

Requirements XML Edition

- RX9 -



Installation Guide – V1

BPA Delivery 6 for V5R19 (V5.6)

Modification Tracking

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1. Introduction

This document describes the installation procedure for the Requirements XML Edition Business Process Solution.

This document is divided into the following sections:

- Requirements XML Edition installation
- Configuring Requirements XML Edition
- Modifying or uninstalling Requirements XML Edition
- Script Hooking
- Starting Requirements XML Edition

1.1. *Related Documentation*

- Collaborative Systems Engineering – License Use Management (CSE_LicenseUseManagement_R19D6.doc)
- Collaborative Systems Engineering – Data Model Documentation (CSE_DataModel_Documentation_R19D6.doc)
- ENOVIA SmarTeam – V5R18 Hardware and Software Requirements
- ENOVIA SmarTeam - Editor Installation Guide
- ENOVIA SmarTeam - Editor Administrator Guide
- ENOVIA SmarTeam - Editor User Guide
- ENOVIA SmarTeam - Foundation Installation Guide
- ENOVIA SmarTeam - Foundation Administrator Guide
- ENOVIA SmarTeam - Foundation User Guide

1.2. *Definitions*

1.2.1. *Glossary*

Name	Definition
BPA	Business Process Accelerator
PDIR	Program Directory
CSE	Collaborative System Engineering

Table 1 - Glossary

1.3. *Prerequisite for Requirements XML Edition Installation*

1.3.1. *Hardware requirements*

ENOVIA SmarTeam installation is the main prerequisite for CSE installation. Refer to 'ENOVIA SmarTeam V5R18 Hardware and Software Requirements' documentation to obtain all pre requisites regarding SmarTeam.

1.3.2. *Software requirements*

ENOVIA SmarTeam installation is the main prerequisite for CSE installation. Refer to 'ENOVIA SmarTeam V5R18 Hardware and Software Requirements' documentation to obtain all pre requisites regarding SmarTeam.

The BPA Requirements XML Edition is based on **ENOVIA SmarTeam's** advanced object oriented database capabilities and provides the overall combination of classes, objects, properties, methods, parent-child and peer to peer relationships supporting advanced Requirements Management processes.

The BPA Requirements XML Edition requires the installation of the following ENOVIA SmarTeam components:

- **ENOVIA SmarTeam SEG + Word integration**
- **Requirements Management BPA**
- **Collaborative Services BPA**

Information

The installation of the RX9 BPA requires that the following software to be installed:

Operating Systems

- Microsoft Windows XP Professional SP2

Software Requirements:

- Microsoft Office 2003 SP2
- ENOVIA SmarTeam V5R19 GA minimum - SmarTeam Engineering configuration (SEG) with SmarTeam R19 compatible DataBase
- By default ENOVIA SmarTeam V5R18 SP5 - SmarTeam Engineering configuration (SEG) with SmarTeam R18 compatible DataBase
- Html2xhtml dll (provided with Infopath 2003 Software Development Kit)
- Shall be installed for CP9 configuration

2. Requirements XML Edition installation

2.1. *Before Installing*

Information

If a previous version of Requirements XML Edition BPA has been installed on the client, you have to uninstall manually this version before to proceed to the installation of BPA RX9 delivery 6. Upgrade mechanisms are not supported

Notes

If you want to install Requirements XML Edition BPA, you must install ENOVIA SmarTeam Foundation and Editor **first**.

Also, VC Redistributable should be installed first. The patch is given in User package in ToolKits.

When installing, make sure that you have administrator privileges.

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

2.2. *Requirements XML Edition package description*

2.2.1. *User package*

The user package is composed of these folders:

- Documentation (PDF documentation)
- SetUp
- ToolKits
- DB (SQL server DataBase)

2.2.2. *SetUp files*

The Requirements XML Edition package includes:

- The Requirements XML Edition code.
- Different InfoPath Forms in use by the solution as separate installations launched by the main installation file
- The application's icons and adds-on.

The setup is an InstallShield setup file containing the BPA code (dll, scripts).

2.2.3. ToolKits file

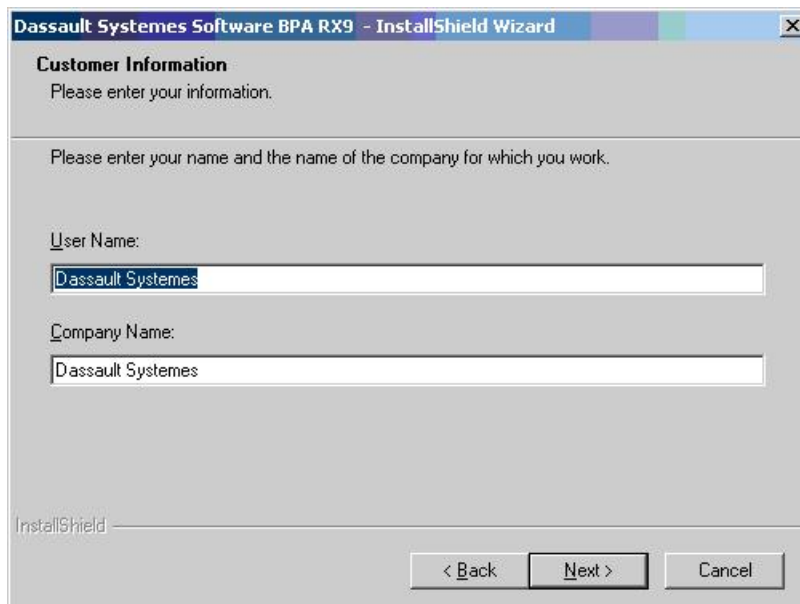
- The ToolKits folder contains VC Redistributable.

2.3. Requirements XML Edition Installation

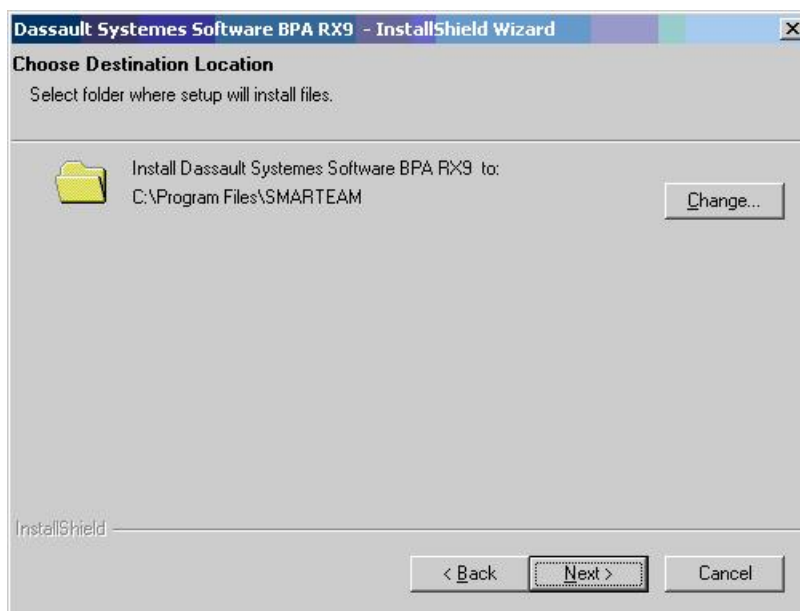
1. Launch the RX9.exe file



2. After reading the contents of the Welcome window, click "Next" to proceed to the next window, Customer Information.



3. After reading the contents of the Welcome window, click "Next" to proceed to the next window, Destination Folder.



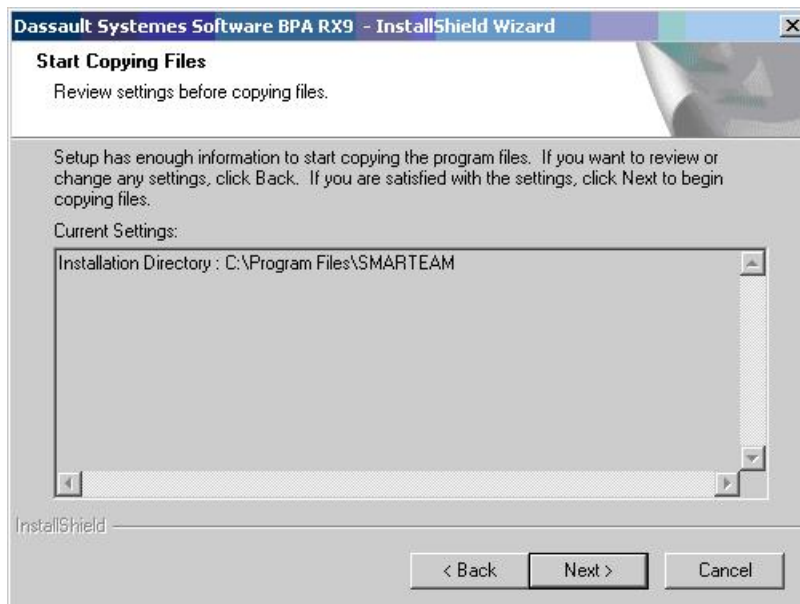
Note:

At any stage of the installation you may click on the "Back" button to review and modify your previous selection. Clicking cancel will give you the option to abort the installation, without modifying anything on the installed computer.

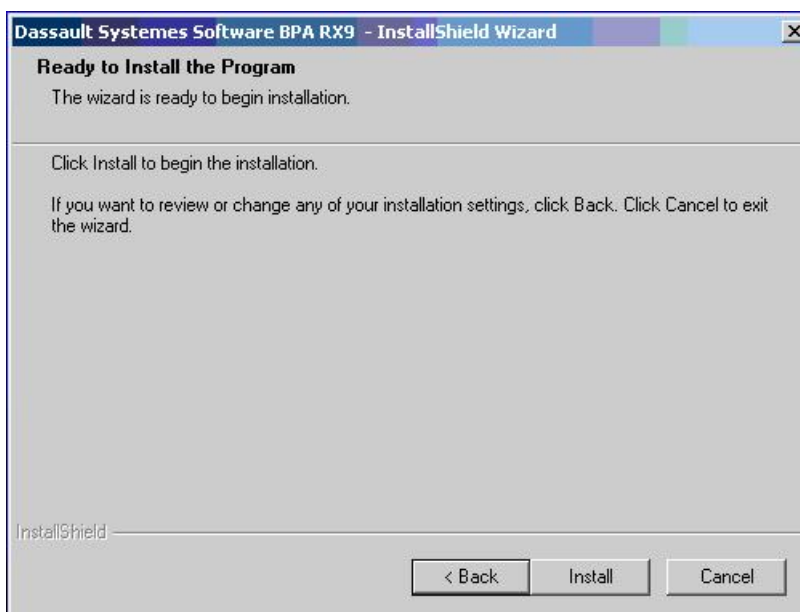
The Destination Folder area shows the destination directory for the program files. By default this path will point to the ENOVIA SmartTeam installation directory. You may specify another path by clicking on Change and selecting a different folder.

Click on Next to proceed to the next window, Copying Files.

4. Copying files

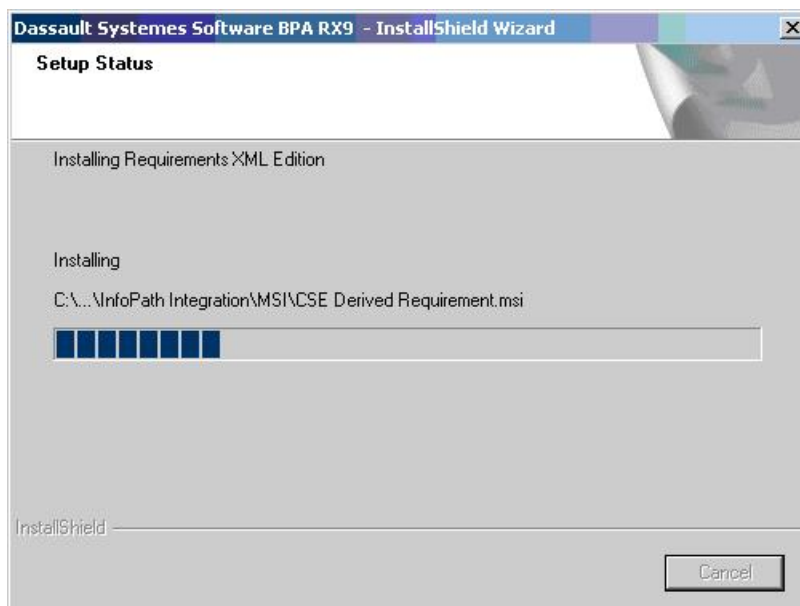


Click Next to reach the Ready to install panel.



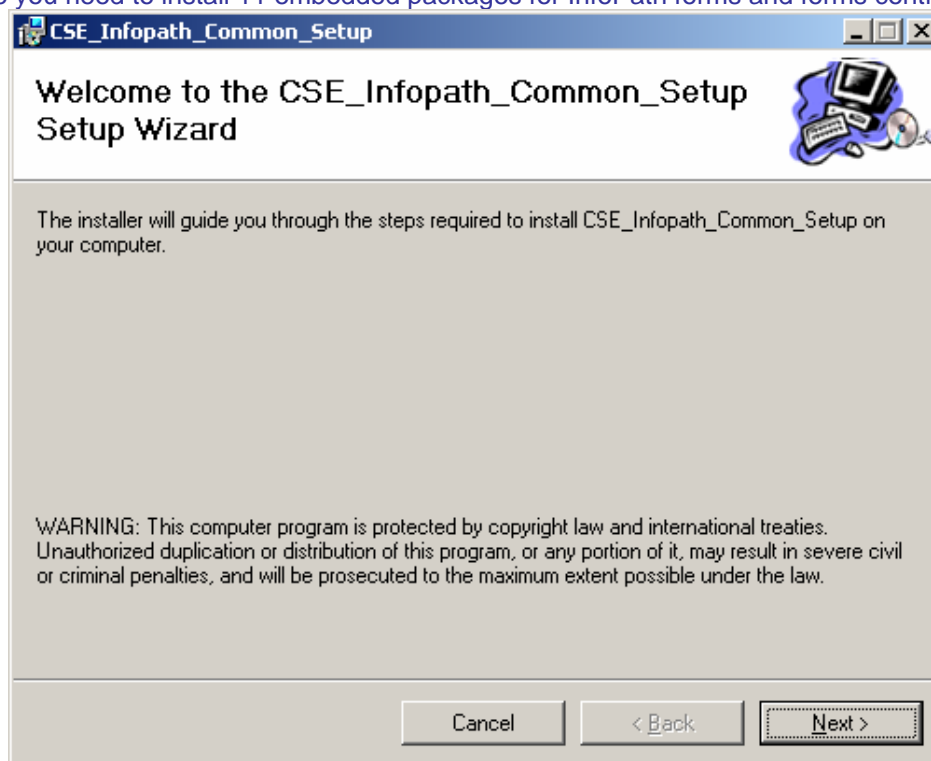
Click Install to launch the installation process

5. Installation process

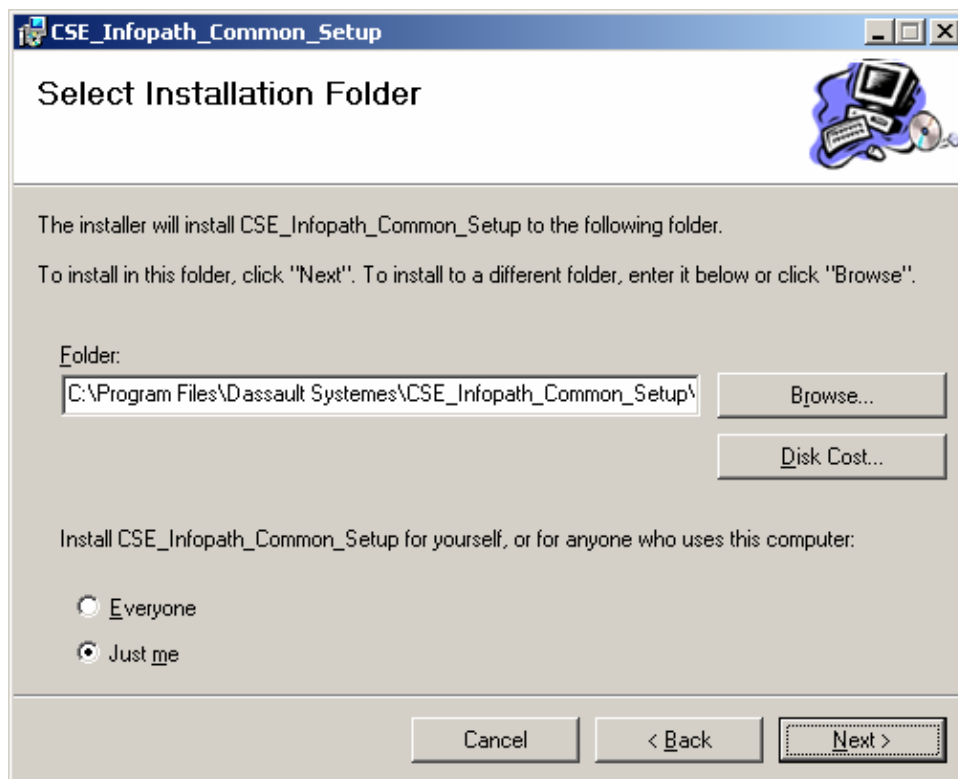


6. The installation process will now copy the files into the designated folders on your computer. Progress is shown on the screen via the Setup Status graphics bar window.

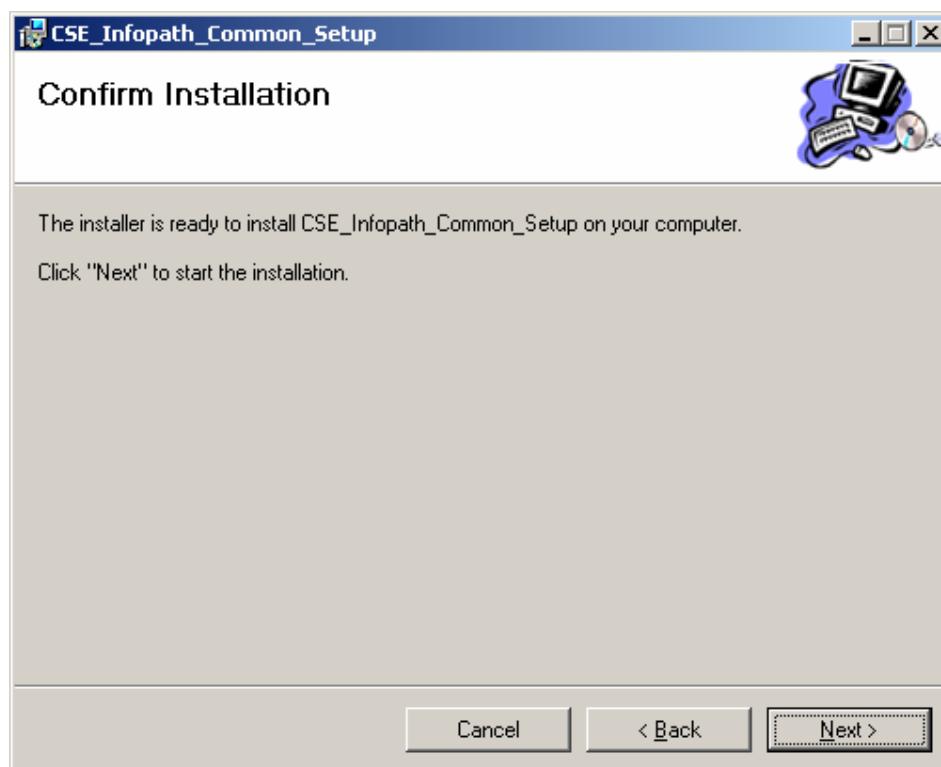
7. At this stage you need to install 11 embedded packages for InfoPath forms and forms control.



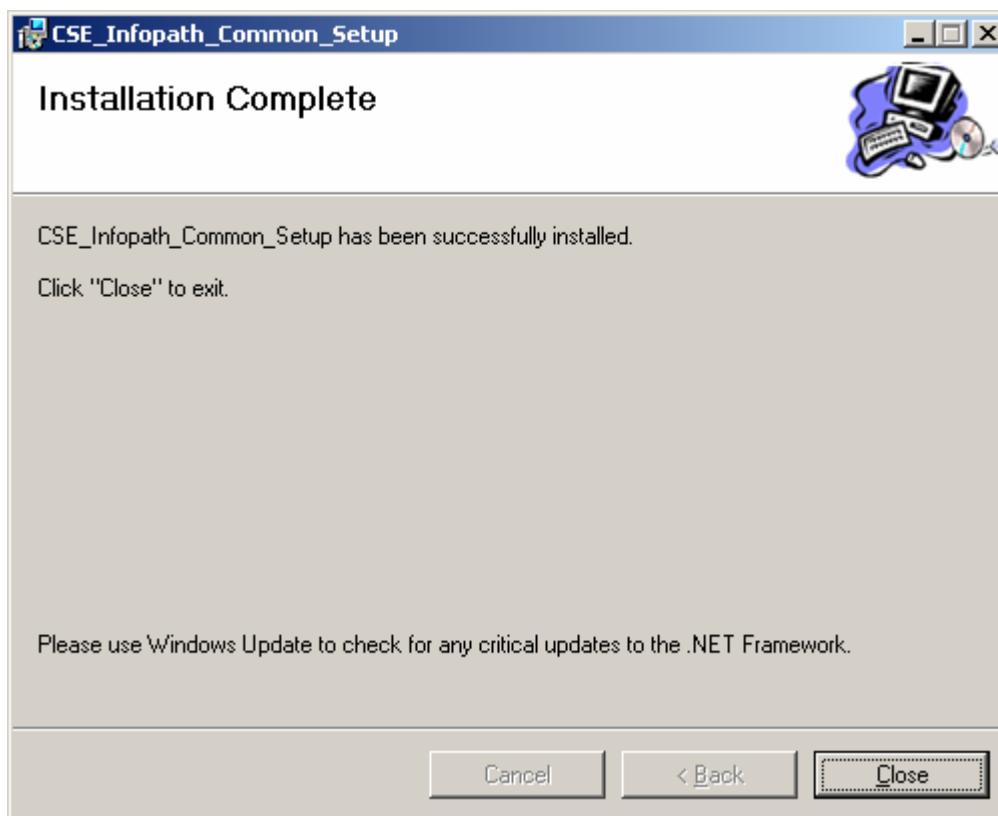
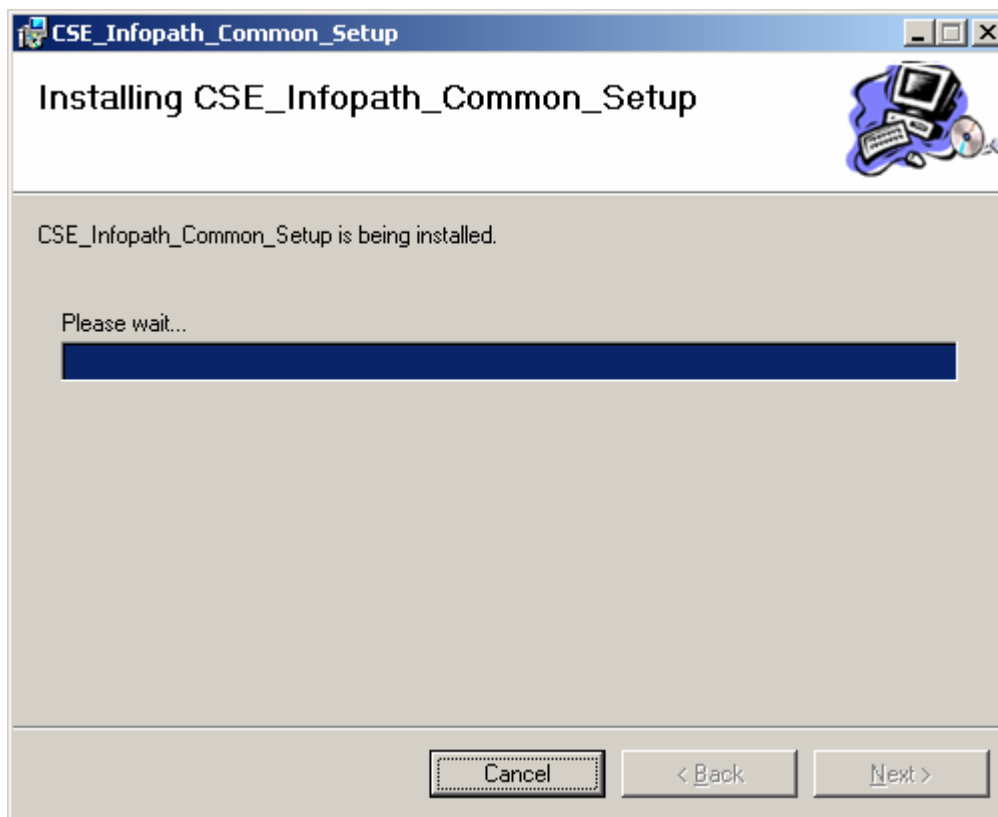
Click "Next" in the displayed window



Click Next



Click "Next" to continue



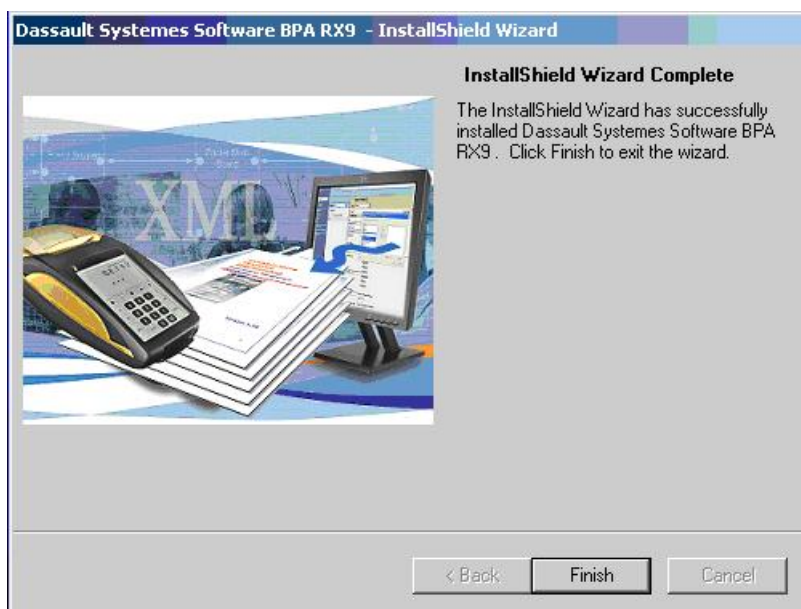
Click "Close".

This step will repeat 11 more times for

- CSE_CHAPTER_REQTREE (Chapter edition)
- CSE_REQTREE (Requirements Module Edition)
- CSE_PRIMARY_REQUIREMENT (Primary Requirement View Form)
- CSE_DERIVED_REQUIREMENT (Derived Requirement View Form)
- CSE_REQUIREMENT_INFOS (Requirements Information View Form)
- CSE_IVVQ_MODULE (IVVQ Module edition)
- CSE_IVVQ_CHAPTER (IVVQ Chapter edition)
- CSE_IVVQ_INFORMATION (IVVQ Information View Form)
- CSE_IVVQ_RESULT (IVVQ Result View Form)
- CSE_IVVQ_SHEET (IVVQ Sheet View Form)
- CSE_IVVQ_MATRIX_ITEM (IVVQ Matrix Item View Form)

8. At the end the setup window will change

The installation is now complete, please read on to view the post-installation tasks.



3. Configuring Requirements XML Edition

3.1. Requirements XML Edition Configuration

3.1.1. Setting the Word Integration for the BPA Composite Document

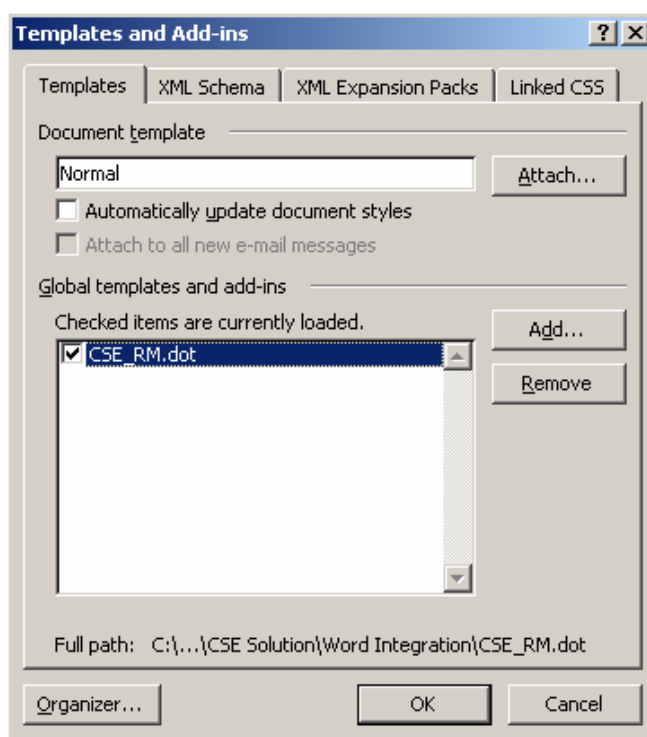
Composite Document module provides Word integration through a specific toolbar, used for generating documents. This integration is supported for Microsoft Office 2003 or higher.

To use these capabilities it must first be added to the word interface.

The toolbar is provided inside a word template file which is copied to the system during the installation phase. Following the installation the file can be found in the following path:

<Installation Directory>\CSE Solution\Word Integration\CSE_RM.dot

To use this toolbar, it is necessary to **point it with “Templates and add-ins” functionality.**



3.1.2. Setting the Microsoft InfoPath 2003 SDK for the Html2xhtml dll

Html2xhtml.dll (provided with InfoPath 2003 Software Development Kit) is not redistributable. The Microsoft InfoPath 2003 Software Development Kit doesn't register automatically the html2xhtml.dll and require manual installation on client machines.

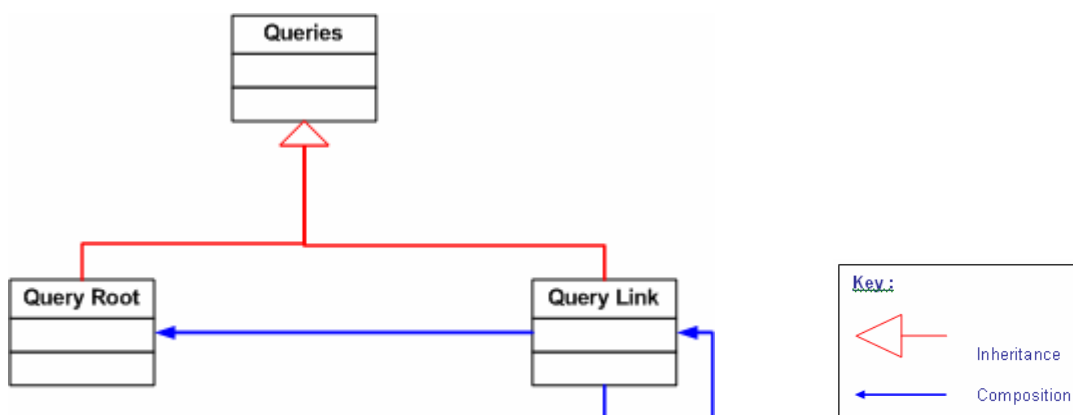
1. Open a command DOS window and go to the directory where is located the file html2xhtml.dll;
2. Register the dll by the command:

```
regsvr32 html2xhtml.dll
```

3.2. Starting a new data set / new database

3.2.1. Launch ENOVIA SmarTeam Data Model Design

Implement the following super class into your SmarTeam data model using Data Model Designer:



CLASSNAME	TABLENAME	CLASSTYPE	ENABLED TOP LEVEL ASSIGNMENT	INDEX UNIQUE
Queries	TN_QUERIES	SuperClass	FALSE	TRUE
Query Root	TN_QUERY_ROOT	SubClass	TRUE	TRUE
Query Link	TN_QUERY_LINK	SubClass	FALSE	TRUE

3.2.2. Setting up the attributes

Queries (TN_QUERIES)

ATTRIBUTE EXTERNAL NAME	ATTRIBUTE INTERNAL NAME	ATTRIBUTE TYPE	IN PRIMARY IDENTIFIER	MANDATORY	OBLIGATORY	READ ONLY	REFERENCED CLASS	SIZE
Unique Identifier	CN_ID	Char	TRUE	FALSE	FALSE	FALSE		21
State	STATE	LookUpTable	FALSE	FALSE	TRUE	TRUE	State (STATE)	4
Creation Date	CREATION_DATE	TimeStamp	FALSE	FALSE	TRUE	FALSE		8
Created by:	USER_OBJECT_ID	RefToClass	FALSE	FALSE	TRUE	TRUE	Users (USERS)	4
Modified by:	USER_ID_MOD	RefToClass	FALSE	FALSE	TRUE	TRUE	Users (USERS)	4

Last modification date and time	MODIFICATION_DATE	TimeStamp	FALSE	FALSE	TRUE	FALSE	8
Description	TDM_DESCRIPTION	Char	FALSE	FALSE	FALSE	FALSE	256
Selection Class ID	TDMX_SELECTION_CLASS_ID	SmallInt	FALSE	FALSE	FALSE	FALSE	2
Parent Class ID	TDMX_PARENT_CLASS_ID	SmallInt	FALSE	FALSE	FALSE	FALSE	2
Query XML	TDMX_QUERY_XML	Memo	FALSE	FALSE	FALSE	FALSE	16
Query Title	TDMX_QUERY_TITLE	Char	FALSE	FALSE	FALSE	FALSE	201

Query Root (TN_QUERY_ROOT)

No specific attributes

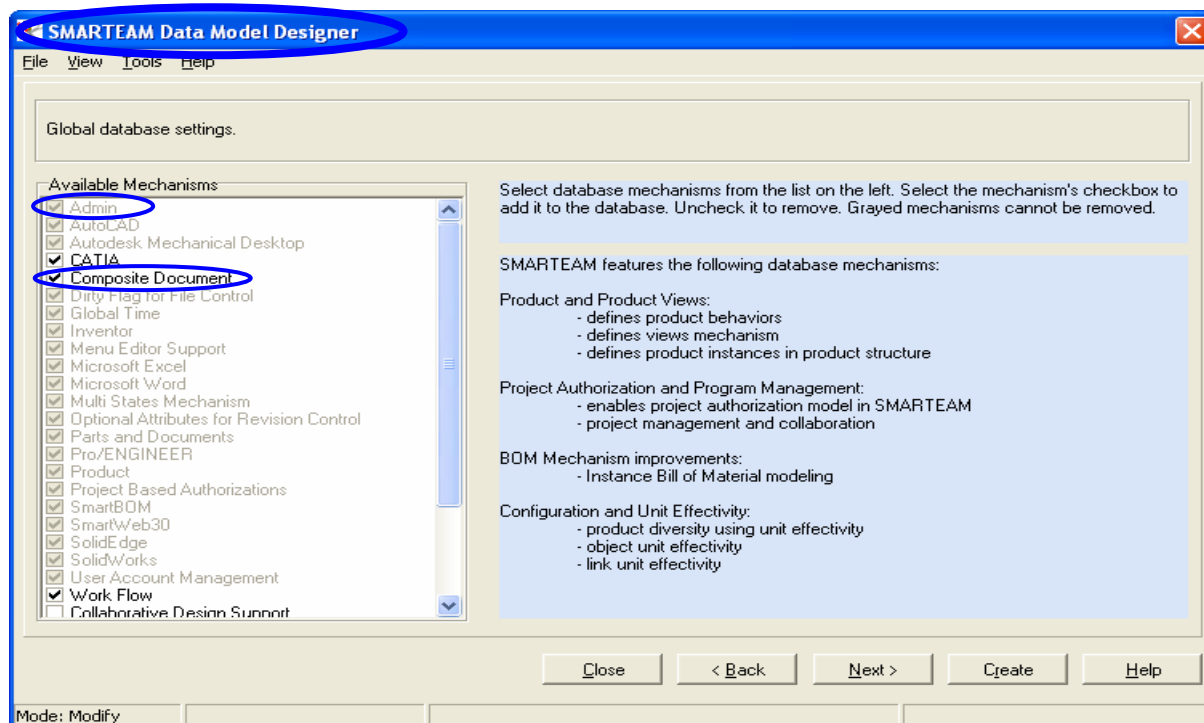
Query Link (TN_QUERY_LINK)

No specific attributes

3.2.3. Setting up the database mechanisms

Launch now the Data Model Designer tool.

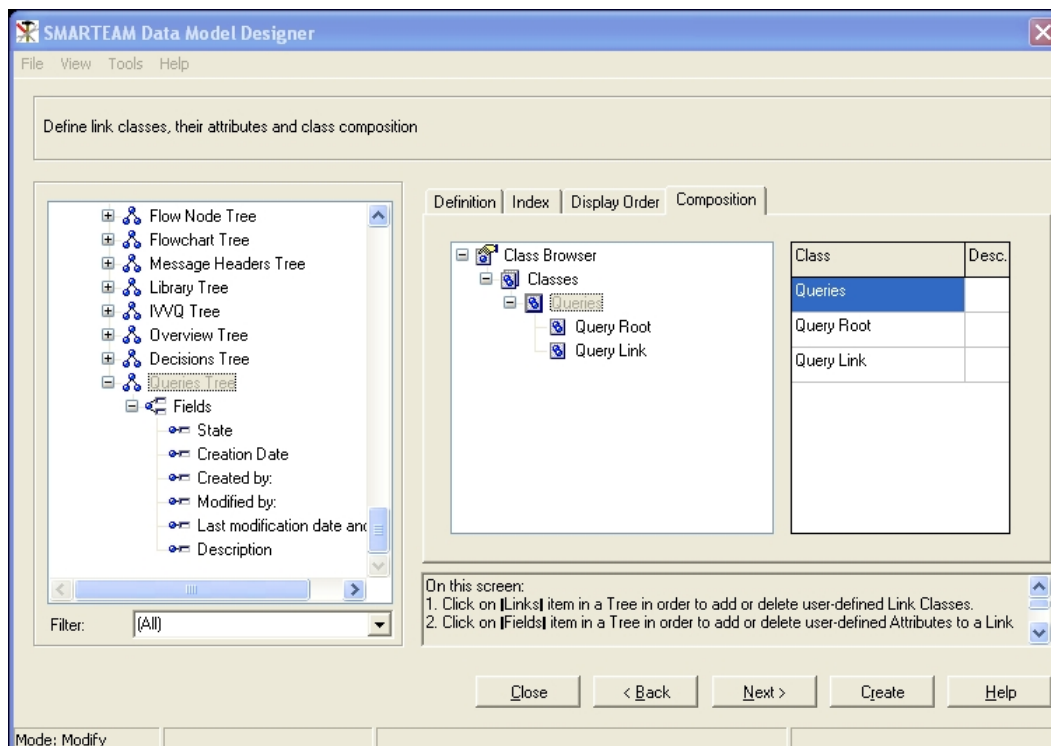
In the DMD, you can now choose which mechanisms you wish to add :



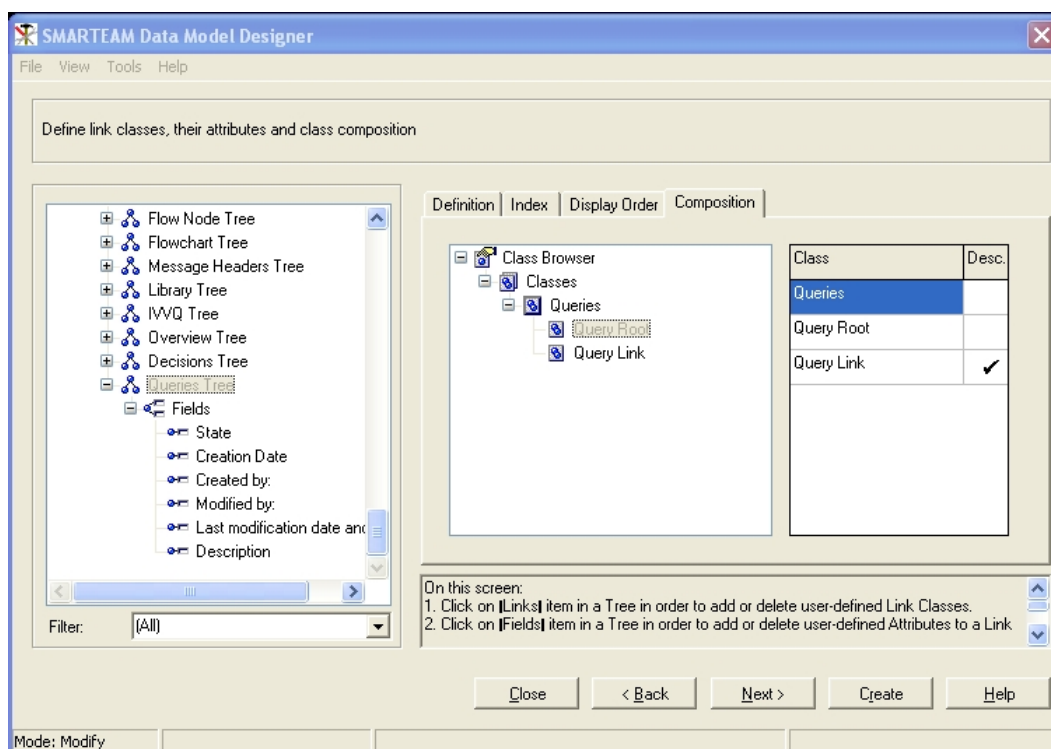
Choose the mechanisms you wish

3.2.4. Create composition rules

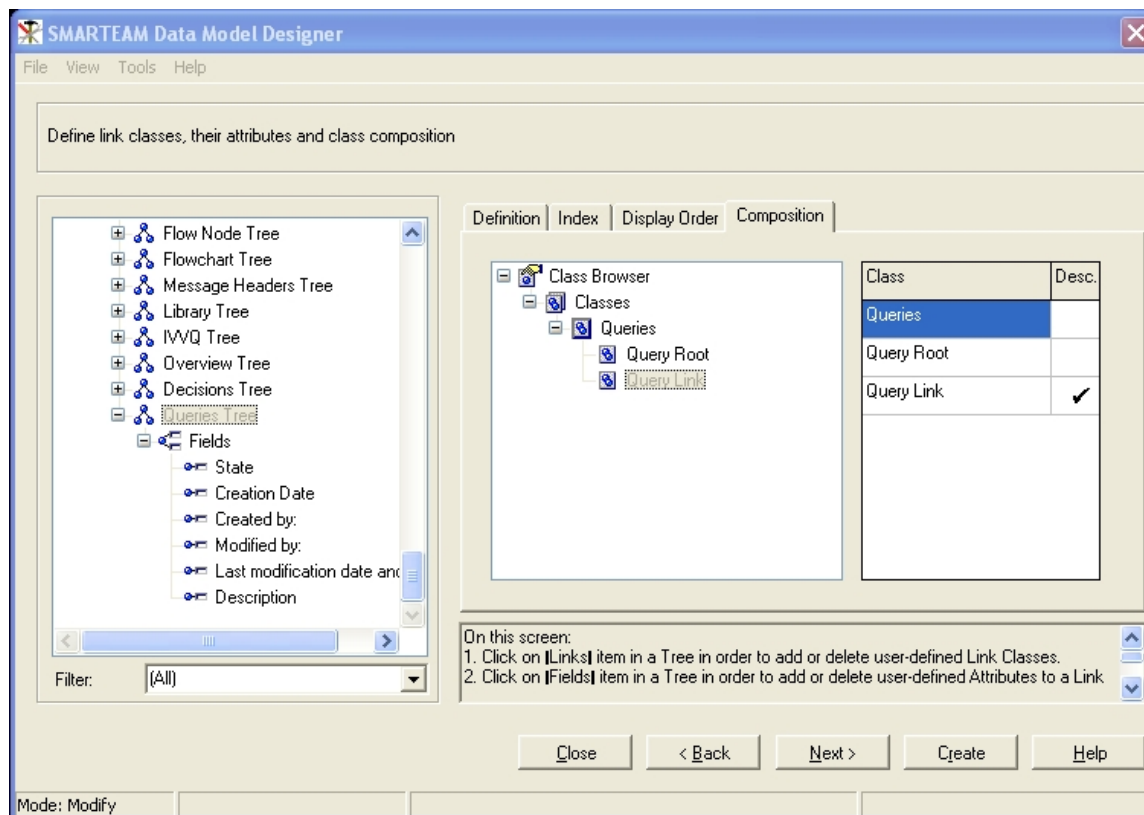
For queries



For query root



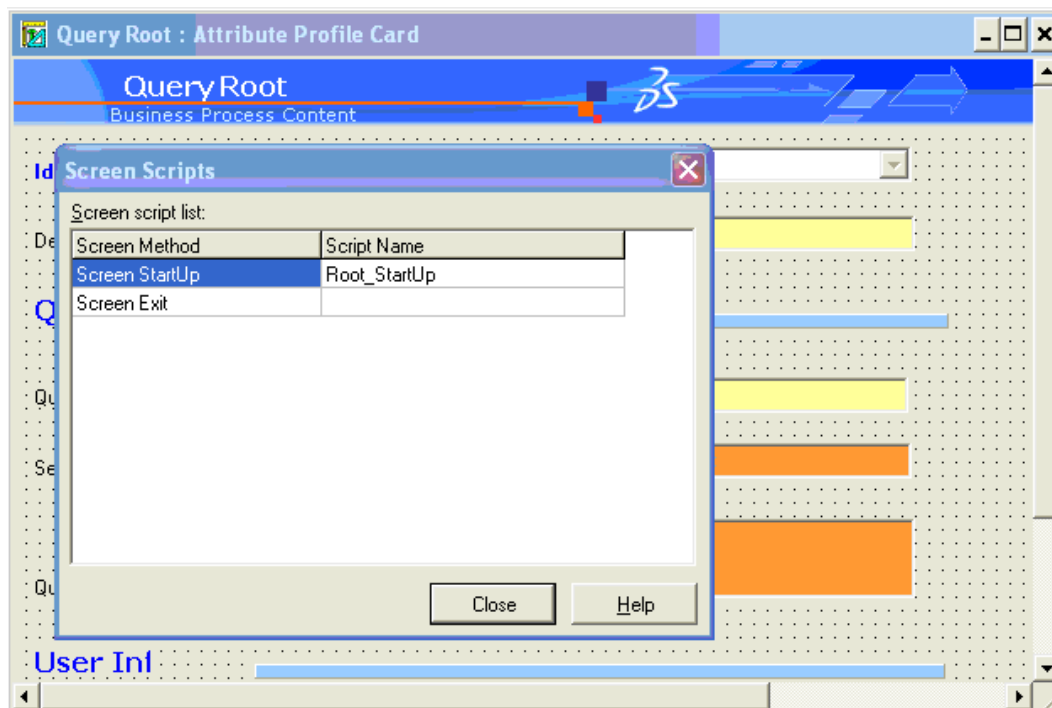
For query link



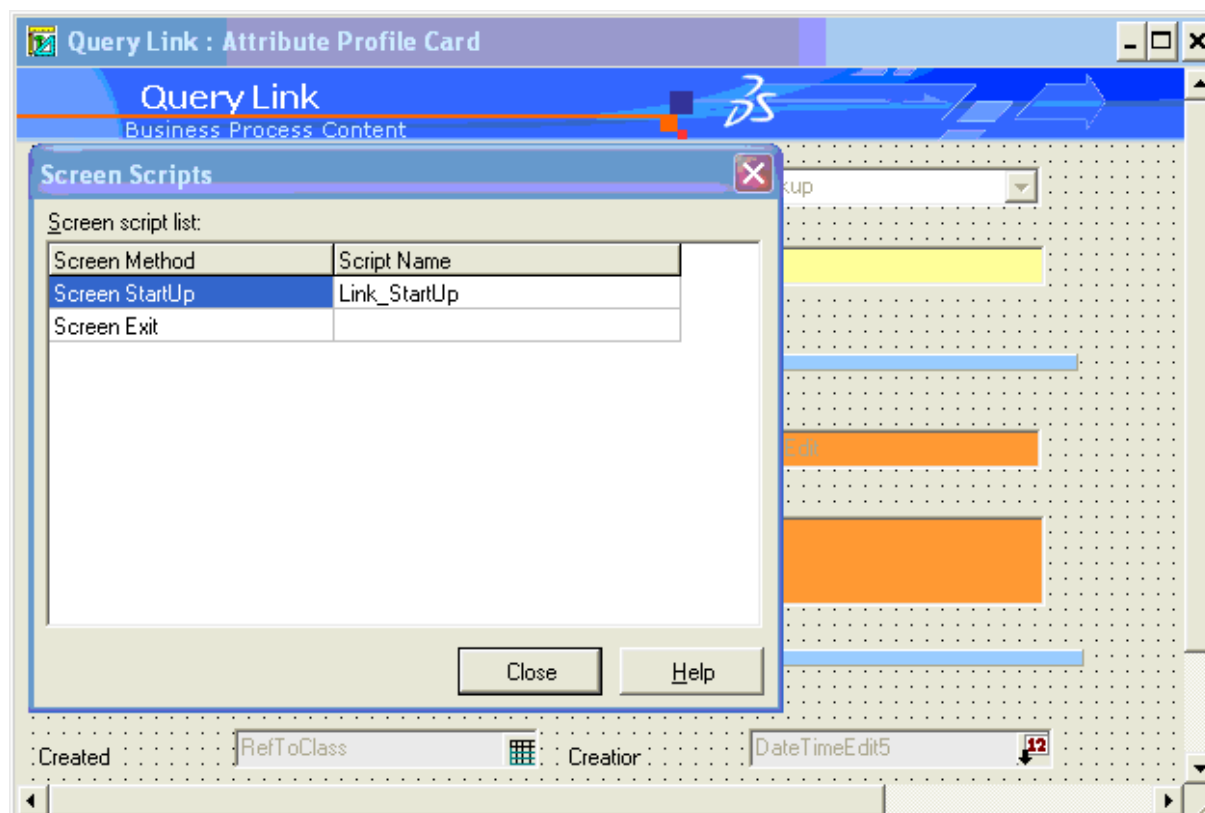
3.2.5. Hook

This section describes how to fill Hook.

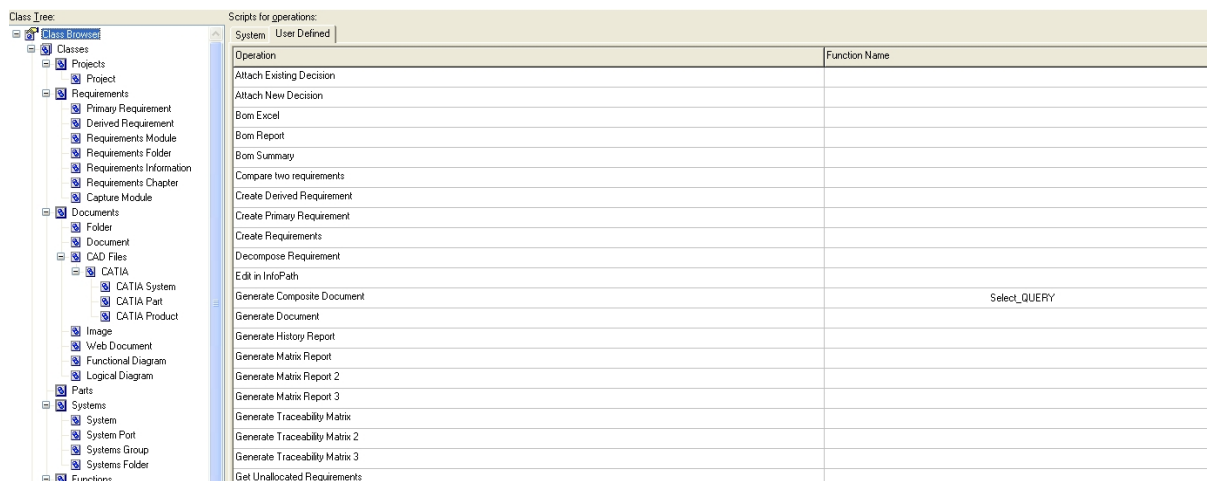
This is the hook to query root:



This is the hook to query link:

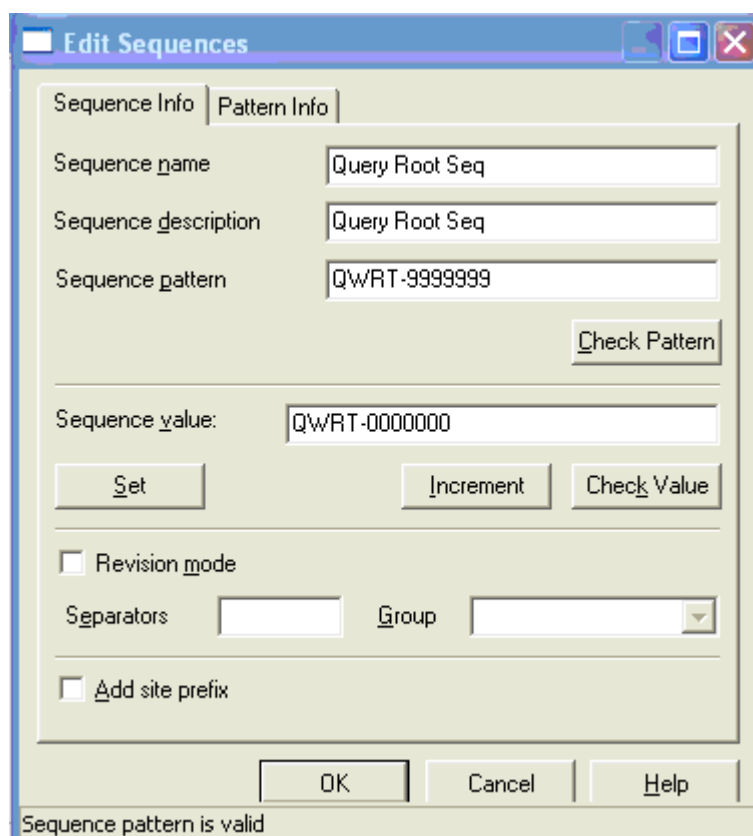


Hook to user defined tools:

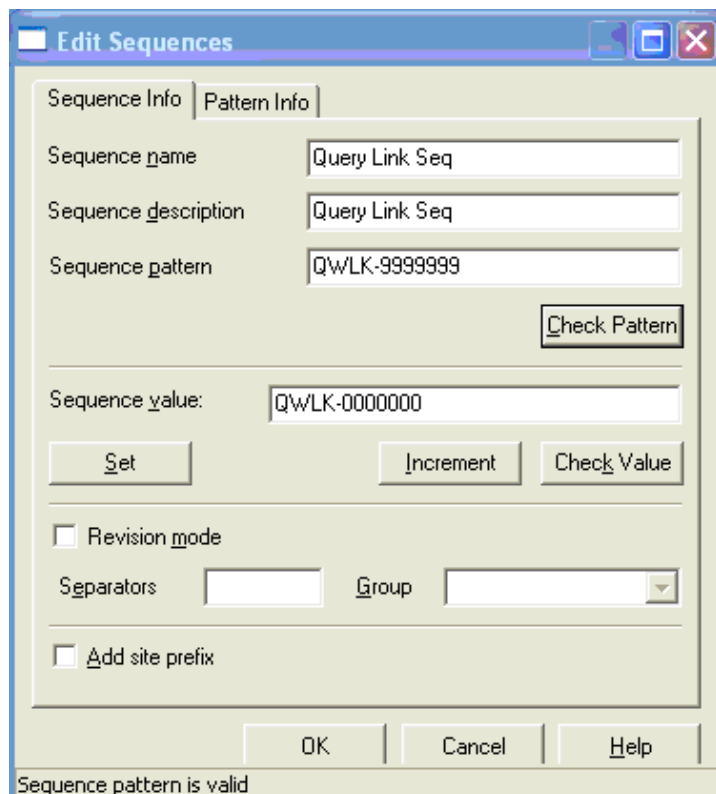


3.2.6. Create sequences

Create sequence for query Root and Query link like



And



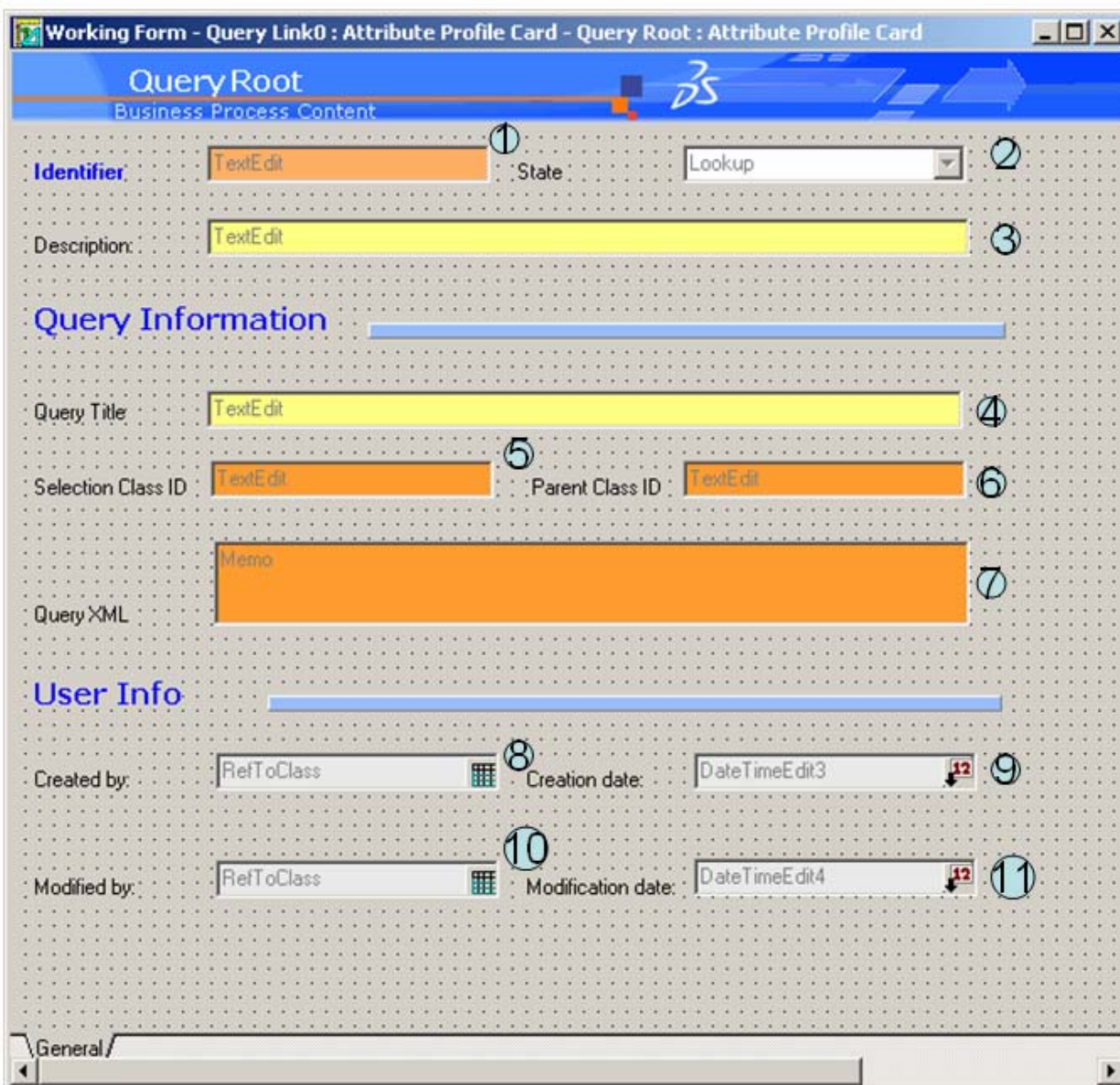
The 'Edit Sequences' dialog box is shown with the 'Sequence Info' tab selected. It contains the following fields and controls:

- Sequence name:** Query Link Seq
- Sequence description:** Query Link Seq
- Sequence pattern:** Q\WLK-9999999
- Check Pattern:** A button to validate the sequence pattern.
- Sequence value:** Q\WLK-0000000
- Buttons:** Set, Increment, and Check Value.
- Revision mode:** An unchecked checkbox.
- Separators:** A text input field.
- Group:** A dropdown menu.
- Add site prefix:** An unchecked checkbox.
- Bottom buttons:** OK, Cancel, and Help.
- Status bar:** Sequence pattern is valid

3.2.7. Creation Form

In order to create the finalize form Query Root and Query Link starting from forms already created and not yet finalized in Data Model Designer, user load intermediate forms in Form Designer.

To create form Query Root, modify labels and colors, add banner and panels, rename tab in 'General' as above:

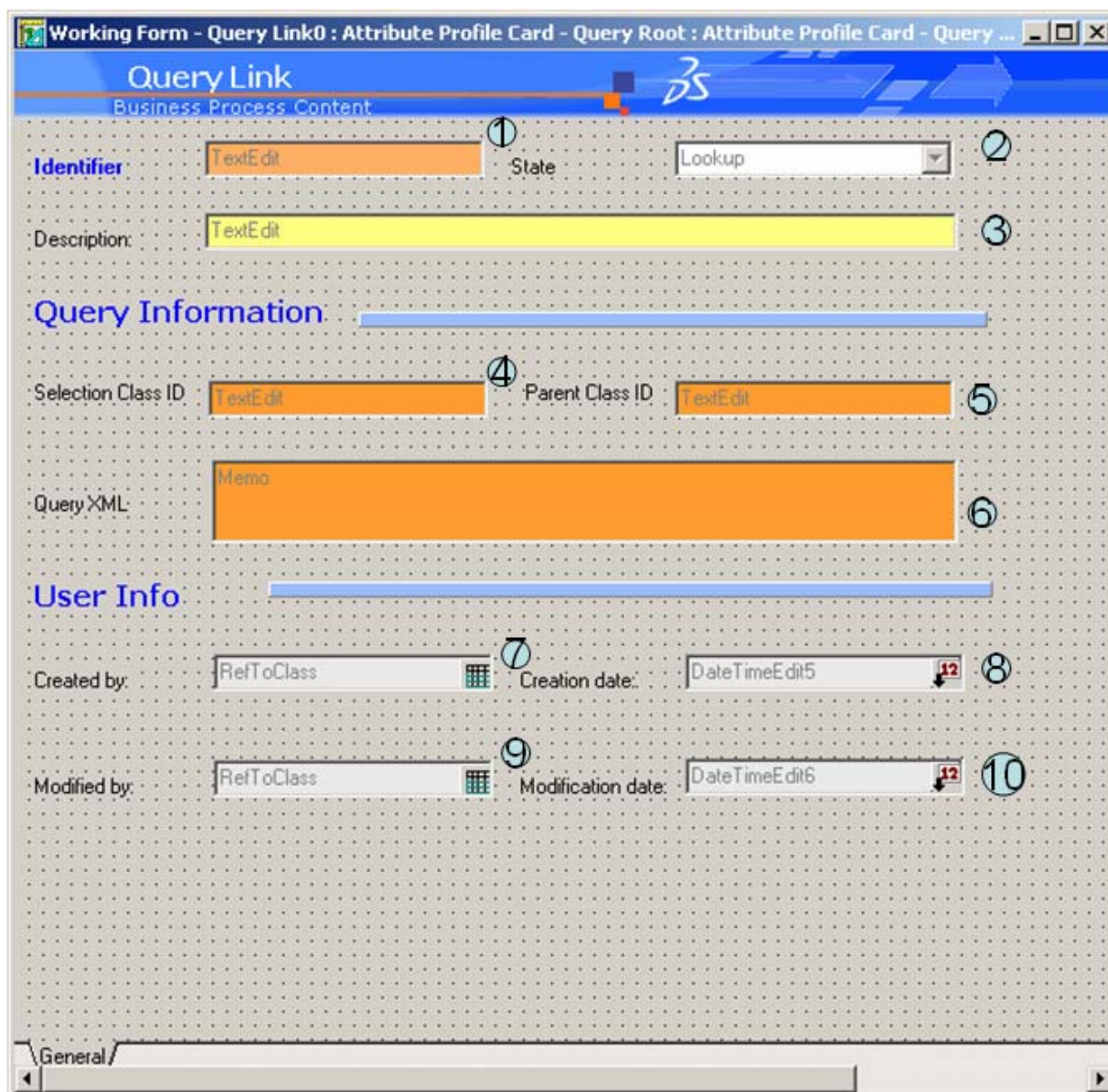


In case of manual queries tree creation, the type of the control and the associated attributes follows in the list:

For the field (1) identifier, the type of control is a TextEdit and joined attribute is CN_ID,

(2) state	Lookup	STATE,
(3) Description	Textedit	TDM_DESCRIPTION.
(4) Query Title	Textedit	TDMX_QUERY_TITLE,
(5) Selection Class ID	Textedit	TDMX_SELECTION_CLASS_ID,
(6) Parent Class ID	Textedit	TDMX_PARENT_CLASS_ID,
(7) Query XML	Memo	TDMX_QUERY_XML,
(8) Created by	RefToClass	USER_OBJECT_ID,
(9) Creation date	DateTimeEdit	CREATION_DATE,
(10) Modified by	RefToClass	USER_ID_MODE,
(11) Modification date	DateTimeEdit	MODIFICATION_DATE.

To create form Query Link, modify labels and colors, add banner and panels, rename tab in 'General' as above:



In case of manual queries tree creation, the type of the controls and the associated attributes are in following list:

For the field (1) identifier, the type of control is a TextEdit and joined attribute is CN_ID,		
(2) state	Lookup	STATE,
(3) Description	Textedit	TDM_DESCRIPTION,
(4) Selection Class ID	Textedit	TDMX_SELECTION_CLASS_ID,
(5) Parent Class ID	Textedit	TDMX_PARENT_CLASS_ID,
(6) Query XML	Memo	TDMX_QUERY_XML,
(7) Created by	RefToClass	USER_OBJECT_ID,
(8) Creation date	DateTimeEdit	CREATION_DATE,
(9) Modified by	RefToClass	USER_ID_MODE,

(10) Modification date

DateTimeEdit

MODIFICATION_DATE.

To verify the result of Query Root function using SmarTeam, select add Query Root for a project. The form Query Root is displayed.

To verify the result of Query Link function using SmarTeam, select add Query Link for a project. The form Query Link is displayed.

3.2.8. Copy Form (optional)

In order to get appropriate profile cards, the best way is to copy the profile cards from the DB provided for tests and the DB where is done the customization.

To do so, user can use a tool called CopyForm, which can be found on the following forum:

<http://www.plmdb.smartuserforum.com/>

3.3. Admin settings list

Composite Document Section

SECTION
COMPOSITE_DOCUMENT

SUBJECT
FILTERED_CLASSES

INSTRUCTIONS

Define the super classes that are filtered in the "Composite Doc" wizard. Use this admin setting to filter super classes that are not relevant for the user.

1

N/A

2

N/A

3

N/A

4

N/A

Long Field

Users, Parts, Contacts, History, Admin, Overview, Queries

SECTION
COMPOSITE_DOCUMENT

SUBJECT
FILTERED_ATTRIBUTES

INSTRUCTIONS

Define the attributes that are filtered in the "Composite Doc" wizard. Use this admin setting to filter attributes that are not relevant for the user.

1

N/A

2

N/A

3

N/A

4

N/A

Long Field

TDMX_SOURCE_IMAGE, TDMX_IMAGE, TDM_SECURED_BY,
TDM_APPROVED_BY, TDMX_SUBMITTED_BY, USER_OBJECT_ID,
USER_ID_MOD, TDMX_OWNER

SECTION
COMPOSITE_DOCUMENT

SUBJECT
DEFAULT_SORT_ROOT

INSTRUCTIONS

The reordering is only when creating the query, not by using the query.
Define the default attribute to be used as the default sorting reference for query root objects. The first value is the name of the attribute with a 'L.' prefix for link's attribute and 'S.' for class's attribute.
The second value defines the way to sort the result (TRUE=ascending, FALSE=descending)

1	L.TDMX_ORDERING
2	TRUE
3	N/A
4	N/A
Long Field	N/A

SECTION
COMPOSITE_DOCUMENT

SUBJECT
DEFAULT_SORT_LINK

INSTRUCTIONS

The reordering is only when creating the query, not by using the query.
Define the default attribute to be used as the default sorting reference for query link objects. The first value is the name of the attribute with a 'L.' prefix for link's attribute and 'S.' for class's attribute.
The second value defines the way to sort the result (TRUE=ascending, FALSE=descending)

1	L.TDMX_ORDERING
2	TRUE
3	N/A
4	N/A
Long Field	N/A

3.4. Setting the licensing mechanism for Requirements XML Edition

Ask for a license and copy or enroll licenses according to the "CSE_LicenseUseManagement_R19D6" guide.

4. Modifying or uninstalling Requirements XML Edition

4.1. *Before modifying or uninstalling*

Note

- In order to prevent the unintentional loss of data, Uninstalling Requirements XML Edition does not automatically detach or delete the connected database which was installed with the solution. If you wish to detach the Composite Document database, you need to do so manually using the database connection manager tool. Consequently you will be able to delete the database file from its location (the location will be indicated during the detachment operation)
- If you wish to reinstall Requirements XML Edition and start again with the original database you must detach the database using the database connection manager **and** delete the *.ldf file located in the same directory as the database file

4.2. *Uninstalling Requirements XML Edition*

In order to uninstall Requirements XML Edition BPA, the user must launch Add or Remove Programs utility of Windows and select Dassault Systèmes Software BPA RX9.
Then select "Remove"

5. Script Hooking

This section defines all the scripts to hook so as to get the benefit of all the functionalities of the BPA.

For details, please refer to CSE_DataModel_Documentation_R19D6.doc.

6. Concurrent Access Setting Up

This section describes all the steps to follow in order to set up the concurrent access functionality on a target super class.

6.1. Data Model Modifications

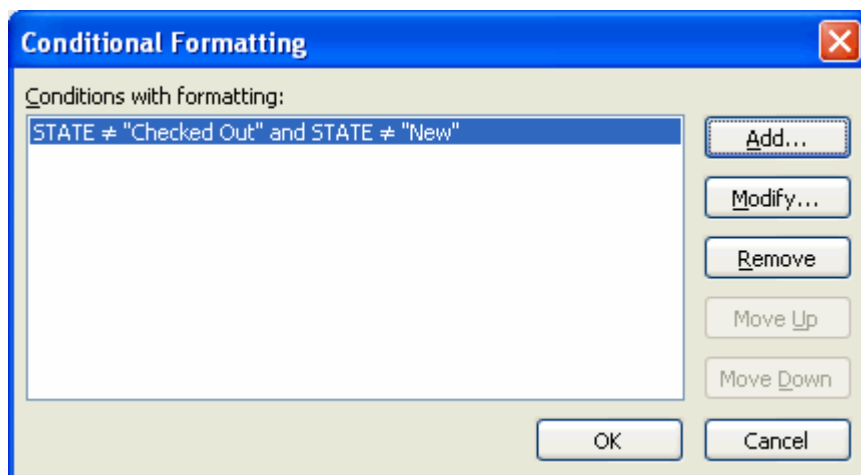
In order to set up the concurrent access functionality, it is necessary to add a new attribute for each super class impacted by that functionality. For instance if you want to use it with Requirements super class, you have to add the attribute "TDMX_LOCKED_BY" to the Requirements super class (this attribute is described in the data model documentation).

6.2. Script hooking

Regarding the script hooking, you have to hook the different script as defined in the section "script hooking" of that document. In this section hooks are defined according to "Requirements" super class. Nevertheless if you wish to apply this functionality to another class you just have to apply the same hooks on the target super class.

6.3. Forms update

In each InfoPath form, you need first to update the FormCode.vb file according to the modifications done for concurrent access functionality, and also to export the attribute "STATE" for each objects class. More over the conditional formatting related to each InfoPath form shall be set as described below:



7. Starting Requirements XML Edition

Launch the ENOVIA SmarTeam client application.

The default login used for demo purpose is "joe" without any password.

Switch to the appropriate database if it's not your default database (Click on **file-> Switch to database**).

