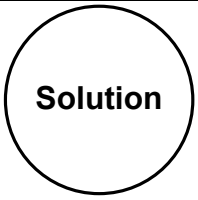
Element	Description
	A **goal** is a requirement, target or constraint to be met by the system. The term goal hierarchy refers to the collection of goals produced by the hierarchical decomposition of goals into sub-goals.
	A goal is couched in terms of some model of the system, or its environment. A goal may often be expressed over a number of models.
	A goal (or set of goals) can be solved by a **strategy**, which breaks a goal into a number of sub-goals. The satisfactory solution of the sub-goals then entails the solution of the original goals. A strategy can be regarded as a rule to be invoked in the solution of goals.
	Some goals may be solved directly by what we term **solutions**, rather than by decomposition into sub-goals. This is where the high level argument links to and uses the supporting evidence. Solutions will be individual pieces of analysis, evidence, results of audit reports, or references to design material including models. In fact we are not restrictive at all of the form that solutions can take.
	Strategies often need some **justification** for their use. It may be that the strategy is laid down in some standard followed by the developers: it may be common practice; or it may be a more elaborate argument as to the validity of the use of the strategy. Alternatively a justification may call upon evidence from analysis of the model or be a structured proof.
	Any **assumption** on which the strategy or goal is being put forward as a solution to the parent goal.
	Additional contextual information to a goal, a strategy or any other element can be couched in a **context** element.
	**Plain text** can be used for additional information.

Table 1: Elements of a GSN tree

3.4 Rename and recolor a GSN Element

By default elements (Goals, Strategies, Solutions, etc.) in the graphical view are named GsnObject Goal, GsnObject Strategy and so on. You can rename an element by right-click

the element and choose *Edit*. Additionally you can change the background colour (by default red) to yellow or green.

3.5 Linking two GSN elements

Two GSN elements in the graphical view can be linked by click one element and drag the mouse to the other element while holding the mouse button pressed.

3.6 Attach a document to a GSN element

Documents from the Document Management System can be attached to solution elements in the GSN graphical view. To attach a document, you have to right-click the solution and choose *Edit*. In the shape *CMIS Objects* you have to choose a document in the document tree and push the *add* button (Figure 6).

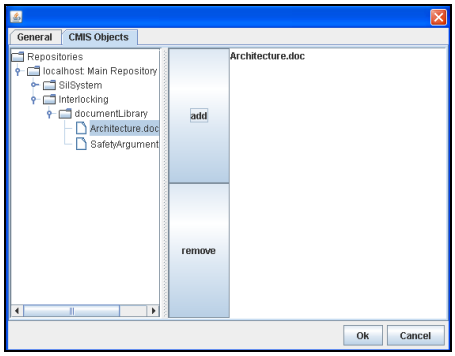


Figure 6: Add a document to a solution

The notification that a solution has an attached document is displayed in the property view of an element. The attached *Architecture.doc* to the solution *System-Architecture* is displayed in line 4 of the elements property view (Figure 7).

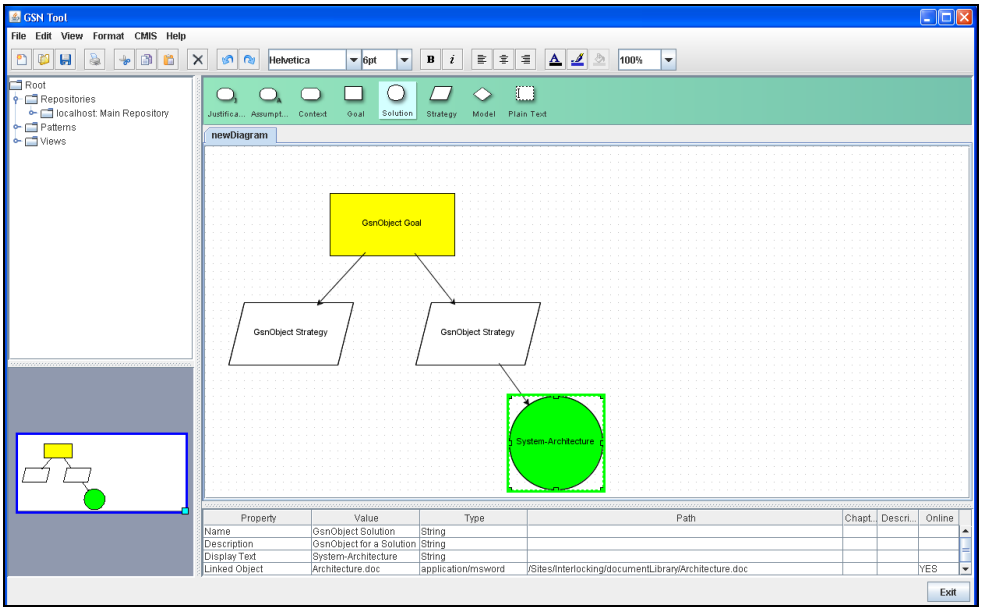


Figure 7: Attached document to a solution

3.7 Select Vertices, Edges, All and Subtree

By right-click the graphical view a context menu opens (see Figure 8). In the menu you can choose *Select Vertices*, *Select Edges*, *Select all* and *Select Subtree*.

Select Vertices marks all vertices/nodes, *Select Edges* marks all edges and *Select all* marks all elements in the tree. The function *Select Subtree* marks the subtree arranged below the selected node.

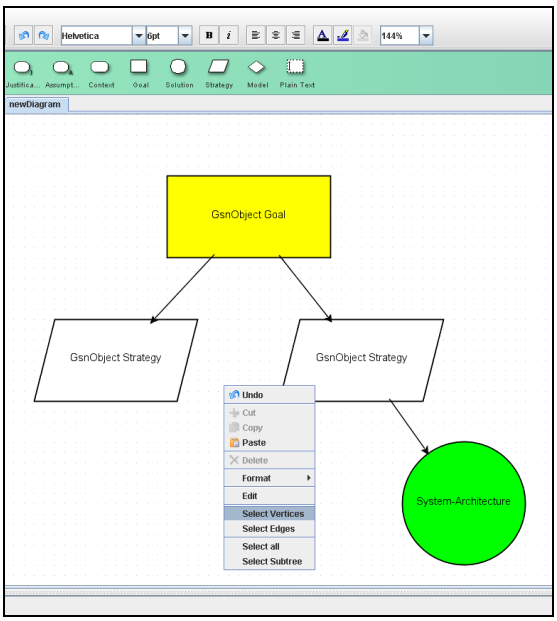


Figure 8: Context menu in the graphical view

3.8 The Bird's Eye View

In large projects with an extensive GSN tree often a clear view about the whole argumentation gets lost. The Bird's Eye View avoids this confusing situation by giving a general navigation view displaying the whole tree and marking the actual view with a blue rectangle.

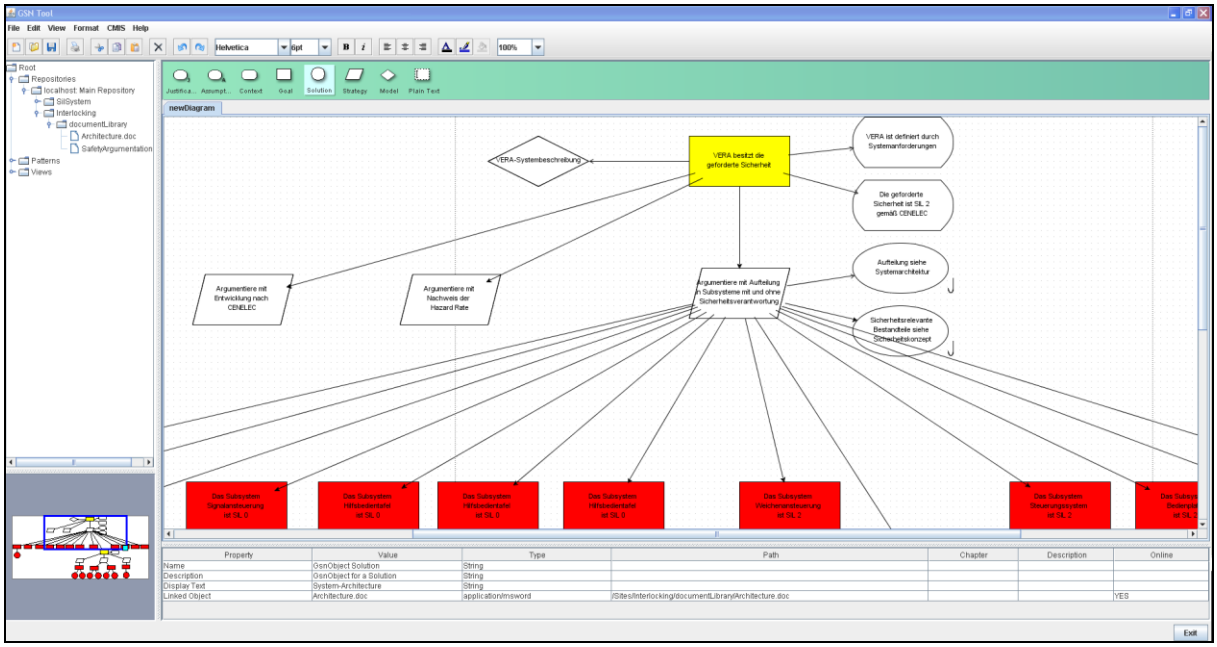


Figure 9: Example for a large GSN tree