Release Note - GeniE v5.0-15

The programs can be downloaded from our website
https://projects.dnv.com/sesam/download/windows/programs.html

GeniE
Version 5.0-15 will significantly improve

a) **design of space frame structures as a redesign and automated design iterations are implemented,**

b) **reporting of space frame attributes like forces and stresses (envelopes included),**

c) **modelling of complex surfaces as a curve net interpolation modelling technique is available and**

d) **analysis of FPSO's since there is a direct import of the loads according to the DNV 1A1 standard.**

Furthermore, other important new features are the Danish code check standard for tubular beams (DS421/419), the ability to apply point loads and line loads to plate edges, improved XML import/export including analysis definitions as well as support curves can include spring conditions. Finally there is a license check where the user decides which program extension to lock during start-up of GeniE.

The installation instructions and description of the new features in GeniE is given in the following.

GeniE v5.0-15

How to install GeniE v5.0-15

Before you upgrade, please make sure you have relevant data of journal files or xml files to be used when regenerating your models in the new GeniE version.

There are three alternatives for migrating data from a previous version of GeniE. For a full description about data transfer capabilities and limitations, please consult Section 9.2 in Volume III of the revised User Manual. You can download the user manual from https://projects.dnv.com/sesam/manuals/manuals.html before installing the programs.

- The first one is by using the journal file – make sure that it runs safely (*File*|*Read Journal File*) in the previous GeniE version before importing to the new version. The journal file is complete and may also contain analysis runs, the code checks and the report generation.
- The other alternative is by use of the condensed journal file (the so-called clean js-file). This file is complete for jackets and topsides where there is no curved structure. The environment as well as analysis set-up is also included, but please note that capacity checks are not part of the clean js-file.
- The final option is by use of the XML import and export feature. The XML file contains a neutral definition of the workspace – it is complete except for analysis, code check details and reporting. The functionality is available from *File*|*Export XML* and *File*|*Import XML*.

Prior to installing GeniE you should un-install the previous versions. Make sure you have done the necessary preparation of migration data prior to removing the older versions. We have seen a few examples that the folder structure where you installed the previous program versions is not completely removed. You should therefore check the folder to see if all files have been removed (the default is *C:\Program Files\DNVS\GeniE*. You do not need to delete your previous GeniE workspaces, if these are in the old default subfolder *C:\Program Files\DNVS\GeniE\Workspaces\....*).

You can install the program by downloading the installation script from our website https://projects.dnv.com/sesam/download/windows/programs.html. For GeniE the set-up is also complete, but you should also install the latest version of Sestra (version 8.4-01) to be able to print the loads and reaction forces in *File*|*Save Report*.

The license file for GeniE is the same as before. Notice that there are features in GeniE (typically code checking and modelling of curved structure) that require additional passwords in addition to the basic program versions.

New features in GeniE v5.0-15

The new features are described in the updated GeniE (Vol III, IV, V and VI) user manuals – this is part of the installation and you will find them on the GeniE help pages. Alternatively, you may also download it from our website https://projects.dnv.com/sesam/manuals/manuals.html.

For GeniE, the new features are:

- **Documentation**
  Volume 1, 3, 5 and 6 are updated. Furthermore, the tutorials B2, B4 and B6 have been revised.

- **Modelling**
  - Added dialog for creating load footprints for a single plate (IM5074).
  - Beam redesign
  - Curve-Net functionality
  - Line and point loads on flat plates (without underlying beams)
  - DNV 1A1 Rule Loads XML import
  - Support curves with springs

- **Graphics**
  - Point loads on nodes – display point moments on FEM with double arrows.
  - Hotkey combination for toggle background color (Alt+B).

- **Import/Export**
  - Exporting a subset to XML also includes guiding geometry that is not part of the set (IM5149).
  - XML export/import enhanced – now including Analysis (mesh, pile soil and wave load analysis settings).

- **Report**
  - Explain names of force and stress components used in the tables from File | Save Report ... is now added above each table when using MS Word and HTML reporting (IM5207).
  - Allow the user to specify "Fixed" format for the whole report from the File | Save Report dialog.
  - Compatibility problem between Genie and Office 2007. File types of reports are now changed from .DOC and .XLS to .XML for Office 2007 compatibility. (IM5179)
  - Beam force and beam stress reporting

- **Frame Capacity Checks**
  - Danish standard (DS) member check.

- **Other**
  - Select licenced features to be used when starting program.
  - Save/Restore Default Window Settings in Registry (IM5171).
  - Start Xtract from Genie.
  - Genie (optionally) to be started with a js-file when new database is created. The last preference selected is now stored in registry (IM4947)

You can also find more details about the new features and error corrections from the status list.