



ActiveFlow Installation Guide

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DISCLAIMER: The names of files, values and reports in this Guide may differ slightly from those in the example files supplied with your software.

ACTIVEFLOW INSTALLATION GUIDE

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Installation of ActiveFlow Workflow

This guide shows you how to install ActiveFlow workflow and its licensing key. It also shows you how to install the Avantage workflow design tool.

1.1 Pre-requisites

The server or computer which hosts the ActiveFlow Workflow Engine requires the following items to be installed:

- ▶ **OS :** Windows 2003 server ,Windows 2000 , Windows XP with latest Service Pack recommended or Windows Vista, Windows 7, Windows Server 2008
- ▶ **.NET Framework 3.5**
- ▶ **Database :** SQL Server 2000 , SQL Server 2005/2008 or SQL Server 2005/2008 Express (or access to an SQL Server)
- ▶ **Internet Information Server :** IIS is part of the server OS but is not installed by default
- ▶ **Access to a SMTP Mail server :** This is optional if you don't want to use mail notification

Notes:

- Please make sure all of the above components have been installed correctly.
- It is not necessary to have the Avantage_BPM_Foundation_Commercial and Avantage_ActiveFlowDesigner plugin installed on the ActiveFlow server. These are necessary for workflow development but not execution of workflows.
- For the IIS installation please select Control Panel -> Add/Remove Programs -> Add/Remove Windows Components For Vista make sure all items are turned on for IIS (a full install).
- If you want to check that IIS exist on your system please open “Computer Management” and then select “Services and Applications”.

For this Installation Guide we will use the following configuration as a base:

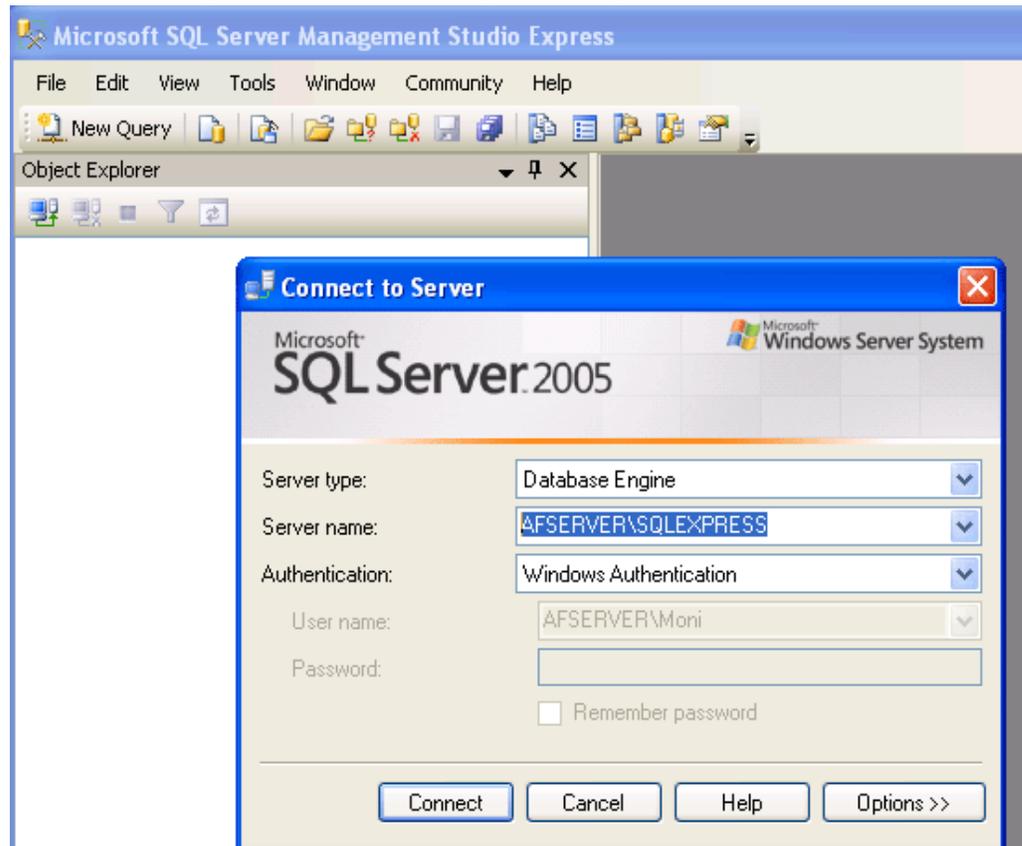
- Windows XP with SP2: for the ActiveFlow Server machine.

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- SQL Server 2005 Express Edition and the SQL Server Management Studio Express tool for the database.
- AFSERVER\SQLEXPRESS - SQL Server name.

Note:

Please open SQL Server Management Express to see the server name:



- Drive C: the installation drive.
- AFSERVER: the name of the machine where ActiveFlow will reside.

1.2 Installation of the Licensing Key driver

KAISHA-Tec use the Sentinel USB licensing key for commercial ActiveFlow installations (http://www.safenet-inc.com/products/sentinel/hardware_keys.asp).

The driver for this device is installed on the server as below. However skip this step for an ActiveFlow evaluation installation. Such an evaluation installation could be on a server or a local PC.

Installation of the Sentinel Driver:

1. In the Advantage Installation Files/ActiveFlow directory, run the Sentinel Security Key driver (SSD5411-32bit.exe) – note that the USB licence key must **not** be plugged in while running the driver setup. After successful installation of the Sentinel Security Key driver, the USB license key can be plugged into the server.

1.3 Installation of the ActiveModeler Avantage BPM Foundation

Note:

This step is necessary only when the Avantage BPM Foundation is not installed on your system. As we mentioned before, for production use it is not necessary to install the Avantage workflow development tools on the server machine. If you want to generate the workflows on the server machine of course this is up to you.

If you have already done this or don't need the Avantage BPM Foundation on your server machine go to Section 1.4.

Overview

The installation procedure has 2 main steps:

- Install the **Microsoft .Net 3.0 Framework** (if it doesn't exist on the system)
- Install the **Avantage BPM Foundation**

Install the Microsoft .Net 3.0 Framework

Note:

The Avantage Foundation will also work with the **Microsoft .NET Framework 2.0**. This for Windows 2000 users and users whose organizations have not yet migrated to the .Net 3.0 Framework.

Installation Steps:

1. To install the .Net 3.0 Framework, go to the Avantage Installation Files / NetFramework folder and locate the **dotnetfx3setup.exe**.

Or if you don't have an installation CD go to :

<http://www.microsoft.com/downloads/details.aspx?FamilyID=10CC340B-F857-4A14-83F5-25634C3BF043&displaylang=en>

Notice that this download uses the download manager. An entire executable package is also available for download from this page (**50.3 MB**).

2. **Run** the *dotnetfx3setup.exe* program – this will install the Microsoft .NET Framework 3.0 on your computer. After successful installation, you may be asked to restart your computer.

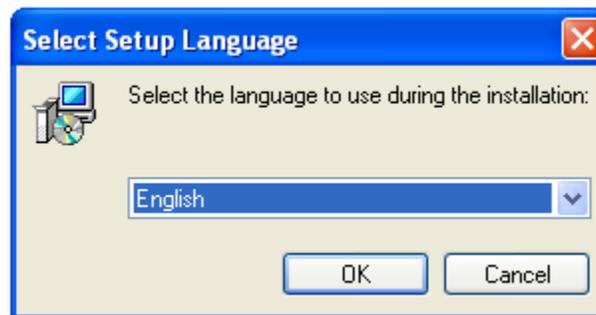
Note:

Supported operating Systems for the .Net Framework 3.0 are: Windows Vista, Windows Server 2003 and Windows XP.

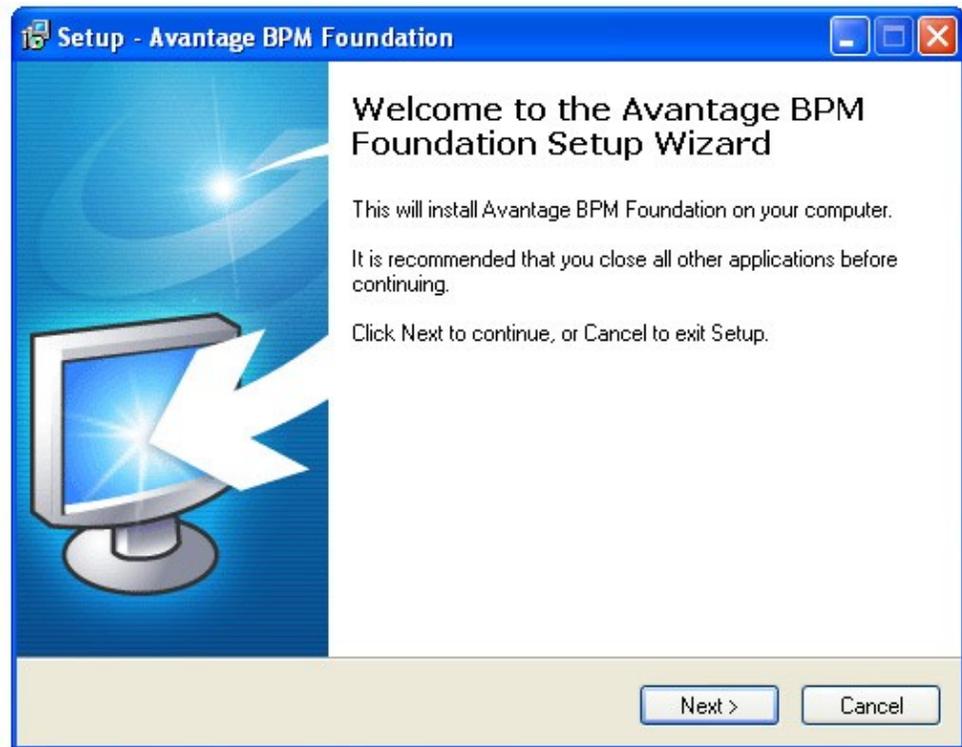
Install the Avantage BPM Foundation

Installation Steps:

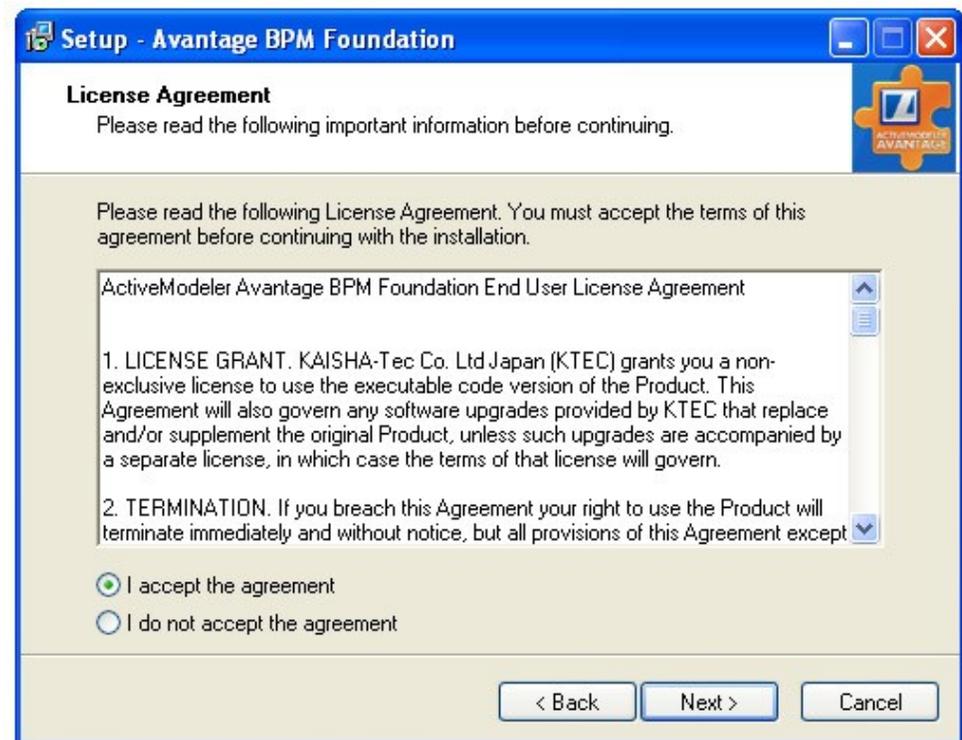
1. Go to the Avantage Installation Files/Avantage folder.
2. Run the *Avantage_BPM_Foundation_Commercial.exe*. You will be first asked to choose an installation language.



3. Press **OK** and the following screen will be presented.

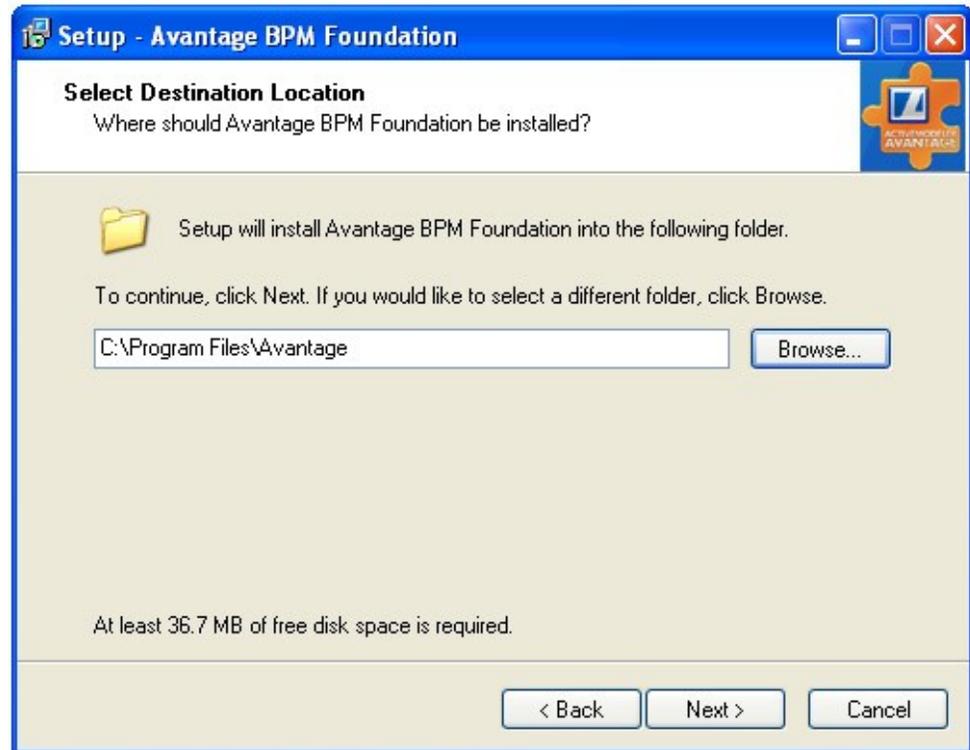


4. Press **Next** and you will be asked to accept the *License Agreement*.

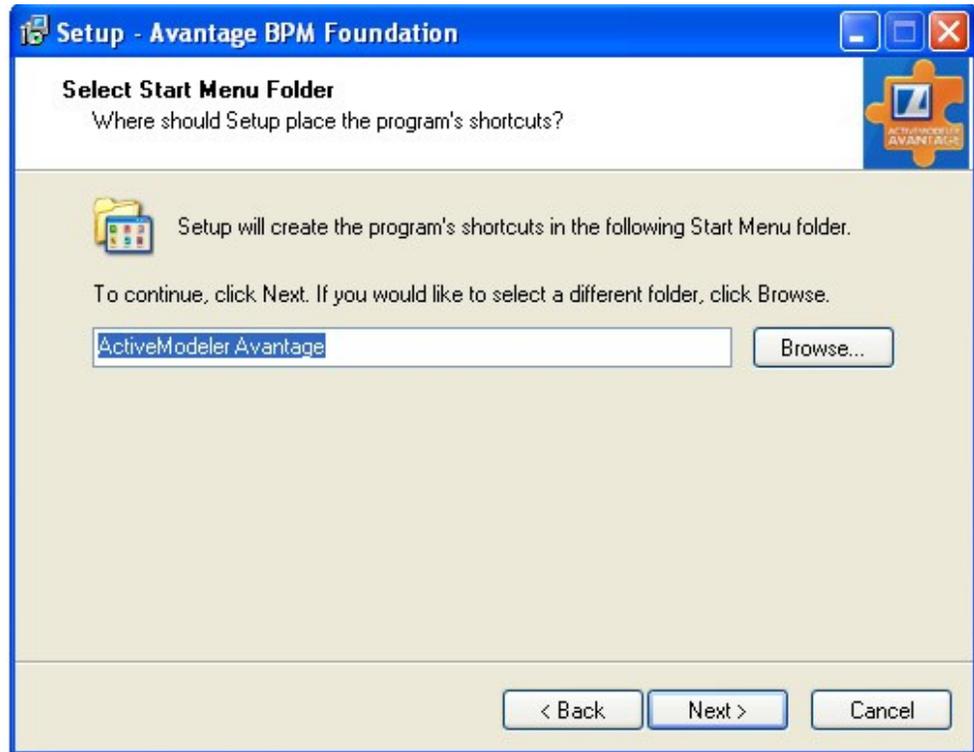


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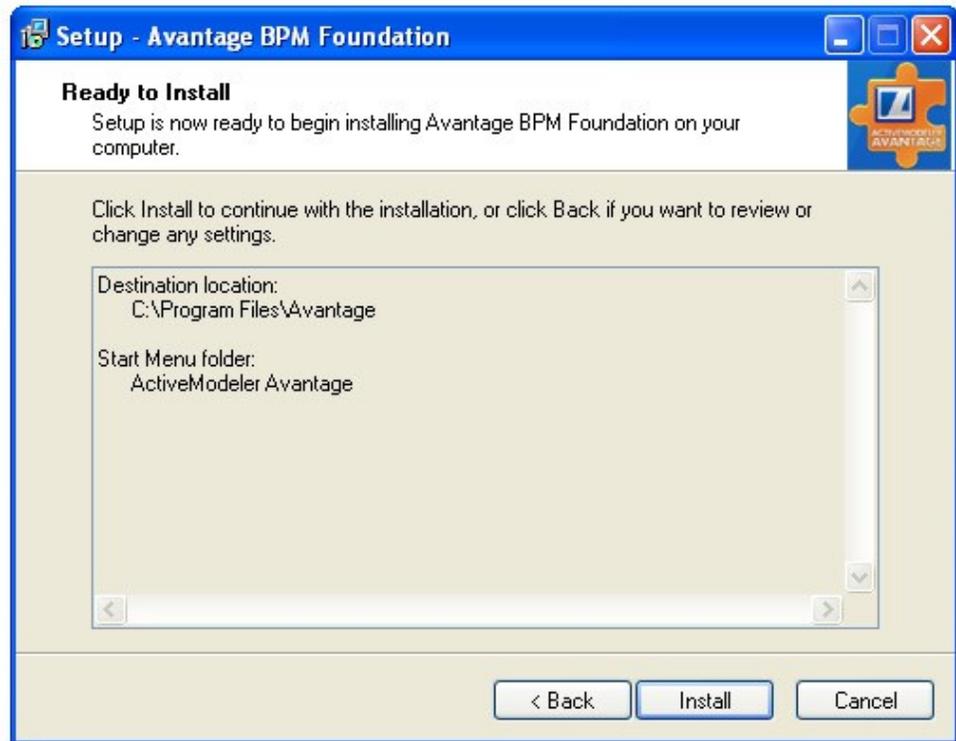
5. Choose the **location** on your PC to put the Avantage BPM Foundation. Use the browse button to select this location.



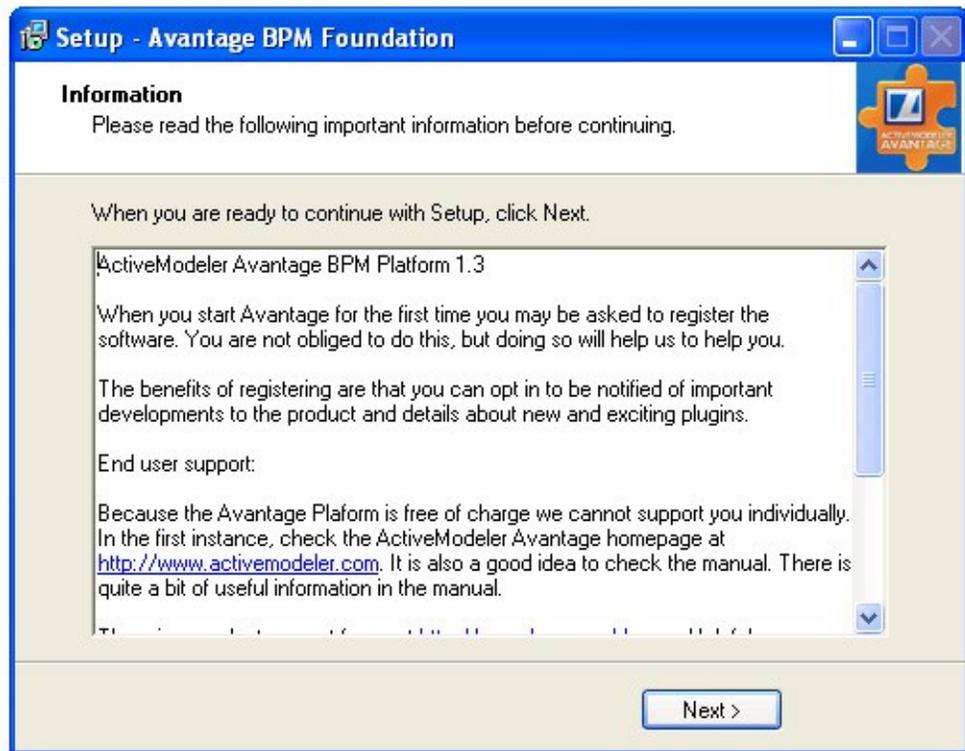
6. Now choose the *Start menu folder* for the Avantage program shortcuts.



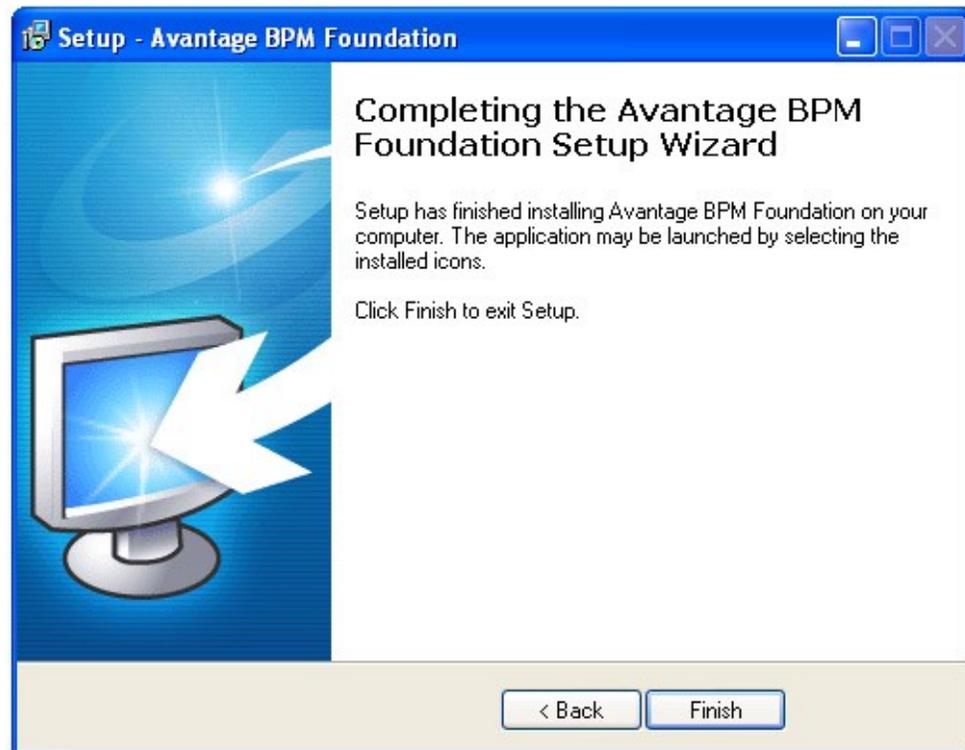
7. You are now ready to install. Press the **Install** button after confirming the locations.



8. You will be presented with some information about registration of the software. For corporate installations, support will be provided by your distributor. After reading, press the **Next** button.



9. Press the **Finish** button to complete the installation.



1.4 Installation of the ActiveFlow Designer Plugin for Avantage

ActiveFlow Designer Plugin Overview

This Avantage plug-in provides design time support for making ActiveFlow workflow applications from Avantage BPMN process diagrams.

The Designer plugin can be installed on a user PC or directly on the server machine depending where you want to generate workflows from.

Pre-requisites:

The ActiveFlow Designer Plugin installation assumes that the Active Modeler **Avantage BPM Foundation** has already been successfully installed on the target machine.

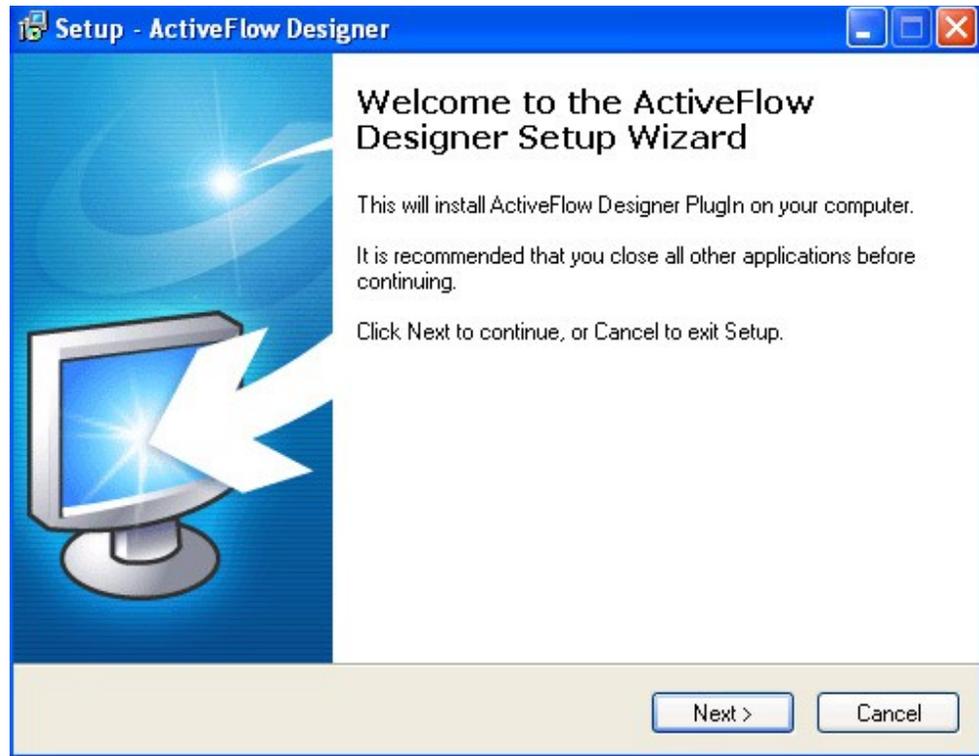
Important:

The installation will fail if the ActiveModeler Avantage Foundation is not installed or it cannot be found (the file name has been changed).

Installation of the ActiveFlow Designer Plugin

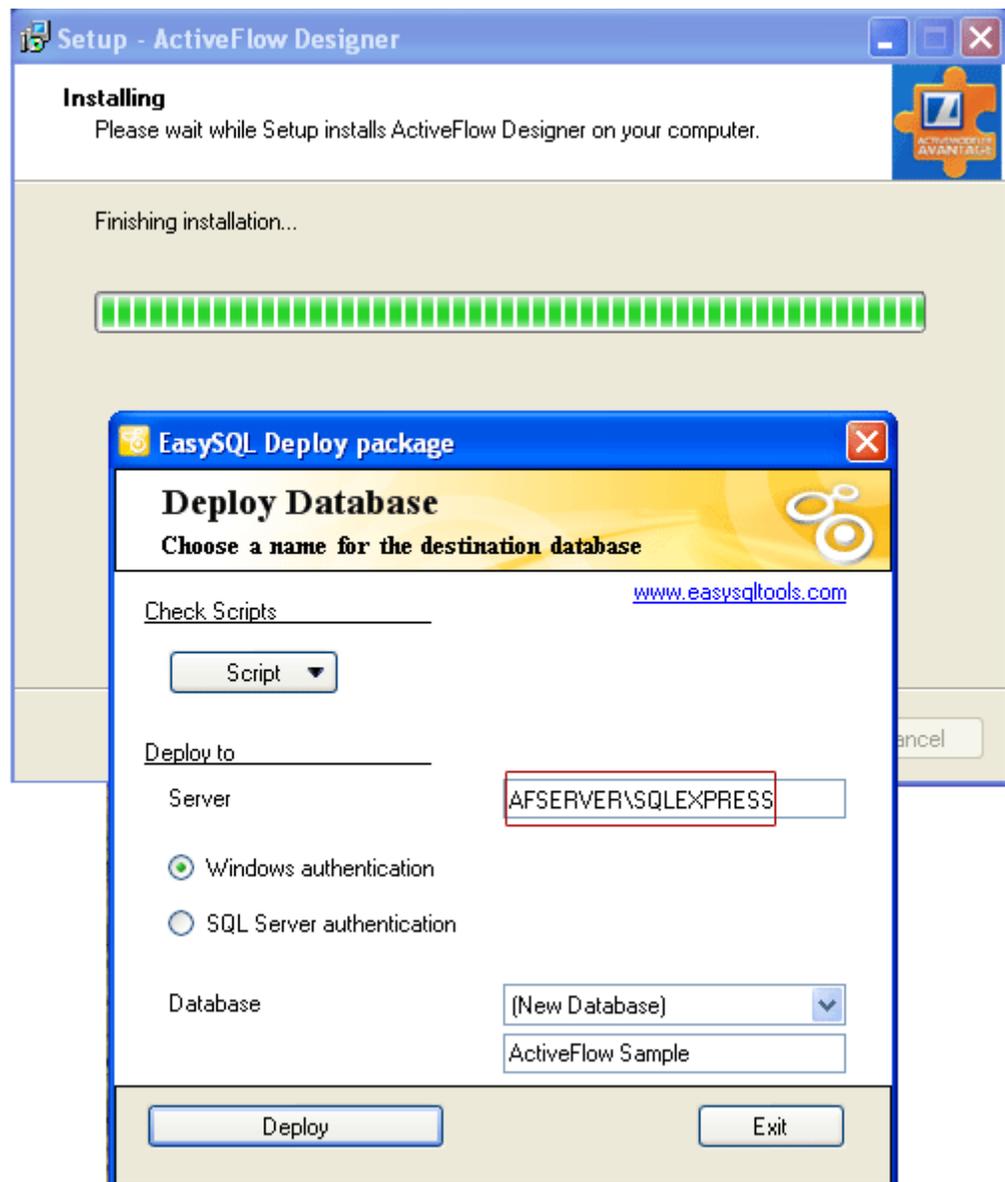
Installation Steps:

1. In the Avantage Installation Files/ActiveFlow directory, run the **Avantage_ActiveFlowDesigner.exe** installer.
2. The setup application searches for an installation of ActiveModeler Avantage and automatically installs the components in the appropriate location.

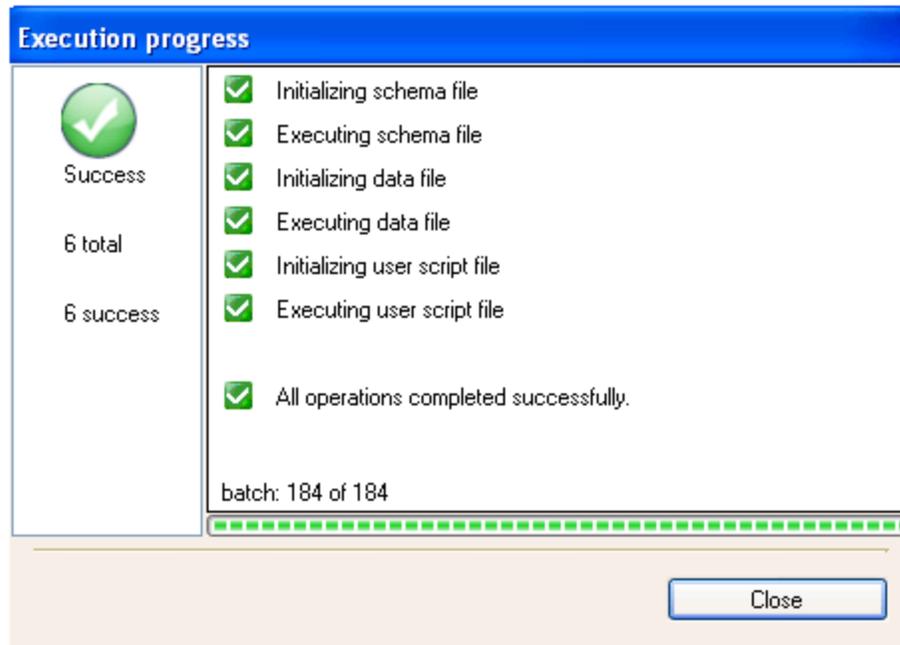


3. Press **Next** to start installing the files.
4. The installation is started and all the files are copied to the appropriate locations.
5. To make things easier for a first installation, we include a sample workflow. For this we need an ActiveFlow database and this is generated automatically as below for an *ActiveFlow Sample* project from data already located in *My Documents\Avantage Projects\ActiveFlow Sample*.

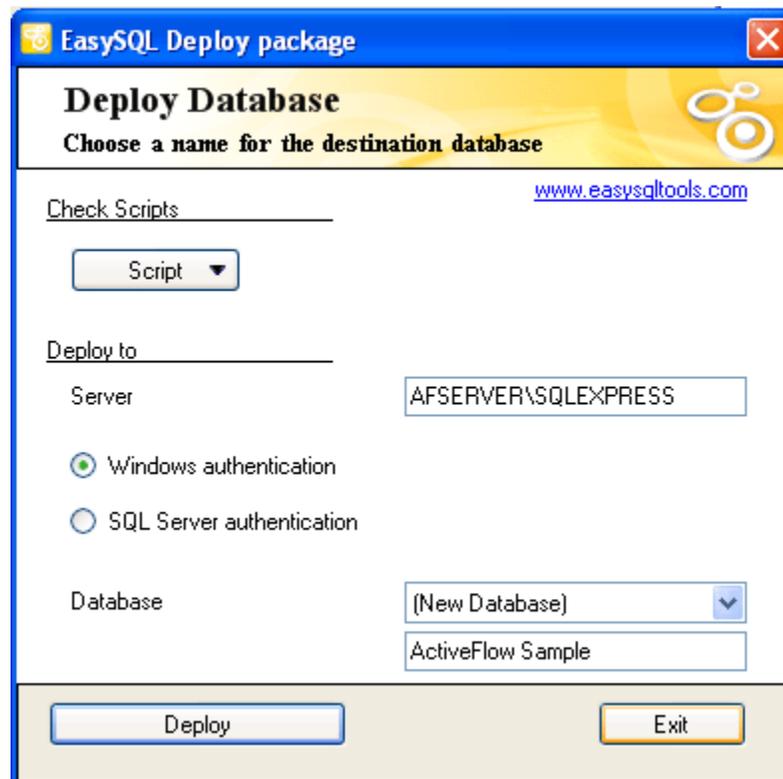
Note for Vista: The location for the project on the Vista system is *C:\Users\MyUser\Documents\Avantage Projects\ActiveFlow Sample*



6. Type in the name of SQLServer installed on your machine.
7. Just press the **Deploy** button and the database will be installed.



8. Press the *Close* button.



9. Press the *Exit* button.

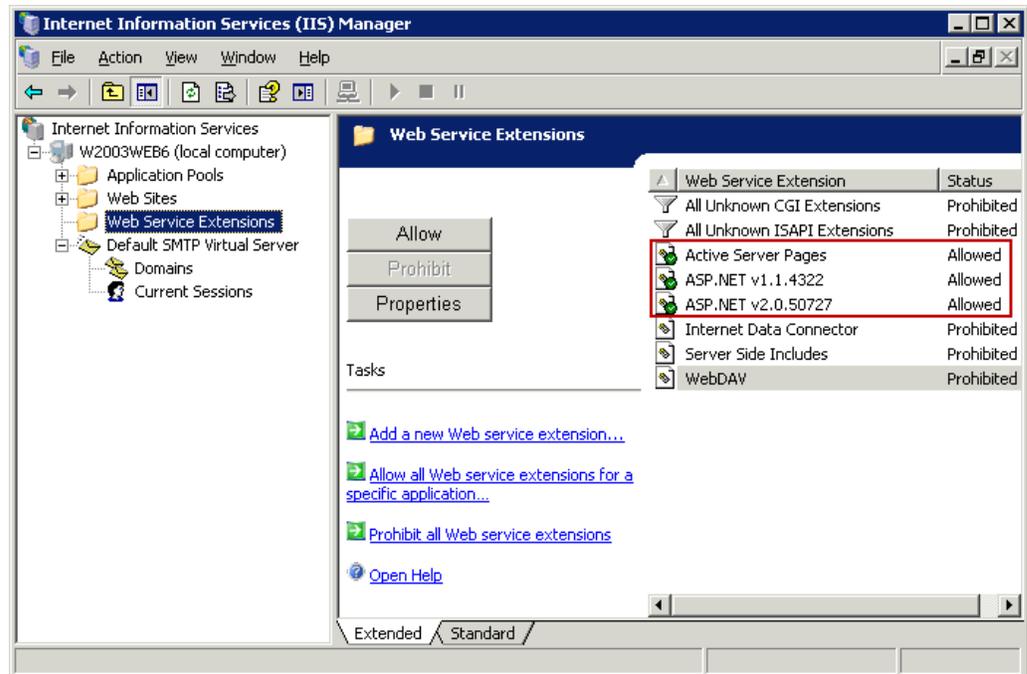


10. Press the *Finish* button.

1.5 Installation of the ActiveFlow Engine

1.5.1 ActiveFlow engine prerequisites :

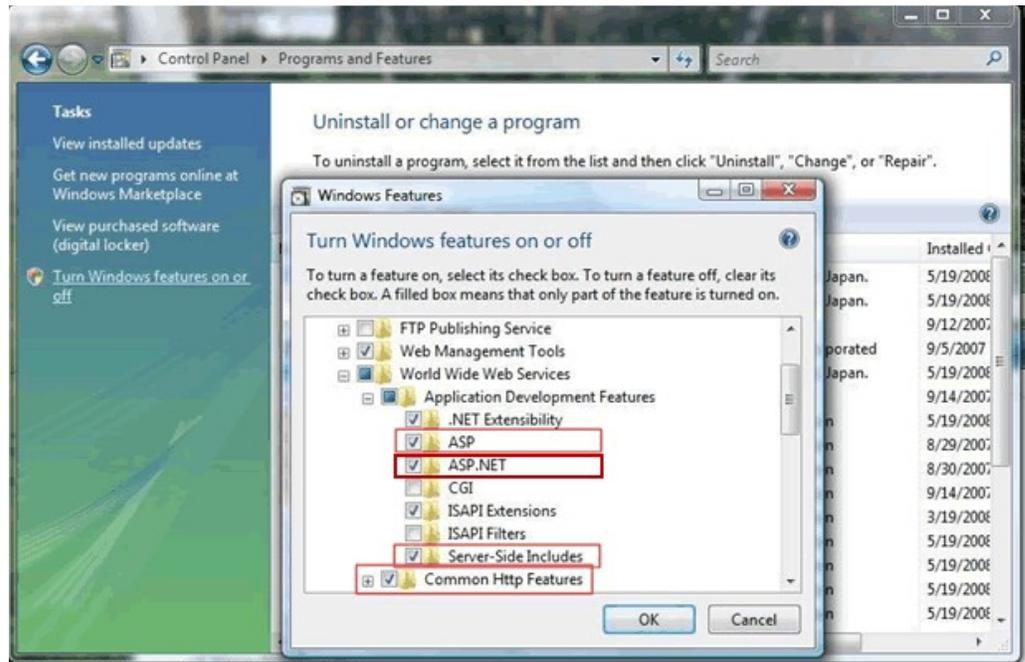
1. .NET Framework 3.5 is required by the ActiveFlow Engine
2. Make sure Internet Information Services(IIS) is installed before running the ActiveFlow engine installer.
3. Make sure ASP and ASP.NET are enabled. (This procedure will be made only for Windows 2003 Server). To do this:
 - Open the Internet Information Services Manager from the Control Panel/Administrative tools.
 - Select Web Service Extensions on the left and then Active Server Pages on the right.
 - Press the **Allow** button



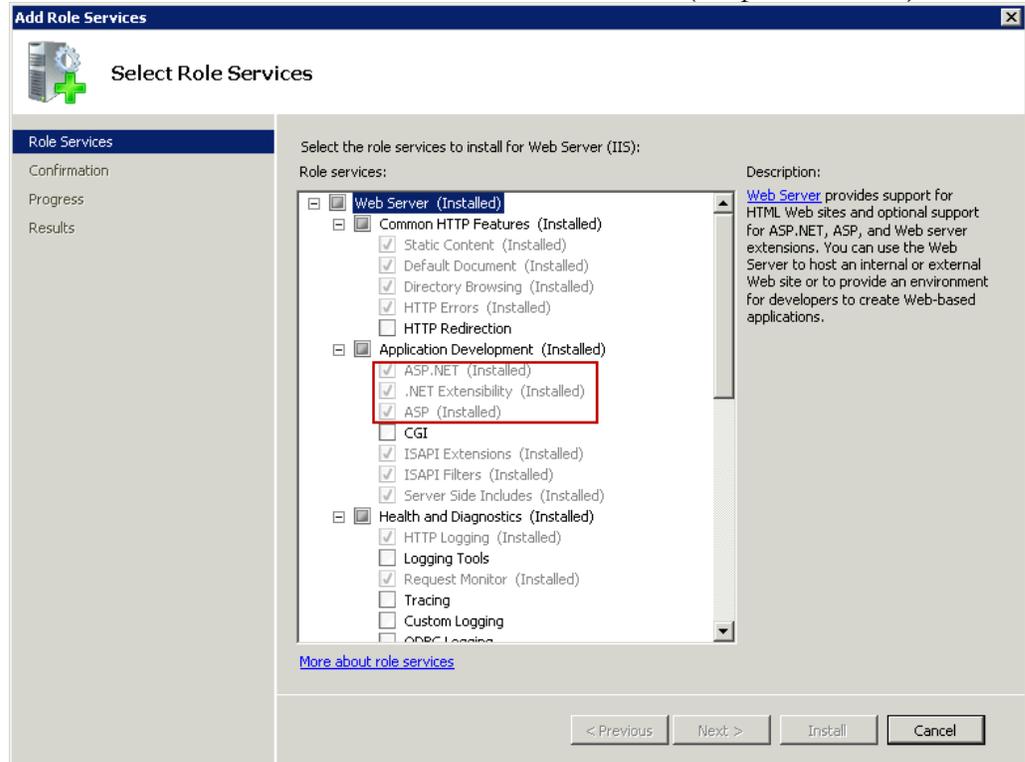
Setting up IIS for Windows Vista and Windows Server 2008

When installing the IIS on Windows Vista, make sure at least the following components are turned on:

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On **Windows Server 2008**, make sure the IIS role is installed. (Go to ControlPanel → Administrative tools → Server manager. Then make sure the ASP and ASP.Net services are installed in the IIS role. (see picture below).

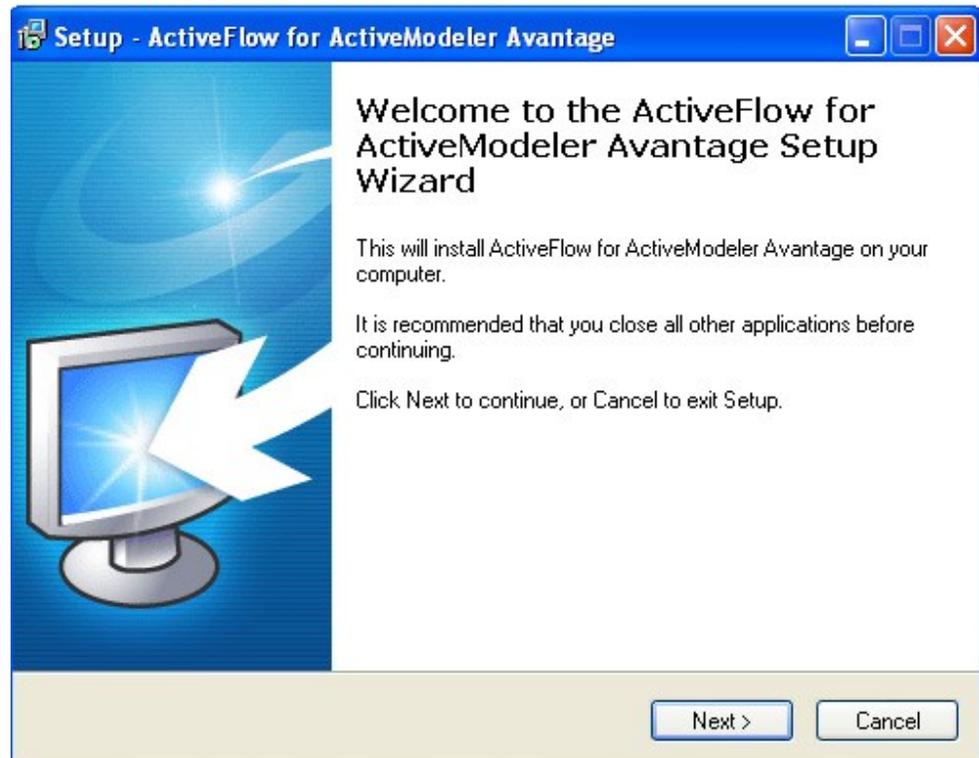


1.5.2 ActiveFlow Installation

1. In the Avantage Installation Files/ActiveFlow directory, run the ActiveFlow installer.

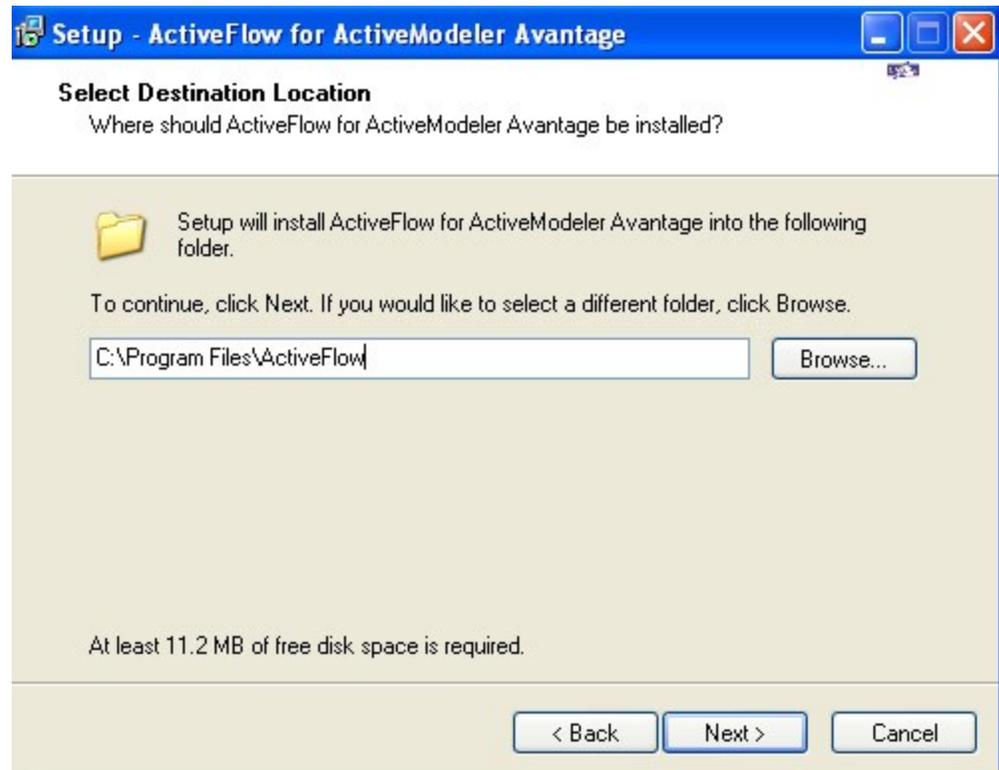
Note for Vista: in Vista OS, RH Click on the installer it and choose “Run as administrator” option. This way you will make sure the installer has all the necessary rights to register all the components.

2. Press **Next** to begin installing the files



3. Select the folder where the application will be installed.

You can install the AF engine in any folder you like. We will use as the destination folder C:\Program Files.



Notes:

- During the installation process, you might be prompted to restart the machine.

After successfully installing the ActiveFlow Engine please continue with the ActiveFlow setup procedure as detailed on the following pages.

1.6 ActiveFlow Engine Setup

1.6.2 Folder Setup

Note:

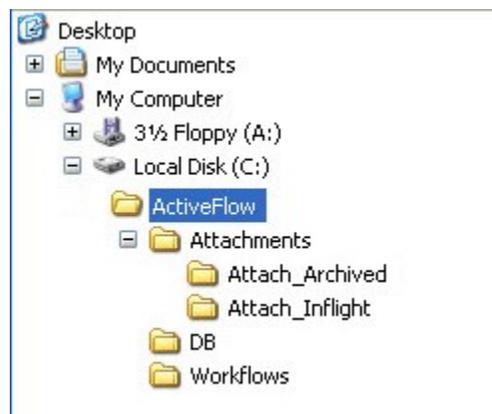
To run the Sample Workflow, you can skip this Chapter.

The folder structure is used in the *Application* tab from the *ActiveFlow Settings* dialog in Avantage.

This chapter shows the structure of the folder and the access rights for it.

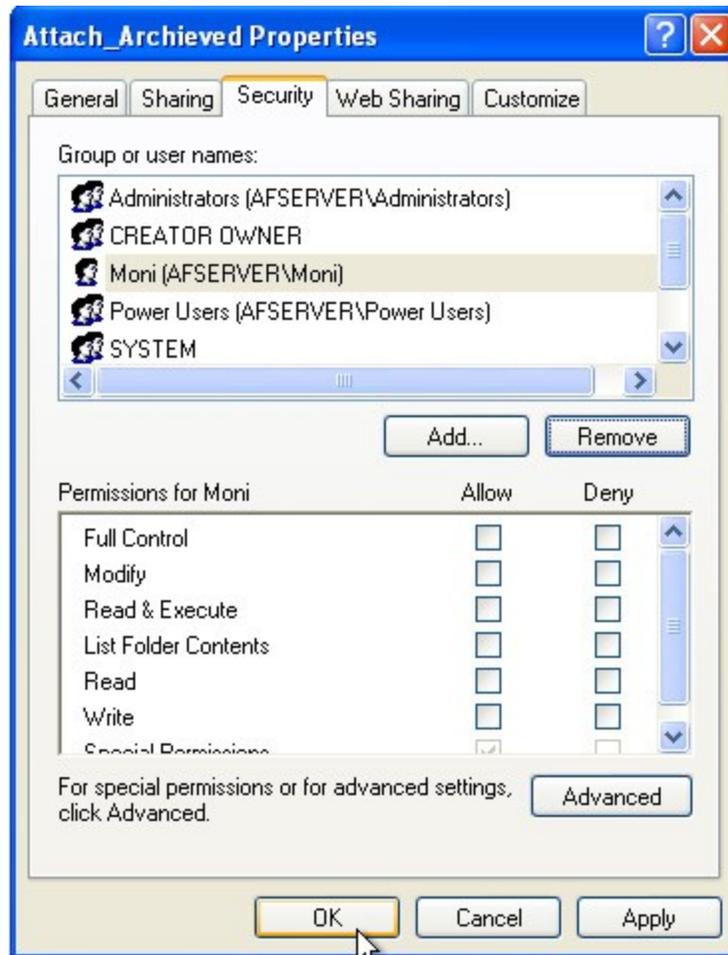
For the purpose of this installation we will use drive C as the installation drive.

1. On drive C the user must create the folder structure as shown in the picture below:

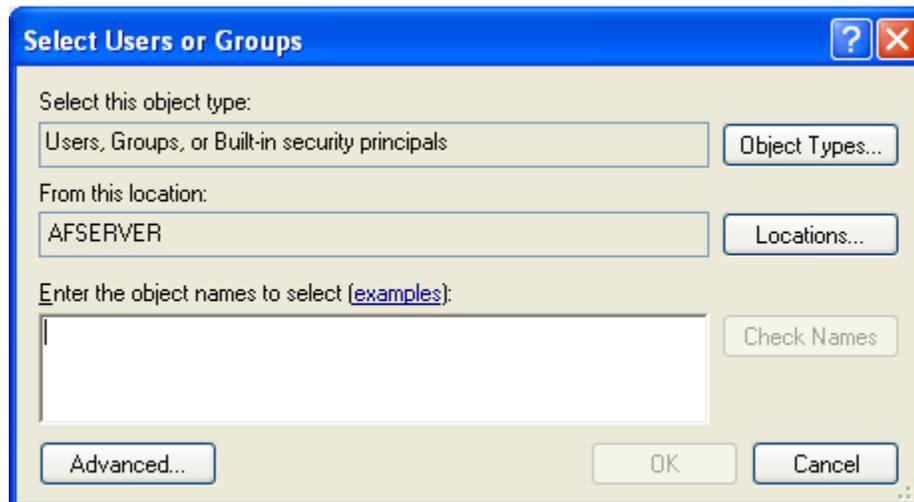


2. You have to make sure the guest IIS User (called IUSR_ComputerName) has access to these folders. To do this, right click on the **Attach_Archived** folder and choose the **Properties/Security** tab. In our case the ComputerName is AFSERVER.

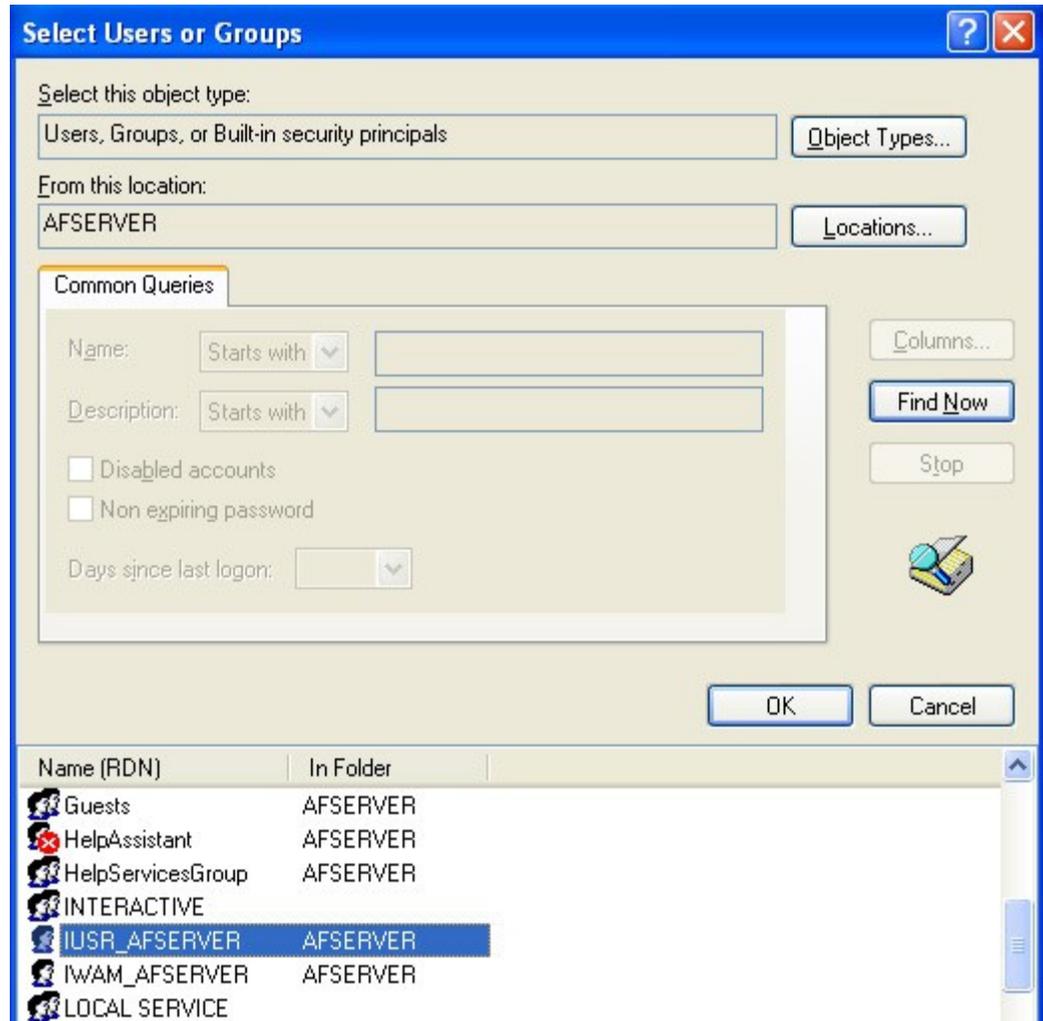
Note for Vista/Win 7: On Vista OS, Windows 7 and Windows Server 2008 the IIS User is called **IUSR**.



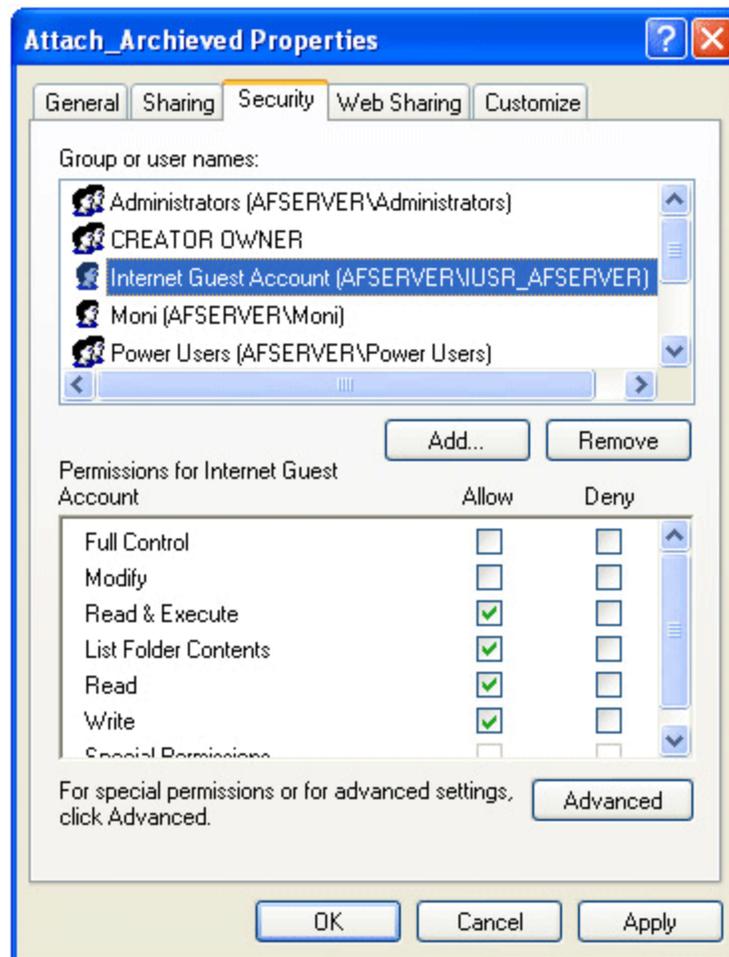
Press **Add**.



Then the **Advanced** button, then **Find Now** in the next dialog and select IUSR_Computer name.



Press **OK**.



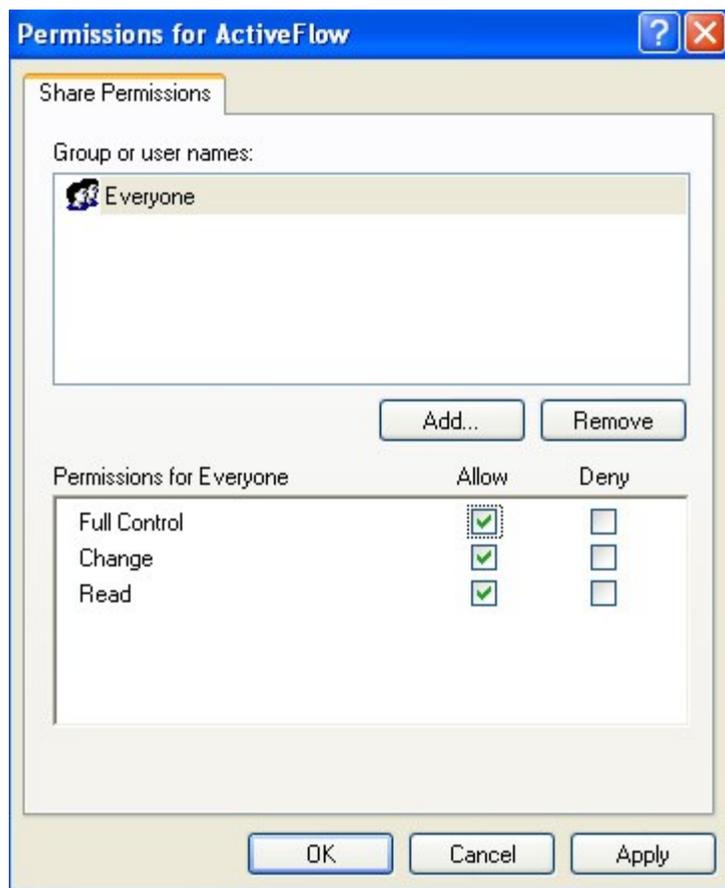
Give read/write permission to this folder.

- Do the same for the other folder “Attach_Inflight”.

3. Share the ActiveFlow folder and give read/write access to all the workflow designer domain users.



4. Press the **Permissions** button and make sure the workflow designer domain user has full control over this folder.

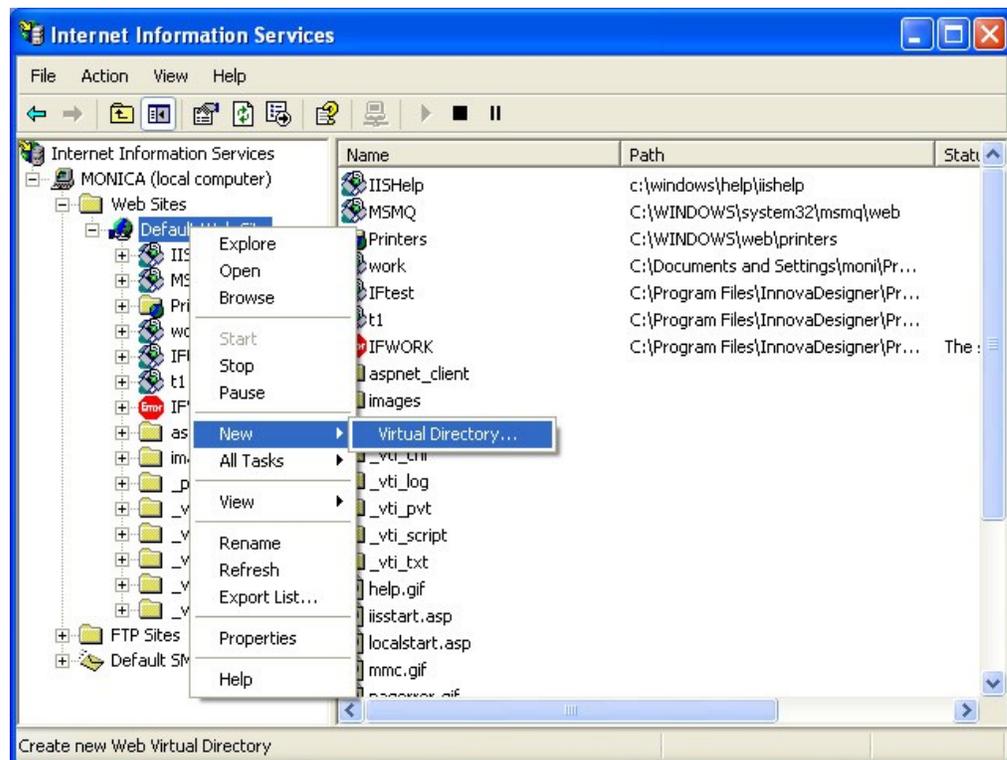


1.7 Internet Information Service Setup

Steps:

1. Set up the virtual directories for the ActiveFlow workflows and attachments folders:

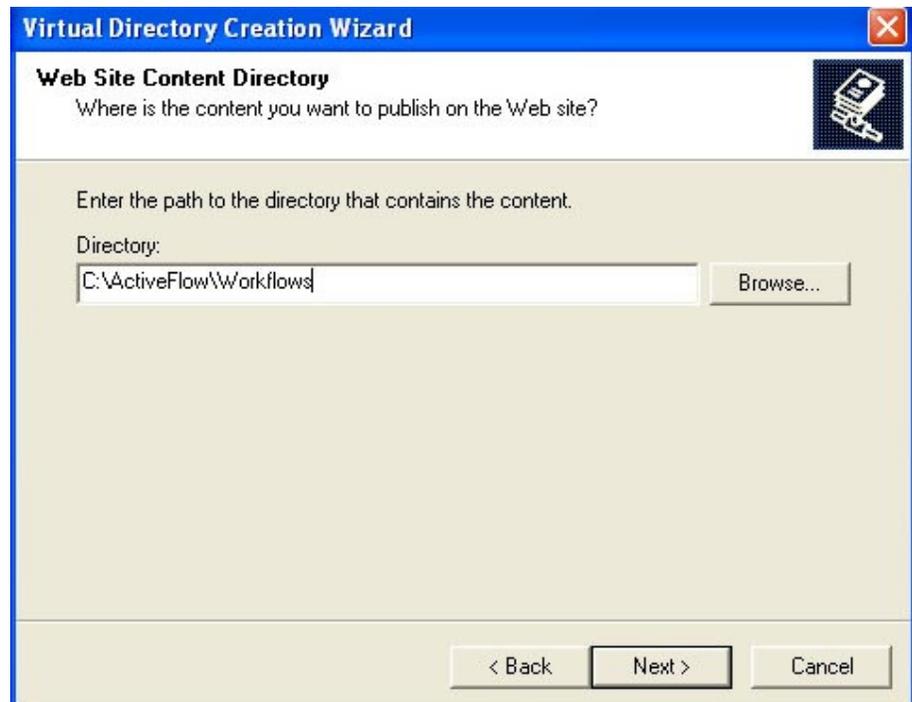
- Open the Internet Information Services Manager from Control Panel/Administrative tools.
- Right-click on Web Site/Default Web Site and select New/Virtual directory.



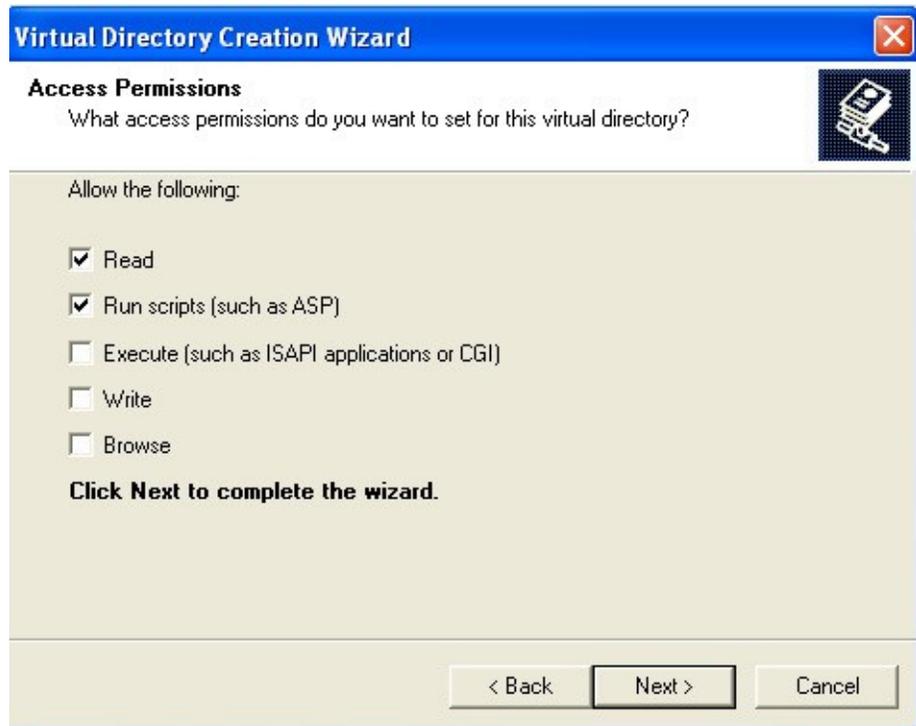
- Set the Virtual Directory name as *Workflows*



- Set the Virtual Directory location to *C:\ActiveFlow\Workflows*



- Allow *Read* and *Execute* rights on this virtual folder



- Press *Finish* in the last dialog

2. Repeat the steps above to create virtual directories for the archived and in-flight attachments folders:

- Virtual folder name: Attach_Inflight linked to the C:\ActiveFlow\Attachments\Attach_Inflight.
- V virtual folder name: Attach_Archived linked to the C:\ActiveFlow\Attachments\Attach_Archived.

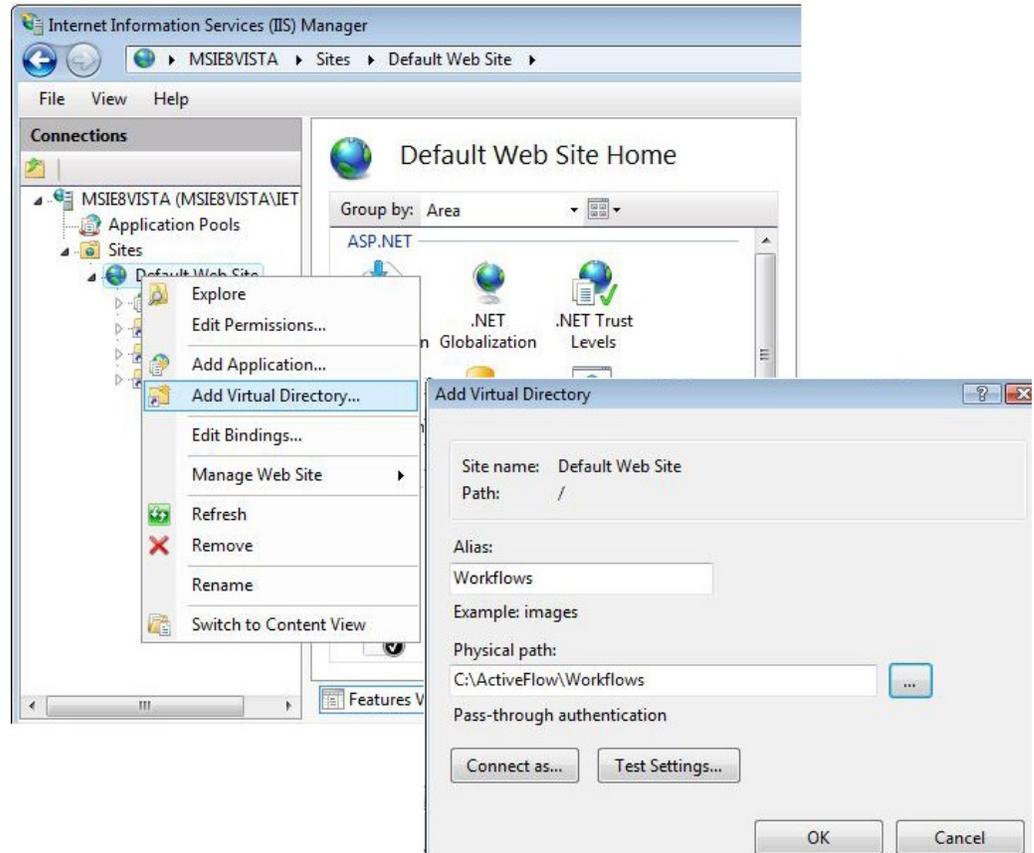
Note:

It is not necessary to give Write permission to the above 2 virtual folders.

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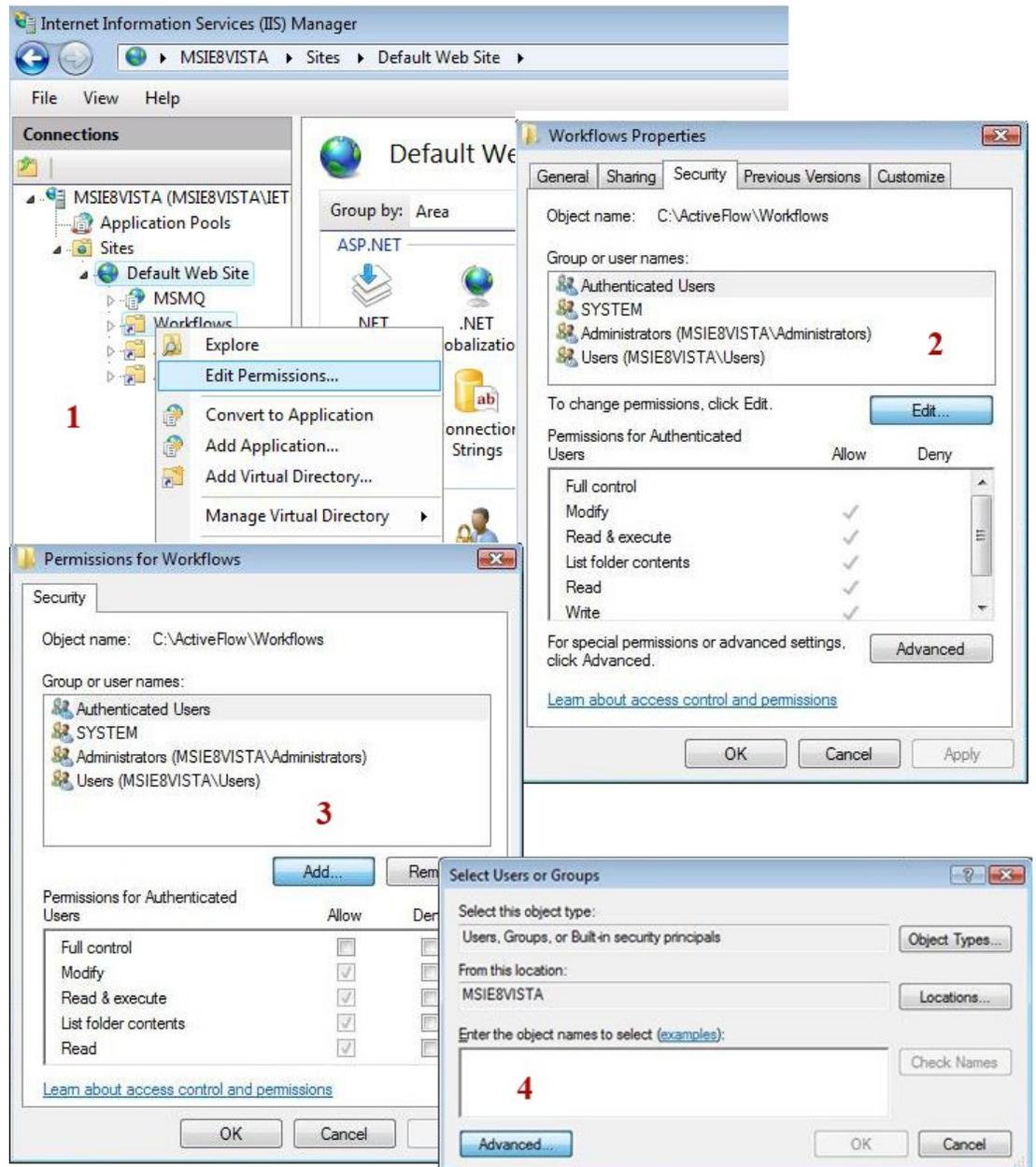
Note for Vista/Windows 7 or Windows Server 2008: On Vista or newer systems this procedure it's slightly different.

A. Create the virtual directory:



B. Set permissions for the virtual directory:

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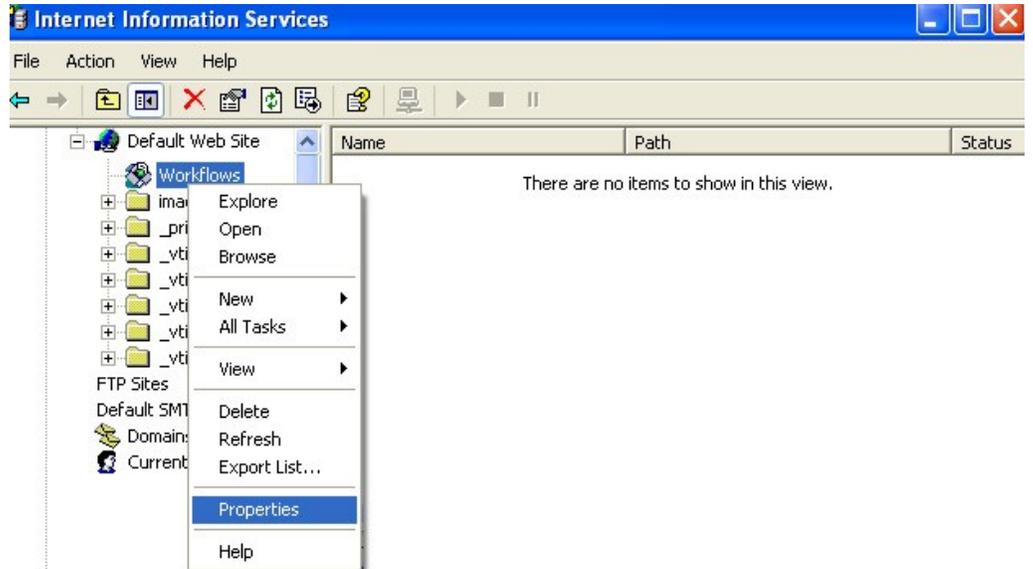
Note for Vista or newer: You can skip the steps 4 and 5 for Vista systems or newer.

4. Allow Anonymous access to these virtual directories.

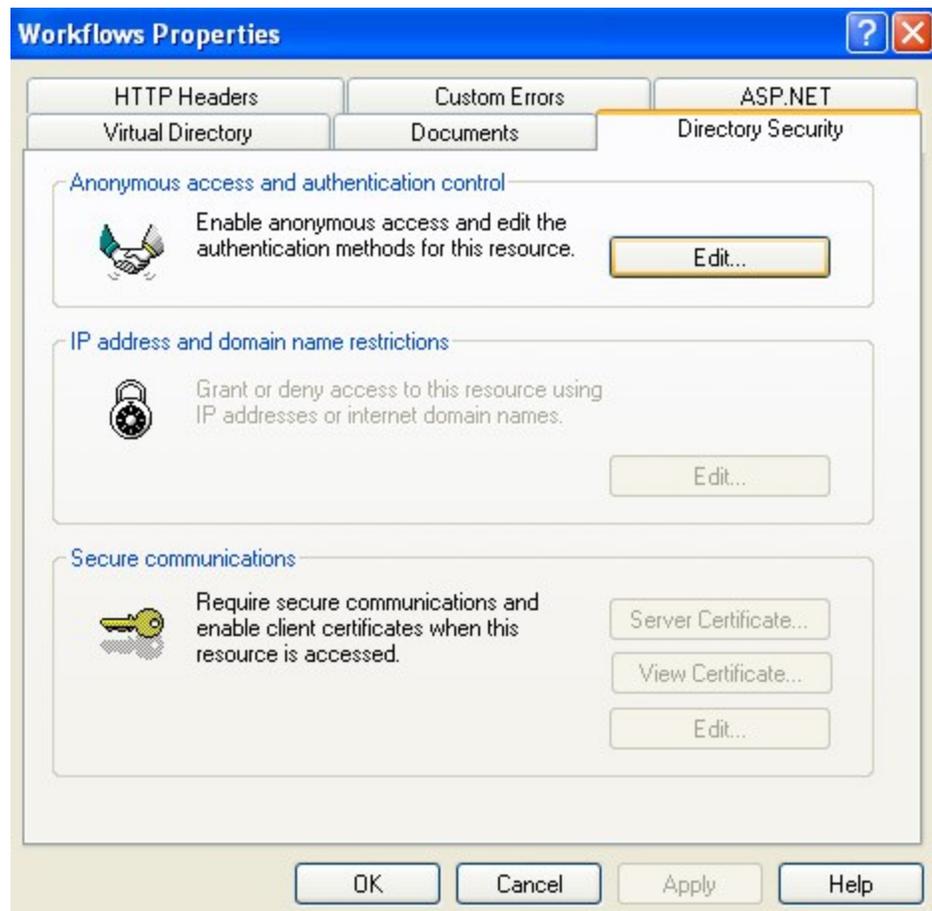
- Open the *Internet Information Services* from Control Panel/Administrative tools.

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- Right-click on **Workflows** under Web Site/Default Web Site and select **Properties**.



- Select the **Security** tab and in the Anonymous **access and Authentication control** zone select **Edit**.



- Make sure the **Allow anonymous** checkbox is checked on.

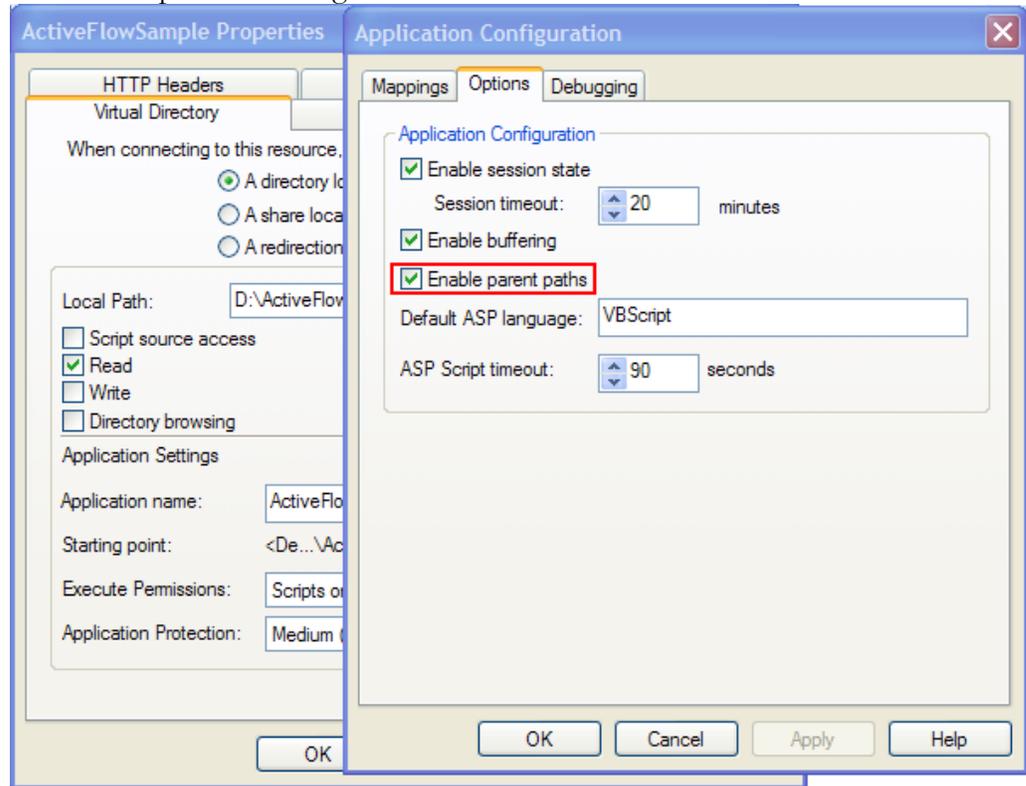


5. Repeat the above steps for the Attach_Archived and Attach_Inflight virtual directories.

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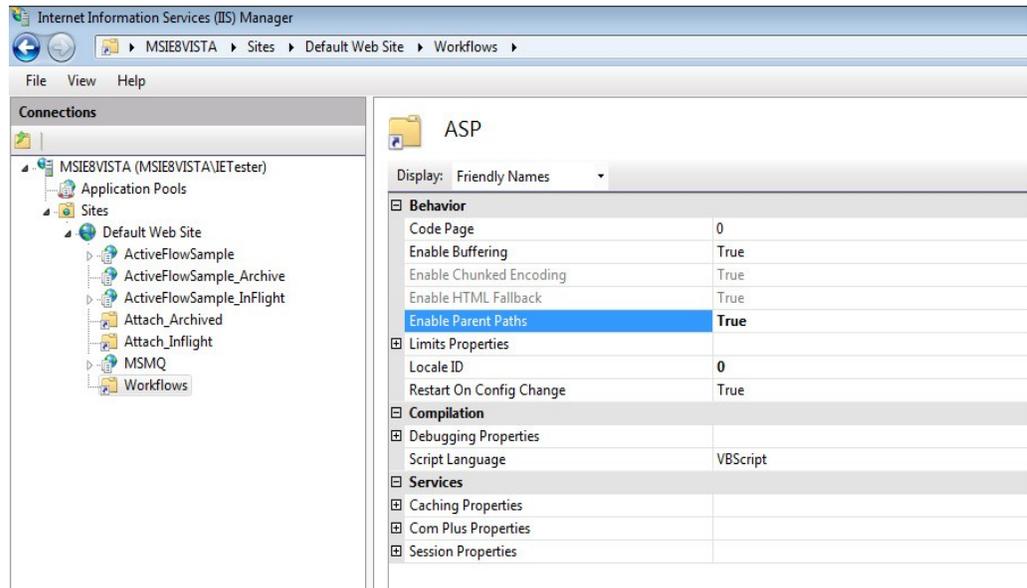
6. Configure properties for ASP application - Enable Parent Paths must be TRUE.

For XP OS please see image below:



For Vista OS or newer please see the image below. Right click on the Workflows folder and select **Basic properties...**

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1.8 SQL Server Configuration

Important:

Execute the steps below only after a new ActiveFlow database has been created with Avantage.

If you are installing the ActiveFlow Sample and you don't want to create another database in this moment, you can skip this chapter .

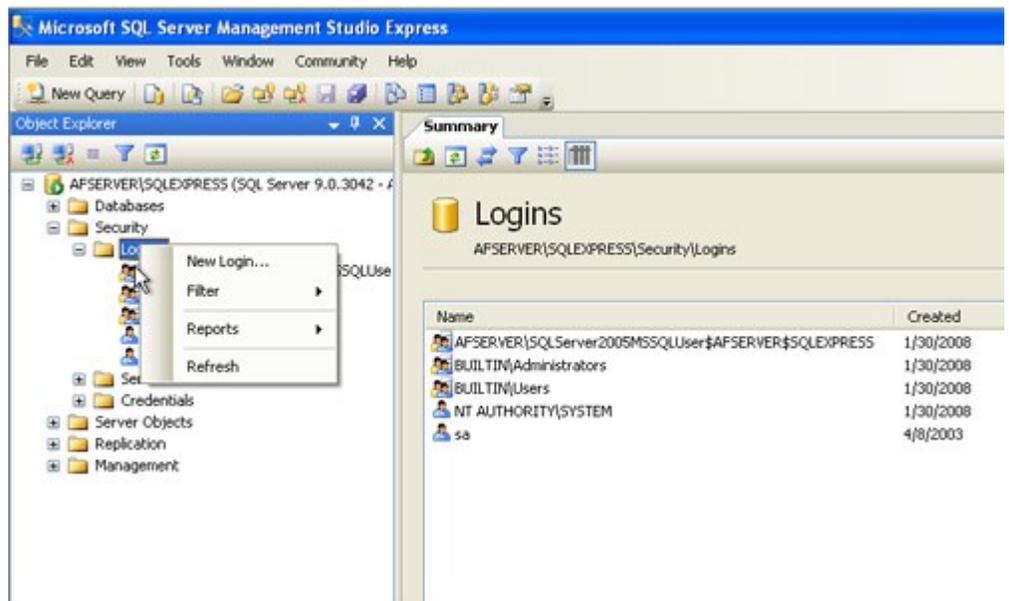
Note for Vista:

1. Run Microsoft SQL Server Management Studio as an administrator (RH click on the application and select “Run as administrator” option).
2. Please execute the next steps for the ActiveFlow Sample database which was installed with ActiveFlow Designer.

Configuration steps for the ActiveFlow database:

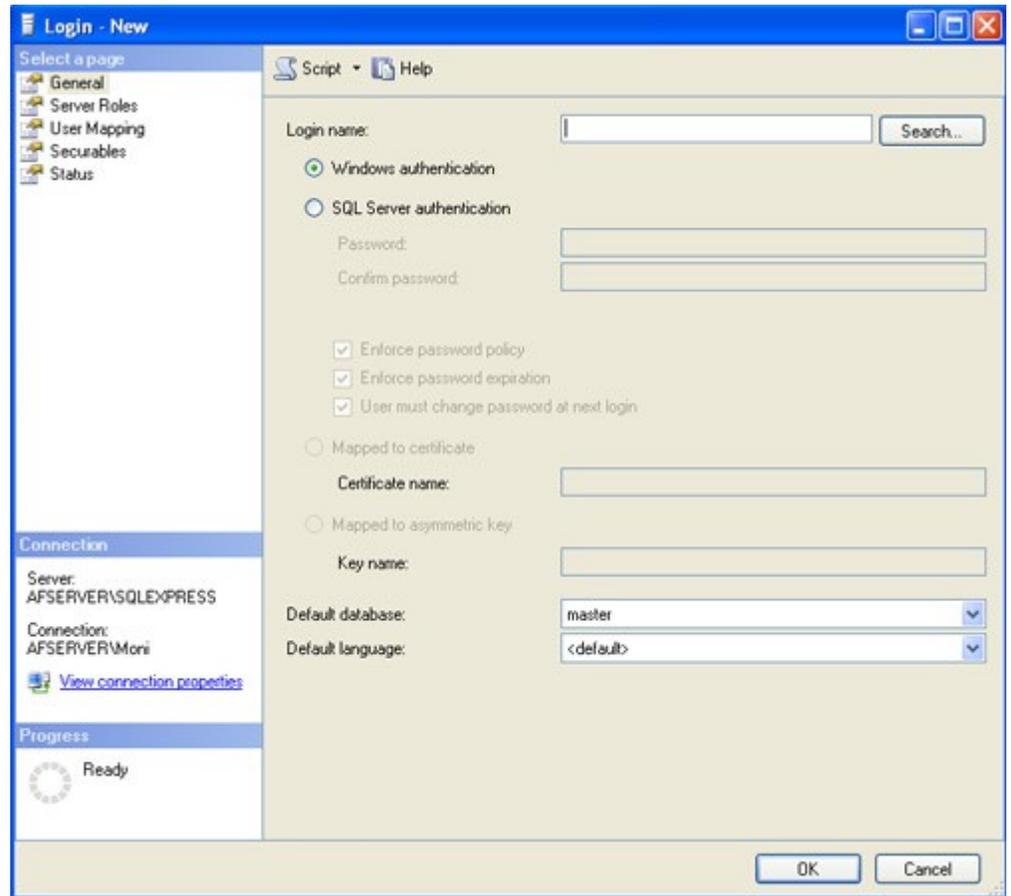
1. Allow the IUSR_AFSERVER (IUSR - for the Vista OS) user to login and access the ActiveFlow database:

- Open SQL Server Management Studio Express and select **New Login...** under the Security/Logins item.

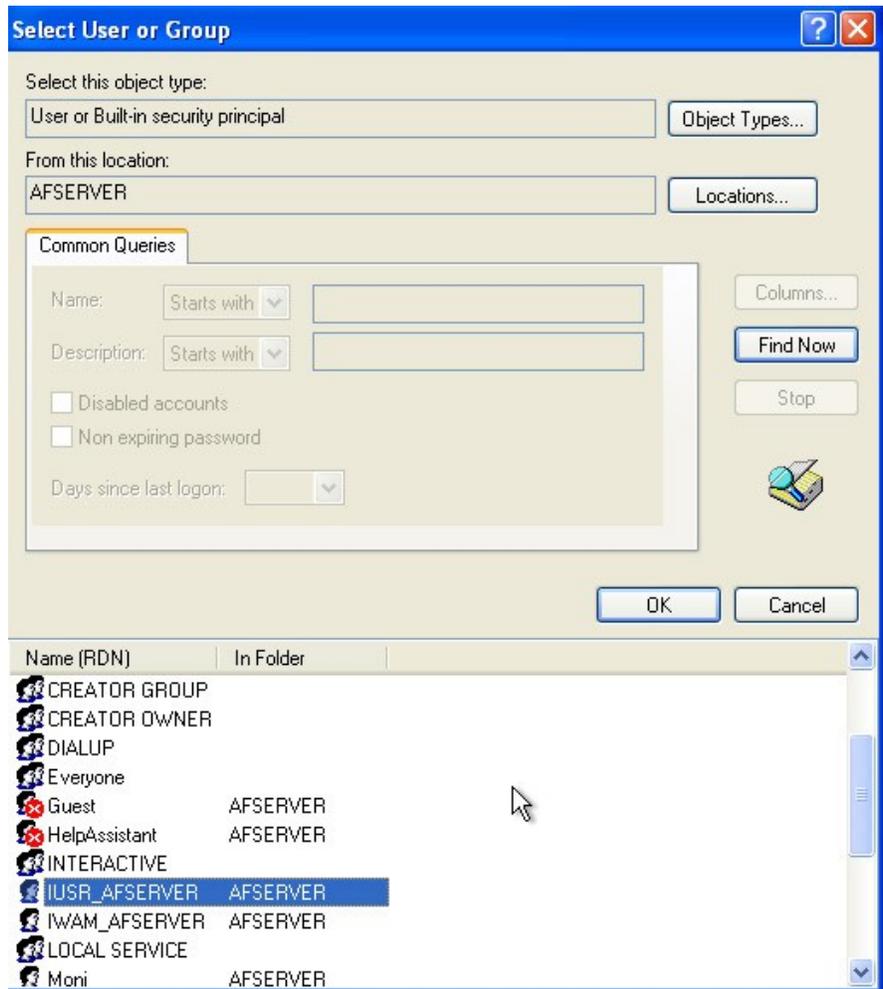


- Press the **Search** button next to the **Login Name** field

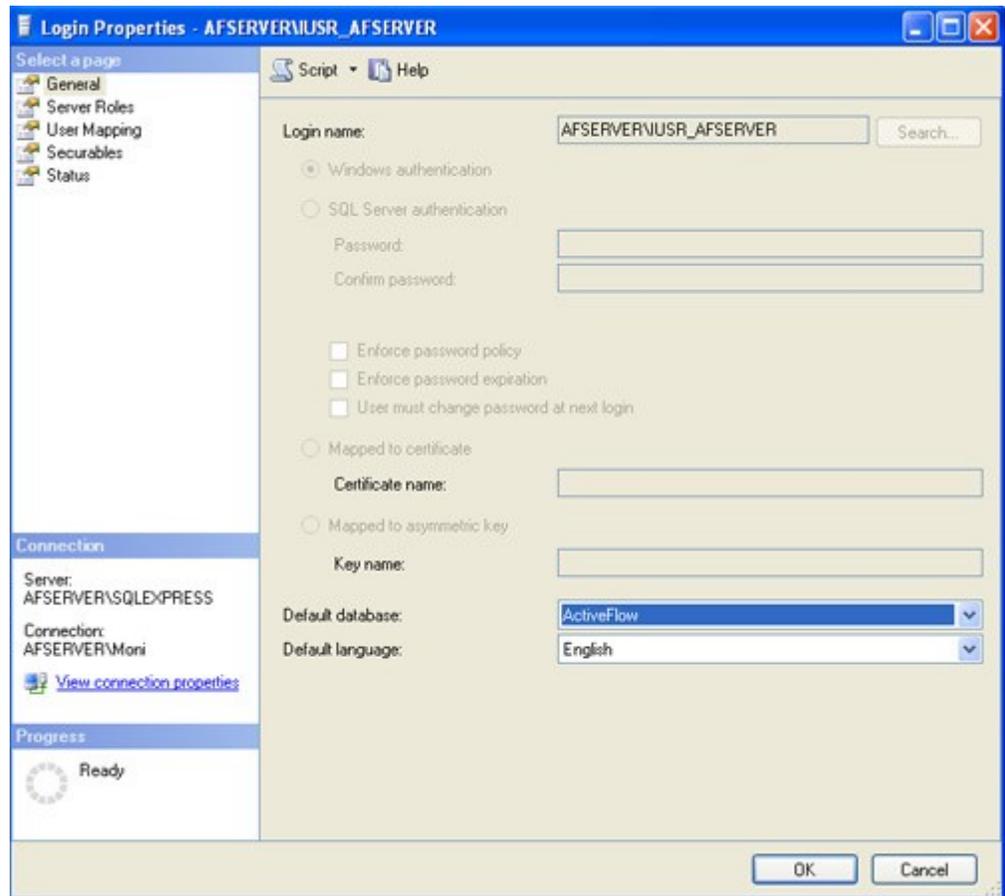
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- Select IUSR_AFSERVER user from the Names list.

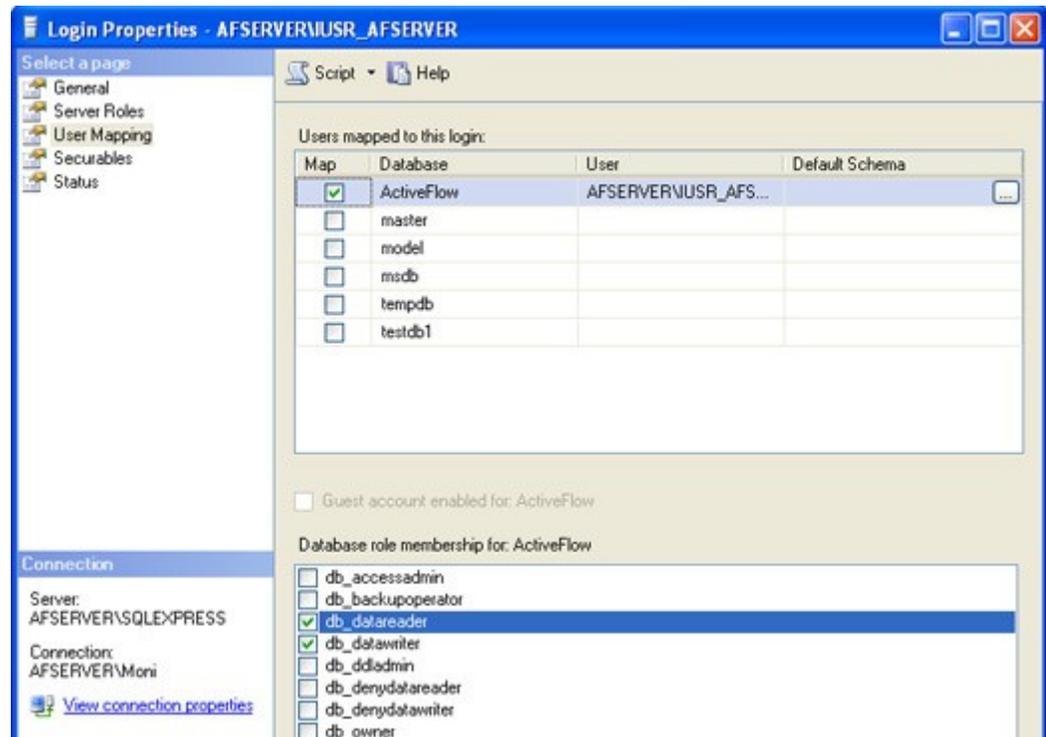


- Press the Add button and then OK
- Select the default database as *ActiveFlow*



- Press the *User Mapping* tab, select *ActiveFlow* database and then select *db_datareader* and *db_datawriter* in the Database roles list.

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- Press OK to close the dialog and validate the new user.

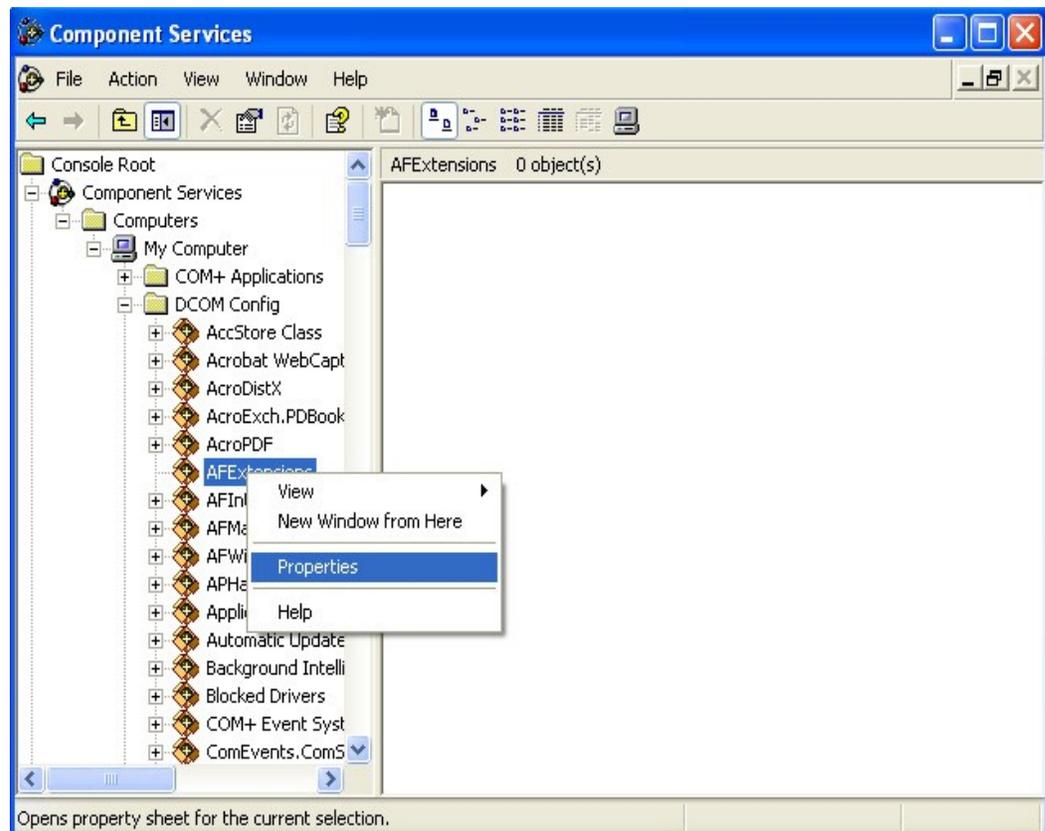
1.9 Configuring the AFExtension service

SECURITY CONFIGURATION

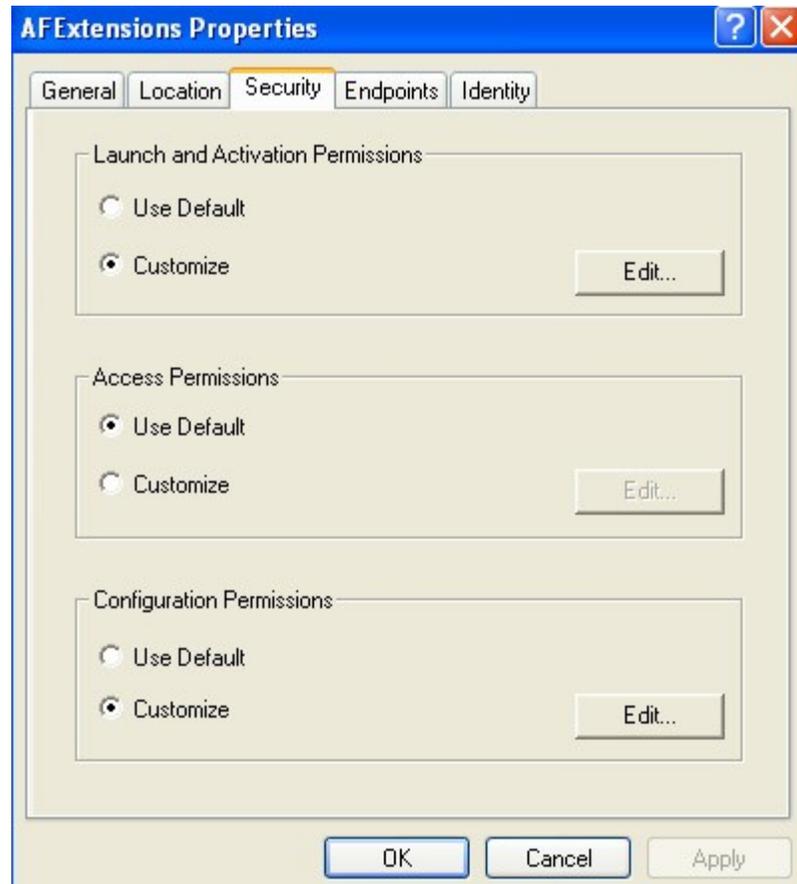
Note: This security configuration is not necessary anymore as it is done automatically by the installer. We kept these steps in the documentation just in case these security settings are altered and must be done manually. So you can skip the steps in this chapter (1.9)

Steps:

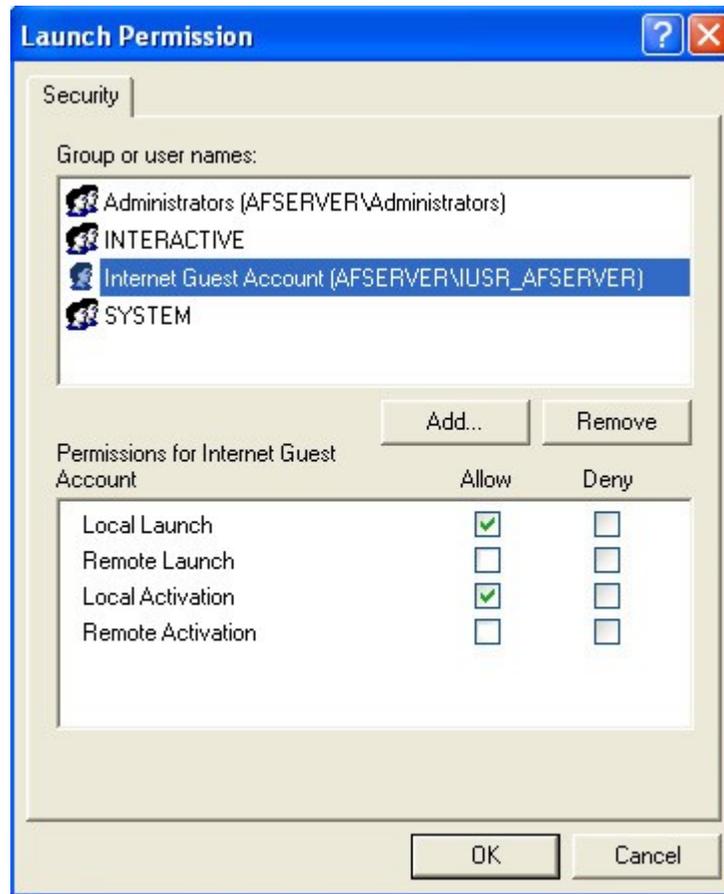
1. Make sure the IUSR_AFSERVER has access rights over AFExtension service.
 - Open **Component Services** from the Control Panel/Administrative tools.
 - Right-click on the **AFExtensions** item and select **Properties** from the drop-down menu.



- Select the **Security** tab, then the **Customize** radio-button in the Launch and Activation Permissions section.



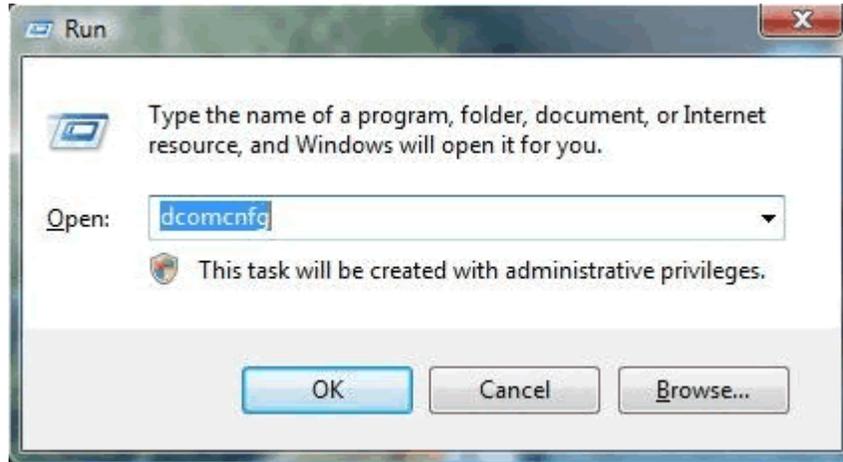
- Press the *Edit...* button
- Add the **Local Internet Guest Account (IUSR_AFSERVER)** in the list of users or groups.
- Give appropriate rights (**Local launch and Local activation**) to the **Local Internet Guest Account (IUSR_AFSERVER)** as in the following screen shot. Press **OK**.
- For NET workflows add the **ASP.NET Machine Account (ASPNET)** in the list of users or groups. If the operation is Windows Server 2003/2008 add **Network Service** instead.
- Give the same rights (**Local launch and Local activation**) as for Local Internet Guest Account.



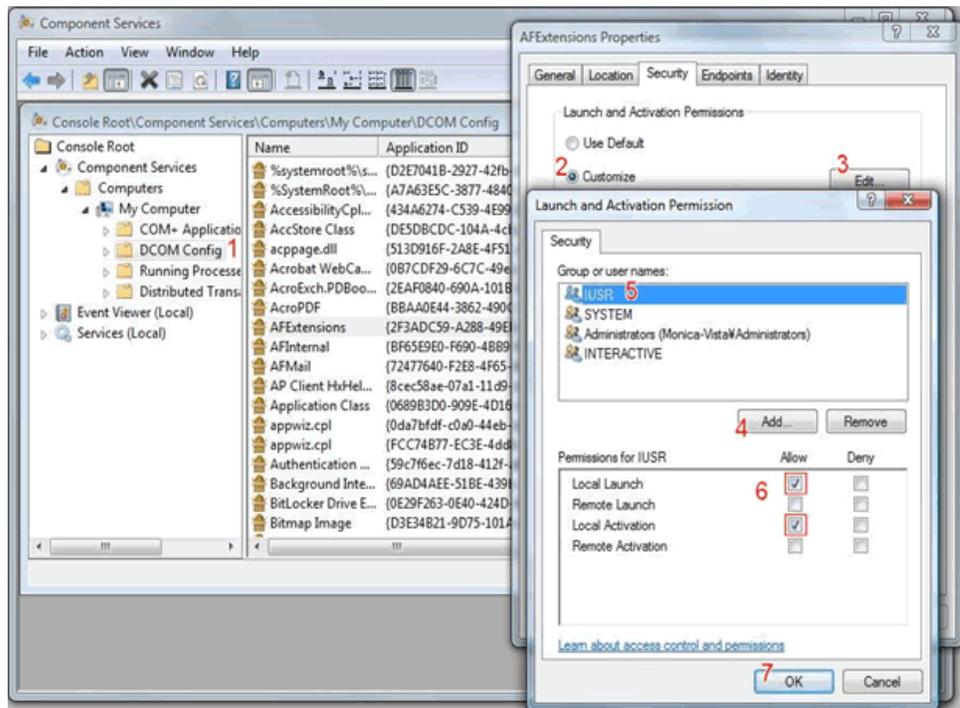
2. Repeat the steps above to set or verify also the Access permissions settings.

Configuring the AFExtension security for Windows Vista/Windows 7 and Win Server 2008

1. Under Vista , you can start the **Component services** manager by running the **dcomcnfg** command.



2. Then give launch and access rights to the IUSR user over the AFExtension service



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3. For .NET workflows add the ASP.NET Machine Account (ASPNET) in the list of users or groups. If the operation is Windows Server 2003/2008 add the **Network Service** user instead.

1.10 Running a Sample Workflow

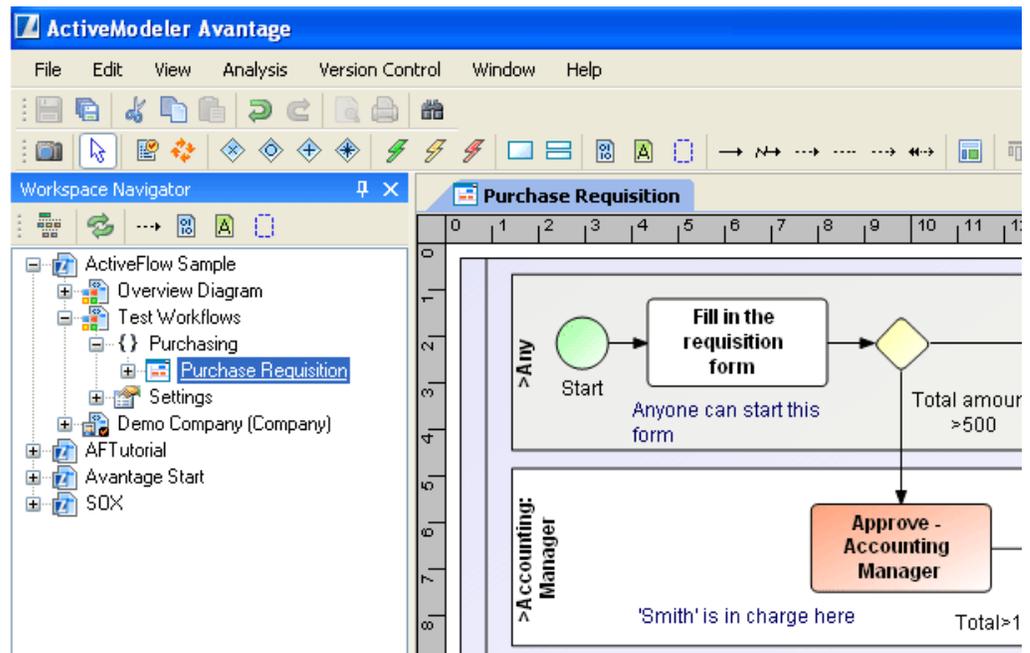
The ActiveFlow Designer installer inserted a sample workflow in the Navigator Workspace. It is for a Purchase Requisition.

What we show you in this chapter is how to get this workflow running on your system.

Let's take a look at it.

Step1 : Open the Purchase Requisition sample map

Go to the ActiveFlow Sample project and in the **Test Workflows** process model, open the **Purchase Requisition** diagram:

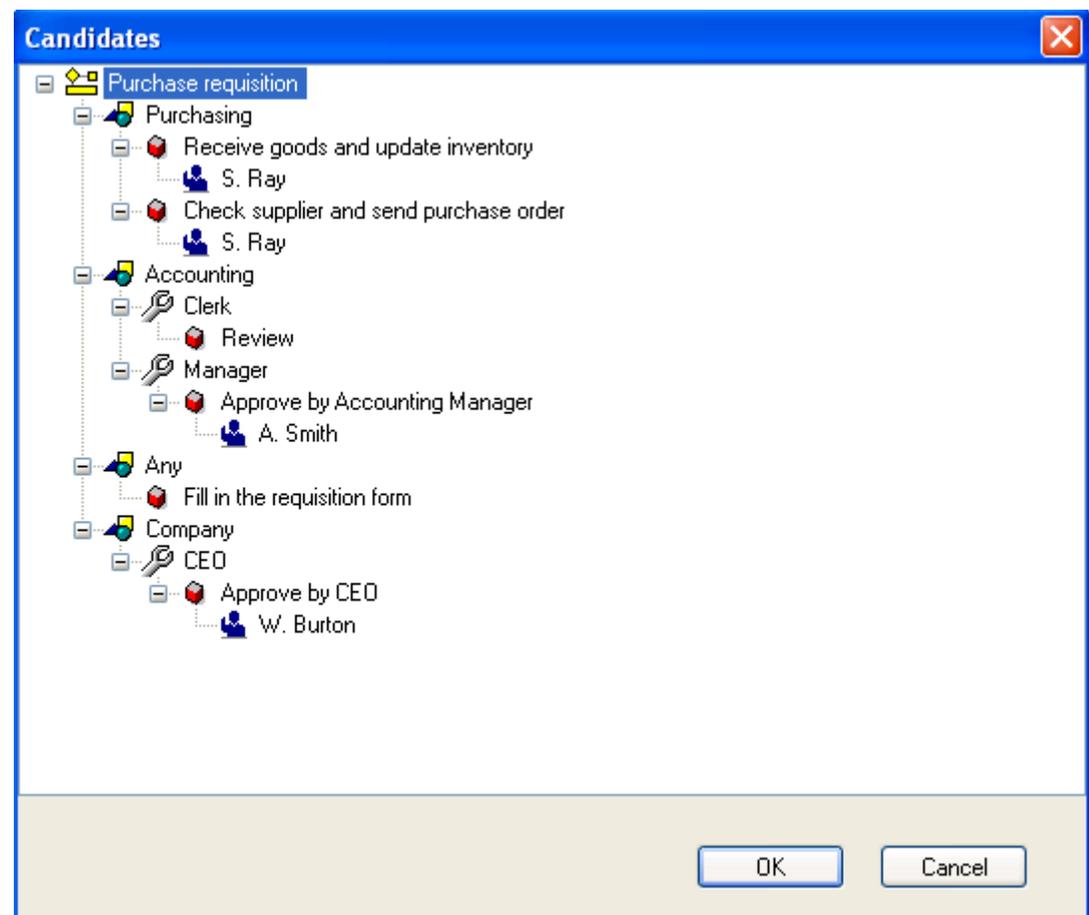


Step2 : View the organization structure for the Purchase Requisition sample map

The ActiveFlow Sample database contains the following organization structure:

Full Name	User ID	Department	Role
A. Smith	smith	Accounting	Manager
C. Scott	scott	Marketing	Market Resea...
D. Stan	stan	Human Resou...	Manager
I. Ross	ross	Human Resou...	Clerk
M. Almond	almond	Production	Manager
P. Rossi	rossi	Marketing	Manager
S. Dan	dan	Accounting	Clerk
S. Ray	ray	Production	Worker
T. Paul	paul	Accounting	Clerk
W. Burton	burton	Company	CEO

Right-click on the **Purchase Requisition** diagram and select **ActiveFlow->Candidates...** to see the users attached to the tasks.

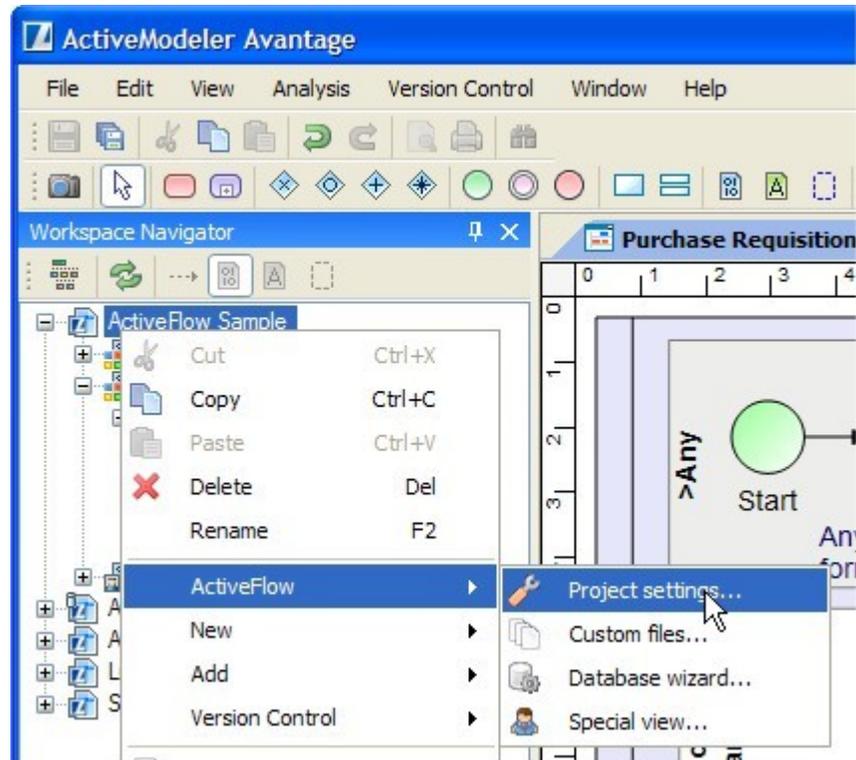


Step 3: Project settings

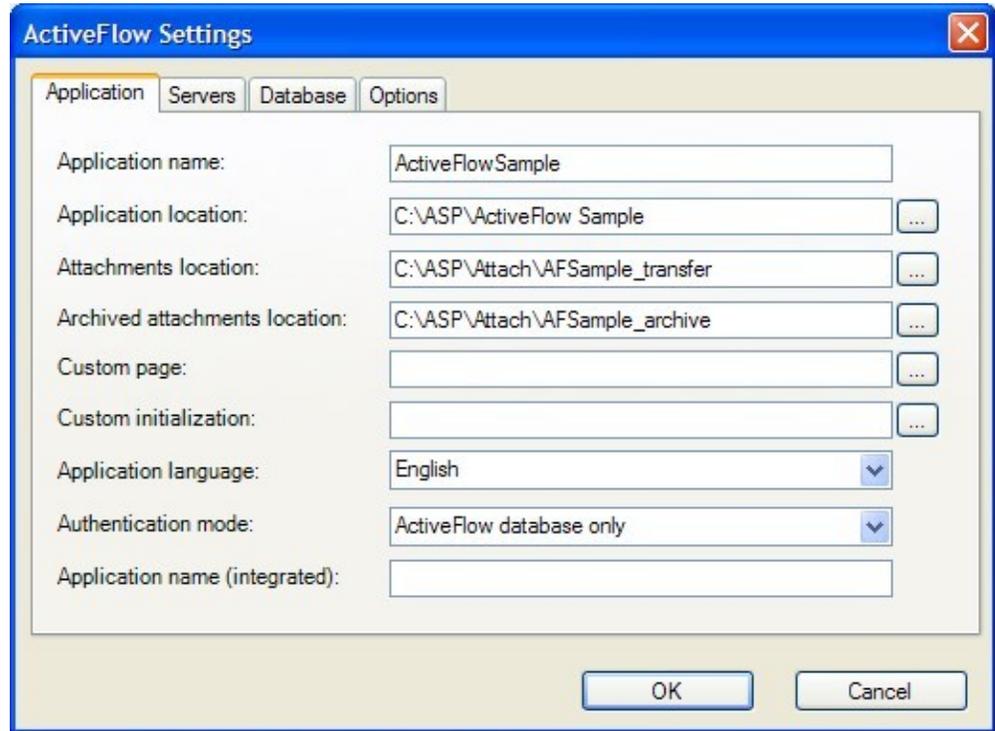
Note:

Make sure the Project settings suit your installation. Some of the fields may already be filled with the default preferences for the ActiveFlow Designer installer.

Right-click on the ActiveFlow Sample project and select **ActiveFlow-> Project settings...**



EDIT THE ACTIVEFLOW PROJECT SETTINGS – APPLICATION TAB



Application name	The name of the ActiveFlow web directory on the server. It will be used to create the web application URL.
Application location	The disk path of the folder on the server where the ActiveFlow files will be generated.
Attachments location	The local path on the ActiveFlow server that is used for attachments of the in progress workflows. Ask the server administrator if you don't know the local path on the server.
Archived attachments location	The local path on the ActiveFlow server that will be used for archiving files attached to archived workflows.
Language	Specify the ActiveFlow default language. The language used for displaying the Login page etc.
Authentication mode	Specify whether to use integrated authentication (ActiveDirectory) or not.

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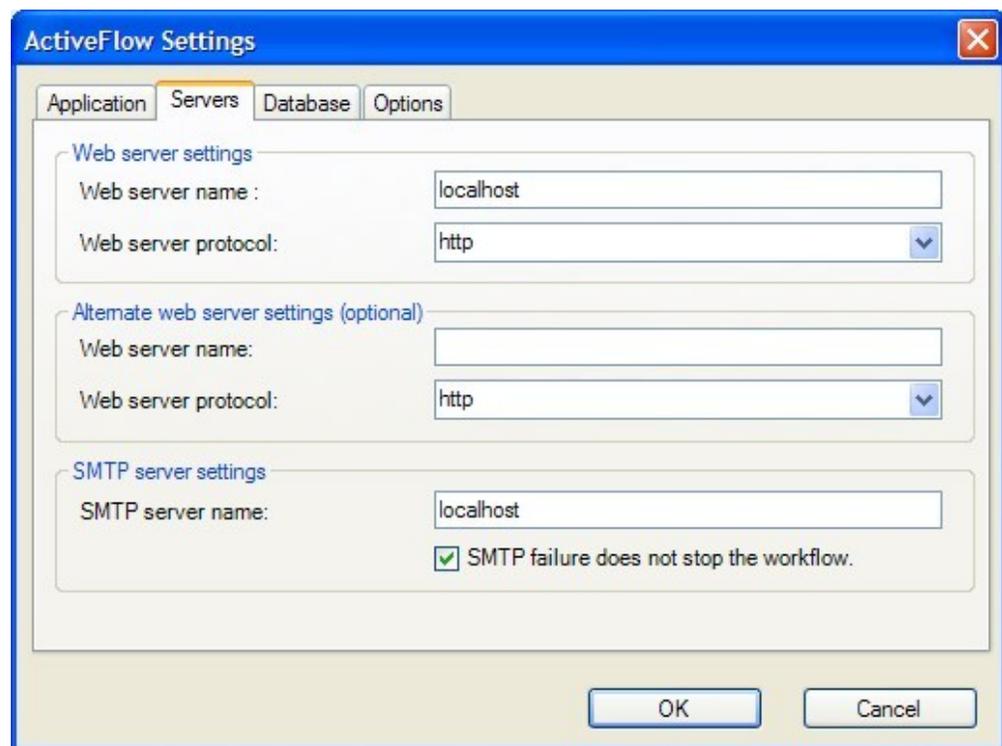
You can select another location and another folder name: D:\MyASP\Project. This folder and all the parents folder will be create automatically if they do not exist, when the workflow diagram is compiled.

The other folders must created by user:

- Attach/AFSample_transfer
- Attach/AFSample_archive

After the structure folder was created please give read/write permission to these folders(see chapter 1.6/step2).

EDIT THE ACTIVEFLOW PROJECT SETTINGS – SERVERS TAB



The screenshot shows the 'ActiveFlow Settings' dialog box with the 'Servers' tab selected. The dialog has four tabs: 'Application', 'Servers', 'Database', and 'Options'. The 'Servers' tab contains three sections of settings:

- Web server settings:**
 - Web server name: localhost
 - Web server protocol: http
- Alternate web server settings (optional):**
 - Web server name: (empty)
 - Web server protocol: http
- SMTP server settings:**
 - SMTP server name: localhost
 - SMTP failure does not stop the workflow.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

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Web server settings	
Web server name	The name of the web site where the ActiveFlow application is registered.
Web server protocol	The protocol used to access the web site where the Active Flow application is registered (HTTP or HTTPS).
SMTP server settings	
SMTP server name	The name of the SMTP mail server which can be used by ActiveFlow to send the e-mail notifications (optional).

EDIT THE ACTIVEFLOW PROJECT SETTINGS – DATABASE TAB

The screenshot shows the 'ActiveFlow Settings' dialog box with the 'Database' tab selected. The 'SQL Server' field contains '(local)'. Under 'Security', the 'Use Windows integrated authentication' radio button is selected. The 'Login name' and 'Server password' fields are empty. The 'Database name' field contains 'ActiveFlow Sample'. 'OK' and 'Cancel' buttons are at the bottom right.

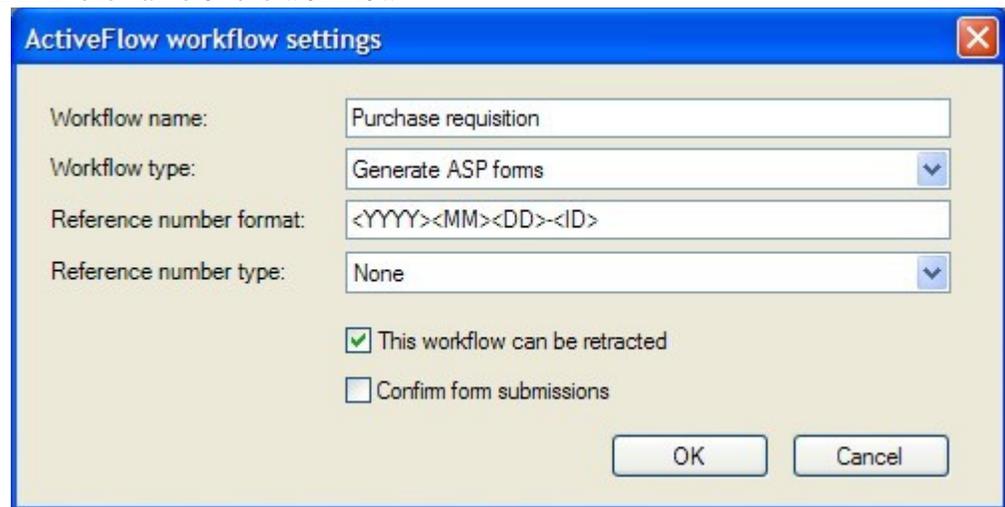
SQL Server	The name of the MS SQL Server installed on the ActiveFlow Server machine. Please fill this field with the SQL Server name.
Database name	The name of the database.

Step 4: Workflow wizard

Based on the workflow form the workflow wizard will generate an **asp** file for each task in the diagram and will copy it to the application directory defined in the **Server Settings** dialog.

In the “Workspace navigator” tree, right-click the **Purchase Requisition** diagram and select **ActiveFlow -> Settings...**

Fill in the name of the workflow.



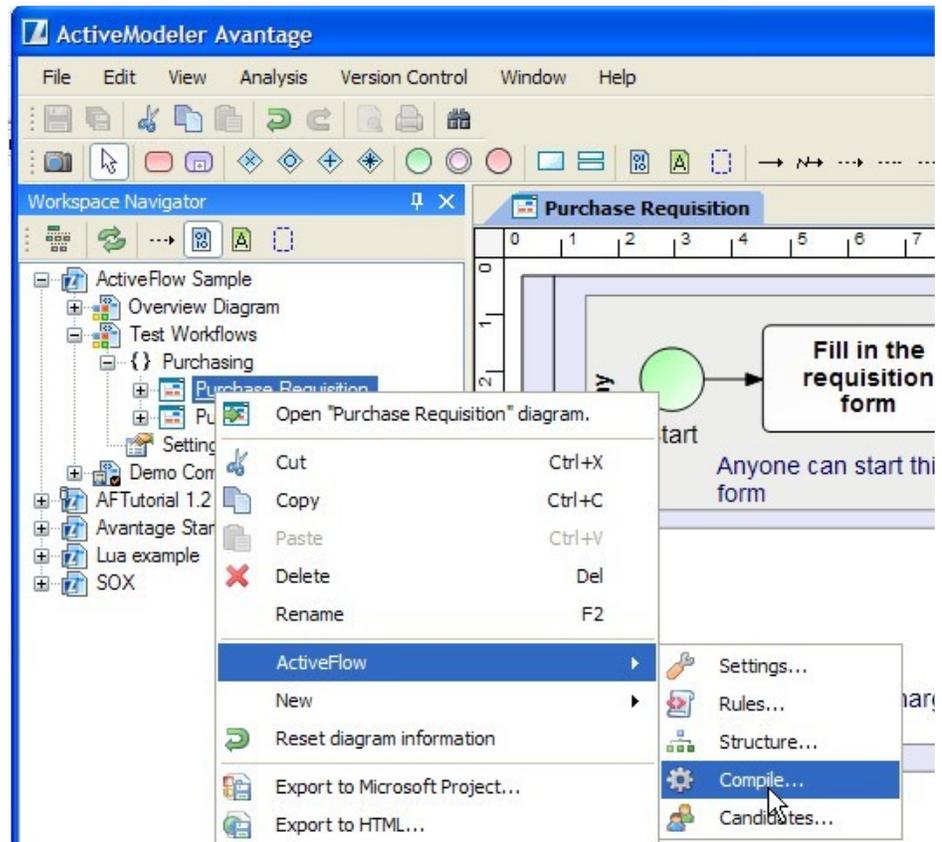
The screenshot shows a dialog box titled "ActiveFlow workflow settings". It contains the following fields and options:

- Workflow name:
- Workflow type:
- Reference number format:
- Reference number type:
- This workflow can be retracted
- Confirm form submissions
- Buttons: OK, Cancel

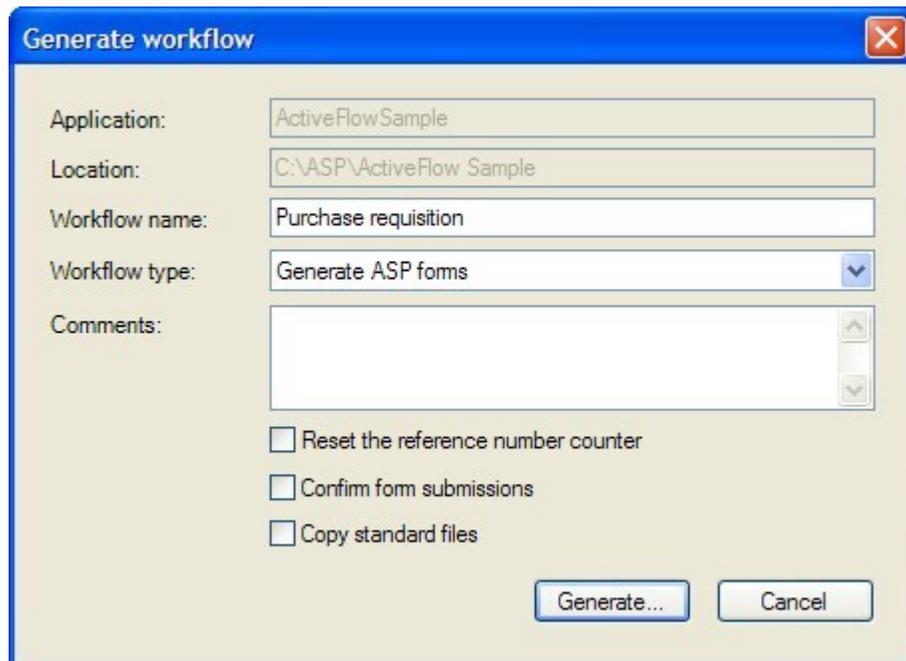
In order to run the workflow wizard:

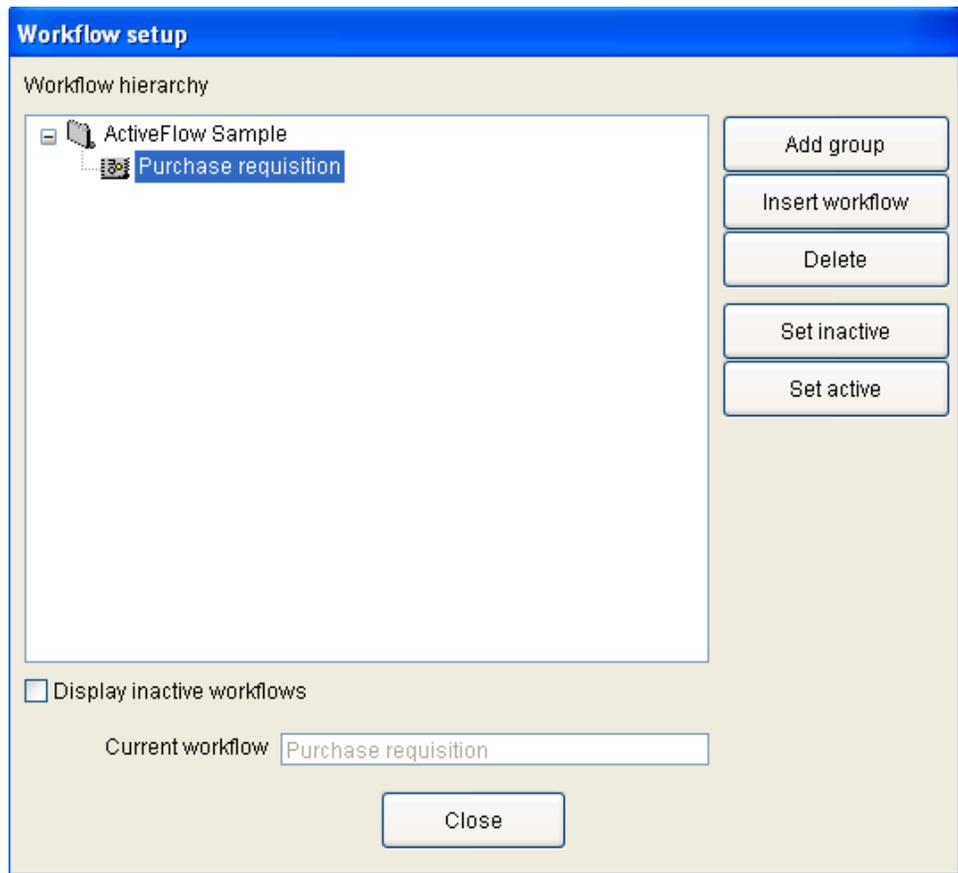
- Right click on the **Purchase Requisition** diagram in the Workspace Navigator
- Select **ActiveFlow > Compile...**

ACTIVEFLOW INSTALLATION GUIDE



- Run the workflow wizard by pressing **Generate...**





- Then press the **Close** button and wait for the wizard to complete.

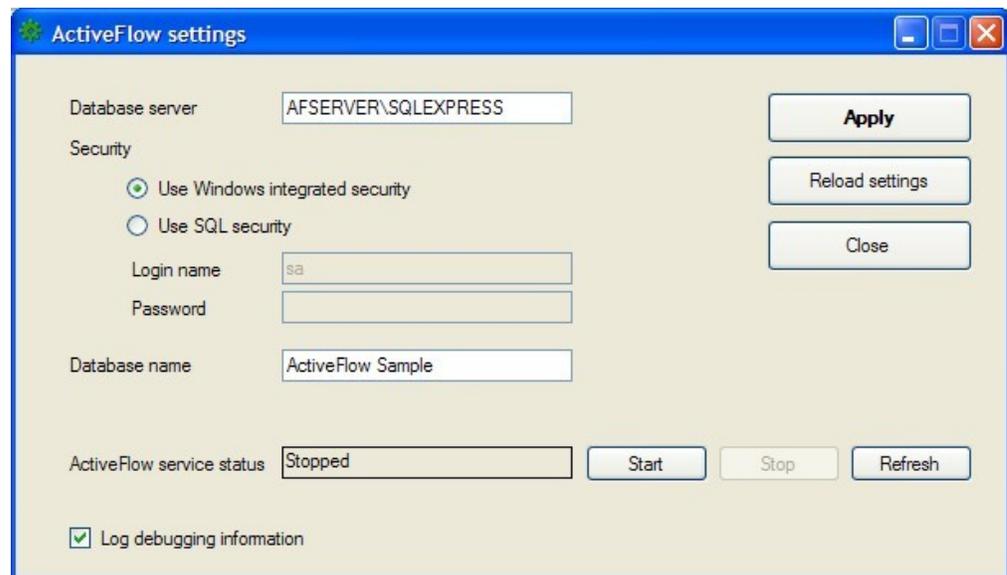


- Press **OK** button.

Step 5: Starting the ActiveFlow engine

Now that the workflow application has been generated with the Compile function we can go on and start using the application. We need to start the ActiveFlow engine for this:

- Go to **Start ->Programs -> ActiveFlow** and start the **ActiveFlow Server Settings** application. This is a small application used for monitoring the state and settings of the ActiveFlow server (AFExtension.exe). The following dialog will be displayed.



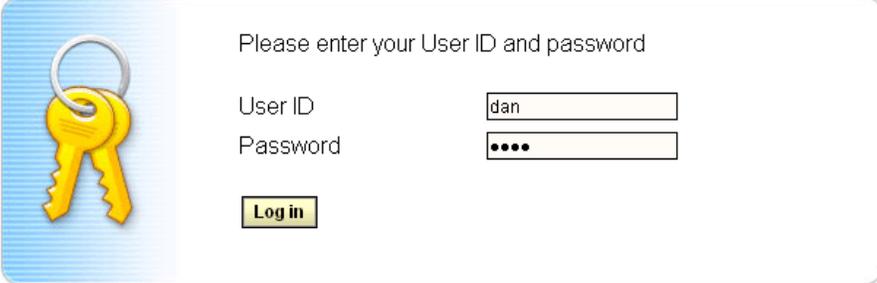
- Fill the fields and click **Apply**.
- Make sure the database server is running.
- Press **Start**.

Note for Vista:

You need to run the ActiveFlow Server Settings application as an administrator. (RH Click on it and choose “Run as administrator” option).

Step 6: Start using the workflow

- Open the URL <http://localhost/ActiveFlowSample> in the IE browser
- Log in with any valid ActiveFlow User ID. (i.e. dan/demo). All the users have a password of demo.
The Administrator User ID is Admin with a password of Admin

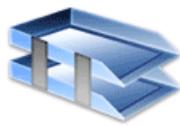


Please enter your User ID and password

User ID

Password

Go to the **Start New Workflow** page in the main menu and create a workflow form, then submit it. The electronic form will pass from one user to another according to the process definition and the users assigned to each task.



In-tray



Start new workflow



Enquiries



Special functions



Administration



Custom page