

Safety Designer

Installation Guide

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Safety Designer
BPA SD9 Delivery 8 for V5R20GA
Version 1.4

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Introduction

This document describes the installation procedure for the Safety Designer. In this document, SD9 is used instead of Safety Designer. The DAS-4.4.0 reflects the current version 5.8.

Related Documentation

- Safety Designer - Implementation Guide
- Safety Designer - User Guide

Before Installing

Note

Safety Designer is protected by the LUM software (License Use Manager) owned by IBM. Before proceeding to the installation, you must have a LUM environment and at least a Safety Designer. LUM license. For more information, see the section called “How to register a license for Safety Designer”.

If you want to install Safety Designer, JDK1.6 has to be installed.

In case of use of an Oracle database instance, you need to install the Oracle JDBC Drivers package on client workstations with Oracle Universal Installer. More details about the drivers are available in the section Installation on an ORACLE database

When installing, make sure that you have administrator privileges.

Close all other applications on the computer before proceeding with the installation.

Safety Designer required configurations

Minimal configuration:

- Pentium IV 1.4 Ghz (or equivalent),
- Hard disk : 50 Mo available,
- RAM : 1 Go,
- Screen resolution : 1024 x 768 pixels, 65536 colors,
- System Windows XP SP1+.

Recommended configuration:

- Pentium IV 3 Ghz (or equivalent),
- Hard disk : 1 Go available,
- RAM : 2 Go,
- Screen resolution : 1280 x 1024 pixels, 65536 colors,
- System Windows XP SP1+.

How to register a license for Safety Designer

Generality

The licenses for Safety Designer are managed by the LUM software (License Use Manager) owned by IBM. In order to use Safety Designer you should have LUM version 4.6.8 or following one installed.

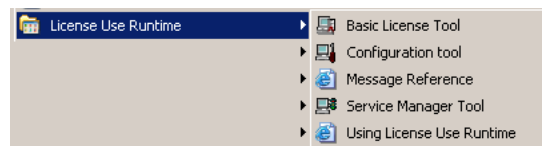
For more information, please refer to the IBM documentation on this product.

Safety Designer can be used only with the 2 license types:

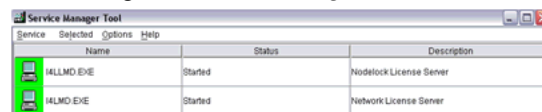
- nodelock : the license is attached to a user workstation
- concurrent: the license is attached to a LUM license server and can be used by several user client workstation in concurrent access mode. On a given server, there can be several licenses (or token) for the same product.

The license installation is carried out differently depending on its type.

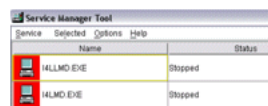
In this chapter, we assume that the LUM software has been installed on the client workstation and/or the servers. The LUM (version 4.6.8) installation allows to access to 3 users allowing to configure the software accessible using the windows command shortcuts.



Before all modification of the LUM configuration on a station (server or client), the LUM services must be stopped. Stop the LUM server service if needed using the *Service Manager Tool*.



Select all services, use command **stop** in menu **Service**.



Request a license

In order to ask for a license, you have to provide the following information:

- Product Name : SD9
- License Type : nodelock or concurrent
- Number of License : 1 for nodelock, >0 for concurrent
- LUM targetID : provide the targetid on client side for nodelock or on server side for concurrent.

The `i4target` executable allows to obtain the client or server station targetID.



This information must be given to the provider/retailer so that he will be able to generate a license file (in general under the form SD9*.lic)

Configuration for a nodelock license

Warning

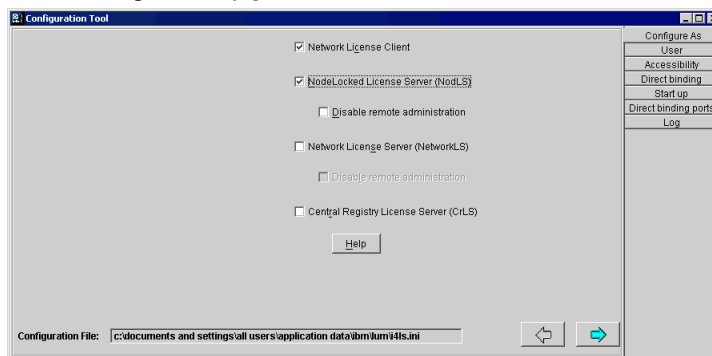
In opposition to many products using nodelock licenses, Safety Designer do not take the nodelock file commonly used into account.

Note

After the LUM installation, open the "I4LS.ini" file. This file is in the installation folder by default : "C:\Documents and Settings\All Users\Application Data\IBM\LUM". Verify that the field **FilterNDL=no**. Otherwise, modify this field. After this modification, the Basic License Tools launches.

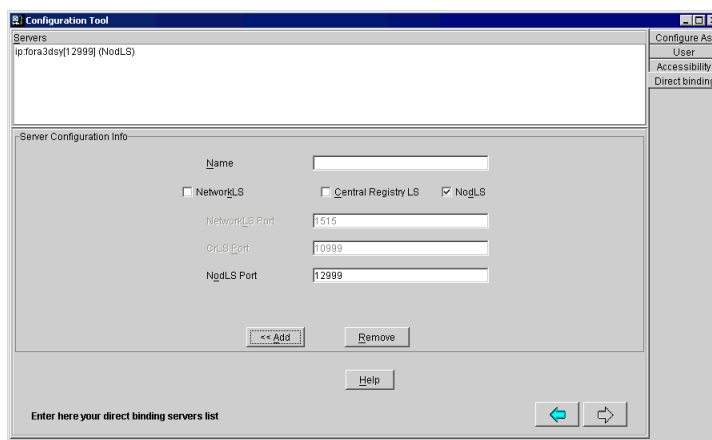
In order to install Safety Designer, the user must configure the client workstation thanks to a nodelock server. For this:

1. Configure the nodelock server using the *Configuration tools*.

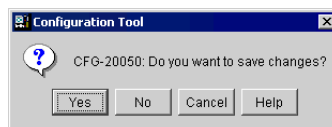


Ensure that the options for **Nodelocked License Server** and **Network License Client** are selected.

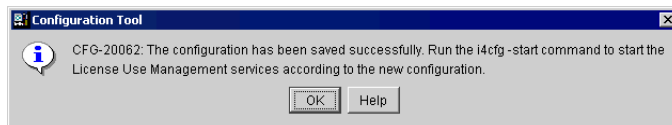
2. Switch to the **Direct Biding** tab.
3. Remove all servers in the field "servers". Then in the **Name** field enter the client machine name.
4. Check the box for **NodLS** and click on **Add** button.



5. Close the Configuration Tool window and validate accepting the changes

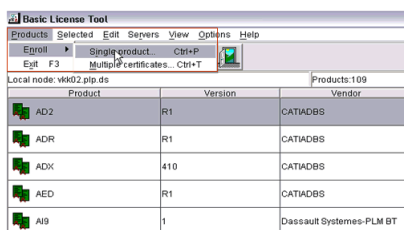


6. Pass the message to restart the service (if previously it was stopped)

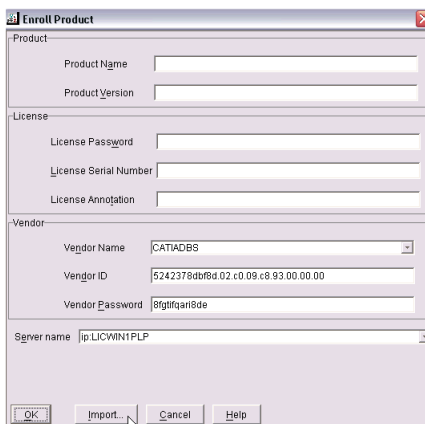


7. Use *Basic License tool*.

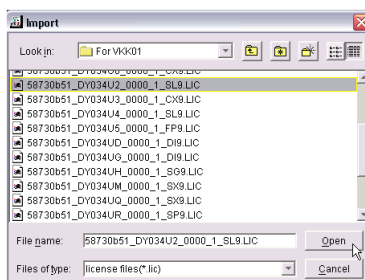
8. Select command **Enroll** in menu **Products**. Choose Single or Multiple depending on whether you want to be enrolling a single or multiple licenses at a time.



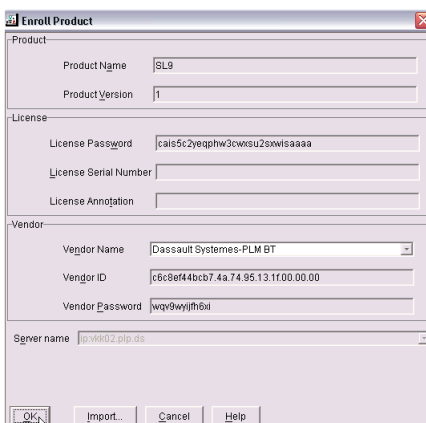
9. Click on **Import** button.



10. Locate the nodelock license file received in the file browser



11. Select OK in both the panels to have the License successfully enrolled



12. The license must be usable.

Configuration for a concurrent license

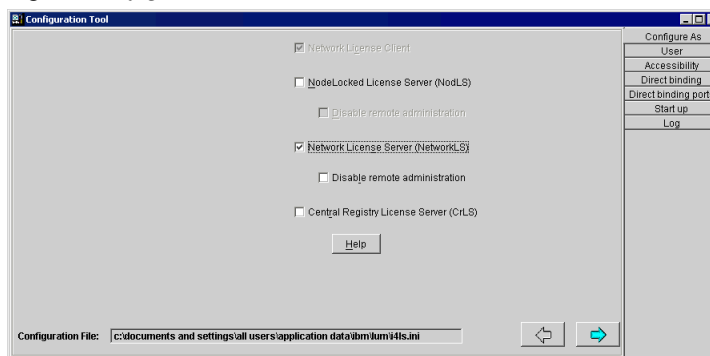
In the case of a concurrent license, you have to:

- configure the server station
- install the license(s) on the server
- configure the different client workstations that can use these licenses

In some cases, the server is also a client user workstation. Then LUM parameters must be modified as the 2 following ways:

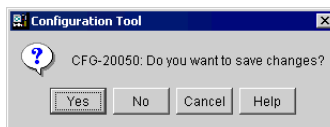
Configuration of a LUM server

1. Configure the server using the *Configuration tools*.

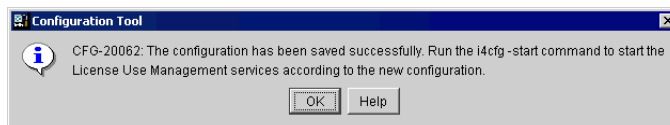


Ensure that the option for **Network License Server** is selected.

2. Close the Configuration Tool window and validate accepting the changes

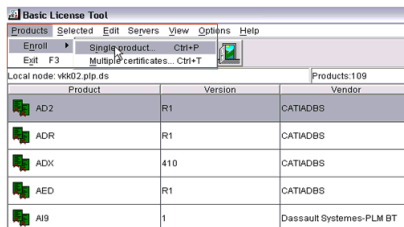


3. Pass the message to restart the service (if previously it was stopped)

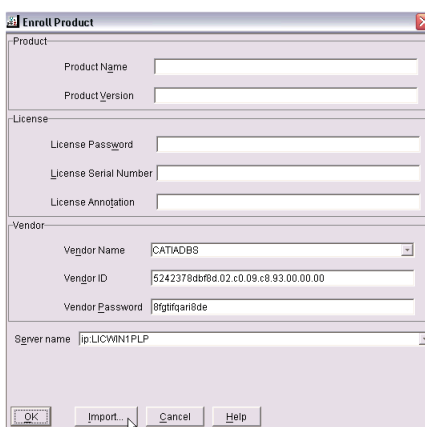


Installation of a concurrent license

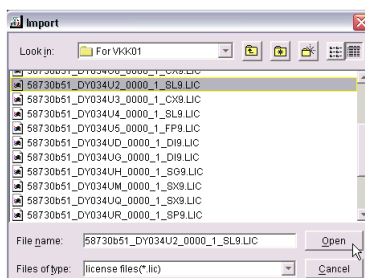
1. Use *Basic License tool*.
2. Select command **Enroll** in menu **Products**. Choose Single or Multiple depending on whether you want to be enrolling a single or multiple licenses at a time.



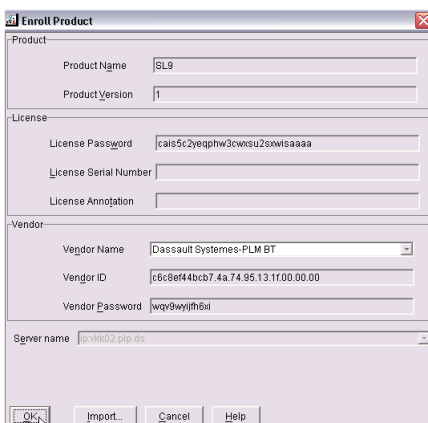
3. Click on **Import** button.



4. Locate the concurrent license file received in the file browser



5. Select OK in both the panels to have the License successfully enrolled



Enroll Product

Product

Product Name: SL9

Product Version: 1

License

License Password: cais5c2yegqhw3cvxsu2xwlsaaaa

License Serial Number:

License Annotation:

Vendor

Vendor Name: Dassault Systemes-PLM BT

Vendor ID: c6c8ef44bcb7.4a.74.95.13.1f.00.00.00

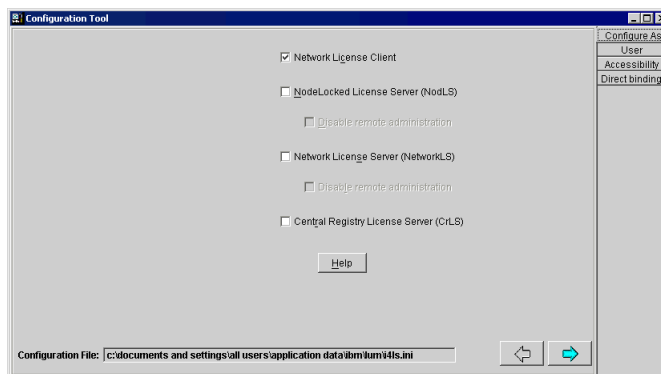
Vendor Password: wqg9wyjthbdi

Server name: ip.vk802.plp.ds

Buttons: OK, Import, Cancel, Help

Configuration of a user workstation

1. Configure the client using the *Configuration tools*.



Configuration Tool

☒ Network License Client

☐ NodeLocked License Server (NodLS)

☐ Disable remote administration

☐ Network License Server (NetworkLS)

☐ Disable remote administration

☐ Central Registry License Server (CrLS)

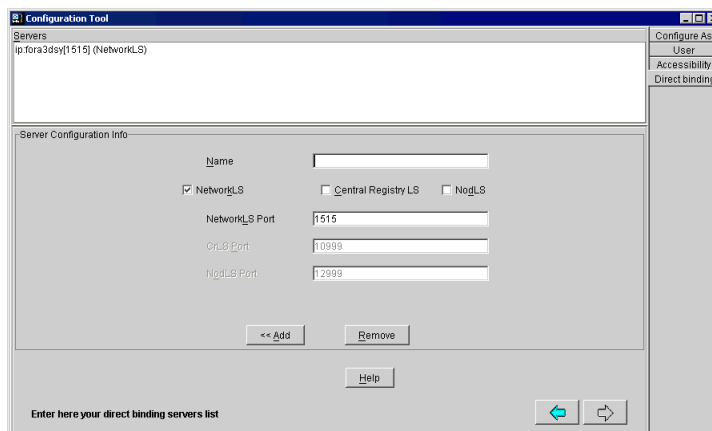
Help

Configuration File: c:\documents and settings\all users\application data\ibm\lvm\lts.ini

Buttons: Configure As, User, Accessibility, Direct binding

Check the option **Network License Client**.

2. Switch to the **Direct Biding** tab.
3. In the **Name** field enter the server machine name.
4. Check the box for **NetworkLS** and click on **Add** button.



Configuration Tool

Servers

ip.fora3dsy[1515] (NetworkLS)

Server Configuration Info

Name:

☒ NetworkLS ☐ Central Registry LS ☐ NodLS

NetworkLS Port: 1515

CrLS Port: 10999

NodLS Port: 12999

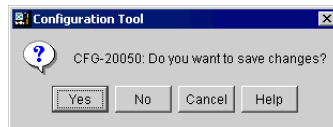
<< Add Remove

Help

Enter here your direct binding servers list

Buttons: Configure As, User, Accessibility, Direct binding

5. Close the Configuration Tool window and validate accepting the changes



6. The client workstation license management must be operationnal.

Note

When a client is launched, a license is attached to this client and the information is registered on the license server (if there is at least one available license). In order to visualize the total number of license and the currently used license number, it just needs to refresh the main view of the *Basic License tool* application located on the LUM server.

Database used by Safety Designer

Generality

The installation of software Safety Designer requires an access to a database.

Safety Designer manages in the current version :

- either a native access to Oracle database.
- either a native access to Access database.
- or an access via an ODBC source (currently, Dassault only offers ODBC support through Access database).

Creation or update process of these databases, and process of connection to these databases are specific to the database installed.

The connection is done during the launching of Safety Designer. Cf. the section called “Launching of Safety Designer”.

Installation on an ORACLE database

The installation of Safety Designer requires the availability for the user of an open base authority on which one can connect and install the database. You should refer to Oracle documentation for more information to the creation of an Oracle database instance.

Instance name must begin with a letter and must contain only alphanumeric and underscore characters ([A-Za-z][A-Za-z0-9_]*). The number of character must not be greater than 20.

This database instance comes from:

- either a previous version of Safety Designer

The database schema has been fully modified from the 4.3 (*delivery 6*) version of Safety Designer. In order to retrieve data from an old version, you can:

- Either use the application XML import/export functionalities: From a previous version let us export elements of previous database with export function. Then you have to import data in new database.
- Or use the data migration kit between the 4.2 and 4.3 versions. For more information, please see Appendix A, *Data migration kit for database version 4.3*.

- or from a new instance creation

The database installation must be done before software installation by a database administrator.

SQL scripts allowing database creation are available in database directory (CD-ROM or Zip).

Moreover, Oracle user account used during installation must own the CREATE PROCEDURE right.

Installation on an Access database

In case of Access installation, database-update isn't provided. The only way to recover data from a previous version is to export elements of previous database with export function. Then you have to import data in new database.

Connection using an Access file

In case of a connection via an Access file, there is nothing to configure before the installation and the launching of the application

Connection using a ODBC source

ODBC Data Source Administrator is a system component providing a simple access to database. Its principle is to associate a name of data source with a data "container". In Safety Designer environment, "container" is an Access database.

In order to create ODBC link for a new Access database, you have to:

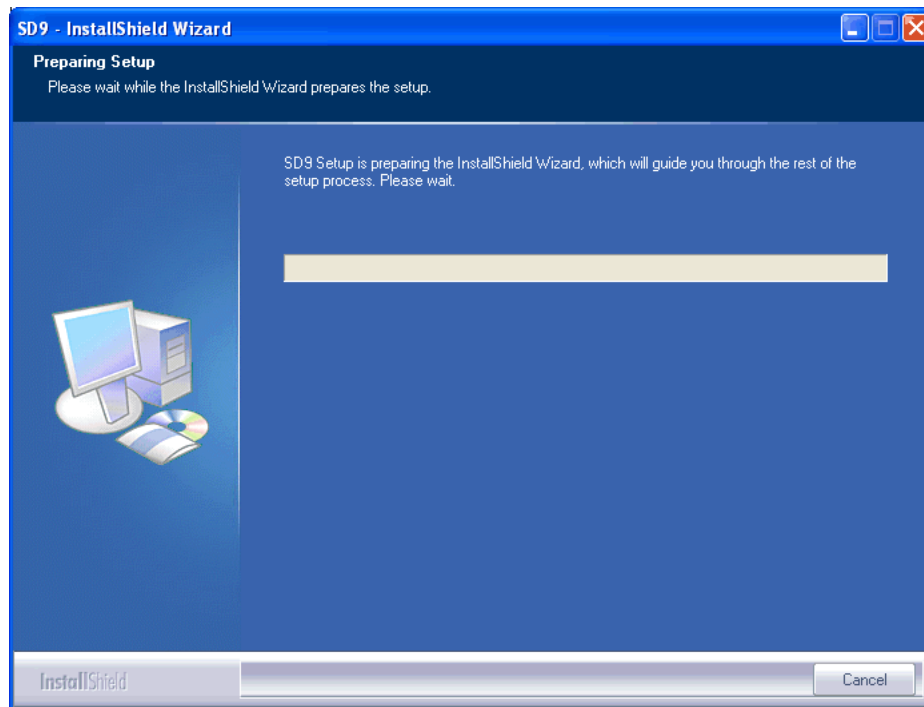
- Copy Base .mdb file in a user directory (a backup directory if possible). The file is in database/MSAccess directory of installation medium.
- Create an ODBC data source, type must be Microsoft Access Driver (*.mdb) and name can be SD9 (for example), it must be linked to the previous file. For more information, see Appendix B, *Creation of ODBC Datasource*.

Safety Designer Installation

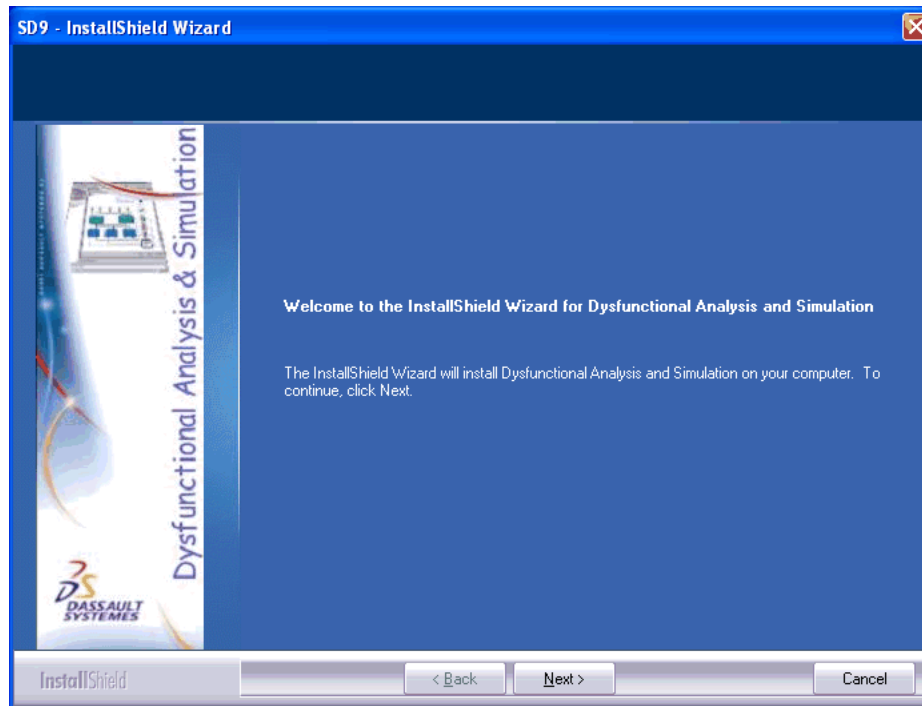
Launching of the installation

To install the Safety Designer software, double click on the file `setup.exe`.

The following window appears:



After a few seconds, the following window appears.



Click on **Next** button.

From the following panel, it is possible to return to the previous panel by using the **Back** button.

If a JDK lower than 1.6 is installed on the machine, the application doesn't launch, and the following window appears.



If a JRE lower than 1.6 is installed on the machine, the application doesn't launch, and the following window appears.



Otherwise if an higher version of JDK is installed on the machine, the following window appears.



A version higher than 1.6 is not certified by the application.

If an higher version of JRE is installed on the machine, the following window appears.

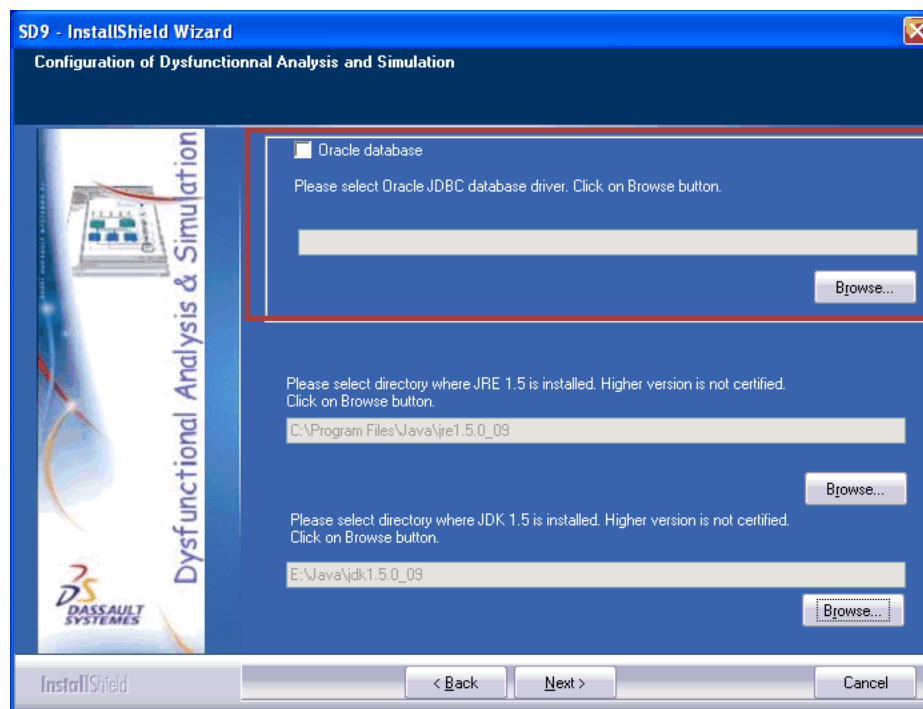


A version higher than 1.6 is not certified by the application.

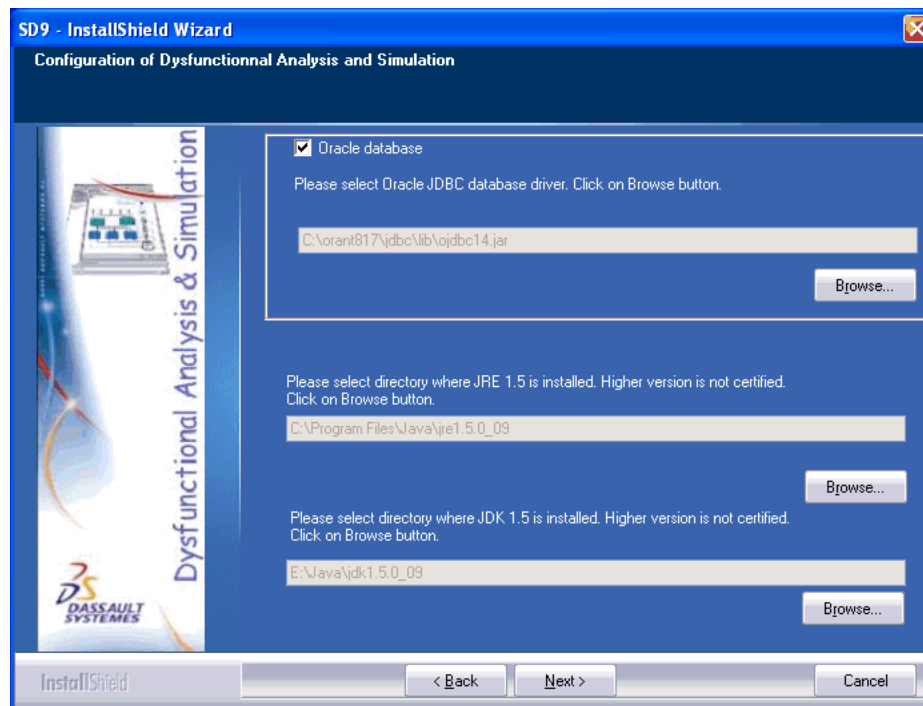
Configuration of Safety Designer

Oracle JDBC driver selection

Provided that the installation of the Oracle JDBC drivers has been done correctly, the user needs to fill this field in **JDBC database driver** area with one of the driver installed. He can browse the file system to find it.



The Oracle JDBC drivers are commonly located in the following oracle directory: [ORACLE_HOME] / jdbc / lib.
The preferred driver to use for the current version of Safety Designer is named ojdbc14 . jar.

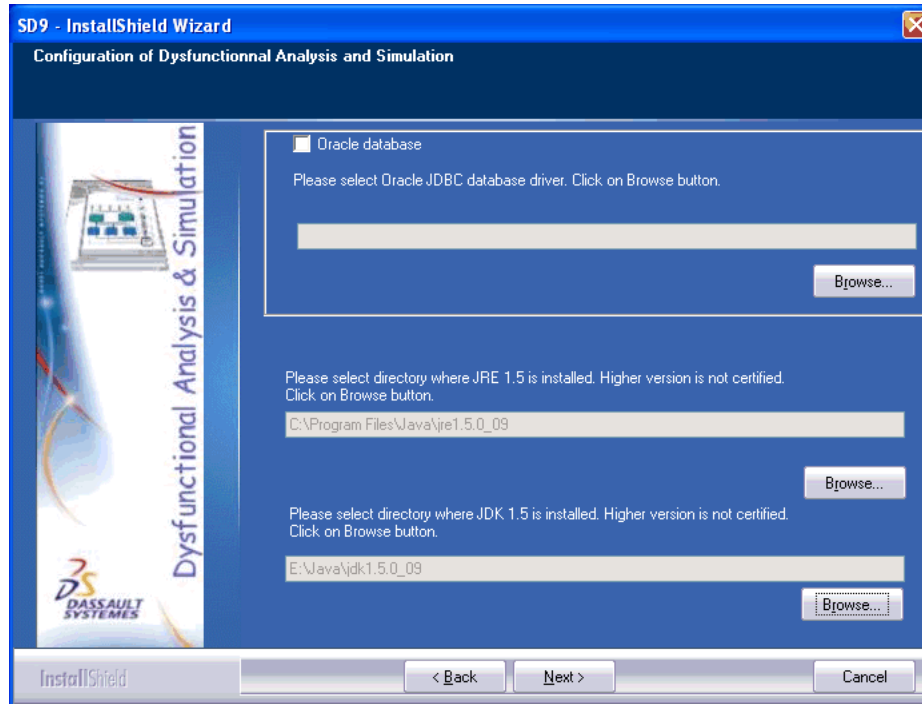


If the Oracle database checkbox is selected and no path is filled, the following window appears :



JDK and JRE selections

The Safety Designer software needs the JDK in order to work. The directories in which the JDK and the JRE are located, are directly filled. If you want to change them, use the Browse button.

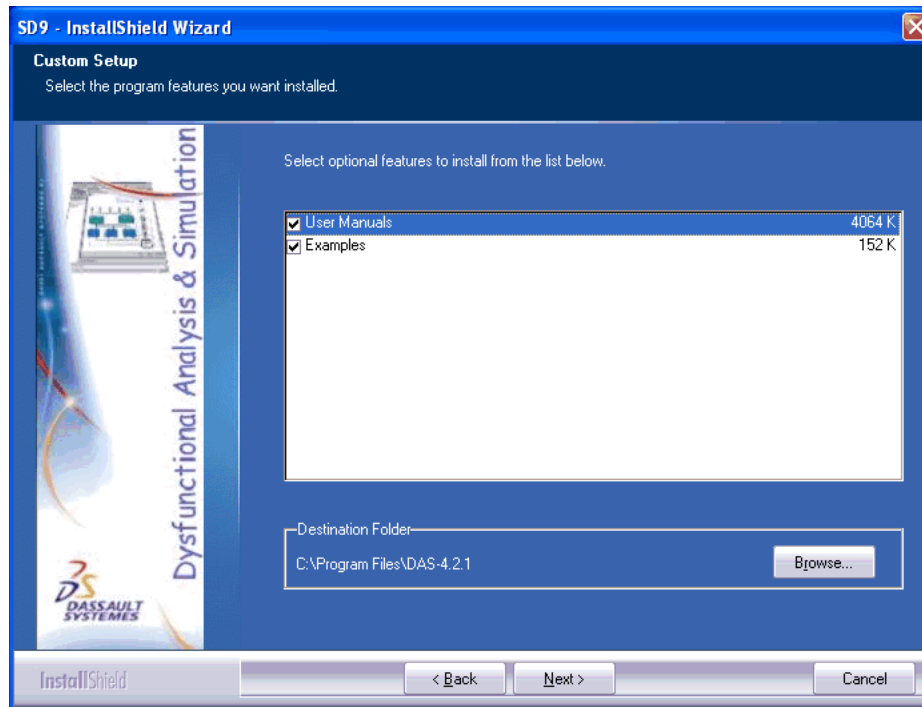


JDK and JRE 1.6 are required. An higher version is not certified.

Click on **Next** button to continue the installation.

Custom Setup

The following panel specifies optional features to install.



The following features are optional:

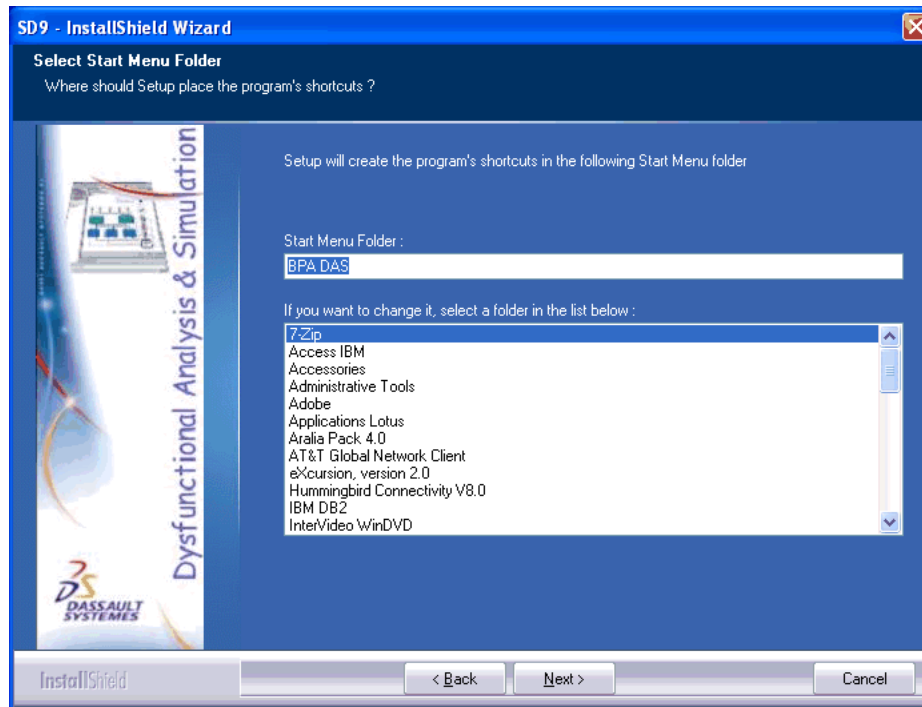
- **User manuals:** installation of the user manual and the appendix
- **Examples:** drivers used by Oracle. Optional for ACCESS.

An installation default directory is proposed and can be changed.

Click on **Next** button to continue the installation.

Selection of the shortcuts

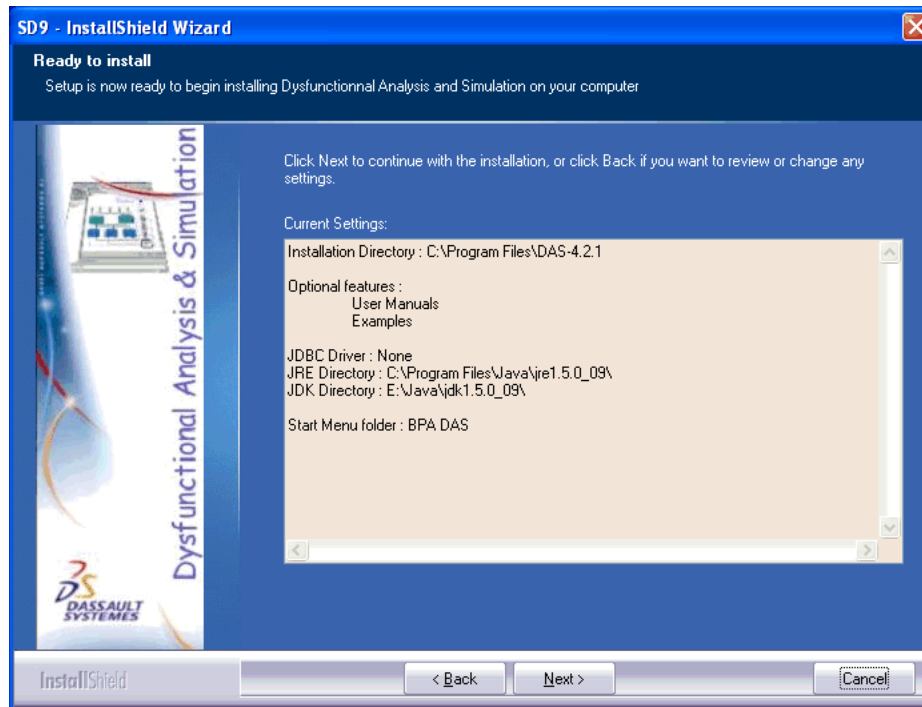
The setup will create the program's shortcuts. A default shortcut is proposed and can be changed.



Click on **Next** button to continue the installation.

Ready to install

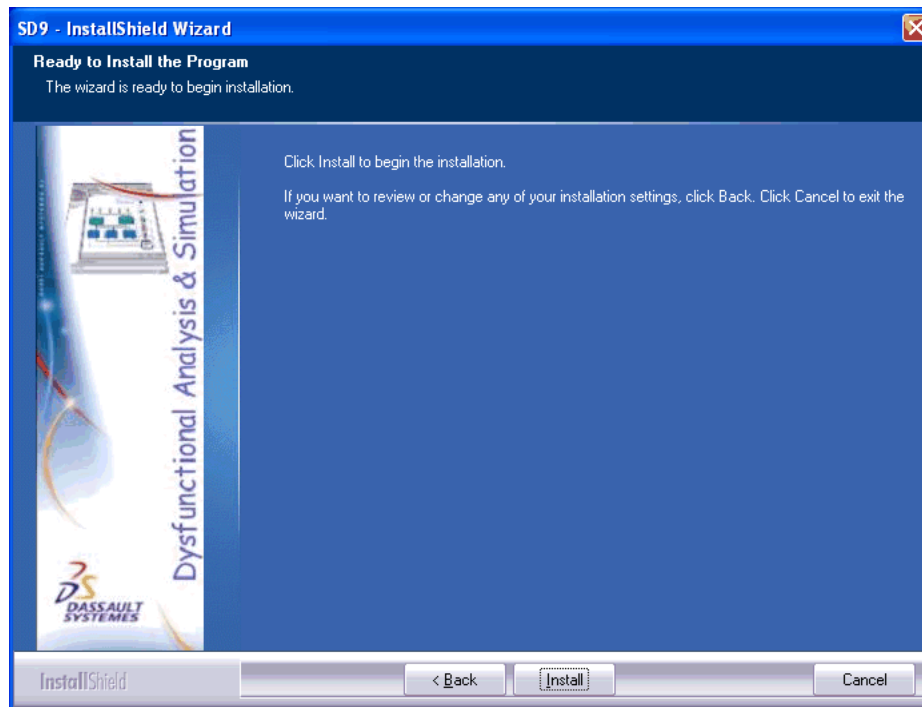
The following panel presents the current settings :



- **Installation Directory:** Installation directory
- **Optional features:** User Manuals, Examples
- **JDBC Driver:** None or Oracle (directory of the driver)
- **JRE Directory:** JRE uses by the application
- **JDK Directory:** JDK uses by the application
- **Start Menu Folder:** Shortcut for the application

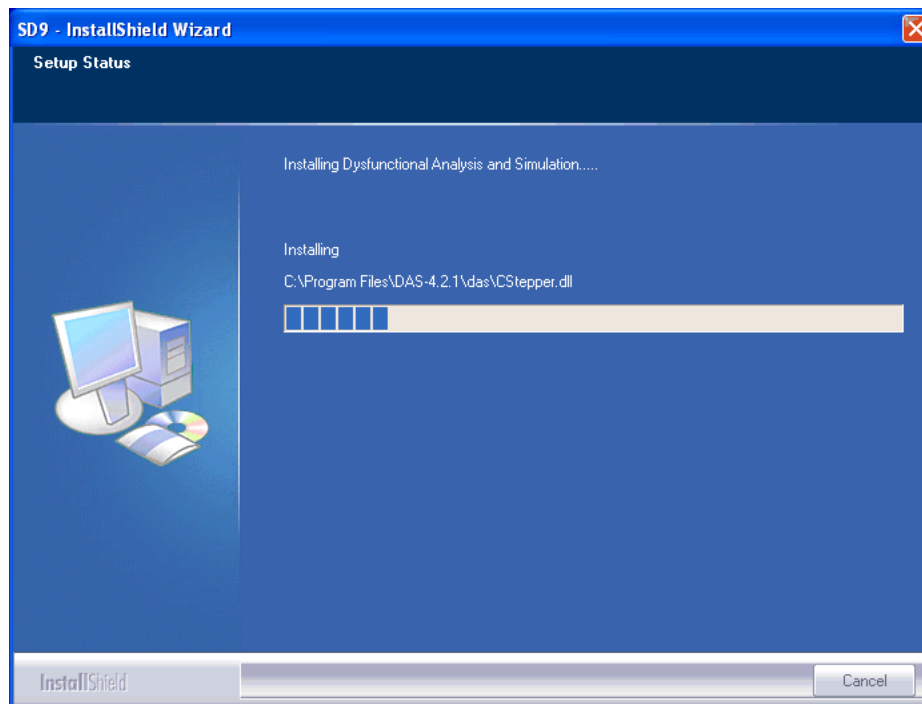
Click on **Next** button to continue the installation.

Start of the installation

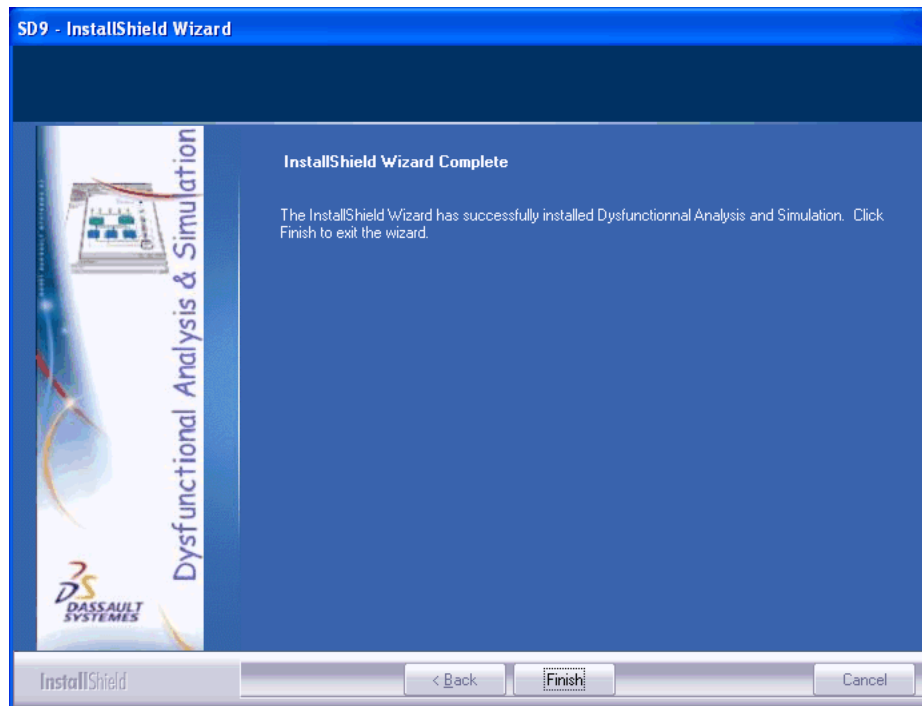


Click on **Install** button to begin installation.

The next window presents the setup status.



Once the installation is complete, the following window appears :

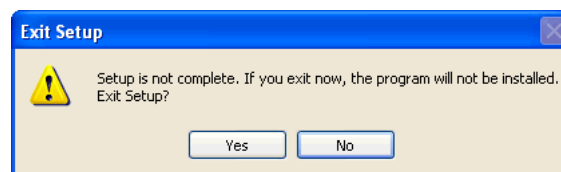


Click on **Finish** to finish the installation and to quit the installation wizard.

Quit the software of installation

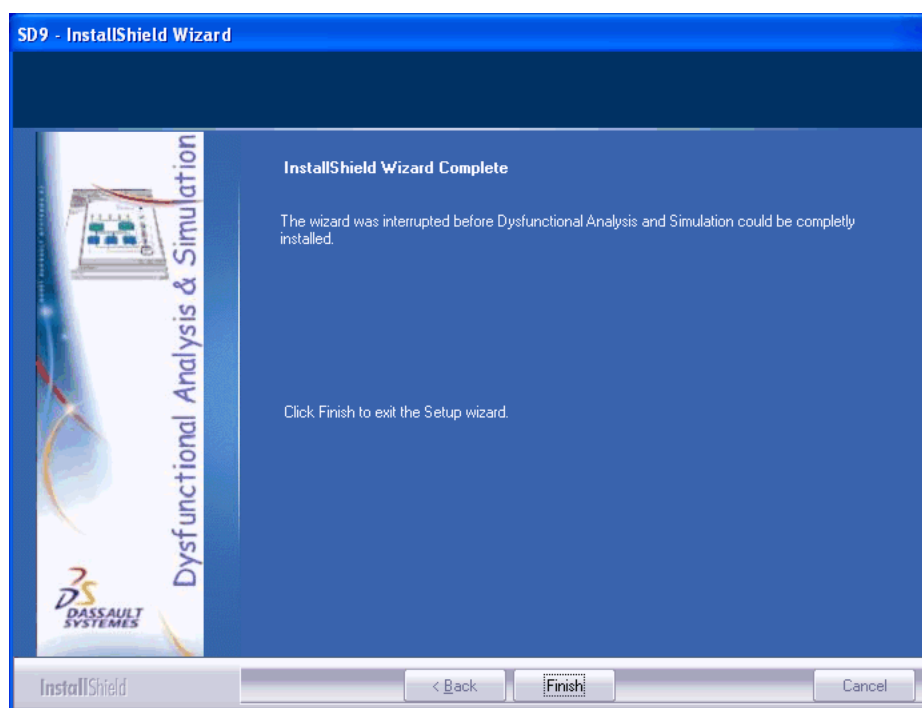
Anytime it's possible to quit the installation. Just click on **Cancel**.

To confirm the cancelation, the following window appears :



Click on **Yes** to quit or **No** to cancel.

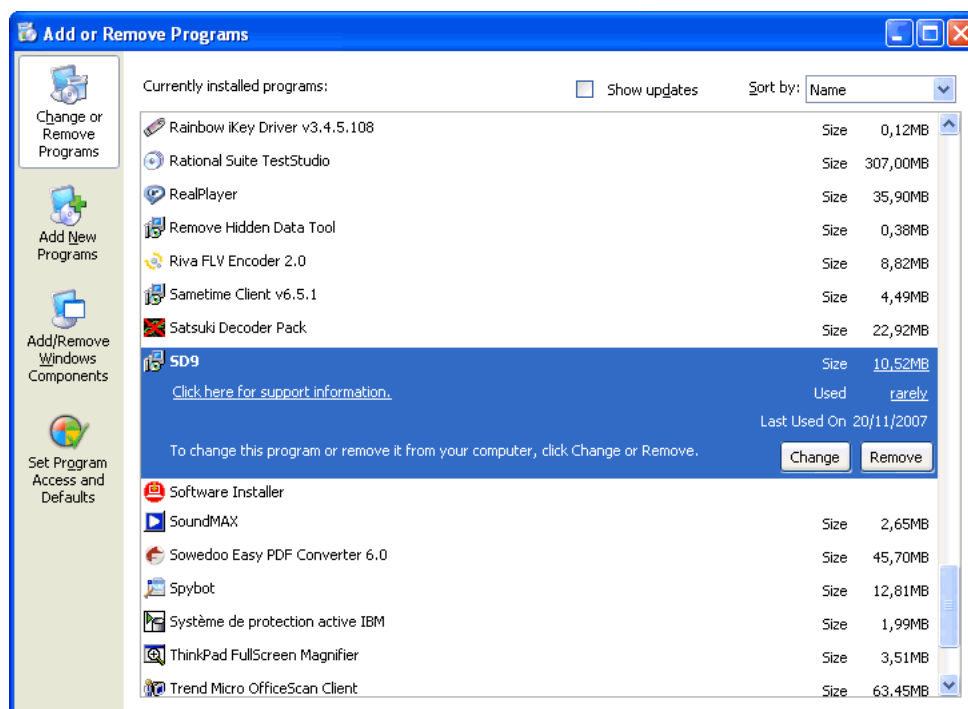
If the cancelation is confirmed, the following panel appears :



Click on **Finish** to exit the setup Wizard.

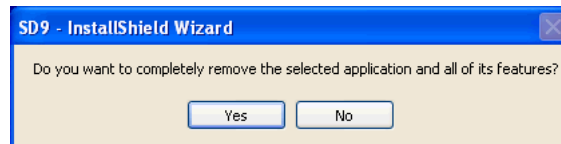
Uninstall the application

Click on Control Panel and then select **Add or Remove Programs** . Then, select Dassault Systèmes Software BPA SD9.



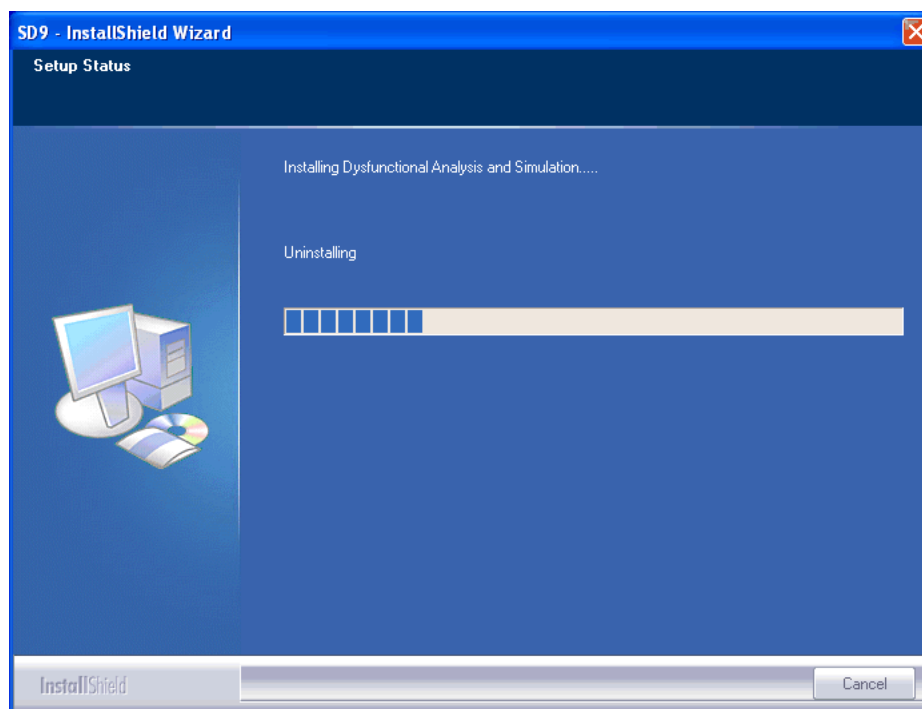
Select Remove.

The following window appears:

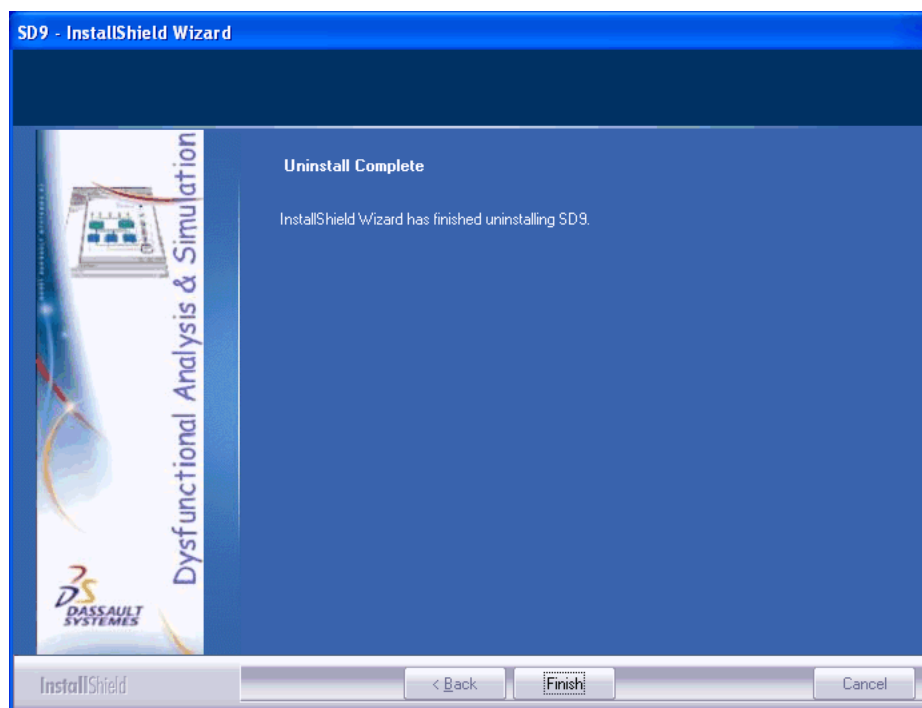


Click on **Yes** to confirm or **No** to cancel.

During the uninstallation, the following panel appears :



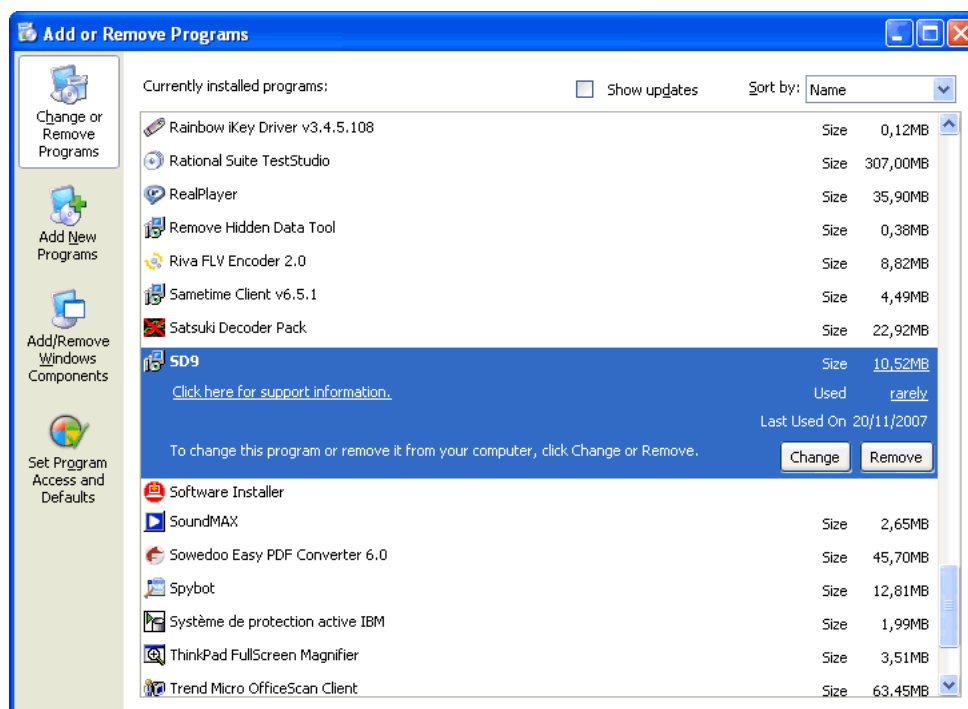
Once the application is uninstalled, the following panel appears :



Click on **Finish** button to quit the uninstaller.

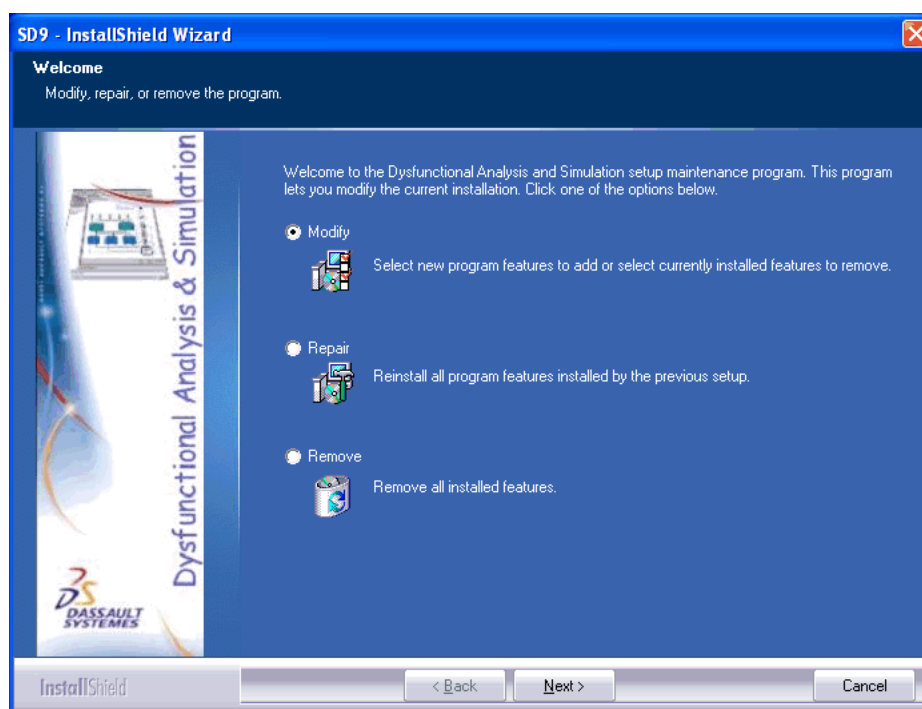
Modify the application

Click on Control Panel and then select **Add or Remove Programs** . Then, select Dassault Systèmes Software BPA SD9.



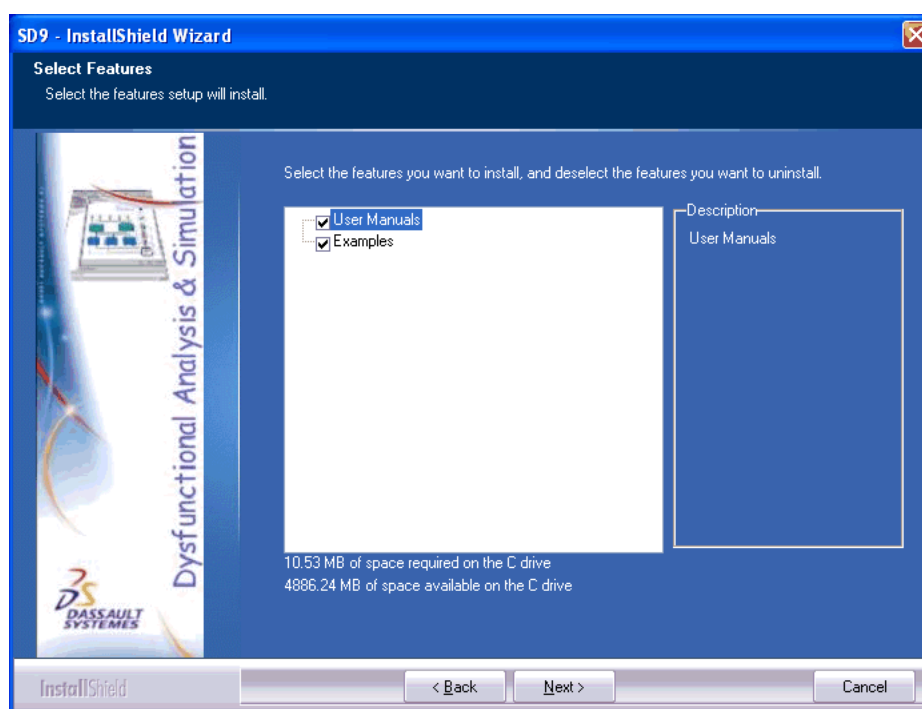
Click on **Change** button.

The following window appears:



Select **Modify**.

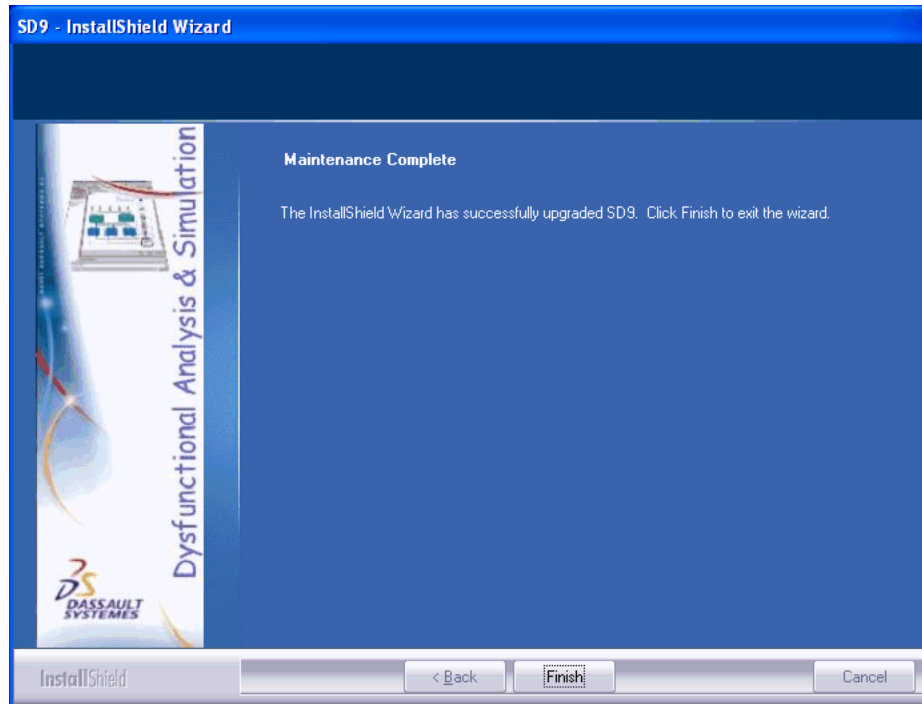
The following window appears:



Select the features you want to add or remove.

Click on **Next** button.

The following window appears:



The maintenance is over. Click on **Finish** button to quit the application.

Launching of Safety Designer

Start the application

To start the application, go to **Programs** and choose the shortcut folder created for the application.

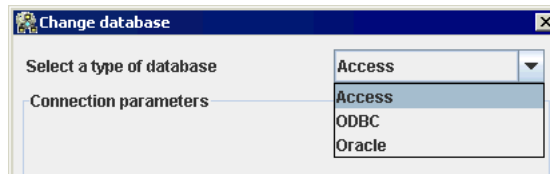


You can also double click on the file `SafetyDesigner.bat` located in the `SafetyDesigner/safetyD` directory.

Database selection

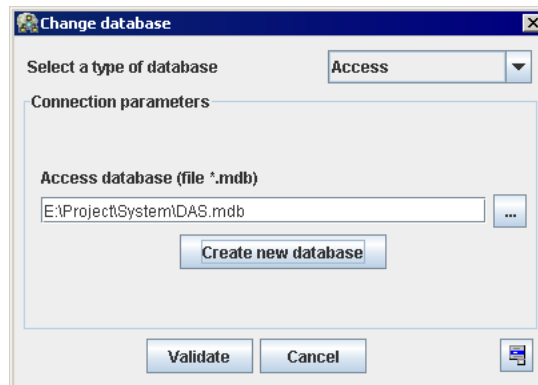
When you launch the application for the first time, the database is not chosen. A window allows choosing the database you want to use and to specify the connection parameters.

The window of database change is the following :



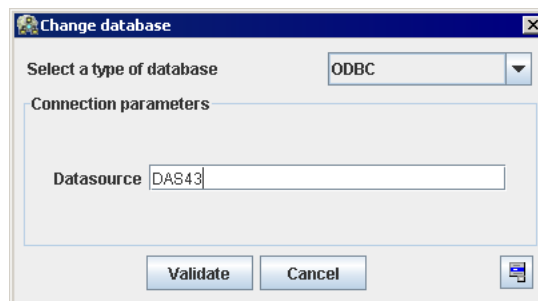
This window allows selecting the database type between :

- **Access** : In this case, you have to specify the Access file (*.mdb)



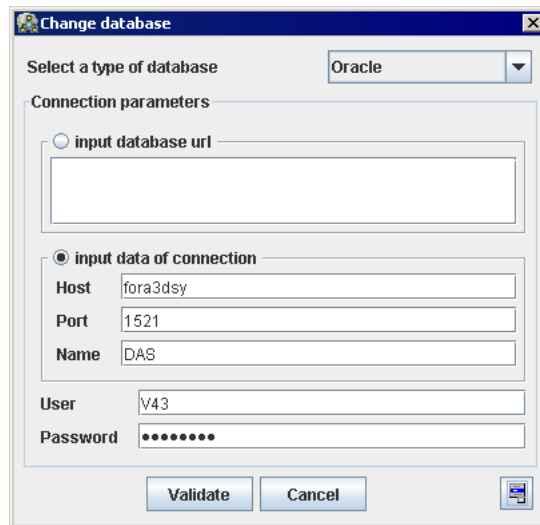
You can also create a new Access file specific for Safety Designer with the button **Create new database**.

- **ODBC** : The ODBC datasource must be filled.



For more informations about the creation of a ODBC datasource, see Appendix B, *Creation of ODBC Datasource*.

- **Oracle :**



The dialog box titled "Change database" has a dropdown menu for "Select a type of database" set to "Oracle". Under "Connection parameters", there are two radio buttons: "input database url" (unselected) and "input data of connection" (selected). The "input data of connection" section contains fields for "Host" (fora3dsy), "Port" (1521), "Name" (DAS), "User" (V43), and "Password" (masked with dots). At the bottom are "Validate" and "Cancel" buttons.

The connection parameters are :

- **Host** : Server supporting the database (including the DNS tree structure).
- **Port** : Connection port to the database.
- **Base** : Name of the database instance.
- **Login** : Connection login to the database.
- **Password** : Login password to the database.

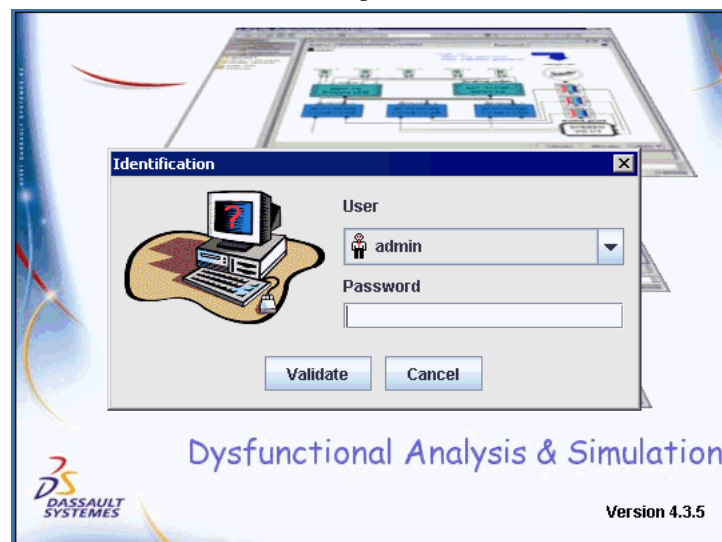
For experienced users, it is also possible to directly enter the database connection url instead of the parameters fields. The syntax of an url is the following one: **Host:Port@Base**.

Note

The Oracle database is accessible only if the drivers are available, so the JDBC driver specified has to be correctly filled during the installation.

Connection to Safety Designer

Once the connection to the database done , and there is no problem with the license, the identification window appears.



The "Identification" dialog box features a background image of a circuit board. It includes a "User" dropdown menu set to "admin" and a "Password" text field. "Validate" and "Cancel" buttons are at the bottom. The background also displays the text "Dysfunctional Analysis & Simulation" and "Version 4.3.5".

When you create a new database, there is only one user, the administrator.

The administrator login and password are:

- login : admin
- password : admin

A. Data migration kit for database version 4.3

The Safety Designer data migration kit allows the user to transform the version 4.0 database schema into a version 4.3 database schema. It also allows to retrieve data from an old version, but only on an Oracle database.

It is composed of the two following successive steps:

1. application of the scripts allowing to create the objects in the database and to retrieve simple data from the old models
2. application of the `migration.jar` file allowing to retrieve more complex data. It is mandatory to the completeness of the data retrieval and the consistency of the final data.

User can execute the following scripts:

- `launch_sql.bat` file: is the first step of migration
- `launch_java.bat` file: is the second step of migration
- `launch_all.bat` file: enables to execute the two steps successively.

Important

Before executing one of these scripts, environment variable of `launch_all.bat` must be correctly modified.

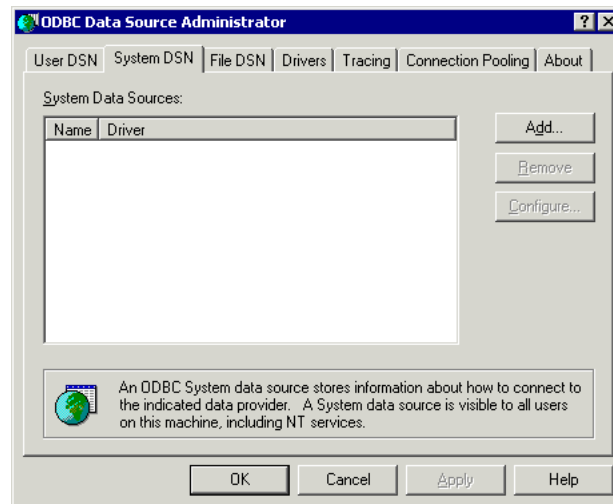
Every file of `log` directory must be read in order to verify that there was no issue, specially files:

- `log/user.lst`: log for creation of user who is responsible for new schema.
- `log/creation.lst`: log for creation of tables/sequences/... of new schema.
- `log/migration.lst`: log for data migration to new schema.
- `log/logfile.log`: log for Java part of data migration.

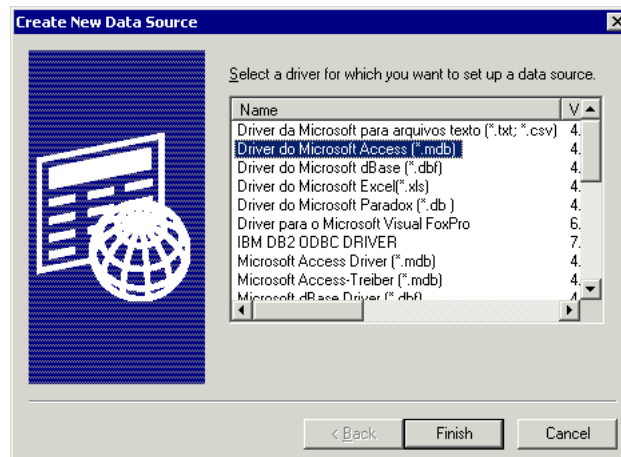
B. Creation of ODBC Datasource

In order to use the software on an Access database, proceed as follow :

- Copy the MS Access reference file (containing the SDA data model) from the Installation package on your hard drive.
- Then follow the step bellow to create an ODBC data source on the MS Access file copied just before.
- Show the ODBC Data Source Administrator by choosing **Settings->Control Panel** in the **windows start** menu and then **Administrative Tools - Data Sources (ODBC)**

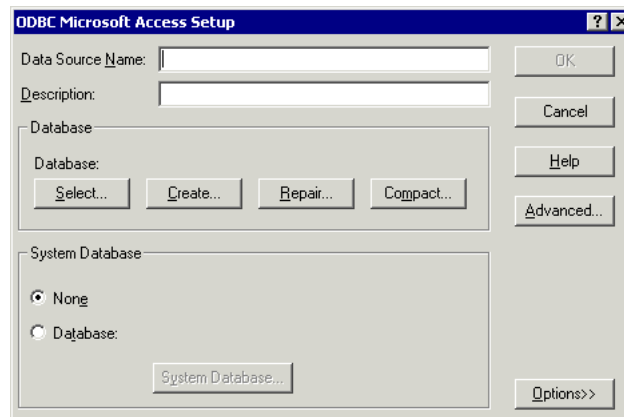


- Click on **System DSN** tab and on the **Add** button, the following window appears:



- Choose **Microsoft Access Driver (*.mdb)** and click on **Finish**,

- The following window appears:



- Type the name of the data source and click on the **Select...** button to browse the system files for the MS Access file copied before.

Then click on the **OK** button.

- The ODBC data source has been created and can be referenced in the Safety Designer software installation.