

Reference: <http://www.microsoft.com/technet/prodtechnol/office/sps2003/deploy/spst2003.mspx?pf=true>

Migrating from SharePoint Team Services and SharePoint Portal Server 2001 to Microsoft SharePoint Products and Technologies

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Michael Herman

Parallelspace Corporation

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Applies to:

Microsoft® Windows® SharePoint™ Services

Microsoft Office SharePoint Portal Server 2003

Abstract: Learn about potential problems and solutions to consider when you plan your migration from Microsoft SharePoint Team Services and Microsoft SharePoint Portal Server 2001 to the next generation of Microsoft SharePoint Products and Technologies.



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Introduction

Microsoft® Windows® SharePoint™ Services and Microsoft Office SharePoint Portal Server 2003, the next versions of Microsoft SharePoint Team Services and Microsoft SharePoint Portal Server 2001, respectively, provide easy-to-use collaboration tools for your organization. Windows SharePoint Services is a set of services that you can use to create and maintain many team sites, and SharePoint Portal Server 2003 is a server product that adds features you can use to build and manage integrated, enterprise-scale portal solutions.

If you plan to evaluate and deploy the next generation of Microsoft SharePoint Products and Technologies, you must understand the design changes, the new features and capabilities, and the implications of these changes from a product upgrade and migration perspective. This paper describes the migration issues, the strategies for addressing these issues, and the resources available to help you with your migration.

Related Papers

This migration planning paper is part of a series designed to help Microsoft customers understand, plan, and implement the changes required to migrate from SharePoint Team Services and SharePoint Portal Server 2001 to Windows SharePoint Services and SharePoint Portal Server 2003. This series includes the following related papers:

- Microsoft SharePoint Products and Technologies: Technical Overview
- Microsoft SharePoint Portal Server 2003 Advanced Migration Scenarios
- Developing Web Parts for Microsoft SharePoint Products and Technologies

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The Next Generation of Microsoft SharePoint Products and Technologies

Microsoft SharePoint Team Services and Microsoft SharePoint Portal Server 2001, released in 2001, were the original versions of Microsoft SharePoint Products and Technologies. SharePoint Team Services addressed the Web-based collaboration and communication needs of teams and team Web sites, and SharePoint Portal Server 2001 addressed the document management, document version tracking, Web portal, and enterprise search requirements of a portal solution. To deliver these features, Microsoft used the best available (but differing) technology platforms to build SharePoint Team Services and SharePoint Portal Server 2001.

Based on customer feedback and the experience of developing the first version of SharePoint Products and Technologies, Microsoft designed the next generation of SharePoint Products and Technologies to use a common set of foundation services in Microsoft Windows Server™ 2003, named Windows SharePoint Services. This set of services takes advantage of the performance, stability, and security features of the Microsoft .NET Framework. The following are based on Windows SharePoint Services:

- SharePoint Portal Server 2003
- SharePoint sites
- Document Workspace sites
- Meeting Workspace sites
- Microsoft partner-developed solutions and Microsoft customer-developed solutions

Architecture Changes in Windows SharePoint Services and SharePoint Portal Server 2003

Compared to Microsoft SharePoint Team Services and Microsoft SharePoint Portal Server 2001, the architecture of Windows SharePoint Services and SharePoint Portal Server 2003 has changed considerably. For example, all site content is now stored in content databases instead of the file system, and all configuration data is now stored in a configuration database. These databases are Microsoft SQL Server™ databases, and they are referred to as SQL Server content stores.

Additionally, SharePoint Products and Technologies includes many new and updated features:

- Integrated storage
- Microsoft .NET Web Part Pages and Web Parts
- Common document management services
- Site creation and management services
- Single, integrated search solution
- Personalization and audience-targeted information and applications

- Subscriptions and alerts
- Simple single server configurations and highly scalable server farm configurations

To migrate from an existing SharePoint Team Services installation or SharePoint Portal Server 2001 installation to a new SharePoint Products and Technologies installation, you need to understand how these changes may affect your existing team and portal sites and plan your migration process accordingly.

Integrated Storage

SharePoint Team Services used a hybrid model of Web server, file system, Windows registry, and SQL Server-based storage to manage documents, lists, views and configuration information. SharePoint Portal Server 2001 used a document store based on the Microsoft Web Storage System (the same storage technology used by Microsoft Exchange Server) for most data storage requirements. Both of these solutions required content to be stored on the same server that hosted the Web portal. This requirement limited the range of deployment scenarios and scalability. Each storage solution served the original version of its product well. However, these storage solutions did not support the additional requirements for administration, management, performance, scalability, and functionality in the next generation of SharePoint Products and Technologies. For example, backup and restore operations are difficult to implement and manage when the relevant data is spread out among many different storage systems on the server. Windows SharePoint Services stores all documents, lists, views, and configuration information in SQL Server content stores. Because of this, Windows SharePoint Services offers true enterprise scalability and personalized Web portal experiences.

SharePoint Portal Server 2003 uses Windows SharePoint Services to take advantage of the same SQL Server content store architecture. As requested in customer feedback, SharePoint Portal Server 2003 also supports the option of installing backward-compatible document libraries (Web Storage System-based) for document storage. The backward-compatible document libraries are compatible with SharePoint Portal Server 2001 document approval and routing, and they support multiple document profiles for each document library folder. With the backward-compatible document libraries, you can use a phased strategy to migrate to SharePoint Portal Server 2003.

Note SharePoint Portal Server 2003 still requires a SQL Server content store for managing ASP.NET portal Web pages, lists, views, and configuration information. Windows SharePoint Services and SharePoint Portal Server 2003 both use SQL Server content stores and require Microsoft SQL Server or Microsoft SQL Server Data Engine (MSDE). Microsoft SQL Server is a separately licensed product that is not included with Windows SharePoint Services or SharePoint Portal Server 2003. MSDE is included with Windows SharePoint Services and with SharePoint Portal Server 2003.

ASP.NET Web Part Pages and Web Parts

SharePoint Products and Technologies now uses Web Part Pages and Web Parts based on the .NET Framework and ASP.NET.

SharePoint Team Services and SharePoint Portal Server 2001 each used separate technologies to create and display (render) portal pages in a Web browser. Web pages in SharePoint Team Services were based on Microsoft FrontPage® and Office Web Server technologies, and Web portal pages in SharePoint Portal Server 2001 were based on the Web Storage System dashboard and Web Part technologies.

The next generation of SharePoint Products and Technologies uses Microsoft ASP.NET Web Part

Pages to create and display portal pages in a Web browser. Web Part Pages are ASP.NET pages that take advantage of the performance, stability, and security of the .NET Framework and Windows Server 2003. You can easily integrate Web Parts with Web services, Microsoft Office, and Microsoft BizTalk® Server to provide powerful, flexible, and cost-effective solutions for collaboration and for enterprise portal sites.

Common Document Management Services

SharePoint Portal Server 2001 was designed to provide document version tracking and check-in/check-out document management functions. However, SharePoint Team Services was the solution that large numbers of teams used every day to create, review, approve, and manage their Office documents, to plan and hold meetings, and to track project tasks.

Document version tracking and document check-in/check-out are now included in Windows SharePoint Services, where users need them the most and where applications based on Windows SharePoint Services can take advantage of these document management functions.

Document management is one of the most valuable end-user features in Windows SharePoint Services, and it is the area in which Microsoft made the most changes. The following list shows the main differences between the document management functions in SharePoint Portal Server 2001 and the document management functions in Windows SharePoint Services:

- In SharePoint Portal Server 2001, the document libraries based on the Web Storage System supported multiple document profiles for each document library folder. In Windows SharePoint Services, the SQL Server content store supports one set of properties for each area (the equivalent of one document profile for each folder). Because of this, you may want to store the properties of the most common document profile in the area where it would normally belong, and then store the documents that use secondary document profiles in a subarea, using one set of properties for each secondary document profile.
- SharePoint Portal Server 2001 provided both serial and parallel routing and approval processes. Windows SharePoint Services now provides a simpler one-step moderator approval process.
- SharePoint Portal Server 2001 provided support for document version tracking using major and minor version numbers. Windows SharePoint Services and SharePoint Portal Server 2003 use major version numbers only.
- SharePoint Portal Server 2001 only supported access control at the folder level and the subfolder level. Windows SharePoint Services and SharePoint Portal Server 2003 support access control at the site level and the document level.

Site Creation and Management Services

The original versions of SharePoint Portal Server 2001 and SharePoint Team Services were very complementary. SharePoint Team Services sites were easily deployed in large numbers within an organization, and SharePoint Portal Server 2001 provided enterprise search and Links Web Parts to aggregate team sites into one or more portal sites.

To improve support for very large numbers of SharePoint sites, Windows SharePoint Services now provides common site creation and management features such as site templates and self-service creation of SharePoint sites. SharePoint Portal Server 2003 adds the following additional deployment and management features for the enterprise: site registry; preconfigured enterprise application integration (EAI) solutions with single sign-on support for third party applications; dynamically configurable site maps; enterprise-level server topology management; and the ability to share multiple index servers and search servers.

Integrated Search Solution

For full-text content indexing and searching, SharePoint Team Services used the Windows Indexing service, an early version of Microsoft Search technologies that was included in Windows 2000. When SharePoint Portal Server 2001 was released, it included an updated enterprise version of Microsoft Search technologies.

Windows SharePoint Services uses the latest version of the full-text searching features in Microsoft SQL Server when used in conjunction with Microsoft SQL Server. SharePoint Portal Server 2003 uses the latest version of Microsoft .NET Search Web Service as well as SQL Server full-text search.

Personalization and Audience-Targeted Information and Applications

To empower individual users, an enterprise portal solution must support targeted delivery of content, information, and application functionality. This includes targeting information and applications to individuals, teams, divisions, and entire organizations. This also includes effective support for personalized content and support for group-based portal page content.

Personalization is a service included in Windows SharePoint Services. SharePoint Portal Server 2003 uses Audiences to extend this service. Audiences are dynamic groups of users that share one or more common properties (for example, business role, department, or team membership). The properties that determine Audience membership can reside in an enterprise directory such as Active Directory or any other SQL-based database. Audiences are used to determine which Web Parts appear on a particular Web page and can also act as a filter for the information displayed in those Web Parts. SharePoint Portal Server 2003 also supports creating and managing individual portal pages for each user.

Subscriptions and Alerts

In SharePoint Team Services and SharePoint Portal Server 2001, you could use subscriptions to receive messages when your shared documents were changed. The name of the subscriptions feature has now changed to alerts. Windows SharePoint Services and SharePoint Portal Server 2003 both continue to support alerts.

Simple Single Server Configurations and Highly Scalable Server Farm Configurations

SharePoint Team Services and SharePoint Portal Server 2001 were deployed as single server solutions or as groups of servers, but little support was available for creating and deploying highly scalable server farms.

In the next generation of Microsoft SharePoint Products and Technologies, Windows SharePoint Services is specifically designed to vastly improve performance for each server and to support deployment in highly scalable server farms using multiple stateless front-end servers connected to one or more back-end content servers.

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Migration Strategies

When you upgrade any software product, there are three possible strategies to consider:

- In-Place Upgrade: Install the new version of a software product on the same computer, on the same hard disk, and in the same directory as the previous version of the product, replacing the previous version of the product in a single step. This strategy is useful if you do not have another server available to install Windows Server 2003 and SharePoint Products and Technologies. The downside is that the server is unavailable during the upgrade and you cannot compare the restored sites to the original sites to verify that the migration was successful.
- Co-existence: Install the new software product version on the same computer or on a different computer in such a way that the previous version of the product and the newly installed version of the product can both be used. This requires no additional hardware but is not recommended,

as there are co-existence issues to address. For SharePoint Products and Technologies, certain combinations of cross-version products and versions are not supported.

- Co-existence and Migration: Use a two-step process to support concurrent operation of the previous software version until the organization is ready to switch to the new software version and turn off the old version of the software product. Install the new software version in parallel with the previous version of the product, and run both solutions in parallel. During this time, migrate your users and their data from the previous version of the software to the new version. When the migration is complete, turn off and remove the previous version of the software. This is beneficial because it allows you to keep original sites operational during the deployment of Windows SharePoint Services. It also allows you to verify that the migration was successful. However, it requires a greater number of servers to implement.

Each of these strategies can be useful when you migrate from SharePoint Team Services to Windows SharePoint Services or from SharePoint Portal Server 2001 to SharePoint Portal Server 2003.

Initial Scoping

Identify the sites and workspaces that are actively used and need to be migrated, and then identify the sites and workspaces that are no longer used or are no longer required. In large installations, this analysis can reduce the number of sites you must migrate by as much as 25 percent. You can back up and retire the sites and workspaces that you do not migrate.

SharePoint Team Services Migration Considerations

Automated migration from SharePoint Team Services to Windows SharePoint Services is optimized for standard SharePoint sites and includes migration of document content, lists, views, users, and permissions. Other types of customized SharePoint sites are not automatically migrated (for example, most visual customizations made to a site using Microsoft FrontPage). A complete list of customizations and features that are not automatically migrated or cannot be migrated are described in Appendix A. For detailed information about migration considerations, see "Upgrade Considerations" in the Microsoft Windows SharePoint Services Administration Guide available on Microsoft TechNet.

In general, there are three parts to a SharePoint Team Services server migration:

- Upgrading the server
- Automatically migrating content that is supported by the Windows SharePoint Services Migration command line utility (Smigrate.exe)
- Making additional manual changes to finish the migration

The Windows SharePoint Services Migration command line utility is described in the "Migration Resources" section of this paper. The features that require manual migration are described in Appendix A.

Software Prerequisites

To migrate from SharePoint Team Services to Windows SharePoint Services, you must:

- Install Office XP Service Pack 1 on the server running SharePoint Team Services.
- Install Office XP Service Pack 2 (or later) on the server running SharePoint Team Services.
- Install the Ows1002.exe update for SharePoint Team Services. For more information, see article [823376](#) in the Microsoft Knowledge Base.

Download Smigrate.exe from the [SharePoint Products and Technologies](#) Web site. Alternatively, you can install Windows SharePoint Services on a computer running Windows 2003 Server to retrieve a

copy of Smigrate.exe from the Program Files\Common Files\Microsoft Shared\web services extensions\60\bin folder.

For more information about how to download and install the migration patch, see the Microsoft Windows SharePoint Services Administration Guide available on TechNet.

Roles and Rights Considerations

Roles in SharePoint Team Services are now known as site groups in Windows SharePoint Services, and corresponding roles and site groups have different names. When you upgrade a team site, the automated migration process examines the roles assigned to each user and tries to assign the corresponding site groups to each user. Because the site group names and definitions changed between SharePoint Team Services and Windows SharePoint Services, the default site groups for your user accounts change when you upgrade. The new site group assignments attempt to preserve the meaning of the previous roles. The complete list of site groups and corresponding permissions is described in the "User Rights and site groups" topic in the Windows SharePoint Services online Help file.

Migrating from SharePoint Team Services to Windows SharePoint Services

To migrate from SharePoint Team Services to Windows SharePoint Services, use one of the following methods.

Two Server Migration (Recommended)

1. Apply any required patches to the server running SharePoint Team Services.
2. Use Smigrate.exe to make a backup of the sites on the server running SharePoint Team Services.
3. Install Windows Server 2003 and Windows SharePoint Services on a new server.
4. Restore the data from the backup file to the new server.
5. Make additional manual changes to complete the migration. For more information, see Appendix A in this paper.
6. Compare the original sites on the old server to the restored sites on the new server to verify that the migration was successful.

In-Place, Single Server Migration

1. Apply any required patches to the server running SharePoint Team Services.
2. Use Smigrate.exe to make a backup of the sites from the server running SharePoint Team Services.
3. Remove SharePoint Team Services.
4. Upgrade the server running SharePoint Team Services to Windows Server 2003.
5. Install Windows SharePoint Services on the upgraded server.
6. Restore the data from the backup file to the upgraded server.
7. Make additional manual changes to complete the migration. For more information, see Appendix A in this paper.

Tips

- To use the SharePoint Central Administration pages and tools, you must log on to the server as a member of the local Administrators group, or you must log on as a member of the SharePoint Administrators group.
- To install operating systems or programs on the server, you must log on to the server as a member of the local Administrators group.
- Turn off full-text search on the server during the restore process. This significantly improves

restore performance. When the migration is finished, turn full-text search back on to resume crawling your data.

- If the server has limited memory or processing speed, you can improve performance by running Smigrate.exe remotely from any computer running Windows 2000 Service Pack 3.
- Create a separate Windows user account and use it to restore the backup file. Give the account a name such as "SharePoint Migration" and assign it an e-mail address that matches the e-mail address of someone who can respond to questions about the migration. If Smigrate.exe cannot identify the owner of a piece of content, it assigns ownership to the account that restored the backup file. This way, end users can learn that the content owner could not be determined at migration time, and they can easily contact the appropriate person to resolve any content ownership issues.
- For more information about performing these tasks from the command line, see the Microsoft Windows SharePoint Services Administration Guide available on TechNet.

SharePoint Portal Server 2001 Upgrade Considerations

The upgrade process for a server running SharePoint Portal Server 2001 is similar to the upgrade process for a server running SharePoint Team Services.

Software Prerequisites

SharePoint Portal Server 2001 Service Pack 2a or later must be installed on the server that you want to migrate to SharePoint Portal Server 2003.

Document Storage Options

In most cases, the SQL Server content store is a better choice because the SQL Server content store provides fast database performance, manageability, scalability, and the familiar SQL Server developer tools. However, if you require support for multiple document profiles per document library folder as well as the complex routing and approval workflow features of the document store from SharePoint Portal Server 2001, install the backward-compatible document library.

Upgrading to SharePoint Portal Server 2003

SharePoint Portal Server 2003 provides an automated way to upgrade an existing Windows 2000 Server-based computer running SharePoint Portal Server 2001 to Windows Server 2003 and SharePoint Portal Server 2003.

During the upgrade, a SharePoint Portal Server 2003 portal site is built and the documents from the SharePoint Portal Server 2001 document store (Web Storage System-based) are migrated to the SharePoint Portal Server 2003 backward-compatible document store. When the upgrade is complete, the server running SharePoint Portal Server 2003 contains the following components:

- A backward-compatible document store that contains the documents previously stored in SharePoint Portal Server 2001 workspaces
- A SQL Server content store to support the upgraded portal site and to support creation of new SharePoint sites
- A SharePoint Portal Server 2003 portal site initialized with the categories and document links, content sources, site groups (formerly called roles), and best-bet keywords from the SharePoint Portal Server 2001 workspaces

Upgrading to SharePoint Portal Server 2003 consists of the following six procedures:

1. Back up the SharePoint Portal Server 2001 data.
2. Export the SharePoint Portal Server 2001 configuration information.
3. Upgrade Windows 2000 Server to Windows Server 2003.

4. Upgrade the SharePoint Portal Server 2001 document store to the SharePoint Portal Server 2003 backward-compatible document store.
5. Install SharePoint Portal Server 2003.
6. Import SharePoint Portal Server 2001 configuration information into the new portal site.

Tips

- To use the SharePoint Central Administration pages and tools, you must log on to the server as a member of the local Administrators group, or you must log on as a member of the SharePoint administrators group.
- To install operating systems or programs on the server, you must log on to the server as a member of the local Administrators group.

Procedure 1: Back up the SharePoint Portal Server 2001 data

1. Before you start the upgrade, make a backup of the computer that hosts your SharePoint Portal Server 2001 portal site.
2. Determine if the existing portal site must remain available for regular use during the upgrade.
If the existing portal site must remain available for regular use during the upgrade, restore the backup to a second Windows 2000 Server-based computer running SharePoint Portal Server 2001, and then upgrade the second server.
If you can upgrade the existing portal site at a time when it does not have to remain available for regular use, you can upgrade the server after you make the backup.
3. When you finish making the backup (and restoring the backup to a second server, if required), insert the SharePoint Portal Server 2003 installation CD-ROM into the CD-ROM or DVD-ROM drive on the computer that you want to upgrade.

Procedure 2: Export the SharePoint Portal Server 2001 configuration information

1. Insert the SharePoint Portal Server 2003 installation CD-ROM to start SharePoint Portal Server 2003 Setup.
2. When Setup detects SharePoint Portal Server 2001, it uses Upgrade.exe to export the SharePoint Portal Server 2001 configuration information as a collection of XML files in a folder on the hard disk.
3. The name of the folder that contains the exported information is stored in the Windows registry so Upgrade.exe can use it later in the upgrade (Setup uses Upgrade.exe more than once).
4. When Upgrade.exe finishes exporting the configuration information, it displays a message that prompts you to upgrade the operating system to Windows Server 2003.

Note Windows Server 2003 is a separately licensed product that is not included with SharePoint Portal Server 2003.

Procedure 3: Upgrade Windows 2000 Server to Windows Server 2003

1. Insert the Windows Server 2003 installation CD-ROM into the CD-ROM or DVD-ROM drive on the computer that you are upgrading.
2. When Windows Server 2003 Setup starts, click **Windows Server 2003 upgrade**, and then follow the instructions on the screen to upgrade to Windows Server 2003.
3. When you are prompted to restart the computer, do so.
4. After Windows Server 2003 is installed and the computer restarts, make sure that the computer is properly configured to install SharePoint Portal Server 2003. To do this, follow

these steps:

1. In Control Panel, open **Add or Remove Programs**.
2. Click **Add/Remove Windows Components**.
3. In the **Components** box, click **Application Server**, and then click **Details**.
4. In the **Subcomponents of Application Server** box, click to select the **ASP.Net** check box, and then click **OK**.
5. In the **Components** box, click **Internet Information Services (IIS)**, and then click **Details**.
6. Verify that the **SMTP Service** check box is selected, and that the **FrontPage 2002 Extensions** check box is cleared.
7. Click **OK** until you return to Control Panel.
8. Use the Internet Information Services (IIS) Manager tool in Administrative Tools to turn on Internet Information Services.

Procedure 4: Upgrade the SharePoint Portal Server 2001 document store to the SharePoint Portal Server 2003 backward-compatible document store

1. Insert the SharePoint Portal Server 2003 installation CD-ROM into the CD-ROM or DVD-ROM drive on the computer that you are upgrading.
2. When Setup starts, it installs the SharePoint Portal Server 2003 backward-compatible document store.
3. Restart the computer when you are prompted to do so.

Procedure 5: Install SharePoint Portal Server 2003

1. After you restart the computer, install SharePoint Portal Server 2003.
Note Every SharePoint Portal Server 2003 installation includes a SQL Server content store. During the SharePoint Portal Server 2003 installation, the SQL Server content store is created to support the needs of the portal site and to support additional SharePoint sites created on the server. The original SharePoint Portal Server 2001 documents remain in the backward-compatible document store installed in procedure 4.
2. After you install SharePoint Portal Server 2003, create a new portal.

Procedure 6: Import SharePoint Portal Server 2001 configuration information into the new portal site

1. After you create a new portal, you can use Upgrade.exe to configure the portal site by importing the SharePoint Portal Server 2001 configuration information that you exported in procedure 2 above. To run Upgrade.exe, click **Site Settings** in the new portal site, and then click **Import Microsoft SharePoint Portal Server 2001 data**.

The following changes occur when the SharePoint Portal Server 2001 configuration information is imported into the new SharePoint Portal Server 2003 portal site:

- Categories become Topics.
 - Documents in each category become document links to the documents stored in the backward-compatible document store.
 - Content sources do not change - they are imported directly.
 - Security settings from roles in SharePoint Portal Server 2001 are mapped to site groups in SharePoint Portal Server 2003, based on the rights assigned to each role.
 - Keyword Best Bets are imported directly.
2. When the configuration information is imported and the new portal site is created, the

upgrade is complete.

Important Tips

- Before you start the upgrade, make sure that existing category names contain 100 or fewer characters.
- Before you start the upgrade, review the "Upgrading from Microsoft SharePoint Portal Server 2001" topic in the SharePoint Portal Server 2003 Administrator's Guide online Help file.
- Make sure that you start the upgrade to SharePoint Portal Server 2003 before you upgrade the operating system to Windows Server 2003. You cannot export data from SharePoint Portal Server 2001 after the server is upgraded from Windows 2000 Server to Windows Server 2003.
- After you upgrade to SharePoint Portal Server 2003, manually migrate any features that require manual migration. For more information, see Appendix B in this paper.

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Migration Resources

Migration resources for SharePoint Products and Technologies include services, features, and tools that are included with SharePoint Products and Technologies. Additional resources include tools that are included with the resource kit and tools that are available for download from the Microsoft Web site.

SharePoint Team Services Migration Resources

The main resource for migrating SharePoint Team Services sites to Windows SharePoint Services sites is the Windows SharePoint Services Migration Command Line Utility (Smigrate.exe). Additional resources may be available on the [SharePoint Products and Technologies Web site](#).

Windows SharePoint Services Migration Command Line Utility (Smigrate.exe)

Smigrate.exe is included with Windows SharePoint Services. You can use Smigrate.exe to back up SharePoint Team Services sites, FrontPage Server Extension 2002 sites, or Windows SharePoint Services sites, and to restore these backups to other servers running Windows SharePoint Services. Smigrate.exe exports site content from a SharePoint Team Services site or a Windows SharePoint Services site to a FrontPage Web Package (.fwp) archive file. After you create an .fwp file, you can use Smigrate.exe to import the .fwp file into a new Windows SharePoint Services site after you create the site or site collection where you want to restore the .fwp file.

Important When creating a site or site collection to restore data to, do not choose a template, or the restore process will fail.

You can use Smigrate.exe to migrate sites from SharePoint Team Services to Windows SharePoint Services or to migrate Windows SharePoint Services sites from one server to another server (or to an Internet hosting partner that provides servers that run Windows SharePoint Services).

Tip You can run Smigrate.exe remotely on any computer running Windows 2000 Service Pack 3 or later.

The complexity and number of subsites in a SharePoint Team Services site determines how much advance planning is required before you run Smigrate.exe. When you use Smigrate.exe to export a site to an .fwp file, you have the choice of exporting the entire team site (top-level site and all subsites), only the top-level site, or any single subsite to a particular .fwp file. When you import an .fwp file into Windows SharePoint Services, you can use the .fwp file to create a top-level site collection, a subsite collection, or a site inside of a site collection.

For a top-level site that contains many subsites, Microsoft recommends that you export each subsite to a separate .fwp file. This provides maximum flexibility when you import the subsites into a top-level or subsite collection on a server running Windows SharePoint Services. For example, by

backing up each subsite individually, you can alter the hierarchy of sites or choose to restore only a subset of sites rather than all of them. If you need to migrate an imported site to a site with its own quota management or to a site that requires a user security model that is completely independent of the other Windows SharePoint Services sites, import the .fwp file as a new site collection instead of as an individual site in an existing site collection.

For more information about Smigrate.exe, visit the Windows SharePoint Services Administration Guide on the [Assistance Center for Microsoft SharePoint Products and Technologies Web site](#).

SharePoint Portal Server 2001 Migration Resources

The primary resource for upgrading from SharePoint Portal Server 2001 to SharePoint Portal Server 2003 is the Upgrade.exe tool. Additional resources may be available on the [Microsoft SharePoint Products and Technologies Web site](#).

SharePoint Portal Server Upgrade Tool (Upgrade.exe)

You can use Upgrade.exe to create an archive file (also called an XML manifest file) on a Windows 2000 Server-based computer running SharePoint Portal Server 2001. This archive file stores all of the data from a SharePoint Portal Server 2001 portal site except for the actual document content, including workspace names, categories, keywords, best bets, subscriptions, and content sources. Upgrade.exe is located on the SharePoint Portal Server 2003 installation disc. It is not installed by SharePoint Portal Server 2003 Setup. Upgrade.exe is run automatically when SharePoint Portal Server 2003 Setup is started on a Windows 2000 Server-based computer on which SharePoint Portal Server 2001 is installed.

Important SharePoint Portal Server 2001 Service Pack 2A or later must be installed on the SharePoint Portal Server 2001 server before you run Upgrade.exe.

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Conclusion

Windows SharePoint Services and SharePoint Portal Server 2003 provide easy-to-use collaboration tools for your organization. You can use Windows SharePoint Services to create and maintain many team sites, and you can use SharePoint Portal Server 2003 to build and manage integrated, enterprise-scale portal solutions.

To achieve this significant increase in capability, performance, stability, and security, the overall architecture of Microsoft SharePoint Products and Technologies includes many significant changes. The most important of these changes are the use of the .NET Framework, Windows Server 2003, and Microsoft SQL Server for content storage.

Migrating to the next generation of Microsoft SharePoint Products and Technologies is a straightforward process of identifying your organization's needs, planning your migration appropriately, and making the best use of migration resources.

Organizations that use many custom dashboard Web Parts or that have made extensive use of the multiple document profile features or the routing and approval features in SharePoint Portal Server 2001 require more planning and effort. Migration assistance is available from Microsoft Consulting Services and from Microsoft Certified Solutions Partners.

For more information, visit the [Microsoft SharePoint Products and Technologies Web site](#).

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Appendix A: SharePoint Team Services Features that Require Manual Migration

The following table lists the SharePoint Team Services features that are not migrated automatically to Windows SharePoint Services during upgrade or migration.

Feature	Migration Notes
Customized home pages	<p>Home pages customized by using a Windows SharePoint Services-compatible Web page editor such as Microsoft Office FrontPage 2003 revert to the standard team Web site home page. Home pages customized in the browser retain their customizations, including views that were added and changes that were made to the Quick Launch bar.</p> <p>Note When you migrate a site, the default.htm home page is replaced with a new page. The original default.htm page is renamed as default_old.htm.</p>
Customized view and form pages	<p>Most view and form pages customized by using a Windows SharePoint Services-compatible Web page editor such as Microsoft Office FrontPage 2003 revert to standard view and form pages. However, views created with other applications or that include settings not available in the SharePoint Team Services v1.0 browser interface will not migrate.</p>
Customized link bars	<p>Link bars, such as the top link bar, that were customized using a Windows SharePoint Services-compatible Web page editor such as Office FrontPage 2003 revert to the standard link bars.</p>
Custom script files executed on the server	<p>By default, the ISAPI filter for Windows SharePoint Services blocks the use of any script files (such as ASP pages) that are executed on the server and are not part of the Windows SharePoint Services installation. If you want to use custom script files with your SharePoint sites, you must put the script files in a separate virtual directory, and create an excluded path for the directory in Windows SharePoint Services. This allows IIS to control the directory, rather than Windows SharePoint Services, and allows the ASP pages to run. Note that script files running on the client are not blocked. To prevent script files from being included during migration, either add those file extensions to the blocked files list in the destination Windows SharePoint Services site, or remove those files from your SharePoint Team Services site before migrating.</p> <p>Caution Custom script files that are not being executed on the server can be browsed by users with read access to the folder where they are stored on the server. Browsing the files can allow users to discover information such as user names and passwords contained in the script files, as well as network paths.</p>
Custom pages that link to SharePoint lists	<p>The SharePoint Migration Tool does not include an automatic link repair tool. After migration, any links that you have created to point to specific lists are broken. You can update the links to</p>

	<p>refer to the current list location after migration.</p> <p>Note If you have a link to a subsite, that link remains, but any links to parent Web sites or other Web sites at the same level do not work.</p>
Customizations based on CAML	<p>Customizations made to your site by using the Collaborative Application Markup Language (CAML) are not migrated. You must re-create these customizations. For more information about customizing SharePoint sites programmatically, see the Windows SharePoint Services Software Development Kit.</p>
Files or folders with trailing spaces	<p>Trailing spaces at the very end of a file name (for example, "filename.doc ") are not supported in Windows SharePoint Services. You must change the file name, and then add the file manually to your site.</p>
Unsupported characters	<p>The following characters are not supported in Windows SharePoint Services:</p> <p>\\:*? "<> #{ }%&~ or tab characters and multiple periods.</p> <p>If a file, folder, or URL name in your original site contains one of these characters, it is replaced with an underscore (_). Multiple periods are replaced with a single period. Additional digits may be appended to the file or folder name if there are conflicting renaming changes.</p>
Files with file extensions that are blocked in Windows SharePoint Services	<p>A new feature enables server administrators to control whether specific file types can be uploaded or downloaded to the server. If a file in your site uses one of these file extensions (for example, .exe), the file is not migrated to the new site. If you know that certain file extensions are in a site you want to migrate, you can temporarily remove those file extensions from the list of blocked file extensions while you migrate the site.</p>
Long file and folder names (more than 255 characters)	<p>File and folder names longer than 255 characters are not supported in Windows SharePoint Services. You can rename files or folders that have long names before migrating a site, or rename them after migration and add them manually to the new site.</p>
Lists with too many fields or columns	<p>Lists in Windows SharePoint Services can only contain a certain number of fields or columns. If a list in your site contains too many fields or columns, it is not migrated. You must manually re-create the list. Note that this includes surveys.</p> <p>The maximum numbers for fields and columns are:</p> <ul style="list-style-type: none"> • 64 text fields, including the following field types: <ul style="list-style-type: none"> • Single line of text

	<ul style="list-style-type: none"> • Choice • Hyperlink • Picture <ul style="list-style-type: none"> • 16 Lookup fields • 16 Date and Time fields • 16 Yes/No fields • 32 Number and Currency fields • 32 Multiple lines of text fields
Links with long URLs (more than 255 characters)	URLs longer than 255 characters are not supported in Windows SharePoint Services. Note that this is a combined character limit for the URL and description.
Local user accounts	Local user accounts are only supported if you are using Active Directory account creation mode with Windows SharePoint Services, and local user accounts from your original site are not automatically created during migration. If you are using local accounts, first be sure that the server you are migrating to is using Active Directory account creation mode, and then add the users to the site manually after migration.
User account limits	User account limits are not supported in Windows SharePoint Services. If you are using Active Directory account creation mode for user accounts, you can limit the number of users per site by using quotas.
Subscriptions	The subscriptions feature in SharePoint Team Services v1.0 changed to the Alerts feature for Windows SharePoint Services. Users can create alerts in the new site to notify them about changes. To restore subscriptions as alerts, you must be sure that alerts are enabled for the virtual server you are restoring to. Set the number of alerts to unlimited so that the restore does not stop when it reaches a limit. Also note that if a user only set up subscriptions on the original site and has not added information to lists or libraries, his or her subscriptions are not migrated. To resolve this problem, the user should create an item in a list and then delete it.
Remote Web discussions and subscriptions	Windows SharePoint Services does not support using a server running Windows SharePoint Services in an intranet to discuss content on the Internet, nor does it support creating alerts for

	content on the Internet. For example, you cannot use http://server1 to create discussion items or alerts for http://www.example.com.
Web discussions and subscriptions from unavailable user accounts	If the user account for a Web discussion or subscription cannot be determined at restore time, the Web discussion or alert is restored with the user name of the administrator restoring the site.
Security from a site based on FrontPage 2002 Server Extensions	If the original server is running FrontPage 2002 Server Extensions, the security information (such as user roles) cannot be migrated.
Created By/Modified By fields	If the original user account is not available on the new server when the site is restored, the Created By and Modified By fields are set to the account that performed the restore.
Subsites that have the same name as a wildcard inclusion or exclusion	If you have set up included and excluded paths for the server that hosts the migrated sites, ensure that the names of those paths do not conflict with the names of the sites to be migrated. For example, if you had a subsite named http://server1/sites, and the /sites path on the new server is a wildcard inclusion, the http://server1/sites subsite are not migrated.
Theme applied to site	If the original site was based on SharePoint Team Services v1.0 and had a theme applied, when you restore the site, you might notice formatting issues such as the Search box being sized differently than it was. To fix these issues, apply a new theme in Windows SharePoint Services.
Specific file permissions on the file system	If you set access control lists (ACLs) on specific files or folders in your Web site, those ACLs are not restored, and the files and folders are accessible to any user with access to your restored site.
Survey creation times	Creation times for surveys are not preserved during migration.

For more information, see "Upgrade Considerations" in the **Planning** section of the *Administrator's Guide for Windows SharePoint Services* at

<http://go.microsoft.com/fwlink/?LinkId=35740&clcid=0x409>.

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Appendix B: SharePoint Portal Server 2001 Features that Require Manual Migration

The following table lists the SharePoint Portal Server 2001 features that are not automatically migrated to SharePoint Portal Server 2003 during upgrade or migration.

Feature	Migration Notes
Dashboard Sites	
Dashboard Web Parts	Redevelop custom Dashboard Web Parts as

	ASP.NET Web Parts based on ASP.NET server controls. For more information about how to do this, see the MSDN Library .
Dashboard site customization	Dashboard sites with customized layouts or sites that use customized Dashboard Web Parts must be redeveloped as ASP.NET Web Part Pages using ASP.NET Web Parts.
Other	
Routing and approval workflow	SharePoint Portal Server 2003 uses the one-step moderator approval process included in Windows SharePoint Services. To develop more complex routing and approval solutions, you can use SQL Server, Visual Studio .NET, Microsoft BizTalk Server, or the Backward-compatible document libraries document store option for SharePoint Portal Server 2003. Alternatively, you can use a routing and workflow solution developed by a Microsoft Certified Solution Partner.
Multiple document profiles per document library folder	SharePoint Portal Server 2003 supports one profile for each area or each document library. If a group of documents in a SharePoint Portal Server 2001 site use multiple document profiles, you must store the documents for each document profile in separate SharePoint Portal Server 2003 document libraries or areas.
Document versions	SharePoint Portal Server 2003 only supports major document versions (1.0, 2.0, 3.0...). It does not support minor versions (1.1, 1.2, 1.3 ...).