

# Portrait Suite Installation Guide

Version 1.0



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**Email:** [support@portraitsoftware.com](mailto:support@portraitsoftware.com)

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- USA/Canada 1-800-335-3860 (toll-free)
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When you report a problem, it helps if you can tell us:

- The name of the software application
- The circumstances in which the problem arose
- What error messages you saw (if any);
- The version of the software that you were using.

### **Pitney Bowes Software Inc.**

May 29, 2013

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# Introduction

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## Purpose

This document describes how to install and integrate the following Portrait Software applications and components:

- Portrait Foundation 4.4 Update 4
- Portrait Interaction Optimizer 5.5
- Portrait Dialogue 6.0
- Portrait Shared Server 2.0
- Portrait Explorer 4.0
- Portrait Miner 7.0A

**Note:** Installation of third party applications such as SharePoint and SQL Server are not included in this guide, they are simply listed as platform prerequisites.

**Note:** If you need to install a single Portrait product, refer to the install guide on the relevant release media. This guide should only be used when installing multiple Portrait software applications.

## Intended audience

This guide is provided for System Administrators who intend to install the Portrait Suite of applications.

No assumptions are made regarding prior knowledge of third party or Portrait Software applications. However, this document assumes familiarity with administration of target systems, as well as appropriate levels of access to those systems.

## Related documentation

Document	Media (zip/dvd) and location
• Portrait Interaction Optimizer 5.5 Installation Guide	• Interaction Optimizer media in: \Documentation\
• Portrait Foundation Installation Guide 4.4 Update 4	• Foundation media in: \Software\Documentation\Installation\ • Foundation media in: \Software\Documentation\Database\
• Portrait Foundation Database Installation Guide v23.2	

Document	Media (zip/dvd) and location
• Portrait Dialogue 6.0 Server Installation Guide	• Dialogue media in: \Documentation\1 - Installation & upgrade\
• Portrait Miner 7.0A Administration Guide	• Miner media in: \server\Components\server\qs6.1A\documentation\
• Portrait Explorer 4.0 Installation Guide	• Miner media in: \Documentation\

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**Tip:** All documents are also available on Portrait Software's support website: <http://support.portrait-software.com>



# Portrait Suite overview

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## Portrait Dialogue

Portrait Dialogue converts customer interactions into a connected two-way dialogue across all channels for greater customer engagement. Unlike traditional campaign management systems which are optimized for prospecting rather than managing the customer lifecycle, Portrait Dialogue provides pre-built, automated, multi-step phases which automate a dialogue as a two way conversation, resulting in reduced internal workload, increased relevance, timeliness and engagement.

Interaction Optimizer (IO) can optionally use Portrait Dialogue components to administer users of Portrait HQ. The components are the:

- Portrait Dialogue Server
- Portrait Dialogue Server API Web application
- Portrait Dialogue database.

## Interaction Optimizer

Portrait Interaction Optimizer (IO) works with your existing customer applications to help convert inbound customer interactions into revenue opportunities.

Interaction Optimizer helps provide targeted (1-to-1) sales, service and retention offers for individual customers, at a specific moment of interaction, on any channel, for example web, inbound call, and email. Interaction Optimizer offers intelligent point of customer interaction by leveraging an organization's data in real-time to ensure the customer receives the right offer at the right time.

Portrait Interaction Optimizer enables customer data to be connected across different business units and channels without duplication. Multiple customer channels (via marketing campaigns) can be managed from a single view using Interaction Optimizer's HQ dashboard. Marketing campaigns can be added or changed 'on the fly' for immediate impact, and a simulation capability allows marketers to perform rapid 'what if' analysis to determine the right campaign mix – before placing into production.

## Portrait Foundation

Portrait Foundation is a highly configurable system for providing full circle Customer Relationship Management. Portrait Foundation provides a core set of functionality in the CRM server that is independent of the channel by which a customer chooses to communicate with the organisation.

Interaction Optimizer (IO) uses Portrait Foundation to configure custom data retrieval processes to suit your IO implementation. In addition, the IO web service is implemented using Portrait Foundation process models.

## Portrait Explorer

Portrait Explorer is an easy-to-use, browser-based, customer data exploration tool. It allows business users to access their customer data quickly and easily without the need for advanced analytical or statistical help.

Portrait Explorer allows business users to:

- search for customers or groups of customers across an enterprise
- drill down on individual customers to confirm their personal details and data
- use key selection criteria (age, sex, income) to expose customers and groups of customers for potential review or campaign actions.

## Portrait Miner

Portrait Miner is a powerful predictive analytics solution that enables customer insight professionals and business users alike to achieve a clear picture of their customers for the purpose of greater understanding and prediction of future behavior. Portrait Miner can be used to predict profit-impacting behaviors and propensities, including customer churn, cross sell and up sell opportunities, campaign planning and segmentation, customer satisfaction and loyalty, and customer lifetime value.

Interaction Optimizer (IO) uses Portrait Miner's analytic rule repository to hold analytic rules used to score IO recommendations.

## Portrait Shared Server

Portrait Shared Server consists of five key components:

- **Portrait Shared Services (PSS)**. Provides the set of web services that allow Portrait Suite applications (Portrait Explorer, Miner, Dialogue and Interaction Optimizer) to communicate with each other.
- **Portrait Shared Repository (PSR)**. Provides the Portrait Shared Repository and Portrait Data Warehouse databases.
- **SharePoint Tasks (Optional)**. Provides an integrated task management solution where tasks assigned to individuals in Portrait HQ are displayed in SharePoint for greater visibility. **Note:** SharePoint Tasks is optional for Portrait Dialogue and Portrait Interaction Optimizer, and not required for Portrait Explorer.
- **Portrait Reports (Optional)**. Provides a set of pre-built reports on the operational performance of Portrait Interaction Optimizer and Portrait Dialogue. **Note:** Portrait Reports is optional for Portrait Dialogue and Portrait Interaction Optimizer, and not required for Portrait Explorer
- **Portrait HQ**. Provides a central dashboard for planning, launching and monitoring large scale (1 to 1) marketing campaigns. In addition to providing live (up-to-the-minute) summary views of your overall marketing position, Portrait HQ also provides real-time data enabling you to evaluate campaign progress and take immediate action if required.



# Suite installation options

## In this section:

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- **Suite installation notes** .....16

## Portrait Suite - compatibility

The Portrait Suite has the following version compatibility:

Software	Software level
Portrait Foundation	4.4 Update 4
Portrait Dialogue	6.0
Portrait Miner	7.0A
Interaction Optimizer	5.5
Portrait Shared Server	2.0
Portrait Explorer	4.0

## Suite installation notes

- The Portrait Shared Server (PSS) is a shared component which *must* always be installed
- Portrait Miner, Portrait Explorer, Portrait Interaction Optimizer and Portrait Dialogue can be added in any combination

**Note:** The instructions provided in this document guide you through a complete suite install. However:

- If you only want to install 2 or 3 of the Portrait products, you can still use this guide and follow the procedures of the products you are interested in
- If you only want to install a single product, it is recommended that you use the single product installation guide included on your release media.

# Installing the Portrait Suite

## In this section:

- **Installation overview . . . . .18**
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# Installation overview

To install the Portrait Suite, complete the procedures listed below.

Installation procedure	Time estimate
1. <a href="#">Configuring your servers</a> on page 22	20m
2. <a href="#">Installing Portrait Shared Server</a> on page 25	20m
3. <a href="#">Installing Portrait Foundation components</a> on page 48	30m
4. <a href="#">Installing Portrait Dialogue</a> on page 37	15m
5. <a href="#">Installing Interaction Optimizer</a> on page 47	20m
6. <a href="#">Installing Portrait Explorer</a> on page 61	10m
7. <a href="#">Installing Portrait Miner</a> on page 65	10m

**Important:** This guide takes you through installing the Portrait Suite of products. If you want to install a single Portrait product, see the relevant application install guide.

## Installation pre-requisites

The Portrait Suite installation procedures assume the following software has been installed.

Server	Applies to	Software and Version
<ul style="list-style-type: none"> <li>All</li> </ul>	<ul style="list-style-type: none"> <li>All Portrait products</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft Windows Server 2012 Standard or Enterprise Editions, or</li> <li>Microsoft Windows Server 2008 R2 Standard or Enterprise Editions</li> </ul>
	<ul style="list-style-type: none"> <li>All Portrait products</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft .NET Framework v4.5</li> <li>Microsoft .NET Framework v4.0 (only required for Portrait Foundation servers)</li> <li>Microsoft .NET Framework v3.5 (only required for Portrait Dialogue servers)</li> </ul>
<ul style="list-style-type: none"> <li>Database</li> </ul>	<ul style="list-style-type: none"> <li>All Portrait products</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft SQL Server 2008 R2 SP1, or</li> <li>Microsoft SQL Server 2012</li> </ul>

Server	Applies to	Software and Version
		<p>Supported in either 32-bit or 64-bit, for Standard and Enterprise Editions, and either case-sensitive or case-insensitive master databases. The following features must be installed:</p> <ul style="list-style-type: none"> <li>• Database Engine Services</li> <li>• Management Tools - Basic</li> <li>• Management Tools - Complete</li> <li>• Client Tools Connectivity</li> <li>• Microsoft SQL Server Integration Services</li> <li>• Microsoft SQL Server Reporting Services (optional)</li> </ul>
	<ul style="list-style-type: none"> <li>• Portrait Dialogue</li> </ul>	<ul style="list-style-type: none"> <li>• Oracle 11i R2</li> <li>• For full Oracle Unicode support, the Oracle database must be set up with Unicode character set. We recommend NLS_NCHAR_CHARACTERSET=AL16UTF16 and NLS_CHARACTERSET=AL32UTF8.</li> <li>• If you don't plan to use full Unicode support, you can have a non Unicode character set for NLS_CHARACTERSET, for example WE8ISO8859P1. The character set you use must support the « and » characters. This means for instance US7ASCII cannot be used.</li> <li>• If you are using an Oracle database, then Oracle native 32-bit client drivers must be installed.</li> </ul> <p><b>Note:</b> If running in an 64-bit environment and Portrait Dialogue is using an Oracle database, then Oracle native 64-bit client drivers must be installed on the Portrait Shared Server (PSS).</p>
<ul style="list-style-type: none"> <li>• Application</li> </ul>	<ul style="list-style-type: none"> <li>• Portrait Interaction Optimizer</li> <li>• Portrait Dialogue</li> <li>• Portrait Shared Server</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft SQL Server Native Client</li> <li>• Microsoft SQL Server feature: Client Tools Connectivity</li> </ul>
<ul style="list-style-type: none"> <li>• Interaction Optimizer</li> </ul>	<ul style="list-style-type: none"> <li>• Portrait Interaction Optimizer</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Windows Installer 4.5</li> <li>• Microsoft MSXML 6.0 SP1 or above</li> <li>• Microsoft Visual C++ 2010(x86) Redistributable (installed by Portrait installer if not present)</li> <li>• Microsoft Primary Interoperability Assemblies 2005 (install by Portrait installer if not present)</li> </ul>
<ul style="list-style-type: none"> <li>• SharePoint (Optional)</li> </ul>	<ul style="list-style-type: none"> <li>• Portrait Dialogue</li> <li>• Portrait Interaction Optimizer</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft SharePoint Server 2013 (64-bit only), or</li> <li>• Microsoft SharePoint Foundation 2013 (64-bit only)</li> </ul>

**Installation pre-requisites**

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<b>Server</b>	<b>Applies to</b>	<b>Software and Version</b>
	<ul style="list-style-type: none"><li>• Portrait Shared Server</li></ul>	
<ul style="list-style-type: none"><li>• Report</li></ul>	<ul style="list-style-type: none"><li>• Portrait Dialogue</li><li>• Portrait Interaction Optimizer</li><li>• Portrait Shared Server</li></ul>	<ul style="list-style-type: none"><li>• Microsoft SQL Server feature: Reporting Services</li></ul>

# Configuring your servers

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# Configuring your servers

## All servers

- Use Component Services to:
  - Enable Distributed COM (see the Default Properties tab within My Computer Properties)
  - Configure the local Distributed Transaction Coordinator to support Network DTC Access. Allow inbound and outbound transaction manager communication (see the Security tab within Local DTC Properties)

## Application servers

Use Server Manager to:

- Enable the Application Server role
- Enable the following services:
  - Application Server Foundation (on 32-bit machines only)
  - Web Server (IIS) Support
  - TCP Port Sharing
  - Windows Process Activation Service Support
  - Windows Process Activation Service Support > HTTP Activation
  - Windows Process Activation Service Support > Message Queueing Activation
  - Windows Process Activation Service Support > TCP Activation
  - Windows Process Activation Service Support > Named Pipes Activation
  - COM+ Network Access

## Web servers

- Use the Server Manager to:
  - Enable the Web Server role
  - Enable the following services:
    - Management Tools
    - Management Tools > IIS 6 Management Capability
    - Management Tools > IIS6 Management Compatibility > IIS 6 Metabase Compatibility
    - Management Tools > IIS6 Management Compatibility > IIS 6 WMI Compatibility
    - Management Tools > IIS6 Management Compatibility > IIS 6 Scripting Tools
    - Management Tools > IIS6 Management Compatibility > IIS 6 Management Console
    - Web Server > Security > Windows Authentication
    - Web Server > Application Development > ASP.NET 4.5 (required for Interaction Optimizer and Portrait HQ)

- Enable the following features:
  - Message Queueing
- If installing Portrait Dialogue on a 64-bit server, you must enable IIS to run 32-bit applications on 64-bit Windows. To do this:
  1. Open a command prompt and navigate to the `%systemdrive%\Inetpub\AdminScripts` directory.
  2. Type the following command: `cscript.exe adsutil.vbs set W3SVC/AppPools/Enable32BitAppOnWin64 1`
  3. Press ENTER.

**Note:** Ensure that the IIS application pool used to run the Dialogue Web Applications is configured with a Managed Pipeline Mode of Classic. By default, Dialogue Web Applications use the DefaultAppPool application pool.

#### **Database servers**

- Use SQL Server Configuration Manager to:
  - Verify that the SQL Server Agent service is running
  - Ensure the Named Pipes and TCP/IP protocols are enabled (see Protocols for MSSQLSERVER beneath SQL Server Network Configuration)
- Use Component Services to configure the local Distributed Transaction Coordinator to support Network DTC Access. Allow inbound and outbound transaction manager communication. (See Security tab within Local DTC Properties)

#### **Portrait HQ (PSS) servers**

- Windows Powershell 2.0 is configured with an execution policy of RemoteSigned or Unrestricted for the LocalMachine scope. (Use `Set-ExecutionPolicy RemoteSigned -Scope LocalMachine.`)



# Installing Portrait Shared Server

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# Installation overview

Installation procedure	Time estimate
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<a href="#">Installing Portrait Shared Server</a> on page 28	10m
<a href="#">Installing DWH SSIS packages</a> on page 30	10m
<a href="#">Scheduling data warehouse updates</a> on page 31	10m
<a href="#">Setting up HQ users</a> on page 31	15m
<a href="#">Purging old and deleted data from the database</a> on page 31	10m

## Before you begin

Before starting the installation, ensure you:

- **Plan your installation!** The Portrait Shared Server installer provides the option to install all Portrait Shared Server features on one server, or alternatively, install all features on separate servers via the **Custom Install** option. You need to:
  - Decide on which features you want to install. Note: The Task Management and Report features are optional.
  - Decide on which features you want to group together on the one server. For example, you might want to set up a server with the Portrait Shared Server (PSS) and Portrait Shared Repository (PSR) components. You may then want to install the Reports component on a separate Reports server and the Task Management on a pre-existing SharePoint server.

**Note:** Just how you install the Portrait Shared Server and its four key components is up to you and your server environment.

**Note:** The installation procedures that follow point you towards the **Custom Install** screen based on the assumption you will want to install at least one feature on a separate machine.
- In IIS, ensure that the Default Web Site has an HTTP Site Binding on port 80. This binding only has to be present whilst running the PSS installation; you can remove it after successfully installing Portrait Shared Server.
- If you choose to use SharePoint with Portrait Shared Server, see *SharePoint and Portrait Shared Server installation considerations* in the appendix.
- Collect all information required for the install. For more information, see the Installation Datasheets in the appendix.
- Note the following install restrictions:

- Portrait Shared Server **must** be installed on a machine that has SQL Server or SQL native client installed.
  - If your SharePoint server is separate to your PSS server, then you must install the SharePoint Tasks feature before Portrait Shared Services.
  - The SQL Server database must be configured with the TCP/IP protocol enabled if it is running on a separate server from where you are installing the Portrait Shared Server
  - You will need Administrator access on the machine where you are running the installer, and you will need to be able to either provide sysadmin database credentials (by providing SQL Server authentication credentials for a sysadmin role) or selecting a user to whom the DBO role will be set after the install. This user will be added to the list of SQL server logins.
  - It is recommended that you use the same Windows account (username and password) to manage the PSS application pool and connection to the PSR database. The account should:
    - be on a network domain rather than a local machine
    - have `db_datareader` and `db_datawriter` role permissions on the PortraitPSR database
  - The MS DTC service must be running on the database server and Portrait HQ (PSS) server.
- Note:** The Portrait HQ installer automatically configures the Distributed Transaction Coordinator, however, if your database server is a separate machine to your Portrait Shared Server installation, you need to manually configure MS DTC on that machine.
- Source all required software:

Software + documentation	Media location (zip file/dvd)
Portrait Shared Server software	Interaction Optimizer media in: \Portrait Shared Server\

## Installation procedures

### Deploying SharePoint (optional)

Portrait HQ use SharePoint to help manage tasks related to a marketing campaign. You can assign tasks to individuals and then display them in SharePoint for greater visibility. Using SharePoint also enables task recipients to display their tasks in Microsoft Outlook.

To deploy the SharePoint solution:

1. Log on to your SharePoint server.
2. Run the `setup.exe` in the `\Portrait Shared Server` directory on your installation media (zip-file/DVD).
3. Accept the license agreement and default installation folder.
4. On the **Installation Type** screen, select **Custom**.

5. On the **Custom Setup** screen, ensure that the **SharePoint Tasks** feature will be installed on the local hard drive.
6. Click **Install**.
7. To verify that the solution package has been successfully deployed:
  - a) Go to **SharePoint Central Administration**.
  - b) Navigate to **System Settings > Farm Management > Manage farm solutions**
  - c) Verify `PortraitSharedServerPortal.wsp` is in the **Deployed** state.

## Installing Portrait Shared Server

Portrait Shared Server includes four installation components: Portrait Shared Services (PSS), Portrait Shared Repository (PSR), SharePoint Tasks, and Portrait Reports.

- **Portrait Shared Services (PSS)**. Provides the set of web services that allow Portrait Suite applications (Portrait Explorer, Miner, Dialogue and Interaction Optimizer) to communicate with each other.
- **Portrait Shared Repository (PSR)**. Provides the Portrait Shared Repository and Portrait Data Warehouse databases.
- **SharePoint Tasks (Optional)**. Provides an integrated task management solution where tasks assigned to individuals in Portrait HQ are displayed in SharePoint for greater visibility. **Note:** SharePoint Tasks is optional for Portrait Dialogue and Portrait Interaction Optimizer, and not required for Portrait Explorer.
- **Portrait Reports (Optional)**. Provides a set of pre-built reports on the operational performance of Portrait Interaction Optimizer. **Note:** Portrait Reports is optional for Portrait Interaction Optimizer, and not required for Portrait Explorer. If you want to optionally install Portrait Reports for Portrait Dialogue, see the *Installation of HQ Reports for Portrait Dialogue* guide on the Portrait Dialogue release media.

**Important:** Portrait Shared Server can be installed with a single Portrait product such as Portrait Dialogue or Portrait Explorer, or it can be installed with multiple Portrait Suite products to enable application integration. The following steps guide you through the install using the **Custom Install** option where you can select or deselect options based on whether you are installing single or multiple Portrait products.

1. Run the `setup.exe` in the `\Portrait Shared Server` directory on your installation media (.iso). Ensure you right-click the `setup.exe` and select **Run as Administrator**.
2. Select the display language for your installation.
3. Click **Next** on the **Welcome** dialog.
4. Accept the license agreement and click **Next**.
5. Accept the default destination folder and click **Next**.
6. On the **Installation Type** screen, select **Custom Install**.
7. On the **Custom Setup** screen, click **Portrait Shared Repository** and **Portrait Shared Services** and select **This feature will be installed on local hard drive**.
  - If you want to disable SharePoint Tasks (Optional) or Portrait Reports (Optional) for Portrait Dialogue or Interaction Optimizer, click the install component and select **This feature will not be available**.
8. On the **Database User properties** screen, enter the user credentials for the Portrait Shared Repository and Data Warehouse databases.

9. On the **Database Server** screen, select the database server that you are installing to. Edit the name of the database catalog; if you want to change the Portrait Shared Repository database name from the default of `PortraitPSR`. **Note:** The installer uses the login you specify on this screen to connect to the database server and create or update the Portrait database. You must specify a login that has at least the dbcreator server role.
10. On the **Database Server** screen, edit the name of the database catalog if you want to change the Portrait Data Warehouse database name from the default of `PortraitDW`.
11. On the **Web Site** screen, ensure that the `Default Web Site` is selected as the Web Site. Choose **Create a new web site** if you want to install the HQ into a new web site.
12. On the **Application Pool properties** screen, enter the user name and password of the account that you want to use to run the HQ.
13. On the **Portrait Analytics Web Services properties** screen, check **Enable Portrait Analytics Web Services Integration** *if* Portrait Explorer is one of the products you are installing. If not, uncheck this option.
  - If you checked this option, enter your Portrait Analytics Web Services (PAWS) password. The password you enter here must match the PAWS password you supply when installing Portrait Analytics Web Services. You should accept the defaults for the URLs on this page.
14. On the **Portrait Dialogue Service Properties** screen, check **Enable Portrait Dialogue integration** *if* Portrait Dialogue is one of the products you are installing. If not, uncheck this option.
  - If you checked this option, enter the URL of the Dialogue Server, and the name of the Dialogue Server instance. Accept the default URL if the Dialogue Server is installed on the same server as Portrait Shared Server.
15. On the **Portrait SharePoint Services Properties** screen, check the **Enable SharePoint Integration** checkbox *if* Portrait Dialogue or Interaction Optimizer are products you are installing and you want to use the SharePoint Tasks feature. If not, uncheck this option.
  - If you checked this option, enter the URL for the Portrait tasks site that you want the installer to create for you. The URL you provide identifies which SharePoint site collection the Portrait tasks site will be created in. This SharePoint site collection must already exist and use the Team Site template. To create a new site collection in SharePoint:
    - Launch SharePoint Central Administration
    - Select Application Management > Create site collections
    - Enter the title Team Site for the site collection. **Note:** The site collection must be named Team Site.
    - Select Collaboration tab > Team Site template.
16. On the **SharePoint Admin Services** screen, if applicable, enter the details of an account that has administrative rights on your SharePoint server. Ensure you enter the correct port for the SharePoint Administration site. This port can be determined by launching SharePoint Central Administration on the SharePoint server and looking at the port number in the URL.
17. On the **Marketing HQ properties** screen, enter the currency symbol you wish to use to present financial data in the Portrait HQ marketing dashboard.
18. On the **Interaction Optimizer Properties** screen, check **Enable Interaction Optimizer Integration** *if* Interaction Optimizer is one of the products you are installing. If not, uncheck this option.
  - If you checked this option, provide the URL of the web site hosting the IO web service. Accept the default if IO is installed on the same server as Portrait Shared Server.

19. On the **Report Server properties** screen, check the **Add link to report portal in HQ** box *if* you want to add a link to the Interaction Optimizer reports to the HQ. You must replace localhost in the Report Manager URL with the name of your Report Server (even if the Report Server is collocated with Portrait Shared Server).
20. On the **Report Server Data Source Properties** screen, if application, enter the name of the database server where the Portrait Data Warehouse database resides. Enter the name of the Portrait Data Warehouse database. Enter the details of a SQL Server login that has at least Connect, Select and Execute permissions on the Portrait Data Warehouse database.
21. On the **Ready to Install the Program** screen, click **Install**.
22. Click **Finish**.

## Installing DWH SSIS packages

The campaign monitoring features of Portrait HQ rely on historical and aggregated data from the Portrait Data Warehouse database (named `PortraitDW` by default). This data warehouse database is populated and updated by SSIS packages that need to be installed on to a database server that has SQL Server Integration Services.

If you are installing Interaction Optimizer or Portrait Dialogue, follow this procedure:

1. Log on to your database server and run the `setup.exe` file located in `\Portrait Shared Server\SSIS Packages\` on your installation media. Right-click the `setup.exe` file and select **Run as Administrator**.
2. Accept the default installation folder and click **Next**.
3. On the first **Database Server** screen, provide the connection details for the PSR database. (The default PSR database catalog name is `PortraitPSR`.)
4. On the second **Database server** screen, provide the connection details for the PDW database. (The default PDW database catalog name is `PortraitDW`.)
5. On the next screen, check **Enable IO integration** if you are installing Interaction Optimizer . Check **Enable Dialogue Integration** if you are installing Portrait Dialogue.
6. On the **Database Server** screen(s), provide the connection details for the IO database (if installing Interaction Optimizer) and then the PD database (if installing Portrait Dialogue).
7. Click **Install** to install the DW Populate SSIS package. This package gets installed as `DWPopulate.dtsconfig` in the Portrait Shared Server install folder, for example, `C:\Program Files (x86)\PST\Portrait Shared Server\SSIS`).

**Note:** Interaction Optimizer users can optionally tune the `DWPopulate` package by changing configurable settings that are held in the `DWPopulate.dtsconfig` file. The relevant settings are:

- The minimum number of rows that remain in the source IO staging tables. **This is a system tuning parameter and should not be changed from the default value unless recommended by the Portrait support team.**  
`\Package.Variables[User::IO_MinSourceHistoryRows].Properties[Value]`
- The size of the batches of records copied from the source IO staging tables. **This is a system tuning parameter and should not be changed from the default value unless recommended by the Portrait support team.**

- `\Package.Variables[User::IO_BatchCopySize].Properties[Value]`

The correct tuning of these values can reduce the locks being taken out on the staging tables during data transfer and therefore reduce the performance impact of `DWPopulate` on the IO runtime.

## Scheduling data warehouse updates

The SSIS packages used to update the data warehouse must be scheduled to run at regular intervals to ensure that the data warehouse is kept up to date. To use SQL Agent to schedule data warehouse updates, follow this procedure:

1. Create a new SQL Agent job from **SQL Server Management Studio**. Right-click **SQL Server Agent** and select **New Job...** Specify a name and description for the new job and then select **Steps**.
2. Add a new job step by clicking the **New...** button on the steps page.
3. Provide a name for the job step and specify its type as **SQL Server Integration Services Package**. The package source should be set to **File System** and the **Controller.dtsx** package should be selected by browsing to the location that the SSIS packages were installed.
4. Specify the configuration file in the **Configuration** tab by clicking on **Add**, browsing to the location of where SSIS packages are installed and selecting the `DWPopulate.dtsConfig` file.
5. Click the **OK** button to add the new job step.
6. Select the **Schedules** page in the new job wizard and click the **New...** button to add a schedule for the job.
7. It is recommended that the DW population process is run once every hour. Select the **Schedule Type** of **Recurring** and ensure the schedule is enabled. The frequency of the schedule should be **Daily** and should be set to occur every hour starting at midnight and ending at 23:59. Click **OK** twice to complete the schedule definition and new job.

## Setting up HQ users

Setting up HQ users varies depending on which Portrait Suite applications you are installing.

- If Portrait Dialogue is one of the applications you are installing, then you should follow the procedure *Configuring a Portrait HQ user's type* in the *Portrait Dialogue Reference Guide*.
- If Portrait Dialogue is not one of the applications you are installing, then you should follow the procedure *Managing HQ Users* in either the *Portrait Explorer Administration Guide* or *Interaction Optimizer Administration Guide*.

## Purging old and deleted data from the database

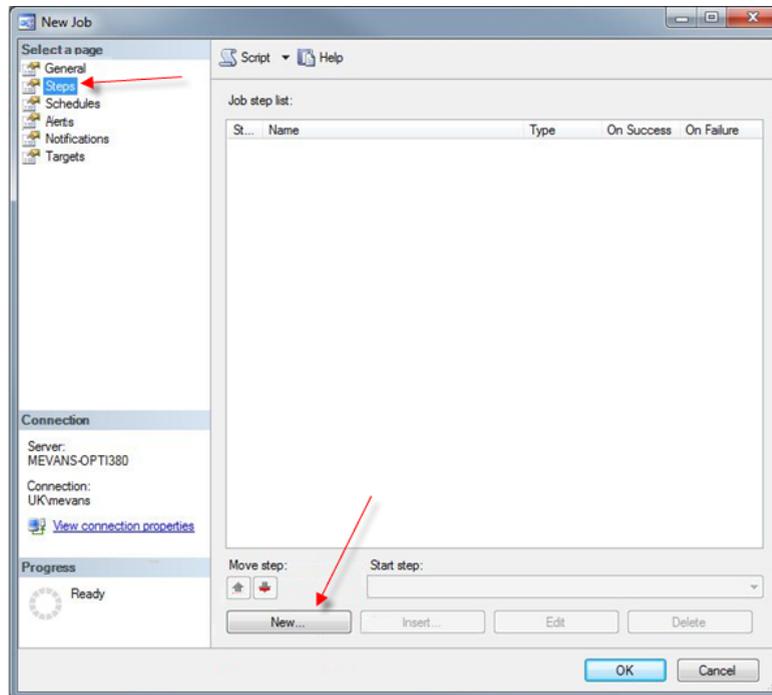
Deleting an item from Portrait HQ removes the item from view but does not remove the data from the database. Purging deleted items from the system is achieved via stored procedures which exist in the PSR and Data warehouse databases.

### Removing deleted entries from the PSR database

Use the stored procedure `PurgeDeletedEntities` to set up automatic purging of deleted entries from the PSR database.

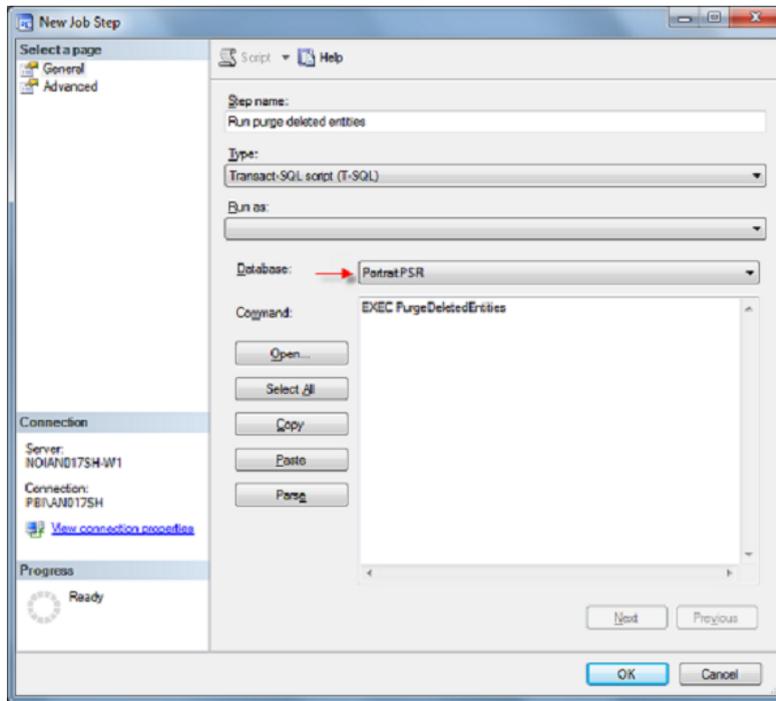
**Note:** By default this procedure will only remove data that has been marked as deleted for more than 14 days.

1. To schedule this to run automatically, create a new SQL Agent job in **SQL Server Management Studio**.

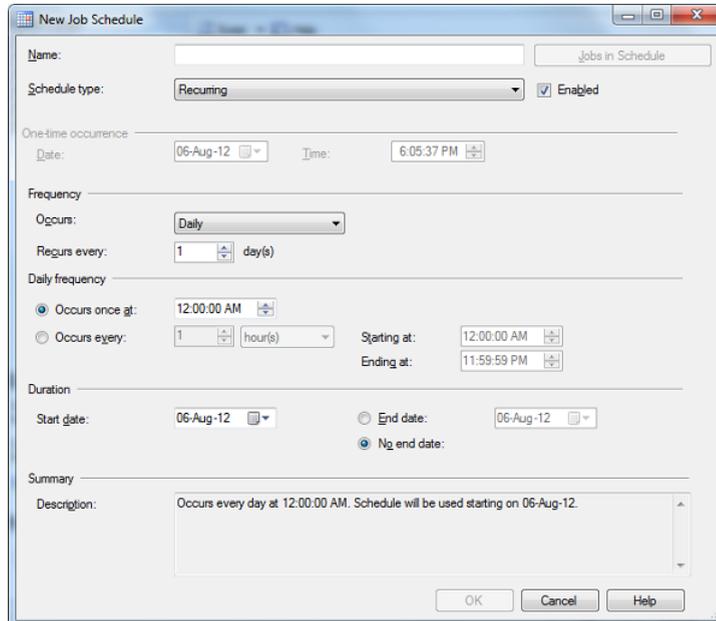


2. In the job **Steps** page, create a new job step. Give the job step a name, select the **Transact-SQL script (T-SQL) Type** and set the Database to be your PSR database. Set the Command to be: `EXEC PurgeDeletedEntities`.

- The **PurgeDeletedEntities** stored procedures has three optional parameters:
  - parameter 1 is the number of rows purge in a single batch. Default 1000.
  - parameter 2 is the maximum number of batches to purge. Default is -1, which means that all data that can be purge is deleted.
  - parameter 3 is the number of days data must be marked for deletion, before the purge job deletes the data. Default = 14.



3. On the **Schedules** page, set up an appropriate schedule to clear data regularly - Daily is recommended.



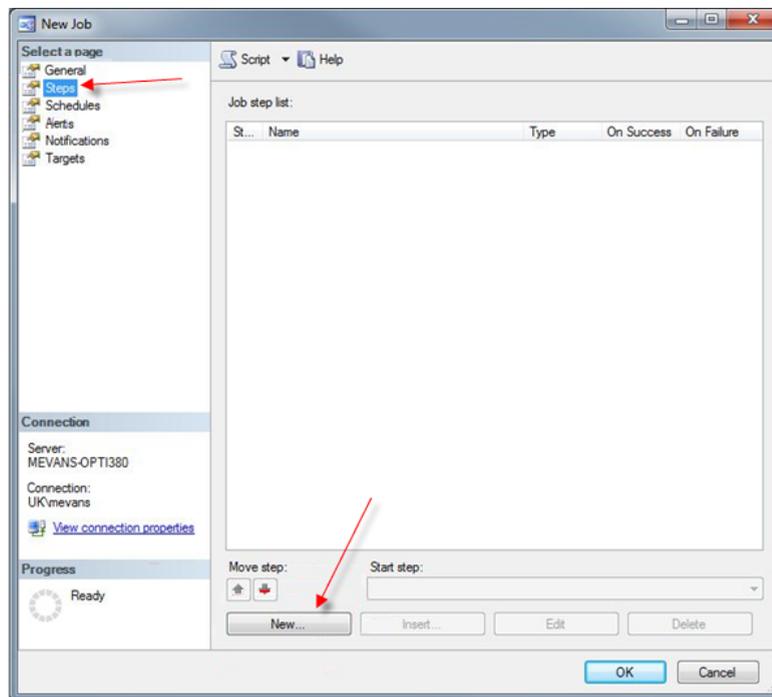
4. When complete, the job will appear in SQL agent jobs list, for example, Purge PSR Data.

### Removing old history from the Data Warehouse database

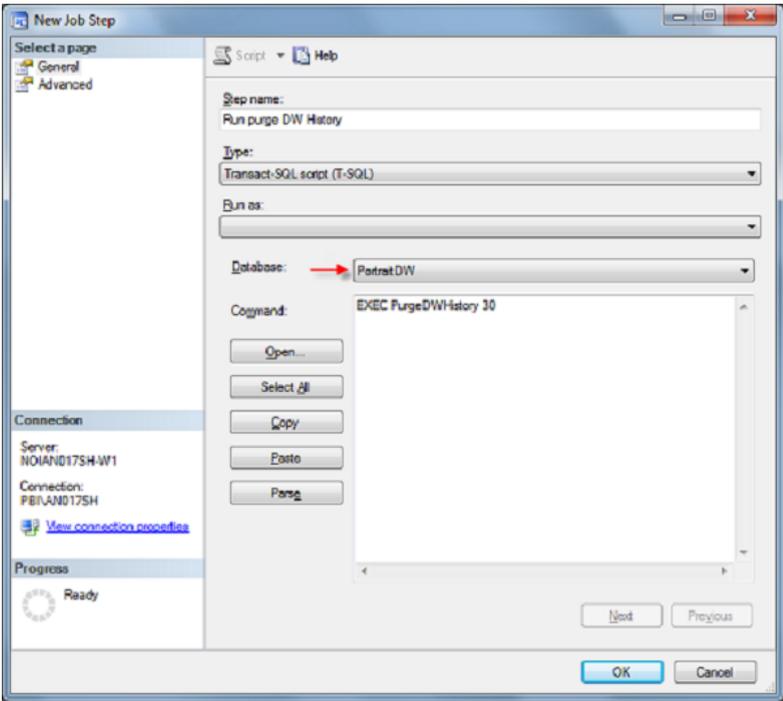
Use the stored procedure `PurgeDWHhistory` to set up automatic purging of old history data from the Portrait Data Warehouse (PDW) database. This includes purging old request, treatment, behaviour and response logs.

**Note:** This procedure will remove data that is older than 90 days (by default) but only one month at a time starting from the oldest treatment date.

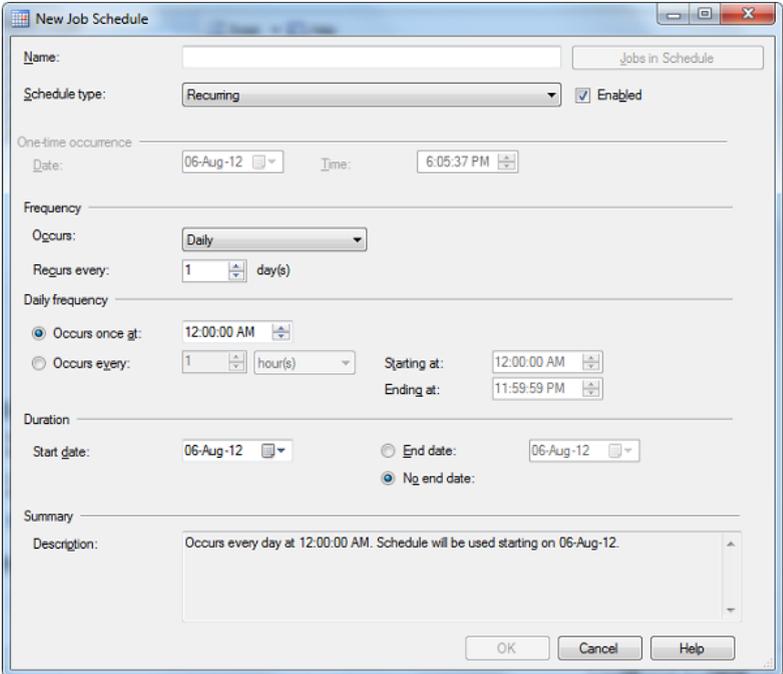
1. To schedule this to run automatically, create a new SQL Agent job.



2. In the job **Steps** section, execute the procedure `PurgeDWHhistory` against your PDW database. This procedure optionally takes an integer denoting number of days as a parameter – all history recorded prior to these number of days is removed.



- 3. Set up an appropriate schedule to clear out data regularly - Daily is recommended so that the affected number of rows remains limited and do not cause table locks to be acquired on the affected tables.



4. When complete, the job will appear in SQL agent jobs list, for example, Purge DW History Data.

# Installing Portrait Dialogue

## In this section:

- **Installation overview** .....38
- **Before you begin** .....38
- **Installation procedures** .....39

# Installation overview

To install Portrait Dialogue, complete the procedures listed below.

**Note:** These procedures guide you through setting up Portrait Dialogue with one database and instance. The steps should be repeated for each additional database.

Installation procedure	Time estimate
<a href="#">Installing the Portrait Dialogue database</a> on page 39	30m
<a href="#">Verifying the database installation</a> on page 40	30m
<a href="#">Installing the Dialogue Server</a> on page 41	30m
<a href="#">Installing the Portrait Dialogue License</a> on page 41	30m
<a href="#">Installing Dialogue Web Applications</a> on page 41	30m
<a href="#">Verifying the web solution installation</a> on page 42	30m
<a href="#">Configuring authentication type</a> on page 43	30m
<a href="#">Configuring the Dialogue Server API URL</a> on page 44	30m
<a href="#">Configuring the Dialogue Server API</a> on page 44	30m

## Before you begin

Before you begin your installation, take note of the following information:

- The Portrait Dialogue installation involves installing a number of key components that can be installed on separate or multiple servers.
  - **Database Server <--> Application Server:**
    - Special server setup is required if the database server and application server reside on different domains or have firewalls between them. Please read the document *MTS and DCOM setup.doc*, which is available on the installation media (ZIP/DVD/ISO).
  - **Web Server <--> Application Server**
    - Web applications use SOAP to communicate with the web services on the application server. Port 80 is used by default. Communication port can be changed in the `web.config` file for each web application.
- For the Dialogue database install, ensure you have:

- Created the Portrait Dialogue database and a database user with full access to the database (in SQL Server or the Oracle database)
- Tested the database connectivity between the application server and the database server.

**Note:** We recommend running the installation from the application server. If for any reason this is not possible, you can run it directly on the database server, but this will require manual creation of the instance, and sharing of root directory on the application server after installing the Portrait Dialogue server.

- Uninstall any other instances of Dialogue Server that have been installed on the server. **Note:** You can only run one Dialogue Server per application server - the Dialogue Server runs as a COM+ package and 3 Windows services.
- Create a user account (local or domain) with local administrator rights to use as the Dialogue Server service account.
- Log on to the application server with a user that has administrative rights.
- For the Portrait Dialogue Web Applications install, ensure you:
  - Know the URL to the Dialogue Server API (Web services used by the Web Applications)
  - Have set up a new IIS web site or have the name of an existing site to use.

**Note:**

- If you want to use Windows authentication in Portrait Dialogue, you must use a domain user account as the Dialogue Server service user account.
- The Dialogue Server runs as a 32-bit application on either 32 or 64-bit operating systems.
- All server names should be no longer than 15 characters, or even shorter for languages that require more than one byte storage for each character. Please see <http://technet.microsoft.com/en-us/library/cc731383.aspx> for more information.

## Installation procedures

### Installing the Portrait Dialogue database

1. To start the installation, double-click **InstallMenu.exe** which can be found in the root directory of the Portrait Dialogue installation media (DVD/zip files).
2. Click **Setup Dialogue Database**. The **Welcome** screen appears.
3. Click **Next** to continue. The **Destination Folder** screen appears.
4. Select the installation folder (or accept the default location) and then click **Next** to continue. The **Database Type** screen appears.
5. Select the database server type you are installing Portrait Dialogue to and then click **Next**. The **Database Server** screen appears.
6. Choose the database server (Server name for SQL Server or TNS alias for Oracle).
7. Enter the username and password. (Windows authentication only supported on SQL Server).
8. Enter (or browse for) the name of database (only applies to SQL Server).

## Verifying the database installation

---

9. If you cannot browse the database catalog, your user credentials may be incorrect. Click **Next** to continue, the **Instance Name** screen appears.

**Note:** The information entered here is used as the connection settings for the Instance you define later in the setup. The instance connection string can be altered later using the Dialogue Admin tool.

10. Enter the instance name for your installation, for example:

- PROD (for production)
- TEST (for testing)
- DEV (for development)

The name cannot contain any special characters (like \$ % ) or space (blanks).

11. Enter a short identifier (ISID) for your new instance. The short identifier must consist of one or two uppercase alphabetic characters.

12. Click **Next** to continue. The **Customer ID Datatype** screen appears.

13. Choose the datatype to use for the Customer ID field, and then click **Next**.

**Note:** Examine the customer data you are going to use with Portrait Dialogue. To get optimal performance we recommend using the same datatype for the Customer ID that you have in your customer database. **Note:** If you are going to use `varchar` as your customer id datatype, the collation of the Dialogue Server database and the customer ID column in your customer database must be the same. This setting is global for the current instance. It can be changed later using SQL scripts provided on the install CD (SQL Server Only). **Note:** No script is available for Oracle, and there is only support for four data types:

- String (`varchar2(40)`)
- Unicode string (`nvarchar2(40)`)
- Numeric (`number(31, 0)`)
- Integer (`integer`)

14. On the **Template Folder** screen, select the root folder for templates and file storage for this instance. Check the **Share** checkbox to share the folder as MH, and then click **Next** to continue.

**Note:** If you chose to alter the default path, make sure you take the Instance name into consideration in the path if running multiple instances.

15. Click **Install**.

## Verifying the database installation

1. Open **SQL Server Management Studio** and log on to the server using the same credentials you specified during the install.
2. Check that the Portrait Dialogue tables are populated in the database.
3. Open a new query window and execute the following query:

```
select * from SYSTEM_INFO.
```

4. Verify that you get the correct version returned in the `SI_DATABASE_VERSION` field.

**Note:** All system SQL queries in Portrait Dialogue are written without database and user prefix i.e. `select * from db.dbo.mytable` is written `select * from mytable`. So your user account used in the connection string must be set up to support this.

## Installing the Dialogue Server

1. To start the installation, double-click **InstallMenu.exe** which can be found in the root directory of the Portrait Dialogue installation media (DVD/zip files).
2. Click the **Install Dialogue Server**. The **Welcome** screen appears,
3. Click **Next** button to continue. The **Destination Folder** screen appears.
4. Select the Portrait Dialogue Server installation directory (or accept the default option). Click **Next** to continue. The **Setup Type** screen appears.
5. Select the installation type and click **Next**. The **Logon Information** screen appears.
6. Enter the credentials for the user account that the Dialogue Server processes will run under. This is the Dialogue Server service user account. The username must be in the form: `<domain>\<username>` or `<machine name>\username`.

You can also create an account using the “New user Information” during setup.

**Note:** The installation will verify the credentials you enter. If for some reason this verification fails, you will get an error message. You may ignore this and continue if you are sure the credentials are right.

7. Click **Next** to continue.
8. Click **Install**.

## Installing the Portrait Dialogue License

After you have installed the server, you need to copy a Portrait Dialogue license file into the folder where the server was installed. This file is provided by Portrait Bowes Software or one of its distributors. Restart the Dialog Server COM+ application (using **Component Services**) after the file has been installed.

The default folder for the license file is: `<portrait dialogue root directory>\Dialogue Server`

## Installing Dialogue Web Applications

1. To start the installation, double-click on `InstallMenu.exe`, which can be found in the root directory of the Portrait Dialogue installation media (DVD/zip files).
2. Click on **Install Web Solutions**. The **Welcome** screen appears.
3. Click on **Next**. The **Destination Folder** screen appears.
4. Choose an installation folder or accept the default option. One folder is created for each of the web applications. The folders will be web shared.
5. Click on **Next**. The **Setup Type** screen appears.
6. Choose to install all web applications (**Complete**) or a subset (**Custom**). Click on **Next** to continue.

7. Overview of the different web applications:
  - **Dialog Server API**—Web service API for the Dialogue Server. Must be installed on the application server where the Dialogue Server is running.
  - **Customer View**—Customer View normally installed on the internal web server.
  - **Customer Web Access**—Hosting applications for questionnaire surveys and viewing email on web. Normally installed on the public web server.
  - **Telemarketing Web**—Telemarketing application normally installed on the internal web server.
  - **Report Portal**—Report Portal application normally installed on the internal web server. Must be installed to use integrated reporting in Visual Dialogue.
  - **Report Viewer**—Report Viewer application used to provide simple access to internal and external users for viewing reports. Normally installed internally, optionally installed on the public server.
  - **Questionnaire Preview**—used by Visual Dialogue to test and preview questionnaires. Must be installed for questionnaires to work in Visual Dialogue.
  - **Dashboard**—Support for this web application is deprecated from version 5.2 onwards. Dashboard will not be installed by default during a “Complete” installation. You will need to perform a “Custom” installation and select this component for it to be installed. Access rights for Dashboard users will need to be explicitly set in Dialog Admin.
  - **Emarketing**—HTML email designer normally installed internally. Must be installed for Message Designer templates to work in Visual Dialogue.
  - **Web Utilities**—Hosting applications email, link, response tracking, and published files on web. Normally installed on the public web server.

Choose the web site to install the web application to. Make sure you enter the correct name: no verification is done. If you enter an incorrect website name, the installation will fail later. The name of the site configured on the server is shown in the IIS manager.

8. Check **Only copy files** to copy the files to the install directory without creating web shares. This is useful if you want to do the web sharing manually.
9. Check **Enable Windows Authentication** to configure the internal web applications to use Windows authentication.
10. Override default web share names for the different web applications (if required).
11. Override default web share names for the different web applications (if required).
12. Some of the applications require write access to a subfolder (for logging, caching, etc.) to work. To automatically set this permissions check this option. This will give the “everyone” user group-write access. You can alter this later to strengthen security.
13. Enter the name of your company. This information is used by the Message DEsigner application.
14. Enter error logging options for the Message Designer application.
15. Enter the URL to the Dialogue Server API and the system administrator email address and phone number.
16. Click on **Install**.

## Verifying the web solution installation

The first thing to check is the MHDIALOGSERVERAPI (web services) application.

Check that you can access the web service overview page by entering the URL to the MHDIALOGSERVERAPI in a browser from all servers you installed any web application to.

**Example URL:** <http://vmdev-test01/MHDialogServerAPI/APIOverviewPage.aspx>

Further testing of the different web applications needs to be done when you have configured the first domain on your new instance.

## Configuring authentication type

Customer View, Telemarketing, Report Portal, Web Portal, and Dashboard support two different authentication mechanisms:

<b>Forms authentication</b>	This is the default authentication type. The user logs in using a web-based login page.
<b>Mixed authentication</b>	In this case, the user is first authenticated using Windows authentication. If this is successful, the user is automatically logged in. Otherwise, the user is redirected to the forms authentication page.

If you want to change the authentication type that you chose during installation, you must do this manually as described in [Changing authentication type in web.config](#) on page 43.

If you are using forms authentication, no special IIS configuration is needed. If you want to use mixed authentication, you need to configure IIS specially. This is done slightly differently for IIS 6 and IIS 7.

### IIS 7 configuration for mixed authentication

1. Open the MHDialogServerAPI web share in IIS Manager, and switch to Content View.
2. Right click on WindowsAuthenticationAPIService.asmx and switch to features view. Locate and double-click on the **Authentication** option in the right-hand pane. Ensure that only Windows authentication and ASP.NET impersonation are enabled.
3. The WinLogin/WinLogin.aspx page in Customer View, Telemarketing, Report Portal, and Dashboard must only allow Windows authentication and ASP.NET impersonation. Select the WinLogin/WinLogin.aspx page in IIS, and switch to features view. Locate and double-click on the **Authentication** option in the right-hand pane. Ensure that only Windows authentication and ASP.NET impersonation are enabled.

### Changing authentication type in web.config

- For forms authentication:

- The `forms` element must have the attribute `loginUrl="Login.aspx"`.
- The following element must be present in the `appSettings` section:

```
<add key="AuthenticationType" value="Forms"/>
```

- For mixed authentication:

- The `forms` element must have the attribute `loginUrl="WinLogin/WinLogin.aspx"`.
- The following element must be present in the `appSettings` section:

```
<add key="AuthenticationType" value="Mixed"/>
```

### Configuring the Dialogue Server API URL

All Web Applications have a configuration file specifying the URL to the Dialogue Server API. If setting up a web application manually (not using the installation program), then you have to specify this URL manually.

#### Steps to set the Dialogue Server API URL manually:

1. Open the web application's Config\MH.DataAccessLayer.config file.
2. Change the serviceBaseLocation attribute in the XML's root element to the Dialogue Server API URL you use.

### Configuring the Dialogue Server API

The Dialogue Server API can be configured for operation in two different modes: COM Server mode and API Proxy mode.

#### COM Server mode

The COM Server mode is the default setting. In this mode the Dialogue Server API communicates with the Dialogue Server's COM components. The Dialogue Server API is normally set up with this configuration.

#### API Proxy mode

Using the API Proxy mode, the Dialogue Server API acts as a proxy-server, passing all requests through to another installation of the Dialogue Server API server.

To enable this mode, set the UseWebServices value in web.config to true. The address of the Dialogue Server API must also be set:

```
<addkey="UseWebServices" value="true"/>
<addkey="WebServiceURL" value="http://server/MHDialogServerAPI"/>
```

#### Configuring access to web services and methods

It is possible to enable and disable the different web services in the Dialogue Server API. Individual methods inside a web service can also be enabled or disabled. All web services and methods are by default enabled.

These settings are defined in an xml config file named APIAccess.config.

#### Configuring access to instances

It is possible to enable and disable access to different Portrait Dialogue instances through the Dialogue Server API.

These settings are defined in the xml config file named InstanceAccess.config

### Installing Portrait Dialogue client software

Installing the Portrait Dialogue client software includes installing two key components:

- Visual Dialogue

- Dialogue Admin

**Note:** If you want to run an unattended installation, see *Running an unattended installation* in the Appendix.

1. To start the installation, run the `InstallMenu.exe` found on the Portrait Dialogue media.
2. Click **Install Visual Dialogue**. The **Welcome** dialog box will appear, click **Next** to continue.
3. Choose the destination folder for the program files. Click **Next** to continue.
4. Choose to install **Visual Dialogue, Dialogue Admin and samples (Complete)**, or only selected components (Custom). Click **Next** to continue.
5. Enter the name of the Dialogue Server to connect to and the instance name. If you do not know the instance name enter `default`. Click **Next** to continue.
6. Click **Install** to start the installation.

## Verifying the installation

1. Click on the **Visual Dialogue** shortcut to start Visual Dialogue for the first time.

**Note:** The installation creates shortcuts to the Visual Dialogue on your desktop. Shortcuts are also available under **Start > Program Files > PST > Portrait Dialogue**

2. Log in to Visual Dialogue.

- If using Portrait Dialogue authentication, enter your Portrait Dialogue username and password, and click **OK**.
- If using Windows authentication, check the box **Use Windows Authentication**, and click **OK**.

**Note:** You can click on the **Advanced** button and update the Dialogue Server Host and Instance name if your server details have changed.

3. If everything is set up correctly and your username has the necessary user rights, Visual Dialogue will start. If you have problems accessing the Dialogue Server, typical error messages include:

Error message	Description
Error occurred when trying to connect to 'MHDIALOGSERVER.MHSystem-API@DIALOGSERVER' : The RPC server is unavailable.	This error typically occurs if your computer is not able to communicate using COM+ and RPC to the Dialogue Server. Check the following: <ul style="list-style-type: none"> <li>• That the Dialogue Server Host name is correct</li> <li>• That there are no firewalls preventing your computer communicating using COM+ and RPC with the Dialogue Server Host server.</li> </ul>
Error occurred when trying to connect to 'MHDIALOGSERVER.MHSystem-API@DIALOGSERVER' : Access is denied.	This error typically occurs when your computer is able to communicate with the Dialogue Server, but your windows user account is not allowed access to the Dialogue Server COM+ components. Check the following:

Error message	Description
	<ul style="list-style-type: none"><li>• That your user account is allowed “Distributed COM Access” to the Dialogue Server. Contact your network administrator to verify this.</li><li>• The Dialogue Server has a local group called “Distributed COM Users” make sure that your windows account is added to this group directly or via other domain group’s memberships.</li></ul>

**Important:** If your computer is not on the same domain as the Dialogue Server, you will require a number of additional steps to connect to the Dialogue Server. Contact your Domain or Network Administrators and send them the *MTS and DCOM setup.pdf* document provided on the installation media (zip/dvd/iso).

## Configuring the Dialogue Admin instance

If you install the Dialogue Admin client, you need to add the Dialogue Server to the Dialogue Server Hosts node.

To add the Dialogue Server:

1. Open the **Dialogue Admin** window:
2. Right-click on **Dialogue Server Hosts** and select **New**.
3. Type in the computer name of the Dialogue Server.
4. Click **OK**.

**Note:** To delete an invalid host in the **Dialogue Admin** window, select the **Dialogue Server Hosts** node, then select the host in the right view and click **Delete**.

# Installing Interaction Optimizer

## In this section:

- **Installation overview** .....48
- **Before you begin** .....48
- **Installation procedures** .....48

# Installation overview

To install Portrait Interaction Optimizer, complete the procedures listed below.

Installation procedure	Time estimate
<a href="#">Installing Portrait Foundation components</a> on page 48	10m
<a href="#">Installing Interaction Optimizer (IO)</a> on page 51	10m
<a href="#">Creating a new repository</a> on page 52	10m
<a href="#">Importing configuration into repository</a> on page 52	10m
<a href="#">Deploying the configuration</a> on page 53	10m
<a href="#">Installing the WCF web services</a> on page 53	10m
<a href="#">Installing Simulation SSIS packages</a> on page 56	10m

## Before you begin

Before starting the installation, ensure you:

- If you want to do a clean install, ensure you uninstall any pre-existing versions of Interaction Optimizer and its sub-components (Portrait Foundation and Portrait Shared Server).
- Have the credentials of a SQL Server login that has administrative privileges on your SQL Server.
- Source all required software and associated documentation.

## Installation procedures

### Installing Portrait Foundation components

#### Creating a new IO database

Use the following procedure to create a new Interaction Optimizer database. This procedure uses the Foundation software database installer.

1. Log on to the Interaction Optimizer Application Server using a designated Windows account that has rights to administer the SQL Server.

2. Run the `FdnDbSetup.exe` that can be found on the Interaction Optimizer release media in `\Foundation Media\Software\Installsets\Database\`. Ensure you right-click the `.exe` file and select **Run as Administrator**.
3. Click **Next** and select **Create new database**.
4. Click **Next** and type the **Database Server** (and possibly instance) you want to connect to.
5. Type the **Database name** you want to create.

**Note:** Take note of the IO database name because you will refer to it during the SSIS installation.

6. Ensure **Use Windows Authentication** check-box is selected.
7. Click **Next** and check that the **Server collation** is set to **Latin1\_General\_CI\_AS**.

**Note:** If the **Description** shown for the **Server collation** displays 'Case-sensitive collations cannot be used', then you can proceed with the installation by selecting **User defined collation** and choosing **Latin1\_General\_CI\_AS** from the drop-down.

8. Click **Next** and confirm the database datafile location.

**Note:** Ensure the datafile location specified matches the default datafile location of your SQL Server machine.

9. Click **Next** and select whether you are completing a production or non-production install.
10. Click **Next** and select **Custom - unencrypted stored procedures or additional scripts**. Uncheck **Enable DataMart functionality**.
11. Click **Next**. Leave the **Unencrypt stored procedures** and **Code** fields blank.
12. Click **Next**. On the **Select Database Scripts** dialog, leave the **Execute Implementation Scripts** checkbox selected and browse to `Installation\Foundation Database Scripts\cre_imp_db.txt` on the Interaction Optimizer installation media.
13. Click **Next** and enter a description to describe the version of Interaction Optimizer you are installing, for example, **InteractionOptimizer54**.
14. Click **Next** to start the database creation process.
15. Click **Close**.
16. To verify the installation:

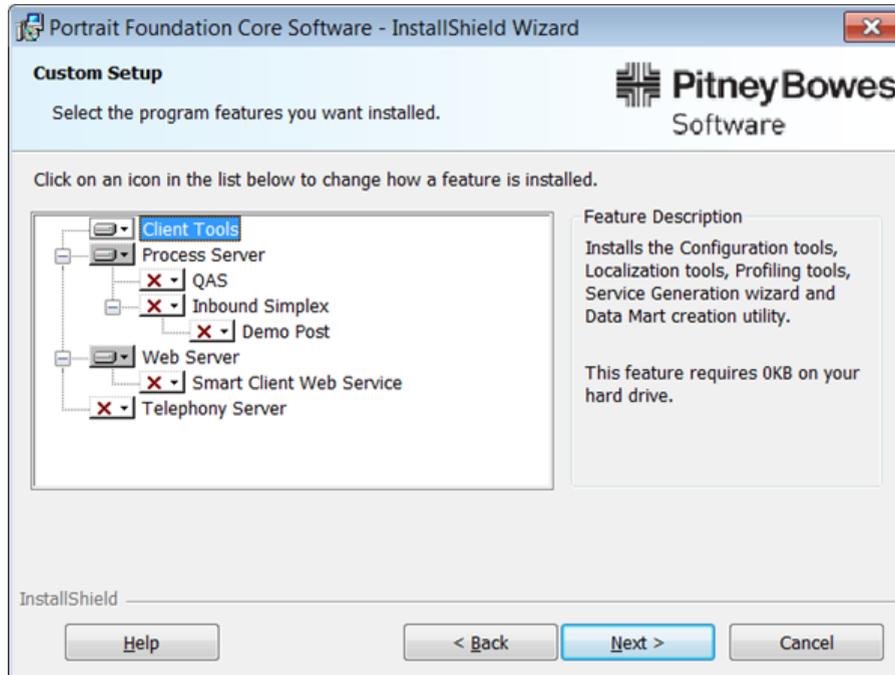
- a. Log on to a machine with SQL Server and start **SQL Server Management Studio**.
- b. In the **Server Type** field select **Database Engine**.
- c. In the **Server Name** field select the appropriate SQL server.
- d. Ensure **Windows Authentication** is selected and click **Connect**.
- e. In the **Object Explorer** window, check for the database name you specified above.
- f. Expand the database and look for a table called `io_application_params`.
- g. If both the database and table exist then the installation has been successful.

## Installing Portrait Foundation

Use the following procedure to install Portrait Foundation's IO recommendation engine that decides which suggestions to make.

**Note:** This procedure requires Portrait Foundation software which can be found on the Interaction Optimizer media (zip file/DVD) in \Foundation Media\Software\Installsets\Core\_Software\.

1. Right-click the `setup.exe` in \Foundation Media\Software\Installsets\Core\_Software\ and select **Run as Administrator**. Click **Next**.
2. Accept the default **Destination Folder** and click **Next**.
3. On the **Portrait Foundation Installation Type** screen, select **Custom** and click **Next**.
4. On the **Custom** install screen, select the components as highlighted below:



5. Click **Install**.
6. Once the installation is complete, ensure the **Launch Portrait Foundation System Setup** checkbox is selected and click **Finish**.
7. On the **Portrait System Setup** screen:
  - a. Enter a name for the Portrait Foundation system. If you are installing a single Portrait Foundation system, then you can accept the default of `MyPortrait`.
  - b. Enter the **Domain name**, **User name** and **Password** credentials that will be used to access the Portrait Foundation services for the system.
  - c. Click **Next**.
8. On the **Operational database** screen:
  - a. Type the name of the database server where the Interaction Optimizer database is installed (identified in procedure: [Creating a new IO database](#) on page 48).

- b. Type the name of the Interaction Optimizer database created in [Creating a new IO database](#) on page 48.
  - c. Ensure **Use Windows authentication** is selected.
  - d. Click **Next**.
9. On the **Transient database** screen, ensure all four options are left unchecked and click **Next**.
  10. On the **Clone process server** screen, leave the **Clone process server** field unchecked and click **Apply** to complete the configuration.
  11. Click **Start** in the **System Setup Launchpad** to apply the configuration changes. Close the **System Setup Launchpad** when changes have been successfully applied.
  12. Click **Close** to exit the configuration.

## Installing Interaction Optimizer (IO)

1. On your application server, run the `setup.exe` (right-click and select **Run as Administrator**) located in the `Installation` folder on the Interaction Optimizer installation media (.iso).
2. Select your language and click **OK**.
3. Click **Next** on the **Welcome** dialog.
4. Accept the license terms and conditions and click **Next**.
5. On the **Setup Type** screen, select **Complete** and click **Next**.
6. On the **Database Server** screen, provide the connection details for the existing **PSR database** and click **Next**. (The default PSR database catalog name is `PortraitPSR`.)
7. On the next **Database Server** screen, provide the connection details for the existing Portrait Data Warehouse (PDW) database and click **Next**. (The default PDW database catalog name is `PortraitDW`.)
8. Click **Install**.

**Note:** This installation assumes you have installed Portrait Foundation's core software using the default system name of `MyPortrait`. If you have used a different system name, then rename the `MyPortrait` folder (in `c:\program files\pst\portrait io\systems`) to match the system name you chose.

**Note:** If you are installing more than one instance of Interaction Optimizer onto a single physical server, then you must create a folder beneath `c:\program files\pst\portrait io\systems` for each additional tenant. To do this:

1. Copy the existing folder beneath `c:\program files\pst\portrait io\systems` to the same location
2. Give the copied folder the system name of the tenant you are adding
3. Modify the content of the `Portrait.IO.DataAccess.config` to contain the database connection details of the Portrait Shared Repository and Portrait Data Warehouse that you are using for this tenant.

If you are installing Interaction Optimizer on more than one server, ensure you repeat these steps for each application server.

### Creating a new repository

1. Create a `Config` directory beneath the Interaction Optimizer installation directory on your local machine, for example:

```
c:\program files(x86)\pst\portrait io\Config
```

2. In this folder, create two directories called `Master` and `Snapshot`:

```
c:\program files(x86)\pst\portrait io\Config\Master  
c:\program files(x86)\pst\portrait io\Config\Snapshot
```

3. Start the Repository Manager application.

Because this is the first time the application has been run, the Repository Manager displays the **Repository properties** dialog box. Click **Cancel** to close the dialog box and ignore any warnings.

4. Enter the new repository properties:

- Click **Repository-New repository** to display the New repository dialog box.
- Click **Browse** to display the Repository properties dialog box, ignore any warnings. In the **Source control provider** field, select **Portrait Snapshots**. In the **Master and Snapshot** fields, click **Browse** and locate the Master and Snapshot folders that you created on your local machine.
- Click **OK** to close the dialog box.
- In the **New repository** dialog box, enter an owner, administrator user name and password. For example using the details:

Owner : IO

Administrator user name : Superuser

Administrator password : Password

5. Click **OK** to close the dialog box.
6. Close the **Repository Manager**. Click **Yes** to creating the repository now.

### Importing configuration into repository

1. Start the Repository Manager application.
2. Click **Repository** and log on to the repository using the credentials you provided when creating the new repository.
3. Click **Repository-Import** and choose **Portrait\_Platform.cab** in the `Repository` folder on the Portrait Foundation installation media. Wait for the import packages to be completed and click **OK**.
4. Click **Repository-Import** and choose **Portrait\_IO.cab** in the `C:\Program Files(x86)\PST\Portrait IO\IORepositoryPackage` folder on your local machine. Wait for the import packages to be completed and click **OK**.
5. Click **Repository-Import** and choose **Portrait\_IO\_Demo.cab** in the `C:\Program Files(x86)\PST\Portrait IO\IORepositoryPackage` folder on your local machine. Wait for the import packages to be completed and click **OK**.
6. Close the **Repository Manager**.

## Deploying the configuration

1. Start the Configuration Suite application.
2. Log on to the repository using Portrait authentication. Make sure that you are logging in to the correct repository by checking the top panel of the dialog box. If not, click **Settings** and choose the correct repository.
3. Click **File > Open** and select the Interaction Optimizer workspace, then click **OK**.
4. Click **View > Deployer** and wait till the deployable nodes get loaded
5. Click **View > Settings** and ensure that the availability state is set to **Published**.
6. Click the **Deploy** button to start the **Portrait deployment wizard**.
7. Follow the instructions, clicking **Next** to proceed through the steps. If you want to specify an optional release name, ensure that the name does not contain any "dot" characters.
8. When you reach the end of the wizard, click **Finish** to start the deployment.
9. When the deployment is complete, click **Yes** to activate the deployment.

## Installing the WCF web services

Interaction Optimizer provides a set of *Windows Communication Foundation* web services.

Web service	Description
Interaction Optimizer web service	This service provides functionality for client applications to request IO suggestions and record responses to these suggestions.
Decisions web service	This service is for internal use and provides functionality to support integration with other Portrait products.
IO Bridge web service	This service is for internal use and provides functionality to support integration with other Portrait products.

To install these web services, repeat the following steps on each web server:

1. Browse to the folder `C:\program files(x86)\pst\portrait io\IOWebServicesInstallation`, right-click `InstallIOWcfWebServices.exe.config` and select **Edit** to open the file in a text editor. Modify the following *value* attributes in relation to your installation setup:
  - `<add key="DbServer" value="MYHOST\MYINSTANCE" />`, specifying the host (and then instance, if required) for the database server.
  - `<add key="Dbname" value="MYDATABASE" />`, specifying the name of the database
  - `<add key="VirtualDirUser" value="MYHOST\MYACCOUNT" />`, specifying the Windows account name to be used for the *IIS* virtual directory for the web service.
  - `<add key="VirtualDirPassword" value="XXXXXX" />`, specifying the password for that Windows account.
2. If you have installed the Portrait Foundation core software in a location other than the default of `C:\Program Files(x86)\PST\Portrait Foundation`, or your Portrait tenant system name

is different from the default of `MyPortrait`, or if you are installing a multi-tenant system, then you must also verify that the following `value` attributes are correct in relation to your installation setup:

- `<add key="PortraitIoBaseDirectory" value="C:\Program Files\PST\Portrait" />`, specifying the Portrait Foundation core software installation location.
  - `<add key="SystemName" value="MyPortrait" />`, specifying the name of the Portrait Foundation system tenant.
3. For `DbLoginMode`, leave the value unchanged as `Windows`, if your Windows account has read permission on the database.
    - If not (if, for example, your Windows account does not have access to the database server, or if your database and web-tier machines are on different Windows network domains), then replace `Windows` with `SQL`, and replace `SQL_USERNAME` and `SQL_PASSWORD` with a SQL Server user account and password.
  4. Save the changes and close the file.
  5. Right-click the `InstallIoWcfWebServices.exe` and select **Run as Administrator**. **Note:** All settings inside the `<appSettings>` tag in the configuration file can be overridden by passing the key name preceded by `/` and its value as arguments when calling `InstallIoWcfWebServices.exe` program. Example:

```
InstallIoWcfWebServices.exe /VirtualDirUser domain\user /VirtualDirPassword password /IisWwwRoot C:\inetpub\MyWwwRoot\ /OnlyDeleteDirectories true
```

- Optionally, all the settings in the `<appSettings>` tag in the `InstallIoWcfWebServices.exe.config` configuration file can be copied into a separate file called `InstallIoWcfWebServices.config.xml` to preserve settings and prevent it from being overwritten when doing an upgrade or re-installation. This new file can be created in the same directory as `InstallIoWcfWebServices.exe.config` with the following sample content.

```
<?xml version="1.0" encoding="utf-8" ?>
  <appSettings>
    <add key="UICulture" value="en-US"/>
    <add key="WebConfigFileName" value="Web.Config"/>
    <add key="BackupWebConfigFileName" value="Web.Config.original"/>
    <add key="PortraitIoBaseDirectory" value="..\\"/>
    <add key="IoWebServicesInstallationRoot" value="\"/>
    <add key="ServiceMakerProgramPath" value="..\..\Portrait Foundation\
WebServices\ServiceMaker\bin\ServiceMaker.exe"/>
    <add key="IisWwwRoot" value="C:\inetpub\wwwroot\"/>
    <add key="SystemName" value="MyPortrait"/>
    <add key="VirtualDirUser" value=""/>
    <add key="VirtualDirPassword" value=""/>
    <add key="DbServer" value="MYDBSERVER"/>
    <add key="DbName" value="PortraitIO"/>
    <add key="DbLoginMode" value="Windows"/>
    <add key="DbUser" value=""/>
    <add key="DbPassword" value=""/>
    <add key="OnlyDeleteDirectories" value="false"/>
  </appSettings>
```

**Note:** Settings placed in this alternative file precede those in `InstallIoWcfWebServices.exe.config`. The system, however, will use settings in `InstallIoWcfWebServices.exe.config`.

vices.exe.config for any items that are not found in InstallIoWcfWebServices.config.xml.

### Review the WCF Interaction Optimizer web service properties

The WCF Interaction Optimizer web service virtual directory will inherit the existing website properties. These should be reviewed to ensure they are as required. The following review steps should be repeated for the WCF Decisions Web Service and the IO Bridge Web Service.

1. Click **Start, Control Panel, Administrative Tools, Internet Information Services (IIS) Manager**.
2. Select the **IOWCFWebService** virtual directory.
3. In the IOWCFWebService Home page, double-click on **Authentication**:
  - Select **Anonymous Authentication** and click on **Edit**
  - Verify the correct user details or modify if necessary and click on **OK**
  - 64-bit system users only. Click on **Application Pools** and open **Advanced Settings** on the **Default Apppool**. Ensure the web service is running in an application pool where `Enable 32-bit applications` is set to `True`.

### Verify that the Interaction Optimizer web service works

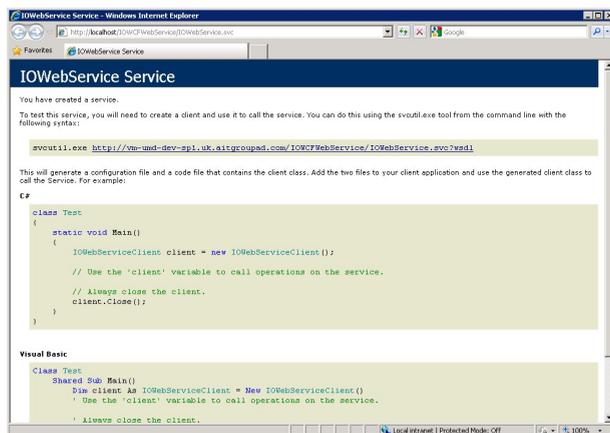
**Note:** If a port other than 80 has been used, change the URL to `http://server:port/IOWCFWebService/IOWWebService.svc`, where port represents the port number.

Enter the following URL into a web browser:

```
http://<server>/IOWCFWebService/IOWWebService.svc
```

If the name of the IIS virtual directory has been specified as something other than the default of `IOWCFWebService`, then change the URL here accordingly.

If the Interaction Optimizer web service is working, the following page displays:



Repeat the previous web service verification steps for the Decisions and IO Bridge web services.

They can be browsed to at the following URLs: `http://<server:port>/DecisionsWCFWebService/DecisionWebService.svc` `http://<server:port>/IOBridgeWCFWebService/IOBridgeWebService.svc`

```
DecisionsWebService Service
You have created a service.
To test this service, you will need to create a client and use it to call the service. You can do this using the svcutil.exe tool from the command line with the following syntax:

svcutil.exe http://om-pasdev-bk.uk.atggroup.com/DecisionsWebService/DecisionsWebService.svc?wsdl

This will generate a configuration file and a code file that contains the client class. Add the two files to your client application and use the generated client class to call the Service. For example:

C#
class Test
{
    static void Main()
    {
        DecisionsWebServiceClient client = new DecisionsWebServiceClient();
        // Use the 'client' variable to call operations on the service.
        // Always close the client.
        client.Close();
    }
}

Visual Basic
Class Test
Shared Sub Main()
Dim client As DecisionsWebServiceClient = New DecisionsWebServiceClient()
' Use the 'client' variable to call operations on the service.
' Always close the client.
client.Close()
End Sub
End Class
```

**Important:** If you are installing a multi-tenant system, then you must repeat the previous step separately for each tenant. Ensure that the database name (DBNAME), system tenant name (SYSTEM-NAME), and IIS virtual directory location (VDIR) and name (VDIRNAME) are all set to unique values for each tenant.

To keep track of what configuration is set up for each tenant, you should prepare the `Install_WCF_IO_Web_Services.bat` file separately for each case. Save the configuration for each case in a separate file, such as `Install_WCF_IO_Web_Services_MyTenant-Name.bat`, then run each of these `.bat` files in turn, once they are all ready.

To make the installer perform just the deletion of web services:

- `<add key="OnlyDeleteDirectories" value="true"/>`, specifying this installer should be just run to delete virtual directories
- If you want to re-install web services in a separate website, it is recommended to run this installer with `OnlyDeleteDirectories` set to `true` and then install the web services again.

## Installing Simulation SSIS packages

Interaction Optimizer is supplied with the following SQL Server Integration Services (SSIS) packages that allow information to be transferred between live and test systems:

- **Utilities** – a support package for the other Interaction Optimizer SSIS packages. You should install this package before any other SSIS package.
- **PromoteCampaigns** – used to transfer tested and approved campaigns from a test system to the live system.
- **Simulation** – used to transfer a recorded events from the live system to the test system to provide a sample group for simulation interactions.

### Creating the SSIS folder structure

1. Create a subfolder called `SSIS` on your local machine, for example:

```
<iohome>\SSIS
```

Within the SSIS folder, create the following subfolders:

```
PromoteCampaigns
Simulation
    import
    export
Utilities
```

2. Open the `Installation` folder on the Interaction Optimizer installation media/DVD and copy the content of `SSIS packages` to a temporary folder on your local machine. For example, `c:\temp:`

```
<iohome>\SSIS
```

### Installing the Utilities package

1. Open the `SSISPackages\<SqlServerVersion>\Utilities` folder (where `<SqlServerVersion>` is the appropriate sub-folder for your version of SQL Server) and remove the Read only attribute from `UtilityPackages.SSISDeploymentManifest`.
2. Double-click `UtilityPackages.SSISDeploymentManifest` and click **Next** on the **Package Installation Wizard**.
3. On the *Deploy SSIS Packages* page, select **File system deployment** and click **Next**
4. Select the `<iohome>\SSIS\Utilities` folder. Navigate through the pages of the wizard confirming the information is correct, and click **Finish** to install the utilities package.

### Installing the Simulation package

1. Open the `SSISPackages\<SqlServerVersion>\Simulation` folder (where `<SqlServerVersion>` is the appropriate sub-folder for your version of SQL Server) and remove the *Read only* attribute from `SimulationImportExport.SSISDeploymentManifest`.
2. Double-click `SimulationImportExport.SSISDeploymentManifest` and click **Next** on the **Package Installation Wizard**
3. On the **Deploy SSIS Packages** page, select **File system deployment** and click **Next**.
4. Select the `<iohome>\SSIS\Simulation` folder and click **Next**.
5. On the **Configure Packages**, select `ImportSimulationData.dtsConfig` and make the following changes to the package property values:

- **Connections[SQL Connection]**

Set the `Data Source` to the name of the database server, for example `localhost\OFFICESERVERS`, and the `Initial Catalog` to the IO database name, for example `PortraitIO`. The other components of the string can be left as the default values.

- **Variables[User:ImportDirectory]**

Set the value to the absolute path of the previously-created import folder, for example `<iohome>\SSIS\Simulation\import`

- **Variables[User:TableListFile]**

Set the value to the absolute path of the `SimulationTableList.xml` file, for example `<iohome>\SSIS\Simulation\SimulationTableList.xml`.

- **Variables[User:UtilsDirectory]**

Set the value to the absolute path of the Utilities package, for example `<iohome>\SSIS\Utilities`.

6. On the Configure Packages, select `ExportSimulationData.dtsConfig` and make the following changes to the package property values:

- **Connections[SQL Connection]**

Set the `Data Source` to the name of the database server, for example `localhost\OFFICESERVERS`, and the `Initial Catalog` to the database name, for example `io_database`. The other components of the string can be left as the default values.

- **Variables[User:ExportDirectory]**

Set the value to the absolute path of the previously-created export folder, for example `<iohome>\SSIS\Simulation\export`

- **Variables[User:TableListFile]**

Set the value to the absolute path of the `SimulationTableList.xml` file, for example `<iohome>\SSIS\Simulation\SimulationTableList.xml`.

- **Variables[User:UtilsDirectory]**

Set the value to the absolute path of the Utilities package, for example `<iohome>\SSIS\Utilities`.

### Installing the PromoteCampaigns package

The PromoteCampaigns SQL Server Integration Service (SSIS) package allows you to move campaign data between Interaction Optimizer environments. This is useful if you are testing campaigns in one environment, and then want to automatically transfer those campaigns into a production environment. PromoteCampaigns transfers campaigns by restoring a backup of the Portrait Shared Repository database into the target environment.

The PromoteCampaigns installation procedure includes:

- Ensuring you have a database login with sufficient privileges
- Running the SSIS package deployment manifest on the SSIS server to deploy the package to the file system of the SSIS server
- Providing the package configuration values.

### Pre-requisite database configuration

Before using the PromoteCampaigns package, the target database must be set up with a login suitable for running the promotion. This step can be skipped if it is intended that the package will be run using an account that has **sysadmin** privileges.

A login should be created on the account that will be used to run the SSIS package. It will be this account that will be specified in the connection string in the configuration file (if using SQL Server authentication) or the Windows account that will be used to run the SSIS package if using Integrated Security.

**Note:** The login MUST NOT be a user in the PSR database but should be an alias to **dbo** in the PSR database. This can be accomplished by issuing the following SQL command:

```
ALTER AUTHORIZATION ON DATABASE::[PSR Database] TO [login]
```

replacing the names of the database and login as appropriate.

The login must be a user with the following roles in each of the specified databases:

Database	Role
Interaction Optimizer (Foundation)	db_datareader db_datawriter
Master	db_datareader

Finally, the login MUST be granted the following server permission using the following command (this must be issued by a **sysadmin** type user).

```
GRANT CONTROL SERVER TO [<domain\login>]
```

Where *[login]* is the same login to be used when running the *PromoteCampaigns* package. For more information, see *Moving campaign data to a different IO system* in the *Interaction Optimizer Administration Guide*.

## Installation

The *PromoteCampaigns* packages is a single SSIS package intended to be installed on the same physical machine as the SQL server instance on which it is intended to operate.

1. Copy the `SSISPackages\<SqlServerVersion>\PromoteCampaigns` folder (where `<SqlServerVersion>` is the appropriate sub-folder for your version of SQL Server) to the target server and remove the *Read only* attribute from: `PromoteCampaigns.SSISDeploymentManifest` and `PromoteCampaigns.dtsx`.
2. Double-click `PromoteCampaigns.SSISDeploymentManifest` and click **Next** to open the *Package Installation Wizard*.
3. On the *Deploy SSIS Packages* page, select *File system deployment* and click *Next*.
4. Select the `<iohome>\SSIS\PromoteCampaigns` folder and click **Next**.
5. Once the deployment of the package file is complete the user will then be asked to provide the configuration values for the package:

- `Package.Connections[Interaction Optimizer].Properties[ConnectionString]`

The value is used to specify the connection string for the Interaction Optimizer (Foundation database) in the target environment. For example, if moving campaigns into a production environment, this value must be the connection string for the production Interaction Optimizer database. This should specify either Integrated Security (when using a Windows account to log into the database) or the Username and Password of an appropriate SQL Server login (see pre-requisites)

- `Package.Connections[PSR Server MasterDB].Properties[ConnectionString]`

The connection string to the system database called 'master' on the database server of the target environment. This connection string MUST use the login created in the pre-requisite steps unless using a sysadmin account to run the package.

- **Package.Variables[User::DboLoginName].Properties[Value]**

The login name (without enclosing square braces) of the login account created in the prerequisite steps.
- **Package.Variables[User::PSR\_Backup\_File].Properties[Value]**

The full path to the PSR database backup file that contains the campaigns that you wish to move to the target environment.
- **Package.Variables[User::PSR\_Database\_Name].Properties[Value]**

The name of the PSR database in the target environment.
- **Package.Variables[User::PSS\_Use\_Windows\_Auth].Properties[Value]**

A flag to indicate whether we are using Windows users to log on to the HQ. If set to 'True', the Windows user running the PromoteCampaign package MUST be able to log on to the HQ in the target environment. If 'False' both the `PSS_Username` and `PSS_Password` configuration values must be supplied.
- **Package.Variables[User::PSS\_Username].Properties[Value]**

The name of an HQ user that can log on to the HQ in the target environment. Only required if not using Windows authentication to log on to the HQ.
- **Package.Variables[User::PSS\_Password].Properties[Value]**

The password of an HQ user that can log on to the HQ in the target environment. Only required if not using Windows authentication to log on to the HQ.
- **Package.Variables[User::PSS\_WebService\_URL\_Stem].Properties[Value]**

The URL of the PSS web services in the target environment, for example, *http://MyPSSServer/Portrait-SharedServices*

**Note:** If PSS web service in the target environment is exposed only over SSL than we need to configure the appropriate certificate in client machine and use the secured url, for example *https://MyPSSServer/PortraitSharedServices*

**Note:** The package configuration values can be changed after the installation, by editing the file `<iohome>\SSIS\PromoteCampaigns\PromoteCampaigns.dtsConfig`.

# Installing Portrait Explorer

## In this section:

- **Installation overview** .....62
- **Before you begin** .....62
- **Installation procedures** .....63

# Installation overview

To install Portrait Explorer, complete the procedures listed below.

**Note:** Portrait Explorer requires two key installation components, the Portrait Shared Server (PSS) and Portrait Analytics Web Services (PAWS). If you have followed the install order of this guide, you should have already installed the Portrait Shared Server.

Installation procedure	Time estimate
<a href="#">Installing Portrait Analytics Web Services</a> on page 63	30m
<a href="#">Starting Portrait Analytics Web Services (PAWS)</a> on page 64	30m

## Before you begin

Before starting the installation, you need to:

- Ensure you have administrative privileges for all installs including login credentials to your SQL Server machine.
- During the install, you will be prompted to enter Windows user accounts (username and password) for running the PSS application pool and the connection to the PSR database from PSS/PAWS. It is recommended that you use the same Windows account to manage all three components. The account should:
  - be on a network domain rather than a local machine
  - have `db_datareader` and `db_datawriter` role permissions on the PortraitPSR database
- Source all required software and associated documentation, including:

Software + documentation	Media location (ZIP file/DVD)
Portrait Shared Server	Portrait Explorer media in: \Portrait Shared Server\
Portrait Analytics Web Services	Portrait Explorer media in: \PAWS\
Portrait Explorer Installation Guide (this guide)	Portrait Explorer media in: \Documentation\
PAWS license file	Contact Portrait Software Support.

**Note:** If you do not have a PAWS license file at installation, you can create an empty `license.xml` and browse to the location of this file during the PAWS installation. However, you will not be able to start PAWS until you obtain the proper license - which should then be copied to the PAWS installation config folder.

**Software + documentation****Media location (ZIP file/DVD)**

A license file has an expiration date and is specific to one computer. If you change any of the IP addresses of the computer, you may require a new license file.

## Installation procedures

### Installing Portrait Analytics Web Services

This task is accomplished using an InstallShield wizard, which guides you through a succession of pages. You typically click on a **Next** button to move to the next page in a sequence (in which case you can always use the **Back** button on the following page to return to where you were).

1. Run `\PAWS\setup.exe` from the Explorer installation media.  
The PAWS InstallShield wizard opens at the welcome page. (Click on **Next** to move to the next page.)
2. Under **License Agreement**, review the license terms if necessary, and click on **I accept the terms in the license agreement**.  
You will not be able to proceed with the installation until you have accepted the license terms.
3. On the next page, select the install location. The default is `c:\program files (x86)\PST\PAWS`.
4. On the next page, locate the folder that contains your `license.xml` file, by browsing or typing in a path.  
Determine the location of your license file using Windows Explorer or otherwise, as the browser in the wizard only shows folders.
5. Under **Database User properties**, enter the domain, name, and password for the Windows user account that will be used by PAWS to access the Portrait Shared Repository database.  
This is the same account that is used by Portrait Shared Server.
6. Under **Database Server**, supply details of the Portrait Shared Repository database.
  - a) Choose the database server, either by typing its name or by clicking on **Browse...** and choosing it from a list.
  - b) If you are not currently logged in to Windows as a user with access to the server, choose **Server authentication using the Login ID and password below**, and enter a login ID and password for the server.
  - c) In the **Name of database** box, enter the database catalog to be used by PAWS, or click on **Browse...** to choose the catalog from a list.  
This is the same catalog that you specified for the Portrait Shared Repository during installation of Portrait Shared Server (typically PortraitPSR).
7. Under **Portrait Analytics Web Services**, enter your choice of Web Services password (the same password that you chose during installation of Portrait Shared Server).  
Unless you have good reason to change them, you should accept the defaults for the number of server instances and the port on which PAWS accepts connections.

## Starting Portrait Analytics Web Services (PAWS)

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8. Under **Tomcat Server**, you can, if required, change Tomcat web server port details.  
You should normally accept the defaults.
9. Under **Setup Type**, choose **Complete**.  
There are currently no variations available in a custom installation.
10. Under **Ready to Install the Program**, click on **Install**.  
During installation of the software, the **Installing PAWS** page shows a progress indicator.
11. On the final page, click on **Finish** to exit the wizard.  
If **Show the Windows Installer log** was checked, a log file opens in Notepad.

## Starting Portrait Analytics Web Services (PAWS)

1. In the **Administrative Tools** control panel in Windows, double-click on the **Services** shortcut.  
The **Services** window opens.
2. Right-click on the line containing Portrait Analytics Web Services, and choose **Start**.

PAWS is now running as a Windows service.

**Note:** The installer configures PAWS to automatically start (with a delay, to allow SQL Server database to start first) as a Windows service whenever the computer is restarted.

# Installing Portrait Miner

## In this section:

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- **Configuring Windows Firewall with Advanced Security** . .67
- **Integrating Portrait Miner with the Portrait Software suite** .....67

## Running the server installer

Before installing the Portrait Miner server:

- Make sure that your server machine is running a supported operating system — with all required operating system patches in place and any necessary changes made to the kernel parameters.
  - Ensure you have a valid license file.
  - Ensure that there is sufficient free disk space for the installation.
  - Ensure that any required third-party software is installed.
  - Make sure that the server machine has enough swap space. (As a rough guide, swap space should be two to three times the physical memory space.) Refer to the documentation for your operating system.
1. Run the `Win32qsserverinstall.exe` which is available in the `/Setup` folder on the release media. Ensure you right-click and select **Run as Administrator**.
  2. Follow the installer instructions, clicking **Next** (or entering 1 in the console-based installer) to proceed through the steps.
  3. When you reach the end of the installation, click **Finish** (or enter 3) to quit the InstallShield wizard.
- Note:** After installation, you should review ownership and permissions of all subdirectories of the `shared` directory, to ensure that they comply with your security standards.

## Setting permissions for shared drives

Following a server or Desktop installation, the `<pmhome>/shared/users` directory is only writable by root or system (where `<pmhome>` is the Portrait Miner installation directory). To ensure that only authorized users have access, do one of the following:

- If you have created a group, `mineruser`, for Portrait Miner users, make the `shared/users` directory writable by members of that group.
- You cannot make a linked copy of a focus unless you have permission to write to the "eXTRa" directory of that focus. Therefore, for users to be able to save copies of foci from a shared directory, they must either make full copies, or the shared directory must have write permissions that propagate to subfolders and files.

# Configuring Windows Firewall with Advanced Security

If Windows Firewall is turned on on your server, you need to configure it with inbound rules for Portrait Miner processes.

You must be logged in as an administrator.

1. Start the **Windows Firewall with Advanced Security** application.
2. Highlight **Inbound Rules** and click on **Actions>New Rule**.
3. Create a **Program** rule type, and click on **Next**.
4. Browse to `<pmhome>\server\jre\<arch>\<Java version>\bin` (where `<pmhome>` is the Portrait Miner installation directory, and `<arch>` is `win64` or `win32`), and select `jmasterlauncher.exe`.
5. Choose **Allow the connection** and click **Next**.
6. Choose when this rule applies.
7. Provide a name for the rule, for example, use the name of the executable.

Repeat this to create rules for `jqsserver.exe` and `jusersession.exe`.

## Integrating Portrait Miner with the Portrait Software suite

### Installing the PSSConnector extension for Portrait Miner

The Portrait Shared Services' connection extension (PSSConnector) is a component that is included in all Portrait Miner 7.0A installations to support integration with the following Portrait Suite applications:

- Portrait Dialogue
- Portrait Explorer
- Portrait Interaction Optimizer.

The PSSConnector **must** be configured to publish and retrieve analytics content to and from the Portrait Shared Repository (PSR) via Portrait Shared Services (PSS).

Configure Portrait Miner to point to a *pre-installed* version of the Portrait Shared Services. Edit the file: `<PMHOME>/ext/PSSConnector/pss.properties` to include the text `<service=URL of the Portrait Shared Services>`, for example: `service=http://MY-SERVER/Portrait-SharedServices`



## Appendix

### In this section:

- **Installation datasheets . . . . .70**
- **SharePoint / Interaction Optimizer install considerations .72**

# Installation datasheets

## Interaction Optimizer datasheet

Use this datasheet when installing Portrait Interaction Optimizer.

Installation item	Recommended or default value
IO installation type	Complete
Portrait Shared Repository database name (Portrait HQ)	PortraitPSR
Portrait Data Warehouse database name	PortraitDW
IO configuration repository owner	Name of your organization.
IO configuration repository administrator	Superuser
IO configuration repository administrator password	Password
IO database server administrator login	To be determined at time of install
IO database creation method	create new database
IO SQL server instance	To be determined at time of install
IO database name	InteractionOptimizer
IO database authentication method	OS authentication
IO database collation	Server collation
IO database data file location	C:\Databases\Data
IO database log file location	C:\Databases\Data
IO database additional features	Customised
IO database project code	blank
IO database implementation scripts	Check Execute Implementation Scripts. Browse to Installation\Foundation Database scripts\cre_imp_db.txt on IO release media
IO database implementation version	IO 5.4, or whatever version of IO you are installing
IO database temp working directory	C:\PST_Database_Install\Files_<date>
IO database login	To be determined at the time of install.
IO transient database	uncheck all options

Installation item	Recommended or default value
IO services start-up options	Uncheck Manual service start-up. Check Enable Perfmon Counting
IO web site	Default web site

### IO Web Services

Installation item	Recommended or default value
IO sql server	To be determined at time of install
IO database name	InteractionOptimizer
Windows user account for anonymous access	To be determined at time of install
Password for anonymous access account	To be determined at time of install
Foundation installation folder	C:\program files\pst\portrait
Foundation system name	MyPortrait
Database login mode	Windows
Database login user	To be determined at time of install (if using SQL login mode)
Login user's password	To be determined at time of install (if using SQL login mode)

## Portrait Foundation datasheet

Use this datasheet when installing Portrait Foundation 'core software' with Portrait Interaction Optimizer.

Installation item	Recommended or default value
Foundation service account	To be determined at time of install.

## Portrait HQ datasheet

Use this datasheet when installing Portrait HQ with Portrait Interaction Optimizer. We recommend you print this checklist and fill in all information prior to completing your installation/upgrade.

Installation item	Recommended or default value
Installation or destination folder	C:\Program Files\PST\Portrait Shared Server\
Installation type	Complete
Database user domain	To be determined at time of install
Database user name	To be determined at time of install
Database login user's password	To be determined at time of install

Installation item	Recommended or default value
HQ SQL server instance	To be determined at time of install
Portrait Shared Repository database name	PortraitPSR
Portrait Data Warehouse database name	PortraitDW
Portrait HQ Service Account domain	To be determined at time of install
Portrait HQ Service Account name	To be determined at time of install
Portrait HQ Service Account password	To be determined at time of install
Portrait Dialogue server address	http://localhost/mhdialogserverapi
Portrait Dialogue server instance	Default
Portrait SharePoint services address	http://localhost/Portrait
Currency symbol	To be determined at time of install
Foundation Decisions web service address	http://localhost/DecisionsWCFWebService/DecisionsWebService.svc
Foundation IO Bridge web service address	http://localhost/IOBridgeWCFWebService/IOBridgeWebService.svc
Report server URL	Default = http://localhost/ReportServer

## SharePoint / Interaction Optimizer install considerations

If you install SharePoint (optional) and Portrait Shared Server together on a single machine, then they have to run within separate web sites. You will have to decide which of them will run on the default port of 80, and which of them will run on some other port. Then carry out the following steps during the install:

- If you are happy to run SharePoint on port 80, and the Portrait Shared Server applications (and any other web applications on the server) on some other site, then you will have to modify the properties of the IIS "Default Web Site" to change its port to something other than 80, then start it running. Alternatively (and this is the recommended configuration), if you would rather run the Portrait Shared Server applications (and any other web applications on the server) on the default port 80, and run SharePoint on some other port. Then you will have to start the IIS "Default Web Site", as it will have been stopped when you installed SharePoint. If PCM is already installed on the "Default Web Site", then it's a good idea to install SharePoint to a new website called "SharePoint - 8080" on port 8080. This is done under the SharePoint installation.
- Define "Alternate Access Mappings" for each URL that SharePoint needs to be accessible on. For instance, if you have changed the port that SharePoint is running on, then you must edit the mapping that referred to the old port, to give it the new port instead. Additionally, you should create extra mappings for the fully-qualified domain-name variants of each internal URL if you need the SharePoint site

to be accessible via a fully-qualified domain name (as by default SharePoint only provides mappings for the simple unqualified form).

- To set up these mappings, run the SharePoint Central Administration tool (from "Administrative Tools" on the start menu), go to the "Operations" menu, and select "Alternate Access Mappings".

**For example**, if you have changed your SharePoint to run on *myserver:8090* instead of *myserver:80*, and you also want it to be accessible as *myserver.mydomain.mycompany.com*, then you need to:

- edit the existing *http://myserver:80* mapping to change its port to 8090.
- edit that mapping again to define an 'intranet' or 'internet' fully-qualified equivalent URL *http://myserver.mydomain.mycompany.com:8090*.

