ASM 1.0

Installation, Configuration, and Use of the Application Services Manager

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Baan Development B.V.
P.O.Box 143
3770 AC Barneveld
The Netherlands

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About this document

This document is intended for system administrators who will install and manage the Application Service Management (ASM) on their network. This document provides the technical instructions and the required data to carry out the installation and configuration. To perform the installation, you need knowledge of your operating system and network configuration. In addition, you must have the basic skills to install software on server and client. This guide also includes all the information you must have to administer the ASM.

The guide contains the following chapters and appendices:

Chapter 1, “Introduction,” provides a brief introduction to the ASM.

Chapter 2, “Installation of the ASM server,” describes the installation process of the ASM Server.

Chapter 3, “Start the ASM server,” describes the setup and use of the ASM Server.

Chapter 4, “Installation of the ASM MMC snap-ins,” describes the installation process of the ASM configuration tools.

Chapter 5, “Configure services and instances,” describes how to configure the ASM Server.

Chapter 6, “To start and stop service,” describes how you can use the ASM to start and stop (Baan) application services

Appendix A, “Troubleshooting,” describes how to deal with error messages and other problems that can occur

Appendix B, “Configure from command line,” describes the use of the Command line.

Appendix C, “Preconfigured ASM configurations,” ASM provides some preconfigured configurations. This appendix also provides more information about these configurations.

Appendix D, “Uninstall,” describes how to un-install the ASM Server and the ASM configuration tools (MMC snapin DLLs).

Appendix E, “Environmental variables,” describes why and how to set environment variables.

1 Introduction

The Application Service Manager (ASM) is an administrative tool that you can use to start and stop iBaan ERP or other (partner) application services. You can predefine the application services that the ASM can start or stop in files in .XML format. An application service that you define with the ASM is called an instance.

NOTE ASM supports several types of instances. Some instances must be ASM-aware. ASM cannot handle instances that do not have this requirement. For example, the Multiple type must have an integration with the ASM server.

You can run ASM on the following platforms:

- Windows.
- UNIX and S/390.
- AS/400 as a batch interactive job.

The procedure to install and configure ASM consists of the following steps:

1. Install the ASM server.
2. Install the ASM snap-in.
3. Configure the ASM server.

Definitions, acronyms, and abbreviations

Term	Definition
API	Application Programming Interface
<home directory>	The ASM installation/home directory
ASM	Application Service Management
ASM Server	The ASM engine that handles start and stop requests and management requests
ASM Snap-in	A graphical user interface for managing the ASM that runs as a ‘snap-in’ in the MMC (Windows only)
GUI	Graphical User Interface
DLL	Dynamic Link Library: a library of executable functions or data that can be used by a Windows application
DNS	Domain Name Server
MMC	Microsoft Management Console
XML	Extensible Markup Language

The installation and configuration steps are described in greater detail in the following chapters.

2 Installation of the ASM server

The Application Services Manager (ASM) server consists of the ASM server and a client command line interface, asm_cli. For more information about the command line interface, refer to Appendix B, “Configure from command line.”

Several graphical user interface-based utilities are available to configure and manage the ASM server. These utilities are called the ASM configuration (UI) utilities, and run as a snap-in on the Microsoft Management Console (MMC). For information on how to use these utilities, refer to Chapter 5, “Configure services and instances.” The common line interface of ASM provides functionality similar to the MMC snap-in, AsmSnapin.

NOTE To use the ASM server, you must start the server, as described in Chapter 3, “Start the ASM Server,” and then configure the server after installation, as described in Chapter 5, “Configure services and instances.”

ASM software components

The following tables list all the ASM software components for Windows, UNIX, AS/400, and S/390 environments.

Windows NT/2000 files & directories	
Default installation directory of ASM Server components	%SystemDrive%\Program Files\Baan\Shared
ASM Server	<home directory>\bin\asm_srv.exe
ASM Command line tool	<home directory>\bin\asm_cli.exe
ASM Server DLL’s	<home directory>\bin\baanmsg.dll
ASM Server DLL’s	<home directory>\bin\benttool.dll
ASM Server DLL’s	<home directory>\bin\gentool.dll
ASM Server DLL’s	<home directory>\bin\msvcrt.dll
ASM Server DLL’s	<home directory>\bin\rexeccfg.dll
Default installation directory for ASM MMC snapin DLL’s	%SystemDrive%\Baan\Asm Snapin
<home directory> *Points to the ASM installation directory*	

UNIX and S/390 files & directories	
Default installation directory	/usr/baan/shared
ASM Server	<home directory>\bin\asm_srv
ASM Command line tool	<home directory>\bin\asm_cli
<home directory> *Points to the ASM installation directory*	

AS/400 objects, files & directories	
Default installation directory	/usr/baan/shared
ASM Server	<home directory>\bin\asm_srv-> ASM/ASM_SRV *PGM
ASM Command line tool	<home directory>\bin\asm_cli-> ASM/ASM_CLI *PGM
CL command & help panel group for ASM_SRV	ASM/ASMSERVER *CMD ASM/ASMSERVER *PNLGRP
Command processing program for ASM commands	ASM/ASMCPP * PGM
Utility & CL command for displaying standard terminal output	ASM/DSPOUT *PGM ASM/DSPOUT *CMD
Baan DSM Glue Layer conversion utility	QUSRSYS/DSMGLUE *SRVPGM
<home directory> *Points to the ASM installation directory.* *-> Indicates a symbolic link from QSH to the corresponding AS/400 object in the installation directory, which, by default, is ASM.*	

Installation of ASM server (Remote)

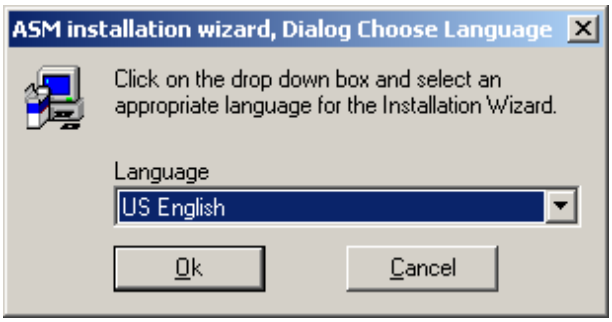
With the ASM Installation Wizard, in the setup folder on the ASM installation CD-ROM, you can install the software on computers that operate on various platforms, such as Windows and UNIX. The installation program, however, only runs on Windows.

The ASM Installation Wizard guides you through the installation process. To quit the installation at any time, click **Cancel**. Online Help is available on the **Help** menu (file help\ASM_EN.chm). Click **Back** to return to the dialog box for the previous installation stage, or click **Next** to proceed to the following stage.

To remotely install the ASM software, take the following steps:

1 Insert the CD-ROM. The autorun.inf file starts automatically. To manually start the setup program, double-click the Setup.exe file in the setup folder.

2 The **Choose Language** dialog box appears, as shown in the following figure:

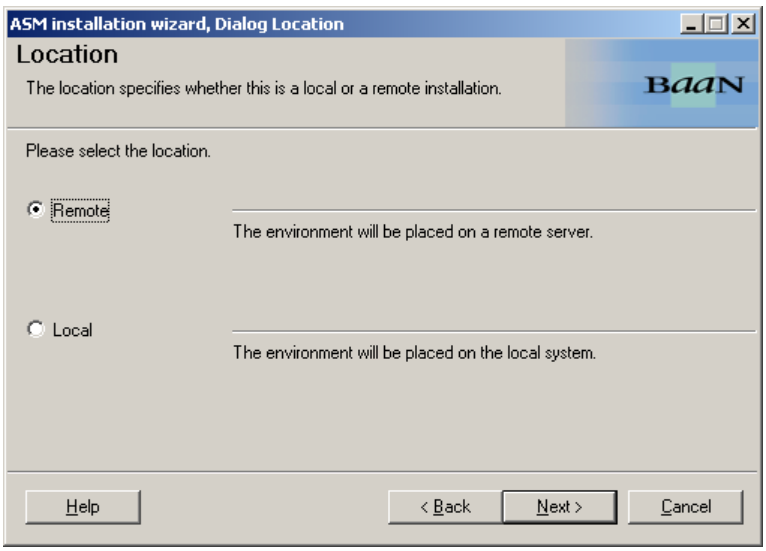


3 In the **Choose Language** dialog box, the language is set to **US English**. You cannot choose any other language, because US English is currently the only language available. Click **OK** to continue.

4 The **Welcome** dialog box appears, which tells you that ASM will be installed, that you are recommended to close all other programs, and that ASM is copyright-protected. Read this information and click **Next** to continue.

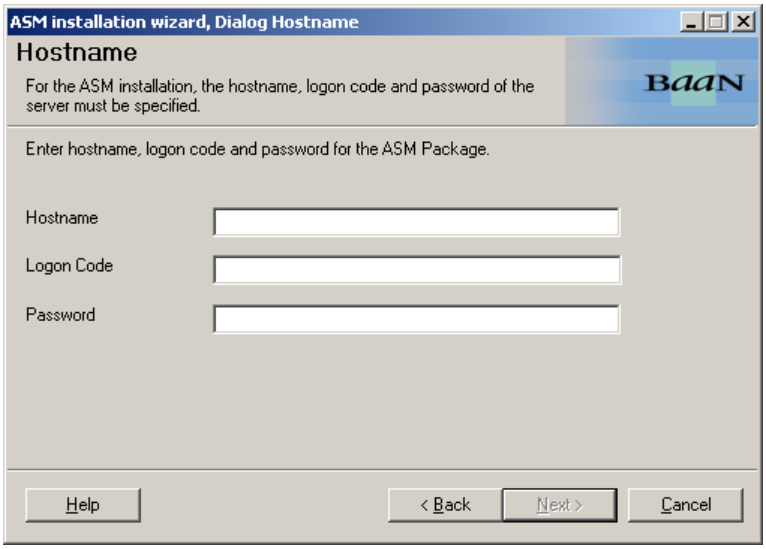
5 The **License Agreement** dialog box appears. This dialog box contains the software license agreement. Carefully read the text in the **License Agreement** dialog box. If you agree with all the terms in the license agreement, select **Accept** and click **Next** to continue.

6 The **Location** dialog box appears.



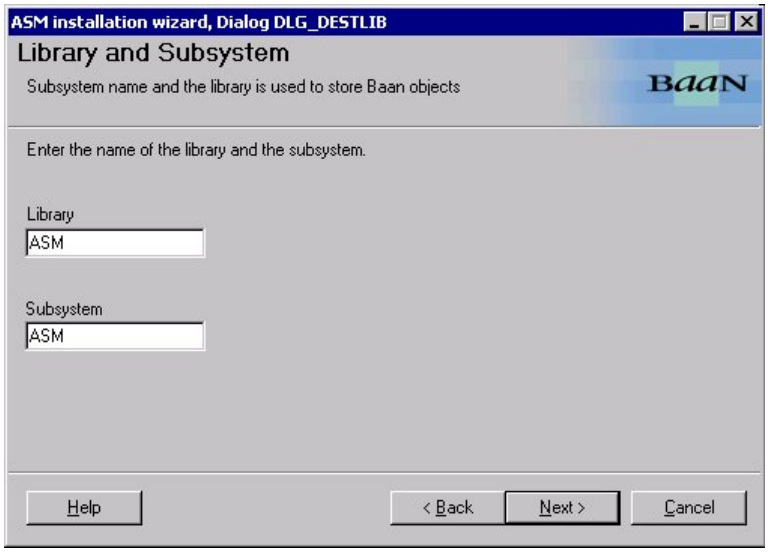
7 In the **Location** dialog box, you decide whether you want to install the software locally, on the computer where you run the ASM Installation Wizard, or on a computer in your network, a remote computer. In this procedure, you will install the software remotely. Select **Remote** and click **Next**.

8 The **Hostname** dialog box appears.



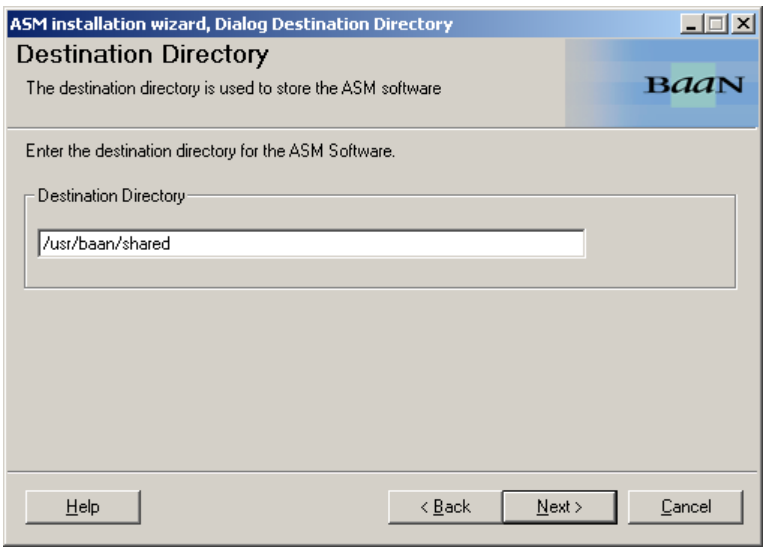
9 In this dialog box, you can specify the host computer on which the ASM software will be installed. The dialog box contains fields for the DNS name of this computer, the **Hostname**, and for a user name to gain access to this computer, the **Logon Code**. Click **Next** to continue.

NOTE If your remote machine is an AS/400, the **Library and Subsystem** dialog box appears:



The library and the subsystem will be created during the installation, if they do not already exist.

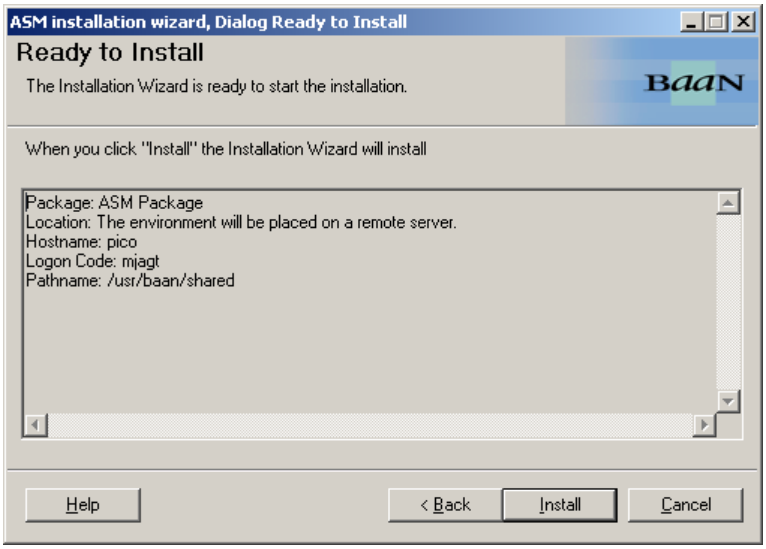
10 The **Destination Directory** dialog box appears.



In this dialog box, you can enter the path and the name of the directory in the **Destination Directory** field to determine to which directory you will copy the ASM software. This so-called installation directory, or home directory, of the ASM represents the root directory for all ASM software that you will install during this installation session.

11 Fill in the **Destination Directory** field and click **Next**.

12 The **Ready to Install** dialog box appears, which provides a summary of the installation settings:



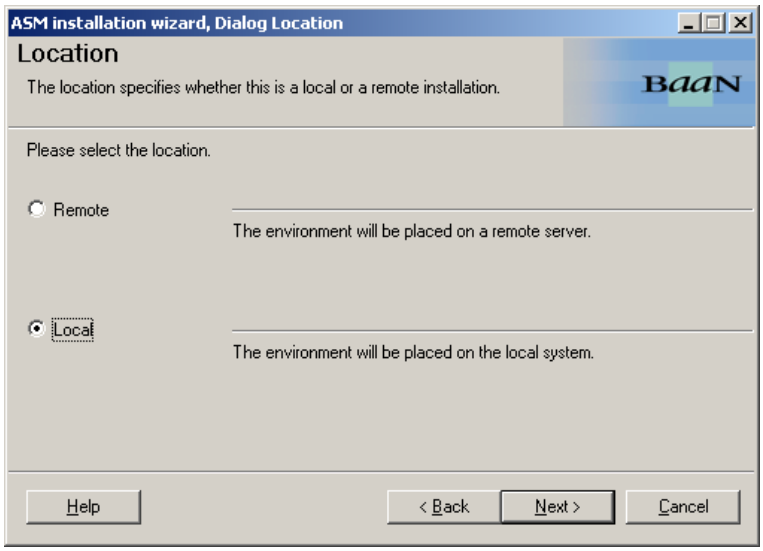
13 Carefully check whether the settings are correct. Next, click **Install** to copy the ASM software in the specified directory on the selected computer.

14 Finally, the **Completion** dialog box appears. Click **Finish** to complete the ASM Server installation.

Installation of ASM server (Local)

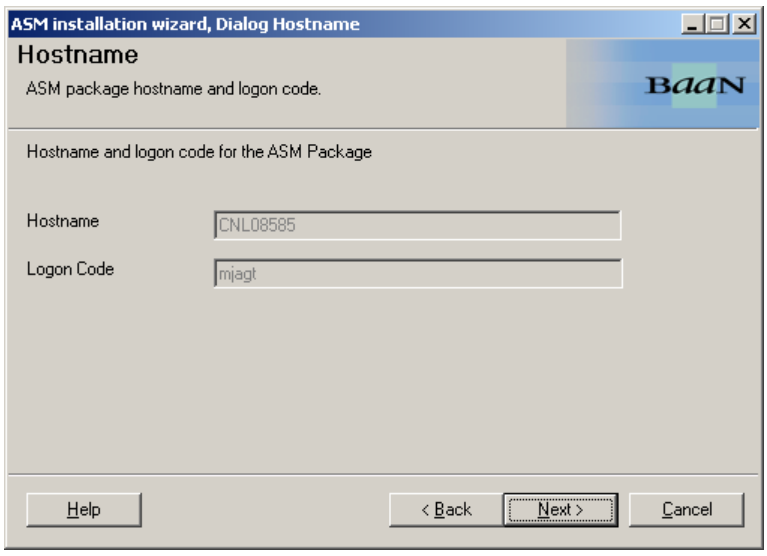
To install the ASM software locally, take the following steps:

1. Insert the CD-ROM. The autorun.inf file starts automatically. To manually start the setup program, double-click the Setup.exe file in the setup folder.
2. The **Choose Language** dialog box appears.
3. In the **Choose Language** dialog box, click **OK**. The language is set to **US English**. You cannot choose any other language, because US English is currently the only language available.
4. The **Welcome** dialog box appears, which tells you that ASM will be installed, that you are recommended to close all other programs, and that ASM is copyright- protected. Read this information and click **Next**.
5. The **License Agreement** dialog box appears. This dialog box contains the software license agreement. Carefully read the text in the **License Agreement** dialog box. If you agree with all the terms in the license agreement, select **Accept** and click **Next**.
6. The **Location** dialog box appears.



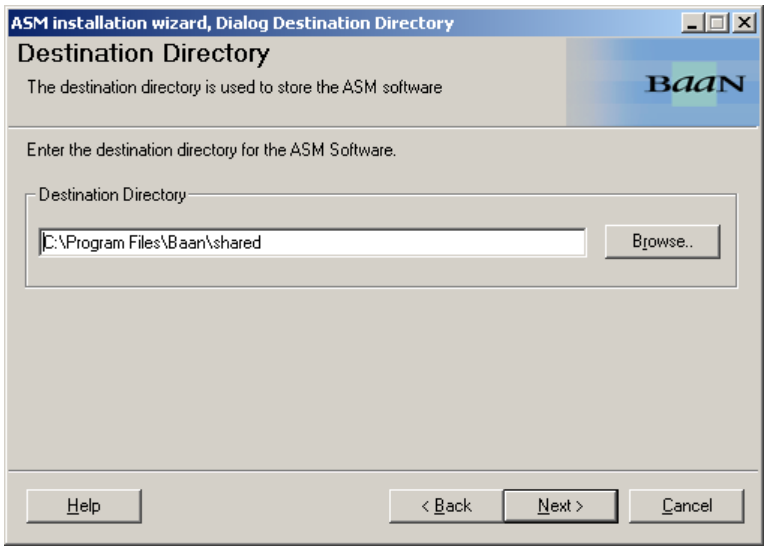
7. In this dialog box, you decide whether you want to install the software locally, on the computer where you run the ASM Installation Wizard, or on a computer in your network, a remote computer. In this procedure, you will install the software locally. Select **Local** and click **Next**.

8 The **Hostname** dialog box appears.



9 The Hostname and the Logon Code are already filled. Click **Next** to continue.

10 The **Destination Directory** dialog box appears, as shown in the following figure:



In this dialog box, you can enter the path and the name of the directory in the **Destination Directory** field to determine to which directory you will copy the ASM software. This so-called installation directory, or home directory, of the ASM represents the root directory for all ASM software that you will install during this installation session.

NOTE You cannot run more than one ASM server on Windows NT. If the ASM software is already installed and found during installation, the ASM software components will be updated. The previous ASM software version will be overwritten on the directory where the ASM server was installed. You must uninstall the existing ASM software before you can install the new software in another directory.

11 Click **Browse** to change the destination location, or click **Next** to accept the default.

12 The **Ready to Install** dialog box appears, which provides a summary of the installation settings. Carefully check the entered settings. Click **Install** to copy the ASM software in the specified directory on the selected computer.

13 Finally, the **Completion** dialog box appears. Click **Finish** to complete the ASM Server installation.

To update an ASM Server installation

If you want to update a previous ASM installation, some limitations are applicable.

On Unix:
To avoid writing permission errors in the directory, where ASM was already installed, it is recommended to let the user who did the initial ASM server install, runs the update.

It is also recommended to set all files of ASM (please check the table in chapter 2 with an overview of all ASM files) under **<home directory>\bin** and **<home directory>\lib** to writable. This is to prevent installation problems. If these files are not writable (even if the install will be done under the account of the user who did the initial ASM server installation), the update with the installer will fail. A work around for this problem is to perform the update as a superuser for example **root**.

On Windows:
It is not possible to install more than one ASM server on Windows. During an update of a previous ASM server installation it is not possible to choose a target directory anymore. The directory which was used for the first ASM server installation, will be reused (it overwrites the existing binaries and DLLs). Note that the configuration files will not be overwritten or removed. To install ASM in a different directory, you first need to uninstall the ASM server (please check Appendix D for more information.)

3 Start the ASM server

After you install the ASM server, you must configure the server. To be able to configure the server, you must start the server. The following section describes the procedure to start the ASM server.

To start the ASM server

The method to start an ASM Server on a UNIX, AS/400, and S/390 computer differs from that of a Windows computer. Some elements are common, while others are platform-specific.

The ASM Server runs as a daemon on UNIX and S/390, as a service on Windows NT or Windows 2000, and as a batch job on AS/400.

The server is represented by one single executable file, called **asm_srv**.

NOTE To run the ASM server on a UNIX platform, you must have a root or superuser authorization. Make sure that only authorized personal can run the ASM Server or ASM Cmd executables.

NOTE If you install the ASM server on AS/400, you must have *ALLOBJ and *JOBCTL special authorities. During the installation, the ASM user profile is created, and this user will own all the installed objects. Optionally, you can also create the ASM user profile with the previously mentioned special authorities before you start and run the installation as user ASM.

NOTE In all cases, including for Windows NT, UNIX, and S/390, the -home <home directory> argument is mandatory. For Windows, the installer will do this for you at default.

To run the server on UNIX, AS/400 or S/390

By default, the server runs as a daemon process. The **asm_srv** command starts a server that listens to incoming commands on the specified port. You can assign a port number by the '-p' parameter. If this number is omitted, the server uses the default port 7250. With the '-h', or '-?' argument, you can display Help information.

You can specify the following parameters in the **asm_srv** command on UNIX AS/400 and/or S/390:

-k	Stop server process (on UNIX).
-d	Debug info (verbose output) for daemon 'asm_srv' to stdout.
-p[ort] <*port number*>	Override default TCP/IP listening port.
-home <home directory>	Set program home directory for ASM server. This option is mandatory.
-? or –h[elp]	Display help/usage information
-info	Tells which protocols are available for daemon 'asm_srv'
-v	Version information

On AS/400, alternatively, you can use the ASMSERVER CL command from the installation library to start up the ASM server. The advantage is that the ASM server will run in its own subsystem, called ASM by default, which is more suitable for a batch job on AS/400, than running in the QINTER subsystem. Obviously, you can specify exactly the same parameters for ASM Server in both cases. The CL command also offers online Help.

The following command starts a server that uses the default port 7250:

```
# asm_srv –home /usr/baan/shared
```

The following command starts an ASM server that listens on port 7252:

```
# asm_svr –home /usr/baan/shared -p 7252
```

To stop the server, you can simply stop the daemon. Do not forget to add the port number parameter if the server does not use the default port:

```
# asm_srv –home /usr/baan/shared –p 6006 –k
```

NOTE Make sure that you start the server with the correct installation directory, provided in the –home <home directory> argument.

The first time you start the ASM server:

```
# ./asm_srv –home /usr/baan/shared
```

The following message will appear:

“asm_srv: ASM daemon failed to read/open one ore more configuration files. Please check ASM daemon configuration.”

You can ignore this message. If the server is running, you can verify with the following command:

```
# ps -ef | grep asm_srv

root 10598 1 0 Jan 7 ? 0:00 /home/bw/root/asm/bin/asm_srv -home /home/bw/root/asm -p
7150
root 13944 1 0 Jan 2 ? 0:00 /home/root/bin/asm_srv -home /home/root –d
root 26663 1 0 11:26:27 ? 0:00 ./asm_srv -home /usr/baan/shared -p 7252
```

To run the server on Windows

At default, the installer configures the ASM server. The ASM server is installed as a Windows service. The ASM Server Service is automatically started when a system is rebooted. To stop the ASM Server Service, you can use the Microsoft Windows Service Manager.

The manual configuration of ASM server on Windows NT is only required if:

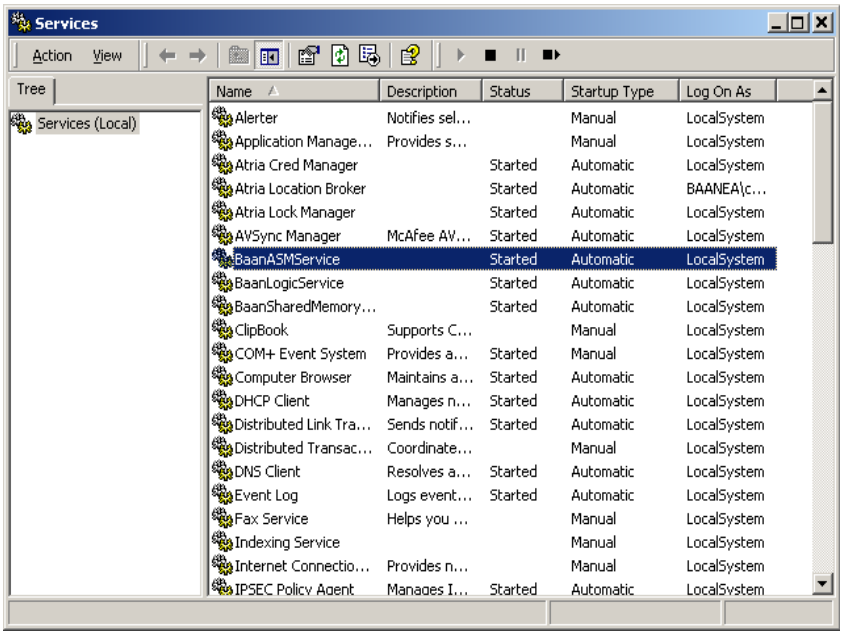
- You want to run ASM server from a different port number.
- You must run ASM server in debug mode for verbose output.

In these cases, you must start and configure ASM server from the command line. For UNIX, you must use command line options to start ASM.

To start the server on Windows

The ASM service will also be started after a reboot of the system. To start, stop, or disable the ASM server, use the Windows NT service manager, as follows:

Click **Start ➢ Programs ➢ Administrative Tools ➢ Services.** The following screen appears:



Manual startup of the server on Windows

For settings other than the defaults, such as occasional maintenance, and in case of, for example, troubleshooting, you must use different command line options. You must start the ASM server once from the command line, rather than use the Services Manager. After you start the ASM server once with the required arguments, the arguments will be remembered the next time you start the ASM server, either by command line with (only) the –start argument, or by the service manager.

The following table provides the available command line options:

-start	Start asm srv service (if installed)
-stop	Stop asm srv service (if installed)
-install	Install asm srv service
-remove	Remove asm srv service
-p[ort] <*port number*>	Override default TCP/IP listening port.
-home <home directory>	Set program home directory for ASM server. This option is mandatory.
-?, –h[elp]	Display help/usage information
-d	Debug info (verbose output) for daemon ‘asm_srv’ written to (typically) %SystemDrive%\winnt\temp\asm_srv.log.
-info	Tells which protocols are available for daemon 'asm_srv'
-v	Version information

To change the -home parameter, you must stop the ASM server. Change the -home parameter and restart the server with this new –home parameter.

NOTE If no additional arguments are provided to the start-stop or install command, the arguments of a previous call will be used. If the arguments were provided once, then these arguments are used after a reboot or by means of the Control Panel, or if manual, these arguments are used from the command line.

NOTE When you use the –d option, additional events are written in the Event Viewer, for example, the location of the debug file is also shown in the Event Viewer. Check the events in the Event Viewer when the ASM server is started with the -d argument.

4 Installation of the ASM MMC snap-ins

The user can only perform the installation of the ASM UI snap-in on the client computers if the following system requirements are met:

- Windows NT version 4.0 or later.
- MMC version 1.2 installed locally

In addition, if you want to actually use the snap-in, the ASM server must also be available, either locally or on a remote computer.

Installation of MMC (version 1.2)

The Microsoft Management Console (MMC) can assist the administration of Microsoft Windows NT, 4.0 and later versions, by providing a common-console framework that hosts various management tools called snap-ins. Baan created the following two ASM snap-ins:

- ASM Cfg snap-in.
- ASM Snap-in.

Both Snap-ins, are implemented as an MMC snap-in and use the Microsoft Management Console version 1.2. Before you install this ASM snap-in, make sure that MMC 1.2 is available.

MMC is part of the Microsoft Platform Software Development Kit (SDK), and runs on Windows NT or Windows 2000. The MMC is available for general use, and on Windows 2000 the MMC is installed as the standard. If MMC 1.2 is not available on your system, you can download and install this application directly from the following Microsoft Support Web page:

http://support.microsoft.com/support/mmc/MMCus12.asp

In addition to the link to the MMC installation file **Immc.exe**, a self-inflating file of 3 MB. This Web page also includes system requirements and the download/setup instructions. The setup program directs you through all the installation steps. The executable file of MMC is called **Mmc.exe** and will be saved in the System(32) folder of your Windows or WinNT directory.

Baan snap-ins for MMC

Snap-ins are the individual management components loaded into the MMC as tools to help you perform administration tasks. The following ASM snap-ins are available for the MMC:

- ASM Cfg snap-in:
  With this snap-in you configure instances and services. It requires a manual installation.
- ASM Snap-in:
  With this snap-in you can monitor, start or stop the instances. It requires a manual installation.

Before you can use an ASM snap-in, you must perform the following procedures:

1 Install the ASM snap-in onto your computer.
2 Load the ASM snap-in onto an MMC.
3 Save the MMC with ASM snap-in to a MMC console file (optional).

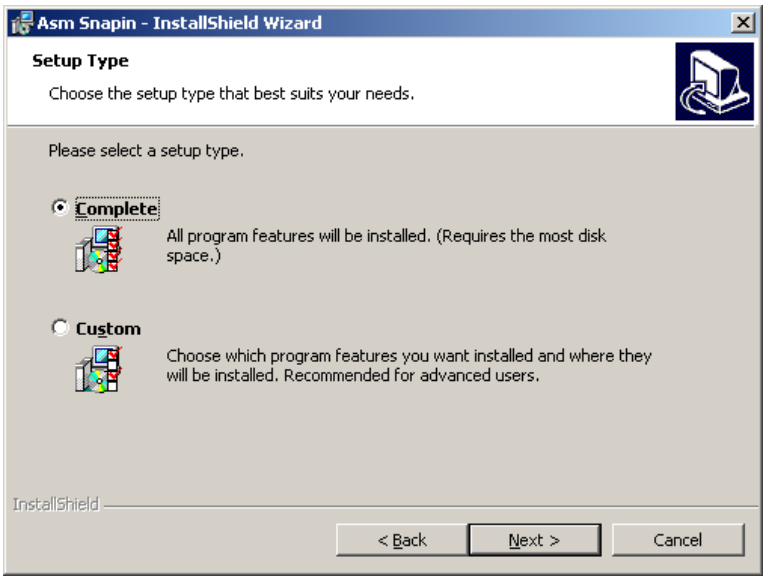
Each of these procedures is described in the following sections.

Installation of the ASM Snap-in

The Setup.exe file in the MMC directory of the ASM installation CD-ROM installs the ASM UI snap-in on a client computer. To start the installation process, take the following steps:

1 Double-click the **Setup.exe** file to start the first dialog box of the ASM – InstallShield Wizard.

2 Click **Next** in this first dialog box. The **Setup Type** dialog box appears, in which you are asked to choose between either a complete (default) installation or a customized installation.



NOTE A customized installation enables you to change the directory in which the files of the ASM snap-in must be stored.

3 Select **Complete** and click **Next**. The wizard is now ready for installation and the wizard will place the ASMSnapin.dll library in the following directory:

```
%SystemDrive%\Program Files\Baan\Shared\bin
```

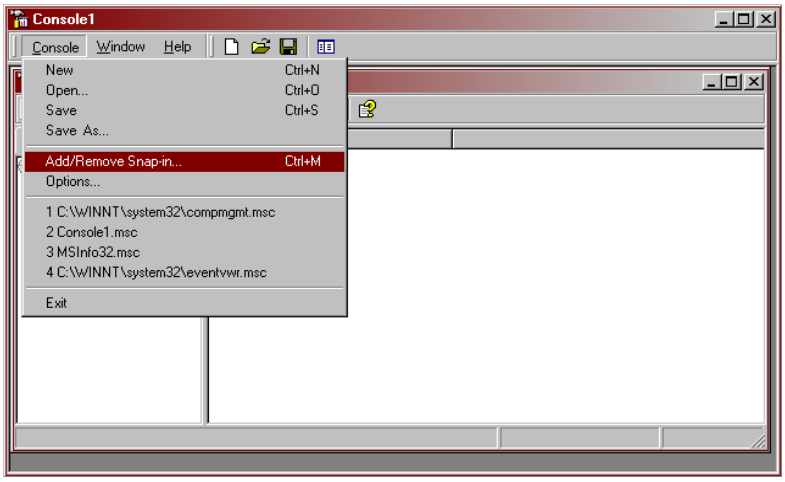
4 Click **Install** to start the installation. The wizard copies the ASM Snap-in software to the computer. After a few moments, a dialog box appears which informs you that the InstallShield Wizard has successfully installed the ASM snap-in.

5 Click **Finish** to complete the installation and exit the installation program.

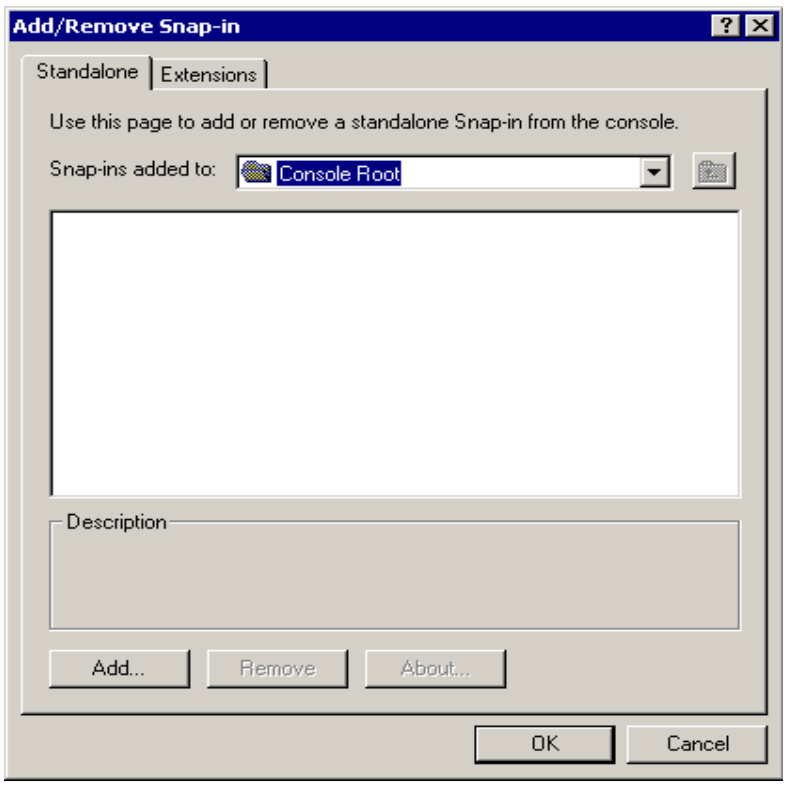
To add the ASM snap-in to MMC

Before you can start the ASM snap-in, you must add the ASMCfgSnapin.dll and ASMSnapin.dll to your Microsoft Management Console (MMC). The ASM UI snap-in is a management console (a Dynamic Link Library or DLL file) that runs on Microsoft Management Console. To add the snap-in to your MMC console framework, you must first take the following steps:

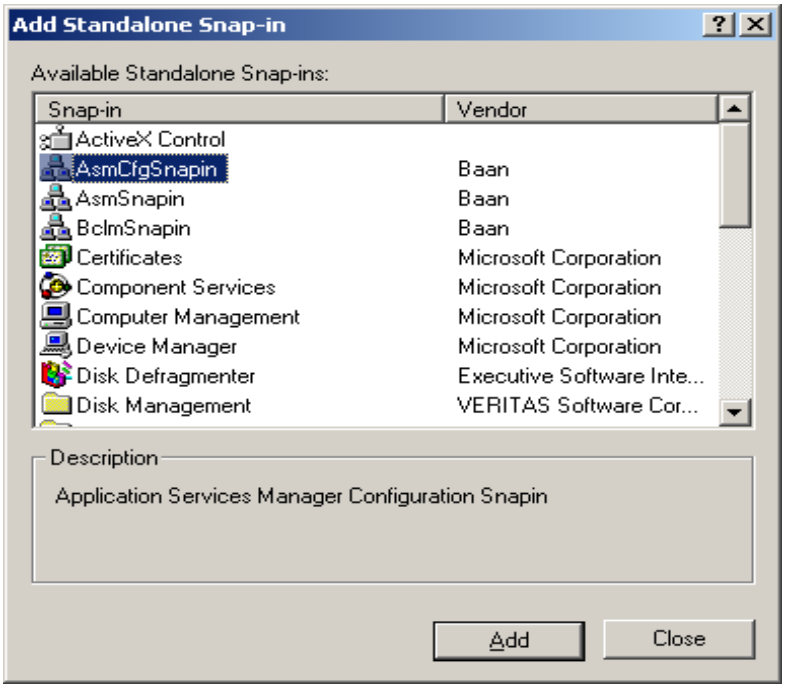
1. On the **Start** menu, click **Run…**. In the dialog box that appears, which is the **Run…** dialog box, enter **mmc**.
2. On the **Console** menu, click **Add/Remove Snap-in…** . The Add/Remove Snap-in window appears.



3 In the **Add/Remove Snap-in** window, on the **Standalone** tab, click **Add**.



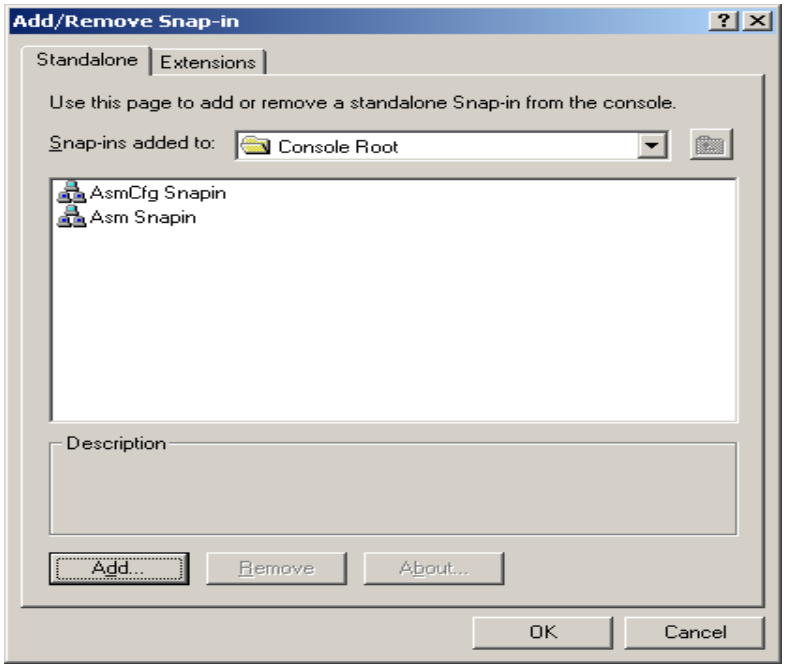
4 The **Add Standalone Snap-ins** dialog box appears, which displays the snap-ins installed on your machine that you can add to your MMC console



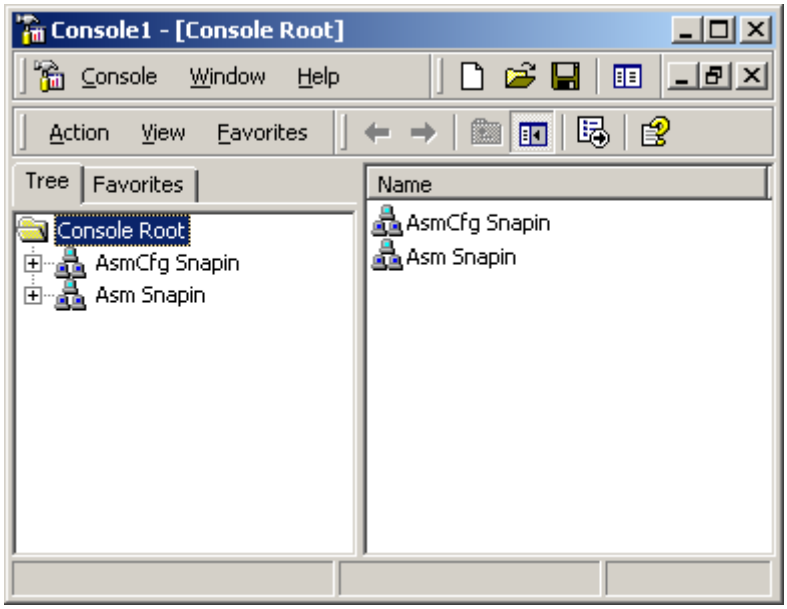
5 Select the snap-in you want to add, which in this case is **AsmSnapin** or **Asm Cfg Snapin**, to the MMC, and click **Add**. This adds the snap-in to the **Add/Remove Snap-in** dialog box.

NOTE With a snap-in selected, each click of the **Add** button adds another snap-in to the **Add/Remove Snap-in** dialog box.

6 Click **Close** to close this dialog box. The **Add/Remove Snap-in** dialog box displays your selected snap-in(s).



7 Click **OK** to return to the MMC console. The AsmSnapins are added to your MMC framework.



8 To save your MMC with added ASM snap-in(s), select, **Save**, or **Save As…,** from the **Console** menu. This saves your console as an MMC console file, with the extension .msc, and enables you to use the console in the future without having to repeat the setup procedure.

NOTE When you save the snap-in settings, Windows saves the settings by default in the directory Start Menu\Programs\Administrative Tools of the client-user. In that case, to start the snap-in, you must choose the snap-in from the Administrative Tools on the **Start** menu.

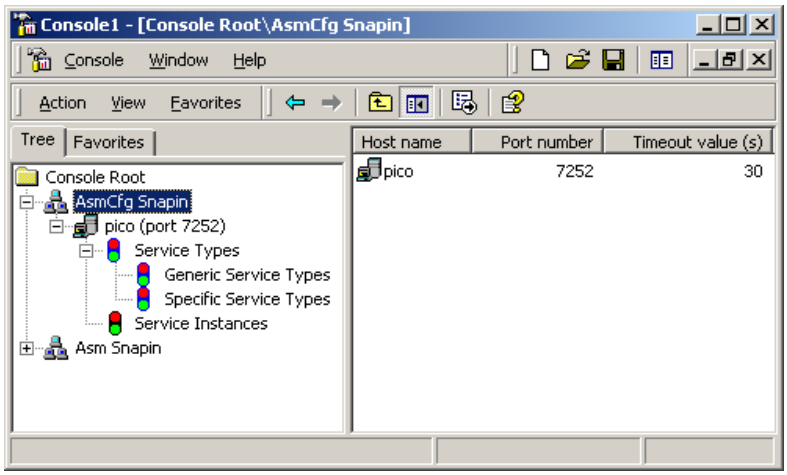
5 Configure services and instances

The ASM server must be configured after installation, so you can use ASM to start or stop services or sessions. To create services or sessions, you must use UI-based utilities on a Windows system. The user interface of Application Service Management (Manager UI) consists of a graphical ASM snap-in that runs on the Microsoft Management Console (MMC).

Overview

With the ASM Cfg snap-in, you can manage the data related to servers and some configuration settings of the ASM, such as the servers that are currently being used.

The snap-in uses a two-pane view that is similar to the Windows Explorer. The console tree is used for navigation and selection and represents the hierarchical structure in which the data are stored. This tree appears in the left hand pane, which is called the **Scope** pane. The **Detail** or **List** pane at the right-hand side shows the content of what has been selected in the **Scope** pane. The following figure shows the two panes of the ASM Snap-in with an unfolded console tree:



The console tree contains nodes and items. Nodes are composite and consist of other nodes or items. You can compare nodes to the folders in the Windows Explorer. Items are simple components at the lowest level of the console tree, which do not contain other elements. Items are similar to the files in the Windows Explorer.

Items are only visible in the **Detail** pane. All items have properties or attributes that are displayed as columns in the detail pane. To adjust the column width, you can drag the margins of a column with the mouse. To sort a column, you can click the column's header, and, with the **Choose Columns** command in the **View** menu, you can pick the properties that you want to see.

Action menu

The **Action** menu contains a number of commands for the nodes and items in the console tree. The commands that are available on the menu depend on what you select. The same commands are available in the shortcut menu that appears when you right-click the node.

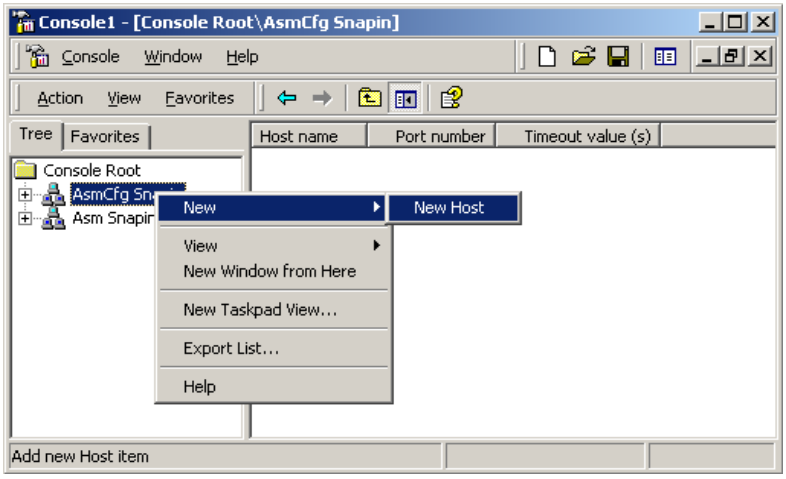
Nodes can also have properties, although not necessarily. Both items and nodes can have tasks and various other features.

To configure the ASM server

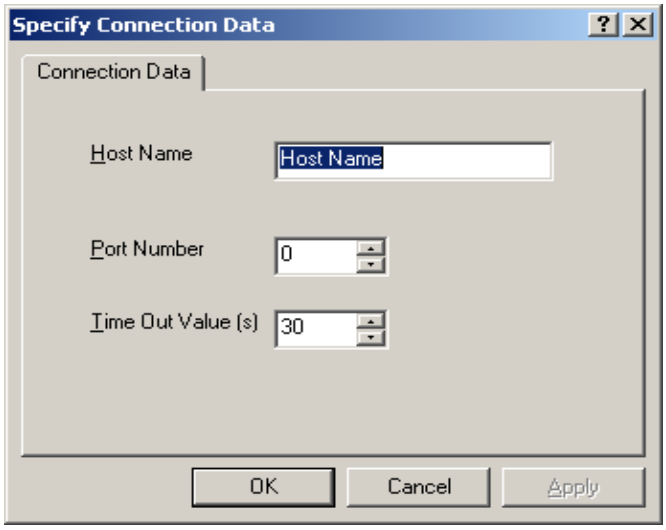
Use **AsmCfg Snapin** to create specific services. With the **Asm Snapin** you can stop or start these services.

To configure the ASM server, take the following steps:

1 Log off and return to the MMC console. To configure your snap-in, select **AsmCfg Snapin** and right-click on the mouse.



2 On the shortcut menu that appears, point to **New** and click **New Host**. You can also click **Action** from the menu and make the same selection. The following dialog box appears:



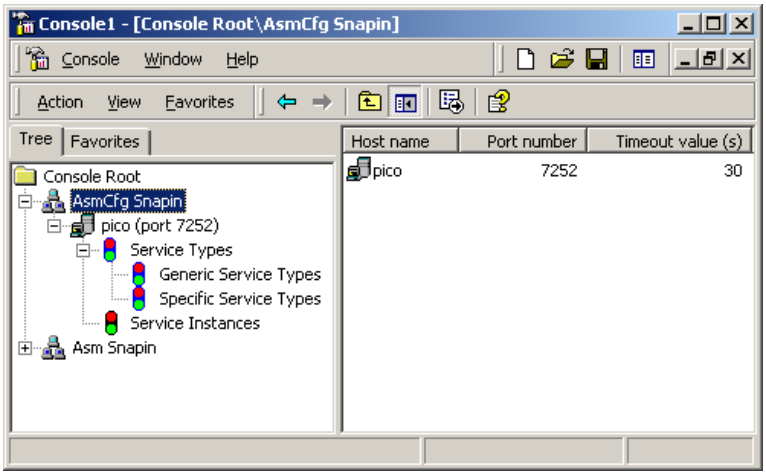
Use the following settings in the fields in the **Specify Connection Data** dialog box:

- **Host name**:
  Enter the name of the server which applications you want to control with the ASM.
- **Portnumber**:
  Enter the port number that the server's ASM receives commands on. The search path determines the server's ASM port number:
  - The port number you define at start up of the ASM.
  - If you do not define a port number at start-up, ASM uses the port number defined for the logical name BaanLogin, in the file etc/services.
  - If no port number is defined for the logical name BaanLogin, ASM uses the default port number 7250.

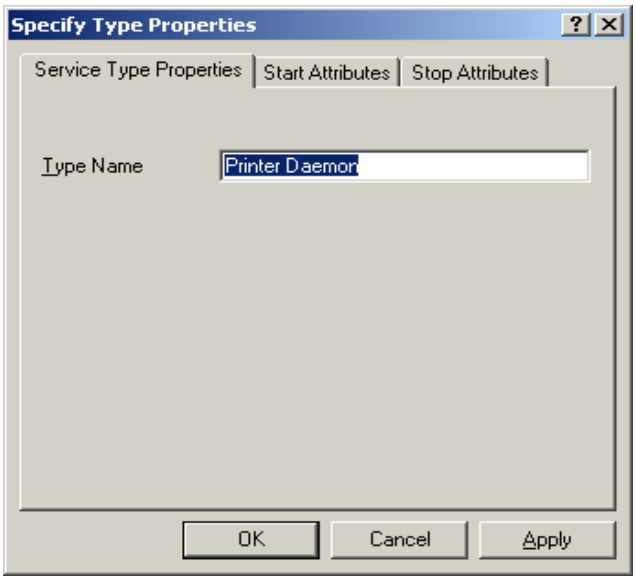
  If the value you enter in this field does not correspond to the server's ASM port number, the MMC cannot command the server's ASM.
- **Time out value (s)**:
  Enter the MMC's timeout value, in seconds, for communication with the ASM daemon. The default value is thirty seconds. For wide area networks, or if your ASM runs on a heavily loaded server, you must increase this value.

3 Click **OK**. Open the service types of the host you just configured. The following two types appear:

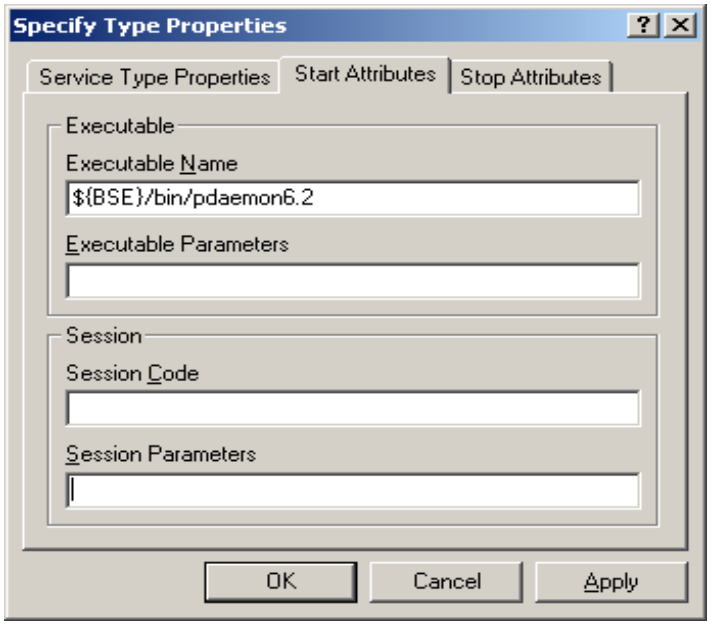
- Generic types:
  Usable for every environment
- Specific types:
  Limited to a single environment



4 Right click **Generic Service Types**, and, on the shortcut menu that appears, point to **New**, and click **New Service Type** to create a service type.



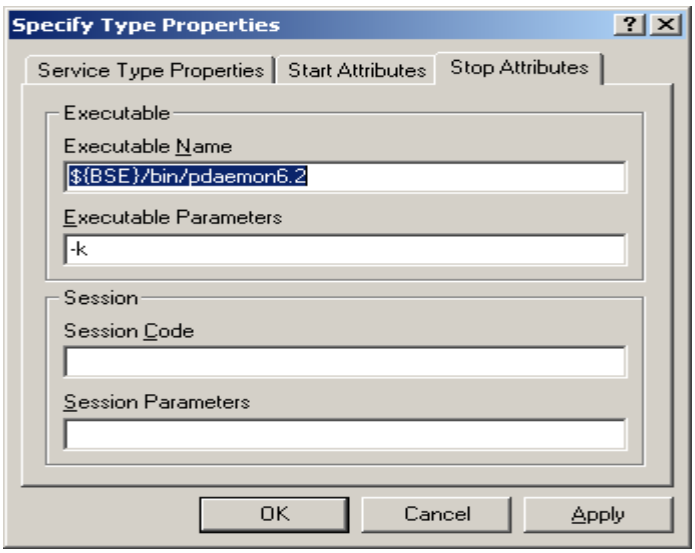
5 In this example, a service will be created to stop and start the printer daemon. Fill in the **Type Name** and click **Start Attributes**.



6 In the **Start Attributes** dialog box, you must enter the name of the executable that starts an iBaan ERP application service, for example, a command to start the printer daemon. You can also fill in a **Session Code** (the application service) that the ASM can start, for example, the Activate Job Daemon (ttaad5206m000) session, to start the job daemon.

To overrule default start parameters, fill in the **Executable Parameters** or **Session Parameters** field. The service or session will be started with the parameters you fill in these parameters. You can also leave this field empty.

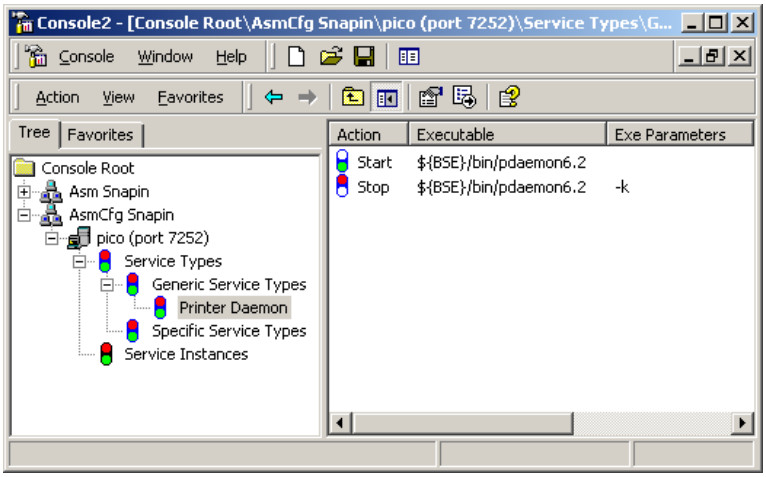
7 Click **Stop Attributes**, the following screen appears;



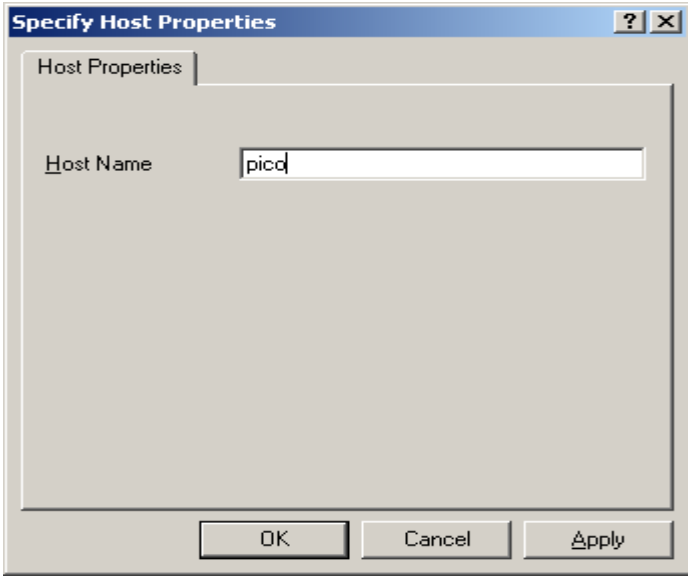
In this **Stop Attributes** dialog box, you must enter the name of the executable that stops the application service, for example, the command to stop the printer daemon. Enter the session code of the session that the ASM must start in order to stop the session entered in the **Session Code** field of the **Start Attributes** dialog box.

To overrule default start parameters, fill in the **Executable Parameters** or **Session Parameters** field. The service or session will be stopped with the parameters you fill in here. You can also leave this field empty.

8 Click **OK** to return to the MMC console.

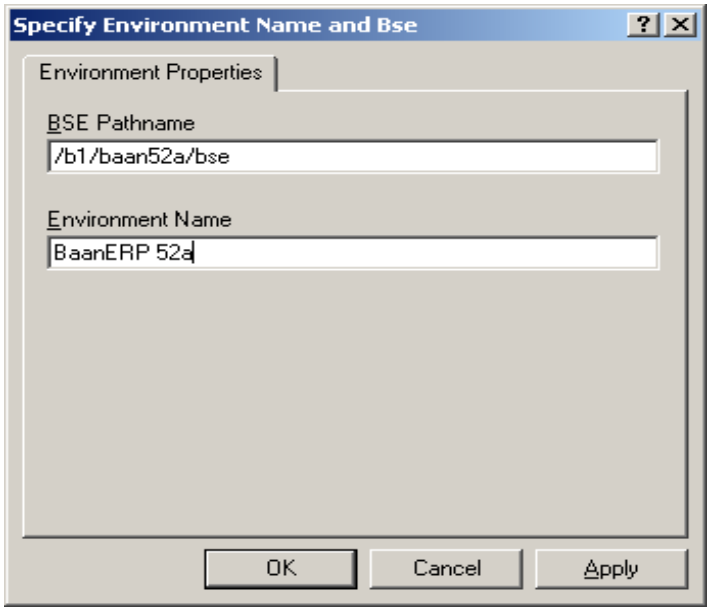


9 Right-click **Specific Service Types**. These service types are limited to a single environment and have precedence over generic service types if both exist with the same name. On the shortcut menu that appears, point to **New**, and click **New Service Host.**



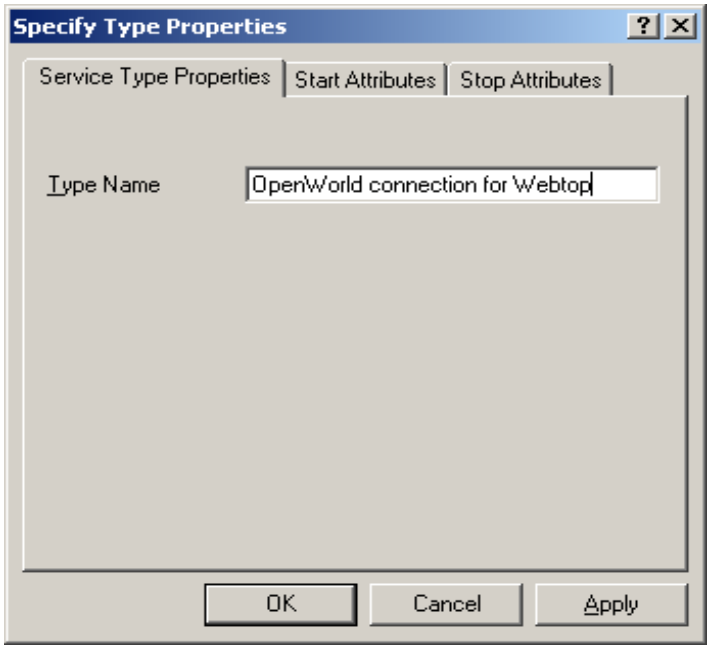
10 In the **Host** field, fill in the name of the host where you want to stop or start the service and click **OK**.

11 Right-click the **Host Name** you just specified and, on the shortcut menu that appears, point to **New**, and click **New Environment**.

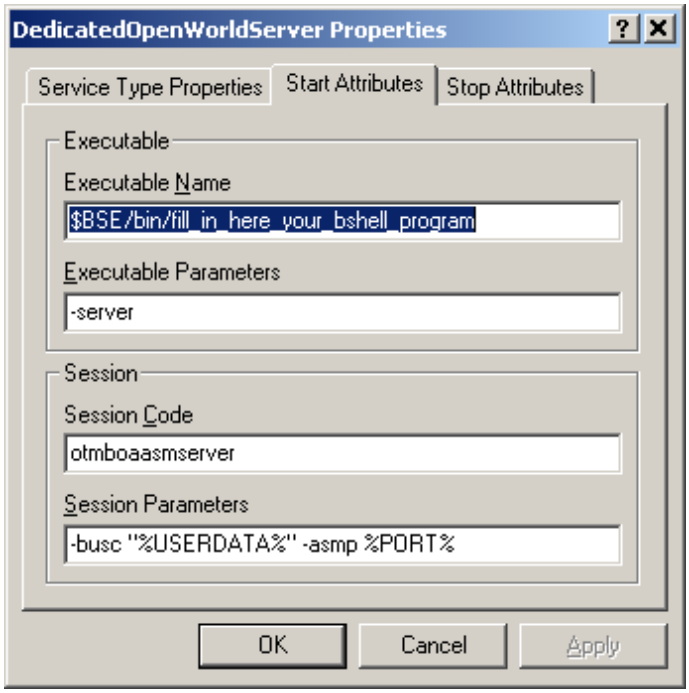


12 In the **BSE Pathname** field, fill in the correct path name to the iBaan ERP environment for which you want to generate a service. Also, fill in the **Environment Name**. This name will be displayed in the left hand pane of the MMC console.

13 Right-click the environment you just created and, on the shortcut menu that appears, point to **New**, and click **New Service Type**. The **Specify Type Properties** dialog box appears, as shown in the following figure:



14 In this example, a service will be created to stop and start the OpenWorld connection for Webtop. Fill in the type name in the **Type name** field.



15 On the **Start Attributes** tab, use the following settings:

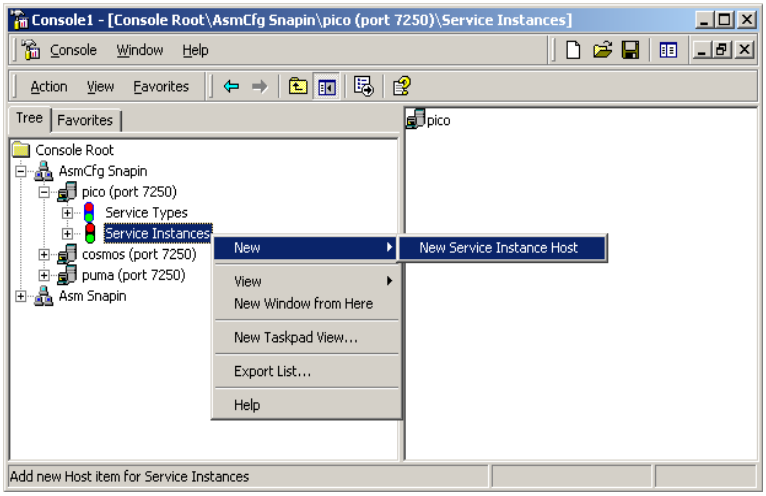
- $BSE or ${BSE} is filled with the Instance BSE name.
- %USERDATA% is filled with data that the user delivers. This data will be sent to the instance that must be started.
- %PORT%: The port number of the ASM server to which the instance listens.

NOTE The variables %PORT% and %USERDATA% are used by OpenWorld applications, such as the WebTop.

16 In this case, you do not have to fill in the **Stop Attributes**. Click **OK**.

You have now predefined in XML files the application services that the ASM can start, and, in some cases, stop. The services that you defined to be started, and, for unique instances only, stopped by the ASM, are called instances. To be able to work with the services, you must configure the service instances.

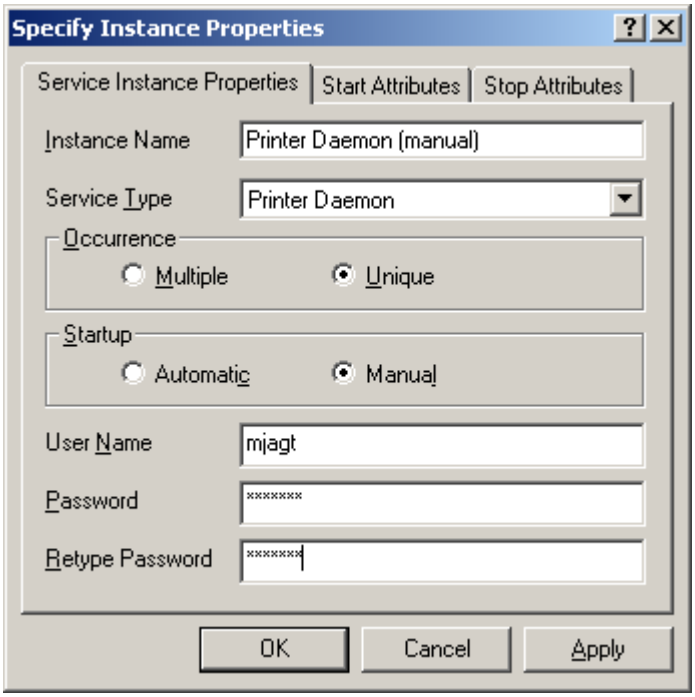
17 Right-click **Service Instances**.



18 On the shortcut menu that appears, point to **New**, and click **New Service Instance Host** to open the **Host** dialog box. Fill in the host name where you want to stop or start the service and click **OK**.

19 Right-click the **Hostname** you just specified and, on the shortcut menu that appears, point to **New**, and click **New Environment**. In the **BSE Pathname** field fill in the correct pathname to the iBaan ERP environment where you want the service type to start. Also, fill in the **Environment Name**. This name will be displayed in the left hand pane of the MMC console.

20 Right-click your mouse on the environment you just created and, on the shortcut menu that appears, point to **New**, and click **New Service Instance**. The following screen appears.



21 On the **Service Instance Properties** tab, fill in the fields as follows:

- In the **Instance Name**, enter the appropriate instance name.
- From the **Service Type** list, choose a service type.
- In the **Occurrence** area, choose a type. An instance can have one of the following occurrence types:
  - Unique:
    You can only run one occurrence of the instance's application service at a time. You can use the ASM to start or stop a unique occurring instance's application service. For example, the ASM can start and stop a job daemon.

  - Multiple:
    You can have multiple occurrences of the instance's application service running at the same time. The ASM can start a multiple occurring instance's application service when requested by a user of an external software module. The user, and not the ASM, stops the application service using the external software module.

NOTE If you use the ASM to start and stop a job daemon in a BSE, you must stop and disable the Baan NT manager's control of the job daemon service in that BSE.

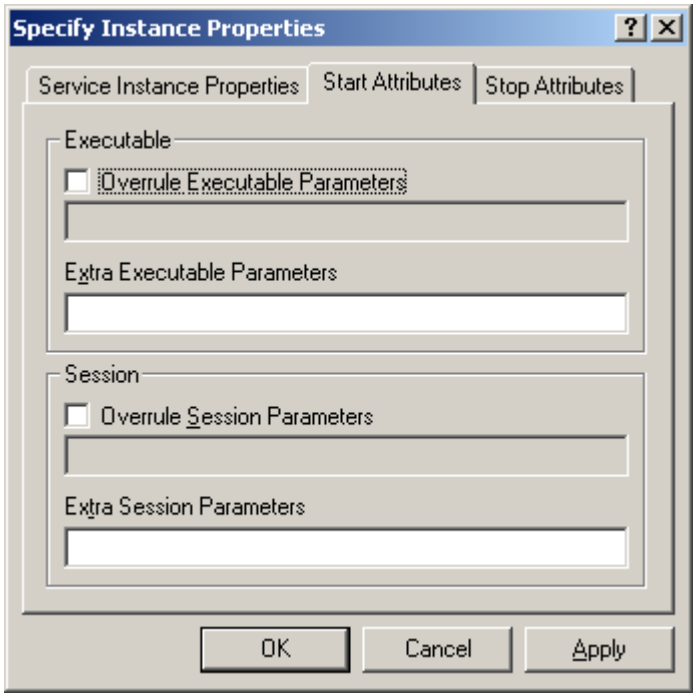
- In the **Startup** area, choose one of the following startup types:
  - Automatic:
    When you start the ASM, the ASM automatically starts the instance's application service. You can still manually command the ASM to stop and restart the instance's application service.
  - Manual startup:
    When a user sends the start command to the ASM, the instance's application service starts.
- In the **User Name** field, enter the OS name of the user to whom the system registers the instance's application service, when started by the ASM.

NOTE If this user name is not a valid user name on the system, the ASM will not start the application service.

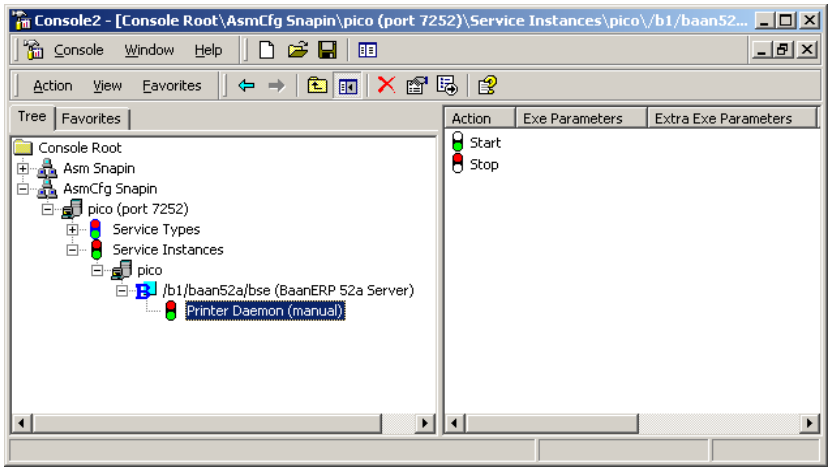
- In the **Password** and **Retype Password** fields, enter and then re-enter the OS password of the user that you entered in the **User Name** field.

NOTE If this password is not valid, the ASM will not start the application service. Be sure to update this field whenever the OS password changes.

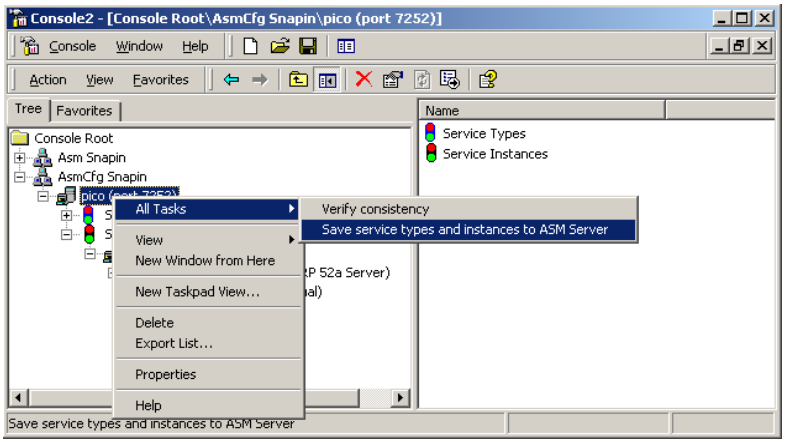
22 On the **Start and Stop Attributes** tab, fill the fields to your requirements. Steps 6 and 7 list the descriptions of the tab's fields.



23 Click **OK**. The instance is created and appears on screen.



24 Save all your settings. Select the host name and right-click on the mouse. On the shortcut menu that appears, point to **All Tasks**, and then click **Save Service Types and instances to ASM Server**.



25 After you change the configuration settings, you must always restart your ASM server to let the changes take effect. You can stop and restart the server on UNIX with the following commands:

```
# /usr/baan/shared/bin/asm_srv -home /usr/baan/shared -k

# /usr/baan/shared/bin/asm_srv -home /usr/baan/shared
```

On Windows, you can restart the **BaanASMService** with Microsoft's Services Manager. Click **Start ➢ Programs ➢ Administrative Tools ➢ Services**. For more information, refer to Chapter 3, "Start the ASM server."

6 To start and stop services

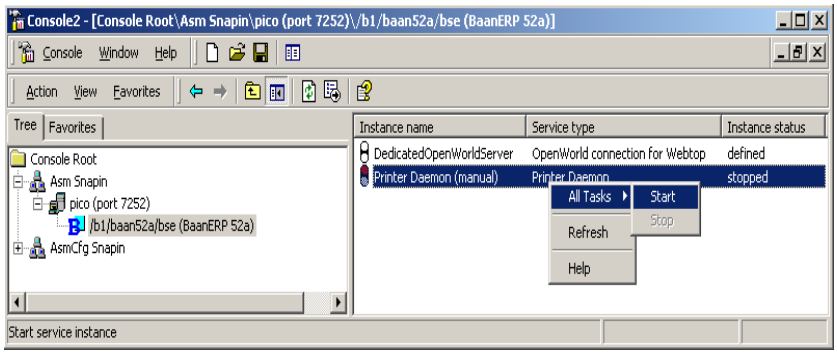
The ASM server is an administrative tool that you can use to start, and in some cases stop iBaan ERP application services. For example, the ASM can:

- Start and stop the job daemon.

You can complete these steps either by UI, using the MMC snap-in, called ASM Snap-in, or from the command line with the asm_cli utility, as described in Appendix B in this document.

You configured your MMC's ASM snap-in. To command the host's ASM to start or stop unique instances, take the following steps:

- Host:
  In the Details pane, or in the Tree pane, right-click a host, or select the host, and click the **Action** menu. Point to **All Tasks**, and on the sub-menu click one of the following:
  - Start, which starts all of the host's unique stopped instances.
  - Stop, which stops all of the host's unique running instances.
- BSE:
  In the Details pane, or the Tree pane, right click on a BSE, or select the BSE, and click the **Action** menu. Point to **All Tasks**, and on the sub-menu click:
  - Start, to start all unique stopped instances of the BSE.
  - Stop, to stop all unique running instances of the BSE.



- Instance:
  In the Details pane, or the Tree pane, right-click on an instance, or select the instance and click the **Action** menu. Point to **All Tasks**, and on the sub-menu click one of the following:
  - Start, to start a stopped instance.
  - Stop, to stop a running instance.

NOTE You cannot start or stop multiple instances with the MMC. You can only view the ASM's multiple instances, whose statuses display as **defined**.

Appendix A Troubleshooting

This appendix describes some problems that can occur during the install or configuration of ASM.

The ASM server will create the following error messages due to configuration mistakes:

Error -2:
- The BSE environment (path) is unknown.
- The instance is not found for the entered environment.

Error -4:
- Wrong path to executable for start command.
- Authentication failure (no permission to start).

Error -6:
- Wrong path to executable for stop command.
- Authentication failure (no permission to stop).

Error -8:
- The ASM server is not running. No connection was possible from a client.
- The ASM server was running, but at a different port number than used by the client.

NOTE Not all possible causes for errors can be described here. In case of errors, refer to the log files, for UNIX, or check the Event Viewer, for Windows NT, for more information. More detailed information appears if the ASM server is started in the debug mode.

Debugging ASM Server
In case of problems, you can see additional information when the –d argument is supplied. For Windows NT, the debug information is written to \winnt\temp\asm_srv.log. For UNIX, the debug information will be written to the console (stdout).

To start the server in debug mode, type the following command:

For Unix, S/390, and AS/400:

```
# asm_srv –d –home <home directory>
```

For Windows:

```
# asm_srv –start –d –home <home directory>
```

The debug data will usually be written to \winnt\temp\asm_srv.log. The name of the debug file is also shown in the Event Viewer.

Appendix B Configure from command line

With a command prompt, you can send commands to ASM through a command line interface. You can do the following:

Configure from command line

- Start, stop, and view the unique occurring instances defined for the ASM in any of your domain's BSEs.
- View the multiple occurring instances defined for a host.

The following table lists the commands for the command line.

Command	Action	Additional Mandatory Commands	Additional Optional Commands
-l	List all instances defined for the ASM		-h host -p port
-start	Starts your selected instance.	-i instance_name -b bsename	-h host -p port -u user_name -p pwd password
-stop	Stops your selected instance	-i instance_name -b bsename	-h host -p port -u user_name -p pwd password
-start_all	Starts all the BSE's unique instances	-b bsename	-h host -p port
-stop_all	Stops all the BSE's unique instances		-h host -p port
-v | -V	Displays the version information for the asm_cli binary		
-help	Displays help for the asm_cli binary		

Enter the appropriate command for your platform:

On UNIX:

```
asm_cli
```

On Windows NT:

```
asm_cli.exe
```

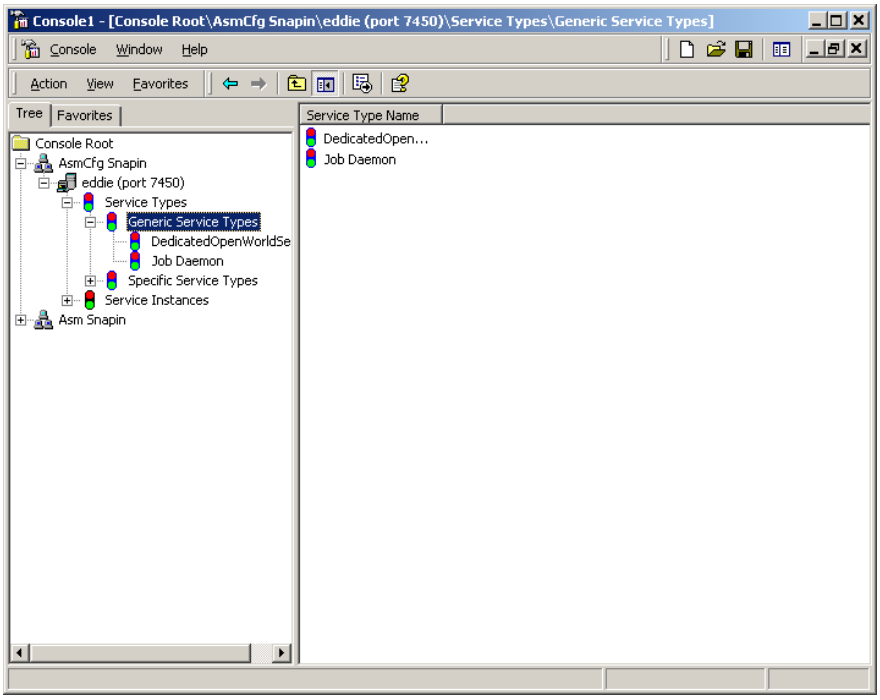
NOTE Do not start multiple occurring instances from the command line. It is uncommon. Multiple instances expect to be able to talk back to another application. If this type of talkback application is unavailable, the started multiple instance will not respond. The multiple instance will only allocate system resources. In general, multiple instances will be started by external applications. These external applications know how to communicate with the started multiple instance

Any user with a command prompt can send commands to the command line interfaces of the ASMs in their domain. For every server in your domain that has a BSE, you must restrict the access, and executable permissions in the directory $BSE/bin, to trusted users.

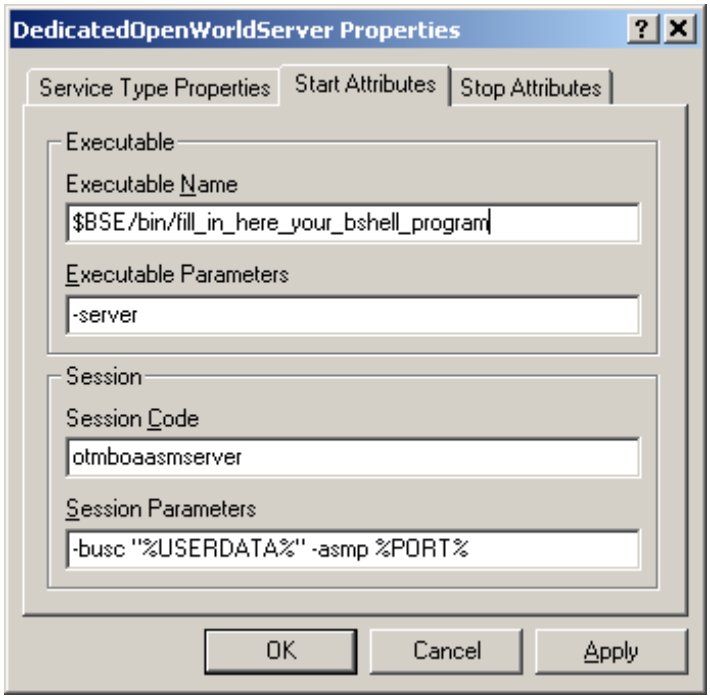
Appendix C Preconfigured ASM configurations

The ASM server is delivered with an asmtypedef.xml.template file. This file contains some common used service types, such as the following:

- Dedicated OpenWorld Server, which is used, for example, for the WebTop.
- Job daemon.



In these preconfigured types, you must specify a bshell program. See the following figure.



The bshell_program is usually bshell6.2 on UNIX, AS/400 or S/390. On Windows NT, the bshell_program is ntbshell.exe**.**

In addition to this predefined service types, you must add instances of requested type. For more information on how to create new instances, refer also to Chapter 5, “Configure services and instances.”

Appendix D Uninstall

This appendix describes the two procedures for how to remove the software. First, this appendix describes how to uninstall the server. Next, this appendix describes how to uninstall the ASM MMC snap-ins. These snap-ins have their own uninstall procedure.

D.1 Uninstall the ASM server

In case of an installation failure or a change to the installation directory, you must take the following steps to uninstall the ASM server:

On UNIX, AS/400 or S/390
Stop the ASM server and remove the following ASM components:

- asm_srv
- asm_cli
- asminsdef.xml
- asmtypedef.xml

On Windows
Stop the ASM Server and open the CMD window and change to the directory where the ASM server was installed, for example: C:\program files\baan\shared. The server will be stopped and removed with the following command:

```
cd bin
run asm_srv -remove
```

Remove all asm components, such as the following:

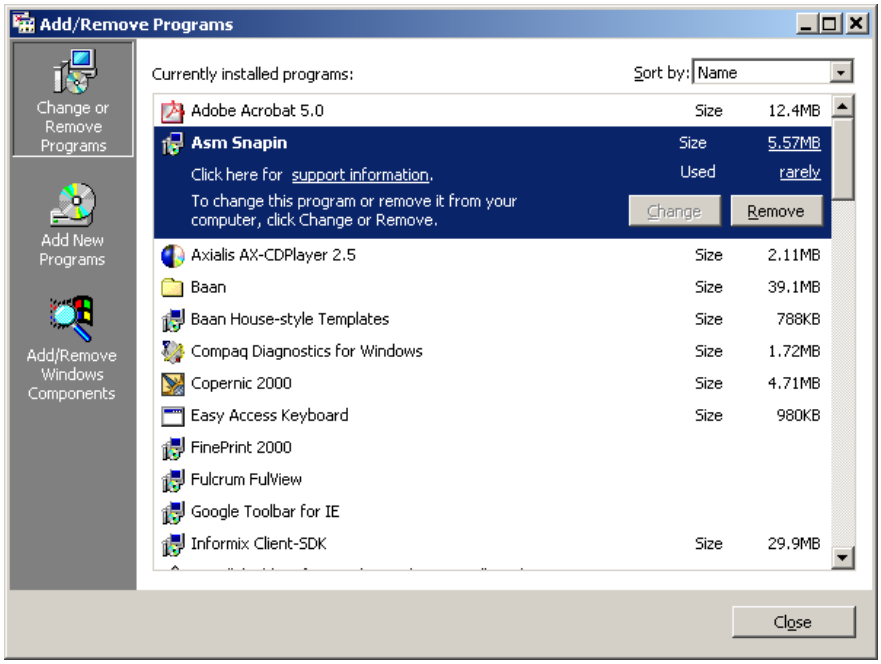
- bin\asm_srv.exe
- bin\asm_cli.exe
- lib\asminsdef.xml
- lib\asmtypedef.xml

NOTE The directory /usr/baan/shared and/or C:\program files\baan\shared, which are the default ASM server locations, will most likely contain more data, such as, for example, files for the BCLM. Be very careful when you delete files in this directory. Refer also to the table in Chapter 2, “Installation of the ASM server,” for a complete list of files for each platform.

D.2 Uninstall the ASM Snapin DLLs

The ASM MMC snap-ins have their own uninstall procedure by means of the Control Panel Add Remove programs. This procedure is for Windows only:

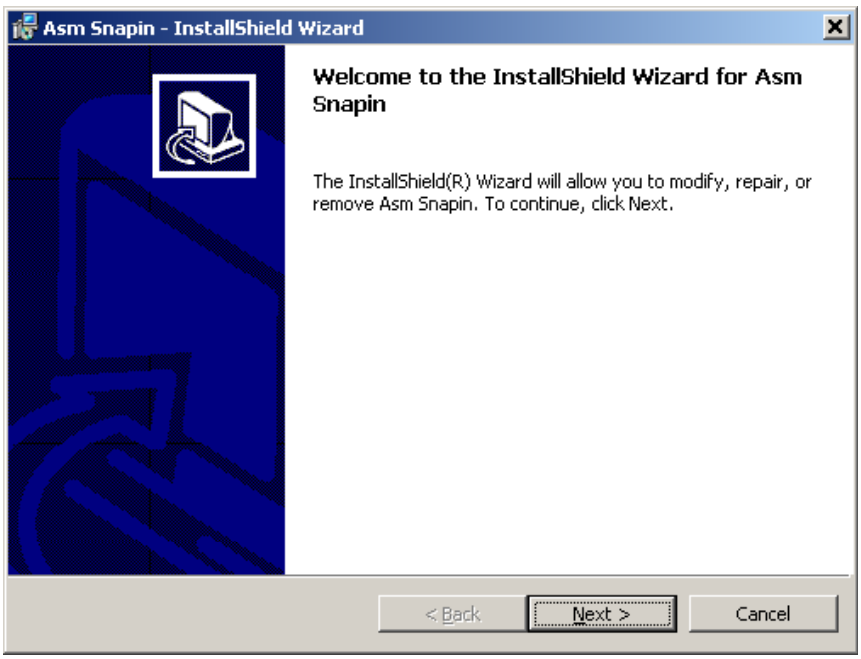
Click **Start ➢ Settings ➢ Control panel ➢Add/Remove programs**. Select **Asm Snapin** and click **Remove**.



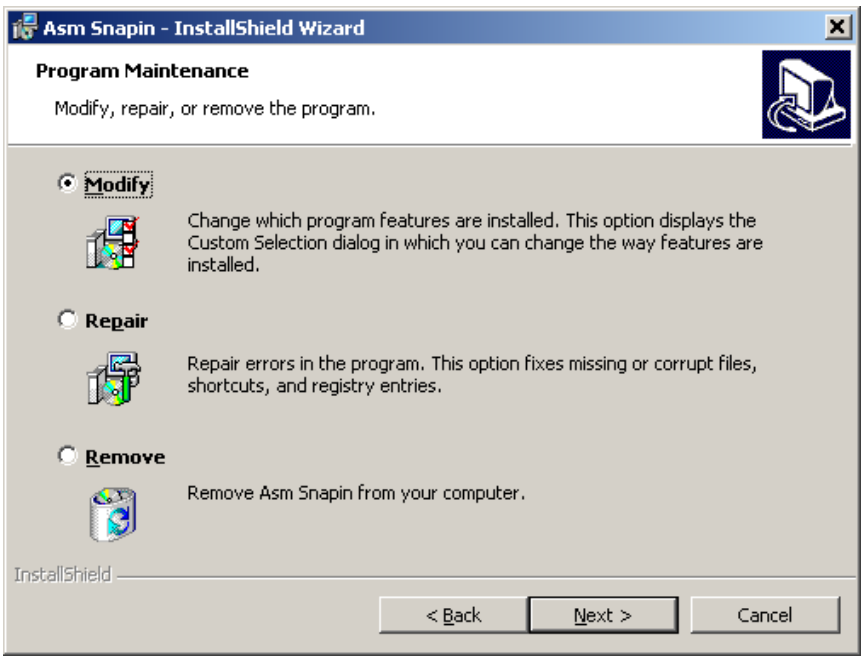
A warning message appears. Click **Yes** to remove the software.

If you do not want to remove the software, but simply change this software, click **Change** rather than **Remove**. With the change option in the Add/Remove Programs, you can change the ASM snap-in.

Click **Change**. The ASM Snap-in InstallShield Wizard appears.



Click **Next**. The **Program Maintenance** dialog box appears:



Select **Modify** and click **Next**. Follow the remainder of the instructions.

Appendix E Environment variables

In some specific cases, you must specify environment variables for the ASM server. These variables are required in the following cases:

- The application that must be started by the ASM server requires or expects one or more environment variables. For example, a bshell must load a shared library for a third-party product. This product, for example, the database driver or Java integration, needs this variable and, therefore, the appropriate system environment variables must be set.
- The application that is started uses or starts another application, which is assumed to be set in the PATH variable.

NOTE For Windows, the ASM server runs in the context, and with the same environment, in which the server was started. As a result, for Windows, the ASM server runs in system context, and only has the variables of that specific system environment.

NOTE For UNIX, no environment variables are defined if the ASM server was started from, for example, boot time. Environment variables are only available on UNIX as soon as you start to work from a shell, such as korn shell/bourne shell, and so on. To overcome these problems, start the ASM server from a shell with the correct environment variables defined.

E.1 Example: Set your environment variables

Set your library variable on the server if you use the Webtop framework to connect to the BaanERP environment and you use the Java Development Kit or Java Runtime Environment. On a HP-UX system, the variable is called SHLIB_PATH and, on an AIX machine, the variable is the LIBPATH variable. On all other UNIX systems, the variable is called the LD_LIBRARY_PATH variable.The operating system dependent variable, must be set (using a shell, for example korn shell) before the ASM server is started.

NOTE This example describes the procedure on a HP-UX machine.

If you use the JAVA1.1 version, type the following command to determine the path of the files:

```
$ find /opt/java1.1 -name libjava.*
/opt/java/lib/PA_RISC/green_threads/libjava.sl
/opt/java/lib/PA_RISC/native_threads/libjava.sl
```

The path variable is set to:

```
SHLIB_PATH=/opt/java/lib/PA_RISC/native_threads
export SHLIB_PATH
```

If you use JAVA1.2 version, you can use the following commands:

```
$ find /opt/java1.2 -name libzip.*
/opt/java1.2/jre/lib/PA_RISC/libzip.sl
/opt/java1.2/jre/lib/PA_RISC2.0/libzip.sl
```

And:

```
$ find /opt/java1.2 -name libjvm.*
/opt/java1.2/jre/lib/PA_RISC/classic/libjvm.sl
/opt/java1.2/jre/lib/PA_RISC/hotspot/libjvm.sl
/opt/java1.2/jre/lib/PA_RISC2.0/classic/libjvm.sl
/opt/java1.2/jre/lib/PA_RISC2.0/hotspot/libjvm.sl
```

The path variable is set to:

```
SHLIB_PATH=/opt/java1.2/jre/lib/PA_RISC2.0:/opt/java1.2/jre/lib/PA_RISC2.0/classic
export SHLIB_PATH
```

To start the ASM server with the correct libraries, use the following:

```
$ cd <home directory>/bin (typically: /usr/baan/shared/bin)
$ ./asm_srv -home /usr/baan/shared
```

The –home <dir> option for UNIX, AS/400 and S/390, guides the ASM server to the ASM working files. The -home must point to the directory on which the ASM software is installed. The –home argument is a mandatory argument. If no

–home argument is specified, ASM Server will not be able to find its configuration data.

NOTE All environment variables defined at startup of the ASM Server are ‘system-wide’ settings. These variables are valid for all instances and types defined. To set environment variables, which are only required for one instance, the application, or shell script for UNIX only, must take care for the application’s own environment variables.