



## **ENOVIA SmarTeam**

# **SmarTeam – Program Management Administration Guide**

© Dassault Systèmes, 1997, 2009. All rights reserved.

CATIA, ENOVIA, SMARTEAM and the 3DS logo are registered trademarks of Dassault Systèmes or its subsidiaries in the US and/or other countries.

**PROPRIETARY RIGHTS NOTICE:** This documentation is the property of Dassault Systèmes. This documentation shall be treated as confidential information and may only be used by employees or contractors of the Customer in accordance with the terms of the End-User License Agreement accepted by Customer.

Any use of the Licensed Program contained in this media or accompanying it, is subject to the terms of the End User License Agreement accepted by Customer. The Licensed Program is protected by international copyright laws and international treaties. Unauthorized use, reproduction and/or distribution of any of the Licensed Program, or any part thereof, may result in severe civil and/or criminal penalties, and will be prosecuted to the maximum extent possible under the law. Company names and product names mentioned herein are the property of their respective owners and certain portions of the Licensed Program contain elements subject to copyright owned by these entities. See the Documentation CD provided with the Licensed Program for details and/or additional terms and conditions relating to these entities.

Part no. PGM-A1-200009

# Contents

<b>Chapter 1: Introduction</b>	<b>1</b>
Overview	1
Related Documentation	1
ENOVIA SmarTeam Internet Site	2
<b>Chapter 2: Setup Checklist</b>	<b>3</b>
<b>Chapter 3: System Requirements</b>	<b>4</b>
Hardware and Software Requirements	4
Order of Setup	4
Prerequisites	4
Microsoft® Project Professional	5
SmarTeam – Editor	5
SmarTeam – Workflow	6
<b>Chapter 4: Product Setup</b>	<b>7</b>
Update Data Model	7
<b>Chapter 5: SmarTeam Post-DMD Configuration</b>	<b>15</b>
Creating a Mask for the Planned Activities Leaf Class ID Attribute	15
Hooking SmarTeam – Program Management Scripts	16
Customizing your Menus for Use in SmarTeam – Program Management	21
Adding the Microsoft Project File Type and Defining Applications Setup	21
Working with SmarTeam – Program Management	24
Designing Your Forms	25
User Authorization	26
Setting Up SmarTeam – Program Management LUM License	26
Defining SmarTeam – Program Management Users	27

# Chapter 1: Introduction

## Overview

This guide provides all the information necessary for the SmarTeam System Administrator to setup SmarTeam – Program Management (PGM) Software. SmarTeam – Program Management is installed during the SmarTeam – Editor installation process.

If you are upgrading from a previous version of SmarTeam – Program Management, you need to perform the upgrade procedure and not the installation procedure described in this guide.

**Note:** SmarTeam – Program Management V5R18 has undergone infrastructure changes. As a result, customers upgrading from an older version of PGM (V5R13 – V5R17) will need to undergo a migration process. ENOVIA SmarTeam will assist these customers in this effort. If you are currently using SmarTeam – Program Management from V5R17 or earlier and wish to transition to the R18 product please contact ENOVIA SmarTeam technical support for guidance and assistance.

SmarTeam – Program Management aims at providing a platform where the project knowledge can be maintained and managed together with the product-related knowledge, while supporting collaboration on these two areas of knowledge for people from across the organization.

**Note:** All the documentation mentioned in this document, unless specified otherwise, is available on the SmarTeam Documentation CD.

## Related Documentation

The following documents are referred to in this guide. All the documents are available on the SmarTeam Documentation CD unless specified otherwise.

Name of Document	Remarks
Introduction to SmarTeam Installation	It is recommended that you read this document thoroughly and plan your topology prior to installing your SmarTeam configuration or products.
SmarTeam Procedure for Upgrading	Details the upgrade procedure if you are upgrading from a previous version of SmarTeam - Editor.
Hardware and Software Requirements	Details the hardware and software required for a successful installation.
SmarTeam – Editor Installation Guide	SmarTeam – Program Management is installed during the SmarTeam – Editor Installation process.

## ENOVIA SmarTeam Internet Site

It is recommended to visit the ENOVIA SmarTeam site [www.smarteam.com](http://www.smarteam.com) for the latest SmarTeam updates

## Chapter 2: Setup Checklist

You must complete all the stages in this checklist to successfully setup SmarTeam – Program Management.

\*Requirement: M = Mandatory, MW = Mandatory if using SmarTeam – Web Editor, O = Optional

	Item	M/MW/O*	Reference
<b>Stage 1: Pre-Setup</b>			
<input type="checkbox"/>	Verify that your Hardware & Software meet the requirements	M	SmarTeam Hardware and Software Requirements Guide
<input type="checkbox"/>	Verify that SmarTeam – Vault Server is installed	O	SmarTeam Technical Advice Vault Server
<input type="checkbox"/>	Verify SmarTeam Web Viewer server is installed (Mandatory to view Gantt Charts)	MW	SmarTeam Web Viewer Installation Guide
<input type="checkbox"/>	Verify that you installed Microsoft® Project Professional on the client (Mandatory for Project Managers) with .NET Programmability Support	M/O	Microsoft® Project Documentation.
<input type="checkbox"/>	Verify SmarTeam – Editor is installed and configured properly	M	SmarTeam – Editor Installation Guide
<input type="checkbox"/>	Verify SmarTeam - Web Editor is installed and configured correctly	O	SmarTeam – Web Editor Installation Guide
<input type="checkbox"/>	Check for any additional prerequisites on the SmarTeam Web Site	M	Release Notes of latest service pack in the release or <a href="#">SmarTeam Support Site</a>
<b>Stage 2: Setup</b>			
<input type="checkbox"/>	Update the Data Model	M	<a href="#">Update Data Model</a>
<input type="checkbox"/>	Configure SmarTeam - Editor to use newly created classes: <ul style="list-style-type: none"> <li>• ID Mask</li> <li>• Form Designer</li> <li>• Application Tool Setup</li> <li>• Script Maintenance</li> <li>• Menu Editor</li> <li>• User Authorizations</li> </ul>	M	<a href="#">SmarTeam Post-DMD Configuration</a>
<input type="checkbox"/>	Setup SmarTeam - Program Management LUM license	M	<a href="#">Setting Up SmarTeam – Program Management LUM License</a>
<input type="checkbox"/>	Define Program Management Users	M	<a href="#">Defining SmarTeam – Program Management Users</a>
<input type="checkbox"/>	Configure SmarTeam – Web Editor	MW	SmarTeam – Web Editor Installation Guide

# Chapter 3: System Requirements

## Hardware and Software Requirements

Refer to the SmarTeam – Program Management sections in the Hardware and Software Requirements document. This chapter provides details of the hardware and software required for successful setup of the SmarTeam – Program Management software.

## Order of Setup

Refer to [Chapter 2: Setup Checklist](#) for a detailed list of all the steps that need to be performed. For a successful setup you must complete one stage before proceeding to the next stage.

The setup procedure is split into two stages:

Stage 1: Pre-Setup (this chapter)

Stage 2: Product Setup ([Chapter 4: Product Setup](#))

After you have completed all the stages you can start working with SmarTeam – Program Management.

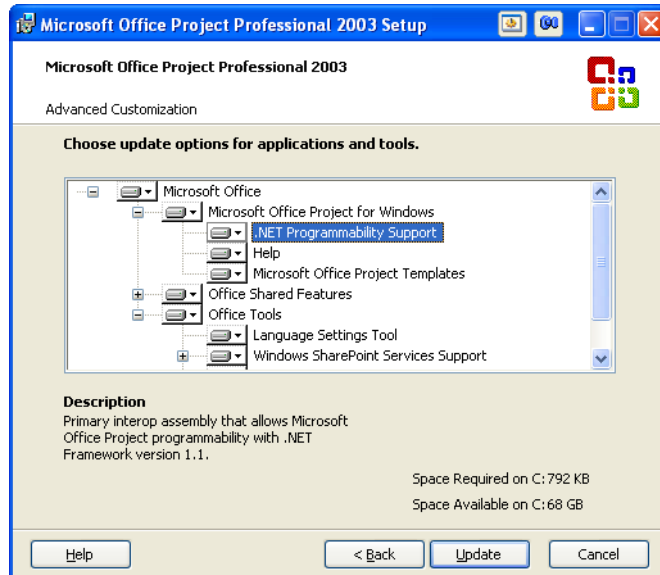
## Prerequisites

Before setting up SmarTeam – Program Management, verify that the following programs are installed on your system. Click on each link for further information.

- [Microsoft® Project Professional](#) on the client
- [SmarTeam – Editor](#)
- [SmarTeam – Workflow](#)

## Microsoft® Project Professional

Microsoft® Project Professional is mandatory for Project Managers. Using Add/Remove Programs, verify that the .NET Programmability Support option is selected when installing Microsoft Project as shown below:

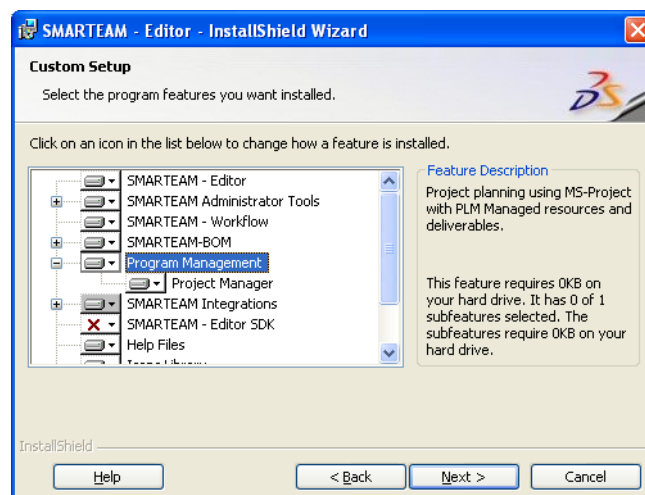


For details of the supported Microsoft Project version, refer to the V5R20 Hardware and Software Requirements.pdf.

## SmarTeam – Editor

By default, the PGM Client component is automatically installed when SmarTeam – Editor is installed. For computers on which MS-Project is installed, the Project Manager Component is also installed automatically.

If MS-Project is installed after SmarTeam – Editor, or these components were previously manually unselected, you must run the setup again and select these components as shown below:



It is highly recommended that you verify that the Check In operation works correctly by checking a file into the vault before installing SmarTeam – Program Management.



## **SmarTeam – Workflow**

Install the SmarTeam – Workflow license if you want to be able to send messages to project participants directly through the MS-Project interface, notifying them of their tasks and other relevant project information.

## Chapter 4: Product Setup

After the SmarTeam – Program Management software has been installed during the SmarTeam – Editor process, the License Users Management (LUM) server must be set up before you can use the SmarTeam – Program Management product.

To setup SmarTeam – Program Management, you must perform the following operations:

- [Update Data Model](#)
- Set ID Masks for newly created classes ([Creating a Mask for the Planned Activities Leaf Class ID Attribute](#))
- Design forms for the newly created classes using Form Designer ([Designing Your Forms](#))
- Configure Application Tool Setup to support MS-Project file type ([Adding the Microsoft Project File Type and Defining Applications Setup](#))
- Connect user-defined tools and scripts using Script Maintenance ([Hooking SmarTeam – Program Management Scripts](#))
- Add Menus using Menu Editor ([Customizing your Menus for Use in SmarTeam – Program Management](#))
- Configure user authorizations ([User Authorization](#))
- [Setting Up SmarTeam – Program Management LUM License](#)
- [Defining SmarTeam – Program Management Users](#)

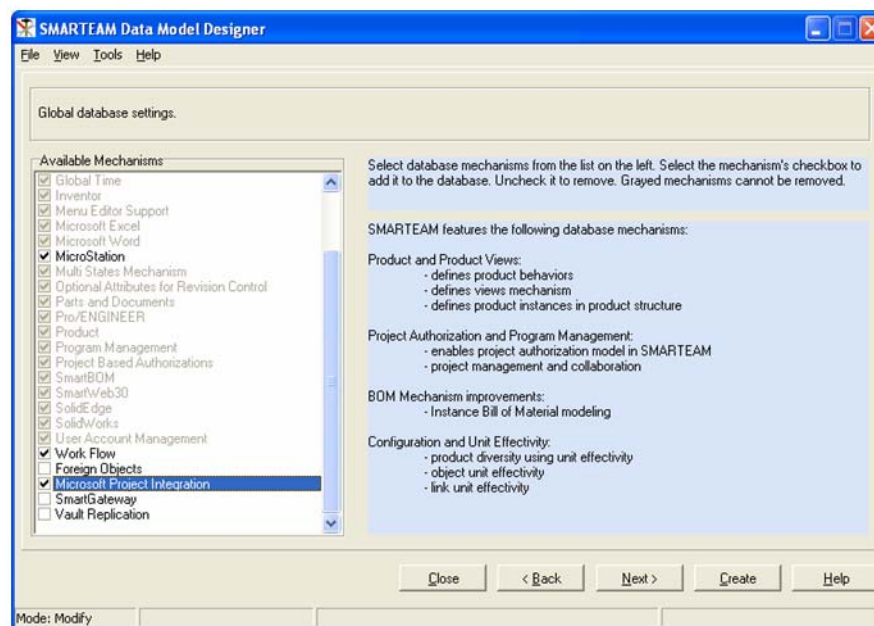
### Update Data Model

The following modifications need to be applied to a new or existing database before the SmarTeam – Program Management solution can be used.

For details on all the tasks described below, refer to Data Model sections in the SmarTeam – Editor Online Help.

***Using the SmarTeam Data Model, perform the following operations:***

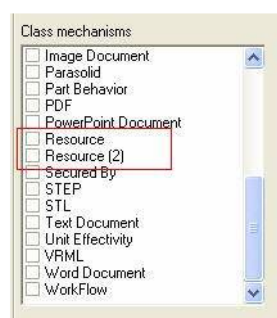
- 1** If not already selected, select the Project-Based Authorizations Database-level Behavior (DLB) from the list of Available Mechanisms.
- 2** If not already selected, select the Multi States Mechanism Database-level Behavior (DLB) from the list of Available Mechanisms.
- 3** If not already selected, and you want to send messages to users regarding their tasks from within MS-Project, select the WorkFlow DLB from the list of Available Mechanisms.
- 4** Select the Microsoft Project Integration DLB from the list of Available Mechanisms.



The following CLBs are added automatically:

- Planned Activities
- Microsoft Project – Planned Activities
- Planning
- Task
- Resource
- Deliverable
- Planning Document

**Note:** When upgrading a database that includes the old Program Management mechanism, two Class-Level Behaviors are presented – Resource and Resource (2):

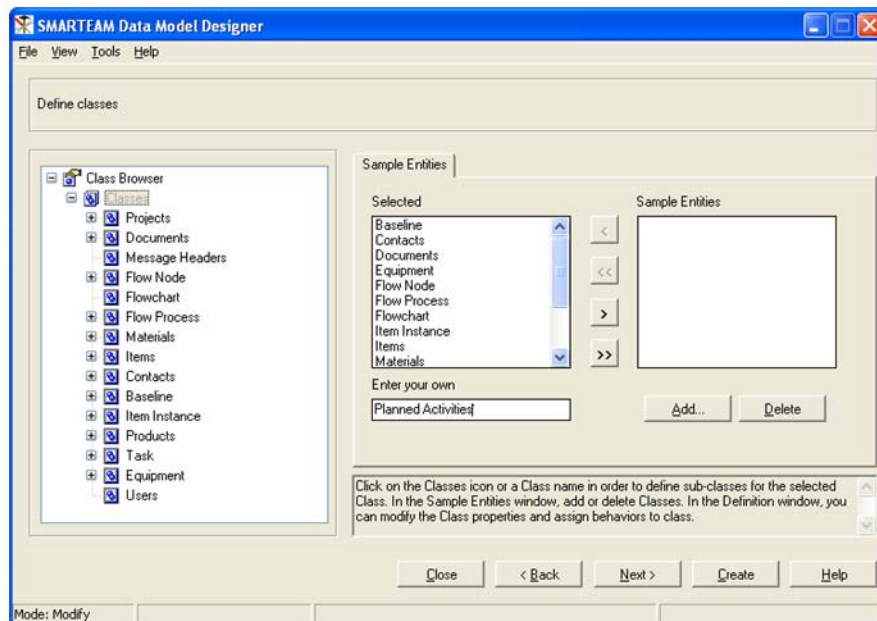


In this case, select Resource (2) to implement the Class-Level Behavior.

- 5 In the Define Classes window, add a super-class with the name "Planned Activities" (or any other name of your choice). This class will contain the project plan information managed by the solution.

An existing class can also be used for this purpose. Note that if an existing class is used, it must not be file-managed or revision-managed.

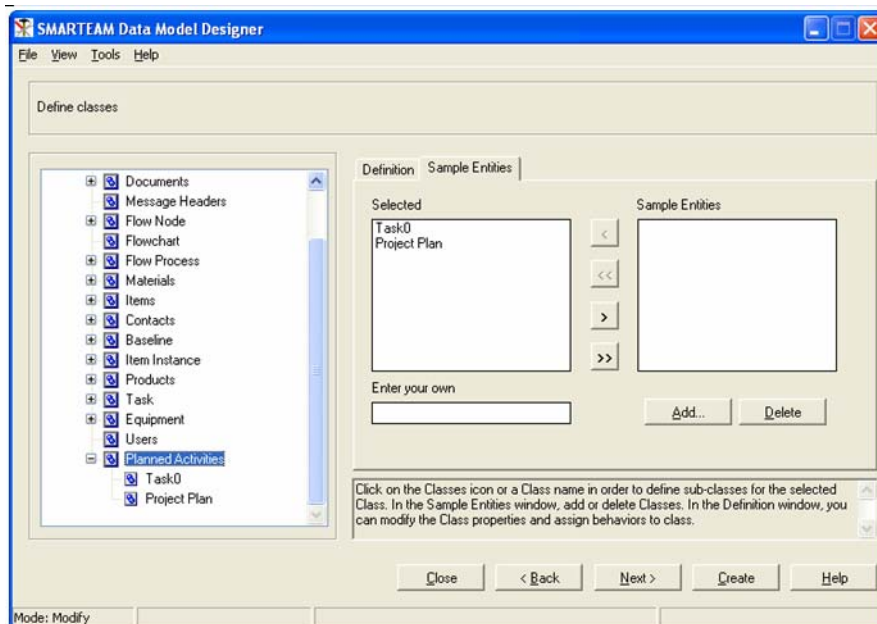
**Note:** In this chapter, the "Planned Activities" class is used as an example. If you used a different name, replace all references of "Planned Activities" with the name of your choice.



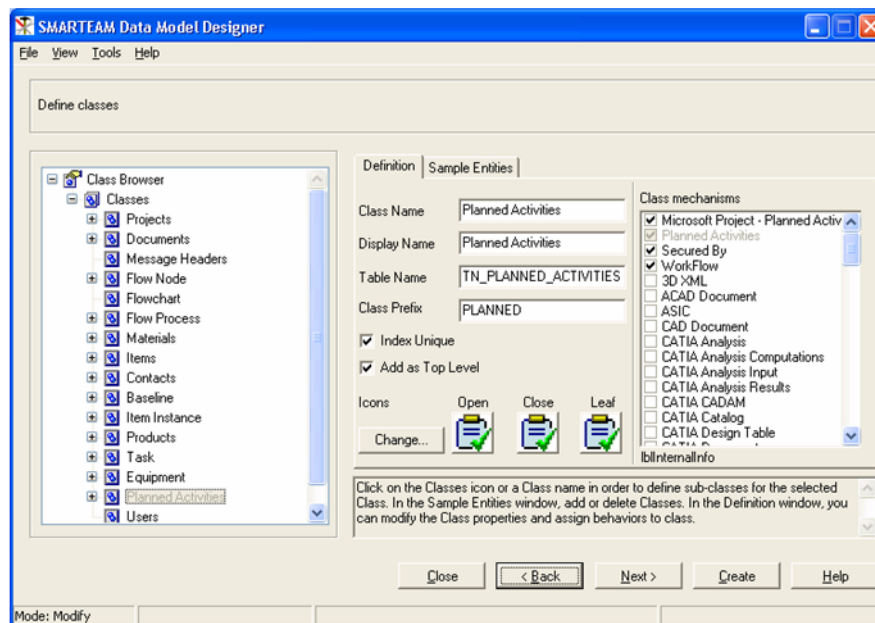
**6** Under the Planned Activities super-class add two leaf classes "Task" and "Project Plan".

- "Task" represents tasks that will be exposed from the Project Plan.
- "Project Plan" is a grouping of planned activities related to one project.

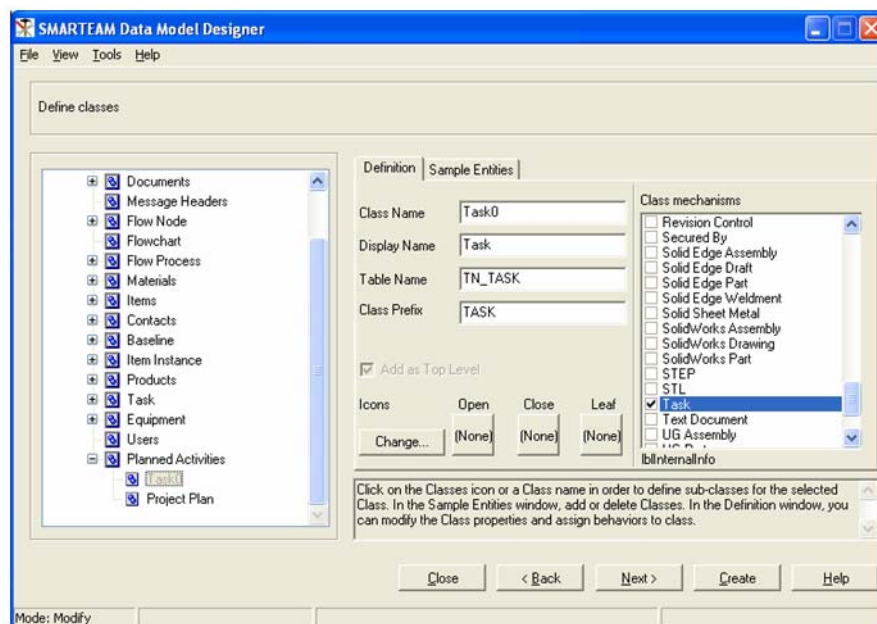
**Note:** In this chapter, these names are used as an example. If you use a different names, replace all references of "Task" and "Project Plan" with the name of your choice.



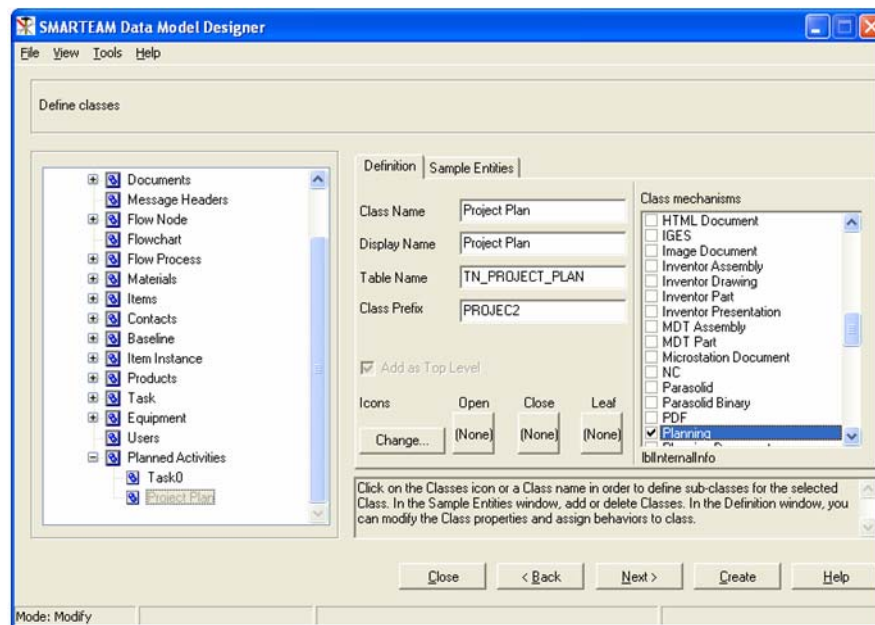
- 7 In the "Planned Activities" super-class Definition tab, apply the following CLBs: "Planned Activities", "Microsoft Project Planned Activities", "WorkFlow" and "Secured By".



- 8 In the "Task" Leaf class, apply the "Task" CLB.



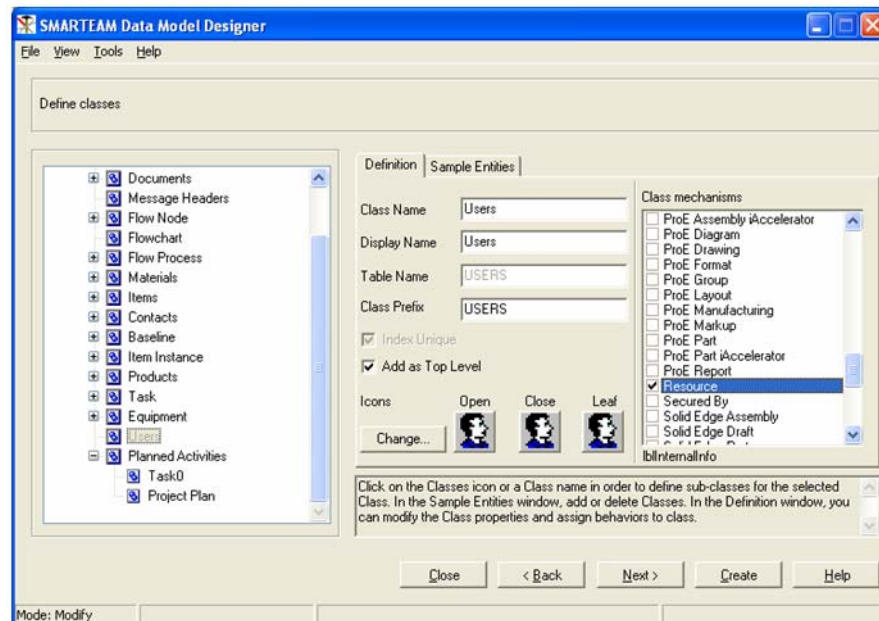
- 9 In the Project Plan leaf class, apply the "Planning" CLB.



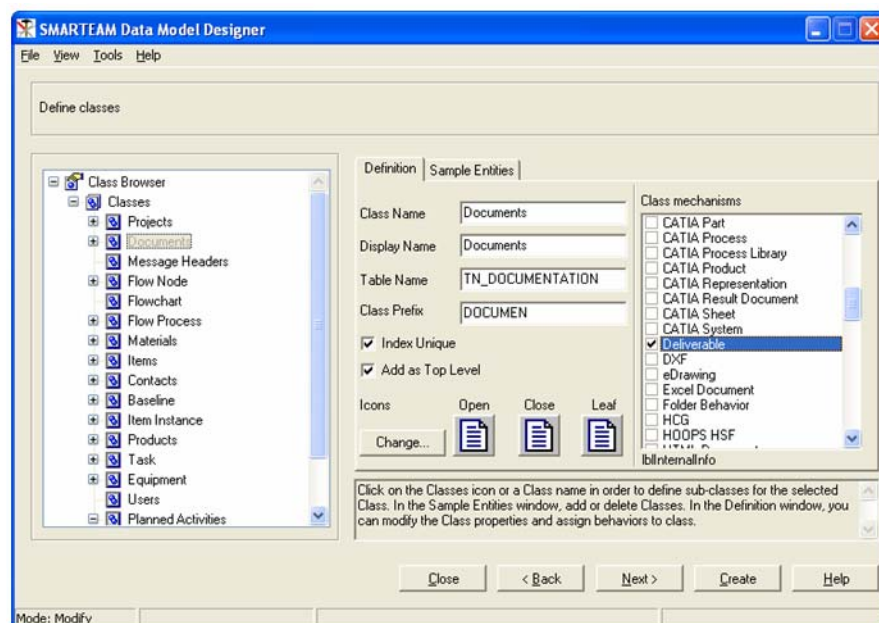
- 10 Select icons for the super-class created. You may use the icons provided with SmarTeam – Program Management (shown below) or select your own.

- Planned Activities: Tasks\_External.bmp
- Project Plan: Projects.bmp
- Task: Tasks\_External.bmp

- 11 Apply the Resource CLB on the Users super-class.



- 12 Apply the "Deliverable" CLB on classes that will serve as deliverables, for example, Documents super-class.

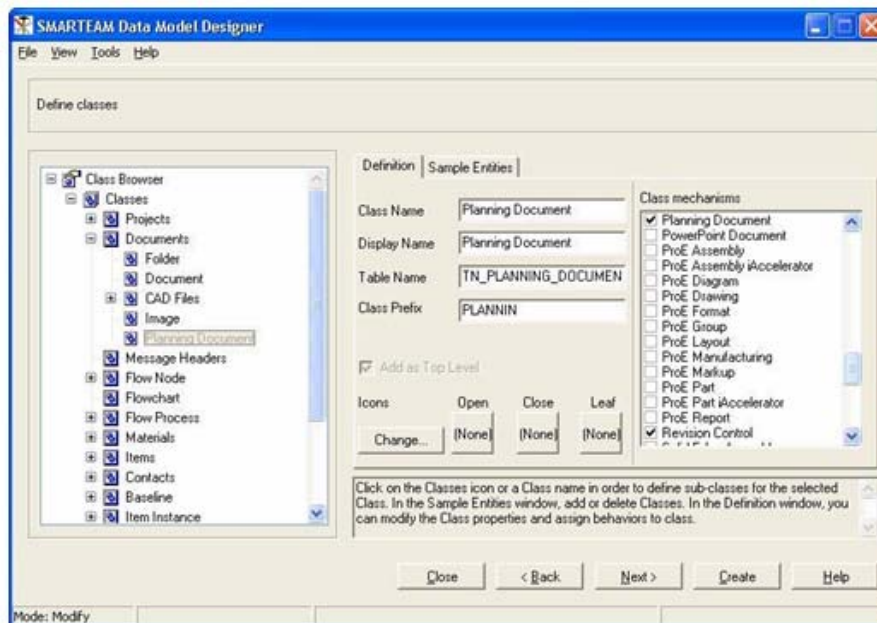




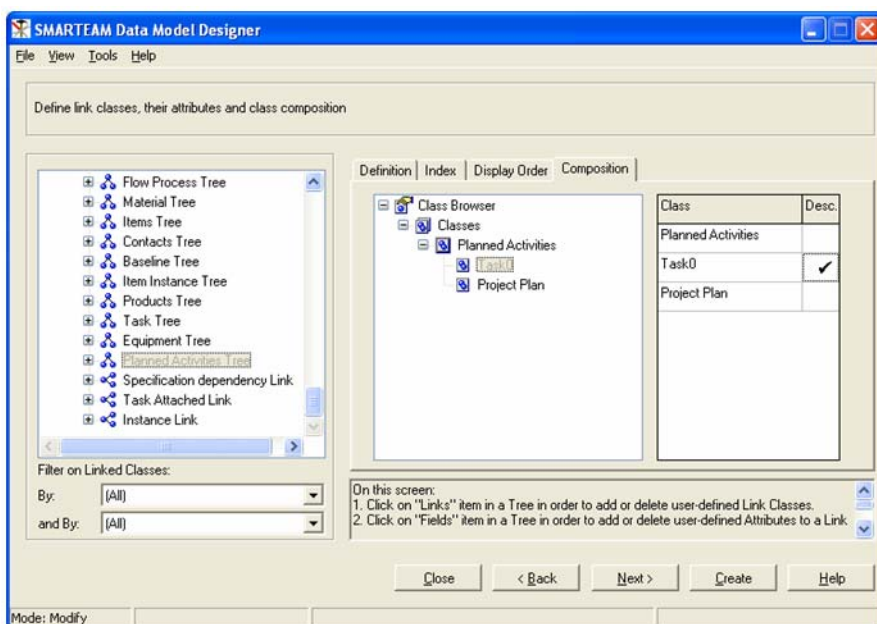
- 13** Create a leaf class that will be used to store the .mpp file of the project plan under the Documents super-class and apply the "Planning Document" CLB on this class. Make sure that the class also has the "Revision Control" CLB applied.

**Note:** It is recommended that this class be a separate class and not the "Document" class. e.g., to enable setting appropriate permissions on a file that should be exclusively managed by the integration.

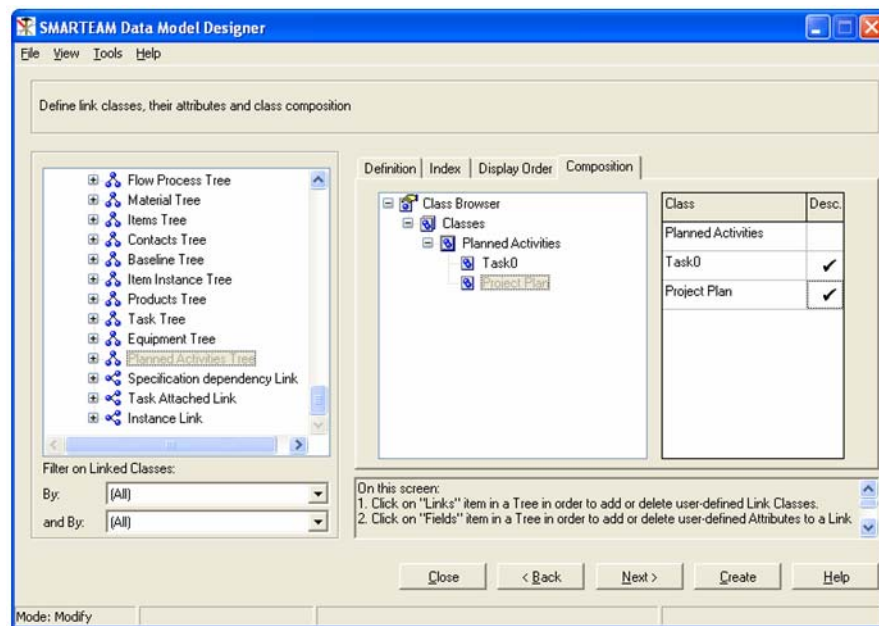
In the example below, a new leaf class "Planning Document" is created under the Documents super-class and the "Planning Document" behavior is applied on this class.



- 14** Go to the Links step and select the Planned Activities Tree class. Apply Class Composition as shown below:







## Chapter 5: SmarTeam Post-DMD Configuration

After completing the Data Model Designer steps, the following steps must be performed:

- [Creating a Mask for the Planned Activities Leaf Class ID Attribute](#)
- [Hooking SmarTeam – Program Management Scripts](#)
- [Customizing your Menus for Use in SmarTeam – Program Management](#)
- [Adding the Microsoft Project File Type and Defining Applications Setup](#)
- [Designing Your Forms](#)
- [User Authorization](#)
- [Setting Up SmarTeam – Program Management LUM License](#)
- [Defining SmarTeam – Program Management Users](#)

### Creating a Mask for the Planned Activities Leaf Class ID Attribute

This step describes how to create masks for the ID attribute of the Task and Project Plan classes.

**Note:** You can open the Sequence Designer directly from the Form Designer when designing the forms.

- 1 Using the Sequence Designer, create a mask for the TDMX\_ID attribute of "Task" and "Project Plan".
- 2 Using the Form Designer, assign the mask to each Leaf Class. See the SmarTeam – Editor Online Help for more details.

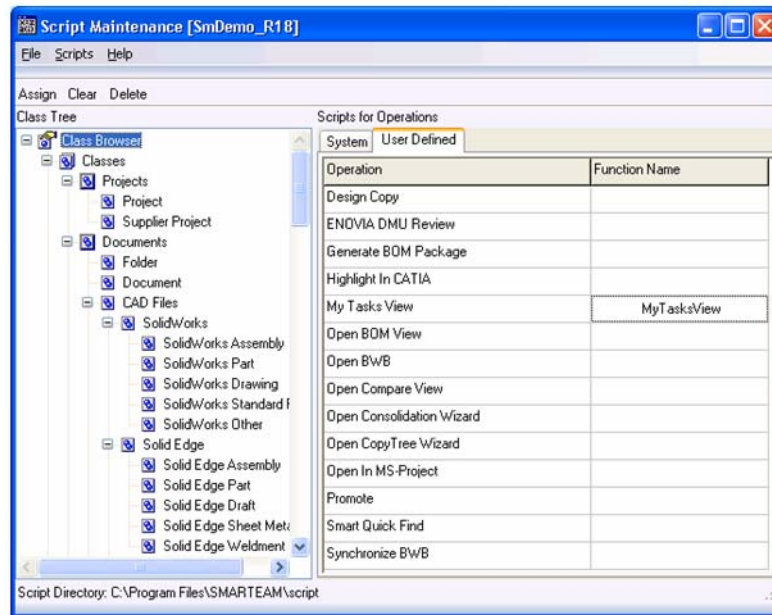
**Note:** If you created a class for "Planning Document", you must also set a mask to the ID of this class.

## Hooking SmarTeam – Program Management Scripts

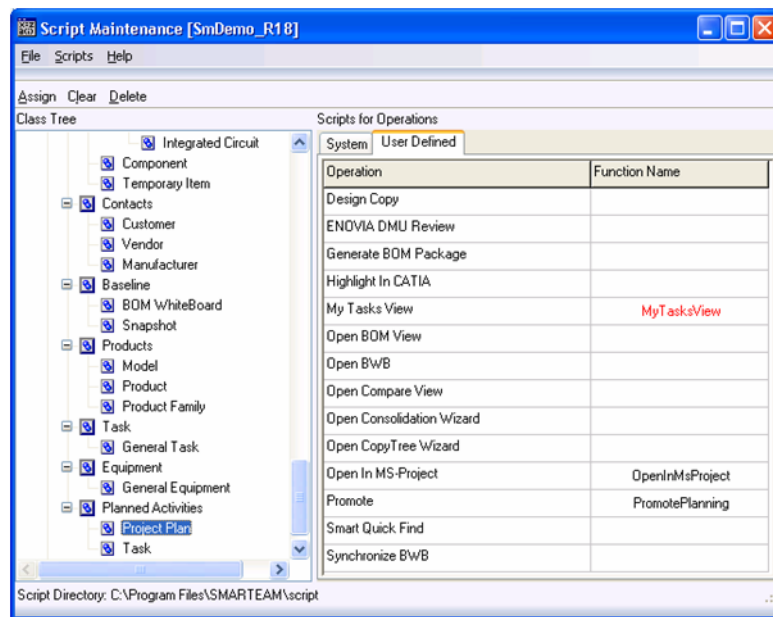
This section describes how to hook all the scripts needed for running SmarTeam – Program Management.

### To hook the scripts:

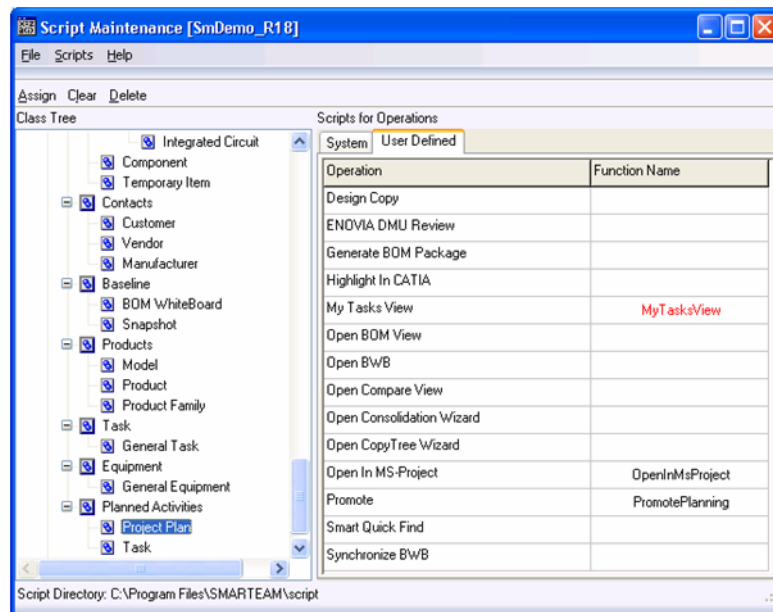
- 1 Add a user-defined tool called "My Tasks View" in Script Maintenance. Link this user-defined tool at the Class Browser level to the Function "MyTasksViews" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.



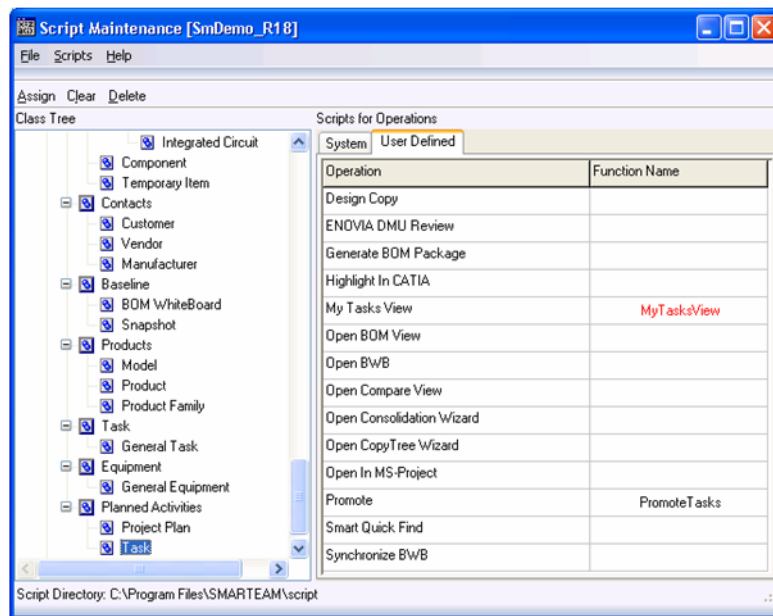
- 2 Add a user-defined tool called "Open in MS-Project" in Script Maintenance.
- 3 Link this user-defined tool at the "Project Plan" class level to the function "OpenInMsProject" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.



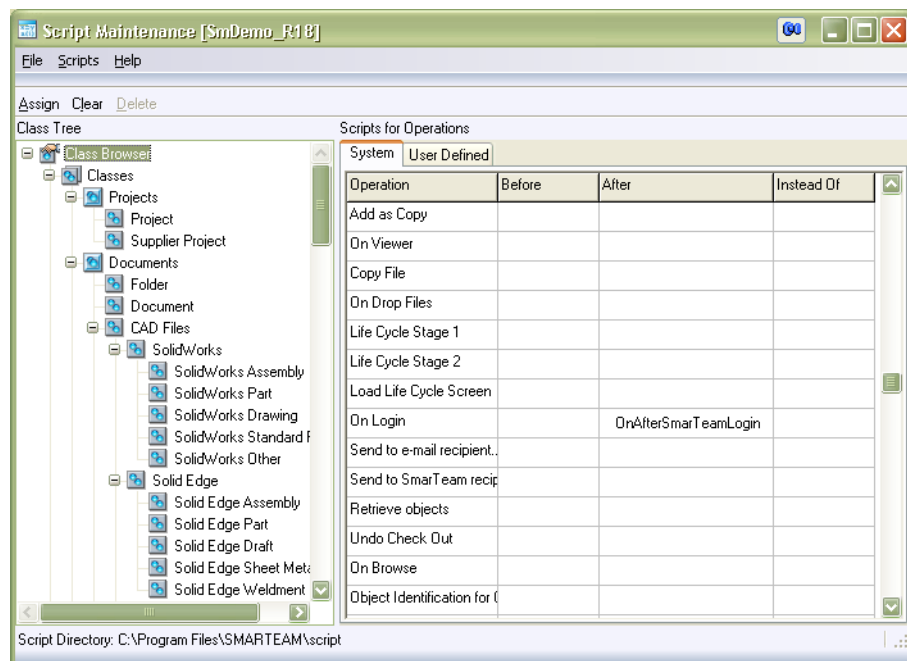
- 4 Add a user-defined tool called "Promote" in Script Maintenance.
- 5 Link this user-defined tool at the "Project Plan" class level to the Function "PromotePlanning" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.

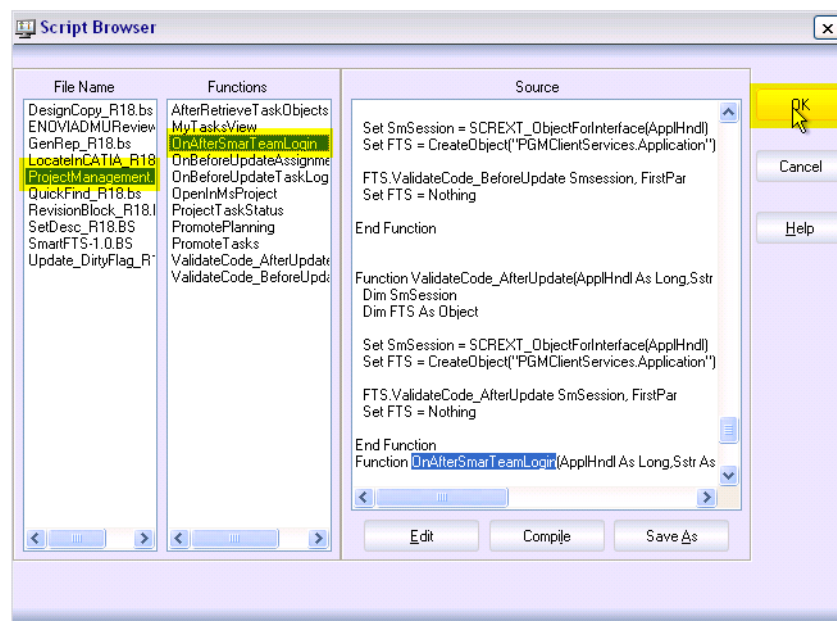


- 6 Link the "Promote" user-defined tool (created in [Step 4](#)) at the "Task" class level to the function "PromoteTasks" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory:

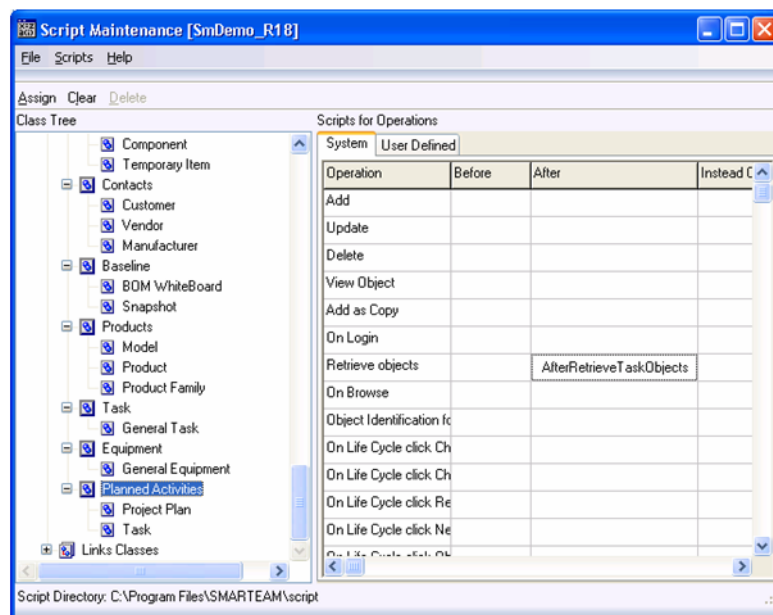


- 7 In the System event "After - On Login" at the "Class Browser" level, hook the function "OnAuthenticationUser" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.

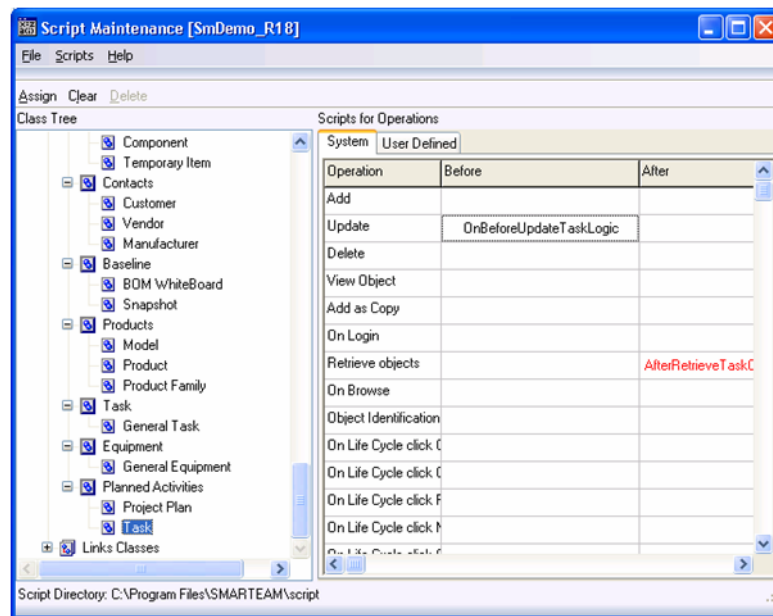




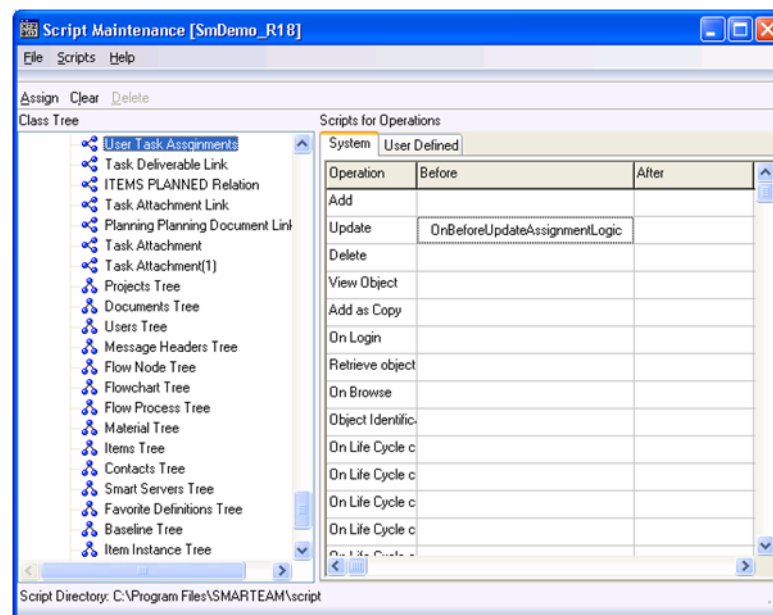
- 8 In the System event "After - Retrieve Objects" of the "Planned Activities" class, hook the function "AfterRetrieveTaskObjects" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.



- 9 In the System event "Before - Update" of the "Task" class, hook the function "OnBeforeUpdateTaskLogic" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.



- 10 In the event "Before - Update" of the "User Task Assignments" class, hook the function "OnBeforeUpdateAssignmentLogic" located in the Script File ProjectManagement.ebs in the SmarTeam Script Directory.



## Customizing your Menus for Use in SmarTeam – Program Management

There are two roles in a SmarTeam – Program Management scenario:

- **Project Manager (PM):** Responsible for creating new projects and project plans (WBS) using SmarTeam MS-Project integration, and later updating the project plan, based on the reporting of Team Members. The PM is also responsible for promoting the project plan (and tasks) using the Promote command.

The PM needs access to the Open in MS-Project and Promote commands.

- **Team member (TM):** Responsible for viewing their tasks and reporting on their progress using the "My Tasks View" command.

You may use the SmarTeam Menu to create commands and buttons for the user-defined tools described above ("My Tasks View", "Open In MS-Project" and "Promote"). This will simplify access to these functions from the SmarTeam interface.

**Note:** It is recommended to create a different menu profile for each role.

For details on how to create menus, buttons, and menu profiles see the Menu Editor topics in the SmarTeam – Editor Online Help.

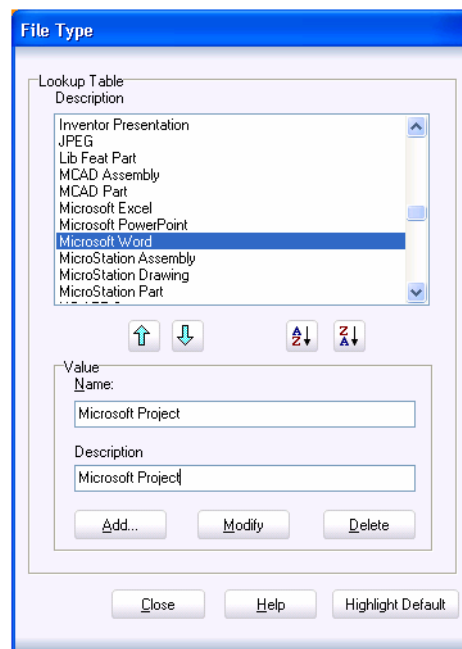
## Adding the Microsoft Project File Type and Defining Applications Setup

**To add Microsoft Project as a file type in SmarTeam – Editor:**

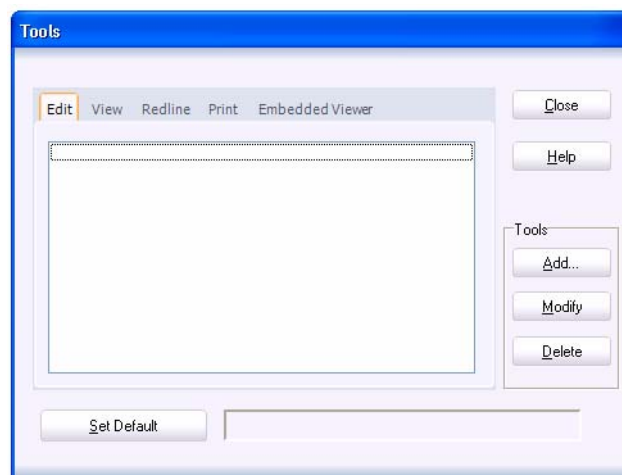
- 1 In SmarTeam – Editor, select Tools, Applications Setup.
- 2 Check if the value "Microsoft Project" exists in the "File Type" Lookup table.

If it does not exist, fill in the "Name" and "Description" fields as shown in the example below, and click Add to add the "Microsoft Project" File Type.





- 3 If you did not previously have the Microsoft Project file type, select "Microsoft Project" then click "Tools" to configure the Applications Setup.



- 4 In both the Edit and View tabs, click Add and configure the Applications Setup using the example below. The values shown below should be correct for most cases. If these values do not succeed, click "Help" and change the configuration according to the instructions in the Online Help.

The 'Add/Modify Tool' dialog box is shown with the 'General Setup' tab selected. The 'Application Tool' dropdown is empty. The 'Tool name' field contains 'Microsoft Project'. The 'Original tool name' field also contains 'Microsoft Project'. The 'Command line' field contains the path '"C:\Program Files\Microsoft Office\OFFICE11\WINPROJ.EXE"'. The 'Command line parameters' field contains '"%1"'. The 'Default directory' field is empty. There is an unchecked checkbox for 'Switch to directory'. The 'DDE application' field contains 'winproj', and the 'DDE topic' field contains 'SYSTEM'. The 'DDE command when running' field contains 'FileOpen "%1"'. The 'DDE command when not running' field is empty. On the right side, there are 'OK', 'Cancel', and 'Help' buttons.

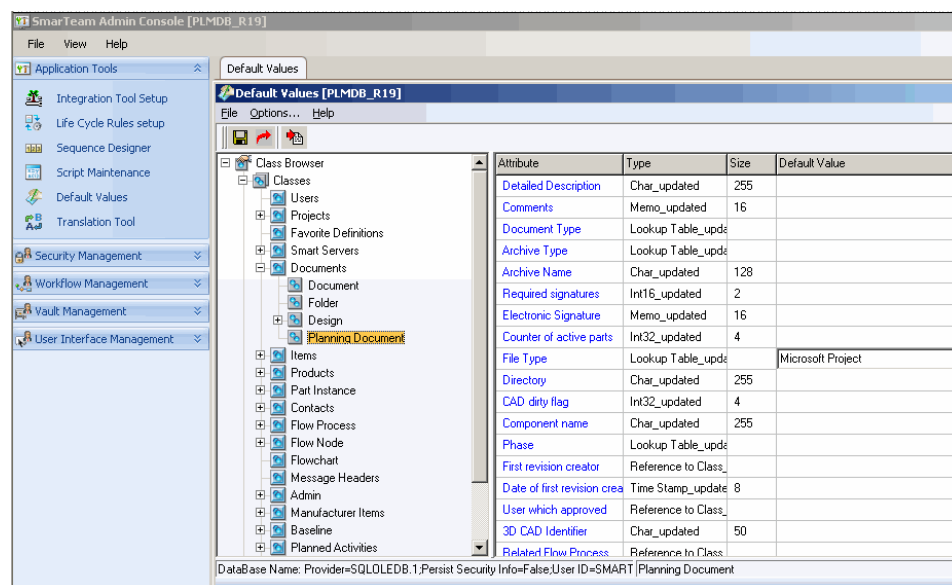
The 'Add/Modify Tool' dialog box is shown with the 'Advanced Setup' tab selected. There are three checked checkboxes: 'Search files in current folder', 'Disable change of file name', and 'Place current object in the Global Data area'. Below these is a 'File extensions' field which is empty. The 'Common-file objects (CFO)' section has an unchecked checkbox for 'Enable CFO for life cycle operations'. Below this, it says 'Upon Check Out, do following for other objects in CFO:' followed by a dropdown menu showing 'Force Check Out'. The 'Light Weight mode' section has two unchecked checkboxes: 'Allow Lw copy for file' and 'Allow Lw copy for children'. On the right side, there are 'OK', 'Cancel', and 'Help' buttons.

## Working with SmarTeam – Program Management

In order to work with SmarTeam – Program Management the local administrator must perform these procedures.

**Note:** Verify that a new leaf class "Planning Document" was created under the Documents super-class and the Planning Document is applied to this class.

- 1 In the Application Setup, create the file type for Microsoft® Project and define Microsoft© Project to open.
- 2 In the Admin Console, Application Tools, Default Values feature, Class Browser tree:
  - Expand the Documents node and select Planning Documents
  - In the Planning Documents pane, File Type row
    - Click in the Default Values pane to enable the drop-down list
    - Select Microsoft Project from the drop-down list
  - Click Save
  - Click File, Exit



## Designing Your Forms

In order to work with SmarTeam – Program Management, it is recommended to design the following forms:

- Project Plan
- Task
- User-task assignment (link class)
- Task dependency link

SmarTeam automatically creates profile cards containing all class attributes when you run the Data Model Designer. However, it is recommended to use the Form Designer to arrange the information for display.

An example of the design that can be used for the "Task" and "Assignment" (the link between task and user) Profile cards is shown below:

The screenshot displays the 'Search by Attribute' dialog box. On the left, a 'Search class' tree shows a hierarchy: Class Browser > Classes > Projects > Documents > Flow Process > Materials > Items > Contacts > Baseline > Products > Equipment > Planned Activities > Project Plan > Users. Below this tree are three options: 'Match case' (unchecked), 'Retrieve only last public revisions' (unchecked), and 'Make search public to all users' (unchecked). The main area shows a form titled 'Task'. It has a 'Completed' checkbox. Below it is a 'Date' section with two columns: 'Planned' and 'Actual'. Each column contains 'Start Date', 'Finish Date', and 'Duration' fields. The 'Planned' 'Duration' field is set to '0 00:00:00 d hh:mm:ss'. The 'Actual' 'Duration' field is set to '0 00:00:00 d hh:mm:ss'. There is also a 'Deadline' field and a 'Constraint Type' dropdown. On the right side of the form, there are three tabs: 'General', 'Tracking' (selected), and 'System'. At the bottom of the dialog are buttons: 'Run', 'Close', 'Save', 'Save As', 'Attributes...', 'Clear', and 'Help'.

For the list of all the attributes synchronized between MS-Project and SmarTeam, see the SmarTeam – Program Management Online Help.

## User Authorization

In order to apply authorizations, use the SmarTeam – Editor Users Maintenance tool.

It is recommended to give both project managers and team members full authorization for the following:

- Planned Activities Super-class
- Task Leaf Classes
- Project Plan Leaf Class
- Planned Activity Tree Link
- User Task Assignment link

## Setting Up SmarTeam – Program Management LUM License

A LUM License must be setup in order to run SmarTeam – Program Management. For details about setting up LUM licenses, refer to the LUM Installation and Configuration Guide.

## Defining SmarTeam – Program Management Users

To run SmarTeam – Program Management, you must define users who are authorized to use SmarTeam – Program Management. For details on User Management, refer to the User Maintenance section in the SmarTeam – Editor Online Help.

This is achieved using the Users Maintenance utility:

- 1** Access the Users Maintenance utility.
- 2** Click **Users** and select a user.
- 3** Click **Modify**.
- 4** Click the **Advanced** tab and select the **Can use Program Management** check box.

### Notes:

- When these users log on to SmarTeam – Editor, and a SmarTeam – Program Management license is available, they gain access to the SmarTeam – Program Management user interface and are able to perform SmarTeam – Program Management operations.
- It is recommended that you provide all SmarTeam– Program Management users with authorizations to view the class "Users". Otherwise, they will not be able to see who is assigned to a project or a task.
- Refer to the User Maintenance section of the SmarTeam – Editor Online help for details about User Management.