Installation Guide
SAP Business Planning and Consolidation 7.0
version for the Microsoft platform

Target Audience

- System Administrators
- Technical Consultants

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Documentation in the SAP Service Marketplace

You can find this document at the following address: `http://service.sap.com/instguidescpm-bpc.`

Document History

The following table provides an overview of the most important document changes.

Version	Date	Description
1.0	2008-07-31	Initial Version
1.1	2008-11-05	Added cumulative update package 8 to SQL 2005 SP2 prerequisites.
1.2	2008-12-01	In the topic "Before Starting the BPC Server Installation," added information about network permissions of the shared folder on the FileShare server.
2.0	2009-02-13	Updated for BPC 7.0 SP03
2.1	2009-03-09	Minor updates in "Installing the Office Client" about XCeedZip.dll
2.2	2009-03-12	Added information about Data Manager packages created in SQL2005 to the SQL 2005 and 2008 Considerations within "Installing SQL Server"
2.3	2009-03-24	Added an *English (United States)* reference for the operating system of the Application server within "Server Prerequisites."
3	2009-05-14	Updated for SP04.
3.1	2009-07-31	Removed references to specific SPs because Guide is relevant for all 7.0 M versions.
3.2	2009-12-02	Updated language information in "Server Prerequisites" and "Installing the Operating System". Updated information on Data Connectivity Components in "Installing the Administration Client".
3.3	2009-12-17	In "Server Prerequisites" changed SQL Server information to specify English-language version only, and FileShare server information to add 64–bit. Added information about VMware support in "Introduction".
3.4	2010-01-13	In "Installing BPC in a TS or Citrix Server Deployment" removed Office XP as a system requirement.
3.5	2010-01-25	In "Server Prerequisites" added note for SQL Server English-language version only.
3.6	2010-01-28	In "Server Prerequisites" added recommendation to install SQL 2008 SP1 cumulative update package 6.
3.7	2010-03-22	Added reference to Product Availability Matrix for server and client prerequisites.
3.8	2010-10-22	In the "Introduction", amended information about virtualization.

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1 Introduction

The SAP Business Planning and Consolidation Installation Guide is intended for System Administrators who perform Business Planning and Consolidation server and client installations. It contains everything you need to know about installing the prerequisite components and the Business Planning and Consolidation server and client software.

The latest support package is available as a full installation as well as an upgrade. To perform a new installation, carefully review and complete the steps described in this installation guide. To upgrade an existing system, see the *Business Planning and Consolidation 7.0 M Upgrade Guide* for guidance on the steps to perform based on your existing system landscape. The upgrade guide is available at `http://service.sap.com/instguidesEPM-BPC` ▶ *7.0, version for the Microsoft platform* ◀ .

You can run your production version of Planning and Consolidation in a virtualized environment. For more information, see SAP Note 1098847.

The following item is new to Business Planning and Consolidation 7.0 SP03:

- This release supports SQL Server 2008.

  

  NOTE

  Be sure to check SAP Service Marketplace for support packages that may be available for this installation.

The following items are new to Business Planning and Consolidation 7.0 SP04:

- If the status of ASP.NET v2.0 Web Service Extension is set to *Not Allowed* and .Net Framework 2.0 has been installed on the application server, the status of ASP.NET v2.0 Web Service Extension is automatically set to *Allowed* during the Business Planning and Consolidation server installation (see SAP Note 1306497).
- The installation program now checks the status of the Reporting Services server during an installation to ensure its configuration has been set. Prior to SP04, the installation program checked only for the existence of the Reporting Services server, not its status, which may have produced an 'Object block or with block variable not set' error when processing an application. This status check requires a little more time than in previous installation programs. (See SAP Note 1311118.)
- When you choose *Next* from the Server Information dialog box, the installation program checks the selected Microsoft SQL Server version against the SQL Server version used for Business Planning

and Consolidation. If the version is different, a warning message appears and you cannot proceed to the next step of the installation (see SAP Note 1318014).

1.1 SAP Notes for the Installation

Read the following SAP Notes before you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to the installation documentation. Make sure that you have the up-to-date version of each SAP Note, which you can find on SAP Service Marketplace at the Internet address `http://service.sap.com/notes`.

SAP Note Number	Title	Description
1179435	SAP BPC 7.0 SP00, version for the Microsoft platform	This note contains important information about the installation of SAP Business Planning and Consolidation 7.0, version for the Microsoft platform.
1238911	SAP BPC 7.0 SP01, version for the Microsoft platform	This note contains important information about the installation of Support Package 01 for SAP Business Planning and Consolidation 7.0, version for the Microsoft platform.
1291999	SAP BPC 7.0 SP03, version for the Microsoft platform	This note contains important information about the installation of Support Package 03 for SAP Business Planning and Consolidation 7.0, version for the Microsoft platform.
1324855	SAP BPC 7.0 SP04, version for the Microsoft platform	This note contains important information about the installation of Support Package 04 for SAP Business Planning and Consolidation 7.0, version for the Microsoft platform.

2 Planning the Server Installation

2.1 Basic Planning Steps

Before installing the server, complete the following planning activities:

1. Determine your server configuration. For guidelines, see the *SAP BPC Master Guide* at `http://service.sap.com/instguidescpm-bpc` ▶ *7.0, version for the Microsoft platform* ↵.
2. Review and install the server prerequisites. See *Server Prerequisites* [page 9] and *Installing the Prerequisites.* [page 12]
3. Perform the tasks in the *Before Starting the BPC Server Installation* [page 21] section.

2.2 Server Prerequisites

This section describes the software you need to install before installing the Business Planning and Consolidation server, and the minimum versions required. You must install these prerequisites before installing any of the Business Planning and Consolidation server components.

You can install the minimum requirements on a single server, or you can install the server types on up to 7 different physical machines. We recommend a minimum 4–server environment, with a Web server, Application server (with Application, FileShare, and Reporting Services server types), a SQL database server, and an OLAP database server. For more information about setting up your multi-server environment, including scalability guidelines and detailed information on 32/64 bit support, see the *SAP BPC Master Guide* at `http://service.sap.com/instguidescpm-bpc` ▶ *7.0, version for the Microsoft platform* ↵.

NOTE

You must install the system on an English language server, so you must set English (United States) as the system locale (or default locale) before installing any prerequisite software. Do not change the language setting during the Windows installation (after completion of the installation, it can be changed).

- The operating system must be the Windows International English edition. Any other language edition of Windows is not supported, even if the language setting is changed to English (United States)

- If you use a language other than English, the language for non-unicode programs must be changed to the appropriate language before installing BPC. See *Installing the Operating System* [page 14].

For information on installing the prerequisites, see *Installing the Server Prerequisites*. [page 12]

Server Type	Prerequisite
Application server	Operating System ■ Windows Server 2003 or Windows Server 2003 R2 Standard or Enterprise Edition SP2 (32-bit) configured with NTFS, set to *English (United States)* A list of the currently supported operating systems is also available in the Product Availability Matrix on SAP Service Marketplace at http://service.sap.com/pam. Search on Planning and Consolidation. Windows Component ■ Microsoft IIS 6.0 (This is included with the Windows operating system.) SQL Component – either SQL 2005 or 2008 (English-language version only) ■ If SQL 2005 Enterprise Edition: ● .NET Framework 2.0 ● Component: ◆ Integration Services ◆ Workstation components, Books Online, and development tools ◆ Client Component ■ If SQL 2008 Enterprise Edition: ● .NET Framework 3.5 SP1 ● Shared Features component A list of the currently supported database systems is also available in the Product Availability Matrix on SAP Service Marketplace at http://service.sap.com/pam. Search on Planning and Consolidation. 3rd Party ■ MSXML 4.0 SP2 ■ ADOMD.NET 8.0 ■ Microsoft SQL Server 2005 Backward Compatibility Components on Microsoft SQL Server 2008 Feature Pack ■ Microsoft Office 2007 system driver Data Connectivity Components Service Pack or Hotfixes ■ SQL Server 2005 SP2 and cumulative update package 8 ■ SQL Server 2008 SP1 cumulative update package 6 **NOTE** If you want to install .NET Framework 2.0 or 3.5 SP1 when no active Internet connection exists, you must install the appropriate version manually. Otherwise, it is installed by the SQL Server installation. For more information, see http://www.microsoft.com/downloads.
Web Server	Operating System

Server Type	Prerequisite
	■ Windows Server 2003 or Windows Server 2003 R2 Standard or Enterprise Edition SP2 (32-bit) configured with NTFS 3rd-party ■ FarPoint 2.0 ■ Dundas Chart V5.0 for ASP.NET **NOTE** The third-party tools are installed automatically on the Web server because they are required for BPC Web.
FileShare server	Operating System ■ Windows Server 2003 or Windows Server 2003 R2 Standard or Enterprise Edition SP2 (32-bit or 64-bit) configured with NTFS
SQL Server	Operating System ■ Windows Server 2003 or Windows Server 2003 R2 Standard or Enterprise Edition SP2 (32-bit or 64-bit) configured with NTFS SQL Server Component ■ SQL 2005 Enterprise Edition (English-language version only) ● SQL Server Database service ■ SQL 2008 Enterprise Edition (English-language version only) ● Database engine service Service Pack or Hotfixes ■ SQL Server 2005 SP2 and cumulative update package 8 ■ SQL Server 2008 SP1 cumulative update package 6
OLAP server	Operating System ■ Windows Server 2003 or Windows Server 2003 R2 Standard or Enterprise Edition SP2 (32-bit or 64-bit) configured with NTFS SQL Server Component ■ SQL 2005 Enterprise Edition (English-language version only) ● Analysis Services ■ SQL 2008 Enterprise Edition (English-language version only) ● Analysis Services Service Pack or Hotfixes ■ SQL Server 2005 SP2 and cumulative update package 8 ■ SQL Server 2008 SP1 cumulative update package 6
Reporting server	Operating System ■ Windows Server 2003 or Windows Server 2003 R2 Standard or Enterprise Edition SP2 (32-bit or 64-bit) configured with NTFS SQL Server Component ■ SQL 2005 Standard or Enterprise Edition (English-language version only) ● Reporting Services ■ SQL 2008 Standard or Enterprise Edition (English-language version only) ● Reporting Services

Server Type	Prerequisite
	NOTE If Reporting Services is installed on the same machine as the SQL and/or OLAP server components, its version must be Enterprise Edition. The version can be Standard or Enterprise Edition if installed on a separate machine. Service Pack or Hotfixes ■ SQL Server 2005 SP2 and cumulative update package 8 ■ SQL Server 2008 SP1 cumulative update package 6

NOTE

SQL Server must be the English-language version. Any other language version of SQL Server is not supported.

RECOMMENDATION

We recommend the installation of Microsoft SQL Server SP1 cumulative update package 6 to solve a problem with incorrect periodic values being returned with calculated accounts. For more information, see SAP Note number 1429246, which also contains download information.

2.3 Installing the Prerequisites

2.3.1 Installing the Prerequisites — Basic Steps

Before installing your Business Planning and Consolidation server, you must install the prerequisite software. This section provides guidance on installing each component. For specific versions required, see *Server Prerequisites* [page 9].

NOTE

Prerequisites such as MSXML and ADOMD.NET are available within the SAP Business Planning and Consolidation zip file available from the *Downloads → Support Package and Patches* area of SAP Service Marketplace.

To ensure a successful installation, you must install the software in the order listed in this procedure.

Check all third-party infrastructure services to ensure that they are functioning, and that their authentication models are documented (stated) since you need to reference that information during the installation. This includes IIS, Reporting Services, OLAP Service, SQL Services, and Active Directory.

Procedure

1. Install the required operating system and necessary components, such as IIS which is required on your Web, Application, and Reporting Services server, on the single-server computer or on each physical server for a multi-server configuration. See *Installing the Operating System* [page 14].

   

   NOTE

   You can install IIS on your OLAP server if you want to support alternate connections to Analysis Services. After the installation is complete, you can uninstall it from your OLAP server.
2. Install the latest service pack for your operating system. To install this service pack, go to `www.microsoft.com`.
3. From your operating system's media, install IIS, which is required on your Web, Application, and Reporting Services server.
4. From your Microsoft SQL Server media, install the proper SQL Components. See *Installing SQL Server* [page 15].
5. From your Microsoft SQL Server media, install Analysis Services. See *Installing Analysis Services* [page 20].
6. Install service packs and hotfixes to the operating system. See *Installing Support Packages and Hotfixes* [page 21].
7. On your Application server, install ADOMD.NET 8.0. The ADOMD.NET 8.0 installation package ADOMD.NET.msi is contained in the BPC zip file in the folder *\BPC Setup\Server*.
8. On your Application server, install MSXML 4.0 Service Pack 2 or later. The MSXML 4.0 SP2 installation package msxml.msi is contained in the BPC zip file in the folder *\BPC Setup\Server*. If this is not included with the operating system installation, you must manually install it.
9. On your Application server, install the Microsoft Office 2007 system driver Data Connectivity Components to import data with an Excel 2007 / Access 2007 file. An Excel 2007 file format (xlsx) and an Access 2007 (accdb) file format can be handled only by the 2007 Office system driver. You can download it from `http://www.microsoft.com/downloads/details.aspx?FamilyID=7554F536-8C28-4598-9B72-EF94E038C891&DisplayLang=en`. See SAP Note 1289927.
10. Download the AmyuniPDF.exe file to the Application server. AmyUni PDF Creator, which is required for publishing PDF books, must be downloaded prior to the installation. The BPC server installation asks for the path of the Amyuni PDF components, and copies these files into the appropriate BPC path. You can get this file from the SAP Cryptographic Software link on the *Downloads → SAP Software Distribution Center* page.
11. Download the XceedZip.dll file to the Application and Web servers. Xceed Zip, which is required for zipping and unzipping files, must be downloaded prior to the installation. The BPC server

installation asks for the path of the Xceed zip components, and copies these files into the appropriate BPC path. You can get the XceedZip.dll file from the SAP Cryptographic Software link on the *Downloads → SAP Software Distribution Center* page.

2.3.2 Installing the Operating System

About Installing the Operating System

- During the Windows installation, do not change the regional setting from English (US). If you change the setting to another language, unexpected errors may occur when you try to log on to certain interfaces.
- Before installing the operating system, make sure that you configure your server for NTFS.
- If your company has a policy to assign disk space to a certain drive, such as C:, then follow it. If not, we recommend you use C: for system files, and D: for data storage.
- Business Planning and Consolidation can support versions in Chinese, Czech, Danish, Dutch, Finnish, French, German, Italian, Hungarian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Slovak, Spanish, and Swedish on Application servers and Web servers with an English operating system.

  Before installing BPC, select the appropriate language in the *Language for Non-Unicode Programs* drop-down list within *Regional and Language Options* on Application servers and Web servers if you use a Japanese, Chinese, Korean, Czech, Polish, Slovak, or Russian version of Business Planning and Consolidation.

  

  NOTE

  For information about enabling Hungarian and special considerations for using Hungarian, see SAP Note 1329631.

Windows 2003 Considerations

- If a 32-bit Windows 2003 operating system has more than 4 GB of memory, you must install a hotfix from Microsoft. See Article 834628 at `http://support.microsoft.com/kb/834628/en`.
- You must install ASP.NET. See *Installing ASP.NET on Windows 2003* below.

Installing ASP.NET on Windows 2003

For a single-server configuration, Web server, Reporting server (only SQL 2005) and Application server on which you are installing Windows 2003 as your operating system, you must install ASP.NET during the server installation. If the server configuration is a Web server, ASP.NET 2.0 is not required. To install ASP.NET, perform the following steps:

1. During the Windows 2003 server installation, select *Add or remove a role* on the *Manage Your Server* dialog box.

2. Under *Server Role*, select *Application server* (IIS,ASP.NET), then choose *Next*.
3. Select *Enable ASP.NET*, then choose *Next*.
4. Run Internet Information Service (IIS) Manager and go to *Web Service Extensions*. Check the status of ASP.NET v1.1.4322. If .Net Framework 2.0 has been installed on the application server, the status of ASP.NET v2.0 Web Service Extension is automatically set to *Allowed* during the Business Planning and Consolidation server installation (see SAP note 1306497).

   > **NOTE**
   > If ASP.NET v2.0.50727 does not exist in the list of Web service extensions, check this again after executing the SQL Server installation since SQL Server installs ASP.NET.

   If ASP.NET v2.0 Web Service Extension is set to *Not Allowed*, do the following on the application server:

   - Run Internet Information Service (IIS) Manager on your Application server, then allow the ASP.NET v2.0.50727 from Web Service Extensions.
   - Execute the following commands at a command prompt on your application server:
     1. Enter `"cd %WINDIR%\Microsoft.NET\Framework\v2.0.50727"`.
     2. Enter `aspnet_regiis.exe -ir -enable`.

     > **NOTE**
     > The double quotation marks in the step above should be straight double quotes.
     > Make sure that you run the `aspnet_regiis.exe` file located in .NET Framework 2.0, not 1.1.
     > If .NET Framework 2.0 is not installed, you should install it manually or install SQL Server component first.

2.3.3 Installing SQL Server

Procedure

This section describes the general steps for installing SQL Server, component options, and considerations when installing and configuring SQL Server 2005 and 2008.

General Installation Steps

1. Launch the SQL Server Setup program, entering a product key if necessary and accepting the license terms.
2. Choose *Install* to install the SQL support files.
3. In *Feature Selections*, select instance and shared features as indicated in the *SQL Server Component Options* section below, then choose *Next*.
4. Review disc space requirements, then choose *Next*.

5. In *Server Configuration*, set Service Accounts and Collation settings, then choose *Next*.
   When making Collation settings, use the default values and do the the following:
   - When you install the SQL Server, accept the default collation settings (*Latin1_General_CI_AS*) in the SQL Server installation program.
     When you view the collation setting after the installation, the value is *SQL_Latin1_General_CP1_CI_AS*.
   - If using SQL 2005, select the *SQL Collations* option with *Dictionary order, case-insensitive, for use with 1252 character set*.
6. Set *Database Engine Configuration* options, then choose *Next*.
   We recommend you select *Mixed mode (Windows authentication and SQL authentication)*. This allows you to use a restrictive SQL ID that works with the drill-through feature. If you must restrict SQL authentication for security reasons, you can define a specific parameter in your drill-through queries. If you do not need drill-through support, or use it without leveraging SQL authentication, you can install SQL Server in Windows-only mode.
7. Accept the *Analysis Services Configuration* default options and the remaining default options of the installation program.
8. Choose *Install* to begin the installation with the options you have set.

SQL Server Component Options

- **For Both Single and Multi-Server Installations**
  - You must set up Reporting Services appropriately when installing SQL Server. During the Reporting Services installation, select the *Install the default configuration* option to associate the default Reporting Services instance to BPC. If you select the *Install but do not configure the server* option and configure Reporting Services later, the Reporting Services instance is not associated with BPC.

    

    NOTE

    If you do not use the default Reporting Services instance, then you cannot use the default configuration. In this case, you can use the Microsoft SQL Server Configuration Manager to create virtual directories, a database, and an application pool before installing BPC.
- **For Single-Server Installations**

  For single-server installations running *SQL Server 2005*, install the following components from the *Components to Install* screen:
  - SQL Server Data Services
  - Analysis Services
  - Reporting Services (see note in table below)
  - Integration Services

- Workstation components, Books Online, and development tools

For single-server installations running *SQL Server 2008*, install the following components from the *Feature Selection* screen:

- Database Engine Services
- Analysis Services
- Reporting Services
- Shared Features

- **For Multi-Server Installations**

For multi-server installations, install the following components on each machine:

Server Component	What to Install
SQL Server	For SQL Server 2005: • SQL Server Data Services • Integration Service • Workstation components, Books Online, and development tools For SQL Server 2008: • Database Engine Services • Shared Features
OLAP Server	For SQL Server 2005: • Analysis Services • Workstation components, Books Online, and development tools For SQL Server 2008: • Analysis Services • Shared Features
Reporting Services Server	• Reporting Services **NOTE** For SQL Server 2005, we recommend that you install Reporting Services on the Application server. You specify the SQL Server you want to use for the Reporting Services DB during installation of the Application server. If you want to install and operate Reporting Services on a different machine that has SQL Server, then you must also run IIS on the server. Reporting Services for SQL Server 2008 does not need to run IIS.
Application Server	For SQL Server 2005: • Integration Service • Workstation components, Books Online, and development tools • Client Component For SQL Server 2008:

Server Component	What to Install
	• Shared Features

SQL Server 2005 and 2008 Considerations

- We recommend installing all required components in sequence. For example, install the Operating System (Windows 2003 Server), then enable IIS and ASP.NET and install Windows Server 2003 SP2.
- We recommend that you have IIS on your Application server, and .NET Framework 1.1.4322 installed. If you install SQL 2005 without IIS, Reporting Services (RS) does not get installed. If you install IIS on your Windows 2003 server, you also need to re-install all service packs related to the operating system.
- To reinforce security, we recommend that you install the DB, OLAP, and Reporting Services components to a nondefault instance of SQL Server.
- When you upgrade from SQL2005 to SQL2008 and you want to run Data Manager packages in your application set that were created in SQL2005, you must install both SQL Server Integrated Services for SQL2005 and SQL2008 on the Application server.

After Installing SQL Server 2005 or 2008

- From SQL Server Configuration Manager, confirm that SQL Browser Service is running. This is required for BPC.
- From SQL Server Configuration Manager, do the following:
  1. Select *Protocols for InstanceName*, then double-click *TCP/IP* from the right side of the window.
  2. When prompted for the *TCP/IP Properties*, select *IP Addresses*. You see two IPs that indicate the localhost and external network interface machine.
  3. If you want to use IP1, which indicates Server IP, set *Enabled* to *Yes* and specify the TCP Port, as desired.
  4. Delete *0* from *TCP Dynamic Ports*. Set IPAll - TCP Ports as desired (for example, 1533).

     NOTE

     We do not recommend using dynamic ports in this release.
- On the Application server, specify the client protocol options:
  1. From the SQL Server Configuration Manager, select *Client Protocols* from the *SQL Native Client Configuration* folder.
  2. From the right side of the window, double-click *TCP/IP*. The *TCP/IP Properties* window is displayed. Set the default port to the same port as you set for the above step (for example, 1533), then select *OK*.
- From SQL Server Management Studio, do the following tasks:

1. If you want to use a non-default port with a named instance, select the server type *Analysis Services*, select the server name (it should be automatically selected unless you have several instances), then select *Connect*.
2. Right-click *Analysis server object* (top object named instance), and select *Properties*. The *Analysis Server Properties* window displays, which shows all configurable properties.
3. For enhanced security, change the default value to your port number (for example, 2724). This means that you use a fixed port, like for the SQL Server option. Then choose *OK*.

NOTE

We do not support a non-default port with the default instance in this release. If you want to use the default instance, do not change the port number.

- If you install Reporting Service Server with SQL Sever, choose *Install the default configuration* for SQL 2005 or *Install the native mode default configuration* for SQL 2008. If you install Reporting Service as the default, it creates two virtual directories and it has a non-default application pool. Therefore, users do not need to make an entry if using the default setting for Reporting Service Server.
- If you install Reporting Service Server with *Install, but do not configure server*, you should configure the setting for Reporting Service Server manually through Reporting Service Configuration Manager after installing Reporting Service Server. You can skip the following instructions if Reporting Service configuration is already set:

  SQL Server 2005

  1. Open Reporting Services Configuration Manager by choosing *All Programs* → *Microsoft SQL Server 2005* → *Configuration Tools* → *Reporting Services Configuration Manager*.
  2. Connect the Report Server you installed.
  3. Navigate to *Report Server Virtual Directory* and choose *New*. Choose *Website* and enter the Virtual Directory name. Choose *OK*.
  4. Navigate to *Report Manager Virtual Directory* and choose *New*. Choose *Website* and enter the Virtual Directory name. Choose *OK*.
  5. Navigate to *Web Service Identity*. You can select the existed Application pool or create new application pool. If you want to create new application, choose *New*, enter the application pool name, then choose *OK*.
  6. Select the application pool for Report Server and Report Manager, then choose *Apply*.
  7. Navigate to *Database Setup* , enter the server name, then choose *Connect*. If you want to use an existing database, select the database. If you want to create a new database, choose *New* and enter a database name to create.
  8. Choose *OK* and *Apply* to proceed.

NOTE

Make sure that the application pool for BPC is different than the application pool of Reporting Services. That is, you must make a new application pool in which to place the BPC application pool. In this case, the BPC application is in DefaultAppPool. Two different ASP.NET versions (1.1.4322 and 2.0.50727.0) cannot exist on the same application pool. You must distinguish between them after the BPC server installation.

SQL Server 2008

1. Open Reporting Services Configuration Manager by choosing *All Programs* → *Microsoft SQL Server 2008* → *Configuration Tools* → *Reporting Services Configuration Manager*.
2. Connect the Report Server you installed.
3. Navigate to *Web Service URL*. You can change the configuration. If you want to set various identities, choose *Advanced*. Choose *Apply* to proceed.
4. Navigate to *Database* and choose *Change Database*.
5. Choose *Create a new report server database* and choose *Next*.
6. Enter the server name, choose *Test Connection*, then choose *Next*.
7. Enter the database name and choose *Next*.
8. Choose an authentication type and choose *Next*.
9. Navigate to *Report Manager URL*. You can change the configuration. If you want to set various identities for Report Manager, choose *Advanced*. Choose *Apply* to proceed.

- Restart SQL, OLAP, and Reporting Services to get the latest settings.
- Confirm that the installation has completed successfully by checking that there are no installation related problems on the event viewer. You can then install BPC.

NOTE

- The only limitation for the application pool controlling Reporting Services (2005) is to run .NET Framework 2.0.
- BPC requires Reporting Services to use the Windows account when connecting to back-end databases.

2.3.4 Installing Analysis Services

Procedure

After you install SQL Server and its required service packs and hotfixes, you must install SQL Server Analysis Services and its required service packs and hotfixes.

NOTE

If you have migrated your Analysis Services repository to SQL Server, back up the database that contains the repository before installing this release.

To install Analysis Services for SQL2005, follow the steps and guidelines in http://technet.microsoft.com/en-us/library/ms143219(SQL.90).aspx.
To install Analysis Services for SQL 2008, follow the steps and guidelines in: http://technet.microsoft.com/en-us/library/ms143219.aspx.
To avoid slow performance when a user has more than six OLAP databases, follow the steps and guidelines in the Performance Guide for *SQL 2005* at http://www.microsoft.com/technet/prodtechnol/sql/2005/ssas2005perfguide.mspx.
To avoid slow performance when a user has more than six OLAP databases, follow the steps and guidelines in the Performance Guide for *SQL 2008* at http://www.microsoft.com/downloads/details.aspx?FamilyID=3be0488d-e7aa-4078-a050-ae39912d2e43&displaylang=en.

2.3.5 Installing Support Packages and Hotfixes

Procedure

Obtain operating system support packages and hotfixes from the following locations:

- Microsoft SQL Server 2005 Service Pack 2 at http://www.microsoft.com/downloads/details.aspx?FamilyID=d07219b2-1e23-49c8-8f0c-63fa18f26d3a&DisplayLang=en
- Cumulative update package 8 for SQL Server 2005 Service Pack 2 at http://support.microsoft.com/kb/951217/en
- Microsoft SQL Server 2008 Feature Pack at http://www.microsoft.com/downloads/details.aspx?familyid=C6C3E9EF-BA29-4A43-8D69-A2BED18FE73C&DisplayLang=en
- Cumulative update package 6 for SQL Server 2008 Service Pack 1 at http://support.microsoft.com/kb/977443

2.4 Before Starting the Server Installation

You must perform the following tasks before starting your Business Planning and Consolidation server installation:

- Install all the prerequisite software, including all of the latest Microsoft hotfixes. For more information, see *Installing the Server Prerequisites* [page 12].
- If you access your Application, Web, or Reporting Services server components through a firewall, verify with your network administrator which TCP ports to choose during the installation. By

default, port 80 is the setting for standard http access, and port 443 is the setting for https access. If you require a service to listen on a different port, you can specify it during the installation program in *Advanced Settings*. See *Standard and Advanced Settings* [page 29].

- Make sure all required server ports are open, and that there is communication between the physical servers on which you are going to install the server types. See *Checking for Open Ports* [page 45].
- Set up the required service accounts that you need to install the Business Planning and Consolidation server. See *Service-Level Accounts* [page 28].
- The sample application set, ApShell, has been updated in this version of Business Planning and Consolidation, and automatically overwrites the previous version of ApShell. If you have made any modifications to ApShell that you want to keep, make a copy of it before continuing with the installation.
- If you have the URLScan and IIS Lockdown tools installed on your Web server, you must reinstall them using the Business Planning and Consolidation configuration templates.
- Disable your anti-virus software program. After the installation, when you enable the program, turn off *Blocking Script*.
- Ensure another version of the Business Planning and Consolidation server does not exist. If one does, uninstall it before you install this release.
- Do not install the FileShare server type on a domain controller.
- Configure your server for NTFS, which is required. To convert to NTFS (from FAT), at a DOS prompt enter: *convert c: fs:ntfs/V*.
- All servers in a multiserver environment must be members of the same domain.
- All users in a multiserver environment that require access to Business Planning and Consolidation must be domain users.
- In a multiserver environment, the installing ID must be a domain user ID. We recommend that you do not log on to the servers using a local server user ID, even if the user ID is a member of the Administrators group on the server. This way you have the proper authority to install software and to modify the Component Services. See *Logging On to Servers* [page 28].
- You must determine the IP addresses or server names for all servers before installing Business Planning and Consolidation. We recommend that you use static IP addresses.
- If you are installing the FileShare server component on a separate server than the Application server component, then you must change the shared folder name on the FileShare server to Osoft before the installation. If the shared folder name is not Osoft the installation fails. Also, you should set the network permissions of the shared folder so that it has only SysAdmin ID with full control permission. See SAP Note 1279574.
- IIS must be enabled on the Web, Application, and Reporting Services servers (SQL 2005).

- If the application server is not able to copy files to the database server during the installation because of port access reasons (DMZ, WORKGROUP, or nontrusted domain authentication failures), do the following:
  - Copy the ApShell database file *Server\ApShell.db9* from the Business Planning and Consolidation installation program to any folder on the SQL Server (for example, *c:\ApShell.db9*).
  - During the installation procedure (on the *Server Information* page), specify the location of the ApShell database file in the ▶ *Server Information* → *Advanced Options* → *Local path for ApShell DB* ◀ field (for example, *c:\ApShell.db9*).

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3 Installation of the Server

This section includes the basic steps for installing a Business Planning and Consolidation (BPC) server, the prerequisites, what to do before the server installation, and steps for performing a server installation.

1. From the Application server, install the BPC server. See *Installing BPC on a Single Server* [page 25].
2. If you have a separate machine for the Web server, install the Web server component of the BPC server on that machine. See *Installing the BPC Server in a Multi-Server Configuration* [page 26].
3. Perform the steps in the section *After Installing BPC Servers* [page 33].

3.1 Installing BPC on a Single Server

When you install all server components on a single server, be aware of the following issues:

- Make sure the server has a minimum of 800 MB of hard disk space.
- Additional application set installations require more free disk space, which is a minimum of two times the uncompressed size of the application set files.

When you install Business Planning and Consolidation on a single-server, the system adds the following server components:

- SQL DB Server
- OLAP Server
- Insight OLAP Server
- Application Server
- FileShare server
- Web server

Procedure

To install the software on a single server, take the following steps:

1. Exit all Windows programs.
2. Log on to the server with a local server user ID or domain user ID. For more information, see *Logging on to servers* [page 28].
3. Make sure all prerequisite software is installed on the server. For more information, see *Installing the Server Prerequisites* [page 12].

4. Obtain SAP Business Planning and Consolidation from the *Downloads → Support Packages and Patches* area of SAP Service Marketplace, then extract the files and run *StartUp.exe*.
   Do not run Setup.exe directly under the Server or Upgrade folder.
5. Confirm that Reporting Services is running. Do one of the following:
   - If you have SQL Server 2008, open the configuration tool for Reporting Services, then click the URL link on the *Web Service URL* page.
   - If you have SQL Server 2005, open the URL for Reporting Services, such as `http://SERVERNAME:PORT/ReportServer$INSTANCE`.
6. From the *Server Install* screen, select *Install server on SQL Server 2005* or *Install server on SQL Server 2008*, as appropriate.
7. From the *Welcome* screen, choose *Next*.
8. From the *License Agreement* page, choose *I accept the terms of the license agreement*, then choose *Next*.
9. From the *Installation Method* page, accept the default, *Single server*, and choose *Next*.
10. From the *Service type accounts* page, enter service-level account user IDs and passwords.
11. After defining the IDs and passwords, choose *Next*.
12. From the *Server Information page*, do one of the following:
    - Review the standard settings, and choose *Next*.
    - To set advanced settings, choose the *Advanced Settings* button. Enter the desired information and choose *Next*.
13. Specify the location and name of the Xceedzip.dll (Application and Web server) and AmyuniPDF.exe file (Application server), then choose *Next*.
14. Select destination folders for Programs and Data. The Data files include Webfolders and FileDB (published reports) and should be installed on a separate drive in a production environment. Accept the defaults or make your selections, then choose *Next*.
15. The installation process takes a few moments. When it is complete, choose *Exit*.
16. A prompt is displayed to restart your computer. Select *OK* to restart.
17. Perform the steps in *After Installing BPC Servers* [page 33].

3.2 Installing the BPC Server in a Multi-Server Configuration

Procedure

A multi-server installation is the most flexible installation option. It allows you to install the required server types in a variety of ways.

You can install the SQL, OLAP, and FileShare types remotely from the Application server, but you cannot install the Web server remotely. This means that you might have to run the installation program

at least twice: once on the Application server and once on the Web server. You perform additional server installations if you have multiple Web or Application servers.

To install BPC in a multi-server configuration, follow these steps:

1. Log on with a domain user ID to the server where you are installing the application server.
2. Obtain SAP Business Planning and Consolidation from the *Downloads → Support Packages and Patches* area of SAP Service Marketplace, then extract the files and run *StartUp.exe*.

   

   NOTE

   Do not run Setup.exe directly under the Server or Upgrade folder.
3. Confirm that Reporting Services is running. Do one of the following:
   - If you have SQL Server 2008, open the configuration tool for Reporting Services, then click the URL link on the *Web Service URL* page.
   - If you have SQL Server 2005, open the URL for Reporting Services, such as `http://SERVERNAME:PORT/ReportServer$INSTANCE`.
4. From the *Server Install* screen, select *Install server on SQL Server 2005* or *Install server on SQL Server 2008*, as appropriate.
5. From the *Welcome* screen, choose *Next*.
6. From the *Installation Method* page, select *Custom multiserver*, and do one of the following:
   - Select *Application Server* if you are installing the Application server. This option allows you to install the other components as well (SQL DB, OLAP, File). You can also choose to install the *Sample Application* set.

     

     NOTE

     Install the sample application set on only one Application server if installing multiple Application servers. You need the sample application set, which includes default security settings and templates, to create new application sets.
   - Select *Web Server* if you are installing the Web server, then choose *Next*.
7. From the *Service type accounts* page, enter service-level account user IDs and passwords (see *Service-Level Accounts* [page 28]).
8. After defining the IDs and passwords, choose *Next*.
9. From the *Server Information* page, do one of the following:
   - Review the standard settings, and choose *Next*.
   - Choose the *Advanced Settings* button. Enter the desired information and choose *Next* (see *Standard and Advanced settings* [page 29]).
10. Specify the location and name of the *Xceedzip.dll* (Application and Web server) and *AmyuniPDF.exe* files (Application server), then choose *Next*.

11. Select destination folders for the Programs and Data. The Data files include Webfolders and FileDB (published reports); install them on a separate drive in a production environment. Accept the defaults or make your selections, then choose *Next*.
12. The installation process takes a few moments. When complete, choose *Exit*.
13. Install Web servers on their physical machines.
14. Perform the steps in *After Installing BPC Servers* [page 33].

3.3 Logging On to Servers

When installing in a multi-server environment, you must use a domain user ID to log on to all components.

A local server user ID is a member of the Administrators group on the server. A domain user ID is a member of the Administrators group of a domain to which the server belongs, or a member of the Administrators group on the local server.

Note that errors may display during the installation program and in the Diagnostic program if the installing user is not assigned to the Administrators group directly, but is assigned to a group with Administrator rights. These messages can be ignored.

NOTE

If you change the password used to install BPC, you must reset the SQL, Application server, and Web server passwords as well. To do this, go to Server Manager on the Application server, and select *Server → Reset Logon Credentials*. For more information, see the *SAP Library Server Manager Guide* in `http://service.sap.com/instguidescpm-bpc` *7.0, version for the Microsoft platform*.

3.4 Service-Level Accounts

Service accounts are Windows domain IDs with access to all BPC servers with varying levels of privileges. They allow the software to use the least-privileged method required for each job, making it more secure. You must define these user IDs on the Windows machine. For security purposes, they should not be used to define BPC users.

During the installation, enter user IDs and passwords for the following user types:

- System Admin ID – This ID is read-only and is the same as the installation user ID. This ID allows access to code that provides system administrator-level functionality. For example, this ID can write to the Windows registry, has full access to the FileShare server, and can create, remove,

backup, and restore OLAP and SQL databases. The system administrator should be a member of the domain users group, local administrators group, and SQL administrators group.

- Admin ID – This ID allows access to code that provides Admin-level functionality. For example, this ID can create subdirectory access on the FileShare server, read/write metadata and application set database data in OLAP, and can create and remove tables in SQL. The Admin should be a member of the domain users group and the local administrators group.
- User ID – This ID allows access to code that provides user-level functionality. For example, this ID can read/write temporary files on the servers, has write access to FileShare data, and can read metadata and data in OLAP and SQL. The User ID must be a member of the domain users group.

3.5 Standard and Advanced Settings

The following tables describe the standard and advanced settings for the installation program. After the server is installed, you can change these settings using the Server Manager.

NOTE

When defining server names, the name refers to the NetBIOS name, IP address, and fully qualified domain names (FQDN).

Standard Settings

Standard settings are typically used for a single-server environment. The following table describes each setting:

Server Option	Value Description
SQL Database server name	The name of the SQL DB server.
OLAP server name	The name of the OLAP server.
Insight OLAP server name	The name of the Insight OLAP server.
File Share server name	The default value is the name of the File Share server that should be the computer name (NetBIOS name).
Local data path	Where the data files are saved on the File Share server. By default, C:\BPC\Data.
Reporting Services server name	The name of the Reporting Services server.
Application server name	The name of the Application server.
Web server name	The name of the Web server.

Advanced Settings

Advanced settings are typically used in a multi-server environment. The following table describes each setting:

Server Option	Value Description
SQL Server Name	The name of the SQL DB server. Defaults to the local server.
- Instance name	The SQL instance name. If left blank, the default instance is used.
- Port number	The port number. Leave blank if you want to use the default port or a dynamic port.
- Provider	The only available value is SQL.
OLAP Server Name	The name of the OLAP server.
- Instance name	The OLAP instance name. If left blank, the default instance is used.
- Port number	The port number. Leave blank if you want to use the default port or a dynamic port.
Local path for ApShell DB	The path for the ApShell database.
Insight OLAP Server Name	The name of the Insight OLAP server. Default is the local server.
- Instance name	The Insight OLAP instance name. If left blank, the default instance is used.
- Port number	The port number. Leave blank if you want to use the default port or a dynamic port.
File Share Server Name	The default value is the name of the File Share server that should be the computer name (NetBIOS name).
- Local data path	Where the data files are saved on File Share server. By default, C:\BPC \Data.
Reporting Services Server Name	The name of the Reporting Services server. The default value is the name of the local server.
- Instance name	The Reporting Services instance name. The instance name can be changed.
- External server name	TCP/IP address for accessing the server from outside a firewall.
- Virtual server name	The name of the Virtual server. **NOTE** With SQL Server 2008, the virtual directory for Reporting Services is created with an underscore (_) rather than a dollar sign ($), such as *ReportServer_Instance Name*. This is different than SQL Server 2005. While installing BPC server, you should modify this virtual directory name for Reporting Services Server manually since the default value is *ReportServer$Instance Name*. If you install BPC server with SQL Server 2008 without modifying the virtual directory name in Advanced Settings, you can update the virtual directory name using Server Manager.
- Protocol	The protocol on the Reporting Services server. The available values are *http* or *https*. The default value is http.
- Port number	The port number to which the Reporting Services server connects. *80* is the default for http and *443* is the default for https.

Server Option	Value Description
- Authentication type	The authentication type on the Reporting Services server. The default value is Integrated. Basic.
Application Server Name	The name of the Application server.
- External server name	TCP/IP address for accessing the server from outside a firewall.
- Virtual server name	The server name for load balancing if it is installed.
- Website	The IIS web site name, if it differs from the default web site.
- HTTP compression	The default value is *No*. (*Yes* provides better performance in some situations.)
- Protocol	The available values are *http* or *https*. The default value is *http*.
- Port number	The port number to which the Application Server connects. *80* is the default for http and *443* is the default for https.
- Authentication type	Windows or Kerberos. The default is Windows. If you change this value from Windows to Kerberos, you must make some additional changes. See the **Kerberos authentication settings** section in the *SAP Library Server Manager Guide* on http://service.sap.com/instguidesCPM-BPC *7.0, version for the Microsoft platform*.
Scheduler Server Name	The name of the server used for scheduling, usually the application server, for example, *GMPV50072862B*. If you have multiple Application servers, select the appropriate one.
Web Server Name	The name of the Web server, for example, *GMPV50072862B*.
- External server name	TCP/IP address for accessing the server from outside a firewall.
- Virtual server name	The server name for load balancing, if it is installed.
- Website	The IIS web site name, if it differs from the default web site.
- HTTP compression	The default value is *No*. (*Yes* provides better performance in some situations.)
- Protocol	The available values are *http* or *https*. The default value is *http*.
- Port number	The port number to which the Reporting Services Server connects.*80* is the default for http and *443* is the default for https
- Authentication type	Windows or Kerberos. The default is Windows. If you change this value from Windows to Kerberos, you must make some additional changes. See the **Kerberos authentication settings** section in the *SAP Library Server Manager Guide* on http://service.sap.com/instguidesCPM-BPC *7.0, version for the Microsoft platform*.

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4 After Installing BPC Servers

4.1 Required Post-Installation Steps

Procedure

You must follow these steps after installing the BPC servers for new installations as well as when upgrading from Business Planning and Consolidation 4.2x or 5.x:

1. Install the Anti-Cross Site Scripting Library, which provides protection to Web-based applications against Cross-Site Scripting (XSS) attacks. See *Installing the Anti-Cross Site Scripting Library* [page 35].
2. To ensure proper functioning of the Management Console, create a SQL user, and modify the System DSN and IIS to reflect those user credentials. See *Enabling Management Console* [page 35].
3. Modify the default access rights to the Management Console. By default, users in Active Directory can access the Management Console with whatever rights they have been granted on the server. For information about removing default access and creating a group that can access the console, see *Removing Default Access to the Console* [page 36].
4. Add authorized users or groups to the group (mentioned in step 3) that can access the Management Console. We recommend that you only grant Management Console access to system administrators; BPC users should not have any access. For more information, see *Management Console Access Control* [page 37].
5. Take the following steps to set up security:
   - If you are defining security and application structure, continue with the next step (6).
   - If you want to designate someone other than the system administrator to define security and application structure, log on to ApShell, then designate a user as a Primary administrator. This user must have Administration - Appset and Security – Define User task rights, so they can add and delete application sets and define user security.
   - The Primary Administrator can continue with the next step (6).
6. From the machine on which you administer Business Planning and Consolidation, install the Administration client. See *Installing the Administration Client* [page 39].
7. Start BPC Administration from the launch page, and select *Manage Application Sets* from the action pane.
8. Select the *Connection Wizard* button, and log on to ApShell.
9. Create a new application set using ApShell as the source.

10. Log on to the newly created application, and set up users, teams, and task profiles. (You must set up task profiles since there is no access to BPC tasks.)
11. Create a Financial-type application with at least one secured dimension. (This is typically the Entity dimension.)
12. Set up your member access profiles, and add users (or teams) to one or more member access profiles. (You must complete this step, since there is no access to dimensions or members.)
13. After you update security, and before users access the system, you must create the dimension files on the server. Log on to BPC for Excel as an Administrator, and do the following:
    1. From the launch page, open the *Client Software Center* page.
    2. Select *BPC 7 for Office Installation*. Follow the prompts to install the client software.
    3. After you complete the installation, log on to *BPC for Excel* with the BPC Administrator ID. When the *Update Complete* message displays, click *OK*.
    4. Exit *BPC for Excel*.
14. You can install the Office clients on individual users' machines, or users can install them (if they have Administrator rights on their machines).

    In addition, note the following:
    - After you install the BPC server, you may notice that during the reboot of the system, the *Send Governor* service fails to start until the *COM+* service has been started. This occurs because *Send Governor* has a service-level dependency that is not set during the installation. To resolve this manually, create a dependency by adding a multistring value registry setting named *DependOnService* with the value *COMsysApp* at the following location: `HKLM\System\CurrentControlSet\Services\OSoftSendGovernor`. For more information about how to delay Windows services, see `http://support.microsoft.com/?Kbid=193888.`
15. If you want to use Insight after installing Business Planning and Consolidation for the first time or if no application sets have Insight enabled, the OutlookSoft Insight Service must be set to *Automatic*. Verify this and make the change, if necessary, within *Administrative Tools* → *Services* on the Application server.

Upgrading from Version 7.0 and later

You must follow these steps after installing the BPC servers:

1. Install the Administration client. See *Installing the Administration Client* [page 39].
2. Install the Office clients. See *Installing the Office Client* [page 40].
3. If you are upgrading from 7.0 SP00 or SP01 and you want to use Insight with an application set, you must set the OutlookSoft Insight Service to *Automatic*. By default, this service is stopped and set to Manual startup. Make this change within *Administrative Tools* → *Services* on the Application server.

NOTE

If you are upgrading from 7.0 SP02 or later and you have an Insight-enabled application set in SP02, you do not need to make this adjustment as the upgrade sets the service to *Automatic* by default.

NOTE

To allow users to request and query large amounts of data, you can edit the *metabase.xml* file located at *C:\Windows\system32\inetsrv*. Set the following parameters to the stated values:

- *ASPBUFFERINGLIMIT = 10485760*
- *MAXREQUESTENTITYALLOWED = 10485760*

4.2 Installing the Anti-Cross Site Scripting Library

Procedure

After installing BPC servers, you must install this library, which provides protection to Web-based applications against Cross-Site Scripting (XSS) attacks.

To install the library, follow these steps:

1. Download the Anti-Cross Site Scripting Library setup program from http://www.microsoft.com/downloads/details.aspx?familyid=efb9c819-53ff-4f82-bfaf-e11625130c25&displaylang=en .
2. Run the Anti-Cross Site Scripting Library setup program.
3. Verify that the setup program created the subfolders \Library\.NET 1.1 under the destination folder and that AntiXssLibrary.dll exists there.
   For example, if you installed the Library to the default destination folder, verify that AntiXssLibrary.dll exists in C:\Program Files\Microsoft Corporation\Anti-Cross Site Scripting Library V1.5\Library\.NET 1.1.
4. Copy AntiXssLibrary.dll to *<BPC_folder>\Programs\Websvr\Web\bin* on both the BPC Application server and the BPC Web server.

4.3 Enabling Management Console

Procedure

To ensure proper functioning of the Management Console, you must do the following:

1. Change the following authentication modes:
   - Change the Microsoft SQL Server authentication mode to *SQL Server and Windows Authentication mode*.

- Change the IIS setting to basic authentication. Use the following procedure:
  1. In the context menu of the `ManagementConsole` virtual directory (in the IIS of the Application Server), choose *Properties*.
  2. On the *Directory Security* tab, change the *Authentication and access control* selection to *Basic Authentication*.

2. Create a Microsoft SQL Server user to access `AppServer` as the default database. Give the `db_Owner` database role to the user for `AppServer` database.
3. Enter the Microsoft SQL Server user information in the `BPC_ManagementDSN` system DSN in `DataSource (OBDC)`.
4. In the IIS web site of the BPC application server, modify the *Active Log Format* option to use *ODBC Logging*. Enter the following values:
   - *DSN* is **BPC_ManagementDSN**
   - *Table* is **BPCLog**
   - The Microsoft SQL Server *Username* and *Password*.
5. Restart IIS.

NOTE

Without these updates, the Management Console does work, but some functionality (specifically, BPC Logging, User Activity and Service Status) does not work as expected.
After you uninstall BPC, we recommend that you reset the *Active Log Format* field in IIS to *W3C Extended Log File Format*. After you reinstall BPC, set the field back to *ODBC Logging* and reset the DSN entries as outlined above.

4.4 Removing Default Access to the Console

Procedure

To remove default access to the Management Console and create a group that does have access to the console, use the procedure described below.

NOTE

Create your Management Console administrative group either on the server that hosts the Management Console or in the Active Directory.

1. In the context menu of the server's *My Computer* icon, choose *Manage*.
2. In the Computer Management dialog box, choose *Local Users and Groups* → *Groups*.

> **NOTE**
>
> Alternately, you can perform analogous steps in Active Directory.

3. In the *Groups* context menu, choose *New Group*.
4. Enter data as required. Click *Create*.
5. In the Computer Management dialog box, choose ▶ *Services and Applications* → *Internet Information Services* → *Web Sites* → *Default Web Sites* → *Management Console* ↵.
6. In the *Management Console* context menu, choose *Permissions*.
7. Click *Add*, and add the group you created earlier in this procedure.
8. Click *Advanced*.
9. On the *Permissions* tab, deselect the *Allow inheritable permissions from the parent to propagate to this object and all child objects. Include these with entries explicitly defined here* checkbox.

> **NOTE**
>
> This step is a necessary precursor to the completion of this procedure.

10. In the *Security* dialog box, click *Copy* (to ensure that the `System` group retains its privileges).
11. Remove access to the Management Console from all groups that should not have it.

Result

Users who have not been granted access to the Management Console will still be able to open the Management Console Web page, but it will not contain any data or menu options (this will not affect the access that a user would otherwise have to BPC).

4.5 Management Console Access Control

After establishing the Management Console group, you can add users or groups to it. For information about creating this group, see *Removing Default Access to the Console* [page 36]. Their rights in Active Directory determine what they can access in the Console.

By default, any member of the Administrators Active Directory group on the Application Server or Domain will have full access to all of the features of the Console except the BPC logging area. Access to BPC logging is controlled within the BPC Administration Console task security. The user must be granted *WebAdmin* task privileges. For more information, see the *SAP Library BPC Administration Guide* in ▶ `http://service.sap.com/instguidescpm-bpc` → *7.0, version for the Microsoft platform* ↵.

Your IT policy will determine whether you grant access by group or user. You may wish to create several levels of Console users (read-only users, for example) in your environment.

In order to grant or limit access to users or groups, you can add or remove the following privileges from the areas described in this table:

Privilege	Rights Management Area
Task Manager and Kill Process	Administrators group on Application Server or Domain
Performance Monitor Counters	■ Administrators group on Application Server or Domain ■ Power Users group on Application Server or Domain ■ Performance Monitor Users group on Application Server
Microsoft Analysis Services performance monitoring	■ Administrators group on Application Server or Domain ■ SQLServer2005MSOLAPUser* group on Database Server
Microsoft SQL Server Monitoring (performance counters and statistics)	■ Administrators group on Application Server or Domain ■ SQLServer2005MSSQLUser* group on Database Server
Web Server section	■ Administrators group on Application Server or Domain ■ SQLServer2005MSSQLUser* group on Database Server **NOTE** Web server statistics are pulled from the database. As such, the user must have permission to SQL in order to access the data from the IIS log table.

5 Installing Business Planning and Consolidation Clients

The client components, BPC Administration and BPC for Office, are installed separately.
The installation of the BPC Administration component allows administrators to build and maintain BPC application sets and applications, and administer security. It also has many other functions, including maintenance of your business logic and business process flows.
The BPC for Office component is used for all reporting, budgeting, publishing, and other end-user tasks. The Office component includes Data Manager, which is used to move data between external systems and BPC.

NOTE

You must update the Administration and Office components to the same version as the server. If your PC is on a different domain than your server, you must set the Internet Explorer Security Zone value of the BPC client to prompt for user name and password. Otherwise, the BPC Launch page does not display.

5.1 Installing the Administration Client

Prerequisites

The following list describes the minimum software requirements:

- A list of the currently supported operating systems is available in the Product Availability Matrix on SAP Service Marketplace at `http://service.sap.com/pam`. Search on Planning and Consolidation.
- Microsoft Internet Explorer 6.0 or later
- Microsoft Office 2003 or 2007
- .NET Framework 1.1 SP1 (Install the .NET Framework 1.1 Hotfix by going to: `http://support.microsoft.com/kb/899511`)
- XML 3.0 SP1 or later (included with the IE 6.0 software)
- Pentium IV (1 GHZ CPU)
- 512 MB RAM
- 100 MB of free hard disk space in the My Documents folder

- 20 MB of free hard disk space for the installed Administration files
- Xceedzip.dll

NOTE

In order for the software to function correctly in Excel 2007, you must install the Microsoft Office 2007 system driver Data Connectivity Components, which you can get from the Microsoft web site. The components must be installed on the Application server.

We recommend that you install all of the latest Microsoft Windows hotfixes prior to installing the Administration client. For information about which hotfixes to install, see http://www.microsoft.com/downloads/details.aspx?FamilyID=7554F536-8C28-4598-9B72-EF94E038C891&DisplayLang=en.

Procedure

The following procedure describes how to install the Administration client onto an administrator's machine from BPC Web. You must log on to that machine as a member of the local Administrators group.

To install the Administration client, follow these steps:

1. Uninstall any previous versions of the BPC Administration client. (Use Add/Remove Programs in the Windows Control Panel.)
2. Point your browser to BPC Web at http://<servername:port>/osoft, where <*servername:port*> is the name or IP address and port of the server where you installed BPC.
3. Select the *Client Software Center* link or icon from the *BPC Launch* page.
4. Select *BPC 7 Admin Client Installation*.
5. Select *I accept the terms of the license agreement*, then select *Next*.
6. From the installation wizard, select *Next*, then *Next* again.
7. Select the language in which you want to see the user interface, then select *Next*.
8. Select *Next* to install the program to the default location, or choose *Browse* to install it to an alternate location. If you choose *Browse*, specify the location, then choose *OK*, then *Next*.
9. Choose *Finish*.

5.2 Installing the Office Client

This topic describes the minimum prerequisites required and how to install the BPC for Office client.

NOTE

For Office client installations, you must log on to the Office client as an administrator before the business user of the local machine logs on for the first time in order for the registry key for XCeedZip to be created.

Prerequisites

- A list of the currently supported operating systems is available in the Product Availability Matrix on SAP Service Marketplace at http://service.sap.com/pam. Search on Planning and Consolidation.
- Microsoft Internet Explorer 6.0 or later
- Microsoft Office 2003 or 2007
- .NET Framework 1.1 SP1 (Install the .NET 1.1 Hotfix by going to: http://support.microsoft.com/kb/899511)
- XML 3.0 SP1 or later (included with the IE 6.0 software)
- Pentium IV (1 GHZ CPU)
- 512 MB RAM
- Xceedzip.dll
- 100 MB of free hard disk space in the *My Documents* folder
- 30 MB of free hard disk space for the installed client files
- Adobe Reader (free from Adobe)

NOTE

- In order for the software to function correctly in Excel 2007, you must install the Microsoft.ACE.OLEDB.12.0 provider, which you can get from the Microsoft Web site. You must install the provider on the Application server.
- We recommend that you install all of the latest Microsoft Windows hotfixes prior to installing the Office client. For information about which hotfixes to install, see http://update.microsoft.com/windowsupdate/v6/default.aspx?ln=en-us
- You must download XCeedZip.dll; it is not included with the Business Planning and Consolidation installation files. The BPC installation program does in fact install it for you after it has been downloaded. Download XCeedZip.dll from *http://service.sap.com/swdc/* by selecting *Download* → *SAP Cryptographic Software*. We suggest you download this file to C:\Program Files\BPC. You are prompted for the location of this file during the Business Planning and Consolidation installation.

Procedure

To install the BPC for Office client, log on to a machine in which the user is part of the Administrators group and do the following:

1. Uninstall any previous versions of the BPC for Office clients. (Use Add/Remove Programs in the Windows Control Panel.)
2. Point your browser to BPC Web (`http://<servername:port>/osoft`), where *servername:port* is the name or IP address and port of the server where you installed BPC.
3. From the *Business Planning and Consolidation Launch* page, choose the *Client Software Center* link or icon.
4. Select *Business Planning and Consolidation for Office Installation*.
5. From the installation wizard, choose *Next*, then *Next* again.
6. Select *I accept the terms of the license agreement* then choose *Next*.
7. Select the language in which you want to see BPC for Office client messages, then choose *Next*.
8. Choose *Next* to install the program to the default location, or choose *Browse* to install it to an alternate location. If you choose *Browse*, specify the location, then choose *OK*, then *Next*.
9. When the installation is complete, choose *Finish*.

Installing the Office client in Unattended mode using SMS

You can perform an unattended install of the Office client and Administration programs on client machines. For more information, see *Installing the Office Client in Unattended Mode Using SMS* [page 43].

5.3 Using the Client Auto Update Program

Procedure

You can use the Client Auto Update program to set up the server so that it determines if a connecting client (Office or Administration) upgrade is necessary. If the system finds a previous version, it prompts the user to perform the upgrade. If turned off, clients must be installed manually.

To use the Client Auto Update program:

1. From Server Manager, select *Options* → *Client Options*.
2. Select the *ON* radio button for the Client Update (Office component), or Admin Update (Administration component).
3. If users without administrator rights on their machines use the auto update, enter an admin ID and password in the Admin ID and Admin password fields, respectively. The Admin ID should be a member of the local administrators group on all the computers running the auto update. This setting is not needed if all users have administrator rights on their machines.
4. Select *Update*.

5.4 Installing the Office Client in Unattended Mode Using SMS

Procedure

You can perform an unattended install of the Office client and Administration programs on client machines. For unattended installation, SMS can use the setup program in the *Client for SMS\Client* folder or the *Admin* folder to install BPC. SMS also install supports Silent mode, where the installation messages are suppressed.

NOTE

Contact Product Support to request a copy of this installation program.

If you want to run an unattended install, you modify or create the following files:

1. Setup.iss file — This file is used to specify the unattended setup and can be modified by a system administrator who is familiar with SMS, although in most cases no changes are required.
2. Record a response file — When you run an unattended installation, the response must be recorded in an Installation Setup Initialization file (.ISS). To create this file, run the *Setup.exe –r* command on a clean machine. InstallShield records the installation choices in the Setup.iss file, and places the file in the windows or winnt folder.

5.5 Customizing Client Software

Procedure

There are several ways you can modify software located on the clients that connect to a particular server. You can make the following modifications:

- Modify the client system requirements.
- Modify the messages displayed during the Administration client installation.
- Modify the messages displayed during the Office client installation.

Modifying the client system requirements

When users log on to their BPC clients, the BPC server checks for certain prerequisite software versions to make sure the minimum required versions are installed. The way the system determines which versions are acceptable is by looking at certain settings on the server. The table below describes the options you can modify.

When you get a new build of the server software, the settings are automatically configured. If you want to change the software version (for example, you want your clients to support an earlier version of a prerequisite), you can change that setting. When set this way, the server determines when a client machine has an earlier version than the specified version, or does not have the software, and the prerequisite software gets installed when a user opts to update their software.

Option	Description
Client Option	The latest version number of XML installed on the server, and where the XML file to download is located.

To modify client system requirements, follow these steps:

1. Open *Server Manager*, then select *Options* → *Client Options*.
2. Enter the desired XML version.

Modifying Administration installation messages

You can modify the messages that are displayed on the dialog boxes during the Administration component installation.

1. From the server, open the *CustomMsgAdminEnglish.txt* file (located in *c:\BPC\Websrvr\Web\Installation*, where c is the drive on which the BPC Web server component is installed). Open it using a text editor like Notepad,
2. Save the file under another name to back it up.
3. Modify the file, then save and close it.

Modifying the Office client installation messages

You can modify the messages that are displayed on the dialog boxes during the Office client installation.

1. From the server, open the `CustomMsgEnglish.txt` file (located in `c:\BPC\Websrvr\Web\Installation`, where c is the drive on which the BPC Web server component is installed). Open it in a text editor like Notepad,
2. Save the file under another name to back it up.
3. Modify the file, then save and close it.

5.6 Using the Client Diagnostic Program

Procedure

This program can help you to troubleshoot your Office client or Administration software. Run this program before contacting your SAP representative, as it provides useful information on the status of your client. To use the Client Diagnostic program, take the following steps:

1. Point your browser to *BPC Web*.
2. Select the *Client Diagnostic* link.
3. Select *Client features* or *Admin features*, then choose *Next*.
4. Choose *More info* to see system information.
5. Choose *Close* to close the dialog box.

6 Connection Issues

You may experience connection problems with ports, the proxy server, or programs and settings that interact with these components. If you have any issues related to connection, review the following recommendations and troubleshooting tips.

6.1 Checking for Open Ports

You must ensure that all required ports are open for inbound/outbound traffic. By default, BPC requires that Ports 80 (used by http) and 1433 and 2383 (used by SQL Server/Analysis Services 2005) are open. To test whether the required ports are open, go to a command prompt and enter *Telnet serveripaddress*. For example, *Telnet 43.118.18.36 80*. If the system returns a blank command window, the port is open. If it returns a message stating that it cannot connect, the port is not open.

NOTE

You can use the following site to scan for the normal ports. It allows you to manually enter a port number to test.

http://www.myserver.org/portsniff.asp

You can change the name of a port.

6.2 Proxy Server/Firewall Issues

For questions about specific proxy servers, contact your SAP representative.

General considerations

- If you connect to the Internet through a firewall or proxy server, you need to add the IP address of the BPC server as an exception. You can do this at the client level (*Internet Explorer* → *Tools* → *Internet Options* → *Connections* → *LAN Settings*) or at the server level.
- Enabling content filtering on the proxy server or firewall may cause connection problems.
- If external users are having trouble connecting to the server, make sure the proxy server connects using a fully qualified domain name. Fully qualified domain names typically resolve both internal and external IP addresses.

- Each secure BPC server name must be identified on the proxy server. For example, if the Web server and OLAP Server components both connect to a proxy server, make sure both names are identified on the proxy server.
- Proxy servers may or may not require authentication, which could conflict with BPC's authentication. Do not use authentication on the proxy server. The system synchronizes the user name and password on the remote server with the local user name and password.

NOTE

For more information about setting up an ISA proxy server, contact your SAP representative to request a copy of *Setting up ISA Proxy Server* White Paper.

Internet Explorer Settings Issues

Internet Explorer settings must be set correctly to prevent errors and problems when you attempt to access the BPC server using the Connection Wizard. Change the settings by taking the following steps:

1. From Internet Explorer, select *Tools* → *Internet Options*.
2. From the *General* tab, delete all temporary Internet files, cookies, and history.
3. From the *Security* tab, set security to *Default* level for Internet and local intranet.
4. From the *Connections* tab, choose the *LAN settings* button. If you select *Use a proxy server for your LAN*, then insert the IP address or fully qualified server name of the BPC server as an exception by choosing the *Advanced* button.
5. From the *Advanced* tab, choose the *Restore Defaults* button, *Apply*, then *OK*.

Microsoft Office issues

There should only be one instance of Excel installed on the client machine. You can check this by using *Add/Remove Programs*. Multiple instances of Office may cause errors when you perform administrative functions in BPC.

Microsoft Windows issues

If you have Windows XP SP2, disable the Windows firewall.

Norton AntiVirus issues

Having *Script Blocking* enabled in Norton AntiVirus can cause the following issues:

- You cannot view the contents of the installation page in BPC Web.
- Errors downloading dimension files when logging into the Office client.

7 Installing BPC in a TS or Citrix Server Deployment

This section describes best practices and instructions for installing BPC in a Terminal Services or Citrix Server deployment.

7.1 Terminal Services Home Directories

We recommend using Terminal Server home directories rather than using the user's profile directory. The profile directory downloads a minimal amount of information about the dimensions of the application set you are logging on to and may be as large as 2 MB per user. The profile directory is on the system drive and has limited space. By specifying a home directory, you can manage the disk space required.

If you have a farm of servers, put the profile information in a common home directory rather than on each individual server, so that all users consistently use the current download of dimensions.

7.2 System Requirements

The following programs are required on the Terminal Services or Citrix Server computer:

- Office 2007 or 2003
- XML Version 3 SP1 or later
- .NET Framework 1.1 SP1 or later
- Adobe Reader

7.3 Installing BPC

Procedure

The following steps outline how to install the BPC clients in a Terminal Services or Citrix Server deployment:

1. Make sure the TS or Citrix Server machine has the system requirements installed.

2. Log on to the Terminal Services or Citrix Server machine with a user ID that has the rights to install on that server.
3. At a command prompt, enter *Change user/install*.
4. Open a browser and connect to the url `http://servername/osoft`.
5. Log on to the web site with the service account, password, and domain.
6. Go to the *Software Center* and install the BPC Administration and BPC for Office clients.
7. Go back to the command prompt and enter *Change user/execute* or *Restart the server*.
8. For only Citrix Server, you must publish each client application. Take the following steps:
   - To publish the BPC Launch page: *Iexplore.exe http(s)://ServerName-NetBIOS* or *FQDN/osoft*
   - To publish BPC Administration: *C:\Program Files\BPC\OsoftAdminMain.exe*
   - To publish BPC for Office: *C:\Program Files\Microsoft Office\Office\Excel.exe drive:\BPC\ev4excel.xla*

7.4 Creating a Shortcut to the Launch Page

Procedure

If you use published desktops instead of published applications, the BPC desktop file (which is installed on the current user's desktop) must be moved to the *All Users/Desktop* folder.

7.5 Terminal Services Considerations for Installing Microsoft Excel

The Windows Installer, used to set up and configure programs and components of Office, uses a transform file to allow a network administrator to designate the options and features to install. Since the Terminal Server environment is different than the usual network environment, Microsoft has supplied a transform file handle the Terminal Server installation. If you attempt to use a customized transform not designated for use with Terminal Server, the system does not install Office.
The transform file is named *Termsrv.mst* and is available with the ORK (office resource kit). Although *Termsrvr.mst* can be customized to include options and features that you wish to make available to Terminal Server client users, modification of the *TermSrvr.mst* is not supported by Microsoft.

8 Installing SSIS Custom Tasks

This section describes background information and instructions for installing SQL Server 2005 and 2008 Integration Services (SSIS).

The BPC Data Manager component supports and uses SSIS. Since SQL Server 2005 and 2008 support the modification of SSIS packages remotely, BPC also supports the remote modification of SSIS packages with system and custom tasks.

When you modify an SSIS package that contains Data Manager custom tasks on the BPC Application or DB server, it is modified successfully. Do not modify the SSIS package on a machine other than the Application or DB server.

These custom tasks reference dlls that connect to the DB server and perform certain validation when users set up the parameters of each task. All the custom task reference components must also be installed in the machine on which you want to run and modify SSIS packages.

We provide a program that resets all the reference components of the custom tasks. This section explains the installation package and how to use it.

8.1 Before You Run the SSIS Custom Task Installation

Before you run the SSIS custom task installation on the client machine, complete the tasks outlined below. These steps are required if you remotely modify SSIS packages with Data Manager custom tasks.

1. Copy all Data Manager custom task components to your SQL server. BPC Data Manager has the following custom tasks:

Name	Remark
OSoftTaskAdmin.dll	Data Manager custom task
OSoftTaskAvailable.dll	Data Manager custom task
OSoftTaskComment.dll	Data Manager custom task
OSoftTaskConvert.dll	Data Manager custom task
OSoftTaskDumpLoad.dll	Data Manager custom task
OSoftTaskFtp.dll	Data Manager custom task
OSoftTaskLogic.dll	Data Manager custom task
OSoftTaskMakeDim.dll	Data Manager custom task
OSoftTaskSendMail.dll	Data Manager custom task

Name	Remark
OSoftTaskTrigger.dll	Data Manager custom task
OSoftTaskOwnership.dll	Data Manager custom task

NOTE

The file names shown above contain *2008* in their name when you run SQL Server 2008, such as *OSoftTaskAdmin2008.dll*.

You can get these files in the *%App server install%\Websrvr\bin* folder. For example, if you install the BPC Application server on *C:\BPC*, you get the custom task files from the *C:\BPC\Websrvr\bin* folder. Paste these files into the SQL Server 2005 folder *\90\DTS\Tasks* or the SQl Server 2008 folder *\100\DTS\Tasks*. For example, if you install your SQL 2008 server on *C:\Program Files\Microsoft SQL Server*, paste all files into the *C:\Program Files\Microsoft SQL Server\100\DTS\Tasks* folder.

2. Copy all Data Manager custom task components to your client machine. Paste the DM task files (above) into the specific path on your client machine. The path of your client should be the *%SQL 2005 client install%\90\DTS\Tasks* folder or the *%SQL 2008 client install%\100\DTS\Tasks* folder.

8.2 The Composition of SSIS Custom Task Installation

You use the following elements when you install SSIS Custom tasks:

- Bin folder — This folder contains all the dlls that should be installed on the machine. There are BPC platform components and all of the Data Manager custom task files. Some components are registered into the registry and some components are registered into a Com+ service on the machine.
- Config folder — This folder contains only one file named *Filelist.xml* and lists all of the files that should be installed. If you need to add or remove certain components from the installation, you can modify this xml file.
- OSoftSetup.exe — This is the main executable file to run the installation package.

Bin folder

This folder contains the following components. The program installs the following files:

Name	Remark
BPCGacutil_20.exe	System File
OSoftDataService.dll	Com+ component
Ev4ResSvrDmm.dll	
Ev4ResSvrshr.dll	
Interop.DTS.dll	
K2Logic.dll	Com+ component

Name	Remark
K2Processing.dll	Com+ component
K2UnZip.dll	
OSoftAdminServer.dll	Com+ component
OSoftAudit.dll	
OSoftComLibServer.dll	
OSoftCommonQryRes.dll	
OSoftConfiguration.dll	
OSoftCustomXMLSvr.dll	
OSoftDatabaseADMIN.dll	Com+ component
OSoftDatabaseSYSADMIN.dll	Com+ component
OSoftDatabaseUSER.dll	Com+ component
OSoftLogWriter.dll	Com+ component
OSoftDMTaskForm.dll	
OSoftDMTaskMain.dll	
OSoftDMTools.dll	Com+ component
OSoftLogging.dll	Com+ component
OSoftMetaData.dll	
OSoftResSvrZFP_English.dll	
OSoftSystemConfig.dll	Com+ component
OSoftTaskAdmin.dll	DataManager custom task
OSoftTaskAvailable.dll	DataManager custom task
OSoftTaskComment.dll	DataManager custom task
OSoftTaskConvert.dll	DataManager custom task
OSoftTaskDumpLoad.dll	DataManager custom task
OSoftTaskFtp.dll	DataManager custom task
OSoftTaskLogic.dll	DataManager custom task
OSoftTaskMakeDim.dll	DataManager custom task
OSoftTaskSendMail.dll	DataManager custom task
OSoftTaskTrigger.dll	DataManager custom task
OSoftTaskOwnership.dll	DataManager custom task
OutlookSoft.config	Configuration file to connect DB server

Config folder

This folder has FileList.xml file, which contains the registration method of each component. If you need to add more components to the installation package, you can copy the new components into the Bin folder and add the proper xml tags in FileList.xml. You need to give information for the following tags:

- RegistType - This is the registration information of the component. You can write down following values:
  - RegAsm – For .NETcomponent
  - Regsvr32 – For VB6 component
  - Gacutil – For .NET Framework component that should be registered into Global Assembly Cache
- FileName - Component file name

OSoftSetup.exe

This is the executable file to run the SSIS installation package. Double-click the file to start the installation. You need to give information for the following fields:

- *Set SQL server*: Specify the SQL server name. If your SQL Server has an instance, specify the instance name.
- *Set server credential*: This is the credential name of the com+ package component. Enter the user ID and password that can access your SQL Server. This account should be one of the user IDs registered as a com+ user when the BPC Application server was installed.

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