
SESAMTM
INSTALLATION GUIDE

WINDOWS

DECEMBER 2008

DET NORSKE VERITAS

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WINDOWS

DECEMBER 2008

DEVELOPED AND MARKETED BY
DET NORSKE VERITAS

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1 INTRODUCTION

1.1 Before you begin

The *Sesam Installation Guide Windows* provides detailed information about installing Sesam on Windows XP SP2 and Windows 2000.

The guide is intended for the person responsible for installing and maintaining the Sesam installation at your site.

Please read through the guide carefully before proceeding with the Sesam installation.

The *Sesam Installation Guide Windows* also describes how to update existing Sesam installations with new license files and program modules.

The December 2008 installation is released on one DVD.

Sesam™ is provided by DNV Software.

1.2 Installation features of the Sesam December 2008 release

The Sesam December 2008 DVD comprises:

- DNV Software License Manager
- Brix™ Explorer
- Sesam™ Products
- Sesam™ Products, Client Installation
- Installations for DeepC, GeniE, HydroD as part of the Sesam installation

In addition, Puls version 2.0.6 is distributed on a separate folder: **puls av-2.0.6** on the distribution disk. This is not part of the installation, but is added for the convenience of the Sesam users also using Puls. *This version of Puls is a standalone version and must not be used together with a Nauticus installation.*

Patran-Pre is distributed separately. Updates to Patran-Pre are available on <http://www.dnvsoftware.com> under Services > Support. Please contact us at Software.Support@dnv.com for access to the download site.

2 SESAM INSTALLATION – AN OVERVIEW

2.1 ORGANISATION OF SESAM

Sesam is organised in a set of directories that together constitute the Sesam installation. The parent directory is called the SESAM_HOME directory. The SESAM_HOME directory will typically contain subdirectories such as:

- Bin – executable files
- BRIXExplorer – files for Brix Explorer
- Etc – installation definitions
- Examples – delivery examples
- Manuals – user manuals
- Proban – auxiliary files for Proban

SESAM_HOME can be a local directory on each computer or a directory on a server for a Client/Server installation. The default for SESAM_HOME on a local installation is “C:\Program Files\DNVS\SESAM”

The new generation of Sesam programs, GeniE, Wasim, HydroD and DeepC are installed locally on each computer. These programs use a separate directory structure:

- GeniE <DNV Software Root Folder>\GeniE
- HydroD <DNV Software Root Folder>\HydroD
- DeepC <DNV Software Root Folder>\DeepC

The default for <DNV Software Root Folder> on a local installation is “C:\Program Files\DNVS”

The installation will be done to the "All users" profile, i.e. the Sesam 2008 December DVD will install all the programs to “All Users” on the machine.

This means that an administrator may perform the installation, while a user with more limited privileges (but minimum "Power User") can execute.

2.1.1 SESAM_HOME

Sesam uses a file, SESAM.INI, to store various program settings. The [sesam] section in the SESAM.INI file defines the SESAM_HOME directory. SESAM.INI is found on the *SystemRoot* directory ‘windows’ and is initially created by the Sesam Installation program.

If Nauticus is installed on your computer, please make sure that SESAM_HOME is correctly set in NAUTICUS.INI and SESAM.INI file.

The TMPDIR environment variable is used by Sestra and Wadam on Windows. TMPDIR decides where temporary files are stored during program execution.

2.1.2 XP 64

On XP 64 the default for:

- <DNV Software Root Folder> on a local installation is “C:\ Program Files (x86)\DNVS”
- SESAM_HOME on a local installation is “C:\ Program Files (x86)\DNVS\SESAM”

2.2 Sesam Licensing

The Sesam license system controls the usage of Sesam.

The Sesam license system includes:

- the Sesam license files DNVS*.LIC
See section 5 for the location of license file and how the programs pick up license information.
- the DNVS_License_Service.
The DNVS_License_Service must be installed if you have a network license or counted licenses.
- an identifier for your computer.
This may be the network card or a hardware lock (dongle).

See chapter 5 for details on Sesam licensing.

3 INSTALLING SESAM

Sesam is installed as the following separate modules:

1. DNV License Manager FLEXlm
2. Sesam Products (General Sesam program files)
3. Sesam Products, Client Installation
4. GeniE program files
5. HydroD program files
6. DeepC program files
7. Brix Explorer
8. Wasim program files

3.1 Before you begin

3.1.1 Requirements

Please make sure sufficient disk space is available before starting the installation. The disk space required depends on the number of Sesam modules to be installed. For a standalone or server installation up to 1.5 GB of free disk space may be required.

Before you start the installation you should have the following items readily available:

- The Sesam December 2008 DVD
- This Sesam Installation Guide
- The License file
Typically: DNVS_<Expire date>.LIC
The license file is distributed separately by E-mail or on diskette. Please make a temporary copy of the file to an empty directory on your system before the installation. When updating a current installation it is likely that a valid license file is already installed. The license file is generally not required for a client installation.

Especially for Client installation, the following information is needed:

- The DNVS_License_Service to connect to. The service is referred to by the network name of the computer running the DNVS_License_Service. See under Section 3.2.1, Installation of DNV Licence Manager on page 8.
- The folder on the network server where the Sesam program files are installed.

Reference is also made to:

- The letter enclosed with the shipment of the DVD
- The Release Notes Release notes are shipped with the DVD and also presented on the DNV Software website www.dnvsoftware.com
- The Status Lists for Sesam provided on the DNV Software website www.dnvsoftware.com

3.1.2 Who should install Sesam

It is recommended that Sesam is installed by the user. If the user does not have Administrator rights to the computer, he/she should be given these rights temporary during the installation.

It is also recommended that the default location of the program files is used.

3.1.3 Server, client and standalone installations

The various components of Sesam can be installed as a server - client configuration or as a stand-alone installation. Table 1 gives the overview of which components to be installed where for the different configurations.

Table 1: Overview of which components to be installed for a server, client or standalone installation.

Product/Component	Server	Client	Standalone
DNV Licence Manager	Yes	Yes	Yes
Sesam Products	Yes		Yes
Sesam Products for Client		Yes	
GeniE		Yes	Yes
DeepC		Yes	Yes
HydroD		Yes	Yes
Brix Explorer		Yes	Yes

The option "Complete" as described in Section 3.2 corresponds to what is listed in the column "Standalone" in Table 1 above.

3.1.4 New installation vs. upgrade

The Sesam December 2008 installation will overwrite the existing installation.

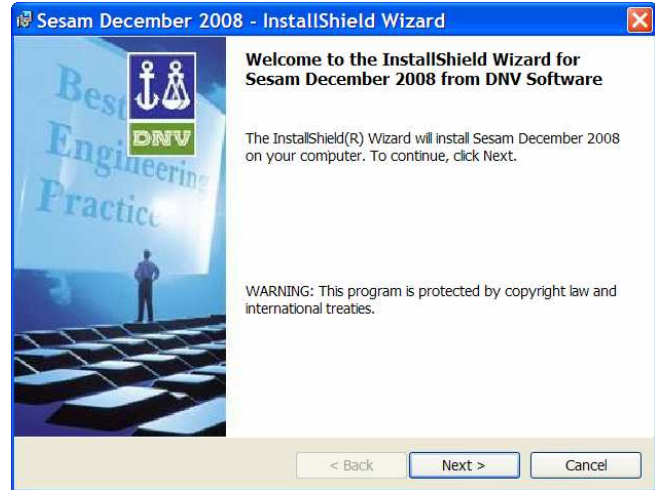
Note: If you want to keep the old version make a copy of the old installation prior to installing Sesam December 2008.

Note: If you are going to overwrite an existing server installation make sure nobody is using the Sesam installation in question.

3.2 Use of the InstallShield Wizard for Sesam

The InstallShield Wizard will start automatically when inserting the Sesam December 2008 DVD. If the Wizard does not start automatically, open the setup.exe file on the root directory of the DVD.

The installation requires Windows Installer 3.1. If required this will be installed automatically before proceeding with the installation.



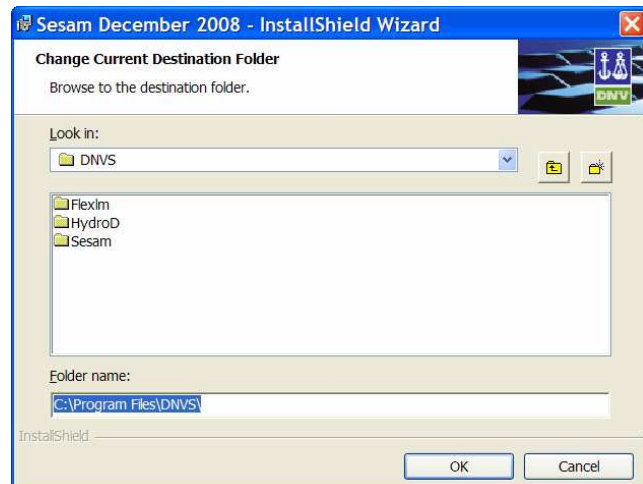
If .NET 2.0 is not installed on the computer, installation of *Microsoft .net Framework 2.0* will start and information appear in this window (not shown here).

The second screen of the wizard presents the directories where the Sesam modules will be installed. Default is under C:\Program Files\DNVS but this can be changed by clicking the “Change...” button if you prefer another location.



When clicking the “Change...” button in the previous screen, you can browse and select the folder where the programs should be installed.

You can also type the name directly into the “Folder Name” field.



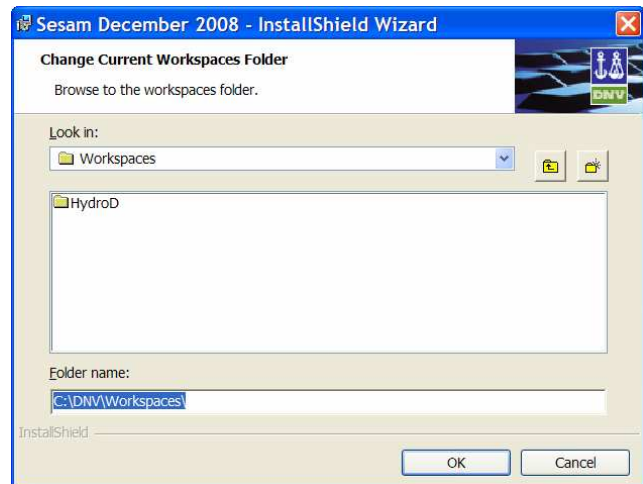
The third screen of the wizard presents the default directories for the Workspaces. Default is C:\DNV\Workspaces, but this can be changed by clicking the “Change...” button if you prefer another location.

Workspaces for GeniE, HydroD and DeepC will be created in the respective subfolders.



When clicking the “Change...” button in the previous screen, you can browse and select the default folder where the Workspaces should be stored.

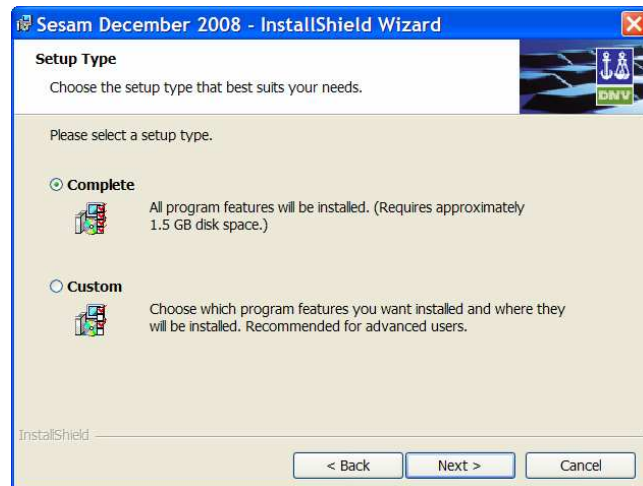
You can also type the name directly into the “Folder Name” field.



On the Setup Type screen you can choose between the two options:

- Complete if you want to install all Sesam programs (ref. Table 1)
- Custom if you want to install only selected programs from Sesam. See Section 3.3 below for further details.

NOTE: For a Client or Server installation the Custom option must be selected.



If you have selected “Complete” installation in the previous screen and clicked “Next >”, the next screen will indicate that Sesam December 2008 is ready to be installed.



The installation starts, and the progress of the installation can be viewed in the following screen.



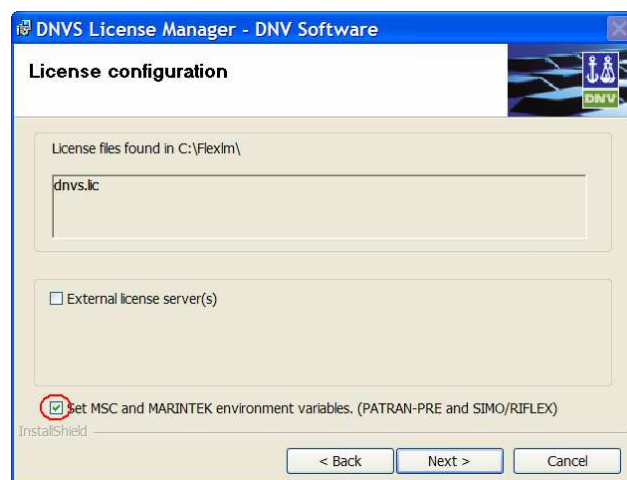
3.2.1 Installation of DNV Licence Manager

In the configuration screen for the DNV License Manager, you can:

- see licence files found
- select a server licence
- set licence environment for third-party programs

If you are using a network licence (ref. Section 5, page 17) you need to tick the field “External license server(s)”

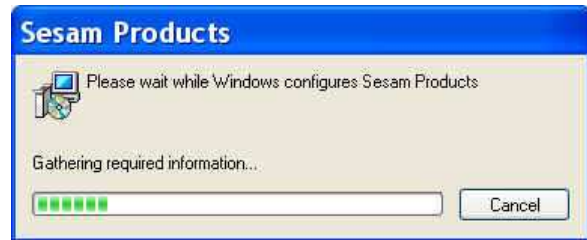
NOTE: If you are using the programs **DeepC, Patran-Pre, Simo or Reflex**, you need to tick the field **“Set MSC and MARINTEK environment variables (PATRAN-PRE and SIMO, RIFLEX)”** as shown in the red circle.



3.2.2 Rest of installation

The rest of the programs will be installed automatically. For each program installed there will appear a pop-up window to show which of the Sesam programs is currently installed, e.g.:

- the Sesam Products (as shown here)
- GeniE
- HydroD
- DeepC
- and finally the Brix Explorer



When the installation is completed, the following screen is shown:

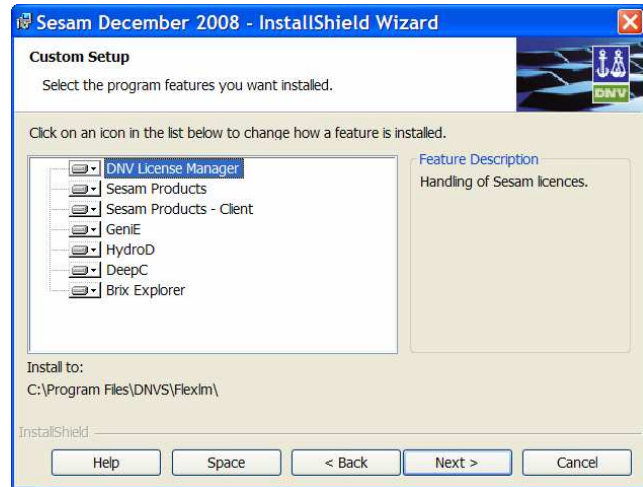
Click "Finish" to complete the installation.



3.3 Customized installation using InstallShield Wizard for Sesam

If you choose the option “Custom” in the Setup Type screen (see previous section) and click “Next>”, you will come to the following screen.

By clicking on a name in the feature list, this feature will be highlighted, and the description of this feature is shown to the right.



By clicking on the buttons to the left of each application name, you can choose the following options for each feature (see Table 2 below):

- Install the application on the local hard drive
- Leave the configuration of this feature as is
- Select the application NOT to be installed.

NOTE: For Client or Server installation select from the list according to table 1.

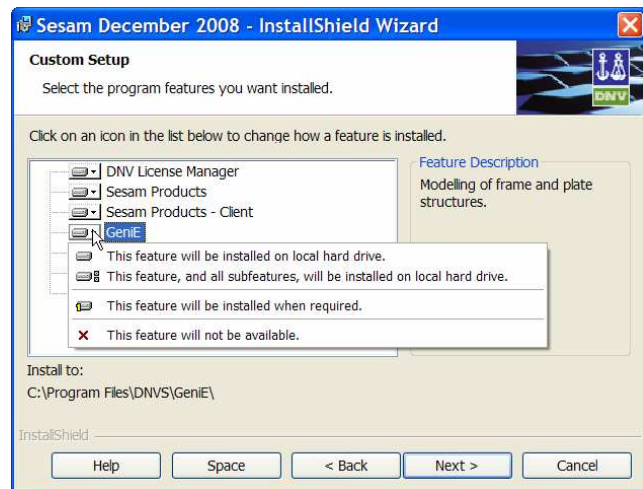






Table 2: Alternatives for component installation for “Custom Installation”

Button	Menu text	Action if feature is NOT installed	Action if feature is already installed
	This feature will be installed on local hard drive	Install the application on the local hard drive	No action (keep the application installed on the local hard drive)
	This feature, and all sub features, will be installed on local hard drive	Same as above.	Same as above.
	This feature will be installed when required	No action, leave configuration as is	No action, leave configuration as is
	This feature will not be available	No action (select the application NOT to be installed).	Remove the installation of this feature

3.4 Installation maintenance

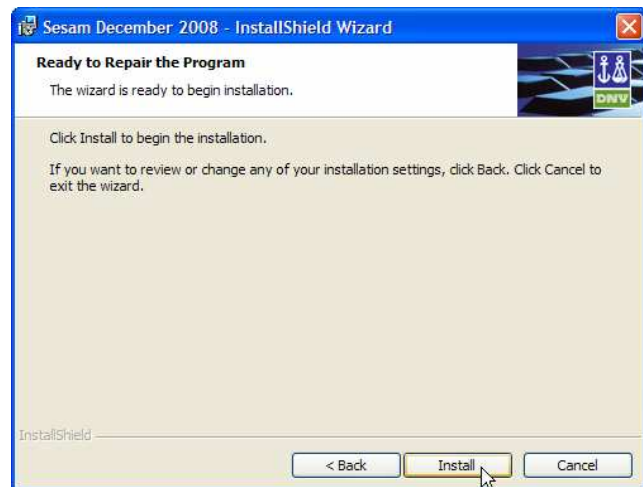
When you start setup.exe for the second time (or later), the Program Maintenance screen will appear. This screen gives you a choice to Modify, Repair or Remove the installation of Sesam.

You can choose between the three options;

- **Modify** if you want to change which programs are available from Sesam.
- **Repair** if you need to reinstall, e.g. because your program files have been corrupted.
- **Remove** if you want to remove all Sesam programs

If you select “Modify”, you will encounter the screen for “Custom Setup”. Please refer to Table 2 for alternatives.

If you select “Repair”, the program will automatically repair the files which are missing or corrupted when you click “Install”.



If you select “Remove”, the program will remove the installation of Sesam when you click “Remove”.



Please note that if you have selected to skip some applications in the installation process, the Remove Process will loop through all applications. You may be prompted by a warning message that this application is not installed. Please click OK to continue the installation process.



3.5 Installation of Sesam features using individual installation files

Each component of Sesam can also be installed by the individual installation programs on the installation disk. This is more convenient if only one feature (or component) is to be installed. The individual installation programs can be found as setup.exe under each of the folders:

- BRIXExplorer
- DeepC
- Dnvs License Manager
- GeniE
- HydroD
- SESAMProducts (Sesam Products)
- sesamproductsclient (Sesam Products (Client))
- Sestra 64 (Sestra 64, See Section 3.6)

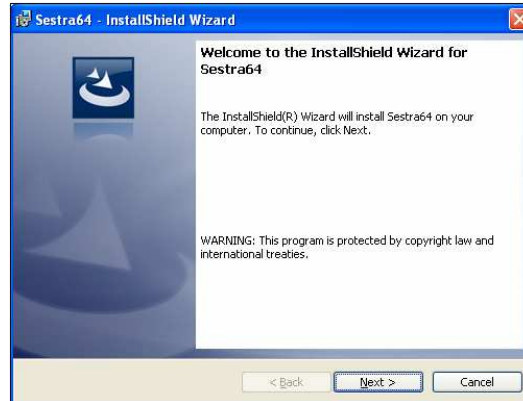
Please See Appendix B for details on running each of the individual installation programs

3.6 Installation of Sestra 64

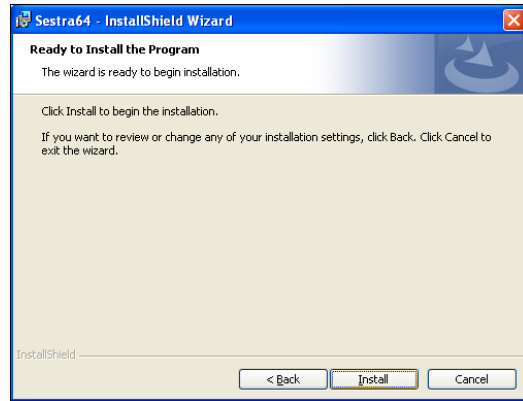
Sestra 64 has a different installation procedure, and is NOT included in the standard installation package. Sestra 64 must be installed separately, the following way:

1. Go to the directory “Sestra 64” on the installation disk.
2. Start “setup.exe” from this directory, and the “Sestra 64 Setup” program starts.
3. Follow the instructions

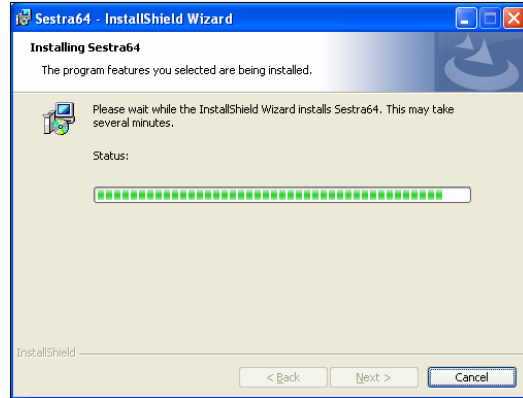
In the Welcome screen , click “Next” to start the installation



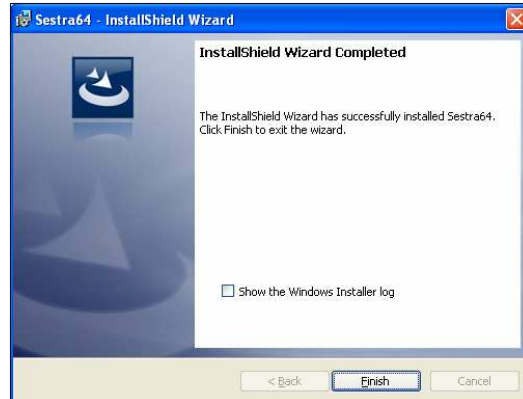
Click “Next” to begin the installation.



Installation starts, and a status window shows the progress of the installation



When the installation is completed, this window is shown. Click “Finish” to terminate the installation program.

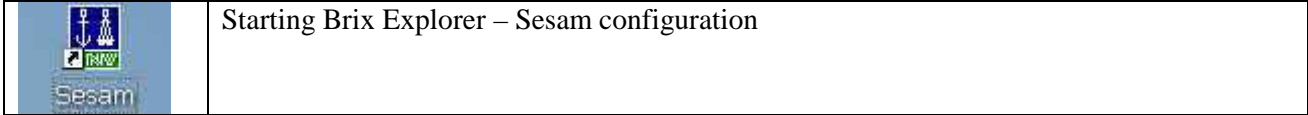


When installing Sestra 64 the executable and supporting files are installed on to the directory “C:\Program Files\DNVS\Sesam64\Bin”.

Note: To make the Sestra 64 package accessible from the other Sesam applications, the file “Sestra64.exe” should be renamed to “Sestra.exe” and the files in “C:\Program Files\DNVS\Sesam64\Bin” then have to be copied to the SESAM_HOME/bin folder.

3.7 Shortcuts and Start Menu

The installation programs create the following shortcut on the desktop:



In the Start Menu you will find the following entries:

- DNV Software
 - Brix Explorer for Sesam
 - FLEXlm License Manager configuration tool
 - Applications
 - GeniE
 - DeepC
 - HydroD

4 MAINTAINING A SESAM INSTALLATION

4.1 Installing a new license file

Always make a backup of the existing license files even when they are expired or otherwise invalid. If there is a problem use an old license file for comparison.

Read the new license files from the diskette or from your e-mail utility.

Check that the license files are for the host in question, e.g. check that the hostid is correct.

Check that the port number and hostname is the same for all license files.

Then copy the new license files to the license directory C:\FLEXIm.

For counted and floating licenses you must stop and start the DNVS_License_Service.

1. Log on as Administrator on the computer where DNVS_License_Service is running
2. In the Control Panel window choose the Services icon.
3. Select the DNVS_License_Service entry in the Services dialog and select Stop and Start.

4.2 Updating Sesam User Manuals and Status Lists

The latest versions of the Sesam User Manuals and Status Lists are available for download under Services > Support at <http://www.dnvsoftware.com>. Please contact us at Software.Support@dnv.com for access to the download site.

Download new files to the appropriate directories:

Status Lists <DNV Software root folder>\Status

User Manuals <DNV Software root folder>\Manuals

Default <DNV Software root folder> is C:\Program Files\DNVS\SESAM

5 SESAM LICENSING

5.1 Introduction

Programs from DNV Software are protected by the `DNVS_License_Service` based on FLEXlm from Macrovision. For more information on FLEXlm see: www.macrovision.com

The following license types are available:

- Nodelocked uncounted licenses, here denoted *uncounted*.
An *uncounted* license allows any number of Sesam programs to run simultaneously on one specific computer. The license is locked to a given computer identified by the network card, hostid or a hardware lock. The Sesam programs use the `DNVS_LM_LICENSE_FILE` environment variable to locate the license file and get a legal key. You recognize a nodelocked uncounted license file by the string *uncounted* and `HOSTID=` in the FEATURE/INCREMENT section of the file.
- Nodelocked counted licenses, here denoted *counted*.
A *counted* license allows a limited number of Sesam programs to run simultaneously on one specific computer. The `DNVS_License_Service` is required to keep track of the usage of licenses. The Sesam programs use the `DNVS_LM_LICENSE_FILE` environment variable to locate the license **server** and get a legal key. For most nodelocked licenses the `DNVS_License_Service` and the Sesam programs run on the same computer.
A *counted* license file is similar to an *uncounted* except that *uncounted* is replaced by the number of concurrent licenses. Furthermore, the license file includes a `SERVER` and `VENDOR (DAEMON)` definition.
- Network licenses, here denoted *floating*.
A *floating* license allows a limited or unlimited number of Sesam programs to run simultaneously on any computer in a network. The `DNVS_License_Service` is required to keep track of the usage and grant access to clients in the network. You can select any computer to host the `DNVS_License_Service`. However, since it serves many other hosts in the network a computer that have high attention and is always available should be selected.
The Sesam programs use the `DNVS_LM_LICENSE_FILE` environment variable to locate the license **server** and get a legal key. The license file is similar to that of a nodelocked counted license except for the `HOSTID=` being removed from the FEATURE/INCREMENT section.

5.2 DNVS_License_Service

The *DNVS_License_Service* comprises the following components:

- Lmgrd – the access point for all applications using FLEXlm. It is a generic service for all vendors.
- Vendor daemons that lmgrd contact to validate license requests for the various vendors. The daemons introduced by Sesam are *dnvslm*, *MSC* and *MARINTEK*.
- License files
- FLEXlm utilities - *lmtools*, *lmutil*
- Registry settings see section 5.2.5.

Installation of DNV Software License Manager will:

- Install FLEXlm, by default to c:\program files\dnvs\FLEXlm
- Copy any new license files to c:\FLEXlm
- Install *DNVS_License_Service* as a service unless it is already installed. If it is installed the service will be updated if necessary.
- Update the registry, see section 5.2.5.
- Start the *DNVS_License_Service*

This happens when the *DNVS_License_Service* is started:

- If environment variable `DNVS_LM_LICENSE_FILE` is defined it will be used to locate the license files.
- Otherwise, the following registry entry is used:
HKEY-LOCAL-MACHINE > SOFTWARE > FLEXlm License Manager >
DNVS_LICENSE_FILE > license
- Vendor daemons that are requested by the license files are started.
- The *DNVS_License_Service* is ready for license requests.

Please note:

- The FLEXlm environment variable `LM_LICENSE_FILE` is generally not used by DNV Software.
- The `VENDOR` defined environment variables are used by the Sesam programs and not by the *DNVS_License_Service*. (See also section 5.3)
- It is only required to install the *DNVS_License_Service* on the server that corresponds to the `hostid` (the 3rd field on the `SERVER` line in the license files). Trying to start the service on another host will fail.
- All license files to be served by *DNVS_License_Service* must specify the same port address (4th field on the `SERVER` line). Any number may be used provided it is not used by other applications. The default port number for Sesam is 2002. We recommend using a fixed port number to speed up license access.
- The `hostid` (3rd field of the `SERVER` line) must be identical in all files to be controlled by the *DNVS_License_Service*. For the time being this is `dnvs.lic`, `patranpre.lic` and `marintek.lic`.
- The `hostname` (2nd field on the `SERVER` line) must be the name or IP address of the host where the *DNVS_License_Service* is running. It can also be 'this_host' which is provided when the `hostname` is not known by DNV software at the time of license generation.

5.2.1 Firewall settings

Some firewalls require the system administrator to specify which ports are available outside the firewall. When this is the case it is necessary to define not only the TCP port that FLEXlm will use but also the port each vendor daemon will use. The vendor daemon port can be explicitly specified on the DAEMON line in the license file. For example:

```
SERVER mylicserver 12345678 2002
VENDOR dnvslm PORT=2003
```

The 'PORT=' entry on the DAEMON line allows explicit selection of both externally available ports. '2002' is the TCP port reserved for use by the FLEXlm process while '2003' is the port used by the vendor daemon process dnvslm. Both port numbers must be unused by other processes.

If you have Patran-Pre and Simo/Riflex licenses supported by the same license service please add port number for these DAEMONS also, e.g.:

```
SERVER mylicserver 12345678 2002
VENDOR dnvslm PORT=2003
VENDOR MSC PORT=2004
VENDOR MARINTEK PORT=2005
```

Finally, the ports listed in the license file must be defined as open in your firewall software.

5.2.2 DNVS_License_Service already installed with Nauticus

If you have a *DNVS_License_Service* installed with Nauticus of July_2002 or earlier then please reinstall from the Sesam DVD. This is necessary because the NAUTICUS installations do not comprise license daemons for Patran-Pre and Riflex/Simo.

Then copy the Sesam license file, dnvs*.lic, to c:\FLEXlm and check that the host-id and port number is the same as on the NAUTICUS license files.

5.2.3 Patran-Pre already installed with license service

If there is a separate license service for Patran-Pre on the host that **only** serves Patran-Pre then:

- Stop and disable the Patran-Pre service
- Install the *DNVS_License_Service*
- Copy the Patran-Pre license file to c:\FLEXlm and name it patranpre.lic
- Edit the patranpre.lic file and change the port number to 2002
- Uninstall the old patranpre service.

Patran-Pre may also be served by a service that serves other FLEXlm applications. You may review the service log to see if this is the case. If so:

- Move the Patran-Pre license file to c:\FLEXlm and name it patranpre.lic
- If there is an LM_LICENSE_FILE environment variable then remove any references to DNV Software license files from the variable.
- Finally remove possible references to the Patran-Pre license file from the following registry entry:
Hkey-local-machine > software > FLEXlm license manager > *nameofservice* > license
where *namofservice* is the name of the service that hosted the Patran-Pre license.

5.2.4 Patran-Pre and MSC.Patran to coexist

Patran-Pre and MSC.Patran may coexist on your network and share the same license service.

- If both are uncounted ensure that MSC_LICENSE_FILE names both license files.
- If only one is counted or floating ensure that MSC_LICENSE_FILE names the uncounted license file and the net address of the service that hosts the counted or floating license.
(E.g. C:\FLEXlm\patranpre.lic;1700@mscservice)
- If both are counted or floating they must share the same license service. Select either the DNVS_License_Service or the MSC license service. Then copy the two license files to the license directory for the selected service.
(E.g. copy patranpre.lic and mscpatran.lic to C:\FLEXlm.)

5.2.5 DNV Software licensing and the registry

FLEXlm creates a folder in the computer registry named:

My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\FLEXlm License Manager

All properly installed FLEXlm services will create a subfolder within the FLEXlm registry folder.

The name of the vendor subfolder is the same as the name of the FLEXlm service, e.g.

DNVS_License_Service.

The FLEXlm registry folder also contains a key equivalent to the vendor environment variable, one for each vendor (DNVSLM_LICENSE_FILE...). This is used by the application if the corresponding environment variable is not defined.

The vendor registry folder is used by the license service and contains the following keys:

- License Defines the path to the license file directory or the license file(s). If there is more than one folder or license files then separate the entries with semicolon (;)

- Lmgrd_log_file Specifies the location of the logfile used by the license service. May be set/unset by the lmtools utility.

- service The name of the service

- lmgrd The path to the lmgrd executable.
Please note that this entry is not used by the Windows service manager. To move the location of a service you must uninstall and install the service again rather than edit these entries.

5.3 Licensing for the Sesam user

As a Sesam user there are only two things you need to know:

- What kind of license do I have?
- Where is my license located?

The Sesam programs use environment variables to locate the licenses. There is one environment variable for each vendor. Sesam includes 3rd party products with their own license protection. Hence three different environment variables may be required for a Sesam installation depending of which program you have installed. The installation program defines these vendor environment variables at the time of installation.

If you encounter license problems while launching Sesam please check:

- **For uncounted license**

You need physical access to the license file. The environment variables define the path to the directory that contains the license files:

```
DNVSLM_LICENSE_FILE=c:\FLEXlm  
MSC_LICENSE_FILE= c:\FLEXlm  
MARINTEK_LICENSE_FILE= c:\FLEXlm
```

The license file(s) must have the file extension **.lic*.

- **For counted and floating licenses**

The *DNVS_License_Service* is required for these kinds of licenses. As a user you must connect to the *DNVS_License_Service* to run Sesam. The connection is established by environment variables that defines the net address to the *DNVS_License_Service*:

```
DNVSLM_LICENSE_FILE=2002@host_running_service  
MSC_LICENSE_FILE=2002@host_running_service  
MARINTEK_LICENSE_FILE=2002@host_running_service
```

where 2002 is the port number and *host_running_service* is the hostname or IP address of the computer hosting *DNVS_License_Service*. Although port number 2002 is the default the port number may be changed during installation.

- **Hardware locked license (dongle)**

If the environment definitions described above seems to be OK please check that the dongle is properly mounted and that the dongle driver is installed.

Launch *lmttools* (C:\Program Files\DNVS\FLEXlm\bin\lmttools.exe). Select system settings and ensure that the dongle is installed. If not, try to reinstall the dongle driver by running: C:\Program Files\DNVS\FLEXlm\bin\flexid_v1.06.exe. This requires administrator rights.

What happens when a DNV Software program is launched?

- The program searches the definitions in the environment variables *DNVSLM_LICENSE_FILE*, *MSC_LICENSE_FILE* and *MARINTEK_LICENSE_FILE* for a license file or service.
- If no valid license is found through the environment variables the application uses the registry equivalents to locate a license.
- When a valid license is found the DNV Software program gets a clearance and starts executing.
- If no license is available an error message is displayed in a message window unless messages are disabled. A copy of the error message is copied to the applications log file (e.g. .LIS or .MLG).

5.4 Installing a new license file

When updating only the license files please follow this procedure:

- Always take backup of the existing license file even if it is expired or otherwise is invalid. It is often helpful to look into a license file that has been working if something goes wrong.
- Read the new license file from the diskette or from your e-mail utility.
- Check that the license file is for the server in question, e.g. check that the hostid is correct.
- Check that the port number and hostname is the same for all license files on the license directory.
- Then copy the new license file to the license directory C:\FLEXIm\.
- Stop and start the *DNVS_License_Service* if any of the updated license files contain counted or floating licenses.

5.5 Hardware lock

A hardware lock allows one Sesam license to be used on an arbitrary computer without connection to a central license service. It is typically used to share a Sesam license between a number of portable computers.

The Sesam hardware lock consists of

- a FLEXid hardware lock (Macrovision™)
- FLEXid driver software

On installations with hardware lock licenses one FLEXid hardware lock for each license will be included with the first Sesam delivery. The hardware lock must be mounted on the parallel printer port or on a USB port before using Sesam. Please make sure you mount the hardware lock with the 'computer' side in. During a first time installation you will be prompted for installation of the hardware lock driver software.

The hardware lock must be connected as long as Sesam is running, otherwise Sesam will stop executing and your files may become corrupt.

Please note that the Sesam license follows the hardware lock. If you lose your hardware lock you must acquire a new Sesam license. If a hardware lock becomes corrupt please return it to DNV Software and a new one will be supplied.

6 VERIFYING THE INSTALLATION

6.1 First test

Before executing the Sesam delivery examples you should check that the programs start and that the license files have been installed correctly.

Try starting one of the applications GeniE, HydroD or DeepC, e.g. GeniE from the Start menu. GeniE should be available from Start, DNV Software, Applications, GeniE.

Check the program version number from Help, About. The program version number should match the version given in the cover letter.

If there are problems concerning the license file these should be resolved before proceeding with the Sesam delivery example system. A restart is required to initiate the new environment variables used to identify the license service.

6.2 Sesam Delivery Example System

The Sesam Delivery Example System, DES, provides a set of tests for verifying your Sesam installation.

6.2.1 Guide to run Delivery Examples

The root directory for the delivery examples on the Windows platforms is `SESAM_HOME\examples\des`. Instructions for running the delivery examples are found in the file `README.TXT` in this directory.

Please note:

Before running DES you must specify `SESAM_HOMEBIN` as the directory for the Sesam executables in the file `DESINI.BAT`. The DES script does not accept blanks in the directory path. This causes problems when installing Sesam on 'Program Files\DNVS...' To avoid this problem use a relative reference as shown below:

```
set SESAM_HOMEBIN=..\..\..\BIN
```

You may also use the command file; `RUN_ALL.BAT` that executes several examples. The file comprises commands like this:

```
@CALL DES-ONE.BAT BPOPT
@CALL DES-ONE.BAT CUTRES
@CALL DES-ONE.BAT FRAMEWORK
@CALL DES-ONE.BAT INSTALLJAC
@CALL DES-ONE.BAT MIMOSA
@CALL DES-ONE.BAT PLATEWORK
```

Delete programs for which you do not have a valid license file from the list.

6.3 Testing Usfos

- Open a command window in the folder `SESAM_HOME \Examples\Des\usfos\INDIR`
- Start the Usfos graphical user interface Xact from the command window. Xact is located in `SESAM_HOME/bin`.

- Select Analysis > Analysis Control
- In the Run Analysis dialog set:
 - Control head
 - Model stru_s
 - Optional 'blank'
 - Output file res_des
- Select Run
- When the execution is finished you may review the results interactively in Xact and select File > Open > res_des.out to check the result file.

6.4 Testing Xtract

Run the delivery example for Xtract as explained in the README.TXT file in the example directory.

The example for Xtract produces a number of result plots that must be compared manually to the plots provided in the DIFOUT directory.

6.5 Testing Brix Explorer

Start Brix Explorer for Sesam from the icon on the desktop. When the Sesam window opens, select "Templates" under "Configuration" in the navigation bar to the left. This will open the Templates tool with options to search for templates. Press one of the [Search] buttons without giving any search criteria. This shall produce a list of all available templates below the search tool. If a list of templates is presented the client has read the templates from the database. This confirms that installation of the MSDE database server, creating the database and installing the client was successful.

If Brix Explorer is used by another user than the user doing the installation the new user must first select Ongoing Jobs under Configuration.

6.6 Common problems

6.6.1 Inadequate TMPDIR environment variable

Sesam requires that TMPDIR be set to a directory specification and not another environment variable such as %TMP%. Open a Command Prompt window and type 'set' to see the current value of TMPDIR on your computer.

Please set the value of TMPDIR to a valid directory, e.g. TMPDIR=c:\temp instead of TMPDIR=%TMP%. It is also recommended not to have TMPDIR under 'Documents and Settings'.

On Windows XP, open the Control Panel > System > Advanced > Environment Variables to set a new value for TMPDIR.

6.6.2 Environment variables for licenses not set

Sesam uses environment variables to locate the license file or server. To check that the environment variables are properly set open a Command Prompt window and type 'set'. In the list of environment variables you should find license variables for the relevant program vendors such as:

For license files:

```
DNVSLM_LICENSE_FILE= c:\FLEXlm\dnvs*.lic  
MSC_LICENSE_FILE= c:\FLEXlm\ dnvs*.lic  
MARINTEK_LICENSE_FILE= c:\FLEXlm\ dnvs*.lic  
(The actual license file name will vary.)
```

For license services:

```
DNVS_LICENSE_FILE=2002@host_running_service  
MSC_LICENSE_FILE=2002@host_running_service  
MARINTEK_LICENSE_FILE=2002@host_running_service
```

where 2002 is the chosen 'Port Number'. If the variables are not set properly open the Control Panel > System > Advanced > Environment Variables (on Windows XP) and enter the correct values. See chapter 5.3.

6.6.3 Firewall prevents access to license server

When the license server is protected by a firewall the ports used to access the license service must be defined as open. See chapter 5.2.1 *Firewall settings*.

APPENDIX A: SESAM INSTALLATION FILES

This section describes the files included in a Sesam installation on the Windows platforms.

File	Comment
C:\FLEXlm*.LIC	Sesam license file containing site information such as program passwords and expiration dates for each licensed program. The file may contain passwords for more than one cpu/computer.
Sesam Program files Default location is: <DNV Software Root Folder>\SESAM \GeniE \HydroD \Wasim \DeepC	Each program directory comprises subfolders for program executable, help files, examples and optionally workspaces. The actual location depends on your installation.

For sites with the DNVS_license server installed:

C:\Program Files\DNVS\bin\ LMGRD.EXE	The DNV Software license server program.
---	--

APPENDIX B: INSTALLING SESAM FEATURES SEPARATELY

This Appendix describes how to install the Sesam features separately from the subfolders.

B.1 Installation of DNV Software Licence Manager FLEXlm

Installation of the DNV Software Licence Manager FLEXlm is part of the standard Sesam installation and is installed as part of the complete installation.

If the user wants to install the DNV Software Licence Manager separate from the other Sesam components, this can be done two ways:

1. Start the installation program as described in section 0, choose “Custom” in the third screen and proceed to Section 3.3. Select DNV Software Licence Manager to be installed.
2. Go to the subdirectory “Dnvs License Manager” on the installation disk and start “setup.exe” from that directory.

B.2 Installation of Sesam Products

Start the installation program as described in section 0, choose “Custom” in the third screen and proceed to Section 3.3.

If the Sesam is already installed on the computer you will be presented with options to

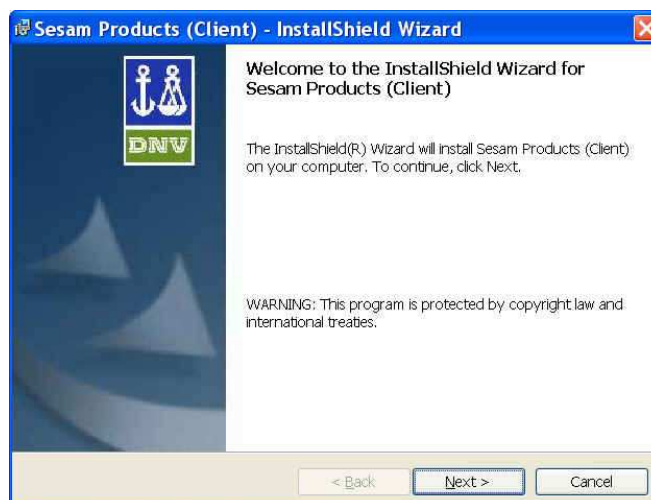
- Modify
- Repair
- Remove

B.3 Installation of Sesam Products (Client)

If you want to install the client version of Sesam Products, you can either choose “Customized” from the master installation menu, or install Sesam Products from the subdirectory “\sesamproductsclient” on the installation disk.

The installation from the subdirectory “\sesamproductsclient” is shown below:

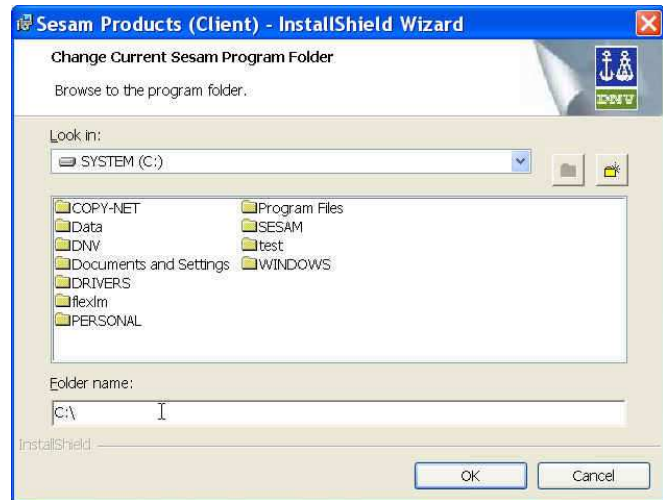
The first screen in the client installation is the welcome screen. Click “Next” to continue.



Change the folder where the Sesam program files are stored by clicking on the “Change” button.

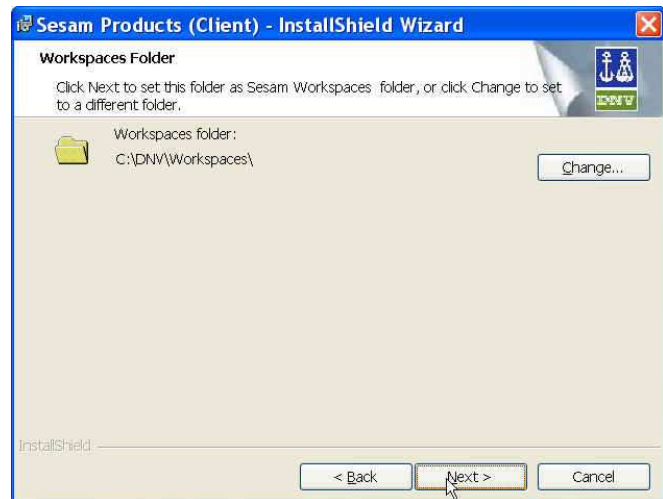


Change the folder where the Sesam program files are stored by using the file browser or by entering the folder name directly in the lower screen.

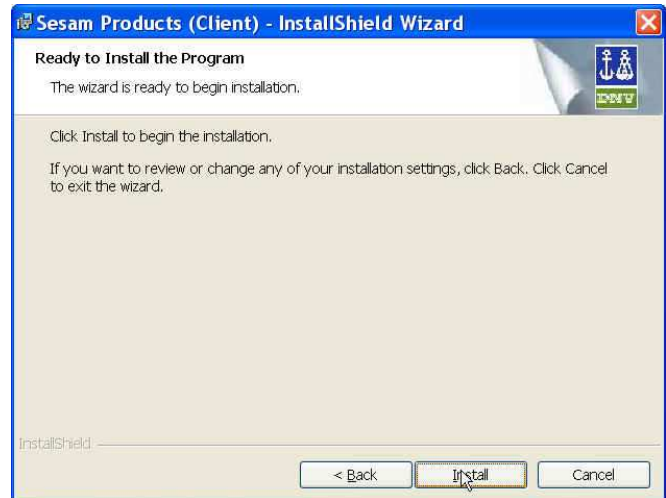


If needed, change the workspace folder where the workspace files are stored by clicking on the “Change” button.

Selection of workspace folder is similar to the selection of folder for the program files.



When the folders for program files and workspaces are chosen, the program is ready to install. Click on “Install” to continue.



B.4 Installation of GeniE, HydroD and DeepC

GeniE, HydroD, and DeepC must be installed locally on each computer. To install these programs start the installation program setup.exe located under the folders GeniE, HydroD, and DeepC, respectively. The installation will follow the same steps as shown in Section B.3, except for GeniE which has a deviation as described in Section B.4.1.

NOTE: Any current installation of the program must be removed before installing a new one.

The installation will use the same destination folder and default working directory as given by the environment variables during the Master Installation of the Sesam programs.

GeniE, HydroD and Wasim use other Sesam programs during execution. The environment variable SESAM_HOME defined in the SESAM.INI file is then used to locate the current Sesam installation.

B.4.1 Important note on installation of DeepC program files

The DeepC installation comprises the programs Simo and Riflex by MARINTEK. Simo and Riflex are 3rd party software from MARINTEK.

Simo and Riflex must be removed manually using “Add/remove programs” in the Control panel before installing new versions.

During installation of DeepC you have the opportunity to choose a “Complete” installation or a “Custom” installation. In the “Custom” installation you can choose installation options for each of the programs:

- DeepC
- Simo
- Riflex.

B.5 Installation of Brix Explorer – Sesam configuration

Brix Explorer – Sesam configuration has replaced Sesam Manager as the user interface for running Sesam projects.

The Brix Explorer can be installed as standalone or client - server.

B.5.1 Standalone installation

The standalone installation of Brix Explorer comprises 3 modules

- Microsoft SQL Server Desktop Engine (MSDE)
- Workflow database
- Brix Explorer

The installation can be run as part of the installation program as described in 3.2 or run directly from BRIXExplorer/Setup.exe.

The installation program will detect if there is Microsoft SQL Server Desktop Engine installed in the system. MSDE will be installed automatically if it is not already installed. And then it will install workflow database which has the instance WFDB. A backup is made for the existing database.

Please note that Brix Explorer uses the file:

<DNV Software Root Folder>\SESAM\BRIXExplorer\config\SESAM.config to set the default location of the Sesam products. However this can be overruled in the Project Setup dialog for each individual job.

B.5.2 Some important notes regarding XP 64

Following comments valid for both standalone and client – server installations:

- At the time of the DVD release Brix Explorer has not been extensively tested on XP64 and some problems has been observed and may remain to be fixed. Running Brix Explorer on XP64 is currently not recommended.
- To run on XP64 Brix Explorer requires that .Net Framework 2.0 is installed. The installation package will detect the .Net Framework version currently installed. If necessary a dialog with the options OK or Cancel appears and the user can choose to let the installation package install the .Net Framework 2.0 or Cancel the installation. When the .Net Framework 2.0 is installed the installation of Brix Explorer has to be restarted.

● APPENDIX C: EXAMPLES OF LICENSE FILES

Example 1: License file for an installation with network licenses:

All the program passwords will expire 1-Dec-2002. The programs can be run on any computer in the network. Two instances of each program may run at the same time. The DNVS_License_Service must be installed on the computer with hostname licsrv and hostid 001122334455.

```
# -- START of DNV Software license file --
#
# Hostid (floating)      : 001122334455
# Licensed to:         : Installation Guide example
# Contact              : NN
# E-mail               : inst_guide@dnv.com
# Contract(s)         : 98/062-ABE
# Computer             : Windows
# Order id            : 02-1103
# Generated           : 27-NOV-2002 at 09:41:08 by rre
#
# This license file contains floating licenses.
# DNVS_license_service required on hostid:001122334455
#
SERVER licsrv 001122334455 2002
VENDOR dnvslm
INCREMENT BPOPT dnvslm 2002.1201 01-dec-2002 1 SUPERSEDE \
    DUP_GROUP=SITE ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0001 \
    SIGN=65313E40EC90
INCREMENT MANAGER dnvslm 2002.1201 01-dec-2002 1 SUPERSEDE \
    DUP_GROUP=SITE ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0002 \
    SIGN=A3719F04E7FA
INCREMENT PREFEM dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0003 SIGN=22133D765974
INCREMENT PREFRAME dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0004 SIGN=302E120E569A
INCREMENT SESTRA dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0005 SIGN=56B6D87E11C8
INCREMENT SESTRA__DYNA dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0006 SIGN=B3EB8032E08A
INCREMENT SESTRA__SPLT dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0007 SIGN=8E7085CE0162
INCREMENT SESTRA__SUPR dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0008 SIGN=0B84EB72C044
INCREMENT XTRACT dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0009 SIGN=E8F04C5CF278
INCREMENT XTRACT__ANIM dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0010 SIGN=1560AA9C577C
INCREMENT XTRACT__STRU dnvslm 2002.1201 01-dec-2002 2 SUPERSEDE \
    ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0011 SIGN=2B6888C0D924
# -- END of DNV Software license file --
```

Example 2: License file for an installation with node locked licenses with limited usage:

All the program passwords will expire 1-Dec-2002. The programs can be run on the computer with hostname licsrv and hostid 001122334455. Two instances of each program may run at the same time. The DNVS_License_Service must also be installed on this computer.

```
# -- START of DNV Software license file --
#
# Hostid (locked):           : E001122334455
# Licensed to:              : Installation Guide example
# Contact                   : NN
# E-mail                   : inst_guide@dnv.com
# Contract(s)              : 98/062-ABE
# Computer                 : Windows
# Order id                 : 02-1103
# Generated                : 27-NOV-2002 at 09:42:59 by rre
#
# This license file contains NODELOCKED COUNTED licenses.
# DNVS_license_service required on hostid:001122334455
#
SERVER licsrv 001122334455 2002
VENDOR dnvslm
INCREMENT BPOPT dnvslm 2002.1201 01-dec-2002 uncounted \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0001 SIGN=5A578B7897A2
INCREMENT MANAGER dnvslm 2002.1201 01-dec-2002 uncounted \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0002 SIGN=B339EDB4F806
INCREMENT PREFEM dnvslm 2002.1201 01-dec-2002 2 HOSTID=001122334455 \
    SUPERSEDE ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0003 \
    SIGN=7FF1DA9C1306
INCREMENT PREFRAME dnvslm 2002.1201 01-dec-2002 2 HOSTID=001122334455 \
    SUPERSEDE ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0004 \
    SIGN=AD7AC0F84258
INCREMENT SESTRA dnvslm 2002.1201 01-dec-2002 2 HOSTID=001122334455 \
    SUPERSEDE ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0005 \
    SIGN=3151D01C5FCA
INCREMENT SESTRA__DYNA dnvslm 2002.1201 01-dec-2002 2 \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0006 SIGN=491D5A6E1E6C
INCREMENT SESTRA__SPLT dnvslm 2002.1201 01-dec-2002 2 \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0007 SIGN=7F3CE6CA0D48
INCREMENT SESTRA__SUPR dnvslm 2002.1201 01-dec-2002 2 \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0008 SIGN=F1E40A04A1BC
INCREMENT XTRACT dnvslm 2002.1201 01-dec-2002 2 HOSTID=001122334455 \
    SUPERSEDE ISSUER=98/062-ABE ISSUED=27-NOV-2002 SN=0009 \
    SIGN=8114F3C0181E
INCREMENT XTRACT__ANIM dnvslm 2002.1201 01-dec-2002 2 \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0010 SIGN=B04929201BAE
INCREMENT XTRACT__STRU dnvslm 2002.1201 01-dec-2002 2 \
    HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
    ISSUED=27-NOV-2002 SN=0011 SIGN=C58E48E42E2E
# -- END of DNV Software license file --
```

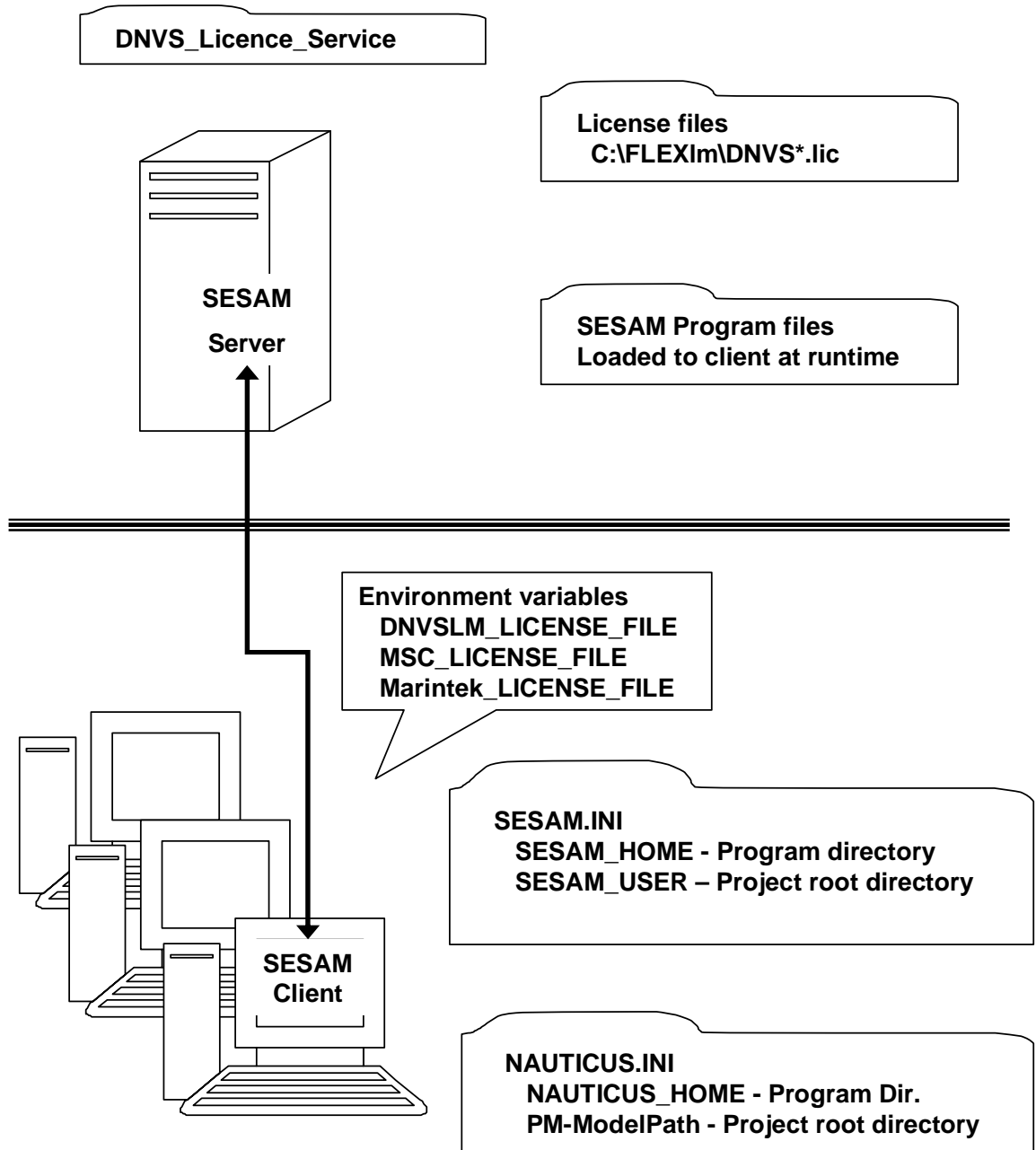
Example 3: License file for an installation with node locked unlimited licenses:

All the program passwords will expire 1-Dec-2002. The programs can be run on the computer with hostid 001122334455. An unlimited number of instances of each program may run at the same time. The DNVS_License_Service is not required.

```
# -- START of DNV Software license file --
#
# Hostid (locked):           : E001122334455
# Licensed to:              : Installation Guide example
# Contact                   : NN
# E-mail                    : inst_guide@dnv.com
# Contract(s)               : 98/062-ABE
# Computer                  : Windows
# Order id                  : 02-1103
# Generated                  : 27-NOV-2002 at 09:44:42 by rre
#
# This license file contains UNCOUNTED licenses
# The DNVS_license_service is not required
#
INCREMENT BPOPT dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0001 SIGN=5A578B7897A2
INCREMENT MANAGER dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0002 SIGN=B339EDB4F806
INCREMENT PREFEM dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0003 SIGN=5BA180E4E8CC
INCREMENT PREFRAME dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0004 SIGN=2D84C5D48B70
INCREMENT SESTRA dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0005 SIGN=66CBB0CA1D8A
INCREMENT SESTRA__DYNA dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0006 SIGN=5BC6F9A41D46
INCREMENT SESTRA__SPLT dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0007 SIGN=750352AEF006
INCREMENT SESTRA__SUPR dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0008 SIGN=C012F16CF608
INCREMENT XTRACT dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0009 SIGN=7C072A4E7B46
INCREMENT XTRACT__ANIM dnvslm 2002.1201 01-dec-2002 uncounted \
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  ISSUED=27-NOV-2002 SN=0010 SIGN=8A4EF1022196
INCREMENT XTRACT__STRU dnvslm 2002.1201 01-dec-2002 uncounted \
  HOSTID=001122334455 SUPERSEDE ISSUER=98/062-ABE \
  ISSUED=27-NOV-2002 SN=0011 SIGN=77D5ECE6BB00
# -- END of DNV Software license file --
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APPENDIX D: SCHEMATIC VIEW OF SESAM INSTALLATIONS

SESAM Client / Server Installation



SESAM Standalone Installation

