



SMARTTEAM Procedure for Upgrading to V5R14

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OVERVIEW

General

SMARTEAM V5R14 provides a powerful set of services and tools to facilitate the centralized administration of the SMARTEAM environment, in order to reduce costs and to make it easier to configure, manage and maintain the SMARTEAM environment introduced in V5R12 and V5R14 versions. The introduction of these services requires an upgrading process when moving to V5R14 from previous versions.

This document will guide you through the upgrade process to SMARTEAM V5R14 from SMARTEAM V5R10, V5R11 and V5R12. It is recommended that you read the entire document before proceeding with the hands-on migration.

The target audience is technical personnel, such as application engineers and technical consultants who are conducting the migration of existing customers to SMARTEAM V5R14.

This information herein is intended only for those who are upgrading a previous installation, and is not intended for new customers who are installing SMARTEAM V5R14 on a 'clean' system.

Notes:

If you are upgrading from SMARTEAM V5R13, do not run this upgrade procedure. Refer to the relevant Installation Guide for details.

When upgrading SMARTEAM – Editor V5R13, you will be prompted to insert CD2 (SMARTEAM – Editor).

The following is a brief description of the key features which were enhanced and/or introduced in V5R14.

Specific Upgrade for SMARTEAM – CATIA Integration

If you have SMARTEAM – CATIA Integration, in order to successfully upgrade your system from V5R10 you should first make manual modifications to the SMARTEAM database. Refer to Appendix A, [SMARTEAM – CATIA Integration Database Modifications](#) for details on how to make the modifications.

New Dassault CATIA Viewer

SMARTEAM – Editor uses unified, cross-brand, DS 3D PLM Viewing technology for CATIA files viewing. The Dassault CATIA Viewer automatically replaces the Spatial Viewer that was used in previous versions, and is configured automatically to view all types of CATIA files.

Session Management

The SMARTEAM Session Management Service is a centralized service that supplies authentication and session validation across all SMARTEAM applications.

The Session Management Service supports multiple authentication protocols to enable maximum utilization of existing identity systems in the organization such as Lightweight Directory Access Protocol (LDAP), Active Directory and Windows domains.

The Session Management Service centralizes authentication in the organization, thus enabling a "Single Sign-On" scenario in all SMARTEAM applications. A user running a SMARTEAM application will only authenticate once and will be able to run multiple SMARTEAM applications without the need to re-authenticate.

For more information regarding the Session Management Service, refer to the *Session Management* section in the *SMARTEAM – Editor Administration Guide* or *SMARTEAM – Editor Online Help*.

System Configuration

The SMARTEAM System Configuration Service is a new service designed to centralize all configuration settings for all SMARTEAM applications.

The system configuration service has multiple levels of configuration allowing easier manageability and security across sites, machines, applications, databases and users from anywhere in the organization.

Configuration information that was previously stored in .INI files and database preferences are now included in the System Configuration repository.

For more information on the SMARTEAM System Configuration Service, refer to the *System Configuration* section in the *SMARTEAM – Editor Administration Guide* or *SMARTEAM – Editor Online Help*.

Note: In various parts of this document, the SMARTEAM System Configuration Service and the SMARTEAM Session Management Service are referred to as the SMARTEAM Core Services.

National Language Support (NLS)

The new National Language Support (NLS) system is designed to centralize all NLS configuration settings and also support multiple languages on a single production site.

Reference Documents and Materials

This document serves as an overall guide for upgrading to SMARTEAM V5R14. Therefore some information may be required from additional manuals. All other documentation mentioned herein can be found on the SMARTEAM V5R14 Documentation CD. The following documents are referred to from this upgrade guide:

- SMARTEAM Installation Guides (various)
- SMARTEAM V5R14 Hardware and Software Requirements
- License Use Management (LUM) Installation and Configuration Guide
- MSDE Migration Guide
- SMARTEAM – Multi-Site Administrator Guide
- SMARTEAM – Editor Administration Guide and Online Help
- DB2 Installation Guide

Note: The latest version of the SMARTEAM Procedure for Upgrading to V5R14 is available on the SmarTeam support web site at:
https://support.smarteam.com/V5R14_Upgrade_Procedure.htm

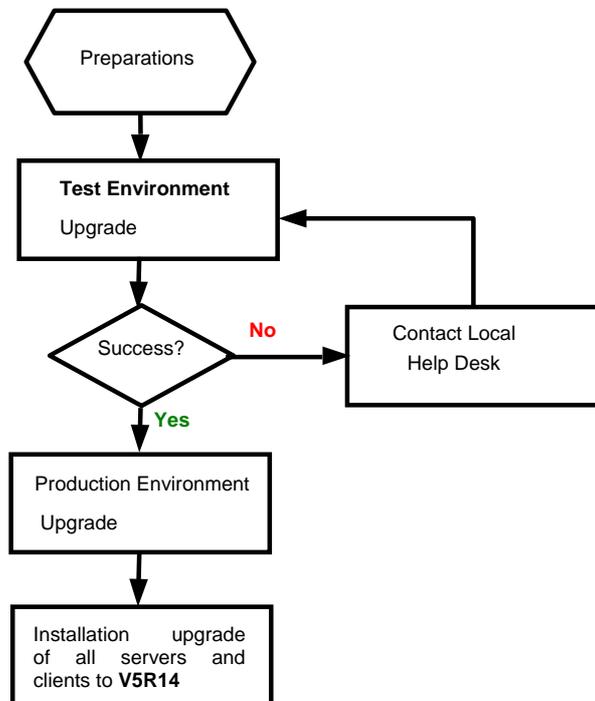
Hardware and Software

Before starting the actual upgrade process, make sure your hardware and software are compatible with SMARTEAM V5R14 requirements. Refer to *SMARTEAM V5R14 Hardware and Software Requirements* for latest updates and changes, such as:

- Supported Servers and clients Operating Systems.
- Supported CAD versions
- Supported database versions

MIGRATION PROCESS PRINCIPLES

Overall process



As illustrated in the diagram above, the overall migration process is divided into three main stages:

- **Test Environment upgrade:** SmarTeam Corporation highly recommends running the upgrade on the Test environment first, in order to verify SMARTEAM system integrity in an isolated environment, and to avoid possible impact on the functioning of the Production environment. This test phase also allows you to familiarize yourself and gain experience with the step-by-step technical procedures of the upgrade.
- **Production Environment upgrade:** After the Test Environment upgrade has been completed successfully; proceed with the upgrade of the Production Environment.
- **Installation upgrade:** After the SMARTEAM data has been migrated in production, proceed with the installation upgrade of all other SMARTEAM servers, such as Vault or Web Editor, and clients, such as SMARTEAM – Editor.

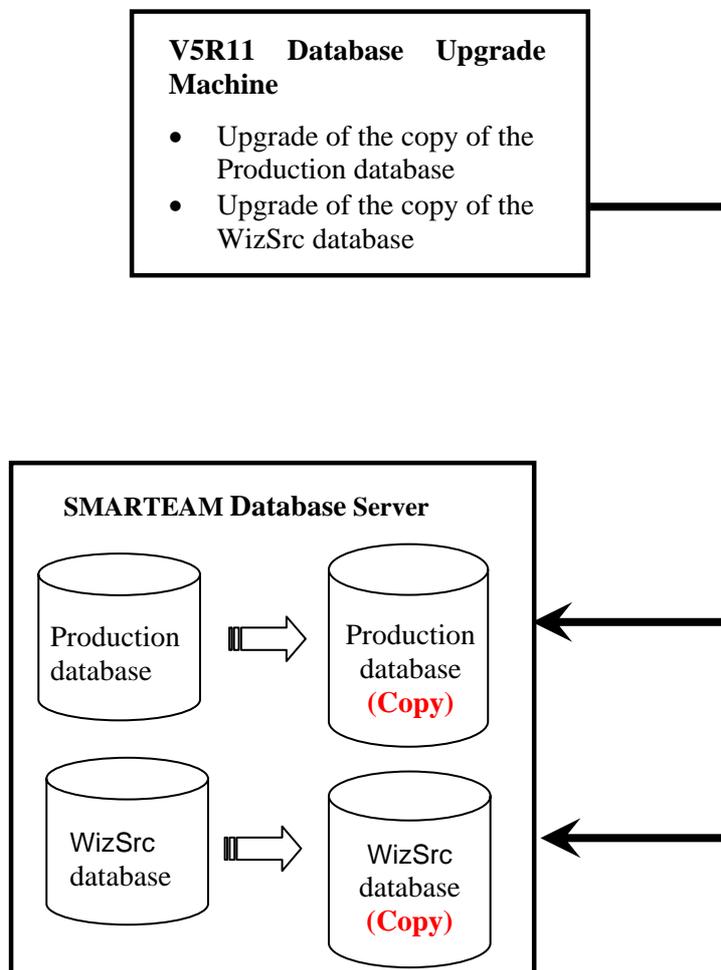
Computers required in the migration process

In order to simplify and regulate the whole process of the Test and Production stages of the migration procedure, we would recommend the use of dedicated computer(s), which will concentrate in one location all the required data and software necessary for a successful migration.

1. **V5R11 Database Upgrade Machine** will be used to upgrade the SMARTEAM V5R10 database.

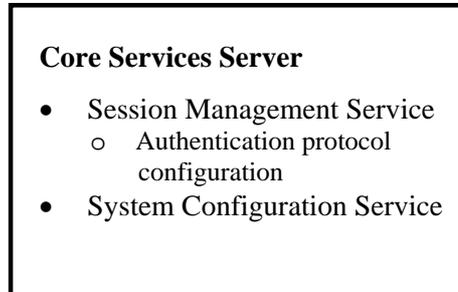
The preparation of this upgrade machine and the database upgrade procedure are applicable only for upgrade from V5R10 to V5R14.

During the test phase, you will perform the upgrade on test databases, which will include copies of both your production and WizSrc databases.

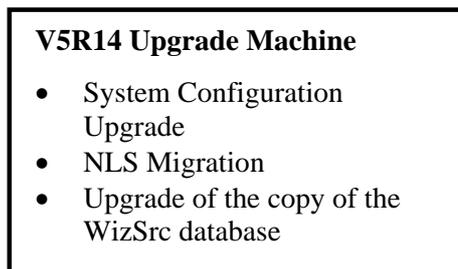


Use the same **V5R11 Database Upgrade Machine** to perform the upgrade of your test databases when upgrading in the production environment.

2. **Core Service Server** hosts the SMARTEAM V5R14 Core Services, including:
 - Session Management service, which enables a centralized authentication of SMARTEAM users. This server will also be used to configure the Session Management authentication protocol using a designated tool.
 - System Configuration service, which enables centralized control of all SMARTEAM configuration settings.



3. **V5R14 Upgrade Machine** will be used for
 - Migration of the SMARTEAM INI files into the System Configuration centralized repository.
 - Migration of the NLS system into the new centralized repository.
 - Upgrade of the WizSrc database to V5R14.



You will be able to upgrade the production WizSrc database from this machine.

With the proper adjustments, migration of the System Configuration and NLS can also be performed from this machine in the production environment. However, it is important to consider that relevant data may have changed during the interval between the test and production stages.

If some time has passed between the test environment upgrade and the production environment upgrade, the INI files used in the test environment may have undergone changes. Before beginning the production environment upgrade, these files must be re-collected and replaced in the V5R14 Upgrade Machine to ensure an up-to-date System Configuration upgrade.

This is also applicable to the re-collection of Error files to ensure an up-to-date NLS migration.

Summary of Required Migration Activities

The following tables contain a brief summary of the migration activities. They highlight the activities required in the Test Environment and those required in the Production Environment.

The tables also include links to the detailed explanation of each activity, which are provided later in this document.

[Upgrade from V5R10 to V5R14](#)

- Test Environment
- Production Environment

[Upgrade from V5R11/R12 to V5R14](#)

- Test Environment
- Production Environment

Upgrade from V5R10 to V5R14

Upgrade from V5R10 to V5R14 : Process Summary	
V5R10 ⇒ V5R11 ⇒ V5R14	
Test Environment	
UPGRADE STAGE / MACHINE USED	ACTIVITIES REQUIRED
<u>SMARTEAM – CATIA Integration Database Modifications</u>	<ul style="list-style-type: none"> • If you have SMARTEAM – CATIA Integration, in order to successfully upgrade your system from V5R10 you should first make manual modifications to the SMARTEAM database. • Once you have completed the modifications continue with the Upgrade process.
<u>Database upgrade*</u> V5R11 DATABASE UPGRADE MACHINE * Only for customers upgrading from V5R10.	<ul style="list-style-type: none"> • Install: <ul style="list-style-type: none"> ○ SMARTEAM – Editor V5R11 with the latest Service Pack. ○ SmartDBUpgrade provided with the latest SMARTEAM V5R11 Service Pack in order to have the SMARTEAM database upgrade tools. • Prepare SMARTEAM environment: collect the data necessary for the database upgrade. • SMARTEAM Database Upgrade <ul style="list-style-type: none"> ○ Conduct an upgrade of a copy of the Production db using the UpgradeSmartDB tool ○ Perform post upgrade activities ○ Perform a test of the database
<u>Core Services Installation</u> V5R14 CORE SERVICES SERVER	<ul style="list-style-type: none"> • Install SMARTEAM – Foundation V5R14 with the latest Service Pack including Core Services (Session Management Service and System Configuration Service). • Configure the authentication protocol using the Authentication Manager utility.
<u>Preparation of the V5R14 Upgrade Machine</u>	<ul style="list-style-type: none"> • Install SMARTEAM – Editor V5R14 with latest Service Pack. • Install SmartDBUpgradeV5R14, provided with the latest SMARTEAM V5R14 Service Pack, in order to have the upgrade tools for WizSrc upgrade.
<u>System Configuration</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Prepare all existing SMARTEAM environment files that should be migrated to the new System Configuration. • Conduct the System Configuration upgrade, using the Configuration Migration Wizard. • Test the upgraded System Configuration environment: Using the Configuration Manager Editor, verify that selected configuration values were migrated into the System Configuration Repository.
Authentication Test V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Test authentication (configured previously on the Core Services machine): Login to SMARTEAM – Editor.

Upgrade from V5R10 to V5R14 : Process Summary	
V5R10 ⇒ V5R11 ⇒ V5R14	
Test Environment	
UPGRADE STAGE / MACHINE USED	ACTIVITIES REQUIRED
<u>NLS</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Prepare localized data that should be migrated to the new NLS environment. • Conduct the NLS migration using the Multilanguage Enabler utility. • Perform post-migration steps. • Test the upgraded environment.
<u>WizSrc</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Conduct an upgrade of the WizSrc database copy to V5R14 using the SmarTeamWizSrcUpgradeWizard tool.
<u>Menu Editor</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Enable the Menu Editor mechanism in the SMARTEAM database, if it was not enabled in a previous SMARTEAM version

Upgrade from V5R10 to V5R14 : Process Summary	
V5R10 ⇒ V5R11 ⇒ V5R14	
Production Environment	
UPGRADE STAGE / USED MACHINE	REQUIRED ACTIVITIES
<u>SMARTEAM – CATIA Integration Database Modifications</u>	<ul style="list-style-type: none"> • If you have SMARTEAM – CATIA Integration, in order to successfully upgrade your system from V5R10 you should first make manual modifications to the SMARTEAM database. • Once you have completed the modifications continue with the Upgrade process.
<u>Database upgrade*</u> V5R11 DATABASE UPGRADE MACHINE * Only for customers upgrading from V5R10.	<p>You can use the same machine that was prepared for the Test Environment.</p> <p>Verify that all data that was prepared in the Test Environment exists on the computer and is still up-to-date. If data has changed since the test phase, re-collect the data and place it in the V5R11 Database Upgrade machine.</p> <ul style="list-style-type: none"> • Connect the V5R11 Database Upgrade machine to the production database. • Conduct an upgrade of the Production database using the UpgradeSmartDB tool. • Perform post-upgrade activities. • Conduct an upgrade of the WizSrc database using the SmarTeamWizSrcUpgradeWizard tool for WizSrc upgrade.

Upgrade from V5R10 to V5R14: Process Summary	
V5R10 ⇒ V5R11 ⇒ V5R14	
Production Environment	
UPGRADE STAGE / USED MACHINE	REQUIRED ACTIVITIES
<p><u>Core Services Installation</u> V5R14 CORE SERVICES SERVER - PRODUCTION ENVIRONMENT</p>	<ul style="list-style-type: none"> • Install SMARTEAM – Foundation V5R14 with the latest Service Pack, including Core Services (Session Management Service and System Configuration Service). • Configure the authentication protocol through the Authentication Manager utility.
<p><u>System Configuration</u> V5R14 UPGRADE MACHINE</p>	<p>You can use the same machine that was prepared for the Test environment.</p> <p>If configuration settings were <u>not</u> changed since the test phase, you can skip the first step below. Otherwise, you must collect the necessary SMARTEAM INI files.</p> <ul style="list-style-type: none"> • Prepare all existing SMARTEAM environment files that should be migrated to the new System configuration. • Conduct the System Configuration upgrade, using the Configuration Migration Wizard. • Test the upgraded System Configuration environment: using the Configuration Manager Editor, verify that selected configuration values were migrated into the System Configuration Repository.
<p>Authentication Test V5R14 UPGRADE MACHINE</p>	<ul style="list-style-type: none"> • Test authentication (configured previously on the Core Services machine): Login to SMARTEAM – Editor.
<p><u>NLS</u> V5R14 UPGRADE MACHINE</p>	<p>You can use the same machine that was prepared for the test phase.</p> <p>If localized data that must be migrated to the new NLS environment was <u>not</u> changed since the NLS migration test phase, you can use this data for the production environment, skipping the two first steps below, and proceeding directly to the post- migration step.</p> <ul style="list-style-type: none"> • Prepare localized data that must be migrated to the new NLS environment. • Conduct the NLS migration using the Multilanguage Enabler utility. • Perform post-migration steps. • Test the upgraded environment.
<p><u>WizSrc</u> V5R14 UPGRADE MACHINE</p>	<p>You can use the same machine that was prepared for the Test Environment.</p> <ul style="list-style-type: none"> • Conduct an upgrade of the WizSrc database to V5R14 (from V5R11) using the SmarTeamWizSrcUpgradeWizard tool.
<p><u>Menu Editor</u> V5R14 UPGRADE MACHINE</p>	<p>Enable the Menu Editor mechanism in the SMARTEAM database, if it was not enabled in a previous SMARTEAM version</p>
<p><u>Upgrade of all SMARTEAM machines</u></p>	<p>Proceed with installations of all other SMARTEAM V5R14 clients and servers.</p>

Upgrade from V5R11/R12 to V5R14

Upgrade from V5R11/V5R12 to V5R14: Process Summary	
V5R11/V5R12 ⇒ V5R14	
Test Environment	
UPGRADE STAGE / MACHINE USED	ACTIVITIES REQUIRED
<u>Core Services Installation</u> V5R14 CORE SERVICES SERVER	<ul style="list-style-type: none"> • Install SMARTEAM – Foundation V5R14 with the latest Service Pack including Core Services (Session Management Service and System Configuration Service). • Configure the authentication protocol using the Authentication Manager utility.
<u>Preparation of the V5R14 Upgrade Machine</u>	<ul style="list-style-type: none"> • Install SMARTEAM – Editor V5R14 with the latest Service Pack. • Install SmartDBUpgradeV5R14, provided with the latest SMARTEAM V5R14 Service Pack, in order to have the upgrade tools for WizSrc upgrade.
<u>System Configuration</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Prepare all existing SMARTEAM environment files that should be migrated to the new System Configuration. • Conduct the System Configuration upgrade, using the Configuration Migration Wizard. • Test the upgraded System Configuration environment: Using the Configuration Manager Editor, verify that selected configuration values were migrated into the System Configuration Repository.
Authentication Test V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Test authentication (configured previously on the Core Services machine): Login to SMARTEAM – Editor.
<u>NLS</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Prepare localized data that should be migrated to the new NLS environment. • Conduct the NLS migration using the Multilanguage Enabler utility. • Perform post-migration steps. • Test the upgraded environment.
<u>WizSrc</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Conduct an upgrade of the WizSrc database <u>copy</u> to V5R14 using the SmarTeamWizSrcUpgradeWizard tool.
<u>Menu Editor</u> V5R14 UPGRADE MACHINE	<ul style="list-style-type: none"> • Enable the Menu Editor mechanism in the SMARTEAM database, if it was not enabled in a previous SMARTEAM version

Upgrade from V5R11/V5R12 V5R14 : Process Summary	
V5R11/V5R12 ⇔ V5R14	
Production Environment	
UPGRADE STAGE / USED MACHINE	REQUIRED ACTIVITIES
<p><u>Core Services Installation</u> V5R14 CORE SERVICES SERVER - PRODUCTION ENVIRONMENT</p>	<ul style="list-style-type: none"> • Install SMARTEAM – Foundation V5R14 with the latest Service Pack, including Core Services (Session Management Service and System Configuration Service). • Configure the authentication protocol through the Authentication Manager utility.
<p><u>System Configuration</u> V5R14 UPGRADE MACHINE</p>	<p>You can use the same machine that was prepared for the Test environment.</p> <p>If configuration settings were <u>not</u> changed since the test phase, you can skip the first step below. Otherwise, you must collect the necessary SMARTEAM INI files.</p> <ul style="list-style-type: none"> • Prepare all existing SMARTEAM environment files that should be migrated to the new System configuration. • Conduct the System Configuration upgrade, using the Configuration Migration Wizard. • Test the upgraded System Configuration environment: Using the Configuration Manager Editor, verify that selected configuration values were migrated into the System Configuration Repository.
<p>Authentication Test V5R14 UPGRADE MACHINE</p>	<ul style="list-style-type: none"> • Test authentication (configured previously on the Core Services machine): Login to SMARTEAM – Editor.
<p><u>NLS</u> V5R14 UPGRADE MACHINE</p>	<p>You can use the same machine that was prepared for the test phase.</p> <p>If localized data that must be migrated to the new NLS environment was not changed since the NLS migration test phase, you can use this data for the production environment, skipping the two first steps below, and proceeding directly to the post- migration step.</p> <ul style="list-style-type: none"> • Prepare localized data that must be migrated to the new NLS environment. • Conduct the NLS migration using the Multilanguage Enabler utility. • Perform post-migration steps. • Test the upgraded environment.
<p><u>WizSrc</u> V5R14 Upgrade Machine</p>	<p>You can use the same machine that was prepared for the Test Environment.</p> <ul style="list-style-type: none"> • Conduct an upgrade of the WizSrc database to V5R14 (from V5R11) using the SmarTeamWizSrcUpgradeWizard tool
<p><u>Menu Editor</u> V5R14 UPGRADE MACHINE</p>	<p>Enable the Menu Editor mechanism in the SMARTEAM database, if it was not enabled in previous SMARTEAM version</p>

Upgrade from V5R11/V5R12 V5R14 : Process Summary	
V5R11/V5R12 ⇔ V5R14	
Production Environment	
UPGRADE STAGE / USED MACHINE	REQUIRED ACTIVITIES
<u>Upgrade of all SMARTEAM machines</u>	Proceed with installations of all other SMARTEAM V5R14 clients and servers.

UPGRADE IN STANDALONE (DEMONSTRATION ENVIRONMENT)

The following procedure is suitable for a demonstration environment when **a single, Standalone Upgrade Machine** is used for the entire upgrade process.

Upgrade to V5R14 on a Standalone Machine: Process Summary	
UPGRADE STAGE	ACTIVITIES REQUIRED
<p><u>Database upgrade*</u></p> <p>* Only for customers upgrading from V5R10.</p>	<ul style="list-style-type: none"> • Install: <ul style="list-style-type: none"> ○ SMARTEAM – Editor V5R11 in Standalone with the latest Service Pack. ○ SmartDBUpgrade provided with the latest SMARTEAM V5R11 Service Pack in order to have the SMARTEAM database upgrade tools. • Prepare SMARTEAM environment: collect the data necessary for the database upgrade. • SMARTEAM Database Upgrade <ul style="list-style-type: none"> ○ Conduct an upgrade of the database using the UpgradeSmartDB tool. ○ Perform post-upgrade activities. ○ Perform a test of the database.
<p><u>Core Services Installation</u></p>	<ul style="list-style-type: none"> • Install SMARTEAM – Editor V5R14 in Standalone mode (on top of the V5R11 Editor installation) including Core Services (Session Management Service and System Configuration Service), and all SMARTEAM Administrator tools. • Install the latest Service Pack of SMARTEAM – Editor V5R14.
<p><u>Preparation of the V5R14 Upgrade</u></p>	<ul style="list-style-type: none"> • Install SmartDBUpgradeV5R14, provided with the latest SMARTEAM V5R14 Service Pack, in order to have the upgrade tools for WizSrc upgrade. • Configure the authentication protocol using the Authentication Manager utility.
<p><u>System Configuration</u></p>	<ul style="list-style-type: none"> • Prepare all existing SMARTEAM environment files that should be migrated to the new System Configuration. • Conduct the System Configuration upgrade, using the Configuration Migration Wizard. • Test the upgraded System Configuration environment: using the Configuration Manager Editor, verify that selected configuration values were migrated into the System Configuration Repository.
<p>Authentication Test</p>	<ul style="list-style-type: none"> • Test authentication (configured previously on the Core Services machine): Login to SMARTEAM – Editor.
<p><u>NLS</u></p>	<ul style="list-style-type: none"> • Prepare localized data that should be migrated to the new NLS environment. • Conduct the NLS migration using the Multilanguage Enabler utility. • Perform post-migration steps. • Test the upgraded environment.
<p><u>WizSrc</u></p>	<ul style="list-style-type: none"> • Conduct an upgrade of the WizSrc database copy to V5R14 using the SmartTeamWizSrcUpgradeWizard tool.

Upgrade to V5R14 on a Standalone Machine: Process Summary	
UPGRADE STAGE	ACTIVITIES REQUIRED
<u>Menu Editor</u>	<ul style="list-style-type: none">• Enable the Menu Editor mechanism in SMARTEAM database, in case it was not enabled in a previous SMARTEAM version.

For V5R10 upgrade: If it is necessary to repeat the upgrade process, the Standalone Upgrade Machine must be completely uninstalled and the entire process must be repeated from the beginning.

For V5R11/V5R12 upgrade: If it is necessary to repeat the upgrade process, the Standalone Upgrade Machine can be reused.

TEST ENVIRONMENT

DATABASE UPGRADE

This chapter is relevant only for customers performing a migration from V5R10 to V5R14.

The SMARTEAM database must be upgraded from V5R10 to V5R11. The database upgrade is performed using the V5R11 **Database Upgrade machine**.

The SMARTEAM database upgrade requires a preparation stage in which you will collect different SMARTEAM data and place it on the V5R11 Database Upgrade machine.

The upgrade itself may take some time, depending on the amount of information stored in your database and the type of database Server and V5R11 Upgrade machine you use.

Once the SMARTEAM database has been successfully upgraded to V5R11, it becomes compatible with SMARTEAM V5R14 as well. (Note that new mechanisms introduced in V5R14, such as Program Management, need additional handling through the SMARTEAM Data Model Designer. For further details, refer to the *SMARTEAM – Editor Administration* guide).

Notes:

The WIZASRC database is upgraded to V5R11 during the migration to MSDE process (MSDE Migration Guide)

The WizSrc database will also have to be migrated from V5R11 to V5R14 at a later stage.

You will be able to continue with additional V5R14 upgrade stages only after the successful upgrade of both SMARTEAM database and WIZSRC database to V5R11.

A detailed description of all procedures required for the database upgrade process can be found in the Test Environment section of [Appendix A: Database Upgrade](#).

CORE SERVICES INSTALLATION

Preparing the V5R14 Core Services Server

This server hosts the SMARTEAM V5R14 Core Services, including:

- Session Management service, which enables a centralized authentication of SMARTEAM users. This server will also be used to configure the Session Management authentication protocol using a designated tool.
- System Configuration service, which enables centralized control of all SMARTEAM configuration settings.

To prepare this server, install SMARTEAM – Foundation V5R14 with the latest Service Pack, including the Core Services (Session Management Service and System Configuration Service), on the V5R14 Core Services Server. Refer to the *SMARTEAM – Foundation Installation Guide* for detailed information on the installation procedure.

Verify that this server is accessible from the **V5R14 Upgrade Machine**.

After installation of the Core Services, you must configure the SMARTEAM authentication protocol, as discussed in the Session Management section below.

Session Management

To configure the SMARTEAM authentication protocol, run the **Authentication Manager** utility, located in `SMARTEAM\bin\SmarTeam.Std.AuthenticationManager.exe`.

You will now need to select the default authentication protocol used throughout the organization.

If you wish to continue to use the authentication protocol used in previous SMARTEAM versions, select the ‘SMARTEAM’ authentication protocol and configure the database connection for your SMARTEAM database.

When using an authentication protocol other than ‘SMARTEAM’, you need to create a group in which all members are defined as ‘SMARTEAM Administrators’. For more information on how to define this group, refer to the *SMARTEAM – Editor Administration Guide*. This group enables SMARTEAM to detect users defined as a SMARTEAM administrator outside of the database context. The group name should be defined in the SMARTEAM Authentication Manager.

Note for users upgrading from V5R11, using LDAP authentication:

If you used LDAP authentication in SMARTEAM V5R11, the following table illustrates the authentication protocol you should use in V5R14:

V5R11	V5R14
LDAP using an LDAP Server	LDAP
LDAP using Active Directory	Active Directory

For more information on how to configure different authentication protocols and their parameters, refer to the *SMARTEAM – Editor Administration Guide/Online Help*.

PREPARATION OF THE V5R14 UPGRADE MACHINE

The V5R14 Upgrade Machine will be used for the upgrade of:

- System Configuration – for migrating INI files settings into the centralized configuration for all SMARTEAM applications
- NLS – to centralize all NLS configuration settings
- WizSrc – to allow previously prepared custom templates to be saved into the upgraded database.

In addition, this machine will be used for verification of the SMARTEAM authentication mechanism.

The following section indicates the mandatory preparation that needs to be carried out prior to the beginning of the upgrade procedure.

Installation of the V5R14 Upgrade Machine

- Install **SMARTEAM – Editor V5R14** client including all **Administrator Tools** (make sure to include the Data Model Designer). During the installation, when prompted:
 - Enter the name of the V5R14 Core Services Server in order to point to the V5R14 Upgrade Machine.
- Install the latest Service Pack of SMARTEAM – Editor.
 - During the V5R14 Service Pack installation, make sure that the **Reset to SMARTEAM Default Values** checkbox is checked.
- To use the SMARTEAM WizSrc database upgrade tool **SmarTeamWizSrcUpgradeWizard**, install **SmartDBUpgradeV5R14**, located on the SMARTEAM latest Service Pack CD.
- Using the SMARTEAM Database Connection manager, connect SMARTEAM – Editor to both **copies** of the Production database and WizSrc database.
- Activate the SMARTEAM Data Model Designer and select **Actions / Modify Database Structure**. Click the **Create Database** button. The latest database changes will be applied automatically (there is no need to make manual changes).
- Copy all your existing SMARTEAM scripts into the <SMARTEAM home>\Script directory on the V5R14 Upgrade Machine. In the SmTeam32.ini file, modify the Script home directory value to <SMARTEAM home>\Script directory.

Notes:

Make sure that the V5R14 Upgrade Machine has access to the V5R14 Core Services Server.

In order to install the V5R14 WizSrc and the MSDE Database Engine, you must select the Data Model Designer option during installation. These are both essential for the upgrade of your WizSrc.

SYSTEM CONFIGURATION

In previous SMARTEAM versions, the default SMARTEAM settings were saved in different locations, such as INI files in SMARTEAM\LocalConfig folder, Admin INI file and inside the SMARTEAM database. In V5R14, all settings are centralized in one repository.

Once the V5R14 Upgrade Machine is installed with all required components, as indicated in previous section, you can continue with the System Configuration upgrade.

This section describes the procedure required for the upgrade of the SMARTEAM INI files into the System Configuration centralized repository. It is divided into preparations, actual upgrade process, and verification.

Once the process is completed, the values included initially in the INI files will be stored in the central System Configuration Repository and will then be used as the default settings for all SMARTEAM users.

In addition to updating data from the INI files, the System Configuration Migration Wizard also extracts the configuration settings stored in the TDM_PREFERENCES database table. This is done automatically by the System Configuration Migration Wizard.

Preparation of Existing SMARTEAM Environment INI Files

During the preparation stage, you need to collect, edit and prepare the INI files, which contain the information relevant for maintaining your SMARTEAM existing environment. The files need to be placed (instead of the INI files installed in this machine initially) in the V5R14 Upgrade Machine.

When preparing the INI files for the upgrade, it is important to note the following:

- The files used in the upgrade process are:
 1. SmTeam32.ini
 2. genrep.ini
 3. ServerSafeScripts.INI
 4. SmarDESK.ini
 5. SmartDbExplorer.ini
 6. SmartQuickReport.ini
 7. SmERPSyncServer.ini
 8. Smupgsrsrc.ini
 9. Smvlt32.ini
 10. SMWIZA32.INI
 11. SmWorkFlow.ini

All values included in these INI files are migrated into the System Configuration Repository.

- As a baseline for INI files preparations, it is recommended to use the INI files that hold SMARTEAM settings, representing a typical configuration. These settings, along with correct manual adjustments will serve as the default environment when the upgrade process is completed.
- There are cases in which multiple INI files are used in an existing environment, to store various SMARTEAM configuration settings. For example, in some organizations there is an Admin SmTeam32.ini file that stores the configurations used for different SMARTEAM clients. In this case, it is necessary to integrate the desired values included

in these files manually and edit them into a **SINGLE** SmTeam32.ini file, which will be placed on the **V5R14 Upgrade Machine**.

- Entries beginning with “#” (comments) will not be migrated. If these entries are needed, the “#” symbol must be removed.
- The migration process handles SMARTEAM-related INI files only. If you have added customized INI files, these INI files will not be changed and they will continue to be used as before.
- **Upgrading SMARTEAM user private INI settings:** This occurs automatically for each user when they log into the SMARTEAM V5R14 client for the first time. No user intervention is required.

SMARTEAM Scripts

Make sure that all SMARTEAM scripts are copied to the V5R14 Upgrade Machine into the directory <SMARTEAM Home Directory>\Script

System Configuration Upgrade

The System Configuration upgrade is executed using the **System Configuration Migration Wizard**. This tool exports all the settings to a new, XML-based, repository. The XML files are copied automatically to the Core Services Server for use by the System Configuration Service to set the SMARTEAM environment.

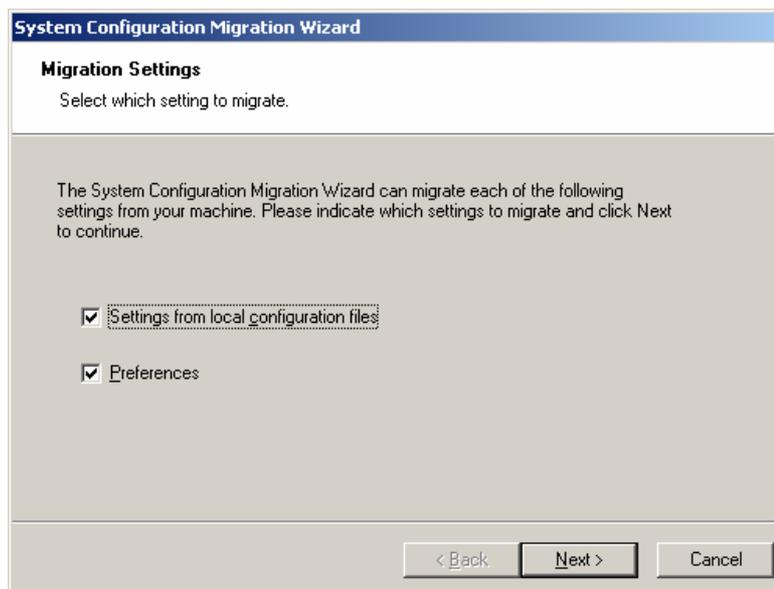
To run the Configuration Migration Wizard:

1. From the *SMARTEAM/Upgrade* directory, on the V5R14 Upgrade Machine, run *ConfigMigrationWizard.exe*.

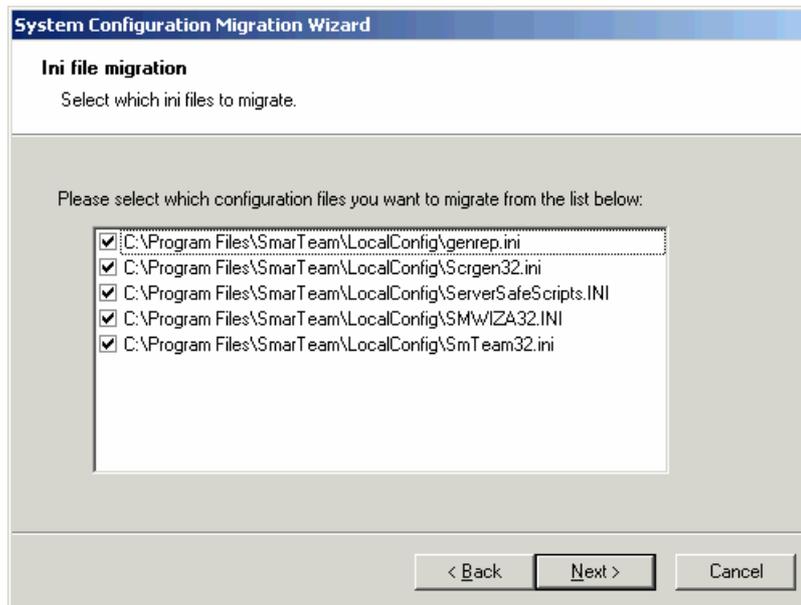
The SMARTEAM Login window appears.

2. Login to the Wizard using the Administrator credentials.

The first Wizard screen is displayed:



3. From the list, check the settings you want to migrate:
 - Settings from local configuration files (INI files)
 - Preferences (from the database tables)
4. Click **Next**.
5. A list of SMARTEAM INI files is shown. These are SMARTEAM INI files located under SMARTEAM/localconfig.



6. From the list, check the INI files you want to migrate and click **Next**.
7. Click **Finish** on the next screen.

After running the System Configuration Migration Wizard, all changes made to the configuration settings must also be made at a later time using the System Configuration Editor. For more information, refer to the *System Configuration* section of the *SMARTEAM – Editor Administration Guide*.

Note: When working with the WebSphere Application Server (WAS), the System Configuration Editor utility must be installed on a machine other than the one running the SMARTEAM – Web Editor Server.

Verification of the Migrated System Configuration

Once the System Configuration migration process is completed, verify that the required values were migrated from the SMARTEAM INI files into the System Configuration repository.

Initiate the **System Configuration Editor** tool (**Start/Program Files/SMARTEAM/ Administrator Tools**) and check selectively that key values that previously were stored in INI files are displayed in this tool.

NATIONAL LANGUAGE SUPPORT (NLS)

Note: The National Language Support section is relevant for users upgrading from V5R11 only.

From V5R12, SMARTEAM provided an enhanced National Language Support (NLS) system that allows you to work with multiple languages on a single production site. To use the new system, you must extract translatable data of the SMARTEAM user interface, such as controls, metadata and error messages. These are located in your database and in error files (external ASCII-format files), and must be migrated to XML files that will serve as repository for localized data.

In addition to the default English version, SMARTEAM provides out-of-the-box translations into French, German and Japanese for visual controls, system data and SMARTEAM standard error messages. For all other languages, you can use the Translation Utility to add additional languages and applicable translations to NLS components.

Refer to the *SMARTEAM – Editor Administration Guide* for detailed information on using the *Multilanguage Enabler* Utility.

Preparation of the Localized Data for Migration

The NLS migration process is conducted using a dedicated tool, the Multilanguage Enabler, which performs the migration of errors, controls and database items. The Multilanguage Enabler provides users with the flexibility of selecting only the relevant components.

- Error files

For a successful migration to take place, the following files must be located on the **V5R14 Upgrade Machine** in your SMARTEAM root folder, *<SmarTeam>*:

- `tdmerror.err`
- `tdmwizard.err`
- `tdmvlsrv.msg`
- `tdmcustom.err` (this file will exist only if you have created customized error messages)

An error will occur if the *Multilanguage Enabler* is run without having the `tdmvlsrv.msg` and `tdmcustom.err` files on the Upgrade Machine. Therefore, it is important to copy these error files – or create “dummy” files with these names – to the SMARTEAM directory on the Upgrade Machine in order to ensure a smooth migration process for all error files.

- Controls – menu items, buttons etc (non-specific database-related objects)
- Meta data – unique definition per customer database (Profile Cards, Lookup values, System data, User data, Menu Profiles)

The migration process differs slightly for the different language groups:

- **For English, German, Japanese and French:** SmarTeam supplies these languages out of the box.

Users of these languages only need to extract the metadata, as the other components (errors and controls) are provided automatically by SmarTeam. When other controls and errors are imported, these are used instead of the default components.

- **For all other languages**

Users of these languages must migrate all the error, controls and meta data components.

Migrating NLS Data to the Enhanced NLS System

To utilize your existing translations in SMARTEAM V5R14, NLS data must be migrated to the enhanced NLS system. This involves the following stages:

- Updating of the NLS configuration key using the SMARTEAM System Configuration Editor
- Migration to the new NLS system using the *Multilanguage Enabler*.

To perform NLS migration, perform the following steps:

1. Using the SMARTEAM System Configuration Editor, update the <rootPath>key of the NLS folder, which was created on the *Core Services Server*. The NLS configuration key is located under:

Miscellaneous Configuration / National Languages Support / Root Path

For more information on modifying this configuration, refer to the *System Configuration Editor* section of the *SMARTEAM – Editor Administration Guide*.

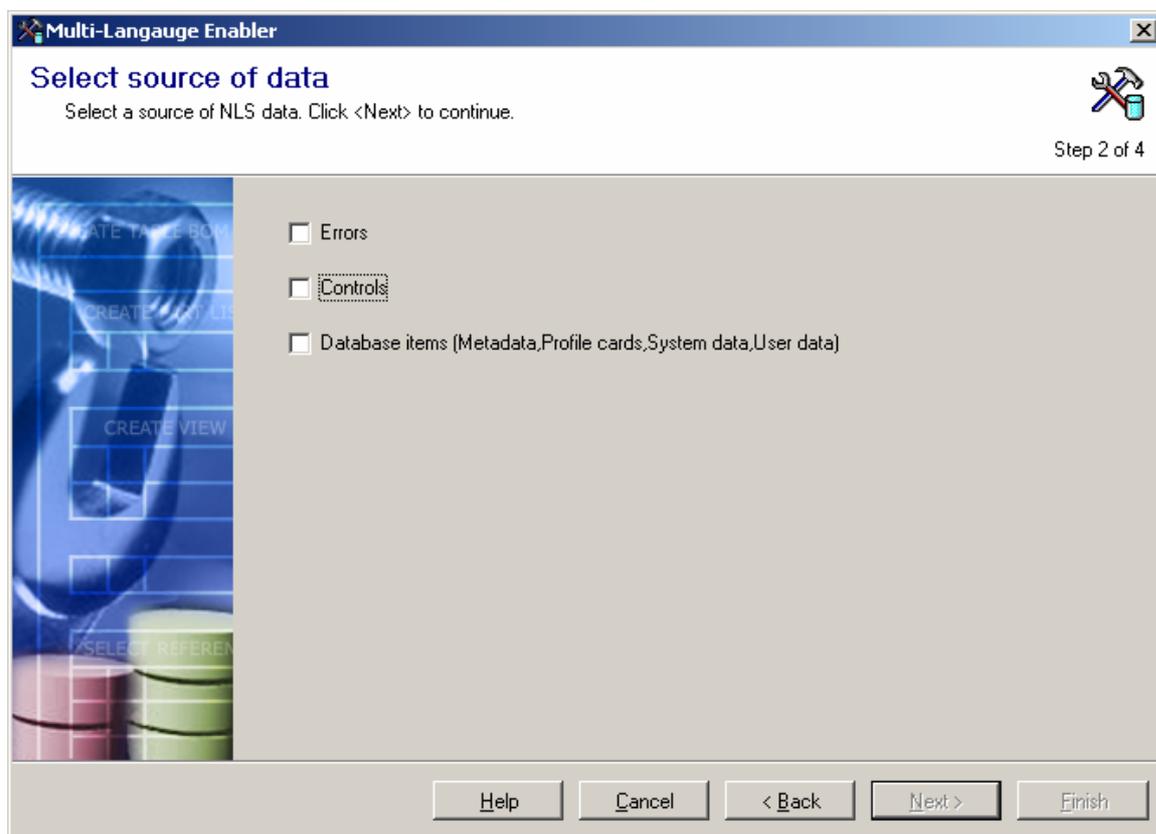
2. Verify that the NLS folder created on the Core Services Server under the ...*smarteam* folder has a share for Read/Write access for all users of SMARTEAM products.
3. Open the *Multilanguage Enabler* by double-clicking the *MultilanguageEnabler.exe* executable file located in the <SmarTeam/bin> directory.

The main dialog box of the *Multilanguage Enabler* opens.

4. Select a database from which the data will be migrated.

Provide the appropriate user name/password.

The *Select Source of Data* screen appears.

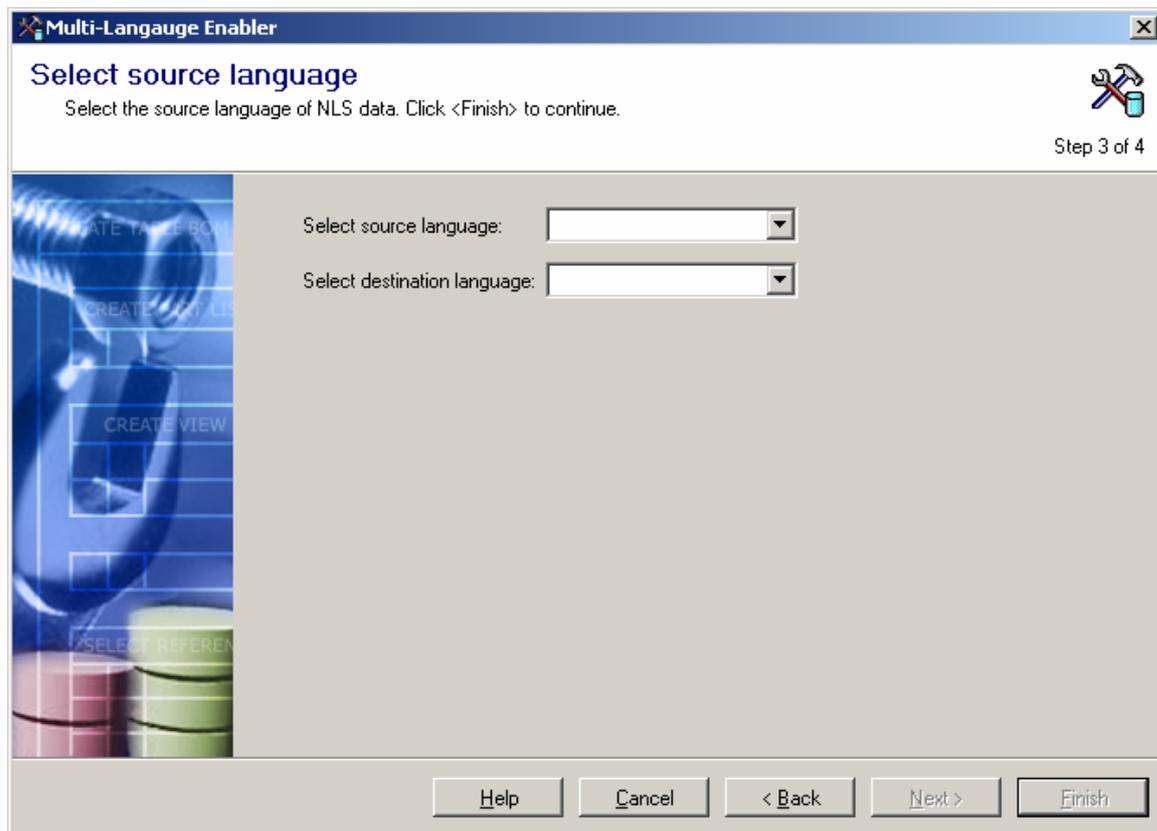


5. Select the required NLS components. The following options are available in this window:

Option	When to select
Errors	Check this box only if: <ol style="list-style-type: none"> 1. You have localized a language other than the supplied languages. 2. You have changed the default translation of the SMARTEAM error messages for the supplied languages and would like to continue using your changes.
Controls	Check this box only if: <ol style="list-style-type: none"> 1. You have localized a language other than the supplied languages. 2. You have changed the default translation of controls such as menu items or added and translated menu items for the supplied languages and would like to continue using your changes.
Database Items (Meta data, Profile Card, System Data, User Data)	Always select this option.

6. Click **Next**.

The *Select Source Language* screen appears:



7. From the Source Language combo box, select the source language.
The list displayed is taken from the list of languages in your system.
8. From the Destination Language combo box, select the target language.
The list shown is taken from an official list of language names.
9. Click **Finish**.

Important:

When working with several databases, it is necessary to repeat tasks 4-9 for database and controls items. As you perform the process for each database, check the **Controls** and **Database items** checkboxes in the *Select Source of Data* screen.

Note:

New Control items will be merged and existing ones will be replaced.

The **Errors** checkbox should not be selected, as these items are database-independent and are migrated only once.

Verification of the Upgraded Environment

After running the *Multilanguage Enabler* on the **V5R14 Upgrade Machine**, the *Core Services Server* machine should contain a new folder created for the relevant language.

For example: if you run the *Multilanguage Enabler* for the Korean language, a folder called NLS\Kr\Custom is created.

Note: Data will be extracted to XML files in the ...*SmarTeam*\NLS*<language RFC id>*\CUSTOM folder. The translated files are placed in this folder.

For example:

1. For French, a new folder named "CUSTOM" is created under the *existing* path ...*SmarTeam*\NLS\fr, i.e., ...*SmarTeam*\NLS\fr\CUSTOM
2. For Korean, a new folder named "kr" is created under ...*SmarTeam*\NLS, and the CUSTOM folder is created under the "kr".folder, i.e., ...*SmarTeam*\NLS\kr\CUSTOM

For further information on RFC codes, and the official list of language codes, refer to:

<http://www.oasis-open.org/cover/iso639a.html>

Activate SMARTEAM – Editor on the **V5R14 Upgrade Machine** and verify that the translated element appears in the correct language.

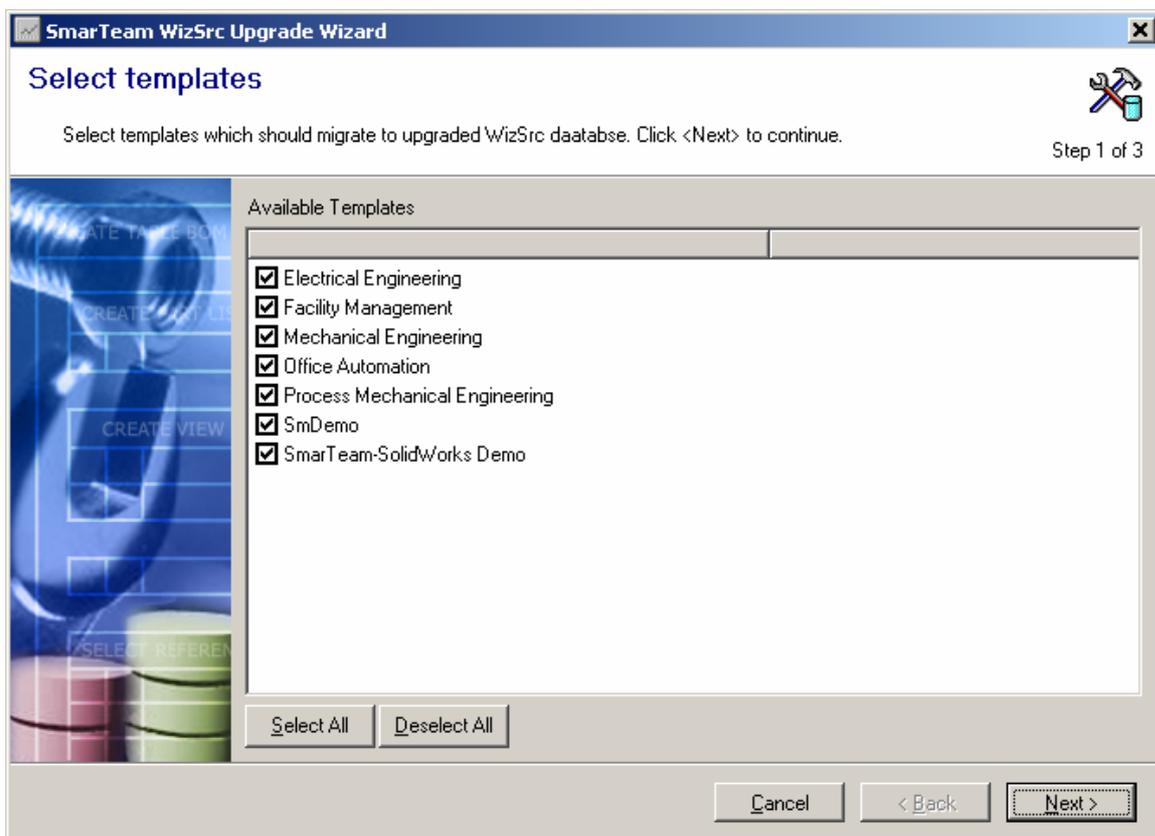
WIZSRC UPGRADE TO V5R14

The WizSrc upgrade tool upgrades the user's WizSrc database located on the SMARTEAM database server. The V5R14 Data Model Designer cannot be used without executing this tool. While upgrading, users' custom templates can be saved to the upgraded database. It is highly recommended to backup the current WizSrc database before running this tool.

Upgrading WizSrc from V5R11/V5R12 to V5R14

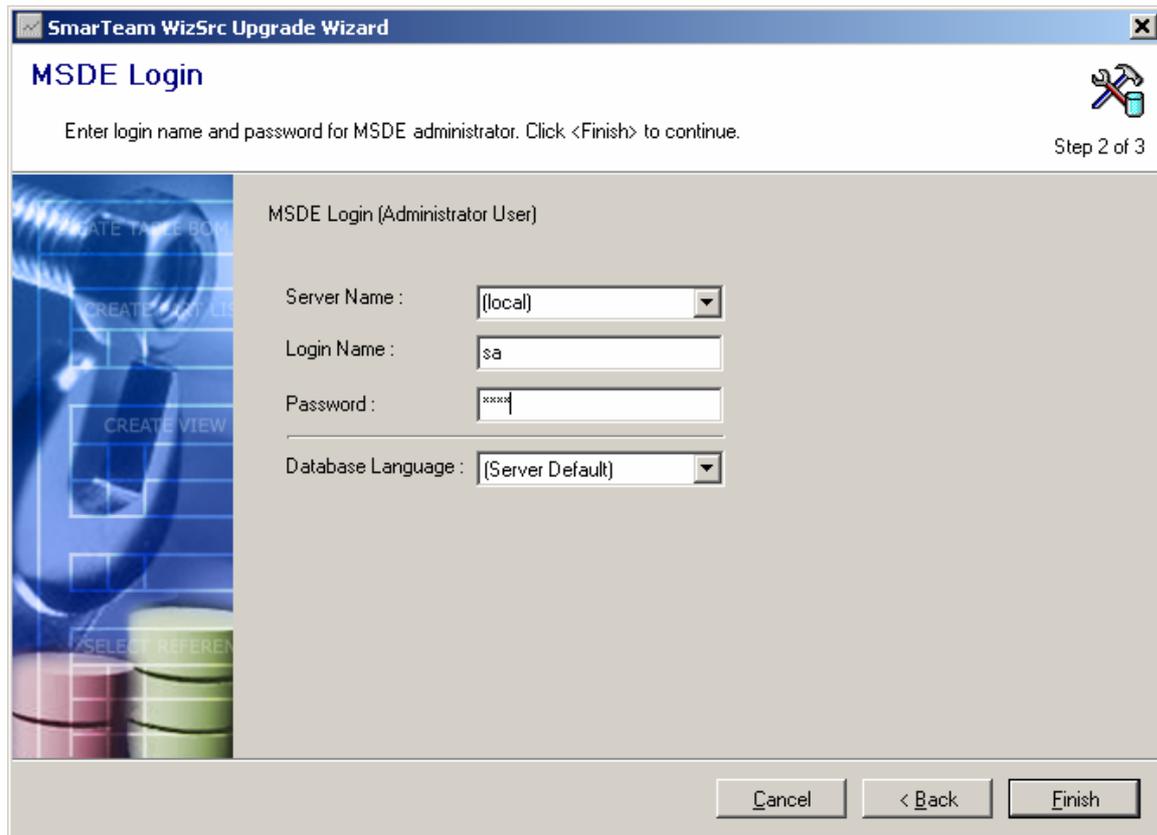
To upgrade WizSrc:

- Run *SmarTeamWizSrcUpgradeWizard.exe*, located under the <SMARTEAM>\Upgrade directory.
- You are prompted to select the templates that you want to save. Note that any template that you do not select will be unrecoverable.



- Click **Next**.

- Enter the local MSDE server name, user name and password of the administrator of this MSDE server.



The screenshot shows a dialog box titled "SmarTeam WizSrc Upgrade Wizard" with a sub-title "MSDE Login". The dialog box contains the following elements:

- Title Bar:** "SmarTeam WizSrc Upgrade Wizard" with a close button (X).
- Header:** "MSDE Login" in blue text, a wrench and screwdriver icon, and "Step 2 of 3".
- Instructions:** "Enter login name and password for MSDE administrator. Click <Finish> to continue."
- Form Fields:**
 - Server Name:** A dropdown menu with "(local)" selected.
 - Login Name:** A text box containing "sa".
 - Password:** A text box containing "xxxxx".
 - Database Language:** A dropdown menu with "(Server Default)" selected.
- Buttons:** "Cancel", "< Back", and "Finish" buttons at the bottom right.

- Click **Finish** to start the WizSrc upgrade process.

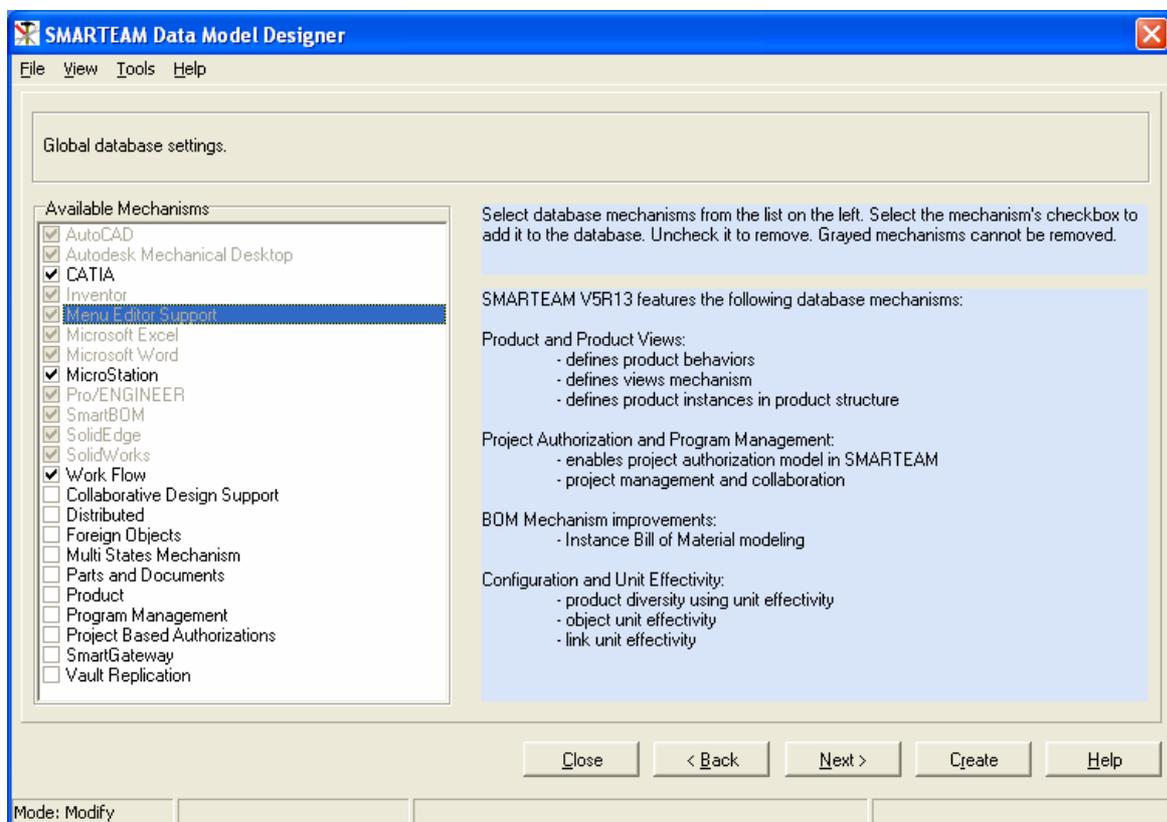
MENU EDITOR MECHANISM

Prior to V5R14, it was possible to use SMARTEAM with a choice of either ‘hard coded’ out-of-the-box menus, or customized menus that required the activation of the Menu Editor Mechanism.

Starting from V5R14, the hard-coded menu checkboxes are obsolete and the Menu Editor mechanism must be enabled. If you already enabled the Menu Editor in a previous version, there is no need to repeat this operation.

In order to enable this mechanism on a SMARTEAM database, which does not have it, enabled yet, do the following:

- On the **V5R14 Upgrade Machine**, activate the SMARTEAM Data Model Designer.
- In the *Global database settings* dialog, check the **Menu Editor Support**, as illustrated below.
- Click **Create** to initiate the Data Model Designer operation and apply this mechanism.



PRODUCTION ENVIRONMENT

PRODUCTION ENVIRONMENT UPGRADE

Database Upgrade

This chapter is relevant only for customers performing migration from V5R10 to V5R14.

The database upgrades are performed using the V5R11 **Database Upgrade machine**.

Once the SMARTEAM database has been successfully upgraded to V5R11, it becomes compatible with SMARTEAM V5R14 as well. Note that new mechanisms introduced in V5R14 such as Program Management need additionally handling in the SMARTEAM Data Model Designer. For further details, refer to the *SMARTEAM - Editor Administrator Guide*.

After the SMARTEAM database upgrade, the SMARTEAM WizSrc database should be upgraded to V5R11. Note that the WizSrc database will also have to be migrated from V5R11 to V5R14 at a later stage.

Additional V5R14 upgrade stages can be performed only after the successful upgrade of both databases to V5R11.

A detailed description of all procedures required for the database upgrade process can be found in the Test Environment section of [Appendix A: Database Upgrade](#).

Core Services Server in Production

When planning the V5R14 production environment, a key requirement is that the SMARTEAM Core Services (Session Management and System Configuration) must be installed on a server that is accessible from all computers running SMARTEAM products. This computer provides services to all SMARTEAM products, including SMARTEAM - Editor clients, the Web Editor and CMT server, the Workflow server, etc.

One solution is to use the same machine on which you installed during the Test Environment for SMARTEAM Core Services. Alternatively, you can install SMARTEAM Core Services on a separate dedicated computer running only these services, while also installing them on a computer running SMARTEAM – Foundation (Vault and/or Workflow server).

Note for V5R12 users: If you already run Session Management service on a dedicated server, you can use the same machine when migrating to V5R14 to run the System Configuration service.

Session Management

To configure the SMARTEAM authentication protocol, run the **Authentication Manager** tool located in `SMARTEAM\bin\SmarTeam.Std.AuthenticationManager.exe`, as done in the Test Environment. After running, make sure that you are now connected to the Production database.

System Configuration

For the System Configuration service, you can use the same V5R14 Upgrade Machine as prepared for the Test environment.

If configuration settings were not changed since the test phase, you can skip the preparation of the SMARTEAM INI files, and use the same INI files that you used during the test phase. Otherwise, you must collect and prepare all the necessary SMARTEAM INI files again.

- Connect SMARTEAM – Editor on the V5R14 Upgrade Machine to the **Production database**.
- Prepare all existing SMARTEAM environment files that should be migrated to the new System configuration

- Conduct the System Configuration upgrade, using the **Configuration Migration Wizard**, the same way as during the Test phase. Refer to [System Configuration Upgrade](#) , for a review of this procedure.
- Test the upgraded System Configuration environment: using the Configuration Manager Editor, and verify that selected configuration values were migrated into the System Configuration Repository.

Note for SMARTEAM administrators:

As a result of System Configuration migration, the INI files indicated have become obsolete. Therefore, changes in these INI files will not have any effect on the SMARTEAM configuration. It is recommended that this issue be explained to all end-users.

National Language Support (NLS)

You can use the same V5R14 Upgrade Machine that was prepared for the Test environment.

If localized data that must be migrated to the new NLS environment was not changed since the NLS migration test phase, you can use this data for the production environment, skipping the two first steps below, and proceeding directly to the post- migration step.

- Prepare localized data to be migrated to the new NLS environment
- Conduct the NLS migration using the **Multilanguage Enabler** utility. Refer to [Migrating NLS Data to the Enhanced NLS System](#) for a review of this procedure.
- Perform post-migration steps
- Test the upgraded environment

WizSrc Upgrade

You can use the same V5R14 Upgrade Machine that was prepared for the Test environment.

The WizSrc upgrade to V5R14 must be performed, regardless of the existing WizSrc version - V5R11 or V5R12.

- Connect SMARTEAM – Editor on the V5R14 Upgrade Machine to the **WizSrc database**
- Upgrade the **WizSrc** database to V5R14 using the **SmarTeamWizSrcUpgradeWizard** tool. Refer to [WizSrc Upgrade to](#) for a review of the procedure.

Menu Editor

You can use the same V5R14 Upgrade Machine that was prepared for the Test environment.

Using the SMARTEAM Data Model Designer, ensure that the Menu Editor mechanism is enabled.

UPGRADE OF ALL SMARTEAM MACHINES

Notes: This section is relevant for users of V5R11 and V5R12 only. SMARTEAM V5R14 detects and automatically upgrades only previous V5R11 or V5R12 versions.

If you begin the overall migration process from V5R10, SmarTeam Corporation highly recommends that you begin with an installation upgrade of V5R10 to V5R11, followed by an installation upgrade from V5R11 to V5R14. For details on the installation upgrade from V5R10 to V5R11, refer to the V5R11 Installation Upgrade document located on the V5R11 Documentation CD.

When migrating to V5R14 from V5R10 via V5R11, and in order to ensure proper migration of the File Catalog:

Before the migration of each SMARTEAM client from V5R10 to V5R14 in the production environment, each end-user must perform a check-in of all SMARTEAM objects, in the V5R10 environment.

Alternatively, if a certain end-user did not perform the check-in operation prior to the migration to V5R14, it is possible to activate SMARTEAM V5R11 client and perform a login operation.

When initiating the installation upgrade to V5R14, do not to login to SMARTEAM in V5R14 GA code level. The login to SMARTEAM should be done using the code level of V5R14 Service Pack 2 and above. This will ensure that the file catalog migration will run properly.

Note for SMARTEAM – FDA Compliance users: in case you begin your installation upgrade from SMARTEAM – FDA Compliance V5R10 to V5R11, you need also to perform the upgrade procedure described in the *SMARTEAM - FDA Compliance Upgrade Guide V5R11.pdf* located under the Documentation directory of in the V5R14 Service Pack CD

The SMARTEAM installation upgrade process from SMARTEAM V5R11 or V5R12 to SMARTEAM V5R14 is straightforward. Products that support direct installation to V5R12 can be upgraded, once the minimal version requirements are met, regardless of any Service Packs and/or hot fixes that were subsequently installed.

Example:

- An upgrade to SMARTEAM – Editor V5R14 can be performed from SMARTEAM – Editor V5R11 with or without any of its Service Packs.

In some cases, installation of another product is a necessary prerequisite for the installation of a related application. Under these circumstances, the prerequisite must be upgraded first.

Example:

- SMARTEAM – Editor V5R11 is a prerequisite for the SMARTEAM – Web Editor V5R11 Server. In this case, SMARTEAM – Editor needs to be upgraded first and then SMARTEAM – Web Editor V5R14 can be installed on top of V5R11.

If a number of products are installed on the same machine and one is a prerequisite for several others, the prerequisite must be installed first, but the installation order of the dependent applications is not important.

Example:

- If SMARTEAM - Editor, Community Workspace and BOM products all from V5R11 are installed on the same machine, the SMARTEAM – Editor must be upgraded first to V5R14, as it is a prerequisite for all other products. However, the installation of the other two dependent products can be carried out in any order.

SMARTEAM – Foundation / SMARTEAM – Editor / SMARTEAM Integrations

The upgrade to V5R14 for both products is done automatically from SMARTEAM - Editor/Foundation V5R11 or V5R12. Note that if both SMARTEAM – Foundation and SMARTEAM – Editor are installed on one machine, you must upgrade SMARTEAM – Foundation services (Vault / Workflow services) first and then upgrade SMARTEAM – Editor.

SMARTEAM – Editor Installation considerations

The new SMARTEAM – Editor installation identifies the existing installed integrations as well as other components, and automatically upgrades them to V5R14.

If you originally installed SMARTEAM – Editor in **Standalone** mode on each client machine, the V5R14 installation will upgrade to the same mode, which includes the V5R14 Core Services. Therefore, in production environment, it is recommended to uninstall first the original Editor installation and then to proceed with V5R14 installation on each ‘clean’ machine.

SMARTEAM – Foundation Installation considerations

The upgrade of the previous version of the Vault and Workflow servers must be performed through the SMARTEAM – Foundation installation. Make sure to restart the Vault and Workflow services manually (through Control Panel / Services), if they were not restarted automatically during the installation. This is done in order for the services to use the configuration values stored in the System Configuration repository.

Notes:

Workflow Server: The database connections of the Workflow Server service must be redefined through the Workflow Server Setup tool.

Vault Server: After installing Vault Server component of SMARTEAM – Foundation V5R14, activate the Vault Server Setup application and reconfigure the hostname (when using NetBIOS) or IP Address (when using TCP/IP) of the machine where the Vault Server Service is installed.

If the Core Services are installed on a dedicated computer separately from the Vault and/or Workflow server, the Core Services installation must be run first.

After installing the Core Services, you can continue with the upgrade of the additional Vault/Workflow Foundation servers. During upgrade, uncheck the option to install the Core Services on the same machine with Vault/Workflow, and indicate the dedicated computer on which the Core Services were installed.

SMARTEAM – Multi-site, SMARTEAM – Gateway/SMARTEAM – SA Adapter/SMARTEAM – OA Adapter

The new versions, located on CD Volume 2, identify the existing installed components and prompt to upgrade to V5R14.

It is advisable to upgrade the installation on the different sites according to the order in which they were originally installed.

SMARTEAM – Gateway and Gateway adapter installations can be upgraded to V5R14 from V5R11 or V5R12.

Note: Before you start with the installation upgrade, backup the SmERPSyncServer.ini file located in the <SmarTeam home>\LocalConfig directory.

SMARTEAM – BOM

The new versions, located on CD Volume 3, identify the existing installed components and prompt to upgrade to V5R14.

SMARTEAM – BOM can be upgraded to V5R14 from V5R11 or V5R12.

It is recommended that you use the **BOM Administration Wizard**, at the end of the SMARTEAM – BOM installation to add the new V5R14 attributes, such as Unit Effectivity.

SMARTEAM – Web Editor / SMARTEAM – Navigator, SMARTEAM - Community Workspace

When you insert CD Volume 4, the installation will identify the corresponding existing SMARTEAM components and will prompt to upgrade to SMARTEAM V5R14.

The following upgrades can be performed:

- SMARTEAM – Web Editor/Navigator can be upgraded to V5R14 from either V5R11 or V5R12.
- SMARTEAM – Community Workspace can be upgraded to V5R14 from either V5R11 or V5R12.
- The Synchronize Assembly Helper utility, for use with SMARTEAM – Community Workspace, can be upgraded to V5R14 from either V5R11 or V5R12.

Customizing SMARTEAM – Web Editor/Navigator in V5R14:

The following tools should be customized when upgrading to SMARTEAM V5R14:

- **Style Sheets**
Style sheets files (.CSS) used to store some user interface settings of previous SMARTEAM – Web Editor versions must be redefined in V5R14. For information on customizing .css files, refer to the *SMARTEAM – Web Editor Online Help*.
- **User Defined Tools**
The User Defined Tools of SMARTEAM – Web Editor V5R11 and V5R12 are supported in V5R14. However, the following changes are necessary:
 - In the existing ASPX pages, change the way the parameters are received in the query string. For detailed information, refer to the *Customizing by adding user-defined tools* section of the *SMARTEAM – Web Editor Online Help*.
 - Redefine the tools and map them to ASPX files. For detailed information, refer to the *Customizing by adding user-defined tools* section of the *SMARTEAM – Web Editor Online Help*.
- **Special configuration settings**
Use the **Configuration Manager Editor** to define the following system keys, which appeared in the INI file settings of previous versions:

V5R11/V5R12	V5R14	
Parameter Name and Description	New Key Name	Location
<p>MAX_RECENTLY_USED=5</p> <p>Indicates the maximum number of Recent objects displayed in the Quick Access Bar and the Recent objects section in a Search scenario.</p> <p>To retain the value defined in the existing setting, you must copy this setting to the <i>webControls.xsd</i> file after upgrading to V5R14.</p>	<p>Name :</p> <p>RecentlyUsedMaxCapacity</p> <p>Value:</p> <pre><xsd:element name="RecentlyUsedMaxCapacity" type="xsd:string" minOccurs="0" cs:mustBeAuthenticated="false" /></pre>	webControls.xsd
<p>MAX_QUERY_RESULTS_PER_PAGE=20</p> <p>Indicates the number of results to display for each page.</p>	<p>Name :</p> <p>DefaultPageSize</p> <p>Value:</p> <pre><xsd:element name="defaultPageSize" type="xsd:int" minOccurs="0" cs:mustBeAuthenticated="false" cs:highestOverrideScope="cs:User" "/></pre>	preferences.xsd

Note: Refer to the *System Configuration Service* section in the *SMARTEAM – Editor Online Help* for further details.

- **Web Editor Data Model Wizard**

At the end of the SMARTEAM – Web Editor Installation, activate the SMARTEAM – Web Editor Data Model Wizard.

Note: If the Web Viewer version is older than V5R11 Service Pack 6 or V5R12 Service Pack 3, SMARTEAM Web Viewer V5R14 needs to be manually upgraded.

The SmartMarkupMonitor needs to be upgraded to the V5R14 version from any V5R11 or V5R12 version or service pack.

To perform the manual upgrade, all previous installations must be removed using Add/Remove Programs option from the Windows Control Panel. Then, the SMARTEAM Web Viewer and the SmartMarkupMonitor should be reinstalled. Refer to the *SMARTEAM - Web Viewer Installation Guide* for detailed instructions.

SMARTEAM – Electronics Template / SMARTEAM – FDA Compliance

Use CD Volume 5 to upgrade SMARTEAM – Electronics Template or SMARTEAM – FDA Compliance to V5R14.

Before beginning the SMARTEAM – Electronics Template or SMARTEAM – FDA Compliance upgrade process, make sure that all prerequisite products are already upgraded to V5R14.

For example, SMARTEAM – Electronics Template V5R14 requires SMARTEAM – Editor, SMARTEAM- Workflow and SMARTEAM – BOM, all in this same version.

SMARTEAM – P Integration

For V5R14, when installing SMARTEAM – P Integration, there is no automatic upgrade from any previous installations of SMARTEAM – P Integration and the Rand Automation Gateway.

To migrate SMARTEAM – P Integration to V5R14:

1. Uninstall previous installations of SMARTEAM – P Integration and the Rand Automation Gateway from the client computers using Add/Remove Programs option in the Windows Control Panel.
2. Install SMARTEAM – P Integration and the Rand Automation Gateway from CD Volume 6.

LICENSING MIGRATION

This section is relevant for all upgrades, regardless of current version.

In V5R10, SmarTeam introduced a new protection mechanism, called LUM (License Use Management). Developed by IBM, LUM is a software product for the management of software assets.

Throughout SMARTEAM V5R10 and V5R11, there was a transition period during which there was an option to choose either HASP or LUM.

Starting from V5R12, LUM licensing completely replaces the hardware-based HASP dongles.

In the upgrade to V5R14 only those users who are upgrading from V5R10 or V5R11 require a migration to LUM.

The transition from HASP to LUM is done automatically during SMARTEAM – Editor or SMARTEAM – Foundation installations.

Important: When upgrading from V5R10 or V5R11 to SMARTEAM V5R14, the installation process automatically switches HASP-configured SMARTEAM clients to LUM support. Any previously-used HASP dongles cannot be used after the installation. Therefore, you should ensure that you have replacement LUM keys in your possession prior to the installation of V5R14.

Details on how to order LUM keys are included in a separate **License Application Form**, which can be found in the SMARTEAM CDs set.

For details on LUM installation, refer to the *LUM Installation and Configuration Guide*, included on the SMARTEAM V5R14 Documentation CD.

Licensing Changes through V5R14

When upgrading to V5R14, existing customers should be aware of changes in licensing done previous versions as part of SmarTeam ongoing effort for improvements. Therefore, the customer must obtain the proper LUM keys in advance from their respective key centers to ensure uninterrupted use. To apply for the keys, the License Application Form included within every box of SMARTEAM V5R14 CDs should be filled and sent it to the LUM key center.

The key(s) should then be applied and used in addition to existing LUM keys.

From V5R11, LUM protection was added for SMARTEAM - P Integration.

From V5R12, LUM protection was added for the following SMARTEAM products:

- SMARTEAM – SE Integration
- SMARTEAM – AC Integration
- SMARTEAM – MD Integration
- SMARTEAM – IN Integration
- SMARTEAM – MI Integration
- SMARTEAM – SolidWorks Integration
- SMARTEAM – FDA Compliance

DATABASE ENGINE MIGRATION

DB2 Database

Note: This section is relevant for customers using an IBM DB2 database as their SMARTEAM database engine.

Prior to V5R14, SmarTeam Corporation supplied the DB2 7.2 UDB Enterprise Edition for Windows and AIX as a part of its standard installation package.

From V5R14, SmarTeam will supply the DB2 8.1 UDB Express Edition for Windows and the DB2 8.1 UDB Workgroup Edition for Windows and AIX, in accordance with the customer's entitlement.

Customers who prefer to retain their DB2 7.2 will not need to migrate their DB2 database, as SMARTEAM V5R14 will continue to support DB2 7.2. Nonetheless, SmarTeam strongly recommends performing the migration to DB2 UDB 8.1, as support for DB2 7.2 is being phased out by IBM and will be discontinued during the first half of the coming year.

For details on the DB2 installation and migration process, refer to the *DB2 Installation Guide* for V5R14.

APPENDIX A: DATABASE UPGRADE

Note: This section is relevant when upgrading from V5R10 only.

The upgrade of SMARTEAM databases is initiated from a single client, to be referred to as the **V5R11 Database Upgrade Machine**.

Before actually upgrading in production, you must first perform a database upgrade in a test environment. Hence, the upgrade should be done first on **copies** of the production and WizSrc databases. Create these copies on the SMARTEAM Database server. Make sure to disconnect the copy of the production database from the Vault Server and define separate test vault directories.

The upgrade on a test environment will familiarize you with the upgrade process and ensure completeness and correctness. There are a number of troubleshooting tasks to perform until success is achieved in the test environment, in case some issues occurs during the upgrade. Upon successfully completing the upgrade procedure in the test environment, you may proceed to the upgrade in the production environment.

Note: Interbase is no longer supported from V5R11. If it is used in a production and/or demo environment, it needs to be converted to MSDE. For details on the conversion process, see the MSDE Migration Guide and the Database Connection Manager section of the SMARTEAM – Editor Administration Guide/Online Help.

Preparations of the V5R11 Database Upgrade Machine

The V5R11 Database Upgrade Machine needs to be equipped with several SMARTEAM installations:

- Install SMARTEAM – Editor V5R11 standalone with all Administrator utilities, including the Data Model Designer.
 - If you plan to use an existing V5R10 machine and to prepare it as a V5R11 Database upgrade machine, note the following:
 - The SMARTEAM V5R11 installation automatically converts any previous V5R10 **BDE** database connections to Oracle, DB2 or SQL Server into an **ADO** database connection. For further details, see the **Database Connection Manager** document.
 - If the original SMARTEAM – Editor client is connected to an Interbase database, at the end of installation upgrade, a dialog box appears indicating the need to migrate this database to the new MSDE format. See the **MSDE Migration** document for further details on how to proceed.
 - If this station contains additional SMARTEAM products, they also must be upgraded to V5R11.
- Install the latest SMARTEAM V5R11 Service Pack
- Install the latest SMARTEAM Database Upgrade Utility included within the latest SMARTEAM Service Pack CD. Navigate to <CD Root>\Kits\SmartDBUpgrade, and double-click on SmartDBUpgradeV5R11.exe.

Preparations of SMARTEAM Environment

SMARTEAM Environment

From V5R11, SMARTEAM Lifecycle configurations are centrally managed in the Lifecycle Rules Setup utility, which replaces the SmAssCls.ini file. See the **SMARTEAM – Editor Online Help** for further details on this utility and the operation dependency rules for all possible types of links and relationships.

In order to ensure that the correct preferences are migrated, the SMARTEAM administrator should prepare the SMARTEAM V5R10 client where **all** INI files and settings are stored. For further information on INI file settings, see the **SMARTEAM - Editor INI File Settings** document.

Note: Ensure that the **SMASSCLS.ini** and **SmTeam32.ini** files, that are located on the client station from which the database upgrade will be run, contain globally correct settings.

The following SMARTEAM settings influence the Lifecycle dependencies in an upgraded database:

- SMASSCLS.INI
- SMTEAM32.INI – User Specific INI File

SMASSCLS.INI

The SMASSCLS.INI file is located in the <SmarTeam> directory. It defines Lifecycle dependencies.

During upgrade this setting is transferred to Lifecycle Rules Setup's central repository.

In SMARTEAM V5R10, this setting could be different from one user to another. After the upgrade, this setting is the same for all users.

- Copy the SMASSCLS.INI file to the client where you will run the database upgrade.
- Update it accordingly so that the settings represent your company rules for dependencies in Lifecycle operations.

SMTEAM32.INI – User-Specific INI File

Note: This setting is applicable only for client installations where CAD integrations, such as CATIA, SolidWorks, Solid Edge, Inventor, etc., are installed.

As of SMARTEAM V5R12, the concept of dependencies and reverse dependencies is no longer valid. In its place, the Lifecycle Rules Setup utility defines bi-directional CAD integration links.

To ensure proper migration, you must change the previous Lifecycle option settings, as applicable to your environment.

For CAD integration users, if [Tree-VisualSetting] was used in previous versions, the following entry must be added on to the **SMTEAM32.INI** file, located in the <*SmarTeam*>\<LocalConfig> directory on the client station on which the database upgrade is run:

```
[Tree-VisualSetting]
ShowRevDepandanciesOnView=TRUE
```

Product-specific Upgrade

Refer to the *SMARTEAM - Multi-site Administrator Guide* document for product-specific information.

SMARTEAM Links Updates

The Data Model Designer allows adding fields to link classes, both for hierarchical and for one-level. In some companies, the users added attributes with the same names but with different data types. For example, the "Documents Tree" hierarchical link class includes a "QUANTITY" attribute of type *char* (20) and the "Documents Relation" one-level link class includes a "QUANTITY" attribute of type *double*. In V5R10, such links were stored in different physical tables, so there was no problem with different data types. The database upgrade in V5R12 joins such links into one physical table. Therefore, these links cannot have attributes with the same names but different data types. To solve this problem, you will have to make the data types similar for all attributes that have similar names.

The DB Upgrade Utility will report about this problem before making any changes on database during database diagnosis.

To solve the data types, it is recommended to have one machine with V5R10 installed before running the database upgrade. However, in some cases, the Data Model Designer may fail to convert the links data from one type to another. For example, if users are using a comma to designate numbers (e.g., "1,000" for one thousand) in the *char* type attributes, the quantity data of the link will be lost. In such cases, customized SQL scripts should be developed for data conversion.

Integrations

In SMARTEAM V5R12, the Integration Tools Setup was modified. To migrate all necessary information to the upgraded database, you must perform several tasks and be aware of certain issues.

- [SMARTEAM – CATIA Integration Database Modifications](#)
- [Delete Unused Integrations](#)
- [Customize File Types](#)
- [Streamlined Tools Setup for AutoCAD Integrations](#)
- [Streamlined Tools Setup for Mechanical Desktop Integrations](#)
- [Update SmartDesk.ini Entries for AutoCAD and MDT Integrations](#)

SMARTEAM – CATIA Integration Database Modifications

If you have SMARTEAM – CATIA Integration, in order to successfully upgrade your system from V5R10 you should first make manual modifications to the SMARTEAM database. Once you have made the manual modification you then upgrade the system.

The environment that you are working with in V5R10 will affect which method you will need to use to make the manual modifications.

How to decide which method to use:

Step 1

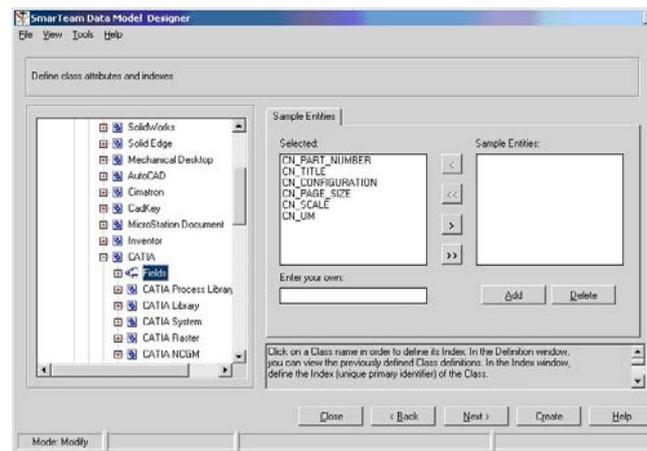
Check your CATIA system environment variable CATIA_TEAM_PDM_UUID as follows:

- Launch the control panel and then select system
- Select advanced tab and then the variable CATIA_TEAM_PDM_UUID
- If CATIA_TEAM_PDM_UUID is NO, it means that you are using part numbers to localize documents. Skip the rest of this section and go to the section [Define Feature ID in Documents Superclass](#).
- If CATIA_TEAM_PDM_UUID is YES or it does not exist, continue with Step 2.

Step 2

Check the SMARTEAM data model designer as follows:

- Launch **SMARTEAM Data Model Designer** from SMARTEAM, Administrative Tools.
- From the File menu, select the **Modify Database Structure** option and select your database.
- Click **Next** on the following windows until you get to Define class attributes and indexes.
- Check whether the Feature ID exists under any of the CATIA classes.
 - If No go to section [Define Feature ID with Values in Documents Superclass](#).
 - If Yes go to section [Verify Attributes in the CATIA Class](#).



Note: Once you have acknowledged which environment you have, use the relevant method for the manual modifications.

Define Feature ID in Documents Superclass

The Feature ID, *CN_FEAT_ID* should only be defined as an attribute in the Documents Superclass and not in the CATIA leaf classes.

How to make the modifications:

1. Launch the SMARTEAM Data Model Designer.
2. From the File menu, select **Modify Database Structure** option and select your database where you need to upgrade.
3. From the **Define class attributes and indexes** area, select **Documents**
4. Open all the CATIA Classes to delete the Feature ID *CN_FEAT_ID* from all the relevant classes. (Example of CATIA classes: CATIA Product, CATIA Internal Component, CATIA Drawing, CATIA Sheet).
5. In the Documents superclass recreate this attribute:
 - Name = *CN_FEAT_ID*, type = char, length = 127, Display Name
 - Description = Feature ID
6. Click Create to create a database and close the SMARTEAM Data Model Designer.
7. When completed you must check the Map Attributes in Integration Tool Setup and then continue with [Verify Attributes in the CATIA Class](#).

Define Feature ID with Values in Documents Superclass

The Feature ID, *CN_FEAT_ID* should only be defined as an attribute in the Documents Superclass and not in the CATIA leaf classes. In addition, the values of the Feature ID *CN_FEAT_ID* found in the CATIA leaf classes are put into the Documents superclass by saving data in the database and running SQL scripts.

Note: Before continuing with the upgrade procedure, perform a full backup of your database

1. Launch the SMARTEAM Data Model Designer.
2. From the File menu, select **Modify Database Structure** option and select your database where you need to upgrade.

3. From the Define class attributes and indexes area, select Documents
4. Open all the CATIA Classes and note the database table name of every class where the Feature ID *CN_FEAT_ID* appears (this is usually displayed on the right hand side of the screen).
Example: In the CATIA Sheet class note the database table name *TN_CATIA_SHEET*.
5. Check that the Documents superclass database table name is *TN_DOCUMENTATION*. If it is not *TN_DOCUMENTATION* then it must be changed in the script in the SQL command interpreter e.g., *SQL+* (see next step).
6. Copy this script to the SQL command interpreter (e.g., *SQL+*):

```
ALTER TABLE TN_DOCUMENTATION ADD CN_FEAT_ID_TEMP VARCHAR(127);  
CREATE VIEW MY_VIEW AS SELECT TN_DOCUMENTATION.OBJECT_ID, CN_FEAT_ID_TEMP,  
CN_FEAT_ID FROM TN_DOCUMENTATION LEFT OUTER JOIN table_name ON  
TN_DOCUMENTATION.OBJECT_ID=table_name.OBJECT_ID;  
UPDATE MY_VIEW SET CN_FEAT_ID_TEMP = CN_FEAT_ID WHERE CN_FEAT_ID IS NOT  
NULL;  
DROP VIEW MY_VIEW;
```

Make the following changes to this script and then run it:

- If required change all the places where *TN_DOCUMENTATION* occurs to the defined database table name in the Documents superclass.
- Replace every occurrence of *table_name* with the database table name of the class where the “*CN_FEAT_ID*” appears.

Note: This must be done for each database table where “*CN_FEAT_ID*” appeared (found in previous step).

7. Open all the CATIA Classes to delete the Feature ID “*CN_FEAT_ID*” from all the relevant classes. (Example of CATIA classes: CATIA Product, CATIA Internal Component, CATIA Drawing, CATIA Sheet).
8. In the Documents superclass recreate this attribute:
 - Name = *CN_FEAT_ID*, type = char, length = 127, Display Name
 - Description = Feature ID
9. Click Create to create a database and close the SMARTEAM Data Model Designer. When completed copy this script to the SQL command interpreter (e.g., *SQL+*):

```
UPDATE TN_DOCUMENTATION SET CN_FEAT_ID = CN_FEAT_ID_TEMP;  
ALTER TABLE TN_DOCUMENTATION DROP COLUMN CN_FEAT_ID_TEMP
```

If required change all the places where *TN_DOCUMENTATION* occurs to the defined database table name in the Documents superclass. Then run this script to put the values into the Feature ID in the Documents superclass.

10. When completed you must check the Map Attributes in Integration Tool Setup and then continue with section [Verify Attributes in the CATIA Class](#).

Verify Attributes in the CATIA Class

Verifying that the attributes *CN_SHEET_NAME* and *CN_SHEET_FORMAT*, exist in the CATIA class.

1. Launch the SMARTEAM Data Model Designer.
2. From the File menu, select the Modify Database Structure option and select your database.

3. Check the value of the EXPOSEMODE.
 - If EXPOSEMODE = NO in the CATIA section of the SmTeam32.ini, check if the attributes CN_SHEET_NAME and CN_SHEET_FORMAT exists in the CATIA Drawing Class. If they do not exist then you must create them with these properties:
 - CN_SHEET_NAME (type = char, length = 127, Display Name and Description = Sheet Name)
 - CN_SHEET_FORMAT (type = char, length = 20, Display Name and Description = Sheet Format)
 - If EXPOSEMODE = YES in the CATIA section of the SmTeam32.ini, check if the attributes CN_SHEET_NAME and CN_SHEET_FORMAT exists in the CATIA Sheet Class. If they do not exist then you must create them with these properties:
 - CN_SHEET_NAME (type = char, length = 127, Display Name and Description = Sheet Name)
 - CN_SHEET_FORMAT (type = char, length = 20, Display Name and Description = Sheet Format)
4. Click Create to create the database and close the SMARTEAM Data Model Designer.
5. You should now continue with section [Map Attributes in Integration Tool Setup](#).

Map Attributes in Integration Tool Setup

After the changes have been made to the database you need to verify that mapping for the attributes Feature ID, CN_SHEET_NAME and CN_SHEET_FORMAT have been done properly.

1. From SMARTEAM, Administrative Tools open Integration Tool Setup.
2. In the All integrations area, select CATIA and then Mapping Group Types. Right click on Special Attributes, and select Open Group to display the Special Attributes Mapping Groups Tree window.
3. In the All tree folders area create (if it does not exist) or modify the following mappings:
 - Additional Identifier with CATIA-Feature ID (Class = Catia, Attribute = Feature ID). Enable update of SMARTEAM is checked.
4. Verify that these mappings are relative to the drawing attributes in CATIA and that the enable updating of SMARTEAM is checked:
 - Catia_SHEET_NAME with SMARTEAM CN_SHEET_NAME
 - Catia CN_SHEET_FORMAT with SMARTEAM CN_SHEET_FORMAT in CATIA / Mapping Group Types / CATIA Sheet (or CATIA Drawing if CATIA Sheet class does not exist).
5. You should now [Verify the Functionality](#).

Verify the Functionality

Once the modification process has been completed you should make the following checks:

- SMARTEAM – CATIA Integration saves all relevant data that needs to be transferred from CATIA to SMARTEAM. It is recommended to perform this check on a complex product.
Example: In CATIA, open a CATIA Drawing which contains a CATIA Product and save to SMARTEAM. After Save, check that all the objects and links are created in SMARTEAM.

- SMARTEAM user scripts functionality is the same now as before the modifications were made.

NOTE: Once you have completed these modifications continue with the Upgrade Process.

Delete Unused Integrations

If your Integration Tools Setup contains integrations that are never used, it is recommended that you delete them from the Integration Tools Setup prior to running the database upgrade. These integrations may be present in your database in the event that it was created based on the SMARTEAM demo database.

To delete unused integrations:

1. Run the Integration Tools Setup
2. Login as Administrator
3. Right click on the integration name
4. Select **Delete**

Customize File Types

Some organizations modify file types of integration objects through customization and scripting, using additional file types not previously mapped to the CAD components in the Integration Tools Setup utility. If you have such customizations, the regular upgrade process will ignore objects with customized file types during the database upgrade, and these objects will not be associated to integration behavior.

To recognize which objects to upgrade, you must manually add these file types to the **UpgradeSmartDatabase.ini** file, in the [AdditionalFileTypes] section, located in the <SmarTeam >\LocalConfig directory.

The following format should be used:

Customer File Type = File Type key

Note: As of V5R11, the File Type Key has been called CAD Component Type.

Example:

The file type key for a SolidWorks part in the SolidWorks Integration is *SolidWorks Part*. In the Integration Tools Setup, this file type key is mapped to the *SolidWorks Part* file type. A customization may map this file type to “*Sheet Metal Part*”. The entry in the **UpgradeSmartDatabase.ini** file would then be as follows:

[AdditionalFileTypes],

Sheet Metal Part = SolidWorks Part.

Streamlined Tools Setup for AutoCAD Integrations

In SMARTEAM V5R10, three integrations to AutoCAD were supported:

- AutoCAD 13 – for AutoCAD 13
- AutoCAD – for AutoCAD 14
- AutoCAD 2000 - for AutoCAD 2000,2000i and 2002

SMARTEAM V5R14 supports a single integration for AutoCAD applications. This integration supports objects from all these AutoCAD versions.

Note: SMARTEAM does not support upgrades on AutoCAD 13 and AutoCAD 14. If you perform an upgrade on these two applications, they will become unusable.

The application setup must be set to open the appropriate AutoCAD version. After upgrading, you should be able to access all AutoCAD objects from SMARTEAM using *File Operations* → *Open* and *Open for...*

The *Open* and *Open for...* operations load the correct AutoCAD version, as defined in the application setup for the particular file type in the database. During database upgrade, all AutoCAD integrations are merged into a single integration. This integration contains all mappings from the Integration Tools Setup for existing AutoCAD integrations.

Due to the merging of different AutoCAD integrations, all classes in SMARTEAM V5R14 will be mapped to an integration behavior instead of a file type.

The default class will, by default, be the class in the database that supports the latest version of AutoCAD.

To migrate AutoCAD Integration settings, the administrator must copy all existing settings from the latest AutoCAD integration to the [AutoCAD] section, as the settings in this section are the only ones that will be migrated.

Streamlined Tools Setup for Mechanical Desktop Integrations

In V5R10, three integrations to Mechanical Desktop were supported:

- Mechanical Desktop - for Mechanical Desktop 3
- Mechanical Desktop 4 - for Mechanical Desktop 4
- Mechanical Desktop 5 - for Mechanical Desktop 5 and 6

SMARTEAM V5R14 supports a single integration for Mechanical Desktop. This integration supports objects from all Mechanical Desktop integrations.

During the database upgrade all Mechanical Desktop integrations will be merged into a single integration. This integration will contain all mappings from the Integration Tools Setup of existing Mechanical Desktop integrations.

Due to the merging of different Mechanical Desktop integrations, all classes in SMARTEAM V5R14 will be mapped to integration behavior instead of to a file type. The default class will be the class in the database that supports the latest version of Mechanical Desktop.

To migrate Autodesk Mechanical Desktop Integration settings, the administrator must copy all existing settings from the latest Autodesk Mechanical Desktop integration to the [Autodesk Mechanical Desktop] section, as the settings in this section are the only ones that will be migrated.

Update SmartDesk.ini Entries for AutoCAD and MDT Integrations

During the upgrade, some preferences from the **SmartDesk.ini** file are moved to the database. AutoCAD and Mechanical Desktop preferences are also merged.

The section [MECHANICAL_DESKTOP_LOOKUP] is used for the translation of Mechanical Desktop component type values to national languages. These values are moved to the database.

- Copy the **SmartDesk.ini** file to be used by AutoCAD and Mechanical Desktop users to the <SmarTeam>/LocalConfig directory on the local client station on which the database upgrade is run.
- Verify that values in [MECHANICAL_DESKTOP_LOOKUP] are translated to your national language.

Database Backup

Before continuing with the upgrade procedure, perform a full backup of your production database.

Database Tuning

In upgrading from V5R10, the requirements on the database are different from the demands placed on it during normal activity. The upgrade procedure performs heavy operations, particularly DDL (data definition language) changes and mass DML (data manipulation language) operations. Another major difference is that the upgrade process allocates almost all available resources to the task at hand.

For these reasons, when performing an upgrade, you must reduce I/O operations to a minimum. The following procedures explain how to do this for each respective database, and how to return to normal working conditions afterwards.

Important: All applications on the database server that are not relevant to the Upgrade procedure must be closed, including databases. Be sure to adjust database instance memory settings after shutting down all other applications.

Oracle Database Tuning

To prepare the Oracle database for the upgrade from V5R10, perform the following steps:

1. Check the database for compliance with the memory specifications in the *Oracle Fine Tuning for SmarTeam Implementers Guide*.
2. Set SORT_AREA_SIZE = 524288 (for 8.1.7)
3. Turn ARCHIVE mode OFF.
4. Check that your SMARTEAM – related tablespace has at least 40% free space.
5. Check that the SYSTEM tablespace has at least 40% free space.
6. Check that the TEMP tablespace is at least 100 MB.
7. Check that you have sufficient disk space on the database server.
8. In SQL+, set the SYSTEM: ALTER TABLESPACE to **TABLESPACE_NAME** NOLOGGING; where TABLESPACE_NAME is the name to be used to import the dump.
9. In SQL+, as a **SMARTEAM** user, set the following statement :

```
spool c:\nologging.sql
select 'ALTER TABLE '||TABLE_NAME||' NOLOGGING;' from USER_TABLES;
spool off
@c:\nologging;
/
```

10. Run the database upgrade to V5R12 (as described in [Database Upgrade](#)).

MS SQL Server Database Tuning

Before the upgrade, perform the following steps:

1. Check that you have at least 40% free space in your data file.
2. Set the transaction log to at least 100 MB.
3. Check that you have enough disk space on the database server.
4. Set Backup/Recovery mode to Simple.

5. Run the database upgrade (as described in [Database Upgrade](#)).

DB2 UDB Database Tuning

Before the upgrade, perform the following steps:

1. Tune according to DB2 Tuning Guide
2. Sort_heap_size = 512 (4 kb pages)
3. RETAIN = 0 (Logging)
4. Run the database upgrade (as described in [Database Upgrade](#)).

SMARTEAM Database Upgrade

The Data Model Designer allows adding fields to link classes, both for hierarchical and for one-level.

In some companies, the users added attributes with the same names but with different data types. For example, the "Documents Tree" hierarchical link class includes a "QUANTITY" attribute of type *char* (20) and the "Documents Relation" one-level link class includes a "QUANTITY" attribute of type *double*. In V5R10, such links were stored in different physical tables, so there was no problem with different data types. The database upgrade in V5R12 joins such links into one physical table. Therefore, these links cannot have attributes with the same names but different data types.

To solve this problem you need to make the data types similar for all attributes that have similar names.

The DB Upgrade Utility will report this problem before making any changes on the database during database diagnosis.

To solve the data types, it is recommended to have one machine with V5R10 installed before running the database upgrade. However, in some cases, the Data Model Designer may fail to convert the links data from one type to another. For example, if users are using a comma to designate numbers (e.g., "1,000" for one thousand) in the *char* type attributes, the quantity data of the link will be lost. In such cases, customized SQL scripts should be developed for data conversion.

Note: During database upgrade, in some cases the links tables are transformed and merged. If a given attribute was defined with different data types, it will not be possible to merge the data in some cases. For example, if the Quantity attribute is defined as "double" in the Hierarchical links table and is defined as a string in the General links table, the merging will fail.

Upon launching, the upgrade utility runs verification tests for this data. If the data can be merged, the upgrade process starts. If the data cannot be merged, the upgrade process aborts. If this occurs, modify the data model by assigning attributes with the same type or changing the attribute names.

In most cases, the problem occurs when the quantity value in the database is assigned a format that cannot be converted to numbers; for example, where the number "1,000" contains a comma as a separator. If this occurs, and you cannot change the data model due to data inconsistencies, you will need to write an SQL script that will modify the data model and then re-launch the database upgrade utility.

To run the Database Upgrade Utility:

1. On the local client station on which the database upgrade is being run, from the <SMARTEAM>\Upgrade directory, double-click the UpgradeSmartDatabase.exe file.
2. From the list of databases, select the database to upgrade. To add a database to the database list, click **Add**. To show database details, click **Details**.
3. After selecting a database, click **Next**. The SMARTEAM Login window appears.
4. Log into the database as a SMARTEAM Administrator.

The upgrade options screen appears. You can select following options to upgrade the database:

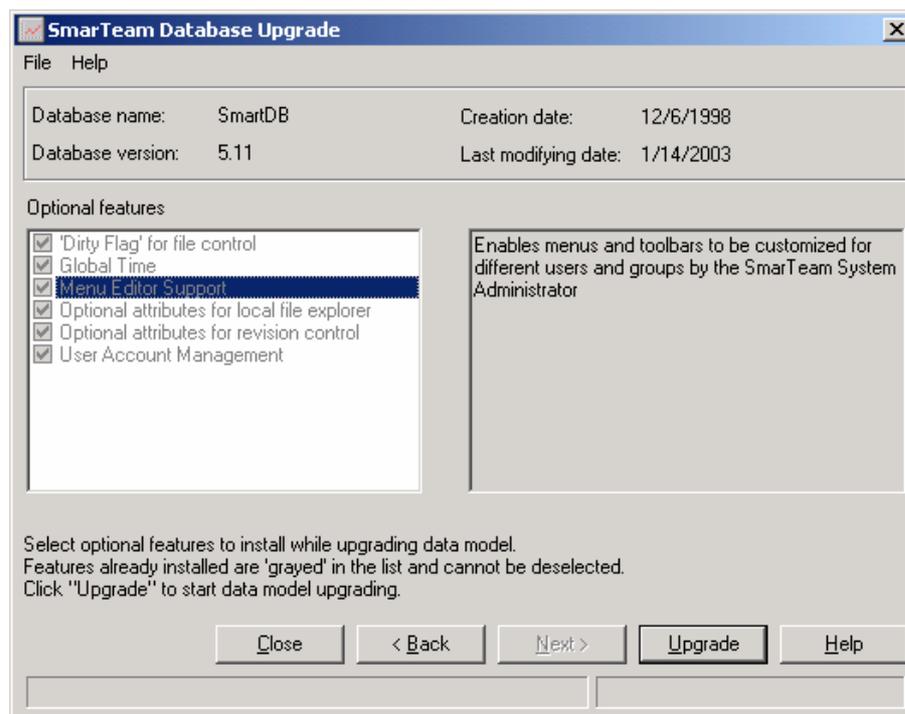
Dirty Flag for file control - Improves Lifecycle performance for CAD integrations

Global Time - Enables clients in different time zones to view the correct date and time according to their time zone

Menu Editor Support - Enables menus and toolbars to be customized for different users and groups by the SmarTeam System Administrator

Optional Attributes for revision control - New attributes for revision control, such as original date, original creator, etc.

User Account Management - Enables user password encoding

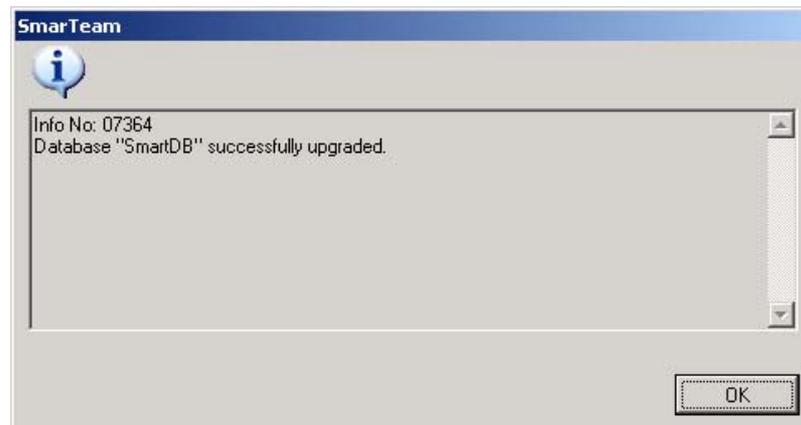


5. Once you have selected your upgrade options, click **Upgrade**.

Note 1: The upgrade process might take a relatively long time due to its complexity.

Note 2: The Upgrade procedure creates temporary tables during processing. Therefore additional space may be required in table space where SMARTEAM data is located. Increase table space size, so you will have at least 40% free space before starting the upgrade procedure.

- At the end of the upgrade process, you will be informed that the database upgrade was successfully completed. You may proceed to [Registering Non-revision-managed Objects](#).



- If the database upgrade is unsuccessful, contact your local Help Desk representatives. Before contacting the Help Desk, access the **UpgradeSmDb.log** file. The file location is defined in **UpgradeDatabase.ini** in the <SmarTeam>/Upgrade directory.

Database Tuning after Database Upgrade

Oracle Database

After running the upgrade utility, perform the following steps.

- In SQL+, set the SYSTEM: ALTER TABLESPACE to **TABLESPACE_NAME** LOGGING; where TABLESPACE_NAME is the name to be used to import the dump.
- In SQL+, as a SMARTEAM user, set the following statement:

```
spool c:\nologging.sql
select 'ALTER TABLE '||TABLE_NAME||' LOGGING;' from USER_TABLES;
spool off
@c:\nologging;
/
```

- Turn ARCHIVE mode ON if necessary.

MS SQL Server

After running the upgrade utility, perform the following step:

- Set Backup/Recovery mode to Full, if necessary.

DB2 UDB

After running the upgrade utility, perform the following step:

- Set all changed parameters back. See [DB2 UDB Database Tuning](#) for details on the parameters.

Registering Non-revision-managed Objects

Note: This task is relevant only for organizations that use non-revision-managed objects.

When you log into SMARTEAM V5R14 for the first time after upgrading the database, all user files that are New and Checked Out are automatically registered in the SMARTEAM File Explorer, which is the utility that replaces the Local Files Explorer from previous versions. You must now register files of non-revision-managed objects.

To register the files:

1. In the **SmTeam32.ini** file located in `<SMARTEAM>\LocalConfig\SmTeam32.ini`, add the following entry:

[Migration]

ImportStandardParts=TRUE
2. Ensure that the Administrator has read-write permissions in the area where the files of non-revision managed objects reside.

Upon the first login by the Administrator, the file catalog is created. This may take some time, depending on the number of files.

Once this is done, all users can use non-revision managed files.

Post-upgrade Procedure: SMARTEAM – CATIA Integration

After upgrading to SMARTEAM V5R14, you must ensure that the *CN_FEAT_ID* Feature ID attribute is removed from the SMARTEAM – CATIA Integration database structure. Using the **Data Model Designer** and **Integration Tools Setup**, perform the following steps:

1. Launch the **SMARTEAM Data Model Designer**.
2. From the **File** menu, select the *Modify Database Structure* option and choose a database.
The *Define Class Attributes and Indexes* screen appears.
3. From the Documents tree, remove the *CN_FEAT_ID* attribute from any CATIA class or any child class in which it appears (e.g., CATIA Product, CATIA Internal Component, CATIA Drawing, CATIA Sheet).
4. In the **Integration Tools Setup**, select the CATIA integration.
5. Select *Mapping Group Types, Special Attributes*.
6. Remove the *CN_FEAT_ID* (Feature Id) attribute from the mapping, if it is present.

Post-upgrade Procedure: Changing a SolidWorks Integration User-defined Attribute

Prior to SMARTEAM V5R11, the SolidWorks configuration attribute was mapped to a user-defined attribute in SMARTEAM. In most cases, the attribute name was CN_CONFIGURATION.

In V5R14, a new system attribute called TDM_COMPONENT_NAME has been introduced. The purpose of the attribute is to provide a standard way to map key properties in integrations.

SMARTEAM allows you to use the configuration attribute without making any changes. However, subsequent SMARTEAM releases may not support this user-defined attribute. Therefore, it is recommended that you replace the user-defined attribute with a system attribute.

To replace the user-defined attribute:

1. Launch **Integration Tools Setup** and login as an Administrator.
2. Expand the SolidWorks integration.
3. Expand the Mapping Group Types.
4. Right-click on Special Attributes and select Open groups tree.
The Special Attributes Mapping Groups Tree window opens.
5. Expand Special Attributes Mapping group.
6. Expand Additional Identifier.
7. Select the attribute – in the left pane you can see the attribute mapped to SolidWorks configuration name. In most cases the attribute name is Configuration.
8. Using the Default Values utility, copy the default values of the Configuration attribute to Component name for SolidWorks classes – SolidWorks Assembly, SolidWorks Part and SolidWorks Standard Part (if applicable).
9. Launch the Form Designer utility and modify the profile cards of SolidWorks Assembly, SolidWorks Part and SolidWorks Standard Part (if applicable) by replacing the attribute name for the configuration attribute to TDM_COMPONENT_NAME.

SMARTEAM Script Updates

From V5R11, SMARTEAM no longer supports Procedural APIs. Therefore, all scripts using this method need to be migrated in order to use COM APIs.

Moreover, scripts can be affected by changes in internal tables. Therefore, you are strongly recommended to familiarize yourself with database changes, as detailed in [Appendix A: Database Upgrade](#).

Verifying the Database Upgrade

Once the DB Upgrade has ended, you need to verify that all links were translated correctly and then perform a sanity test on the upgraded database and its related SMARTEAM environment

How to verify that all links were translated:

1. On your V5R10 DB run an SQL select statement on the TDM_LINKS table in order to query the Links quantity in the original DB (i.e. SELECT COUNT (*) FROM DBNAME.TDM_LINKS, where “DBNAME” is your database alias name).
2. In the **UpgradeSmDb.log** file (this file location is defined in **UpgradeDatabase.ini** in the <SmarTeam>/Upgrade directory) on the upgrade to V5R11 machine go to the end of the file and run a search for text in the Up direction, look for the ‘Moved Link Objects:’; the number you see is the number of the translated links in the upgrade process.
3. If the DB upgrade was successful then the number you have in the log file should be equal to or greater than the number you have from the SQL select statement. If this is not the case then access the **UpgradeSmDb.log** file again and contact your local Help Desk representatives.

How to perform a sanity test on the upgraded database and its related SMARTEAM environment:

1. Check your CAD integration, paying particular attention to link creation. Refer to the specific SMARTEAM CAD Integration documentation to learn about the new Integration links, e.g., how to access the links that were upgraded automatically during the database upgrade process.
2. Verify that the Data Model Designer works correctly.
3. Verify that the Sequence Designer works properly by adding several objects and checking that sequences are created.
4. If you had to rewrite scripts due to Data Model changes, verify that these scripts function as they should when activated.

WizSrc Upgrade from V5R10 to V5R11

The WizSrc database stores database templates.

The WizSrc database is upgraded during the migration procedure of GDB WIZSRC to MSDE WIZSRC.

There is no need to run the SmarTeamWizSrcUpgradeWizard on WIZSRC database.

Production DB Upgrade

Production clients disconnection

Begin the procedure of upgrading your production database by disconnecting all production clients, whether desktop clients or Vault and Web servers, from the production database.

Note: If the upgrade is performed during normal business hours, other users may need to continue working in their CAD/Office environments without unnecessary interference. In this case, make sure that all end users disable their SMARTEAM integrations, as indicated in the following table.

Product	Description
CATIA	Notify all users not to perform Connect through the CATIA SmarTeam menu.
SolidWorks	<ul style="list-style-type: none"> • Launch SolidWorks. • From the main menu select Tools, Add-Ins, then uncheck the SMARTEAM Add-in. • Exit SolidWorks.
Solid Edge	<ul style="list-style-type: none"> • Launch Solid Edge. • From the main menu select Tools, Add-Ins Manager, then uncheck the SMARTEAM Add-in. • Exit Solid Edge.
AutoCAD/MDT	From the AutoCAD/MDT installation directory or the selected location from which the ACAD.LSP file is loaded, edit the ACAD.LSP file and comment out the load call for the SmarDesk.LSP file (to comment out a line in a LISP routine, place a semi-colon at the beginning of the line).
Autodesk Inventor	<ul style="list-style-type: none"> • Launch Inventor. • From the main menu select Tools, Add-In, then uncheck the SMARTEAM Add-in. • Exit Inventor.
Microsoft Word	<ul style="list-style-type: none"> • Launch Microsoft Word. • From the SmarTeam menu uncheck the option <i>Always activate SmarTeam</i>. • Exit Microsoft Word.
Microsoft Excel	<ul style="list-style-type: none"> • Launch Microsoft Excel. • From the SmarTeam menu uncheck the option <i>Always activate SmarTeam</i>. • Exit Microsoft Excel.

SMARTEAM Production Database Upgrade

Verify that all data that was prepared in the Test Environment exists on the V5R11 Database Upgrade machine and is still up-to-date. If data has changed since the test phase, re-collect the data and place it in the V5R11 Database Upgrade machine.

- Connect the V5R11 Database Upgrade machine to the production database.
- Conduct an upgrade of the **Production** database using the **UpgradeSmartDB** tool, in the same manner you did in the Test Environment.
- Perform post upgrade activities, in the same manner you did in the Test Environment

APPENDIX B - DATA MODEL CHANGES

The following database changes are relevant when upgrading from R10 to R14.

Removed Table

Table	Description
TDM_LINKS	Used for links. Since SMARTEAM V5R12 links are stored in different tables
TDM_MASK_INFO	Used for sequences. Replaced with new tables (see New tables)
TDM_MASK_LINK_CLASS	Used for sequences. Replaced with new tables (see New tables)
TDM_MASKS	Used for sequences. Replaced with new tables (see New tables)

Obsolete Table

Table	Description
TDM_COPY_FILES	No longer functional. This table remains in the database, but no new records are added to the table in SMARTEAM V5R12.

New Tables

Table	Description
TDM_SEQUENCE_DEFINITION	Use for sequence
TDM_SEQUENCE_PATTERN	Use for sequence
TDM_SEQUENCE_USAGE	Use for sequence
TDM_SEQUENCE_VALUE	Use for sequence
TDM_LINKS_<number>	SMARTEAM creates this link table for each super class, where the number represents the super class ID. These tables replace the former TDM_LINK table.

Added Attributes – V5R12

The following attributes have been added in V5R12.

File Managed Classes Table

Attribute	Description
TDM_FILE_ID	File ID for Common File Objects (CFO)
TDM_FILE_VERSION	File Version for Common File Objects (CFO)
TDM_CFO_FLAG	CFO Flag
TDM_COMPONENT_NAME	Component name for Integration objects
TDM_COMPONENT_MODES	Component mode for Integration objects

Attribute	Description
TDM_COMPONENT_TYPE	Component type for Integration objects
TDM_INTEGRATION_MANAGED	Manage by integration

Lookup Classes Table

TDM_NAME	Added for NLS support
----------	-----------------------

Changes in Behavior – V5R12

The following changes in Behavior were added in V5R12

Part and Document Behavior

If you have opted to work with Part and/or Document behavior, your Data Model is updated with the following attributes.

Part Behavior

Attribute	Description
TDM_DETAILED_DESCRIPTION	Detailed description
TDM_CLASSIFICATION	Classification
TDM_UNIT_OF_MEASURE	Units of measure

Document Behavior

Attribute	Description
TDM_DOCUMENT_TYPE	Document type
TDM_ARCHIVE_TYPE	Archive type
TDM_ARCHIVE_NAME	Archive name
TDM_ES_COUNT	Required signatures
TDM_SIGNATURE	Electronic signature
TDM_PART_CHECK	Part state flag

Changes in Behavior – V5R14

The following changes in Behavior were added in V5R14

If you have opted to work with Product, Part Instance, or Unit Effectivity behavior, your Data Model is updated with the following attributes.

Product Behavior

No attributes.

Part Instance Behavior

Attribute	Description
TDM_PRODUCT_CNTXT	Reference to the class that implements TDM_PRODUCT behavior

Unit Effectivity Behavior

Attribute	Description
TDM_UNIT_EFFECTIVITY_START	Start of unit effectivity
TDM_UNIT_EFFECTIVITY_END	End of unit effectivity