

About Microsoft SharePoint

Microsoft SharePoint Products & Technologies encompasses two products:

- Microsoft Windows SharePoint Services (SPS or WSS)
- Microsoft SharePoint Portal Server (SPPS)

SPS is referred to by other names in Microsoft documentation: Windows SharePoint Services and Microsoft Windows SharePoint Services.

They provide a framework for creating portal websites for teams and enterprises that can be a central resource center and workspace. They enable collaborative use of Microsoft Office products. They can also serve as a platform for application development.

Architecturally SharePoint is built on Windows Server and ASP.NET and uses Internet Information Services (IIS) and SQL Server. Content is provided by lists, libraries, and specialized controls called Web Parts. All portal content and configuration settings are stored in database tables. SharePoint can support thousands of websites on one or more servers and on server farms.

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SharePoint Services Overview

SharePoint websites are FrontPage sites. They can be created by administrators and team members using a browser-based wizard. They can also be created with FrontPage. Site content is accessible from both a Web browser and through clients that support Web Services.

There are three types of sites: workgroup (team), personal, and enterprise. Enterprise sites are effected with SPPS. Personal sites are based on team sites and/or an enterprise site. Some Microsoft documentation refers to enterprise sites as portal sites, but what I think they mean is Portal Server sites.

Top-level sites can be subdivided hierarchically into sub-sites; this allows large groups to have specialized sites for side projects. Specialized sites can be created for individual documents and meetings, these are called Document Workspaces and Meeting Workspaces respectively. The entire structure of a top-level web site and all of its sub-sites is called a web site collection.

SharePoint leverages Office to enable workgroup sharing, personalization, integration, and collaboration. It leverages FrontPage's Data Source Catalog to access data in a variety of forms and locations. It leverages ASP.NET to utilize specialized controls that provide dynamic and static content and that let the user change the view of that content. It allows users to add content to a site directly.

SharePoint Services is the engine for creating web sites that enable information sharing and document collaboration. SharePoint sites provide a central repository for documents, information, and ideas, and enable users to work interactively with these items. SPS also serves as a platform for application development. Including such IT resources as portals, team workspaces, e-mail, presence awareness, and Web-based conferencing, SPS enables users to locate distributed information quickly and efficiently, as well as connect to and work with others more productively.

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SharePoint site members can find and communicate with key contacts and experts, both by e-mail and with instant messaging. Site content can be easily searched, and users can also receive alerts to tell them when existing documents and information have been changed, or when new information or documents have been added. Site content and layout can be personalized on a per-user basis, and Web Parts can be used to present targeted information to specific users on precise topics.

Sites and servers can be managed from a Web browser, command-line tools, or a Web service-accessible object model. Site customization and enhance data-driven site content is possible, even to non-programmers, by using Microsoft Office FrontPage 2003.

Terminology

I have aimed for consistency in the use of words to refer to different aspects of SharePoint. Microsoft's own documentation lacks such consistency, which makes my job harder. I use the following words in particular ways:

Built-in: An aspect of a site that is present before a user begins to customize the site design. The distinction is valuable when the aspect can be changed or more of its kind can be added.

Default: The initial value of a setting. Example: each list has a default view which is the one used when the list is first opened. In many cases the distinction between built-in and default is fine.

Field: The smallest unit of content, usually contains text. The SharePoint lists and libraries are defined by a set of fields. There are built-in fields. Users may add custom fields. Other names used by Microsoft include column and property.

Property: The unique characteristics of a list or library. Example: name and description. Other names used by Microsoft include setting.

Attribute: The unique characteristics of a field. Example: name, data type, and description. Other names used by Microsoft include setting.

Column: A vertical area of a web page.

SharePoint Services System Requirements

Now shipping as part of Windows Server 2003 R2 or available for download at no additional charge.

Operating system: Windows Server 2003.

Web application server:

- Microsoft ASP.NET
- Internet Information Services (IIS) 6.0 with the following components:
 - Common files
 - Simple Mail Transfer Protocol (SMTP) service
 - World Wide Web service

DBMS: SQL Server 2000/2005

Network: Microsoft Windows NT 4.0, Windows 2000, or Windows Server 2003 domain.

Browser client: one of the following:

- Microsoft Internet Explorer 5.01 with Service Pack 2
- Internet Explorer 5.5 with Service Pack 2
- Internet Explorer 6
- Netscape Navigator 6.2 or later

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- Mozilla 1.4 or later

Workgroup collaboration features

| <i>Benefit</i> | <i>Description</i> |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Microsoft Office System integration | Deep integration with Microsoft Office System programs allows teams to collaborate using the familiar tools they use every day. |
| Document collaboration | Document workspace sites created using Microsoft Office Word 2003 take advantage of platform features by providing a document collaboration space. |
| Check-in and check-out | Documents can be reserved by individual users for updating purposes. |
| Document versions | Document changes are tracked and assigned different version numbers for auditing and rollback. |
| Browser-based customization | Changes can be made in a Web browser by dragging Web Parts onto personal or public pages, and then customizing them. Themes can also be applied using a browser. |
| Presence integration | Users can determine the online status of site members quickly by sending e-mail or an instant message, adding the member to a contact list, and viewing current free/busy status. An head-and-shoulders icon appears to the left of a person's name when presence integration is enabled and the person is a user defined to the site. Clicking on the icon opens a context menu of choices. The color of the icon and the menu choices depends on if the person is logged on to the network and/or in your Outlook or Messenger Contacts. WSS determines presence information for a person only by using that person's SIP URI. Names appear in contact lists, document libraries as Created/Modified By. |
| Alerts | A user or site manager can add an alert to a list or list item so that they receive an e-mail notification when changes are made. |

Licensing

SPS is free. SPPS requires licenses for each server (about \$4K) and for each portal user (\$70).

Microsoft is introducing a new type of Windows Client Access License (CAL). In addition to existing device-based CALs ("Device CAL"), a user-based CAL ("User CAL") will be available for purchase. You can choose to purchase a Windows Device CAL for every device accessing your servers, or you can purchase a Windows User CAL for every named user accessing your servers. You must choose the scheme that best fits your organization. Cost: \$71 each CAL.

The new External Connector license (EC) can be purchased to enable access to your servers instead of buying individual Windows CALs for external users (or their devices). The EC license is purchased for every copy of the Windows server software that is accessible to the external user. An example of an external user is a person who is not an employee or similar personnel of the company or its affiliates. Cost: \$30,000 per server.

SharePoint Portal Server 2003

Sites created by SharePoint Services are specific to SharePoint Portal Server 2003.

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SharePoint Portal Server 2003 provides organization and management tools for SharePoint sites. It provides enterprise-wide method of aggregating, organizing, presenting, and searching SharePoint sites. It enables users to publish information and documents stored in their SharePoint Services sites to the entire organization.

Once a virtual web server is running SPS, it can support at most one SPPS portal site. The portal site must be in the web server's root directory. All the other web sites on the same virtual server will function as "perfectly ordinary" sites running under SPS.

SharePoint Portal Server 2003 System Requirements

Operating system: Windows Server 2003.

Web application server: Microsoft ASP.NET

Internet Information Services (IIS) 6.0 with the following components:

- Common files
- Simple Mail Transfer Protocol (SMTP) service
- World Wide Web service

DBMS: SQL Server 2000/2005

Network: Microsoft Windows NT 4.0, Windows 2000, or Windows Server 2003 domain.

Browser client for portal access: one of the following:

- Microsoft Internet Explorer 5.01 with Service Pack 2
- Internet Explorer 5.5 with Service Pack 2
- Internet Explorer 6
- Internet Explorer 5.2 for Mac OS X, plus the latest service pack
- Netscape Navigator 6.2 or later (Windows, Mac, or Unix)

Browser client for portal admin: one of the following:

- Internet Explorer 5.5 with Service Pack 2
- Internet Explorer 6

There is a backward-compatible Document Library Server which has specific requirements.

Benefits of SharePoint

Considerable effort is needed to design and create SharePoint sites. Is it worth it? Decide for yourself based on the following list of benefits.

- Content can be pushed automatically based on user profiles.
- Content update status can be pushed automatically to individual users.
- Content can be sourced from different sites.
- Consistent GUI.
- Sites can be personalized.
- Workgroup collaboration.
- Office 2003 integration.
- Search encompasses documents, data, HTML, and lists on this and other sites.
- Users can enter content directly on the site—list items and documents—with no middlemen.

Website Content Overview

SPS sites differ from SPPS sites:

- SPS: Has a home page. May have other pages.

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- The SPPS home page can be edited and customized, but it can never be deleted. All other pages in the portal site are referred to as areas or area pages.

Basic SPS site content

Many different kinds of content can reside on a SharePoint site, but each user will only see the content they have authorization to access:

Documents

Web discussions

Forms

Pictures

List items: there are six main list types, custom lists are possible

- Links

- Announcements

- Contacts

- Events

- Tasks

- Issues

Portal listings are special lists available only through SPPS (references to other content or to people)

News

Events

Discussion boards

Surveys

Data (from a SQL Server, Access, or OLEDB-accessible database in an accessible network location or on the current SharePoint site)

Applications

Web site pages

There are two kinds of pages: basic page and Web Part page. A WSS site is created with a built-in home page with Web Parts; this is a result of the site template. Pages other than the home page are saved in a document library. Web Part pages are created with a layout template chosen from a list of eight built-in templates. The template divides the page into zones of certain sizes. The template underlying a Web Part page can only be changed with FrontPage.

A secondary web page is one created manually after the site has been created. It can be either a basic web page or a Web Part page. Secondary web pages are associated with document libraries and are described more on page 34.

About basic web pages

A basic web page is a plain HTML file created by a site administrator (on the parent site with [Create Basic Web Page](#)). It resides in a document library as an ASPX file.

About Web Part web pages

A Web Part web page is an ASP.NET file created by a site administrator (on the parent site with [Create Web Part Page](#)). It resides in a document library as an ASPX file.

Dynamic content

As content items are added to the site, they automatically appear on the appropriate site pages and on the personal sites that have the necessary Web Parts.

Document workspace site contents

A workspace site is centered around one or more documents. Colleagues can easily work together on a document — either by working directly on the Document Workspace copy or by working on their

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own copy, which they can update periodically with changes that have been saved to the Document Workspace copy.

- Documents in a document library
- Task list for to-do items
- Links list for related resources

Meeting workspace site contents

A workspace site is made up of one or more pages that contain meeting details and supplementary information. There are five types of meeting workspaces: basic, blank, decision, social, and multi-page. They vary by the contents of the template.

- Documents in a document library
- Pictures in a picture library
- List items: there are five main business list types, custom lists are possible
 - Objectives
 - Agenda
 - Attendees
 - Decisions
 - Tasks
- other features are specific to Social meetings

News and Reviews site content

Microsoft's web site package for a News and Reviews site creates a site with:

- News
- Headlines Today
- Previews
- Reviews
- Links list
- Discussion board
- Document library

Most components—Headlines Today, Features, News, History, and Links—are provided by Data View Web Parts that display information in SharePoint lists.

Web log site content

Microsoft's web site package for a Web Log site creates a site with:

- Log topics
- Discussion board
- Links list

Built-in My Site content

The **Private view** contains:

- My Calendar
- Links For You
- News For You
- My Links Summary
- My Alerts Summary

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The **Public view** contains:

site owner's user profile

Shared Workspace Sites—only visible when reader has rights to view the files

Shared Links

Recent Documents—the 5 documents most recently published to the portal site

Site Settings page content

This page acts as a menu of site design and administration tools. Menu items are links organized by section.

SPS sites:

| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|-----------------------|---------------------------------------|----------------------------------------------------------------------------------------------|
| Administration | Manage users | Opens “Manage Users” page. Add user, remove user, edit user properties, edit site group. |
| | Manage sites and workspaces | Opens “Sites and Workspaces” page. Create site, delete site, browse site. |
| | Configure Site and Workspace Creation | Opens “Modify site and Workspace Creation” page. Allow site group to create sub-sites. |
| | Go to Site Administration | Opens “Site Administration” page. |
| Customization | Change site title and description | Opens “Modify Site Title and Description” page. Edit properties. |
| | Apply theme to site | Opens “Apply Theme to Web Site” page. Select a theme from a list. |
| | Modify site content | Opens “Modify Site Content” page. Create content. Customize named content (list or library). |
| | Customize home page | |
| Manage My Information | Update my information | Opens “User Information” page for you. Edit user properties. |
| | My alerts on this site | Opens “My Alerts on This Site” page. Add alert, delete alert, edit alert. |

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| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|----------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | View information about site users | Opens “User Information” page which lists all users who have been assigned to site groups or who have accessed the site (allowed with a domain group), with user properties. Only users assigned to site groups have their email address displayed. Use to navigate to other pages where you can add, delete, and edit individual users. It is likely that the site visitors whose authorization was accomplished by domain group membership are only listed if they visited in the past 45 days. |

SPPS sites:

| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|---------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Settings | Manage users | Add users and groups from Windows NT or Active Directory domains. Assign permissions. |
| | Manage security and additional settings | Another menu: Has five groups of links: Users and Permissions, Templates and Web Parts, Discussion Settings, Storage Space, Regional Settings. |
| | Manage alert settings | Another menu: Has six groups of links: User Alert Management, Delete All Alerts and Alert Results, Delete All Alert Results E-Mail Messages, Alert Quotas, Default E-Mail Address For Alerts, SMTP Server For E-Mail Alerts. |
| | Change portal site properties and SharePoint site creation settings | Another menu: Has three groups: Custom Portal Site Logo, Location For Creating SharePoint Sites, Custom Cascading Style Sheet. |
| | Go to SharePoint Server Central Administration | Opens SharePoint Portal Server Central Administration page. |
| Portal Site Content | Manage Portal Site Structure | Opens Site Map page from which areas can be managed |
| | Manage top-level lists and document libraries | Opens “Documents And Lists” page for the Home area, |
| | Use Topic Assistant | Opens “Use Topic Assistant” page. |
| | Manage targeted links on My Site | Add listings to the Targeted links on the My Site area or News area. Edit the display properties of the listings to target specific audiences. |

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| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|---------------------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Import Portal Server 2001 data | |
| Search Settings and Indexed Content | Configure search and indexing | Has six links that allow the administrator to configure all aspects of how search indexes are created, how external content is crawled, and how results are skewed for queries received from users. |
| | [tbd] | |
| User Profile, Audiences, and Personal Sites | Manage profile database | Menu: Add user profile, View user profile, Configure profile import, View import log. |
| | Manage audiences | Sections: Audience Settings, |
| | Manage personal sites | Specify the location that will store the user's personal sites and define a default naming convention for the user's personal site folders that will be created for her by the portal site. Also specify which Active Directory or local groups will be made members of the Site Reader group for each personal site as it is created. |

Site Administration page content

| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|---------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Users and Permissions | Manage users | Add new users, remove users from all site groups, or assign users to site groups. |
| | Manage site groups | Add new site groups, delete site groups, or change a site group's description and rights. |
| | Manage anonymous access | Allow or deny anonymous users and authenticated users access to your web site. |
| | Manage cross-site groups | Create and delete cross-site groups. |
| | Manage access requests | Allow/disallow users to request access to this site. Name the email address to which all requests for access will be sent. |
| Management and Statistics | Save site as template | Save the web site as a site template |

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| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|--------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | View site usage data | View a detailed usage report for this web site. Reports are available by page, user, OS, browser, and referrer URL. Report is available for each day or month, but only for the last 45 days. |
| | Manage sites and workspaces | View all the sites you have access to below this web site. View contents of individual site. Create a new site. |
| | Manage Web Discussions | View list of URLs of documents that have Web Discussions maintained by this site. Delete one or all discussion threads on the site. |
| | Manage user alerts | View list of users with alerts on site content. View list of alerts for selected user. Delete alerts for user that has been removed from site access. |
| | Change regional settings | Change settings for locale (e.g., English (United States)), sort order, time zone, and time format (12/24 hour). |
| | Delete this site | Delete this site and all its content. |
| Site Collection Galleries | Manage Web Part gallery | View Web part Gallery to store and retrieve Web Parts. The Web Parts in this gallery are available to this site and all sites under it. |
| | Manage list template gallery | Make a template available for use in web site creation by adding it to this gallery. |
| | manage site template gallery | Make a template available for use in web site creation by adding it to this gallery. |
| Site Collection Administration | View site hierarchy | View all web sites that have been created under the site's directory. |
| | View site collection usage summary | View summary information on how this site collection is being used: storage, users, and activity. |
| | View storage space allocation | View list of document libraries, galleries, and images: Type, Name, Size, Count of Items, Last Modified, Path. |
| | View site collection user information | View the users in this site collection. Change a selected user's properties, such as making the user a site collection administrator. Remove users to prevent users from accessing sites in this site collection. |

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| <i>Section</i> | <i>Link</i> | <i>Use</i> |
|----------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Configure connection to portal site | Connect the web site to a Windows SharePoint Services-compatible portal site. This connection will provide users the ability to categorize lists, connect to user profiles, link to portal search, and more. |

Web Part page layout

Empty or hidden Web Parts take up no space on a site page when viewed by a user.

Title bar contains a title, caption, description, and image; it can be modified.

Menu bar (at top of every site); content is fixed in SPS, modifiable in SPPS; other names used by Microsoft include navigation bar and tool bar. SPS sites menu bar has items: Home, Documents and Lists, Create, Site Settings, and Help. SPPS sites' menu bar typically has items: Home, Topics, News, and Sites; these can be changed; My Site, Site Settings, and Help are commonly available on the SPPS bar located just above the menu bar. Each item opens its corresponding page.

Quick Launch bar as left column of every site's home page; contains only components flagged for inclusion.

Left zone contains selected Web Parts (center column).

Right zone contains selected Web Parts (right column).

Left navigation column contains choices and actions relevant to that page. In appearance it is similar to the Quick Launch bar. This column appears on all WSS site pages except the home page.

Action bar is a vertical bar that contains action choices relevant to the subject of the page. This bar appears on list/library pages and on list item pages.

There are different types of Web Part pages:

- The site home page. This is customizable by the user.
- "Documents and Lists" pages present a list of the libraries and lists in a tabular view. These pages are not customizable by the user.
- List/ library pages present the content of the list or library in a view. The left navigation column contains a list of available views. These pages are not customizable by the user.
- List/library item pages present the content of the fields of a particular list/library item. These pages are not customizable by the user.
- Topics pages list the Topics sub-areas. I don't know if these are customizable.

Web Part and Web Part zone properties

The key point here is that these properties can be modified by the site designer. This list indicates what is possible to do with a Web Part and the Web Part zone.

Each Web Part zone has layout and format properties:

- title

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- orientation: specifies in which direction the Web Part is placed or stacked in the zone, either vertical (top-to-bottom) or horizontal (left-to-right).
- frame type: value Default means use the Web Part's Frame Style (FrameType) property. Value None, Title Bar and Border, or Title Bar Only means use this specific type of frame style for all Web Parts in the zone and override each Web Part's Frame Style (FrameType) property when its value is Default.
- width: specifies the width of the zone only if it has a vertical orientation.

It also has modification or lock-down properties:

- lock layout: specifies whether or not Web Parts within the zone can be added, deleted, resized, or moved; values True/False.
- allow customization: specifies whether or not shared property values of Web Parts within the zone can be modified; values True/False.
- allow personalization: specifies whether or not personal property values of Web Parts within the zone can be modified; values True/False.

There are common Web Part properties:

- title
- height
- width
- initial frame state: values Minimized/Normal.
- frame style: values Default (use property of zone), None, Title Bar and Border, Title Bar Only.
- visibility
- direction of text; default is Left to Right (English).
- zone in which it is located
- part order: relative position of part in its zone; e.g., 1, 2, 3.
- and 11 advanced properties

The toolbar type can be complete, summary, or none. The summary toolbar adds at the bottom of the Web Part a link “Add new item”. The complete toolbar shows at the top of the Web Part a toolbar that allows the user to add new items, filter the list, link to an Office application (when appropriate), and import from an Office application (when appropriate). The default type is complete toolbar.

The Detail Link property makes the Web Part title a link to the a page whose URL you specify.

Quick Launch bar content

Links to site elements are included in the Quick Launch Bar in several ways. Individual lists, libraries, discussions, and surveys can be flagged to appear by setting their corresponding property. It also contains entries set dynamically by SharePoint, typically these are actions relevant to the current content and for which the user has permission; these are initialized from the site template.

On a SPSS site the Quick Launch bar contains navigational links for the currently open area at the top of the bar (“Current Location”). There are entries for the tree of parent areas (including the top-level Home), the current area, and all of its child areas. The current area is indicated as being open. This information reflects the area structure defined on the Portal Site Map. One action that appears on the bar is the [Manage Portal Site Structure](#) which opens the “Portal Site Map” page.

On SPSS sites, the visible actions are only those the visitor has permission for. Possible actions include: Add Listing, Add Person, Create Subarea, Upload Document, Change Settings, Manage

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Content (opens page “Documents and Lists”), Manage Portal Site, Alert Me, Edit Page, Manage Security, Create Site, Manage Sites, Add Link to Site.

On personal sites the Quick Launch bar contains entries for lists flagged for inclusion. In the private view they appear in the My Lists section. In the public view they appear in the Shared Lists section. Simple web pages that a user creates appear in the My Pages section of the private view and in the Shared Pages section of the public view. Documents listed under Shared Documents are only visible when reader has rights to view the files.

Meeting workspace layout

Meeting workspace sites use a file-tab model for organizing pages. There are three Web Parts Zones: left, center, and right columns.

Website Tools Overview

Search

Browse by hierarchy of areas (topics); areas seem to be a SharePoint Portal Server feature

Workspaces for individual meetings and documents, as sub-sites

Lists (collections of list items)

Libraries of documents and pictures, can have directory structure

Document versioning, check-in and check-out, routing, approval

Alerts (via email)

Templates for document workspaces

Portal site map (SPPS), access restricted by permissions

People profiles

Audiences as target of portal content

Templates for sites

Security: group-based access to content

About Security

SharePoint sites only allow access to authorized users. Authorized access is specific to a Windows NT user ID and a site library or list. SharePoint uses integrated Windows authentication, which means (I think) that the user’s network logon is used to identify them and evaluate their site authorization. Unauthorized users are presented with a logon dialog box so they can enter a different id; if that id fails or the user cancels the dialog box, they are prompted to send an email requesting access.

Individual users are allowed or denied access to content and tools with *rights* associated with the *site groups* they are assigned to. Site groups are used to manage security across a SharePoint site. Each site group possesses rights. A right within SPS may be an action that users can perform, such as Manage Lists. Each library and list has one or more site groups assigned to it.

Each user must be a member of at least one site group in order to view or access a SharePoint site.

There are five built-in site groups. Some may be modified. New custom site groups may be created.

In addition users may be individually assigned permissions to a site, list, or library.

Each sub-site is created with security that is either (1) based on permissions inherited from its parent site or (2) based on unique permissions. In the second situation the sub-site must have its own user

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accounts and site groups. It is possible to use the same site group in two or more sites, at least one of which has unique permissions; this is accomplished with a *cross-site group*.

Cross-site groups let you create a group of users that can be used in all sites in a site collection. You assign rights to a cross-site group by adding it to a site group or using list or library permissions settings.

User accounts

A person must have a user account in order to access a SPPS site.

User profiles

These are separate from user accounts. A user can have an account but no profile. Profiles reside in the SharePoint Profile Database. The profiles control the site's features and behavior on a user-by-user basis. They can be referred to by audience targeting rules. When a user does not have a profile, default profile settings are used. Profile data can be entered by a site administrator; some can be entered by the user. Profile data is visible on the user's My Site public view.

Built-in site groups

Guest: Has limited rights to view pages and specific page elements. They cannot create a personal view. Use this site group to give users access to a particular page, or list, without granting them rights to view the entire site. You cannot add users explicitly to the Guest site group; users who are given access to lists or document libraries by way of per-list permissions are automatically added to the Guest site group. You cannot customize or delete the Guest site group.

Reader: Has rights to view items, view pages, and create a top-level Web site using the Self-Service Site Creation feature. They may create a personal view. Readers can only view pages on a SharePoint site; they cannot add content. When a member of the Reader site group creates a site using the Self-Service Site Creation feature, he or she becomes the site owner and a member of the Administrator site group for the new site. This does not affect the site group membership of the user for any other site.

Contributor: Has Reader rights and rights to add, edit, and delete items, browse directories, manage personal views, add, remove, or update personal Web Parts, and create cross-site groups. Members of the Contributor site group cannot create lists or document libraries, but they can add content to existing lists and document libraries.

Web Designer: Has Contributor rights and rights to cancel check-out, manage lists, add and customize pages, define and apply themes and borders, and apply style sheets. Members of the Web Designer site group can modify the structure of the site and create lists or document libraries.

Administrator: Specific to a particular SharePoint site. Has all rights from other site groups and rights to manage site groups, manage list permissions, create SharePoint sites, and view usage analysis data. You cannot customize or delete the Administrator site group. In addition, there must always be at least one member of the Administrator site group. Members of the Administrator site group always have access to, or can grant themselves access to, any item in the Web site. Site owners and secondary owners must be assigned to the Administrator site group.

| <i>Site Group</i> | <i>Rights included by default</i> |
|-------------------|-----------------------------------|
| Guest | none |

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| <i>Site Group</i> | <i>Rights included by default</i> |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reader | Use Self-Service Site Creation View pages View items |
| Contributor | All rights included in the Reader site group, plus: Add items Add/Remove Private Web Parts Browse Directories Create cross-site groups Delete items Edit items Manage personal views Update Personal Web Parts |
| Web Designer | All rights included in the Contributor site group, plus: Add and customize pages Apply themes and borders Apply style sheets Cancel check-out Manage lists |
| Administrator | All rights included in the Web Designer site group, plus: Create sites and workspaces Manage list permissions Manage site groups View usage data |

User rights

SPS includes 20 rights, which are used in the five built-in site groups.

| <i>Right</i> | <i>Allowed Actions—Permissions</i> |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Add and Customize Pages | Grants permission to create pages for a Web site by using ASP.NET, ASP, and HTML . |
| Add Items | Grants permission to add items to lists or files and folders to libraries. Adding items to lists includes participating in discussion boards and responding to surveys. |
| Add/Remove Private Web Parts | Grants permission to add and remove Web Parts to personalize Web Part Pages. |
| Apply Style Sheets | Grants permission to apply a style sheet to the entire Web site. |
| Apply Themes and Borders | Grants permission to apply a theme or border to an entire Web site. |
| Browse Directories | Grants permission to browse the directory structure of a Web site. |
| Cancel Check-out | Grants permission to cancel the check-out action performed by another user. |
| Create Cross-Site Groups | Grants permission to create or delete cross-site groups, or to change the membership of a cross-site group. |

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| <i>Right</i> | <i>Allowed Actions—Permissions</i> |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Create Sites and Workspace sites | Grants permission to create a new subsite or Workspace site, such as a Document Workspace or Meeting Workspace. |
| Delete Items | Grants permission to delete list items and files and folders from libraries. This right also grants permission to delete previous versions of files from libraries that save version information for files. |
| Edit Items | Grants permission to edit existing list items and files in libraries. This right also grants permission for the following: Checking files in and out of libraries Changing the order of items in a list that allows custom ordering, Attaching files to list items and removing attachments from list items, Editing properties of files in libraries, Merging forms in a form library, Removing a Meeting Workspace site from a list item, Restoring files to previous versions in libraries that save version information |
| Manage Lists | Grants permission to create, edit, or delete lists and libraries and change their settings. This right grants permission for the following: Allowing users with the Edit Items right to change the order of items in a list, Specifying whether a library tracks version information for files Adding, editing, and removing columns (fields) in a list or library, Creating public views for list Setting the default view for a list, Relinking forms to form libraries. |
| Manage List Permissions | Grants permission to change permissions for a list or library. |
| Manage Personal Views | Grants permission to create, edit, or delete personal views on lists. |
| Manage Site Groups | Grants permission to create, delete, and edit site groups, both by changing the rights assigned to the site group and by changing which users are members of the site group. |
| Manage Web Site | Grants permission to perform administration tasks for a particular site or subsite. |
| Update Personal Web Parts | Grants permission to update Web Parts to display personalized information. |
| Use Self-Service Site Creation | Grants permission to use the Self-Service Site Creation feature to create a top-level Web site. |
| View Items | Grants permission to view items in lists, files in libraries, and Web discussion comments. This right also grants permission for the following: Choosing display style in picture libraries Downloading pictures from picture libraries Adding, editing, and deleting alerts Filtering and sorting items and files in lists and libraries Viewing properties for files in libraries Viewing files attached to list items Viewing previous versions of files in libraries that track version information |

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| <i>Right</i> | <i>Allowed Actions—Permissions</i> |
|-----------------|------------------------------------------------------|
| View Pages | Grants permission to browse pages in the Web site. |
| View Usage Data | Grants permission to view reports on Web site usage. |

Server-wide administration

Can only be done by person who is an administrator for the server computer (also known as a local machine administrator) or a member of the SharePoint administrators group.

Security administration

You can add a user, assign a user to a site group, remove a user from a site group, delete a user, edit the rights assigned to a specific site group, create an additional site group, or delete an unused site group. Some rights depend on other rights. For example, you must be able to view items before you can edit items.

You manage site groups in SPS from SharePoint Central Administration or by using the command-line administration tool.

Note: site administrators have admin rights for only a particular site and its sub-sites. SharePoint administrators have broader rights, such as changing the owner of a site.

List permissions

Permissions to a list or library can be assigned to individual users, to groups of users, or to site groups. By default, all members of a web site have access to all lists and libraries on the web site. All users assigned to a site group are considered members, except for the Guest site group.

By default, each site group has a predefined level of permissions for all lists and document libraries. The built-in list permissions, which can be changed, are:

- View items (given to the Reader site group by default)
- View, insert, edit, delete items (given to the Contributor site group by default)
- View, insert, edit, delete items; change list settings (given to the Web Designer site group by default)
- View, insert, edit, delete items; change list settings; change list security

In addition, each list has its own read and edit item-level permissions; the choices are:

Read access

- all users can read all items
- users can read only their own items

Edit access

- all users can edit all items
- users can edit only their own items
- no users may edit items

This feature is available for lists at the bottom of the “List Settings” page accessible from either (1) [Modify settings and columns](#), then [Change general settings](#)) or (2) [.Modify settings and columns, Change permissions for this list, Modify item-level security](#). It is not available for libraries.

Where these permissions conflict, which has precedence?

- List permissions override site-wide permissions for the lists (established by site groups).

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- Item-level permissions override list permissions, if they exist, or site groups. Does this mean that a site administrator cannot edit all list items? Stay tuned.

Any users with the Manage Lists right can change list permissions.

Problems

When permissions are established by NT/XP network ID, problems can arise when an ID is stopped and restarted. When a network user ID is (re)established and there are pre-existing permissions for that ID in a SharePoint site by virtue of membership in site groups by user name (as opposed to domain group membership) and/or as the owner of a site, the person will not be able to access the site. Instead they will get an error message like “Cannot complete this action. Please try again”.

In this case the ID must be removed from the site. This may be easier said than done.

- Change the site owner to somebody else. This is done by the server administrator on page “siteusers.aspx.”
- Remove the ID as a site user by removing it from membership in site groups, including any custom list permissions.

This is complicated because SharePoint does not use the text of the user’s ID but a SID, which is different each time the network ID is re-established.

Possible Roles

User

Content: Browse, search, view. Create alert on single document. Post, edit, comment.

Active discussions: Reply, edit message, delete message, create alert.

Surveys: Respond, view responses, create alert.

Site customization: Create personal (private) view, aka My Site. When user is a member of several work groups that have their own SharePoint sites, the user may want to combine components of each in their private site.

Team site content manager

Individual lists may require approval before its list items become visible and accessible to site users: When a list is flagged for content approval, each list item must be approved by a list manager or administrator. New items have an approval status: pending, rejected, approved. When content approval is in effect for a list, its “Select A View” area has two more options: [Approve/Reject Items](#), [My Submissions](#). The first causes the list items to be sorted by approval status. The second causes only list items submitted by the current user to be displayed; this lets users check on the status of their list items.

It may be desirable to limit the ability to delete content to this role or to some custom site group like “Content Deleter.”

Team site administrator

Site: Create and modify. Create and modify themes (set of styles).

Page: Create and modify. Can include one or more Web Parts or be straight HTML.

Lists: Add and delete, modify fields, views, and permissions.

Libraries: Add and delete, modify fields (properties), views, and permissions.

Discussion boards: Create.

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Surveys: Create.

If a listing requires approval, it will appear in a list of pending items for the content manager.

Enterprise site administrator

TBD

About Web Parts

Web Parts are custom controls that provide content. See the discussion beginning on page 12 for details.

When you create a list in WSS, a corresponding List View Web Part is automatically created and stored in the site collection Web Part gallery. The new Web Part has the same name as the list.

Built-in Web Parts

| <i>Web Part</i> | <i>Content</i> |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Portal Quick Start Guide | An introduction to initial site configuration and management tasks. Typically removed before site is rolled out to users. |
| Content Editor | Static HTML content consisting of formatted text, tables, hyperlinks, and images obtained from a URL or entered by hand. To use the style attribute, it must be capitalized and individual rules separated by semi-colons: <code>STYLE="COLOR: #123456; FONT-SIZE: 17px"</code> . |
| Image | Picture or graphic. |
| Form | HTML form (using FORM element). Used to accept selection criteria from user, and provide that data as a column (field) filter to another Web Part. The Forms Web Part is useful because it requires no server-side code or installations, Javascript can be entered in the source editor. |
| List View | Contents of a list or library. Lists present your data in a tabular format and make it easy to modify and refresh data, change the sort order, filter within the list, and aggregate data. Used when you select a list or library from the "Documents And Lists" page. Created automatically when you create a list or library. You can display the list/library in another page by adding its List View Web Part to that page. Cannot use Data Source Catalog. |
| Page Viewer | Web page, file, or folder in an HTML IFRAME element. The latter two require Microsoft Internet Explorer. Can be used to add HTML with the Form element. CAUTION: When I used this only the URL in the Web Part was visible—as if there was a redirect. |
| XML | XML. |
| Members | List of users and domain groups who have permission to use the site. Automatically added to the home page of a Document Workspace site. |
| Data View | Data from Data Source Catalog. Data sources include SharePoint lists, SharePoint libraries, OLEDB databases (like SQL Server) in any accessible network location, XML files, and XML web services. Lists, libraries, and databases can be subject to field selection, filtering, and sorting. Can only be created in FrontPage: drag the Data Source icon onto a web page. |
| Links | List of hypertext links. Each link has a Description and Notes in addition to the URL. Links must be added and removed manually and are displayed in order of addition. Not especially helpful; built-in links list may be better. |
| Contacts | Contacts list. |

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| <i>Web Part</i> | <i>Content</i> |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Events | Upcoming meetings, deadlines, and other important events. Use the Events list to post information about meetings, deadlines, and other related events. |
| Shared Documents | |
| Grouped Listing | List of all listings by listing group. Included in child areas. Available through SPPS only. |
| Targeted Content | Targeted listings. Used on an area page. |
| News Areas | Three latest news items for a child area. |
| News | All active news items for assigned area. |
| News For You | Items flagged as targeted to one or more audiences of which site owner is a member. Used on My Site in private view. |
| Links For You | Items flagged as targeted to one or more audiences of which site owner is a member. Used on My Site in private view. |
| My Calendar | Site owner's calendar as retrieved from an Outlook Web Access server. Used on My Site in private view. |
| My Links Summary | List of links populated by site owner. Used on My Site in private view. |
| My Alerts Summary | Alerts that pertain to site owner. Used on My Site in private view. |
| Shared Workspace Sites | List of workspaces shared by site owner. Used on My Site in public view. |
| Shared Links | Used on My Site in public view. |
| Recent Documents | Used on My Site in public view. |
| Spotlight | List of websites to be spotlighted. |

Microsoft Office 2003 Web Parts

| <i>Web Part</i> | <i>Content</i> |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PivotView | Displays, analyzes, and reports data in any of three related views: PivotTable view, PivotChart view, or Datasheet view. Used for ad hoc data analysis and data visualization. Data sources include SharePoint lists and ODBC databases (like SQL Server). Available from Microsoft Office Web Parts and Component at www.microsoft.com/downloads . |
| Spreadsheet (or Datasheet) | Data as Excel spreadsheet. Available from Microsoft Office Web Parts and Component at www.microsoft.com/downloads . |
| Web Capture | All or selected portions of a selected web page within the Web Part border. For example, you can choose to display only selected tables, images, or Web Parts. Available from Microsoft Office Web Parts and Component at www.microsoft.com/downloads . |
| Quick Quote | Accepts the symbol of a stock, fund, or index and displays a brief summary quote for that symbol. Any such information will be at least 20 minutes old. Available from Microsoft Office Web Parts and Component at www.microsoft.com/downloads . |

Third-party Web Parts

There are many Web Parts available from Microsoft and other vendors. Look:
<http://www.sharepointcustomization.com/resources/webparts.htm>

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| <i>Web Part</i> | <i>Content</i> |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RSS FeedReader | Captures multiple RSS feeds and presents it with different view options. By Smiling Goat (Tim Heuer), http://www.smilinggoat.net/stuff.aspx |

SharePoint 2007 Web Parts

| <i>Web Part</i> | <i>Content</i> |
|-------------------|--------------------|
| Table of Contents | |
| Site Map | may be third party |

Synchronizing content of Web Parts

You can connect two Web Parts so that one provides data to the second. Data can be lists, rows, cells, or parameter values.

You can make Web Part connections (1) on the same Web Part Page and (2) on two different Web Part Pages in the same top-level site.

About Templates

Templates exist for SPS sites (including workspaces), Web Part pages, and lists. SPPS site pages use area templates. Templates are organized in collections, one per object (e.g., list).

A site template is a file that includes all of the design information about the site, such as:

- The lists within a site.
- Any Web Part pages within a site.
- Any custom pages within a site.
- The theme or borders applied to a site.
- Any customizations to the Quick Launch bar.
- Site content (list and document library contents — optional).

Built-in templates come with SharePoint. Microsoft offers additional ones for download from its website (<http://www.microsoft.com/technet/prodtechnol/sppt/wssapps/default.aspx#projectsite>); these are described as application scenarios.

Existing templates can be modified and new templates created. List and site templates can be shared with users outside of your site collection by giving them a copy of the .stp template file.

All pages in the default portal site for SPPS 2003 refer to and use a template to display content. This template, called an area template, determines the layout and style of the page while leaving control of the content to a broader set of portal site users.

When editing the details of an area, you can select a different template to use for the area. You can also create a custom template to use, or choose to share a template with another area page. When you share a template with another area page, only the area properties and content associated with the area differ. The layout and style, including Web Parts, stay the same.

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By default, new area pages use a template based on the parent area page. You can also choose to share the existing template for the parent area. To make an area use a different area template, edit the settings of the area.

About Lists

Lists are the basic unit of content. Text content is stored in fields. Attached files may contain text and/or images.

There are seven built-in list types:

- Links
- Announcements
- Contacts
- Events
- Tasks
- Issues
- Custom

Lists are created with **templates**. There are built-in templates which may be modified. In addition, custom templates can be created. Individual lists based on a template can be modified.

A list template is a file that includes all of the design information about the list, such as:

- The fields in the list.
- Any views created for the list.
- List content (optional).

List templates do not include:

- Security settings, such as a list of users or groups with permissions to the list from which the template was created.
- Lookup field links. Although lists can contain lookup fields that reference data in another list, that other list (and its data) is not included when you save a list template.

Each list has **properties**: name, description, whether to include it in Quick Launch bar, whether attachments are allowed, whether content approval is required, and nature of item-level permissions (who can read and edit items).

Each list has **permissions** that control access to the list. These are initially inherited from the site and can be changed at any time.

List item contents reside in **fields**, also called columns and custom properties¹. Each field has attributes: name, data type (single line of text, multiple lines of text, choice of pre-defined values, number, currency date-time, lookup with source is on this site, yes/no, hyperlink or picture as URL and description, calculated), description, whether data is required, maximum length of data, default

¹ Microsoft is inconsistent in its naming of fields. The site pages used to design a list refer to them as columns. Elsewhere they are referred to as “custom columns,” “profile columns,” “custom properties,” “web properties,” and “list properties.” There is an association between the file properties of Office documents and list fields. It may be helpful when describing SharePoint lists to non-SP technical people to refer to them as properties, and to differentiate between the built-in properties (like Modified) and custom properties.

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value, whether included in default view. Order of fields can be changed and new fields added; built-in fields can be removed.

URL data type: The field holds both the URL and a single line of text which can act as a title. The default view shows just the text with a hypertext link. A Links type list lets each list item be flagged to open in a new browser window; this is not available for other list types. But it does not seem to work!

There are 3 varieties of choice data type: (1) values are displayed in drop-down list; (2) values are displayed as radio buttons; and (3) values are displayed as checkboxes. #3 enables multiple choice, i.e., one or more values can be selected. This multiple choice capability is truly cool BUT it has limitations: multiple choice fields are not available for grouping, sorting, and totals in views.

Lookup data type: you can use list #1 as a lookup table source for a field in list #2. The lookup table must be on the same site. In addition the lookup table may be User Information, in which case two associated settings are available: field to put in this field (as display name, ID, email address, user name) and whether to include presence information. When the source field is display name and when the list item is edited, a drop-down list for this field includes many names in format Last, First (do not know the source of these names, but it appears to be limited to the organization).

Calculated data type: Formula is like VB code and can use operators and functions. Formula can only refer to other fields in the same list.

Built-in fields by list type: [may not be complete or correct]

| <i>List Type</i> | <i>Built-in Fields</i> |
|------------------|--------------------------------------------------------------------------------------|
| all | id, title, created (date), created by, modified (date), modified by |
| Links | description, URL, open in new window |
| Announcements | body, expiration date |
| Contacts | last name, first name, job title, company, email address, business phone, home phone |
| Events | location, start date, end date |
| Tasks | description, priority, status, % complete, assigned to, start date, due date |
| Issues | description, status, assigned to (?) |

Users may add custom fields and rename Title.

Files can be attached to list items. The file **attachment** can be a document, image, HTML page, archived web page (.MHT), or other type of file, and you can attach it to an item in any one of the following types of lists: announcement, events, discussion board, contacts. When a list item contains an attached file, the default view displays a paper clip symbol in the Attachments field. Attachments can be opened and deleted. A list item can have several attached files. The list properties accessible from FrontPage indicate if attachments are enabled.

Issues list: when an issue is assigned, an email notification is sent.

List items are added by authorized users on a data entry page.

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You can grant or revoke permissions to a list or document library by individual users, by groups of users, or by site group.

In addition SPPS provides a built-in list “Portal Listings” which is automatically added to each area (and cannot be removed). A portal listing contains a URL, some rich text, or the id of a person; this is the listing that appears in a group within an area (see About Areas for details). You can target portal listings to audiences. This list type is managed differently than all other lists. No fields can be changed or removed as with ordinary lists. The list is managed in a separate table in the database for optimal performance (no additional field mapping needed, all fields are available “as is” in the table).

Views

A list has one or more **views**. They are the primary way of accessing a list’s content.

List contents that are presented in Web Parts are defined by a view. The view can be customized just for the Web Part.

On SPS sites, lists are displayed on their own page accessed with the Documents and Lists menu bar item. That page displays a list of libraries and lists in a tabular view that includes the count of items in each library and list. The user opens a single list by clicking its name. All views are listed in the left navigation column when the list is open on its own page. Each view has a corresponding web page.

What is a view?

- A view is a presentation of a list’s contents. A list can only be seen with a view.
- The content of a view is analogous to a SQL query: It is defined by fields, their order, any selection criteria (filtering), and grouping and totals. A view limits the number of items presented at one time.
- A view style controls the layout of the items in a list view. There are several built-in styles of views. The basic type of object —list, document library, discussion board, or survey— determines the view styles that are available to it. Once a view has been created, its style can be changed.
- Once a view is open the format can be toggled between the defined format and datasheet format. Calendar views have a default format of month, week, or day view which the user can change at will.
- When you open a view, you can override the sequence of the list items by clicking a column heading (field label).
- When you open a view, you can override the filtering by clicking the Filter action.

List View Styles

- **Basic Table:** This style displays a table with fields in columns and list items in rows. A horizontal line separates line items.
- **Boxed, no labels:** This style displays each list item in a rectangle bordered with a single thin line; fields have no labels. Two list items comprise a “row”, that is they are side by side. the height of each row is the same as the deepest box on that row.
- **Boxed:** This style is the same as the previous with the exception that labels are located on the left side of the box while the content text is located on the right.
- **Newsletter:** This style displays each list item in a multi-line row. The first two fields are located in the first line in bold text; there are column headings (field labels). Other text content is presented below in full width. A horizontal line separates line items. When using this style position the longest field last.
- **Newsletter, no lines:** This style is the same as the previous one except there is no horizontal line between list items.
- **Shaded:** This style is like Basic Table except alternate list items have a colored background.

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- Default: Same as Boxed.

Picture Libraries View Styles

- Details: This style displays a table with information about each picture. The fields displayed by default in this style include file type, name, picture size, and file size. A preview of the currently selected picture appears in the lower left corner of the browser in the Actions list. This view is best for scanning and comparing file properties (fields), rather than inspecting pictures visually.
- Thumbnail: This style displays miniatures of the pictures in the selected folders so you can see and work with many pictures at once. This style is best for browsing through a large set of pictures to find the ones you want to work with, or when you do not need to see picture details. This is the default display style.
- Filmstrip: This style displays both a strip of smaller pictures you can scan, and a single larger picture you can see in detail. This style is best when you need to manage multiple pictures, but you also need to see a larger version for more information. It may be helpful if the Thumbnail style does not give enough detail to distinguish between similar pictures.

Custom View Styles

You can create a custom view style for lists or document libraries that provides users a specific kind of interaction with lists and libraries.

Only lists and document libraries support custom view styles; discussion boards and surveys do not support custom views or view styles.

View styles in Windows SharePoint Services are defined using Collaborative Application Markup Language (CAML) in the file VWSTYLES.XML located in the top-level XML folder of a site definition. A custom style is created with an XML editor like FrontPage 2003 or Visual Studio.NET.

<Summary View> for Web Part

It is the <Summary view> available for Web Parts that puts the bullet in a links list. It also removes column headings. Fields other than the URL can be added and used to sequence the view contents.

The <Summary view> for an Announcements Web Part shows all fields and cannot be changed.

Action Bar

Every list view page has an action bar with items:

- New Item
- Filter
- Edit in Datasheet

Special types of lists may have other action bar items:

- an Event list has Link to Outlook
- a Links list may have Change Order
- a Contacts list has Link to Outlook, and Import Contacts

Access

- Views are listed in the left navigation column when the list is open.
- The default view is the first one displayed. One and only one view is flagged as “default.”
- If there is more than one view, the user can choose a different one at will. This applies whether a list is opened from “Documents and Lists,” from the Quick Launch bar, or from the title bar of a Web Part.

Audience

A view can be public or personal. Personal views appear in the left navigation column only for their creator, however with the correct URL anyone can open them.

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List permissions

A new list inherits the permissions defined for the site. Then the list permissions can be changed so they are unique to the particular list. You can add users, remove users and/or site groups, change the permissions of a user or site group, change the assignment of a user to site groups.

Using unique list permissions can create an administrative nightmare: they must be maintained separately from the site permissions and knowledge of their existence will quickly disappear. It is far better to rely only on site permissions to control access to a list.

Lists can be shared with Office 2003 applications

Access: Data can be pushed from SharePoint lists to Access tables and vice versa. Data can be pulled in Access tables from SharePoint lists.

You can copy a block of cells from a query/table datasheet to a matching block of cells in a list/library datasheet by copy-and-paste (using the Windows Clipboard). The fields must have compatible data types and sizes. BUT there is a problem in that the field labels (column headings) are also copied. Better to export the query/table to XLS first.

Excel: You can copy or link a block of cells in an Excel spreadsheet to a SharePoint list. When two lists are linked changes in one are automatically reflected in the other. Lists can be created in two ways.

You can copy a block of cells from a spreadsheet to a matching block of cells in a list/library datasheet by copy-and-paste (using the Windows Clipboard). The fields must have compatible data types and sizes; if a list field data type is choices, the pasted text must conform to the values or an error will occur.

Outlook contacts: You can copy data from a SharePoint contacts list to Outlook and vice versa. You can link a site list to Outlook so that you can use it in Outlook, however you must edit it on the site. While you have the list open in Outlook it will be automatically refreshed every 20 minutes.

Outlook calendars: You can copy data from a SharePoint events list to Outlook. You can link a site events list to Outlook so that you can use it in Outlook, however you must edit it on the site. While you have the list open in Outlook it will be automatically refreshed every 20 minutes.

Content approval

Individual lists may require approval before its list items become visible and accessible to site users: When a list is flagged for content approval, each list item must be approved by a list manager or administrator. Unapproved items are visible only to their submitter and to the user with the Manage Lists right. Once an item has been approved, regardless of approval status (see third paragraph), users can see it. Generally this scheme is designed to work with one content approver, not a group; there seems to be only one instance of approval data, suggesting that a second approver can overlay the first approver's remarks.

When content approval is in effect for a list, its "Select A View" area of the left navigation column has two more options: [Approve/Reject Items](#), [My Submissions](#). The default view design for each is the same; it contains the approval status and comments and items are grouped by approval status. The first view selects all items. The second selects only those list items submitted by the current user; this lets users check on the status of their list items.

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The Edit menu of a list item subject to content approval includes the action Approve/reject. Approval status can be approved, rejected, or pending; comments can be entered. Entering an approval/rejection changes the item's Modified date.

If a person with the right of content approval enters an item in a list/library subject to content approval, that item is automatically approved. Other administrators or users who have the Manage Lists right can subsequently reject the item.

About Documents and Document Libraries

Documents can be stored in site repositories—document libraries—that allow them to be shared by team members. Document libraries are essentially lists where every list item has a single document attached; when versioning is in effect, there may be more than one document attached. A single site can have any number of document libraries. An SPPS site can have at most one backward-compatible document library.

Sites have a built-in document library named “Shared Documents”; it can be renamed or removed.

Each library can have a hierarchy of folders (directories). Using a directory structure to organize documents replicates the problems found on file servers. A better technique is to use fields with values limited to pre-defined choices to classify documents.

Libraries have properties: name, description, whether to include in Quick Launch bar, whether to use document versioning, and name of the document template to be used for new documents created on the site.

Document library items have fields. As discussed for lists, fields can be considered to be properties. The built-in fields include ID, Created (date), Created By, Modified (date), Modified By, Name (filename), File Size, Title, and Checked Out To. The Title field corresponds with Word's built-in file property of the same name. When fields are flagged as required, authors must provide them when they add a file to the library. They are excellent for holding classification data and metadata.

I am unclear on the relationship between user-defined fields and Word's custom file properties. Certainly it is true that when you open a Word document in a document library, the menu File, Properties opens a “Web File Properties” dialog box that presents the library fields and has a link to the “File Properties” dialog box. The Custom tab of the “File Properties” box shows the library fields as custom properties; when the field name is the same as a Summary (tab) property or a built-in custom property, it appears in the dialog box with a zero as suffix, e.g., Author0. This indicates that the library fields are stored in the document file.

One source said “properties set in Office documents will transfer to a WSS document library as long as two conditions are met: (1) the property is set in the document itself as a text custom property and (2) the field is created in the WSS document library as a text field.” I have yet to verify this. If it is true, it means the correspondence of file properties with library fields works in both directions.

Each library has one or more views of its contents, one of which is the default; as for lists, the user can choose a different view at will. The two built-in views are “All Documents” (the default) and “Explorer” (disappointing). Different views could display different fields.

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When you click the document name in a library view, a drop-down Edit menu appears with menu items:

- View Properties (meaning fields)
- Edit Properties
- Edit In <native application>
- Delete
- Approve/Reject
- Check Out
- Version History
- Add To My Links
- Submit to Portal Area
- Alert Me
- Discuss

An Edit icon can be added to a view. When clicked it opens the document's Edit Properties page with an action bar (essentially an Edit menu) with the following action items:

- Save and Close
- Delete
- Check Out
- Version History
- Discuss
- Edit in <native application>
- Go Back to Document Library

Defining a document library

This is similar to defining a list.

When a library has folders, the define –a-view page the style choices are different:

- Basic Table
- Document Details
- Newsletter
- Newsletter, no lines
- Shaded

There is also an additional control: Folders with the value choices

- Show documents inside folders
- Show all documents without folders (there is no indication that a folder exists)

Views

Views in document libraries are similar to views in lists.

Action Bar

Every library view page has an action bar with items:

- New Document
- Upload Document
- New Folder
- Filter
- Edit in Datasheet

Who can see them and how?

Any authorized user can see the items in a library. The “Documents and Lists” page lists every list and library in a tabular form. A user can drill-down to the library contents (list items) which appear

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on their own page. They can open the drop-down Edit menu by clicking the document name on the list. Choose Edit In <native application> to download a temporary copy of the document and open it in the native application (likely Word or Excel).

How are document libraries added?

The new document library wizard is accessible to content managers on the “Create page” page. See *Using SharePoint* for details.

How are documents added?

There are several methods for adding documents to a library:

- a. Save a new document: In Word 2003 save a file to the desired library in “My Site”. These appear as choices in the “Save” dialog box.
- b. Save an existing document: In Word 2003 save a file with menu File, Save As. In the “Save As” dialog box enter the site URL in the “File name” field. Then select a library from the list of document libraries that appears dynamically. Select [Save]. You will then be prompted to enter the custom library fields (in a dialog box titled “Web File Properties”). When done select [OK].
- c. Create a new document: On the site, select New Document in the library’s view action bar. The document template associated with the library is downloaded to your computer, starts the native application (likely Word or Excel), and sets the document library as the default save location. Then enter text, etc. into the new document and save it.
- d. Upload a document: On the site, select Upload Document in the library’s view action bar. This displays the “Upload Document” page. Enter whether to override an existing file and select [Browse]. In the “Choose File” dialog box locate and select the desired file, then select [Open]. Then select Save and Close.
- e. Upload several documents at once: On the site, select Upload Document in the library’s view action bar. This displays the “Upload Document” page. Select “Upload Multiple Files...” which opens a Windows Explorer view of your desktop. Expand and collapse folders as desired, selecting the check box for any file you want to upload. When you are finished selecting files, select Save and Close. This capability requires Office 2003.
- f. Upload documents attached to email messages in public folders: You can link a document library to a public folder in Microsoft Exchange 2000 or later. SPS can automatically insert any document attached to a message addressed to a public folder into a document library. The document library item contains the document, the From address, the Subject, and the date and time that the attachment was inserted into the document library. The body text of the e-mail message remains in the public folder, but it is not transferred to the document library.
- g. Copy files into a library with Windows Explorer. This requires a drive mapping to the site. This can also be done by drag-and-drop.
- h. In the library in Explorer View paste the document: Open the library in Explorer View. With Windows Explorer select and copy the file. In the library window paste the file.

Apparently a document can be uploaded but not necessarily checked into the library—when a required field is not provided.

Custom fields can be populated at the time a document file is added to the library. They can be changed afterwards.

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How can they be edited?

There are several approaches to editing a document in a document library.

- a. On the site, display the library list. Open the drop-down Edit menu by clicking the document name on the list (or holding the mouse pointer over the name). Choose [Edit In <native application>](#) to download a temporary copy of the document and open it in the native application (likely Word or Excel). Change and save the document. It will update the copy in the library.
- b. On the site, display the library list. Open the drop-down Edit menu by clicking the document name on the list (or holding the mouse pointer over the name). Choose [Check Out](#) to lock the library copy while you are editing it. Choose [Edit In <native application>](#) to download a temporary copy of the document and open it in the native application (likely Word or Excel). Change and save the document. It will update the copy in the library. Open the drop-down menu and choose [Check In](#).
- c. On the site, display the library list. Click the Edit icon to open the document's Edit Properties page. Choose [Check Out](#) to lock the library copy while you are editing it. Choose [Edit In <native application>](#) to download a temporary copy of the document and open it in the native application (likely Word or Excel). Change and save the document. It will update the copy in the library. Open the drop-down menu and choose [Check In](#).

You can edit the library fields independently of the text: Open the drop-down Edit menu for the desired document on the library list view, select [Edit Properties](#). This opens a page named with the library and document title. Overtyping the value of all desired properties (fields). Select [Save and Close](#).

It can be advantageous to have a document's Title match its filename: (1) When search is started from the home page with a scope of *this site*, the document name in the search results is its file property Title. (2) When the search is started from a document library, the document name in the search results is its filename. If the Title and filename differ, this can be confusing.

You can easily change the documents' Title on a library page. First create a view with just the Name and Title. In datasheet format, copy the Name (without the extension) and paste it into Title. The document's Title file property is changed automatically.

What does "check in/out" mean to SharePoint?

- Check in/out is always available to files in a document library. It does not depend on optional library settings.
- When a user checks a document out, that user has exclusive write access to that document, i.e., that user is the only user who can save changes to the document. Other users can read the document, but they cannot make changes. The user who has the document checked out can update the document, and see the latest version of the document, but other users will not see the updates until the document has been checked back in. Thus checking documents in and out eliminates the need to merge changes from multiple authors and ensures that users don't overwrite someone else's work.
- Checking out documents is optional in WSS 2. How do users avoid it? By selecting [Edit in <native application>](#) on Edit menu. In MOSS 2007 a library can require check-out.
- When you check out a document, if you save it elsewhere before editing, you will not be able to check in the edited document.

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- Check Out appears on the document Edit menu (accessible in a view as a drop-down menu and/or an Edit icon and on a single item page as an action bar item).
- When you check in a file, you first choose from three methods: (a) Check in document, (b) Check in changes saved to this document, but keep the document checked out, or (c) Discard changes and undo check out. Then you can type comments about the changes that you made to the file. These comments are visible in the Version History page, which is a Edit menu choice.
- The site group Web Designer has by default permissions to cancel check-out. The site group Contributor has by default permissions to check-out a document.
- Documents have a library field Checked Out To.
- Apparently a document can be uploaded but not necessarily checked into the library—when a required library field is not provided.
- You can force a document to be checked in: you use the same command as the user would use to check in a document normally.
- You can cancel a check-out and return to the previous version:
 1. Initiate Check In on either the Edit menu or the single item action bar. This opens a Check In page.
 2. On the Check In page, select Discard changes and undo check out, and then click OK.
 3. On the confirmation message that appears, click OK to check in the document.

Using document versions

When document versions are in effect for a library, SharePoint will retain the current version of each document and all previous versions. Each version of a document (of the same filename) is assigned a version number; the initial value is one, subsequent versions have their number incremented by one, for example 1, 2, 3. On the site in any library list view, open the drop-down Edit menu by holding the mouse pointer over the document name, then select Version History. This opens the “Versions” page.

When versioning is enabled, versions are automatically created whenever a user updates a document in a document library. Versions are created in the following situations:

- When a user checks out a file, makes changes, and checks the file back in.
- When a user opens a file, makes changes, and then saves the file for the first time.

Note: If the user saves the file again, without closing the file, a new version is not created. If the user closes the application he or she is using to edit the file, and then opens it and saves the file again, another version is created.
- When a user restores an old version of a file (and does not check it out).
- When a user uploads a file that already exists, in which case the current file becomes an old version.

Each document version has a drop-down Edit menu accessed as on the library list view: hold the mouse pointer over the version date. The menu has commands View, Restore, and Delete. View opens the document in its native application. Restore creates a new copy of the document and makes it current; the current version number is incremented by one. Delete removes the version from the library.

The existence of document versions does not affect who can see or edit the document.

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Content approval and versions

When both are in force:

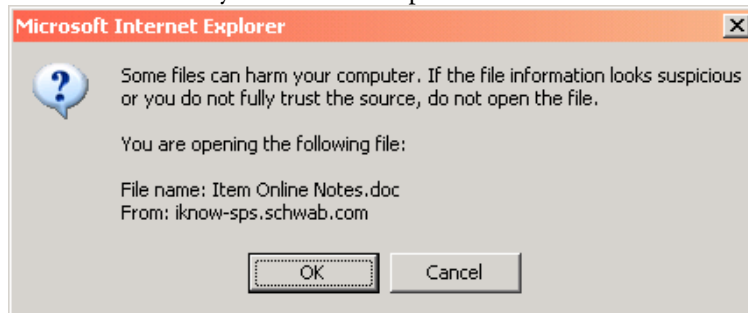
| <i>Event</i> | <i>Which doc version is visible?</i> |
|--------------|--------------------------------------|
| check-out | current |
| check-in | current |
| approval | new |

Which document “version” do readers open?

Versions only exist if the library is configured for them. Check out only means nobody but the author can edit the document. Content approval is the only way of hiding previous versions from readers while a document is being revised. So for a library that can be edited on site and one with content approval disabled, readers see the last saved “version” of a document, even if it is still checked out.

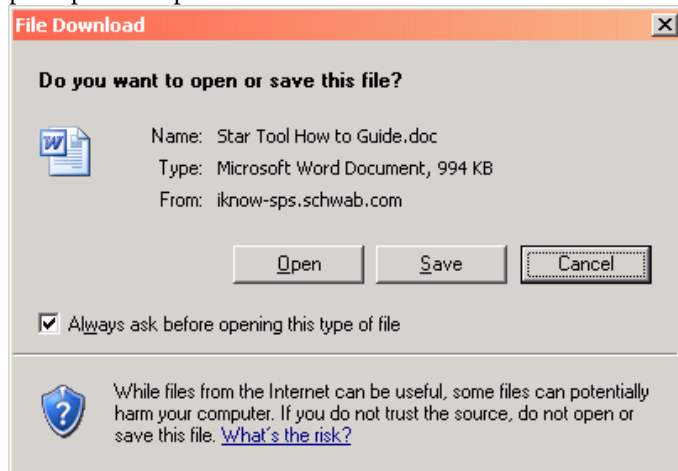
Opening a file on a document library

When you click the filename (title), you are first prompted to confirm your desire to open the document. Frankly I think this is spurious.



When you select [OK] the file opens in its native application as read-only. Once it is open you can save the file off the site.

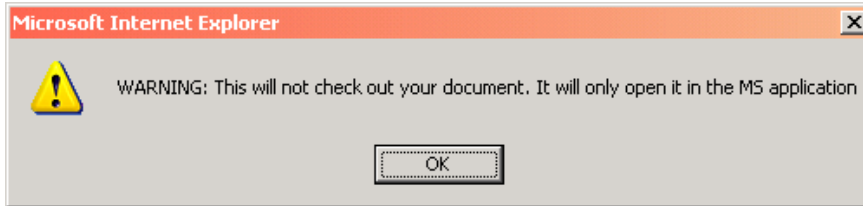
If you right-click a filename in a view to open the context menu and select Open you are first prompted to open or save:



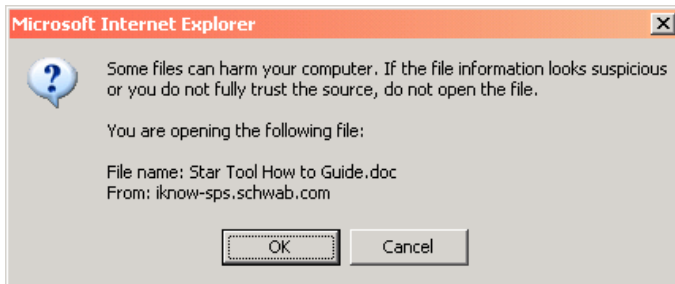
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When you select [Open] the file opens in the browser window. If you select Open in New Window on the context menu, you get the same open or save prompt and the file opens in a new browser window.

When you select Edit in <native application> from the Edit menu, you are warned



and then



after which the file opens in its native application in edit mode; there is a File, Check Out menu.

Secondary web pages stored in a document library

When a web page is added to an existing WSS site, it is stored in a document library. It can be removed from a view by a filter that shows items when the field Name is not equal to <pagename>.aspx. It can be deleted by selecting a view that includes the web page, switching to Datasheet format, selecting the row of the web page, and pressing the [Delete] key.

Associating a document with an area

This is an important navigation tool. See About Areas on page 45. Users can add a document as a listing to an area group with the action Submit to Portal Area. [need details]

A list or library can be added to an area page. This is done by adding a list Web Part to the area page.

About forms and form libraries

Form libraries are a variation of document libraries. Each library holds data records created by the same XML-based form. Form libraries have a name, description, and form template. They can be included in the Quick Launch bar and can be subject to versioning.

Form libraries provide a simple way for you to share and track XML-based forms (.xml files) that are used to gather the same type of information. For example, you could create a form library for your team's status report forms to provide a single location for team members to quickly fill out, save, and view their forms. Forms are commonly created with Microsoft InfoPath, new in Office 2003.

The form template defines the structure and appearance of all forms created from the form library, as well as the appropriate application with which to open the form. The need for several different form templates necessitates several form libraries.

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About pictures and picture libraries

Picture libraries are a variation of document libraries. Each library holds pictures. Picture libraries have a name and description. They can be included in the Quick Launch bar and can be subject to versioning. The library may be subject to content approval and/or check-in and check-out.

The library can be viewed several ways: All pictures can be viewed as Details (a list of the items), Thumbnails, and Filmstrip. An Explorer View is available. Selected Pictures view consists of images of pictures with selected check boxes.

Individual pictures can be edited, downloaded, subject to an alert, and submitted to a portal area.

Pictures can be uploaded on the SharePoint site when the library is open. Any picture file on your computer can be uploaded individually.

Pictures are commonly managed with Microsoft Picture Manager, new in Office 2003. It is integrated with SharePoint so that it is involved in uploading multiple picture files. It is also used when you start to edit a picture on the SharePoint site. [Is it possible to use a different picture editor? Not that I can tell.]

About the backward-compatible document library on SPSS

Things are different here. SPSS can have one [maybe more, not sure] document library that is Web Storage System-based and located on the document library server. This may (or may not) be associated with a portal site. If associated with a portal site, users can search the document library and personalize alerts for the document library. A link to the Document Library area appears on the home page of the portal site. This area enables users to browse folders and to manage documents in the document library.

Strategies for organizing and presenting documents

The following examples are drawn from software development work.

1. Use one website for the work group.
2. Use subsites for individual projects, one site per project.
3. Use subsites for application documentation, one site per application.
4. Within an application subsite, use one document library for public documents and a second document library for private (workgroup only) documents.
5. Within each application document library use custom fields to classify the documents. One field can be Role with values limited to a pre-defined set like Development, Documentation, Training, Operations, Production Support, All. Ideally, this would be multiple choice, but the limitations of that for views is a deterrent, so make them single choice. Create one view for each value of Role.
6. On the application subsite's home page use a separate List View Web Part for each Role view. This allows most of the documents to be visible on the home page and grouped by role.
7. Use one or more lists for configuration data.
8. Use a list for resources. Use a custom field to classify the list items by subject. Use a view that groups list items by subject values.

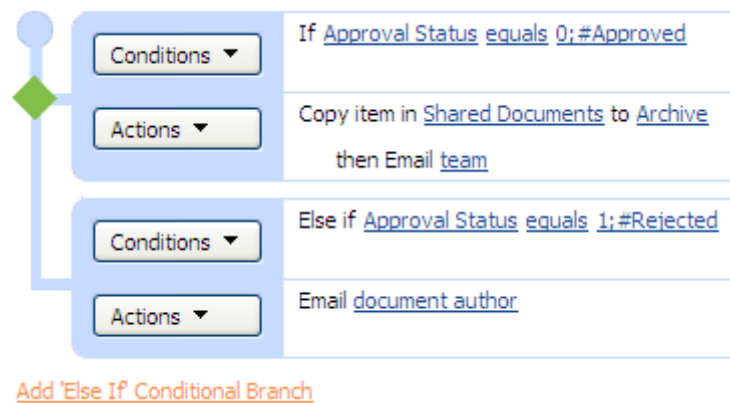
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About Workflows

Workflows are a SharePoint feature new with MOSS 2007. A workflow is a set of rules that associate conditions and actions with items in SharePoint lists and libraries. Specific changes to items in lists or libraries trigger actions in the workflow. A workflow can send a notification e-mail message to a particular person, and can add a task to a Tasks list. Document approval is a common application of workflows.

A workflow is started by the addition of an item to a particular list/library or the revision of any item in a particular list/library. A workflow can also be started manually.

A workflow is comprised of one or more steps. Each step can contain any number of conditions and associated actions. A complex example:



A workflow can include actions in serial and in parallel in addition to branching.

A workflow can have a form to collect information from workflow participants at predefined times in the workflow, and make it possible for participants to interact with the tasks for that workflow.

Workflows are stored in a site-level document library called Workflows.

About Web Discussions

When an Office 2003 document that can be opened in a browser is stored in a library or attached to a list item, readers may make comments about the document in general and/or about specific paragraphs within the document. These comments, called web discussions, are stored separately from the document (on a discussion server). The discussions are threaded. Several people can view a document and make comments simultaneously.

When the document creator opens the document, all the comments appear seamlessly merged.

Web discussions can be accessed in both the native Office application and in Internet Explorer when the site is open. Both cases utilize a Web Discussions toolbar. In Internet Explorer the toolbar is accessed with menu View, Explorer Bar, Discuss. In Word it is accessed with menu View, Toolbars, Web Discussions (could not be verified). The toolbar is used to view and add discussions.

Alerts can be created for web discussion updates.

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Details

From a SharePoint document library you can initiate discussions for a particular document in either of two ways:

- a. with the document's Edit menu, select Edit Properties. In action bar, click [Discussions].
- b. with the document's Edit menu, select Discussions.

Either way opens the document in the browser window with a Discussions toolbar at the bottom.

The toolbar has from left to right:

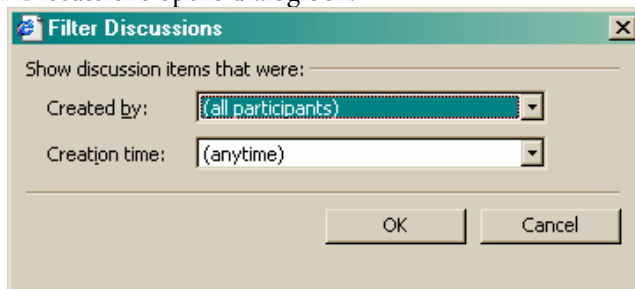
- X icon to close toolbar
- Discussions drop-down menu
- icon to Insert Discussion in the Document
- icon to Insert Discussion About the Document
- icon to Expand all Discussions
- icon to Collapse all Discussions
- icon to Previous discussion
- icon to Next discussion
- icon to Show/Hide Discussion Pane

The Discussions toolbar does not appear on the View, Toolbars menu.

The Discussions drop-down menu has items:

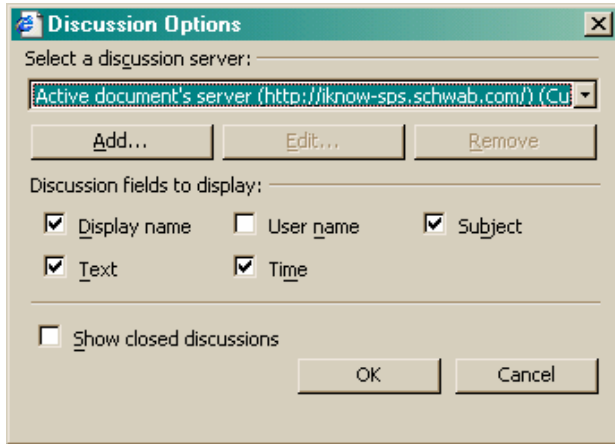
- Insert in the Document
- Insert About the Document
- Refresh Discussions
- Filter Discussions
- Discussion Options

Filter Discussions opens dialog box:

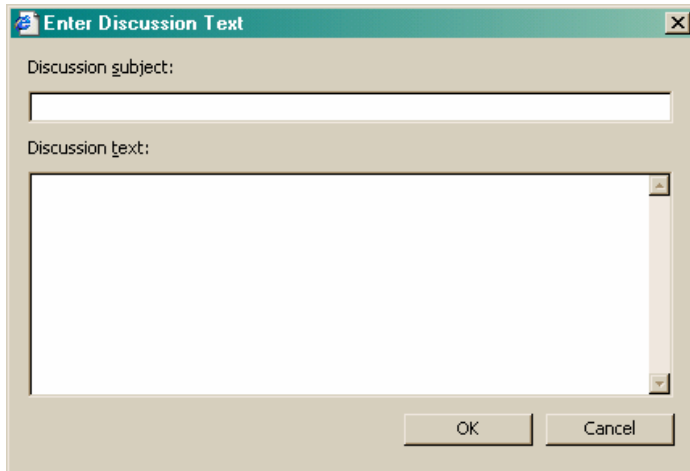


Discussion Options opens dialog box:

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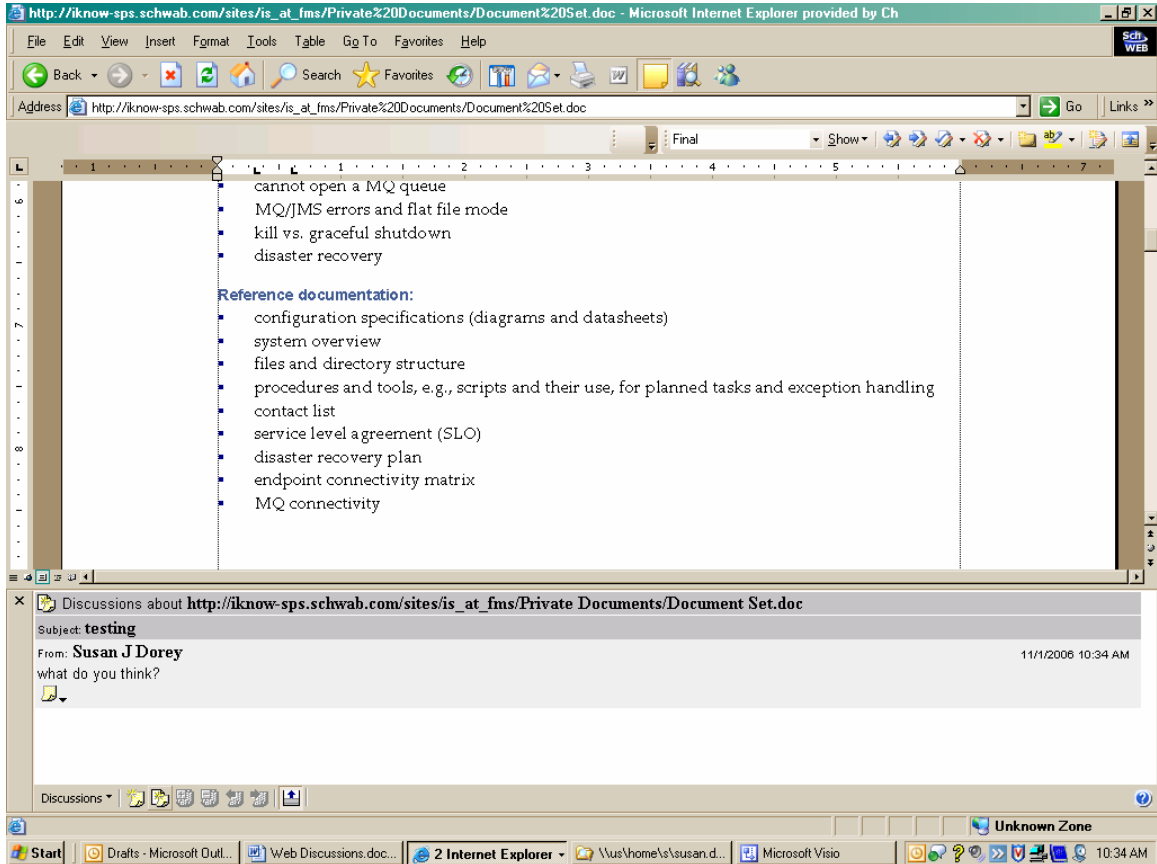


Insert Discussion About the Document opens a dialog box:



After entering the first discussion about the document, the discussion pane appears. Note the source of the user name is Word's User Information accessed with menu Tools, Options.

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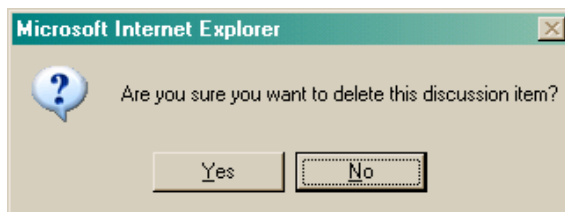


In the Discussion Pane there is an icon below (each?) discussion. When clicked it opens an action menu with items:

- Reply
- Edit
- Delete
- Close
- Close Items and Replies

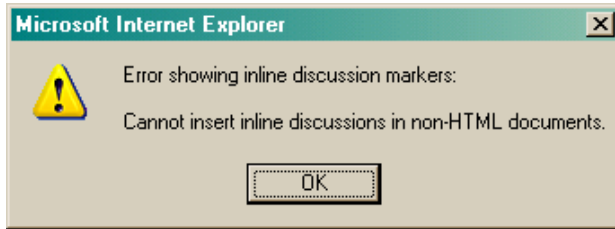
It seems that replies are threaded.

When you select the Delete action, a message box appears:



You cannot enter discussions in a non-HTML document. When you click the icon, a message box appears:

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Conclusion

Discussions cannot be combined with editing: you either view and/or add discussions or you edit the document. Discussions can only be initiated from the document's Edit menu on the SharePoint page of library items. When you check out a document for editing, there is no indication that discussions exist. This makes the discussions feature of limited value.

Once you open a document for discussions and add one, getting back to the library page is iffy. The Back button has no effect. You must use menu Go To.

About Document Library Events

You can bind an event handler to a document library. With this feature, you can use document library events to start other processes, such as workflow processes. You can develop managed code that takes advantage of document library events and create an application based on SharePoint Services to perform whatever actions you need.

The following events can be tracked for document libraries.

| <i>Event</i> | <i>Description</i> |
|------------------|----------------------------------------------------|
| Insert | A new document is added to the document library. |
| Update | An existing document is edited. |
| Delete | An existing document is deleted. |
| Move | A document is moved or renamed. |
| Copy | A document or folder is copied. |
| Check In | A document is checked in. |
| Check Out | A document is checked out. |
| Cancel Check-Out | Changes made to a checked out document are undone. |

The problem with the idea of a library event handler is that the code is not stored on the site but on each SharePoint server. That is a major obstacle.

About Data As Content

Data can be sourced from site lists and libraries, OLEDB-accessible databases on any accessible network location, XML files, and XML web services. A data source must first be added to FrontPage's Data Source Catalog.

Data is presented as content with the Data View Web Part. This Web Part can only be placed on a site page and configured with FrontPage.

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There is no toolbar with buttons like [New Item] and [Edit as Datasheet]. If the data source is a SharePoint list or library you can hyperlink any displayed data to those functions.

Configuration options:

- set of fields/columns
- order of fields/columns
- formatting of fields/columns
One format type is “Insert As Hyperlink” which works when the data is a URL.
One format type for a SharePoint list/library is “Insert As Hyperlink to Display Form”. This creates a hyperlink that opens the current list/library item in a view page.
- view style
- toolbar style: full, summary
- whether to provide a filter tool
- sequence of data
- grouping by field/column

Header and Footer

- whether to show view header (as text you enter)
- whether to enable sorting on column headings (field labels)
- whether to show totals
- whether to show view footer (text you enter can include functions Sum, Count, Average, Min, Max, Filter)

Record sets

- whether to show all items
- whether to show all items limited to a certain number
- text to display if no matching items are found

Filtering data view

You can restrict records displayed in a Data View Web Part to those having certain data values. Several criterion clauses may be combined with AND and OR. Filter criterion is composed of field name, operand, and value. Operands can be: Equals, Not Equals, Is Null, Not Null, Less Than, Greater Than, etc. This is NOT a subselect query.

Sorting and grouping

Data can be sorted by one or more fields. Each sort field may be used for a group. Each group can have a group header, group footer, and/or group items may be kept together. Sort may be ascending or descending.

Data source catalog

You must add valid data sources to the Data Source Catalog before using them in a Data View Web Part.

- For a database valid data sources can be table, SQL query, view, or stored procedure.
- For a SharePoint list/library valid data sources can be list/library or “custom query” composed of SELECT . . .WHERE . . . ORDER BY . . . Apparently there is no truly custom SQL query.

Conditional formatting

You can hide and/or change the appearance of a field based on its value or the value of other fields in the same row. This might be used to highlight certain data situations. A Conditional Formatting rule for a field is composed of a condition and a format. Use the menu Data, Conditional Formatting to open the Conditional Formatting task pane in FrontPage.

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Conditions are composed of one or more criterion clauses combined with AND and OR. Criterion clauses are composed of field name, operand, and value; example: Country = USA. Operands are limited to a predefined set in the wizard, but you can also edit the XSLT code directly. A Web Part can have any number of Conditional Formatting rules.

The changed appearance is applied as inline CSS styles. The wizard lets you specify CSS declaration property-value pairs. You can specify properties for font, paragraph, border, numbering, and position.

Once Conditional Formatting rules have been created they can be overridden in different ways:

- ignore rules, always show data
- ignore rules, always hide data
- ignore rules, always apply formatting
- ignore rules, never apply formatting

About Connecting Content

Content can be connected on different Web Parts so that data can be passed from one Web Part to another. This is commonly used to establish a drill-down capability. Several Web Parts support connections:

- Data View
- List View
- Form
- Image

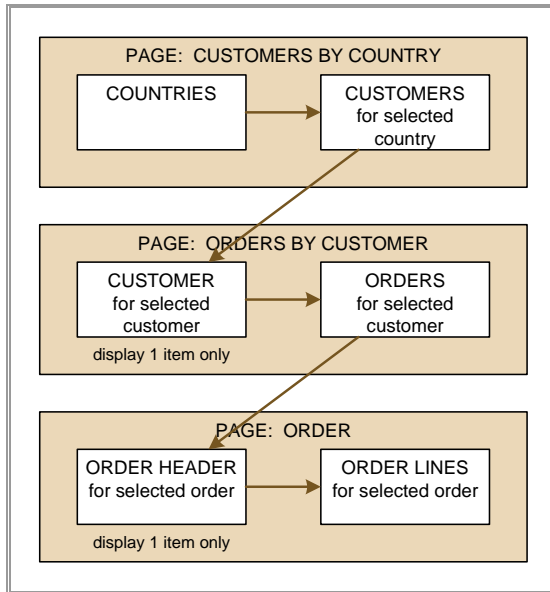
Data connections can be used to handle different needs:

- master/detail
- summary/detail
- parent/child
- search and filter
- calculations
- alternate data views
- data enhancement

Examples:

- One Web Part can contain a list of images. A second web part can display the image of the selected list item.
- Relational data can be presented in a series of Web Parts and pages:

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In the preceding example, when a user clicks a field in the COUNTRIES Web Part, data for the selected country is presented in the CUSTOMERS Web Part. When the user clicks a field in the CUSTOMERS Web Part, data for the selected customer is presented in the CUSTOMER and ORDERS Web Parts. When the user clicks a field in the ORDERS Web Part, data for the selected order is presented in the ORDER HEADER and ORDER LINES Web Parts.

A connection is established between a field in a Web Part on a page to a different field in a Web Part on a page; the second page may be the same or different than the first page, ditto for the Web Part. Web Parts can have more than one connection, but each connection must be to a different Web Part.

The connection is activated when a user clicks a cell in a Web Part with a connection. The selected row may be visually altered to indicate its selection status. [the entire row or only the selected cell?] The connected data is presented in the second Web Part. [how does the target Web Part look before the source is selected?] It is also activated when only one row is presented on the source Web Part [I do not know why].

The data connection properties are: source Web Part field, target Web Part field, connection type, source field to be selected, whether to indicate visually the current selection. Source and/or target fields may not necessarily be included in the view; e.g., an ID can be used to connect two sets of data but may not be presented to the user.

The connection is based on equality, that is when the value of the source field equals the value of the target field ($A.x = B.y$). If you need to select based on inequality, greater than, or less than you can accomplish this with a calculated field. For example if you want to select based on a range of values, create a calculated field that will have a fixed value, one for each range.

| <i>Range</i> | <i>Calculated Field Value</i> |
|--------------|-------------------------------|
| < 10 | 0 (lower bound of range) |
| 10 to 20 | 10 (lower bound of range) |
| > 20 | 20 (lower bound of range) |

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Connection Types

There are several different types of data connections. The Data View Web Part has:

| <i>Source Action</i> | <i>Target Action</i> |
|-----------------------------------|---------------------------------------------------------------------------------------------------|
| Filter Using Data Values From | Provide Data Values To |
| Modify View Using Parameters From | can be used with a form web part that accepts selection criteria and passes it to a data web part |
| Provide Data Values To | Filter Using Data Values From |

The List View Web Part has three connection types: Provide Row To, Provide View Data To, and Get Sort/Filter From.

About Document Workspaces

A document workspace is a separate site centered around one or more documents. The site contains documents in a document library named “Shared Documents”, a task list for to-do items, and a links list for related resources.

By default, the existence of a document workspace is invisible until you place a link to it somewhere, perhaps in a special list.

Document workspaces can be created in three ways: (1) on a SharePoint site as a new site, (2) within a document library on a SharePoint site, and (3) within most Office 2003 programs (especially Word and Excel). On a SharePoint site a workspace site is created by creating a new site and selecting a Document Workspace site template. On a SharePoint site when a document library is open you can create a document workspace for a particular document with the [Create Document Workspace](#) tool on the drop-down Edit menu which becomes visible when the mouse pointer is held over the document name.

A document workspace can be created in most Office 2003 programs with the Shared Workspaces pane (accessible from the [Tools](#) menu). The pane has tabs for document library, tasks, links, and information about the active open document. The active document information includes the built-in file properties and version history as well as tools to restrict permission via a Microsoft Content Management Server, create an alert, and check out the document.

Creating a document workspace in Office causes a copy of the file to be saved in the workspace site library and to establish an association between that copy and the original file. When you open a document in Word or Excel that is also in a document workspace, you are prompted to get document updates from the site (you can decline). When you close a document you may be prompted to apply those updates to the site copy, depending on the shared workspace options.

Documents in document workspaces can be edited on the workspace site. See page 31 for details.

Document workspaces for a document library

The creation of Document Workspaces is restricted to persons with the permission Create Sites and Workspaces, typically belonging to the Administrator site group. The deletion of Document Workspaces is restricted to persons with the permission Manage Web Site, which by default is held by Administrator site group.

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A Document Workspace is created for a document in a SharePoint document library by selecting the document's Edit menu action [Create Document Workspace](#).

A second Document Workspace can be created for the same document with no notice that one already exists. The clue is the URL: It differs from the first by a "(1)" following the filename.

When a Document Workspace is first created, the creator is the only authorized user. Additional users must be added manually.

The Document Workspace is visible on the site of the source document library. From the "Documents and Lists" page choose action [See also Document Workspaces](#).

To edit a document, select [Check Out & Edit ...](#), which opens the document in its native application. After editing, save your changes with menu [File, Save](#), then check the document back into the Workspace with menu [File, Check In](#). No one else can edit the document while it is checked out to you. In this way any number of persons can edit the document in turn. When all are done, send the edited document back to the original document library with Edit menu action [Publish to Source Location](#). A confirmation page is presented.

Delete the site when it is no longer needed: Start with menu bar item [Site Settings](#), then select [Go to Site Administration](#). Select [Delete this site](#) to open a confirmation page. You can also delete the site from the "Sites and Workspaces" page accessed from "Documents and Lists" with the action [See also Document Workspaces](#).

About Meeting Workspaces

A meeting workspace is a separate site centered around one meeting. The site Typically the site contains documents in a document library named "Shared Documents", an objectives list, an attendees list, an agenda list, a task list, and a decisions list. There are five types of meeting workspaces which differ by their contents; the most likely types are Basic and Decision.

Meeting workspaces can be created in two ways: (1) In Outlook 2003 in conjunction with a meeting invitation, (2) in an events list on a SharePoint site. When the workspace is created by Outlook, it automatically propagates attendee status to the SharePoint site.

Create a meeting workspace in Outlook:

1. In Outlook, initiate a New Meeting Request. This opens an "Untitled – Meeting" dialog box.
2. Enter the attendees, subject, location, and other details as usual.
3. Select [Meeting Workspace] which opens a Meeting Workspace pane.
4. Set workspace settings (template and SharePoint site as location) and select [Create].

Customizing meeting workspace sites

Pages can be added and deleted. Web Parts can be added to one or more pages. The order of pages can be changed. Pages can be renamed.

About Discussions and Discussion Boards

Discussion boards and discussions appear to be specialized lists and list items. They are similar in look and functionality.

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Users can enter text messages as discussion items in a discussion board. A new item can (1) start a new discussion thread by being created as a top-level message, or (2) reply to the current message item, thereby continuing the thread. Once a message has been added it can be edited or deleted. Alerts can be added to individual messages.

A discussion board has several views: Flat and Threaded. In the Flat view messages can be filtered by field. In the Threaded view threads can be expanded and collapsed.

Messages contain subject, text, author, and posting date-time.

Discussion boards are accessible on the Documents and Lists page and, optionally, the Quick Launch bar. There can be a virtually unlimited number of discussion boards on a site. Each board can have unlimited message items. A discussion board has a name and description and whether it is included on the Quick Launch bar. Each board's fields can be changed and views added. New sites are created with the default "General Discussion" board.

About Surveys

Surveys are a specialized list. They consist of the survey question and replies (survey items). A survey can have one or more questions. There are three views of responses: Overview, All Responses, and Graphical Summary. No additional views are possible.

A survey is created with a name, description, whether it is included in the Quick Launch bar, whether names are included in survey results, and whether multiple responses are allowed. Each question is created with the question text, the data type of the response (as single line of text, multiple lines of text, etc.), whether a response is required. Some types of response require additional attributes. The order of the questions can be changed.

Surveys are accessible on the Documents and Lists page and, optionally, the Quick Launch bar.

About News

News consists of news listings in the News area. There is also default news that appears on the Home page. News content is available through SPPS. A news listing's content can be either text or a link to an existing news item, such as an article on a news service. To make managing news listings easier, you can specify start and end dates for content display and automatically mark expired news listings for archiving at the end of their publishing dates.

News listings can be organized into sub-areas. You can also target news listings to specific audiences. When you target a news listing to a particular audience it appears in the News for You section of an audience member's personal site. Alternate views can be provided.

Normally the department responsible for company news would post items to this area.

About Alerts

Alerts notify you when information that interests you is added or updated on the portal site and associated content sources. Alerts provide a proactive solution to staying informed. You can view

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alert results on the portal site or receive them in e-mail messages. You can specify how frequently you want to receive alert results by e-mail: immediately, as a daily summary, or as a weekly summary. You can delete your alert at any time.

An alert can be added to track these types of items:

- Search queries
- Documents and listings
- Areas
- News listings
- Sites added to the Site Directory
- SharePoint lists and libraries
- List items
- Web discussions
- Portal site users
- Backward-compatible document library folders

The content of the alert email includes a link to the list item or document that was changed. If you have an alert on a document and someone changes a library field, the email has a link to the document itself; there is no indication that the change was to a field.

About Search

The search is a full text search against an index that is created and maintained by a web crawler. The utility of the search is based on what is in the index and how queries can be composed.

By default simple search is used when you type words into the search box. Items relating to those words or containing those words are returned in a list of search results, sorted by relevance. Search results include a title and address linking to each item, the author of that item, the date the item was last modified, and a brief description of the item.

Advanced search allows you to search for items using more complex queries based on item types (Area items, Areas, Document Libraries, Documents, Lists, People, Picture Libraries, Pictures) and properties (specific to item type).

You can organize search results into groups. You can sort search results by relevance, author, date, size, or title. This must be set up by the administrator, it is not something you would do differently on each site within an organization.

Full-text search is only available when the data store is a SQL Server database with full-text searching installed and search is enabled in SPS. Such a search is performed by using a FREETEXT predicate.

With SharePoint Services, each site will only search within itself. All content is searched: lists, libraries, documents and other files, news, and web pages.

With SharePoint Portal Server, all web sites, pages, file shares, and Exchange public folders can be searched. Web sites running SharePoint and those on ordinary web servers can be indexed. Non-SharePoint sites must be added to Managed Content Sources.

Actually I found documentation on Microsoft's website that SPS can index all content on a server or server farm.

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Content indexes

Every SPPS site includes content indexes that allow users to search for documents available from that portal site. These documents can be stored inside or outside the portal site. After content is included in an index, the content appears in search results on the portal site.

A content index is a full-text index that facilitates quick searching of the following content:

- content stored on the site
- content stored outside the site and addressed with a URL
- retrievable properties associated with a document (for example, title and author)

SPPS can create indexes for content stored on websites and pages, file systems, Lotus Notes version 4.6a and R5 databases, computers running Microsoft Exchange 2000 Server, SPS sites, and sites based on Windows SharePoint Services.

When you create a portal site, SPPS automatically creates two indexes:

- **Portal_Content:** This index enables searching over portal site content. By default, this index contains the following content sources: This Portal and People. If you have installed the document library component, the Document Library:document_library_name content source is also in this index.
- **Non_Portal_Content:** This index enables searching over external content. By default, this index contains the following content source: Site Directory.

Advanced search administration mode enables you to create and manage additional indexes. A list of indexes is useful for large scale crawling and custom query scoping, but maintaining it is complex. After you configure a portal site for advanced search administration mode, you cannot return to the standard (default) mode.

The default search administration actions include: start, stop, and manage schedules of updates for the default content indexes only.

What is in the index

Which files are indexed? All Microsoft Office documents with file size less than 16MB. All documents in a document library. What about attached to regular lists? **TBD** Office documents have file suffixes of DOC (Word), PPT (PowerPoint), XLS (Excel), VSD (Visio), MSG (Outlook), and XML (InfoPath); however, a search within a WSS document library for a word did not find it in a cell of an XLS file. In addition TXT, HTML, ASP, and ASPX files are indexed. Acrobat PDF files can be indexed only if a corresponding IFilter is installed.

Which lists and libraries are indexed? **TBD**

What text is indexed? All words in a document regardless of their location (page body, header, or footer). All content text in a list item. The exceptions to the “all words” are common words such as “the,” “it,” “you,” and “by” as well as single-digit numbers.

Are list names and field names indexed? No.

“Properties” can be indexed and used as search criteria, but I have yet to find a true definition of property. This feature is currently available in the WSS 2.0 advanced search.

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- “Crawled properties include the metadata of content that is stored in files, and databases used by your organization.”
- Does it include the built-in fields in lists? TBD
- Does it include the custom fields in lists? TBD
- Does it include the file properties of documents? TBD
- Does it pertain to all documents attached to list items? TBD

“Properties (metadata): The new search schema offers two types of properties: crawled and managed. Crawled properties are discovered when content is crawled. Managed properties are properties that are part of the Search user experience, meaning that they are available for search results, advanced search, and scopes. Managed properties can be retrieved. All managed properties that are strings can be used for full text query or keyword query searches. To make a crawled property available for the Search experience, it must be mapped to a managed property. Mapping the crawled properties to managed properties makes them available for Search queries and makes them appear in Advanced Search and search results. Multiple crawled properties can be mapped to a single managed property, and a single crawled property can be mapped to multiple managed properties.”

Search scope

Search scope refers to the location of the items that can be searched. Scopes can be based on location, managed properties, or content source.

There are typically three built-in scopes: *all sites*, *this site*, and *this list*. At the Portal Server level, all sites can be searched at once (*all sites*). Each site has its own search scope (*this site*), meaning a search can be restricted to the contents of that site. Additionally, each list has its own search scope (*this list*), meaning that a search can be restricted to the individual list. Custom scopes are possible.

When the search scope is *this list*, it is also the current view. Items excluded (by a filter) from the current view are outside the scope. However, all information in the items that are not filtered, including information in fields that are hidden, is searchable as is information in items that exceed the current view's item limit.

As a part of the advanced search, a search scope can be limited to content type as any type, document libraries, documents, lists, people, pictures, picture libraries, area items, areas. The last two choices apply to Portal Server sites. By choosing lists, the search returned a list with the search word in the title.

It is not clear to me if advanced search can be implemented so that the scope can be set at the *this site* or *this list* level.

Managed properties that are enabled by the SharePoint administrator for use in scopes are available to all site collections. This means they cannot be specific to only one site.

Query capabilities

Only full word searches can be performed. Wildcards (such as the asterisk) and partial string searches do not work. For example, searching for “flash*” or “flash” will not result in “flashlight” being found. Only searching on “flashlight” will find flashlight. However searches do work on variations of words based upon the base stem, such as plurals. For example, searching for the word “page” also returns results for “pages.”

Search is not case-sensitive.

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Boolean functions such as AND and OR are not supported.

There is an advanced search that provides the capability of:

- searching for all of a list of words
- searching for an exact phrase of full words
- searching for any of a list of words
- excluding documents with particular words
- searching for a value of a list item field-property (only the built-in properties like author, description, name, and created date and also managed properties) using operators like contains and greater than.

There are nine Web Parts available to Search Central (only?), including a search box, search core results, search Best Bets, and search action links that can be used to customize a search page.

“Developers can take advantage of the simplified and enhanced Query Object Model to programmatically build custom search UI Web Parts that have direct access to query and results properties or to invoke custom queries.” This may or may not be related to the Web Parts.

Fields can be weighted. Queries that search more than one field can specify the importance of each field. Weighting is reflected in the ranking of the search results.

The thesaurus is a query-expansion search feature that allows you to type a phrase in a search query and receive results for related words. The thesaurus also enables you to affect search ranking by assigning weights to words.

Search conditions can be met to varying degrees. This is in contrast with SQL queries in a relational database where rows that are returned by a search query must meet all the conditions called for by the query.

SQL query capabilities exist. They are documented in the Portal Server SDK. The basic SQL syntax is:

```
SELECT <fields>  
FROM <catalogs>  
WHERE <conditions>  
RANK BY <conditions>  
ORDER BY <fields>
```

The WHERE clause can contains full-text predicates (CONTAINS and FREETEXT) and/or non-full-text predicates (LIKE, MATCHES, NULL, DATEADD, and literal value comparison).

Keywords for relevancy

Keywords are used to mark specific items as more relevant for a particular word included in search, so that they show up more prominently in search results. Their use is very subjective and demands careful, thoughtful use—perhaps by subject matter librarians.

Administrators create keywords for common searches, and then add keyword “Best Bets” for each keyword that are items most relevant to that search. You can create additional keywords under existing keywords based on subject matter. This is useful for organizing keywords, but the keyword “Best Bets” for lower-level keywords do not appear in search results for the higher-level keywords.

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When a user types a keyword or synonym for a keyword in the search box, its keyword “Best Bets” are shown with the highest relevance in search results. These items are also identified with a distinctive icon as keyword “Best Bets”.

Keyword “Best Bets” must be approved before they can be used by search. Keyword managers can choose to approve new keyword “Best Bets” automatically or require an approval process.

Search results ranking

Items that match the search criteria are presented in a list on a search results page. Query words are highlighted in bold font on the results page, allowing the user to see the context in which the words were found. Items are ranked. The ranking scheme in MOSS 2007 is different than that used in WSS 2.0.

Per <http://www.sharepointblogs.com/jimyang/archive/2006/07/06/8928.aspx>

“The ranking algorithm of the search engine shipped with SPS2003 is based on probabilistic relevance scoring, a technique developed in 70s, which called OKAPI algorithm. The ranking measurement is based on collection frequency, term frequency, document length and term position.”

The ranking for MOSS 2007 is based on:

- Click distance: A measure of the distance of a document from an authoritative home page
- Hyperlink anchor text: The text used in a link that points to the document
- URL surf depth: A measure of the depth within the site that the document’s URL represents
- Missing metadata creation: Automation of the metadata from page content (for example, title)
- URL text matching
- Automated metadata extraction
- Automatic language detection
- File type relevancy biasing
- Enhanced text analysis

Search results list contents

Several data appear in each entry in the search results page. Foremost is the document name with a link to it. There is also “Item Details” which opens a page of the same name. It presents the filename, abbreviated text extract, and URL as in the search results page. It also presents a table of properties:

| <i>Property</i> | <i>Source</i> |
|--------------------|---------------------------------------------------|
| Filename | actual filename |
| Creation | day file was uploaded to the site |
| Size | actual physical size, truncated |
| Last Modified Time | date-time the file was last modified since upload |
| Author | person who uploaded the file |
| Last Author | person who last modified the file |
| Last Saved | ? |
| Owner | file property Owner |
| Project | file property Project |

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| <i>Property</i> | <i>Source</i> |
|-----------------|-----------------------|
| Revision | ? |
| Status | file property Status |
| Subject | file property Subject |
| Site URL | actual URL of site |
| Source | ? |

Custom properties defined for the library on the site do not appear in Item Details.

Working with search results

Be aware that when you search from the home page, the search results page is not on the domain site. The best way to return to the domain site for additional searches is with the Back button.

When you search from the home page and you open a document on the search results page, the document opens in the same browser window. The best way to close it and return to the search results is with the Back button.

When you search from a library page, the search results are presented on the same page (in the same view with the same fields and field labels).

There is an inconsistency in the search results lists for the site-wide search and a single library-only search: the document name is different. In the site-wide search, the document name in the results list is the document's file property Title, In the library-only search, the document name in the results list is its filename. Consequently a document may appear differently in the two results lists.

Conclusions for best searchability

This list has to do with the contents of the search results page.

1. You cannot rely on custom library fields in a document library to enhance the search. They do not appear in the Item Details.
2. The Author in the file properties is ignored in favor of the built-in Created By library property (which is referred to as Author in the search results Item Details).
3. Fill out file properties accurately and completely before uploading files. Use custom properties if necessary, especially for Author which should have a unique name like Author1. Title has no effect on the search.
4. Be sure file name is spelled correctly and without typos.

About Areas

Areas are a feature of SPPS. Areas provide a navigational structure or map of the portal site and related content. They are also a way to group and organize content, to create a hierarchy of content. Areas can be hierarchical—they can have sub-areas. Areas and sub-areas can have (listing) groups. Content references appear as *listings* on *area pages* grouped by *listing group*. Each (sub)area is displayed with a (sub)area heading and the content assigned to that area listed under it. You can specify the order in which groups appear on a page.

The top-level area is Home. It and the second-level areas appear as entries in the menu bar and have their own web page. (An area page is any area of the portal site other than the home page.)

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The built-in second-level areas are Topics, News, and Sites. All can be removed, but Home cannot. Built-in child areas of Topics are: Divisions, Resources, Strategy, Projects, and Locations.

You can create a list or library within an area page. You can also add an existing list or library to an area page.

Areas have settings (properties):

- General: title, description, URL name; contact information; location (area parentage).
- Publishing: publishing start and expiration dates; listings (content) approval.
- Page: page template for sub-areas, source of area template.
- Display: navigation (whether to include in primary navigation areas), sort order, image (logo?), search, topic assistant.
- Search: whether to include area in search results, whether to include it in Topic Assistant

Areas and child areas are visible on the Quick Launch bar.

Topics

Topics are a subset of areas used to organize content on the portal site. Topics can also refer to sub-areas under all top-level areas except the built-in areas Home, News, and Sites. Topics is also the name of the top-level area that by default contains all the topics. Areas within the Topics top-level area behave like other areas and are managed the same way.

Typically the “Topics” page contains a hierarchical list of sub-areas. When one sub-area is selected a new page is opened that contains that area’s listings by group. [I think.]

The Topic Assistant is an automatic tool that suggests appropriate areas for a content item.

(Listing) groups

There are built-in groups named General, Highlights, and Experts. You can create new groups, delete groups, and rename groups. You can specify the order in which groups appear on a page. Groups are not visible on the Quick Launch bar.

Listings

A listing is the thing that associates a content item with an area. Properties: title, description, source (as address of existing content or rich text), image, (listing) group, location (area page), and audience. Listings can subsequently be moved to a different location, edited, and deleted. They are maintained with the [Manage Content, Portal Listings](#) tool.

[Do not know of limitations to listing source as address of existing content. For instance, can content be on a child site, a different site, a different site collection, a different server?]

There are also listings for people.

Listings are items in the list “Portal Listings”.

Portal site map

The Portal Site Map defines the SPPS site’s navigation structure. It controls the content of the Current Location section of the Quick Launch bar.

About Audiences and Targeted Content

An *audience* is a group of portal users with similar interests. Content can be targeted to individual audiences to push information to a user. You can target content in three ways. (1) You can target Web Parts so that members of different audiences see different Web Parts on a page. (2) By using Web Parts that recognize audience membership, you can also target individual items or links in an area to one or more audiences, so that only members of those audiences view the targeted items within the Web Parts. (3) You can target portal listings, available through SPPS and specific to an area, to audiences. Targeted content is only seen by members of the target audience.

Audiences are managed centrally across one or more server farms hosting SPPS 2003. They apply to one or more portals in a deployment, not to individual areas, sites, or items. An audience is defined by the rules that determine its membership.

Audience targeting involves (1) create audiences, (2) target items to one or more audiences, (3) store the targeted items in an area that uses a targeted content Web Part to display items to users of the portal site, and (4) compile the audiences.

An audience consists of a name, description, whether membership depends on satisfying all or any of the rules, and one or more rules. Each rule is a simple query composed of an operand, operator, and value. The operand is the user or property¹ you want to include in the query for this rule. The operator indicates how users compared to the value should be queried to include or exclude them from the audience. The value is the point of comparison used by the query. Membership is based on a user's job or task as defined by their membership in a Windows 2003 security group, distribution list, organizational reporting structure, or the public properties in their user profiles.

The following table indicates the possible rules. Note that the properties are those contained in the user profiles; including them in a rule is dependent on their consistent use.

| <i>Operand</i> | <i>Operator</i> | <i>Value</i> |
|-----------------|----------------------------------------|----------------|
| user | member of reports under | full user name |
| property <name> | = contains not = not contains | any text |

Targeted listings can be displayed in four ways:

- Any listing can be displayed in the Links for You Web Part on My Site.
- Any person can be displayed in the Links for You Web Part on My Site.
- News listings can be displayed in the News for You Web Part on My Site.
- Any listing can be displayed on the default home page of the portal site.

An item can be displayed in more than one location. This requires one listing for each location.

¹ I am unsure what is meant here by "property," it may very well be a field.

About Microsoft SharePoint

It is only when an audience is compiled that its membership reflects its new or changed definition. [Are new users automatically assigned membership in existing audiences?] Typically audiences are compiled at regular intervals.

About Personal Sites

There are two kinds of personal sites:

- personal view of a team site
- My Site

The personal view of a team site is created when the user modifies a shared page. How much personalization can be done is controlled for each Web Part by the site designer. The changes are saved with the View Page action; the browser Refresh tool makes the changes visible. In addition, some pages cannot be customized: new contact Web Part page which appears when you begin to add a contact to an existing list (page does not have a Modify Shared Page or Modify My Page link).

Every SPPS user can have a personal site named My Site. This site is accessed with the My Site link in the SPPS title bar. The site has two views, each with different content: Private view which only the site owner (user) can see and Public view which all portal users can see.

The user can customize her personal site with the Modify My Page link.

- The appearance of personal sites and the individual pages on them can be customized by using themes, styles, and templates; templates can be customized. Each list or page on a personal site uses cascading style sheets to define its appearance and layout; these can be customized.
- Content can be customized. A user can create new lists (all kinds including libraries), sites, or pages; modify the settings and fields of existing lists; and configure some of the properties of their user profiles that appear in the public view of their personal sites. She can also add links to the home page of their personal sites and share them with other users.
- Web Parts may be added and configured.

There are two flavors of personal sites which are controlled by two distinct rights: the Use Personal Features right and the Create Personal Site right. Users with both rights have the full My Site experience with all of its features and all of the possible customization options. Users with only the Use Personal Features right can still use a personal site but it has only some of the features of personal sites. For this reason, this configuration can be considered a “personal page” configuration, or “My Page.”

Users with only Use Personal Features rights can:

- Edit their user profiles
- Manage alerts
- Add and share links
- View targeted news and links for the audiences of which they are a member
- Add and modify Web Parts for their personal views of the personal site

Users in a personal page configuration cannot:

- Create or customize lists or sites or share them with other users
- Store documents, pictures, and other items on lists or sites
- Manage any of the site settings for the site or customize its look or content beyond the customization allowed by adding or removing Web Parts

About Microsoft SharePoint

About Site Directory

The Site Directory is a SPPS feature. Sites created by SPPS are automatically added (as a link) to the Site Directory. Links to other sites can be added manually.

The Site Directory page is opened with the [Sites](#) item in the menu bar. The Site Directory provides a central location from which to view and access all websites associated with a specific portal site. To organize and display the sites in meaningful ways, you can create views that sort, filter, and group the sites. The Site Directory is also the easiest way to add content to the portal site for searching: When users add sites, they have the option to include the sites' contents in search results.

The Site Directory includes other features, too. By default, SPPS 2003 provides a list of recently viewed sites. As a member of the Administrator site group, you can highlight sites by using the Spotlight Web Part. As a portal user, you can choose to be alerted to changes to the Site Directory with the action Alert Me.

Site link properties: title, URL, description, owner, whether the site should be included as a Spotlight Site, whether to include in search results, area(s). Other properties depend on how the Site Directory is configured. [This entry may be an item in the Portal Listings list.]

About Designing and Creating a SharePoint Site

Appropriate permissions are required.

A team site can be a top-level site or a sub-site. There can be many top-level sites, each of which can have many sub-sites.

Each top-level site's parent directory must be a SharePoint *managed path* with both the include and wildcard options in effect. Even though a sites' files and directories reside in a SQL Server database, the SharePoint server accepts normal-looking URLs. It then translates the URL into a database location, retrieves the content at that location, runs any executable content (such as Web Parts), and sends the content as HTML to the user.

It is possible to store files in directories on the server's file system. This is accommodated by managed paths. A managed path is a directory location where SPS either starts to manage or ceases to manage a web server's directory tree, i.e., where it starts or stops redirecting web requests into the content database.

Site properties

Top-level sites have properties: virtual server id, URL, site collection owner, secondary owner.

Team sites have properties: title, description, URL, whether to use the same permissions as the parent site, and whether to use unique permissions.

The site or area templates(s) used by a site are related properties.

Site page properties

Basic web page properties: name and document library name.

Web Part page properties: name, location, and layout template.

About Microsoft SharePoint

Using packages

A package is a single file that contains several condensed files, like a zip or cab file. You can create a new site from a package. You can also add components in a package template to an existing site.

Self-service sites

Normally only the administrator of an entire SharePoint virtual server can create top-level sites, and therefore site collections. After a top-level site is created, administrator privileges are granted to a key team member.

The Self-Service Site Creation feature, when enabled, allows any member with the appropriate right (Use Self-Service Site Creation) to create countless top-level sites. By default all members, even Readers, have this right.

When the feature is enabled, it is common for many spurious top-level sites to be created. These are best controlled. There are three features that can help:

- **Quota Templates** establish disk space limits.
- **Site Collection Use Confirmation and Auto-Deletion** sends periodic warning messages to owners of any site collection that has no activity for a given period. If the owner fails to reply to a given number of messages in a row the site collection is automatically deleted.
- **Secondary Contacts** provide for vacation relief, especially of the use confirmation messages.

When the feature is enabled an indication of it appears as an announcement on the root site's home page. The announcement contains the URL where a new site can be created. If the announcement is no longer visible, get the URL from the site administrator or try "http://<servername>/_layouts/1033/scsignup.aspx".

Creating a SPS team site

A team site is created within its parent site. After the site is created a site template is selected, appearance options are selected, and pages are created. Web Parts may be moved or added to pages and (re)configured. You cannot change Web Parts on the pages created as part of documents and lists. You can create lists and libraries and include them on the Quick Launch bar.

About Accessing a Site via the File System

In Windows Explorer you can map a network drive to a SharePoint site. Specify the folder like \\iknow-sps.schwab.com/sites/SecMastrDom.

You can use the drive mapping to look at the site's folders and files and to access it with Visual Basic code. You can write VBA programs that can read the files in the folders for document libraries. You can copy documents into library folders with Explorer; the documents automatically appear in the library content list with Created and Modified = datetime of copy, Modified By = id of user who made the copy. Once in the library you can assign other properties manually.

It does not seem to be possible to automatically populate other library properties, even those that correspond to the built-in Office file properties like Subject and Author or to custom Office properties. In an experiment to test this, two properties were added to the library definition with those names, they were confirmed to be populated in the properties of the file to be copied, but after the file was copied to the document library, it had no such properties.

About Microsoft SharePoint

You can use Windows Explorer to move documents within a library from one folder to another, from the root directory to a folder, and from a folder to the root directory. The properties remain unchanged by the move.

You can use Windows Explorer to rename lists and libraries. However copying is a different matter: you can copy a list but it does not show up on the “Documents and Lists” page, so it is unusable.

You can edit HTML and ASPX pages with Notepad.

You can create alternate home pages by copying the actual home page (default.aspx) with a different name, perhaps test-default.aspx. You view the page in the browser by typing its URL into the address bar. If you click on the filename in Windows Explorer, the file opens in Notepad. When you copy the home page, all the Web Parts except the Quick Launch Bar are excluded; you have a clean slate on which to place your own Web Parts.