

Branding and Customizing SharePoint 2013 Sites



TeamSite
Publishing Site

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Course Objectives

Upon completion of this course, you will be able to

- Understand SharePoint 2013 options for creating, designing, and maintaining a consistent look and feel
- Identify information architecture and navigation considerations in SharePoint
- Create design concepts for SharePoint
- Customize a site with SharePoint Designer 2013 and other WYSIWYG tools such as Adobe Dreamweaver CS6
- Create custom master pages and page layouts
- Apply Cascading Style Sheets and HTML code within SharePoint sites
- Leverage the Design Manager to control the redesign process
- Enable cross-site publishing and search-driven Web Parts
- Deploy a branding solution with reduced complexity using design packages



Course Contents

Introduction and Overview

- Chapter 1 SharePoint 2013: New Features to Create and Manage Content and Design**
 - Chapter 2 Planning a SharePoint 2013 Design Concept**
 - Chapter 3 SharePoint 2013 WYSIWYG Design: A New Landscape**
 - Chapter 4 An Introduction to the Design Manager**
 - Chapter 5 HTML, CSS, and SharePoint 2013**
 - Chapter 6 Master Pages in SharePoint 2013**
 - Chapter 7 Web Content Management With Publishing Sites**
 - Chapter 8 Working With SharePoint Content**
-



Course Contents

Chapter 9 HTML5 and jQuery for Advanced Interaction

Chapter 10 Deploying Your SharePoint Brand

Chapter 11 Course Summary

Next Steps



Assumed Background

- **This course assumes you have a basic familiarity with SharePoint 2013 and customization via the SharePoint website**
 - A brief primer will be given in the course specific to branding and content management
- **This course is for those who need to provide customization to their SharePoint sites to meet internal corporate identity standards**
 - Color schemes
 - Layout
 - Overall look and feel
- **Familiarity with web layout design and experience with web layout tools is helpful**
 - If you have no experience with HTML/CSS, you should expect that there will be hand-editing of HTML and CSS code
 - If you have extensive experience with HTML/CSS, you should expect basic introductions to concepts with which you are likely familiar



SharePoint 2013: New Features to Create and Manage Content and Design



Chapter Objectives

In this chapter, we will

- Identify new SharePoint 2013 content management features
- Review branding changes in SharePoint 2013
- Work with SharePoint content
- Explore new branding options



- **Introduction to Branding**
- **SharePoint 2013 Content Management: New Features**
- **Branding Changes in SharePoint 2013**
- **Content Options in SharePoint 2013**
- **New Navigation Features**



What Is Branding?

- **Branding involves creating or implementing a graphical identity that helps people identify sites, documents, or interfaces with a corporate identity**
 - Your company may provide exact branding guidelines
 - Specifications for fonts, colors, logo treatments must be followed
 - Example: Microsoft Corporate Logo Guidelines: [www.microsoft.com
/en-us/legal/intellectualproperty/Trademarks/Usage
/Logo.aspx](http://www.microsoft.com/en-us/legal/intellectualproperty/Trademarks/Usage/Logo.aspx)



What Is Branding in SharePoint?

- **Branding SharePoint sites follows a similar process to branding other sites**
 - Colors
 - Fonts
 - Logos and graphics
- **SharePoint technology and architecture drives the process to follow and tools to be leveraged**
 - Master pages
 - Page layouts
 - CSS
 - Web Parts
 - HTML
 - XSLT
- **Make it “not look like SharePoint”**



CSS = Cascading Style Sheets

HTML = hypertext markup language

XSLT = Extensible Stylesheet Language Transformations



Why Brand SharePoint?

► Branding SharePoint makes it distinctive

- While OOTB sites are greatly improved in SharePoint 2013, they are functional, but not graphically engaging
- Branding guidelines may drive policy for customization
- Branding options in SharePoint 2013 offer ways to make your site more representative of the company

OOTB = out of the box



What Is SharePoint 2013?

- “A comprehensive solution for connected information work that enables people to transform the way they work while preserving the benefits of structured processes, compliance and existing IT investments”
 - Includes features such as
 - Website templates and components
 - List- and document-management tools
 - Microsoft Office integration
- SharePoint changes traditional application development
 - Contains a rich set of tools and technologies that allow application development without the need for technical skills
 - Browser-based WYSIWYG page editing
 - SharePoint Designer 2013
 - InfoPath 2013

WYSIWYG = what you see is what you get



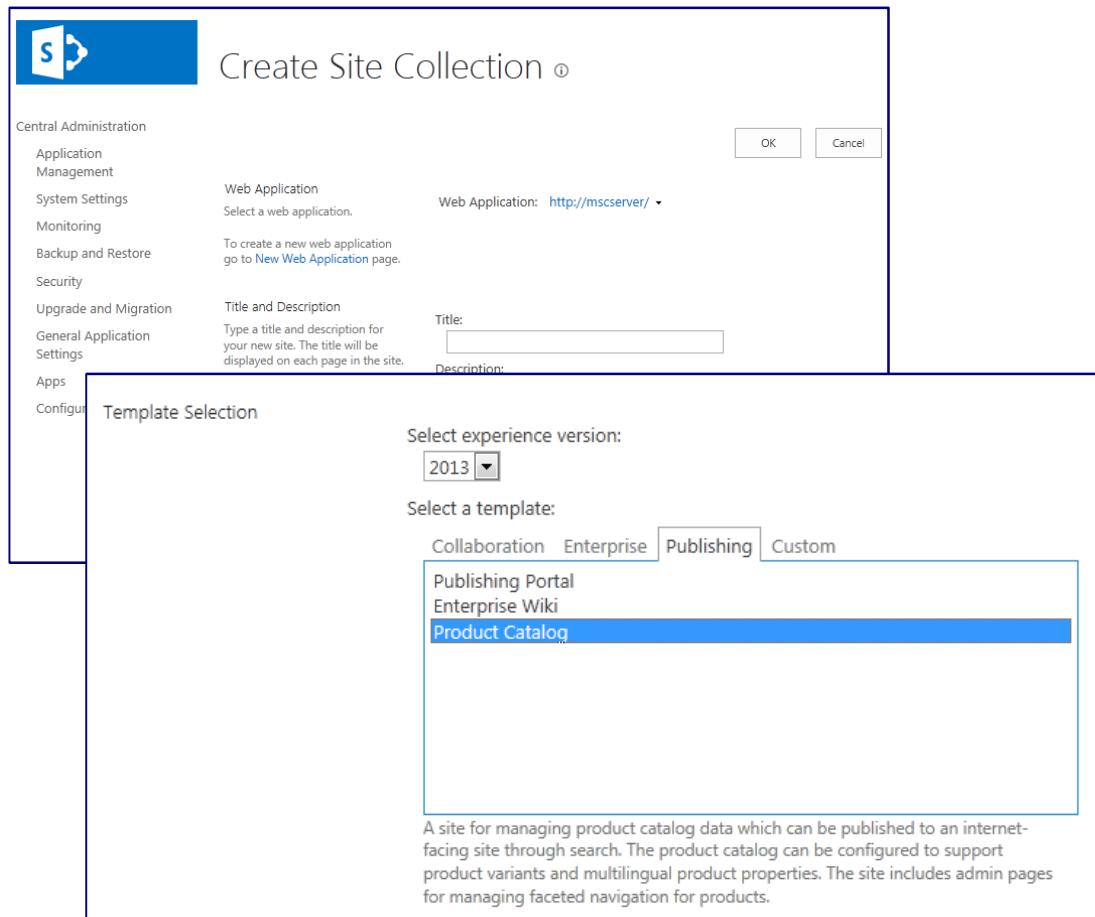
SharePoint Site Creation

► **Users with appropriate permissions can create new sites**

- Top-level sites
- Subsites

► **Templates**

- Provide a starting point for web application functionality
- Determine starting layout and functionality



SharePoint Sites in Action

- **SharePoint can be deployed in different ways depending on requirements**
 - Internet SharePoint site
 - Extranet SharePoint site
 - Intranet SharePoint site
- **Options differ depending on site templates and intended use**
 - Public-facing sites may require significant branding
 - Enterprise publishing templates offer features that more readily facilitate branding with additional options
 - Example: www.volvocars.com/us/Pages/default.aspx
- **In this course, we will explore**
 - Options available with different templates
 - Benefits and challenges for different SharePoint site deployments



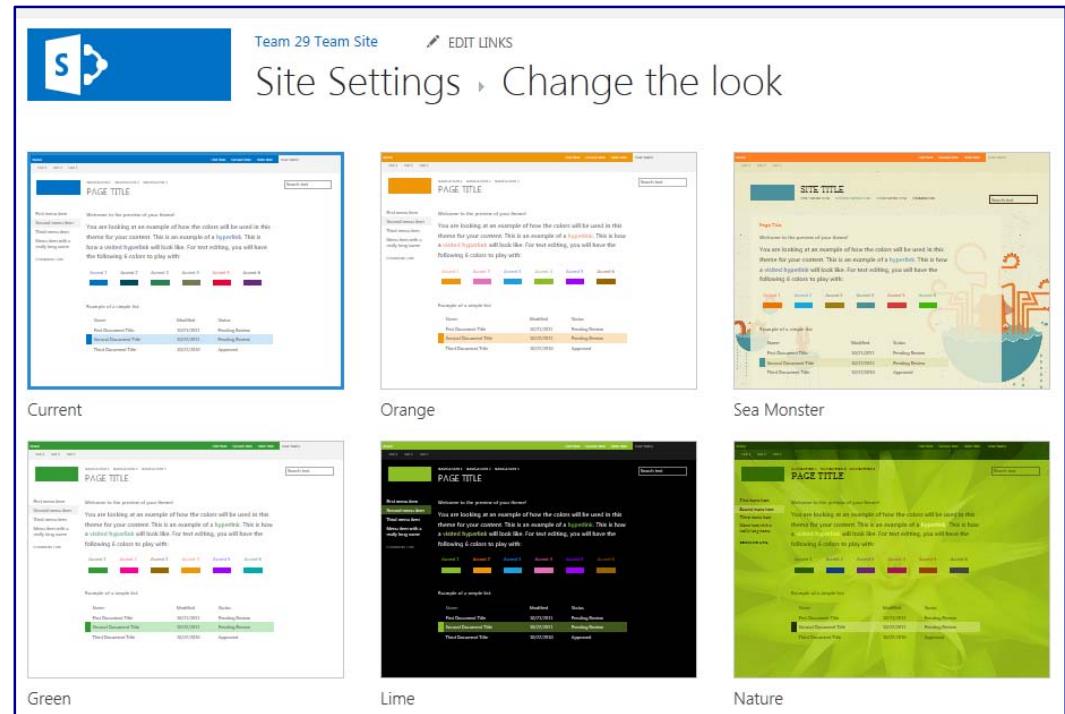
SharePoint Branding Options

- SharePoint offers ways to work with content and incorporate branding features
- The tools used dictate the complexity of branding options that can be leveraged
 - Simple branding
 - Intermediate branding
 - Advanced branding



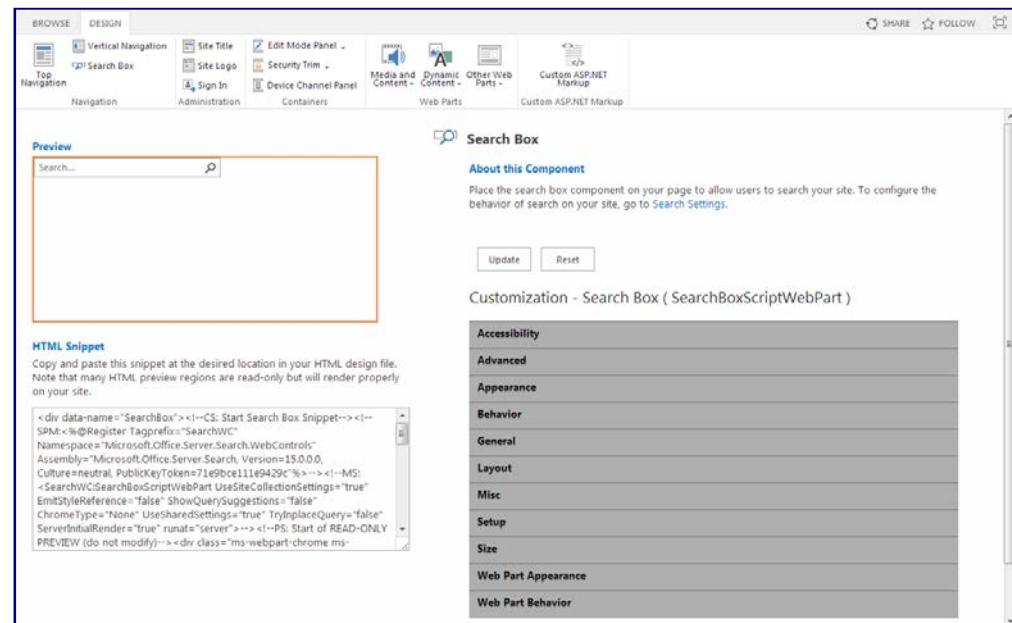
Simple Branding Options

- Basic branding can be done using only a browser such as Internet Explorer
- While limited, it offers options for a user with no knowledge of web development
- In the browser, users can
 - Easily edit pages
 - Create new pages
 - Link items
 - Add images, video, Web Parts, and App Parts
 - Change text layouts and page layouts
 - Change the look with Composed Looks



Intermediate Branding Options

- SharePoint Designer 2013 is no longer the tool of choice for applying custom branding in SharePoint 2013
- Users can now apply many branding changes in the Design Manager in a web browser
- At an intermediate level, the Design Manager can be used to
 - Edit master pages
 - Edit page layouts
 - Upload design files
 - Create new design packages
 - Work with HTML Snippets



Intermediate Design Manager Branding: Exercise 3.1



Advanced Branding With Design Manager and ???

- Any HTML editor can now be used for working with SharePoint code
 - In this course, we will be using Dreamweaver CS6
- Custom HTML can be used to completely reengineer the underlying HTML code of the entire site
- At an advanced level, the Design Manager can be used to
 - Create custom HTML design
 - Add custom images and CSS
 - Add starter master pages
 - Package as a design package
- We will be doing it all in this course!



Custom Master Page Design: Exercise 6.1



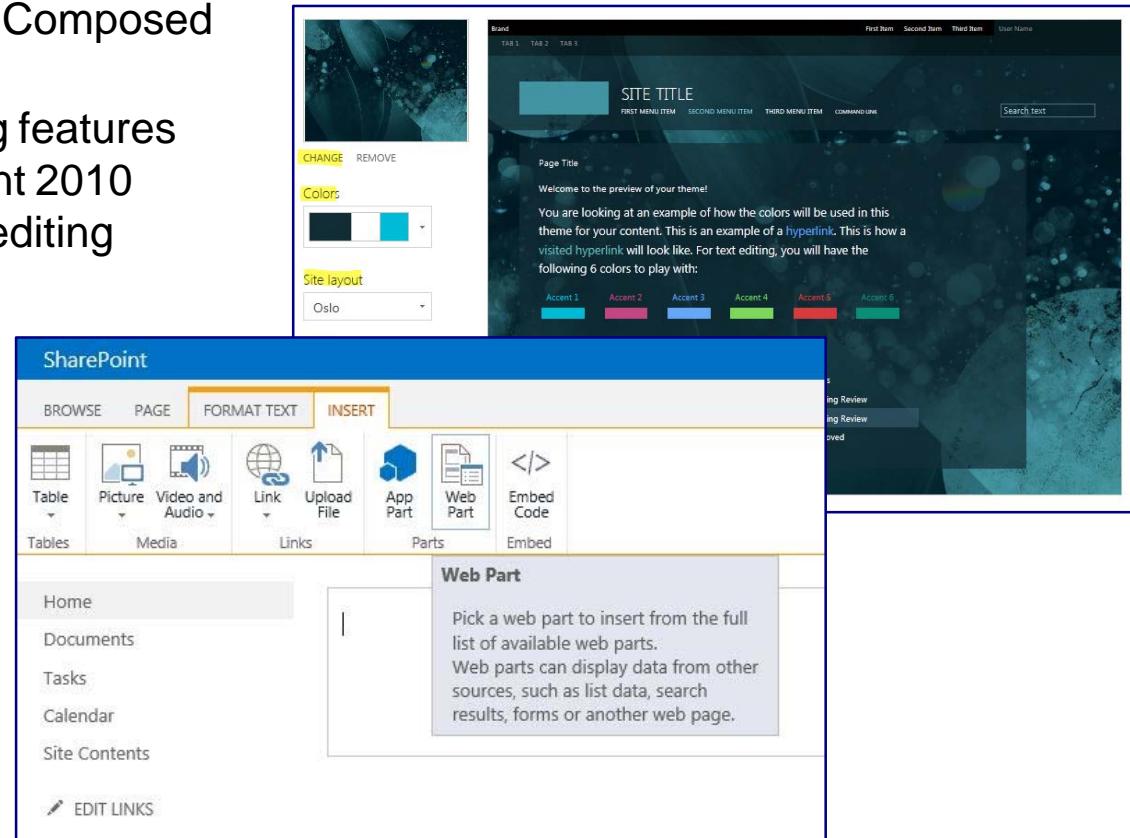
- Introduction to Branding
- **SharePoint 2013 Content Management: New Features**
- Branding Changes in SharePoint 2013
- Content Options in SharePoint 2013
- New Navigation Features



New Enhanced Out-of-the-Box Look and Feel

➤ SharePoint has an enhanced look and feel and more options, making it a viable, easy-to-use platform for public-facing websites

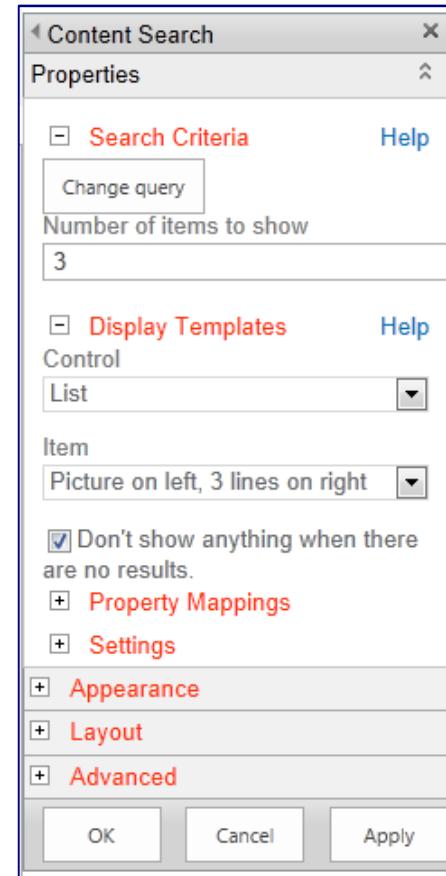
- Powerful options in Composed Looks
- Simple page-editing features similar to SharePoint 2010 with a streamlined editing interface
- Interface echoes the look and feel of Windows 8



New Web Parts in SharePoint 2013

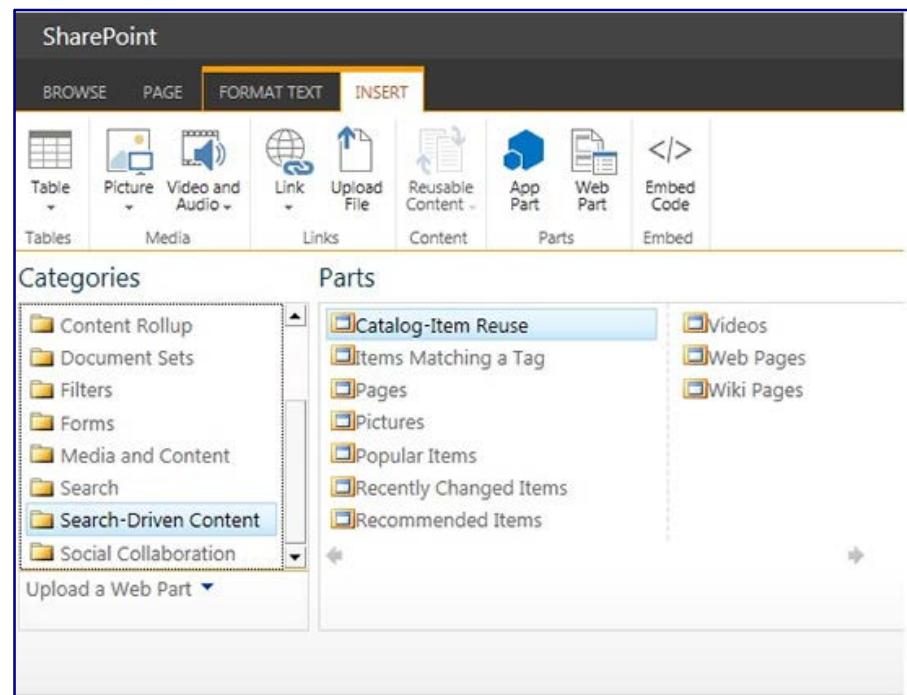
► New Web Parts provide powerful ways to display content easily

- *Content Search Web Part*
 - Displays search results based on a search query that can be easily formatted
- *Recommended Items and Popular Items*
 - Part of the Content Recommendations feature
- *Blog Archives*
 - Powerful for dispersing community-driven content
- *About This Community*



New Search-Driven Publishing Model

- A new suite of Web Parts allows you to build powerful, flexible applications that leverage the power of SharePoint search
- Allows for many ways to reuse content throughout your site
- Multiple Web Parts available for displaying a variety of content
 - Catalog-Item Reuse
 - Items Matching Tag
 - Pages
 - Pictures
 - Recently Changed Items
 - Videos
 - Web Pages



Cross-Site Publishing

- **Cross-site publishing is the new publishing model in SharePoint 2013 that allows you to**
 - Maintain content in an authoring site collection
 - Publish to multiple publishing site collections
 - Leverage Search Web Parts
- **Allows more ways to separate content from presentation**
- **Changes made to content in authoring site collections is automatically reflected in publishing site collections**
- **Catalogs provide the foundation for reusing content across your site**
- **A catalog is a list or library shared for consumption on publishing sites**



Managed Navigation

- A taxonomy is a classification of information into ordered categories
- SharePoint 2013 carries the concept of managed metadata into a new feature, Managed Navigation
- Enables you to build navigation for a publishing site that is derived from a managed metadata taxonomy
- This differs from SharePoint 2010, where navigation was derived exclusively from the structure of the site

The screenshot shows the 'Global Navigation' section of the SharePoint Managed Navigation settings. It includes fields for 'Global Navigation' and 'Current Navigation', both with icons for displaying navigation items. To the right, there are three radio button options for each section:

- Display the same navigation items as the parent site
(This is the top-level site)
- Managed Navigation: The navigation items will be represented using a Managed Metadata term set.
- Structural Navigation: Display the navigation items below the current site

The 'Managed Navigation: Term Set' section allows users to choose a term set for navigation. It features a search bar labeled 'Find term sets that include the following terms.' and a tree view of term sets. The 'Site Navigation' term set under 'Site Collection - msccerver-sites-solutionpubsite' is selected, highlighted with a yellow border.

- ▲ Managed Metadata Service
 - ▷ MSC
 - ▷ People
 - ▷ Search Dictionaries
 - ▲ Site Collection - msccerver-sites-solutionpubsite
 - ▷ Site Navigation Selected
 - ▷ Wiki Categories

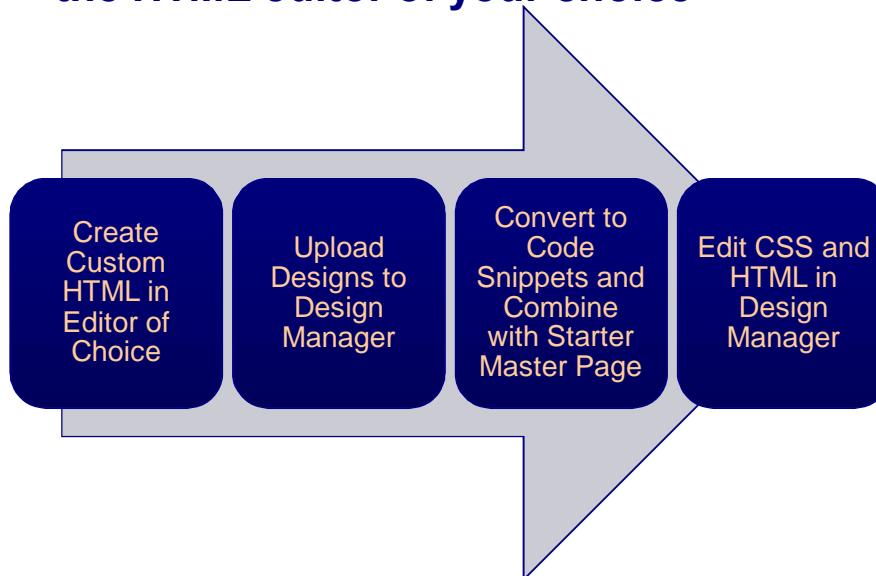


- Introduction to Branding
- SharePoint 2013 Content Management: New Features
- ➔ Branding Changes in SharePoint 2013**
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Fundamental Changes to the Branding Process

- New browser-based branding tools significantly alter the branding process from previous versions of SharePoint
- For publishing sites, the Design Manager provides the platform for the majority of your branding and design tasks
- Microsoft has also opened up the branding process to allow you to use the HTML editor of your choice



Design Manager: Edit Master Pages

A master page defines common elements across all the pages of your site. You can use the n master page, click on its file name or status. While previewing your HTML master page, use th your HTML file.

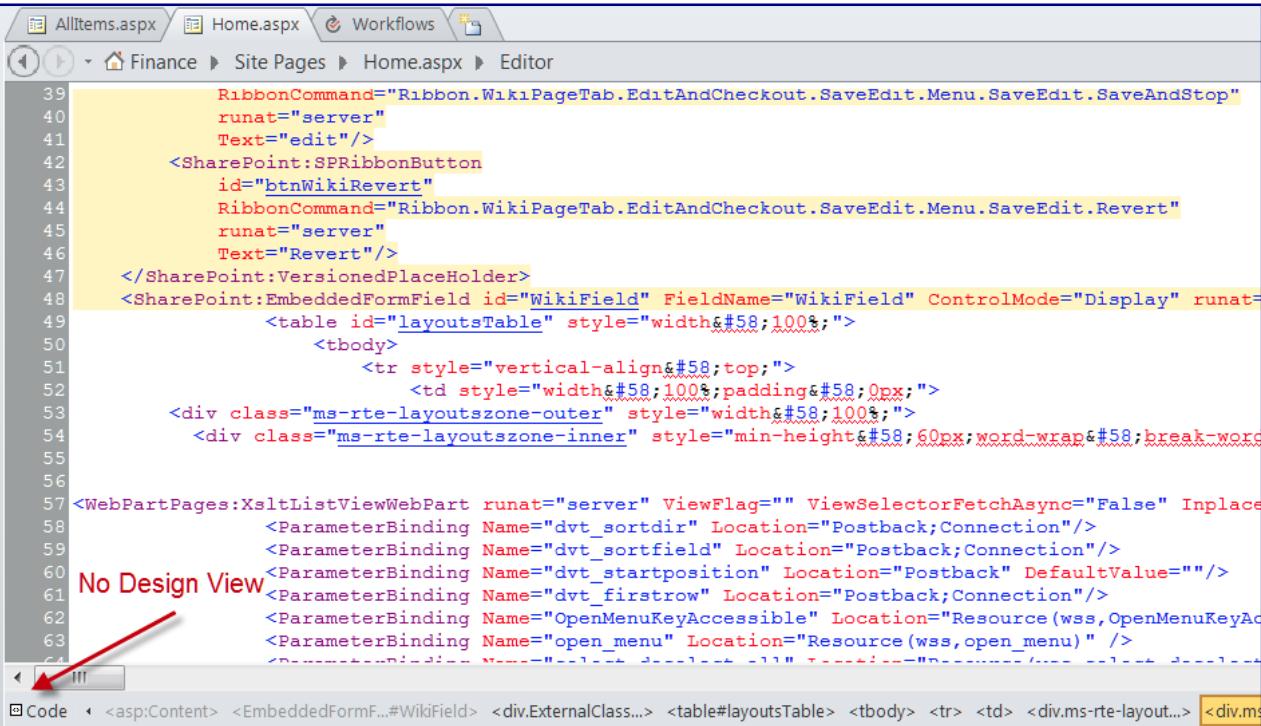
- Convert an HTML file to a SharePoint master page
- Create a minimal master page

Name	Status	Approval Status
default	Conversion successful.	Approved
oslo	Conversion successful.	Draft
seattle	Conversion successful.	Draft



New Look of SharePoint Designer 2013

- SharePoint Designer 2013 provides a significant departure from previous versions
- While it can still be used as an HTML editor, there is no WYSIWYG Design or Split view to allow you to preview your pages
- It is now strictly an HTML editor



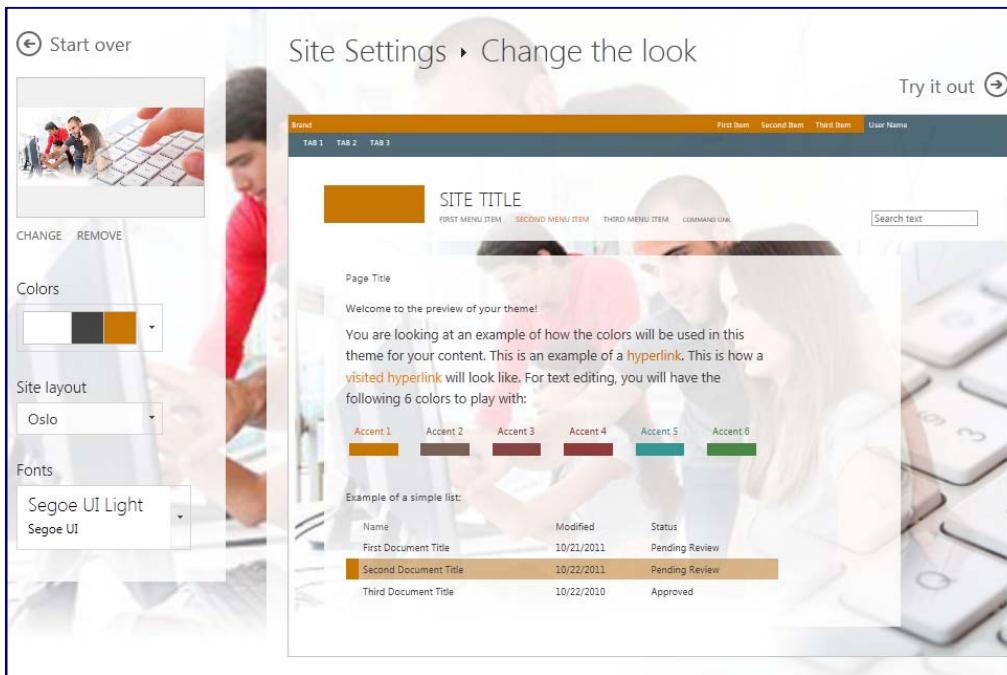
The screenshot shows the SharePoint Designer 2013 interface. The title bar indicates the current file is Home.aspx. The ribbon tabs include AllItems.aspx, Home.aspx, Workflows, and Editor. The main area is a code editor displaying ASPX code. A red arrow points to the bottom-left corner of the editor window, where the 'Design' button would typically be located. Overlaid on this area is the text 'No Design View'. The code editor shows several lines of ASPX code, including:

```
39     RibbonCommand="Ribbon.WikiPageTab.EditAndCheckout.SaveEdit.Menu.SaveEdit.SaveAndStop"
40     runat="server"
41     Text="edit"/>
42     <SharePoint:SPRibbonButton
43         id="btnWikiRevert"
44         RibbonCommand="Ribbon.WikiPageTab.EditAndCheckout.SaveEdit.Menu.SaveEdit.Revert"
45         runat="server"
46         Text="Revert"/>
47     </SharePoint:VersionedPlaceHolder>
48     <SharePoint:EmbeddedFormField id="WikiField" FieldName="WikiField" ControlMode="Display" runat="server">
49         <table id="layoutsTable" style="width:100%;">
50             <tbody>
51                 <tr style="vertical-align:top;">
52                     <td style="width:100%;padding:0px;">
53                         <div class="ms_rte-layoutszone-outer" style="width:100%;">
54                             <div class="ms_rte-layoutszone-inner" style="min-height:60px;word-wrap:break-word">
55
56
57         <WebPartPages:XsltListViewWebPart runat="server" ViewFlag="" ViewSelectorFetchAsync="False" InplaceEdit="true">
58             <ParameterBinding Name="dvt_sortdir" Location="Postback;Connection"/>
59             <ParameterBinding Name="dvt_sortfield" Location="Postback;Connection"/>
60             <ParameterBinding Name="dvt_startposition" Location="Postback" DefaultValue="" />
61             <ParameterBinding Name="dvt_firstrow" Location="Postback;Connection"/>
62             <ParameterBinding Name="OpenMenuKeyAccessible" Location="Resource(wss,OpenMenuKeyAccessible)" />
63             <ParameterBinding Name="open_menu" Location="Resource(wss,open_menu)" />
64         </WebPartPages:XsltListViewWebPart>
65     </td>
66 </tr>
67 </tbody>
68 </table>
```

The status bar at the bottom of the editor shows the current file path: AllItems.aspx > Home.aspx > Editor.



Powerful Browser Options for Low-Effort Branding



- **Composed Looks provides professional branding options for low-effort branding**
- **May be adequate in many cases for basic collaboration sites**
- **Settings | Site settings | Change the Look**
- **Multiple skins are available and can be customized**
- **New Composed Looks can be created and distributed**



AdaptaLearn™ Enabled

► This course is *AdaptaLearn Enabled*

- Web technology has allowed us to produce “dynamic documents”

► Steps and hints can be “folded” in and out to give increasing levels of detail, providing you with a tailored experience

- Suitable to your personal background and work style
- Answers to questions also can be folded and unfolded

► AdaptaLearn also provides:

- Simplified “copy and paste” of solution code
 - Decreases need to search through files on the course load
- Internet links to other helpful information
- Video playback for especially difficult actions
- Ability to use outside of class for continued reference and practice

► AdaptaLearn is easy to use

- For your convenience, a paper copy of the Exercise Manual is also provided
 - All detail levels are shown (hints and answers are unfolded)



► Let's try it now

1. Launch AdaptaLearn by double-clicking its icon on the desktop
2. Move the AdaptaLearn window to the side of your screen, or minimize it so it is a thin strip across the top or bottom
 - Leave room for a work area for your development tools
3. Select the first exercise from the exercise menu
4. Use `<Ctrl><mouse_wheel>` to change the font size as desired
5. If your screen is small or you want to maximize the AdaptaLearn window, use `<Alt><Tab>` to toggle back and forth
6. A folded area is introduced in blue text
 - Click the text to see how folds work
7. A copy-and-paste area is in a blue box
 - Hover over the box (but don't click on it) and press `<Ctrl><C>`
9.  **Web only:** Move to the `Page_Load` method and it becomes the game-saving logic; i.e., change all occurrences of `CardDeck` to `TehiGame`

Web only: The completed code should look like:

```
To copy to the clipboard, type Ctrl+C while highlighted
game = (TehiGame)Session["game"];
if (game == null)
{
    game = new TehiGame();
    Session["game"] = game;
}
```



Hands-On Exercise 1.1

*In your Exercise Manual, please refer to
Hands-On Exercise 1.1:
Examining Branding Options in SharePoint 2013*



- **Introduction to Branding**
- **SharePoint 2013 Content Management: New Features**
- **Branding Changes in SharePoint 2013**
- ➔ **Content Options in SharePoint 2013**
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SharePoint Pages

► SharePoint sites are made of a series of web pages

- Home page: main page for the site
- List and library pages: display the contents of lists and libraries
- List and library forms: display forms for adding content to lists and libraries
- Additional web pages can easily be added to a site

► SharePoint has two types of content pages

- Wiki pages
 - Allow WYSIWYG editing and easy placement/editing of page content
 - Can contain formatting areas, custom HTML, and Web Parts
- Web Part pages
 - Consist of Web Part zones, which contain Web Parts
 - The default page used for list and library pages
 - A more restricted page with defined Web Part page layouts

► In SharePoint 2007, only Web Part pages were available



Creating Pages

► Users with appropriate permissions can easily add new pages to the site

- Site Actions | New Page creates a new wiki page
- Site Actions | More Options | Filter By | Page allows two choices
 - (Wiki) Page
 - Web Part page

► All new pages are stored in Site Pages libraries

Site Contents › New Web Part Page ⓘ

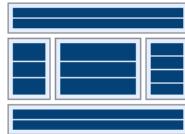
Name

Type a file name for your Web Part Page. The file name appears in headings and links throughout the site.

Name: .aspx Overwrite if file already exists?

Layout

Select a layout template to arrange Web Parts in zones on the page. Multiple Web Parts can be added to each zone. Specific zones allow Web Parts to be stacked in a horizontal or vertical direction, which is illustrated by differently colored Web Parts. If you do not add a Web Part to a zone, the zone collapses (unless it has a fixed width) and the other zones expand to fill unused space when you browse the Web Part Page.



Choose a Layout Template:

Header, Footer, 3 Columns
Full Page, Vertical
Header, Left Column, Body
Header, Right Column, Body
Header, Footer, 2 Columns, 4 Rows
Header, Footer, 4 Columns, Top Row
Left Column, Header, Footer, Top Row, 3 Columns
Right Column, Header, Footer, Top Row, 3 Columns

Save Location

Select the document library where you want the Web Part Page to be saved.

Document Library



Rich Content Options in SharePoint 2013

➤ SharePoint has tools for managing content easily in the browser

- Lists/list items

- Document libraries

- Pages

- Input forms

- Quick Edit

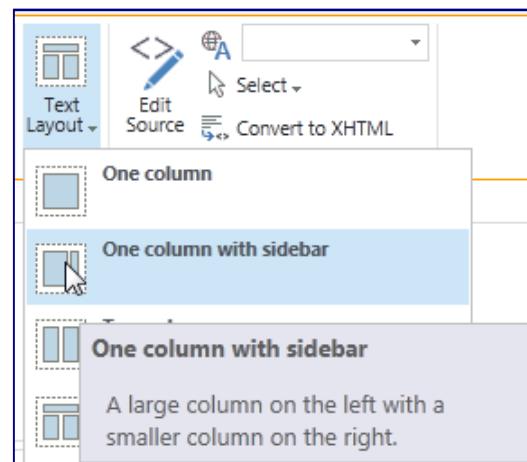
- Replaces
Datasheet view

➤ In SharePoint 2013, the ribbon provides the mechanism for interaction with all content

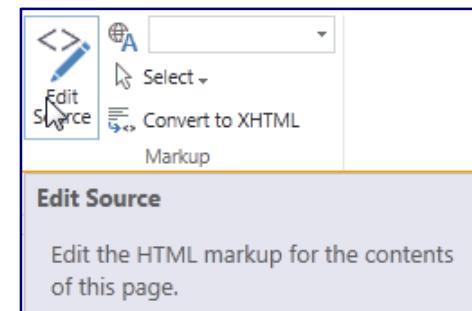
➤ Pages in SharePoint can be edited directly in the browser by users with appropriate permission



Apply formatting, including heading styles



Apply text layouts

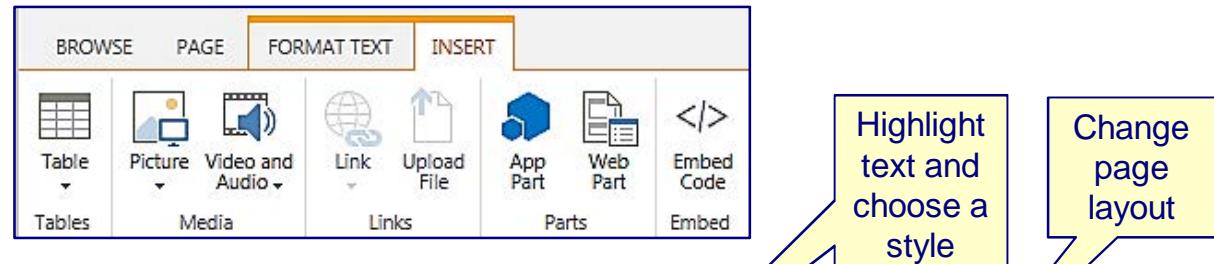


Directly edit HTML source



Wiki Pages

- Wiki pages are far more flexible, offering editing similar to Microsoft Office using the Format Text tab
- Different layouts can easily be chosen using the Text Layout drop-down
- The Insert tab allows you to insert components to a page
 - Tables
 - Media
 - Pictures
 - Videos
 - Audio
 - Links
 - App Parts
 - Web Parts



Adding Web Parts

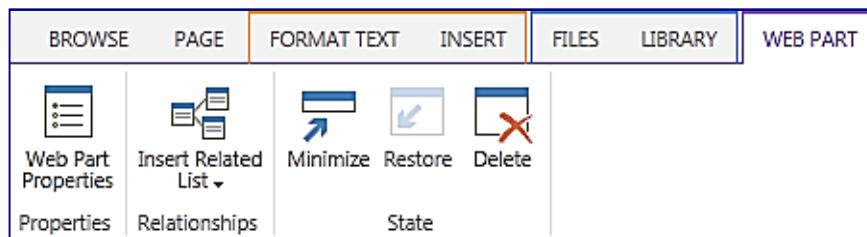
➤ Adding Web Parts

- In wiki pages, Web Parts can be added anywhere
- In Web Part pages, they must be added to a zone

➤ Web Parts can be customized via Properties windows

- Select Edit Web Part, or choose Web Part Properties
- Different properties exist for different Web Parts
- Common properties, such as Appearance, exist in all Web Parts

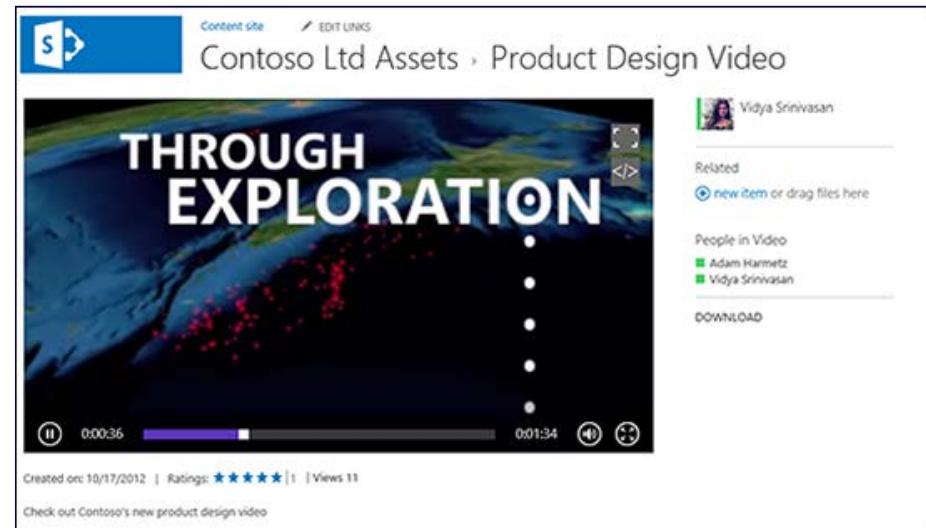
The screenshot shows the SharePoint ribbon with the 'INSERT' tab selected. Below the ribbon, a 'Recent' list includes 'Important Links', 'Personnel', 'Store Operations', 'English Cashier Policies', and 'Site Contents'. A 'Important Links' web part is displayed, showing a list item with a checkmark and a link. To the right, a context menu for the 'Important Links' web part is open, titled 'Important Links'. It contains sections for 'List Views', 'Selected View' (set to '<Current view>'), 'Edit the current view', 'Toolbar Type' (set to 'Full Toolbar'), and categories like 'Appearance', 'Layout', 'Advanced', 'AJAX Options', and 'Miscellaneous'. Buttons for 'OK', 'Cancel', and 'Apply' are at the bottom.



New Features: Better Code/More Rich Media Options

► Better video support

- Video libraries can host links to remote videos
- New video content type
 - Video upload process improved
 - Automatic thumbnail generation
- Insert iFrames into a page
 - Content Editor Web Part has additional options for inserting YouTube video and Google Maps content



► Semantically correct HTML

- Copy from Word and paste directly to Rich Text Editor, Content Editor Web Part, or HTML field controls
- Pasted markup displays in styles set by the designer



SharePoint 2013 Content: Image Renditions

► Image Renditions

- Original images stored in SharePoint
- Defined, multiple-scaled variants to be used throughout your sites
- Keep large source images and smaller variations on the server
- Improved page performance with faster downloads
- Only available for SharePoint 2013 publishing sites

Site Collection Images ⓘ

+ new item Thumbnails All Assets ... Find a file

Content Type Name Modified Modified By Length (second)

home	PR	Thor's Well, on the Oregon coast	JPG	673 KB	A few seconds ago
------	----	----------------------------------	-----	--------	-------------------

ThorsWell1920x12006-22-2011 2_52_47 PM.JPG

http://mavention/SiteCollectionImages/ThorsWell1920x12006-22-2011 2_52_47 PM.JPG

EDIT RENDITIONS SHARE DOWNLOAD

Edit Renditions: ThorsWell1920x12006-22-2011 2_52_47 PM.JPG

Display Template Picture 3 Lines
100 x 100
http://mavention/SiteCollectionImages/ThorsWell1920x12006-22-2011 2_52_47 PM.JPG?RenditionID=1

Click to change

Display Template Video
120 x 68
http://mavention/SiteCollectionImages/ThorsWell1920x12006-22-2011 2_52_47 PM.JPG?RenditionID=4

Click to change

Display Template Picture On Top
304 x 100
http://mavention/SiteCollectionImages/ThorsWell1920x12006-22-2011 2_52_47 PM.JPG?RenditionID=2

Click to change

Display Template Large Picture
468 x 220
http://mavention/SiteCollectionImages/ThorsWell1920x12006-22-2011 2_52_47 PM.JPG?RenditionID=3

Click to change



New Features: Device Channels

- Device channels offer options to create an optimized experience for readability and ease of use on smartphones and tablets
- Only available for SharePoint 2013 publishing sites
- Enable you to
 - Render certain site content
 - Style your content
 - Maintain the same URL across all devices
- Some common options:
 - Smaller width
 - Alternate navigation
 - Reduced information

Responsive Design
HTML5+CSS3
Media Query = detects the width of the "viewport"

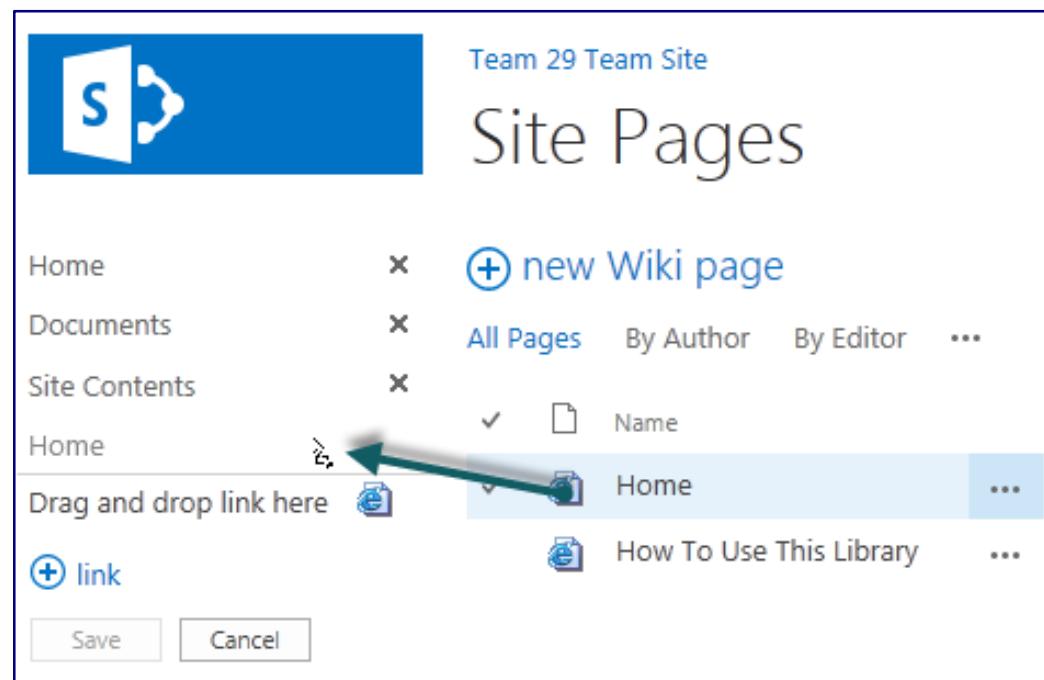


- Introduction to Branding
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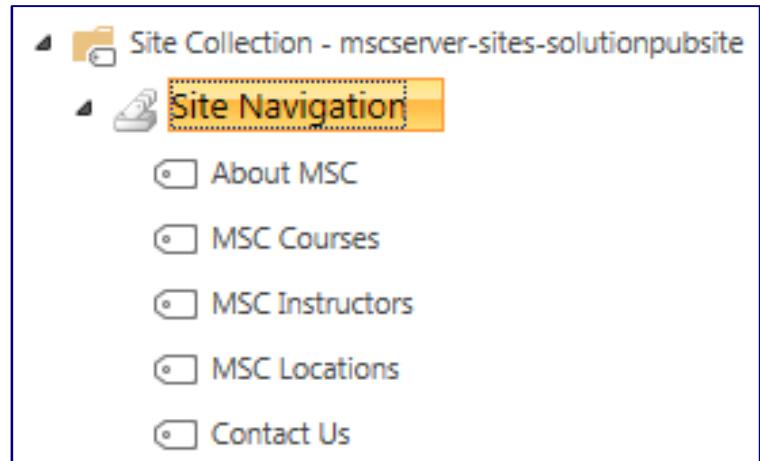
Drag-and-Drop Navigation

- SharePoint 2013 Top Link Bar and Quick Launch now have an Edit Links feature to easily modify navigation
- Users with appropriate permissions can edit navigation items more easily than using Settings | Site Settings | Navigation
- Edit Links allows links to be dragged and dropped into the navigation area
 - Any links can be used
 - Especially useful when dragging items from a Pages library



Managed Navigation

- In SharePoint 2013, Microsoft takes the concept of a taxonomy further to
 - Enable you to build navigation for a publishing site, derived from a SharePoint managed metadata taxonomy
 - Design site navigation around your own business concepts
- In SharePoint Server 2010, all publishing site URLs contained a reference to the Pages library and any folders within that library
 - Navigation was based only on the structure of a site
- Managed navigation offers navigation term sets
 - When new pages are created in a publishing site, new terms are added to the navigation term set
 - Can also be manually added by using the Term Store management tool



Friendly URLs

► **Friendly URLs are URLs that correspond to a term in the navigation term set**

- Offer improved search engine optimization for public-facing sites
- Provide an option for a shorter, more meaningful URL for a page

► **In our next exercise, we will use managed navigation to shorten a URL**

- Starting URL: `http://mscserver/sites/solutionpubsite/branding-and-customizing-sharepoint-2013-sites-hands-on`
- Ending URL: `http://mscserver/sites/solutionpubsite/msc-courses/1535`

Add a friendly URL to this page

Associated Term	Friendly URL
Branding and Customizing SharePoint 2013 Sites: Hands-On (Site Navigation) 1535 (Site Navigation)	http://mscserver/sites/solutionpubsite/branding-and-customizing-sharepoint-2013-sites-hands-on http://mscserver/sites/solutionpubsite/msc-courses/1535



Hands-On Exercise 1.2

*In your Exercise Manual, please refer to
Hands-On Exercise 1.2:
Working With Content and Navigation in SharePoint 2013*



Chapter Summary

In this chapter, we have

- Identified new SharePoint 2013 content management features
- Reviewed branding changes in SharePoint 2013
- Worked with SharePoint content
- Explored new branding options



Planning a SharePoint 2013 Design Concept

Balsamiq - tool to create wireframe



Chapter Objectives

In this chapter, we will

- Start the SharePoint design process
- Explore information architecture and taxonomy
- Identify branding technical requirements
- Create content wireframes



- ➔ **Starting the SharePoint Design Process**
 - **SharePoint Information Architecture**
 - **Branding Technical Requirements**
 - **Visual Design Tools**



Designing for SharePoint 2013

- SharePoint allows developers to use the HTML editor of their choice
- However, SharePoint includes many default controls and a lot of default content that need to be considered when planning for design
- Design requirements may dictate some changes to default content
 - Public-facing sites may have different navigation requirements from collaboration sites
- SharePoint can display on any device by leveraging device channels
 - How should my content be modified for
 - Different browsers?
 - Tablets?
 - Mobile phones?



SharePoint Interface Design Considerations

The screenshot shows the SharePoint interface with various UI elements highlighted by numbered callouts:

- 1. System Account dropdown in the top right.
- 2. SharePoint logo in the top right.
- 3. Newsfeed, SkyDrive, Sites, and Edit buttons in the top right.
- 4. Share, Follow, Sync, and Edit buttons in the top right.
- 5. BROWSE and PAGE buttons in the top left.
- 6. Solution Team Site title and EDIT LINKS button.
- 7. SharePoint logo in the top left.
- 8. Solution Team Site title again.
- 9. Home, Documents, Site Contents buttons in the left navigation.
- 10. EDIT LINKS button in the left navigation.
- 11. Search bar in the top right.
- 12. SharePoint logo in the bottom left of the main content area.

The main content area displays the "Solution Team Site" page with the following sections:

- Get started with your site: A row of five icons: circular arrow, checklist, house, palette, and image.
- SharePoint news feed: A card with the SharePoint logo, "miracle systems", "sharepoint training experts", and "Solution Team Site".
- Newsfeed: A section with a "Start a conversation" input field.
- Documents: A section with a "+ new document or drag files here" button, a "Name" input field, and a message stating "There are no documents in this view."



SharePoint Interface Design Considerations

➤ SharePoint Default Content

Content	Description
1. Settings “gear”	Menu for managing the SharePoint site, typically displaying for owners/administrators/contributors/designers
2. Current user	Displays user name currently logged in to SharePoint
3. Suite links	Links to NewsFeed, SkyDrive, and Sites (predefined)
4. Promoted actions	A sharing menu with options to Share, Follow, and Sync
5. Ribbon	Contextual feature for working with lists, libraries, pages, etc. Allows quick access to WYSIWYG editing options when editing a page
6. Top navigation	Main global navigation with a number of new features around taxonomy, editable in Settings
7. Site logo	A 180 x 64 pixel image (by default)



SharePoint Interface Design Considerations

➤ SharePoint Default Content

Content	Description
8. Site title	Title of the site, editable in Settings
9. Quick launch	Left navigation, similar to previous versions
10. Edit Links	Quick editing mode for navigation
11. Site search	Search control for this site
12. Getting started tiles	Shortcuts to common actions in default SharePoint sites

- Default SharePoint content can be
 - Modified in Settings
 - Visually modified with CSS and JavaScript
 - Removed entirely with CSS and JavaScript



- Starting the SharePoint Design Process
- **SharePoint Information Architecture**
- Branding Technical Requirements
- Visual Design Tools



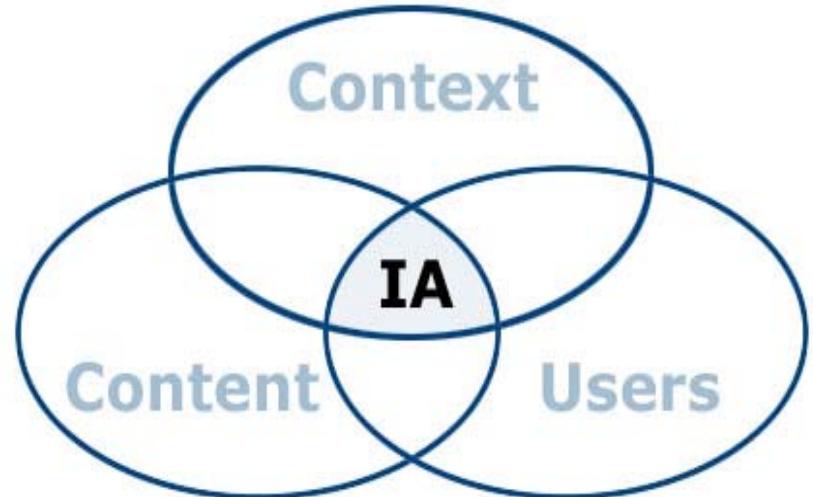
Information Architecture Basics

- **The Information Architecture (IA) of your SharePoint site serves as the foundation that you build upon**
 - Provides a way to organize your information
 - Makes it easy for people to find the information they need
- **Information architecture is a component of governance**
 - Generally beyond the scope of this course
 - Dictates how content flows across the organization
- **When properly implemented, brings significant benefits**
 - Guarantees central access to important information on your site
 - Reduces duplicate content
 - Allows sharing across the entire organization
 - Provides a mechanism for community-driven content
 - Fosters collaboration



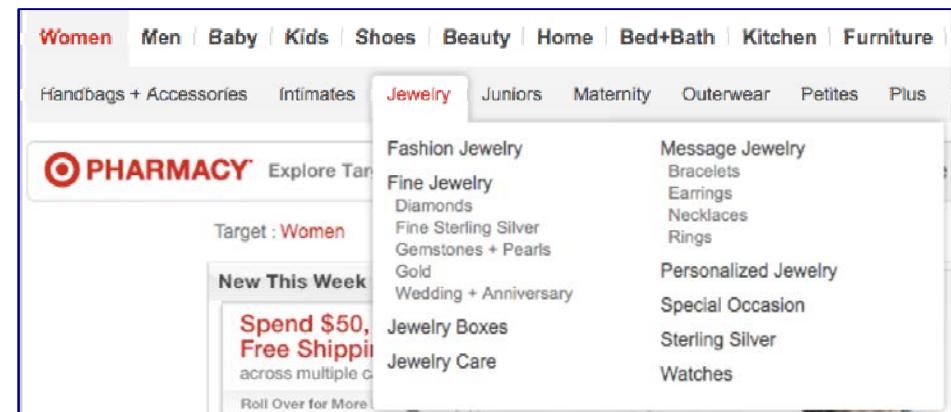
Components of Information Architecture

- Key stakeholders are involved in the process of developing an information architecture plan
 - Information architect
 - May be you!
 - Compliance managers
 - Content owners
 - Content consumers
- In SharePoint, an information architecture plan will affect
 - Site and site collection structure
 - Content type definitions
 - Taxonomy
 - Search

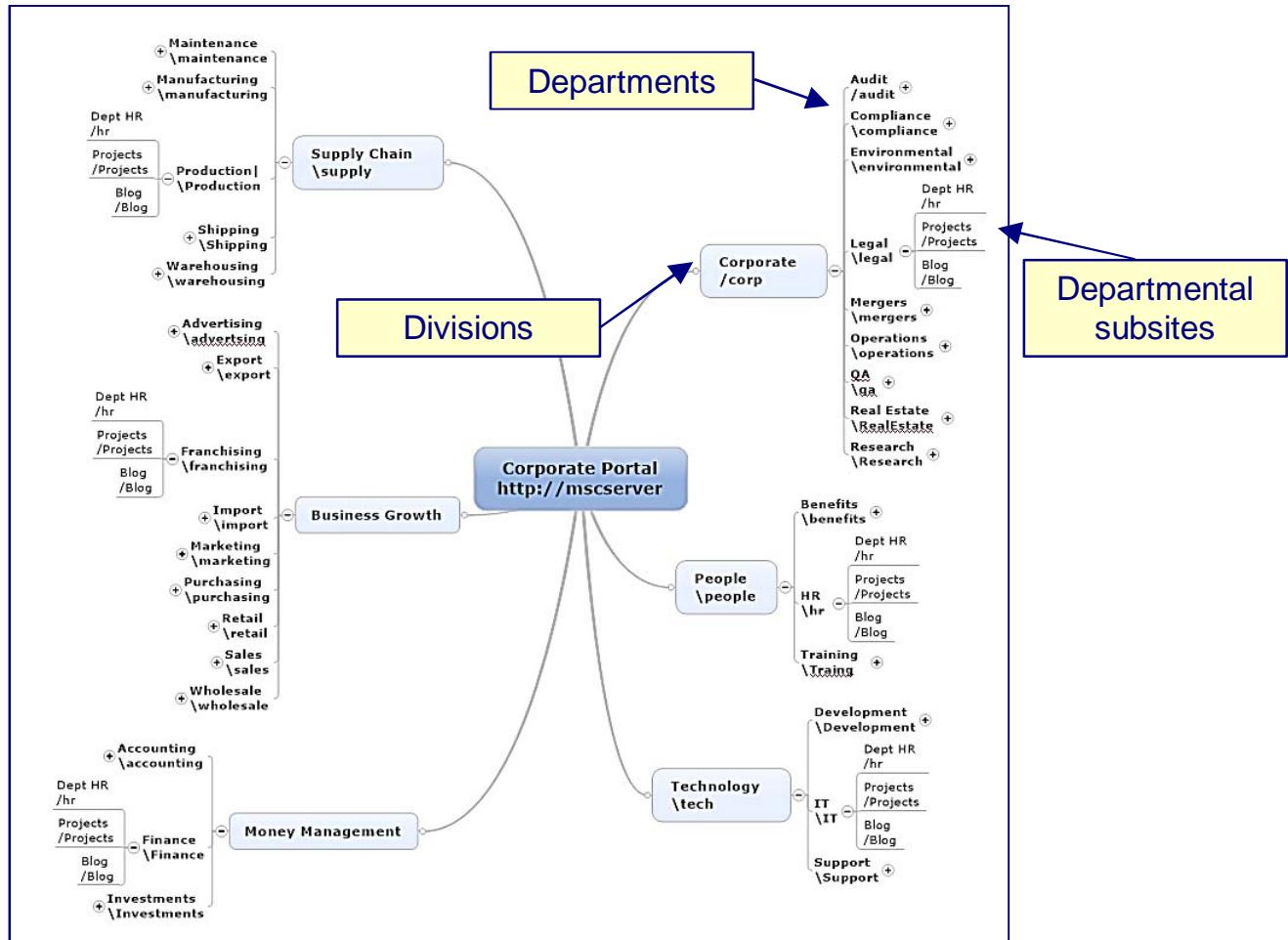


I Thought This Was a Branding Course?

- While we don't need to dive too deeply into this subject, it is worth discussion for one reason
 - *Taxonomy*
- In SharePoint 2010, the structure of your site dictated your navigation
- In SharePoint 2013, a taxonomy can drive your navigation
- Proper navigation to key resources is critical to the success of your site
 - Information architecture should be part of your branding plan
 - Considering the impact of navigation is critical
 - In a large SharePoint environment, sharing content across multiple sites will likely be necessary



MSC Information Architecture

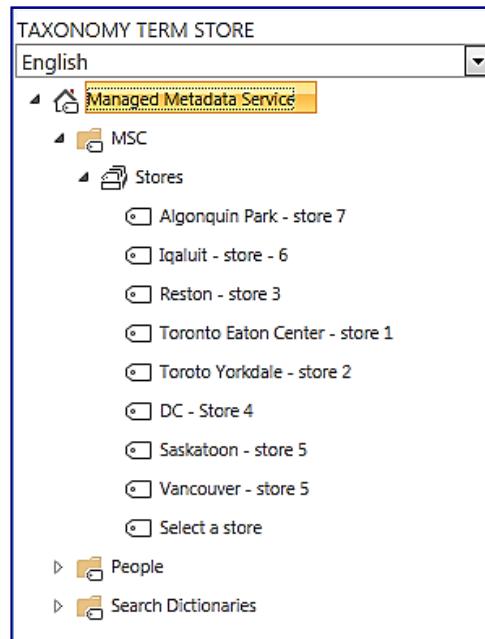
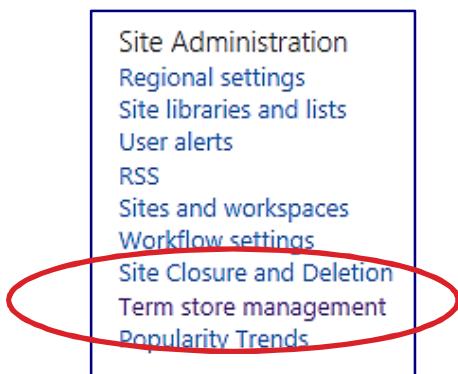


MSC = Miracle Systems Company, used as a case study in this course



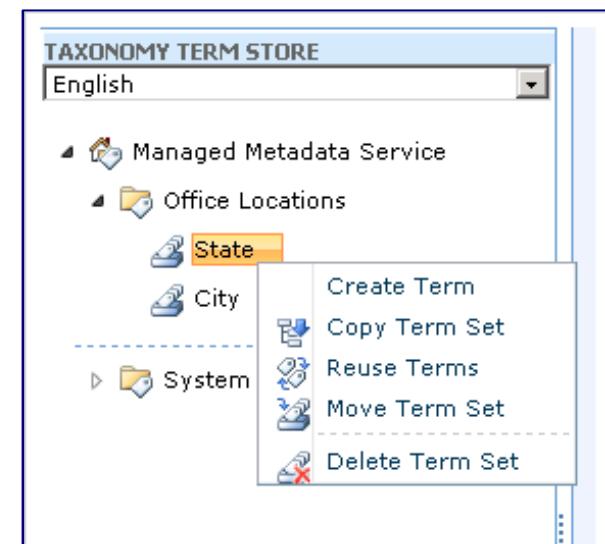
Managed Metadata Service

- Available in SharePoint 2010 and relatively unchanged in SharePoint 2013
- Allows companywide terms to be created and managed centrally in SharePoint
- Terms can be used across site collections and across the farm



Taxonomies

- **Enterprise Content Management (ECM) is the methodology for capturing, storing, and securing content**
- **A taxonomy is the logical organization of content in an ECM system, such as SharePoint**
- **In SharePoint 2010, Microsoft introduced managed metadata, a feature that provides support for:**
 - Content type publishing
 - The sharing of content types across site collections and web applications
 - Taxonomies
 - The creation and management of term sets that can be used as attributes for items in SharePoint sites



Term Set

► A set of terms

- Like a lookup list

SEARCH

TAXONOMY TERM STORE
English

- Managed Metadata Service
 - MSC
 - Stores
 - People
 - Search Dictionaries
 - Solution
- System

GENERAL INTENDED USE CUSTOM SORT CUSTOM PROPERTIES

Stores

Term Set Name
Type a new name for this term set as you want it to appear in the hierarchy.

Description
Type descriptive text to help users understand the intended use of this term set.

Owner
Identify the primary user or group of this term set.
  

Contact
Type an e-mail address for term suggestion and feedback. If this field is left blank, the suggestion feature will be disabled.

Stakeholders
This information is used to track people and groups in the organization that should be notified before major changes are made to the term set. You can enter multiple users or groups.

Submission Policy
When a term set is closed, only metadata managers can add terms to this term set. When it is open, users can add terms from a tagging application.
 Closed Open

Owner

Closed: corporate terms

Open: Folksonomy user can add colloquial terms



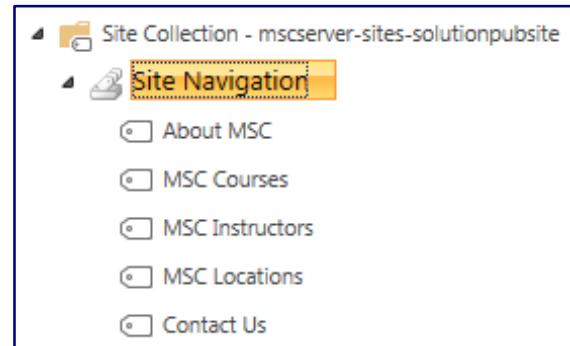
folksonomy = classifications based on users collaboratively creating tags to annotate and categorize content



A Look at Managed Navigation

- Managed navigation is a new concept in SharePoint 2013
- Allows for a navigation term set to specifically drive navigation

- Each term in the navigation term set can correspond to a page to display
- Appearance can be customized to determine number of levels of navigation
- Adding CSS and JavaScript gives designers significant control



The screenshot shows the homepage of the Miracle Systems Intranet. The header features the "miracle systems" logo with the tagline "sharepoint training experts" and the text "Miracle Systems Intranet". The main menu bar includes links for "About MSC", "Books", "Contact Us", "Media", "MSC Courses", "MSC Instructors", and "MSC Locations".



Friendly URLs

- **Friendly URLs correspond to a term in the navigation term set**
 - Provide an option for a shorter, more meaningful URL for a page
 - Offer improved search engine optimization for public-facing sites
- **To create a friendly URL, we will modify the Term Store definition for the page we added**
 1. Click Site Settings
 2. Click Navigation
 3. Click Navigation Settings | Term Store Management
 4. Select the Page for which you wish to change the URL
 5. Click Term-Driven Pages
 6. Select the Customize option, update the term for the page, and click Save
 7. Visit the page to confirm your friendly URL



Term Store Management Tool: Term-Driven Pages

- When selecting a term derived from Site Navigation, the Term-Driven Pages tab allows you to set navigation attributes

The screenshot shows the 'TERM-DRIVEN PAGES' tab selected in the top navigation bar of a web-based application. Below the tab, the term ID '1535' is displayed in bold. A section titled 'Configure Friendly URL for this term' contains the instruction 'This term defines a friendly URL:' followed by a text input field containing the URL '/msc-courses/1535'. A small square icon is positioned to the right of the input field.



Hands-On Exercise 2.1

*In your Exercise Manual, please refer to
Hands-On Exercise 2.1: SharePoint Navigation*



- Starting the SharePoint Design Process
- SharePoint Information Architecture
- ➔ **Branding Technical Requirements**
- Visual Design Tools



Interface Design Considerations: Publishing Site Templates

- Publishing site templates are often used for public-facing sites
- Provide many advanced features not available in collaboration templates
 - Managed navigation
 - Cross-site publishing
 - Page layouts
 - Design Manager
 - Device channels



The screenshot shows a SharePoint 2013 ribbon interface with the title "Untitled [1]" at the top. Below the ribbon, there are four course tiles displayed in a grid. Each tile includes a thumbnail image, a title, and a brief description.

- Branding and Customizing SharePoint® 2013 Sites: Hands-On**
This course provides extensive hands-on experience creating, customizing, and branding SharePoint sites with the Design Manager and other tools.
- Building No-Code Solutions for SharePoint® 2013 Enterprise Edition: Hands-On**
In this course, participants extend their knowledge and skills to maximize SharePoint to design, plan and implement enterprise solutions without the need to write application-level code.
- Hands-On SharePoint® Designer 2013: Building Workflows and Data-Driven Solutions**
In this course, participants gain the knowledge and skills to automate complex business processes with workflows and integrate external data sources without the need to write application-level code.
- SharePoint® 2013 Technologies: A Comprehensive Hands-On Introduction**
This course provides a comprehensive introduction to SharePoint 2013 for the management, aggregation and centralization of enterprise content.



SharePoint Publishing Sites: Even More Features

- Publishing site templates include additional features that can assist with page editing in a large environment
 - More robust page editing
 - Availability of page layouts
 - Content scheduling
 - Audience targeting
 - Content reuse
- Generally offer more options to provide a more fluid editing experience

The screenshot shows a SharePoint 2013 publishing page editor interface. At the top, a yellow banner displays a warning icon and the message "Checked out to you Only you can see your recent changes. [Check it in.](#)". Below the banner, the page title is "Branding and Customizing SharePoint 2013 Sites: Hands-On". The editor is divided into several sections:

- Page Image:** A placeholder with the text "Click here to insert a picture from SharePoint." and a cursor icon pointing at the text.
- Image Caption:** A placeholder with the text "Click here to add new content".
- Article Date:** A date input field with a calendar icon.
- Page Content:** A rich text editor area containing the text "Branding and Customizing ShareP... This course provides extensive h... sites by applying Cascading Style Sheets (CSS) within SharePoint site structure, im...".



Browser Considerations

- SharePoint 2013 adheres to Web Content Accessibility Guidelines (WCAG)
- Additionally, SharePoint 2013 offers broad browser and device support

Browser	Support	Market Share (May 2013)
Internet Explorer 10	Fully supported	12.7%
Internet Explorer 9	Fully supported	
Internet Explorer 8	Fully supported	
Internet Explorer 7	Not supported	
Internet Explorer 6	Not supported	
Google Chrome (latest version)	Fully supported	52.7%
Mozilla Firefox (latest version)	Fully supported	27.9%
Apple Safari (latest version)	Fully supported	4.0%
Windows Phone 7.5+	Fully supported	Limited viewing and editing functionality is supported on iPad versions 1, 2, 3 using iOS version 5.1.
Apple iOS 5.0	Supported with limitations	
Apple iOS 6.0	Fully supported	
Android 4.0+	Fully supported	

Source: Microsoft SharePoint. "Plan Browser Support in SharePoint 2013." technet.microsoft.com/en-us/library/cc263526.aspx.

Source: w3schools. "Browser Statistics and Trends." www.w3schools.com/browsers/browsers_stats.asp.



- Starting the SharePoint Design Process
- SharePoint Information Architecture
- Branding Technical Requirements
- ➔ Visual Design Tools



Content Wireframes

► **Wireframes are simple skeletal frameworks or blueprints of a page**

- Help with considerations of page usability and content flow
- Omit colors, graphics, and type treatments to focus on content

► **Wireframes allow the designer to focus on**

- Information display
- Functionality available at an individual page level
- Different iterations of content display
- Demonstrations of content walkthroughs
- Effectiveness of navigation

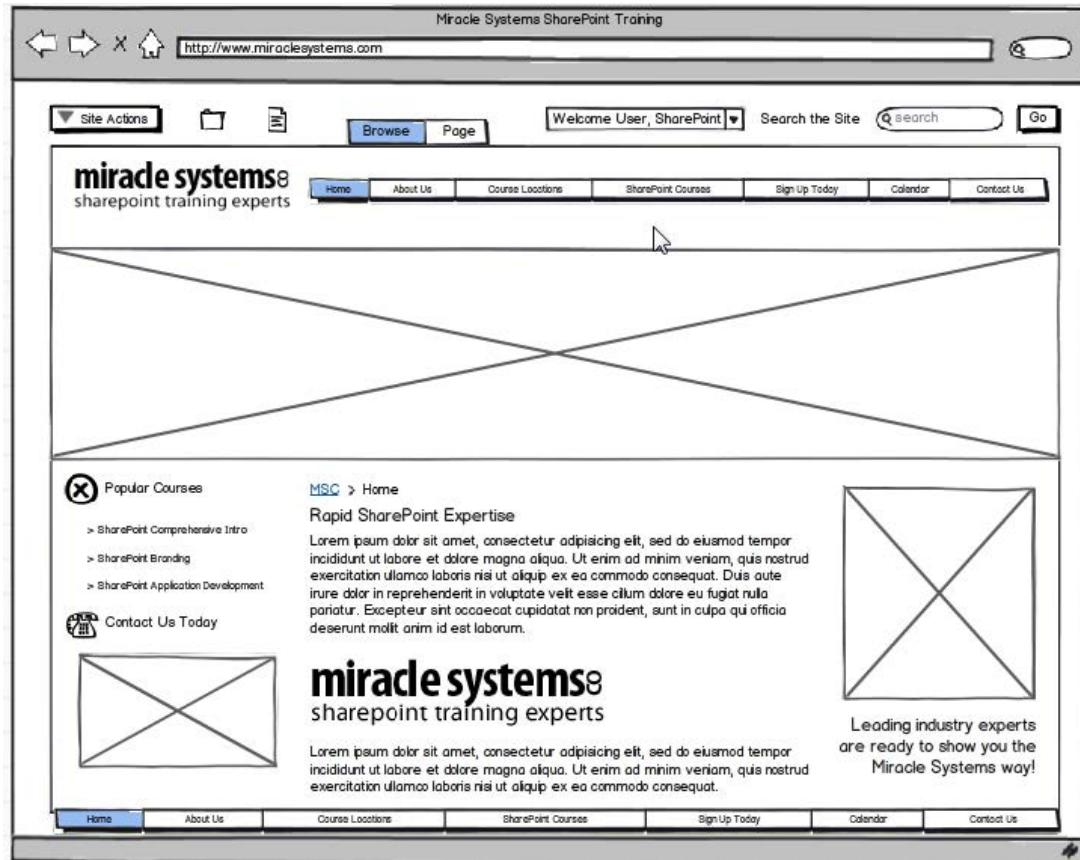
► **Wireframes focus stakeholders on layout and page flow independent of design**



Wireframe Tools

► Several tools exist for creating site wireframe concepts

- Microsoft Office Visio
- Adobe Illustrator
- Balsamiq Mockups
- Omnigraffle (Mac and iPad only)



SharePoint Wireframe Mockup in Balsamiq: Exercise 2.1

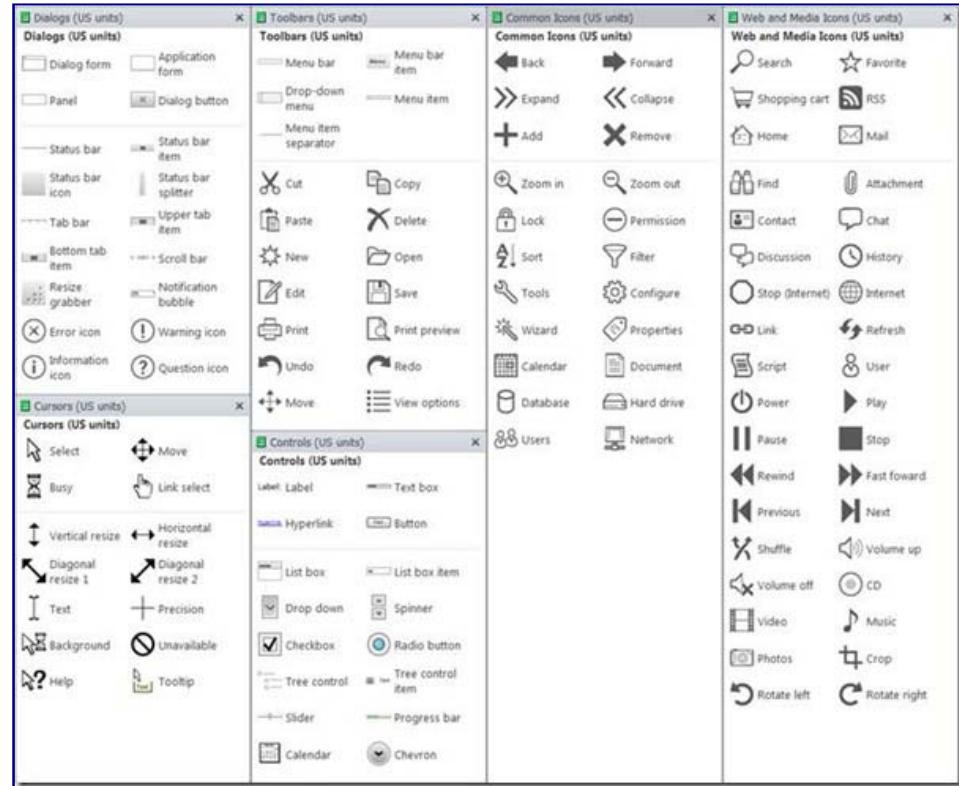


Visio 2013 for Wireframes

► Microsoft Office Visio has long been used by designers for software mockups

- Websites
- Enterprise applications
- Mobile websites

► Wireframe templates and wireframe shapes assist with creating wireframe concepts



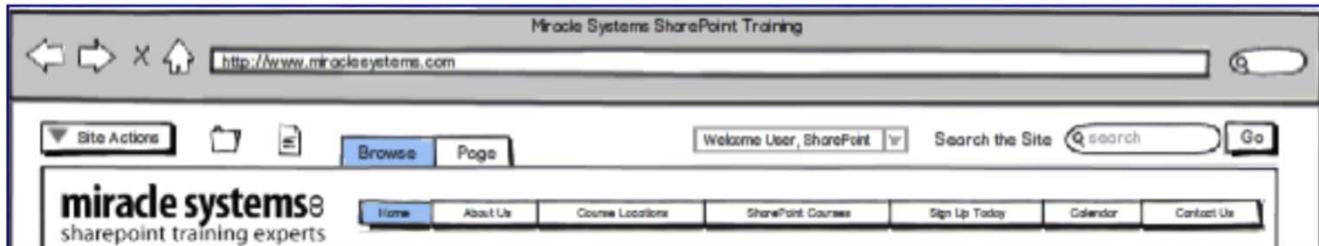
Visio Wireframe Shapes



Balsamiq for Wireframes

► **Balsamiq Mockups is a relatively new tool for producing wireframe mockups for any user interface design project**

- Feels like drawing
- Allows easy adjustment and rearrangement of content



► **Balsamiq features**

- Low-fi sketch wireframes allow you to focus on functionality
- 75 built-in user interface components
- 187 icons, plus community-generated components
- Click-through prototypes
- Interactivity for demos and usability testing
- Export to PNG or PDF

www.balsamiq.com

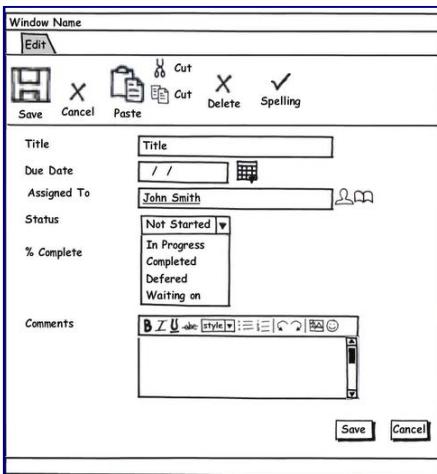
PNG = Portable Network Graphic

PDF = Portable Document Format

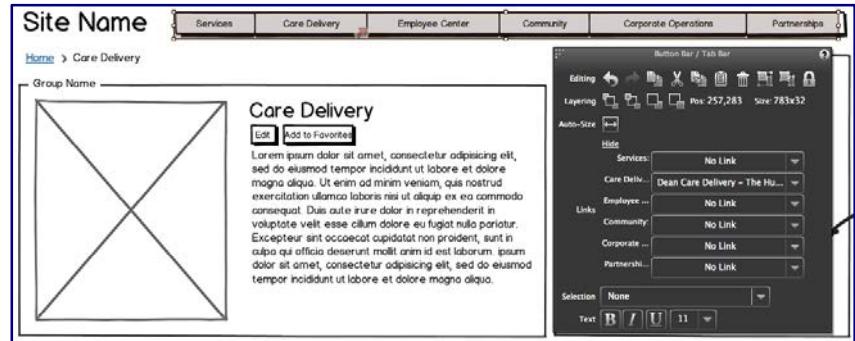


Balsamiq UI Components

- Balsamiq allows simple insertion of UI objects (from a categorized UI library) by dragging and dropping to a wireframe page
- Once a UI component is added to the page, properties can be configured



UI = user interface



- Balsamiq doesn't include UI components specific to SharePoint, but the design process is intuitive



Balsamiq and Preparing for Device Channels

► Balsamiq can also prove beneficial for other devices

- Content size and proportion
- Content placement
- Alternate content needs
 - Images
 - Text



Creating Visual Mockups in a Graphical Editor

- After wireframes are established, the overall graphic identity of the site needs to be finalized
- A variety of tools to create a visual concept mockup
 - Adobe Photoshop
 - Adobe Fireworks
 - Adobe Illustrator
- Allows the design to be finalized
- Allows a graphic designer to focus on
 - Fonts
 - Colors
 - Placement of containers
 - Visual mockup of navigation
 - Image requirements



By building designs independent of HTML/CSS, changes to the design concept can be made quickly



Converting Design Mockup to HTML/CSS

- After a design is finalized, the structural formatting of the page must be defined
- A web designer may use a number of tools to produce HTML
 - Adobe Dreamweaver
 - Microsoft Expression Web
 - Microsoft SharePoint Designer 2013
- By producing HTML/CSS independent of the SharePoint environment, the designer can focus on achieving clean HTML
 - Design Manager facilitates making the code SharePoint-ready

<!DOCTYPE HTML PUBLIC
<html>
<head>
<meta name="TITLE">
<meta name="KEYWORD">
<meta name="DESCRIPTION">
<link rel="stylesheet" type="text/css" href="style.css" />
<script language="JavaScript" type="text/javascript" src="script.js" />
</head>
<body bgcolor="#FFFFFF" leftmargin="0" topmargin="0" marginwidth="0" marginheight="0" style="font-family: Arial, Helvetica, sans-serif; font-size: 10pt; color: black; text-align: center; background-color: #FFFFFF; background-image: none; background-repeat: no-repeat; background-position: center; background-size: 100% 100%;>



Hands-On Exercise 2.2

*In your Exercise Manual, please refer to
Hands-On Exercise 2.2: Balsamiq Wireframes*



Chapter Summary

In this chapter, we have

- Started the SharePoint design process
- Explored information architecture and taxonomy
- Identified branding technical requirements
- Created content wireframes



SharePoint 2013 WYSIWYG Design: A New Landscape



Chapter Objectives

In this chapter, we will

- Identify the changing role of SharePoint Designer 2013
- Work with sites and pages in SharePoint Designer 2013
- Understand the need for additional WYSIWYG tools in SharePoint 2013
- Use Dreamweaver CS6 to build custom HTML



seattle.html - if you edit this file in DW, designer will modify the master file to keep in sync.

seattle.master

→ **An Introduction to SharePoint Designer 2013**

- **Page Editing in SharePoint Designer 2013**
- **An Introduction to Dreamweaver CS6**
- **Creating and Editing New Pages in Dreamweaver**



Microsoft SharePoint Designer 2013

➤ **SharePoint Designer is a free tool that allows users to design and compose “no-code” solutions**

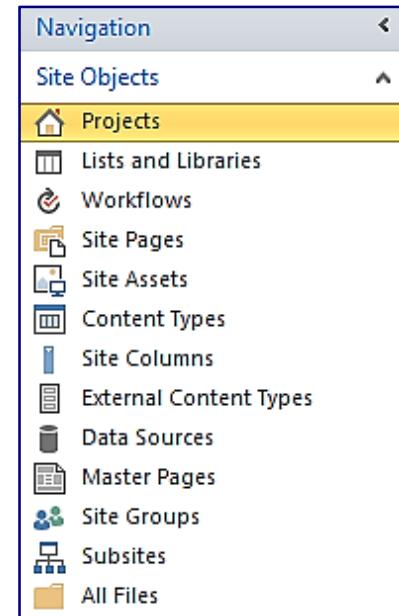
- Customize pages and page layouts
- Create and customize lists and libraries
- Incorporate custom structural formatting code
- Incorporate data from a wide variety of sources using Business Connectivity Services
- Create robust, custom “no-code” workflows
- Import workflows from Visio 2010 or Visio 2013
- Manage user permissions
- Manage content types and site columns

➤ **This section will provide a high-level overview of SharePoint Designer 2013 as it pertains to branding**



Microsoft SharePoint Designer Functionality

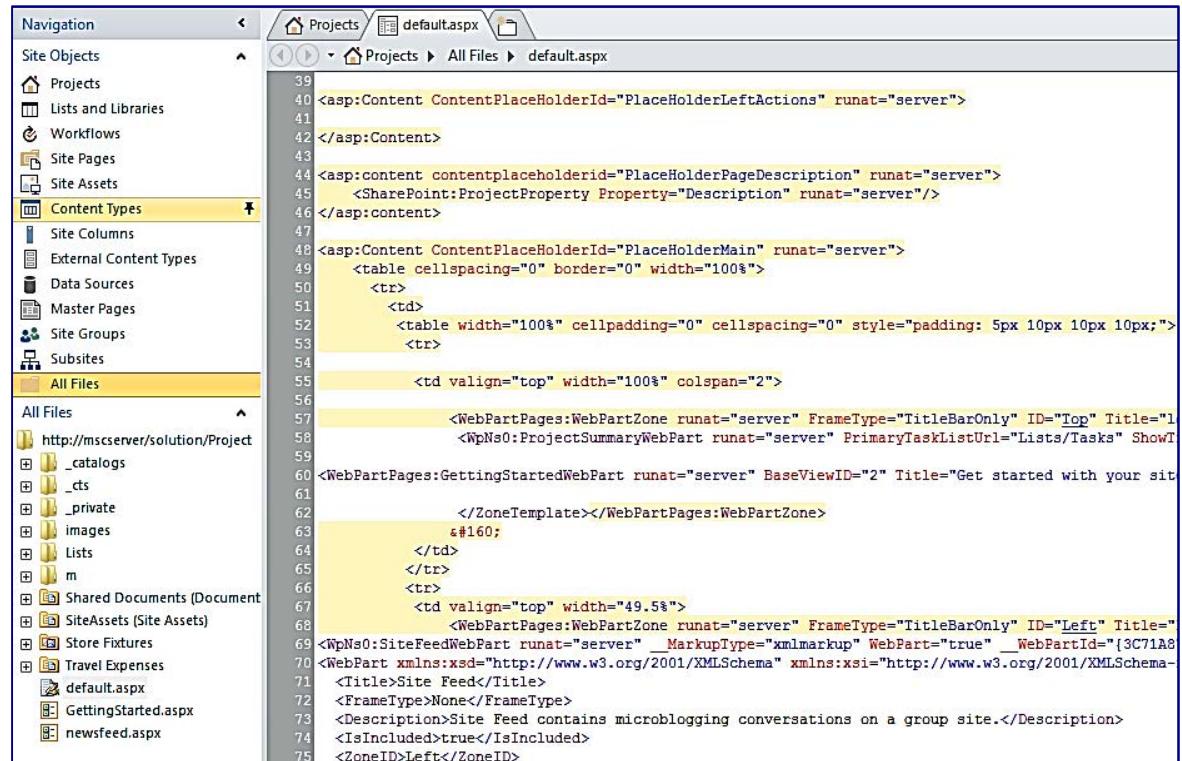
- SharePoint Designer provides many duplicate functions available in the web browser
 - Create sites
 - Create lists
 - Content type
 - Security
- However, it allows you to go further in customization and development with SharePoint sites
 - Connect to custom data sources
 - Create custom human workflows
 - Customize master pages
 - Custom page editing



Accessing SharePoint Code

- Once a site is opened in SharePoint Designer, you have access to structural formatting code

- Allows for advanced editing options with direct access to code
 - XML
 - HTML
 - JavaScript
 - jQuery



The screenshot shows the SharePoint Designer interface. On the left, the 'Navigation' pane lists 'Site Objects' such as Projects, Lists and Libraries, Workflows, Site Pages, Site Assets, Content Types, Site Columns, External Content Types, Data Sources, Master Pages, Site Groups, Subsites, and All Files. The 'Content Types' item is currently selected. The main area displays the source code for 'default.aspx'. The code includes ASP.NET controls like `<asp:Content>`, `<asp:ContentPlaceHolder>`, and `<asp:Table>`. It also includes SharePoint-specific controls like `<WebPartPages:WebPartZone>` and `<WebPartPages:ProjectSummaryWebPart>`. The code is color-coded to highlight XML elements (e.g., `<td>`) and attributes.

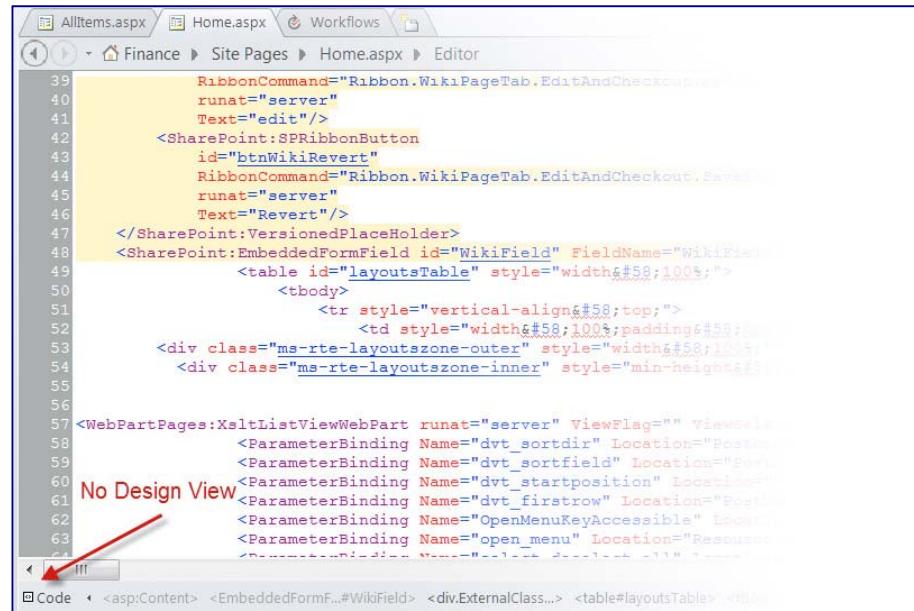
```
39 <asp:Content ContentPlaceHolderId="PlaceHolderLeftActions" runat="server">
40   </asp:Content>
41
42 <asp:content contentplaceholderid="PlaceHolderPageDescription" runat="server">
43   <SharePoint:ProjectProperty Property="Description" runat="server"/>
44 </asp:content>
45
46 <asp:Content ContentPlaceHolderId="PlaceHolderMain" runat="server">
47   <table cellspacing="0" border="0" width="100%">
48     <tr>
49       <td width="100%" cellpadding="0" cellspacing="0" style="padding: 5px 10px 10px 10px;">
50         <tr>
51           <td valign="top" width="100%" colspan="2">
52             <WebPartPages:WebPartZone runat="server" FrameType="TitleBarOnly" ID="Top" Title="1<#160;>
53               <NpNs0:ProjectSummaryWebPart runat="server" PrimaryTaskListUrl="Lists/Tasks" ShowT
54             </WebPartPages:WebPartZone>
55           </td>
56         </tr>
57       </td>
58     </tr>
59   </table>
60 <WebPartPages:GettingStartedWebPart runat="server" BaseViewID="2" Title="Get started with your sit
61
62     </ZoneTemplate></WebPartPages:WebPartZone>
63     &#160;
64   </td>
65 </tr>
66 <tr>
67   <td valign="top" width="49.5%">
68     <WebPartPages:WebPartZone runat="server" FrameType="TitleBarOnly" ID="Left" Title="2<#160;>
69     <NpNs0:SiteFeedWebPart runat="server" __MarkupType="xmlmarkup" WebPart="true" __WebPartId="{3C71A8
70     <WebPart xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
71       <Title>Site Feed</Title>
72       <FrameType>None</FrameType>
73       <Description>Site Feed contains microblogging conversations on a group site.</Description>
74       <IsIncluded>true</IsIncluded>
75     <ZoneID>Left</ZoneID>
```

XML = Extensible Markup Language



SharePoint Designer 2013: No Design View for You!

- A major departure from SharePoint Designer 2010 is that SharePoint Designer 2013 contains only one view
 - Code
- Many designers will be surprised to find two previous views missing
 - Split
 - Design
- SharePoint 2013 is now designed to support web standards
 - JSON
- Microsoft now believes designers should be able to use the WYSIWYG tool of their own choosing



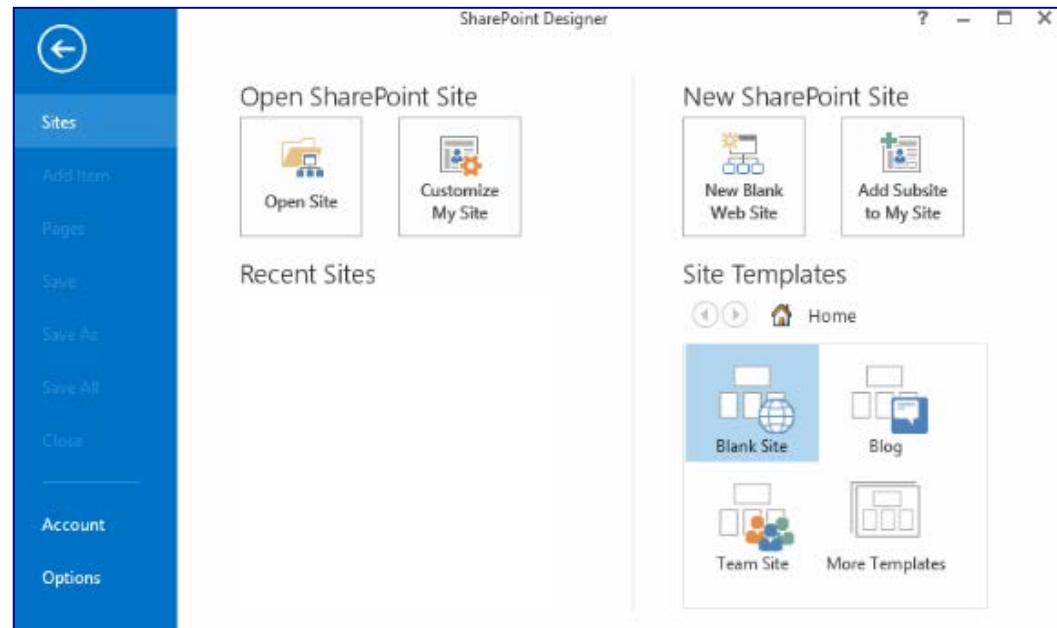
```
AllItems.aspx Home.aspx Workflows
Finance Site Pages Home.aspx Editor
39     RibbonCommand="Ribbon.WikiPageTab.EditAndCheckout">
40     runat="server"
41     Text="edit"/>
42     <SharePoint:SPRibbonButton
43         id="btnWikiRevert"
44         RibbonCommand="Ribbon.WikiPageTab.EditAndCheckout.Revert"
45         runat="server"
46         Text="Revert"/>
47     </SharePoint:VersionedPlaceHolder>
48     <SharePoint:EmbeddedFormField id="WikiField" FieldName="WikiField">
49         <table id="layoutsTable" style="width:58;100%;">
50             <tbody>
51                 <tr style="vertical-align:top;">
52                     <td style="width:58;100%;padding:5px;">
53                         <div class="ms-rte-layoutszone-outer" style="width:58;100%;">
54                             <div class="ms-rte-layoutszone-inner" style="min-height:100px;">
55
56
57                         <WebPartPages:XsltListViewWebPart runat="server" ViewFlag="" ViewSetID="1">
58                             <ParameterBinding Name="dvt_sortdir" Location="PostItem" />
59                             <ParameterBinding Name="dvt_sortfield" Location="PostItem" />
60                             <ParameterBinding Name="dvt_startposition" Location="PostItem" />
61                             <ParameterBinding Name="dvt_firstrow" Location="PostItem" />
62                             <ParameterBinding Name="OpenMenuKeyAccessible" Location="Resource" />
63                             <ParameterBinding Name="open_menu" Location="Resource" />
64                         </WebPartPages:XsltListViewWebPart>
65                     </div>
66                 </tr>
67             </tbody>
68         </table>
69     </SharePoint:EmbeddedFormField>
70 
```

JSON = JavaScript Object Notation



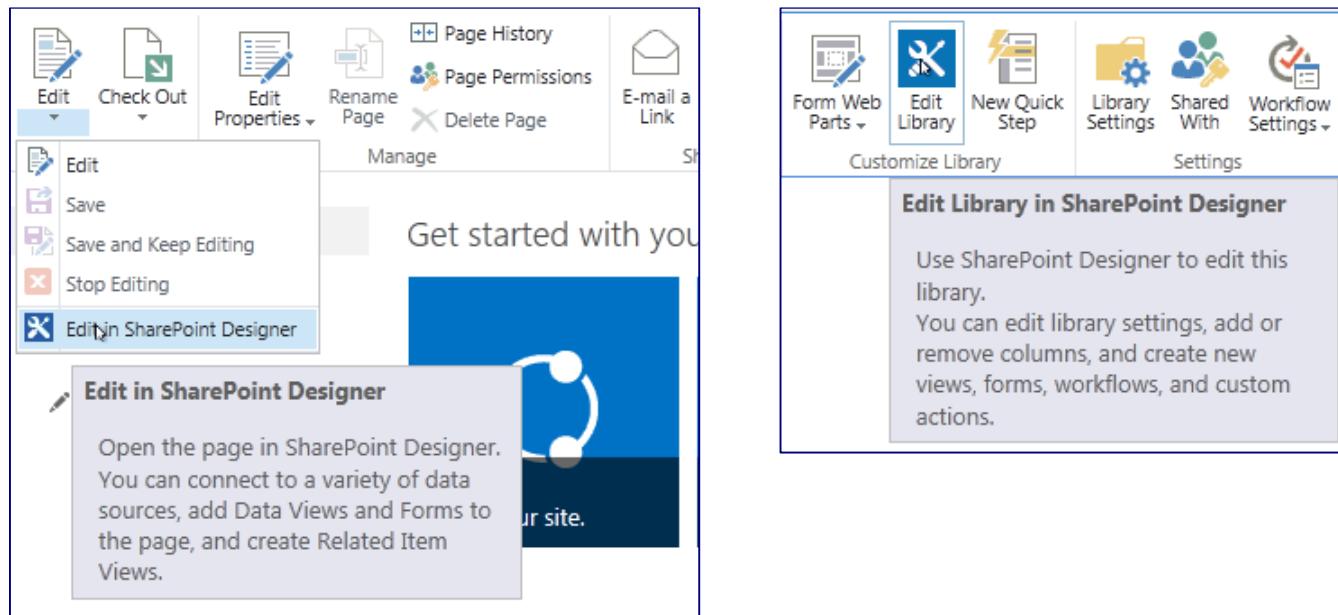
Opening Sites From SharePoint Designer 2013

- Sites can be opened directly from SharePoint Designer
- Upon launching SharePoint Designer 2013, the backstage provides options to open Recent Sites or Open Site to enter a URL
- You may be prompted to enter a username and password



Opening Sites From a Web Browser

- When editing a wiki page or a publishing page in the browser, from the Page tab, choose Edit | Edit in SharePoint Designer



Site Summary Page

- Upon opening a site in Designer, the Site Summary page appears
- Similar to SharePoint Designer 2010

The screenshot shows the SharePoint Designer 2010 interface with the following elements:

- Navigation pane (1):** On the left, it lists site objects like Lists and Libraries, Workflows, Site Pages, Site Assets, Content Types, Site Columns, External Content Types, Data Sources, Master Pages, Site Groups, Subsites, and All Files.
- Toolbar:** At the top, there are various icons for creating (New), deleting, renaming, and managing site objects.
- Address Bar:** The URL is http://mscserver/sites/solutionteamsite - SharePoint Designer.
- Site Information Panel:** Displays basic site details:
 - Title: Solution Team Site
 - Description: <click to enter text>
 - Web Address: http://mscserver/sites/solutionteamsite/
 - SharePoint Version: 5 (15.0.4420)
 - Server Version: Microsoft-IIS/7.5
 - Total Storage Used: 7.06 MB
 - % of Available Storage Used: No quota set for this site
- Customization Panel:** Links to site customization tools.
- Settings Panel:** General settings for the site, including checkboxes for Display Quick Launch, Enable Tree View, and Enable Site RSS Feeds.
- Permissions Panel (2):** Shows user permissions for the site.

Name	Permissions
administrator	Full Control
Excel Services Viewers	View Only
Solution Team Site Members	Edit
Solution Team Site Owners	Full Control
Solution Team Site Visitors	Read
- Subsites Panel (3):** A list of subsites contained within this site, which is currently empty.



SharePoint Designer Tour: Summary Page

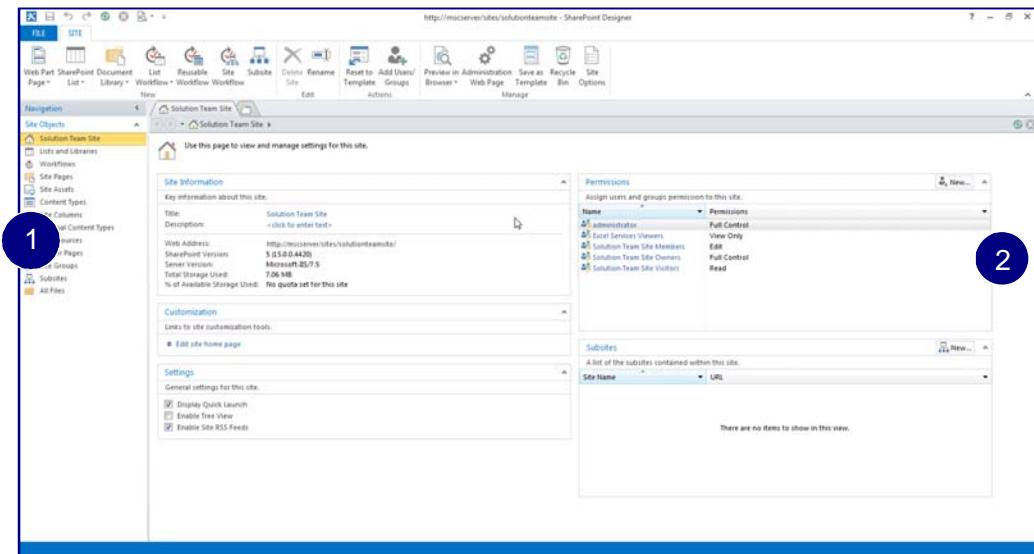
Interface Area	Description
1. Navigation Pane	<p>Contains the objects that make up a site, with pages to allow you to manage these objects:</p> <ul style="list-style-type: none">• Lists and libraries• Workflows• Site pages• Etc.
2. Ribbon	<p>A contextual control that allows you to manipulate and set properties for any object selected in the SharePoint Designer 2013 environment</p>
3. Summary Page	<p>Displays contextual properties in a summary format for any of the site objects selected in the Navigation Pane or for a selected object in the site:</p> <ul style="list-style-type: none">• Lists and libraries• Workflows• Site pages• Etc.



SharePoint Designer Quick Tour: Site Objects

1 Site Objects

- Selecting Site Objects in the Navigation panel reveals the contents of each of the site objects
 - Individual objects can be selected and manipulated using the ribbon



2 Gallery pages

- When an object is selected, a gallery page shows at the right to show that gallery of elements

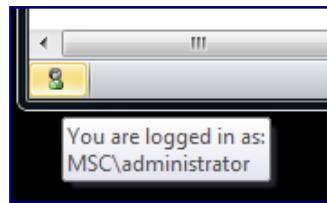


SharePoint Designer 2013 Permissions

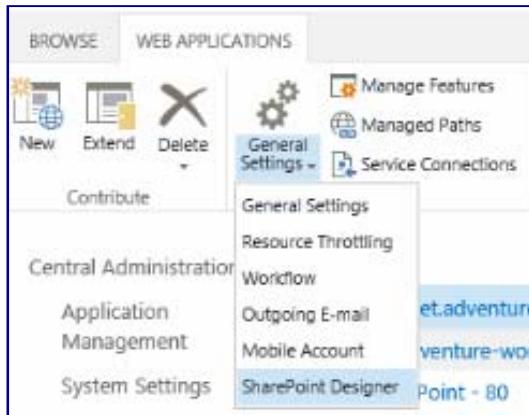
- Permissions dictate who can use SharePoint Designer
- By default, site collection administrators and site owners get full access to SharePoint Designer 2013
- Users with Design permission have restricted access

Permission level	Description
Full Control	Full access to all SharePoint site features
Design	Cannot change Master Page, layout page. New pages are added to Site Pages gallery.
Contribute	Cannot edit SharePoint sites

- SharePoint Designer users can log in with different accounts



SharePoint Designer 2013 Settings



➤ Administrators can restrict which options are available in SharePoint Designer

SharePoint Designer Settings

Allow SharePoint Designer to be used in this Web Application
Specify whether to allow users to edit sites in this Web Application using SharePoint Designer.

Enable SharePoint Designer

Allow Site Collection Administrators to Detach Pages from the Site Template
Specify whether to allow site administrators to detach pages from the original site definition using SharePoint Designer.

Enable Detaching Pages from the Site Definition

Allow Site Collection Administrators to Customize Master Pages and Layout Pages
Specify whether to allow site administrators to customize Master Pages and Layout Pages using SharePoint Designer.

Enable Customizing Master Pages and Layout Pages

Allow Site Collection Administrators to see the URL
Specify whether to allow site administrators to see the URL using SharePoint Designer.

Enable Managing of the Web Site URL Structure

- Settings can be applied broadly at a web-application level in Central Administration
- Settings can also be set at a site-collection level

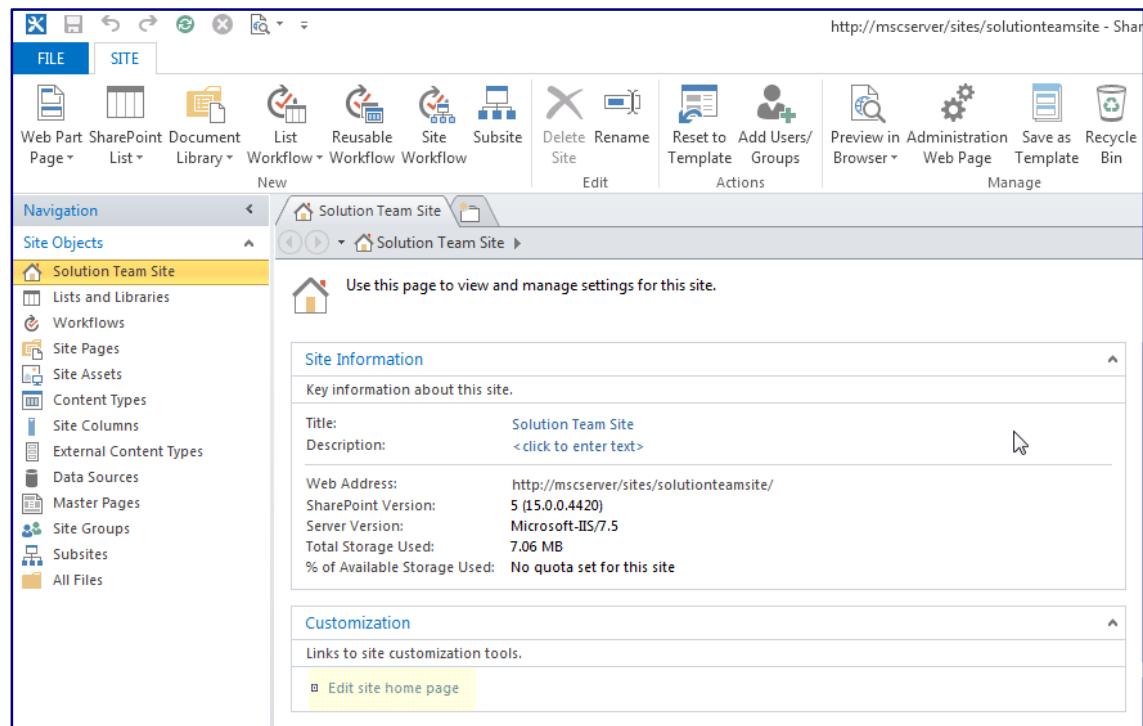


- An Introduction to SharePoint Designer 2013
- ➔ **Page Editing in SharePoint Designer 2013**
- An Introduction to Dreamweaver CS6
- Creating and Editing New Pages in Dreamweaver



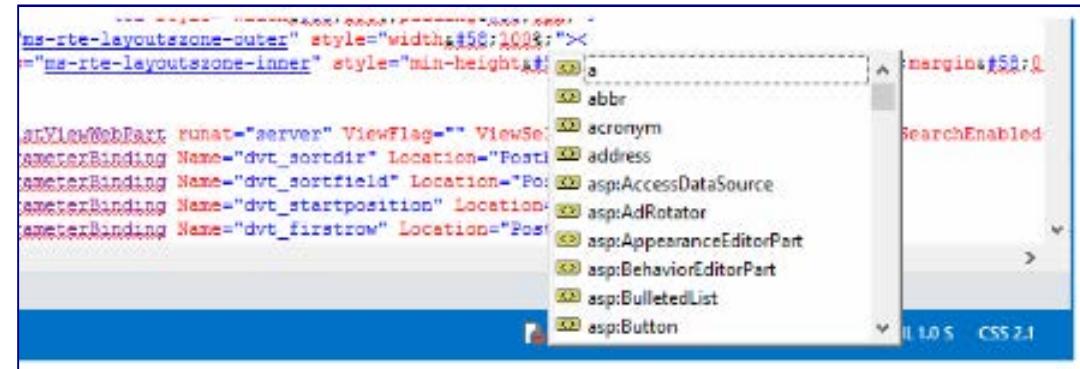
Editing Pages

- From the Summary Page, click “Edit site home page” to edit the home page of the site
- You can also navigate to Site Pages in the Site Objects panel and open any page for editing



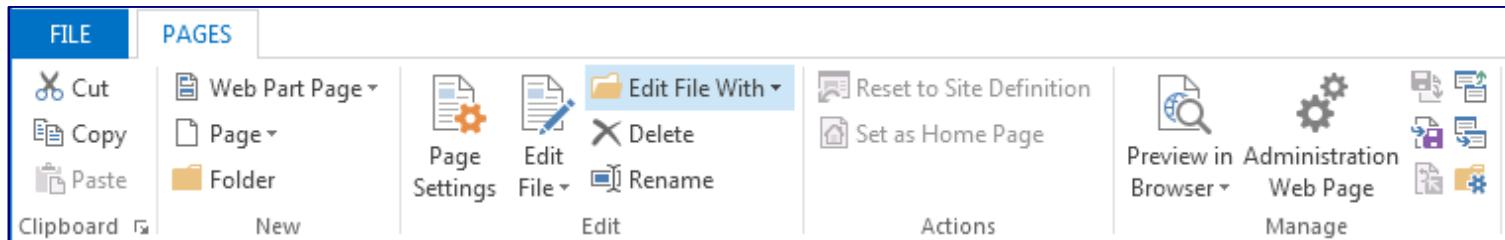
Editing Pages

- As mentioned previously, the only view available for page editing is Code
- As a robust code editor, SharePoint Designer displays
 - HTML tags
 - Client-side code, such as JavaScript
 - Dynamic controls, such as Web Parts
- Offers features to assist with hand-coding
 - Code coloring to help quickly find tags/attributes and coding errors
 - IntelliSense to detect what you are typing and offer code-completion options
 - HTML
 - CSS
 - .NET Controls
 - Code snippets
 - Menu offering frequently typed code



Site Pages: Options Available in the Ribbon

- When working in the Site Pages gallery page of Site Objects, the ribbon reflects options for working with pages



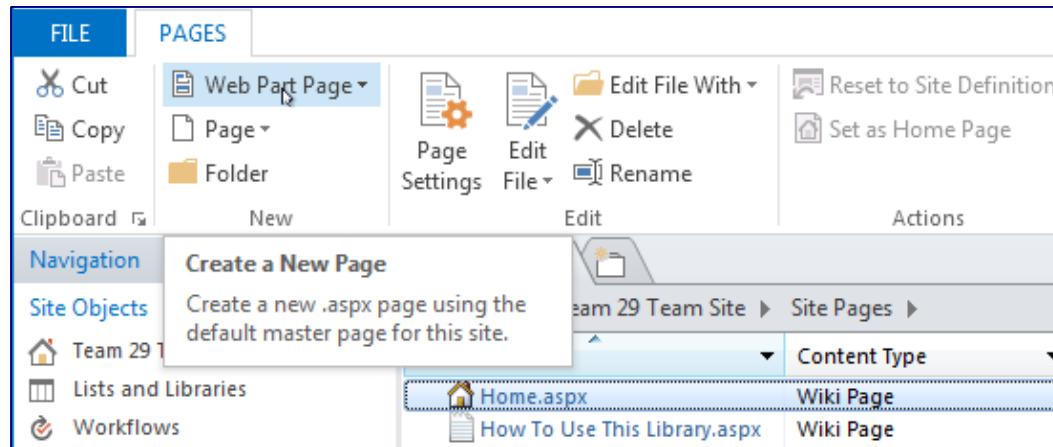
- With a page selected, you can
 - Edit Page Settings
 - Edit File
 - Edit File With (other editors)
 - Delete
 - Rename
- You can also create new
 - Web Part Pages
 - Pages



Creating New Web Part Pages

► New Web Part pages can be created easily in SharePoint Designer 2013

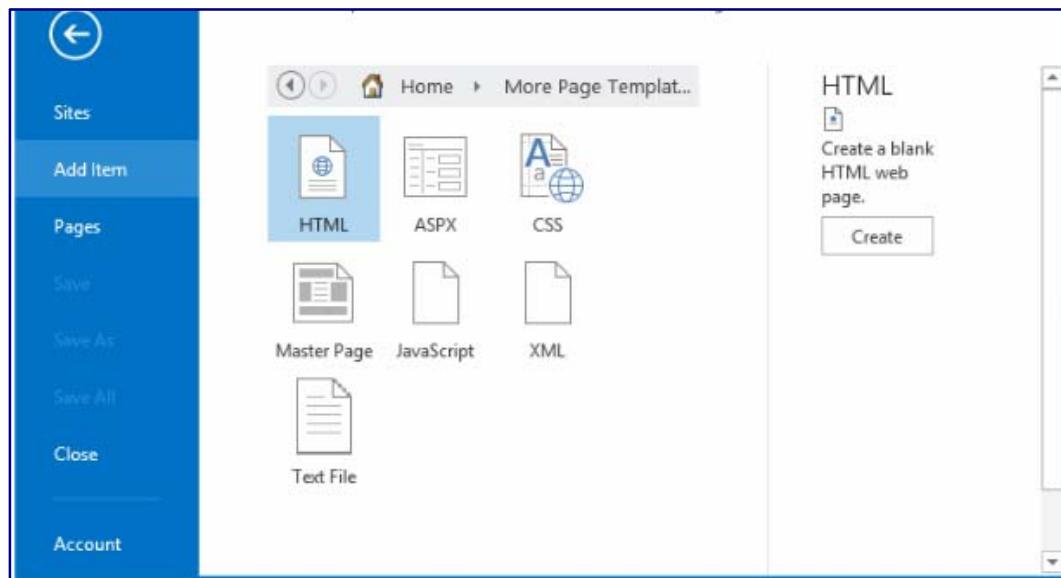
1. Click Site Pages
2. Click Web Part Page in the New section of the Site Pages tab
3. Select the desired Web Part page layout
4. Provide a name for the page
5. Open the page for editing by clicking Edit Page in the Edit group of the Pages tab



Creating New ASPX and HTML Pages

► **New ASPX/HTML pages can be created easily**

1. Click Site Pages
2. Click Page | ASPX or Page | HTML
3. Provide a name for the page
4. Open the page for editing by clicking Edit Page in the Edit group of the Pages tab



- **You can also use the All Item option from the Backstage**
- Select HTML or ASPX, then click Create



Editing Pages in Standard Mode

- When you choose Edit File, the default editing mode is Standard Mode
- In Standard Mode, you will only be able to edit specific areas
 - Areas you cannot edit will be shown with a yellow highlight
 - The content you can edit is within the PlaceHolderMain control

The screenshot shows the SharePoint Site Pages Editor in Standard Mode. The ribbon at the top includes FILE, HOME, INSERT, VIEW, and EDIT tabs. The HOME tab is selected. The left navigation pane shows 'Site Objects' with 'Site Pages' selected. The main area displays the page code in 'CODE VIEW TOOLS'. The code is as follows:

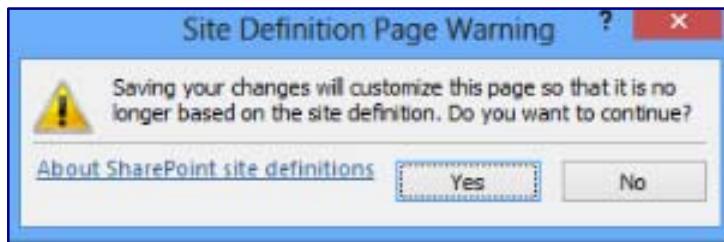
```
<SharePoint:SPRibbonButton  
    id="btnWikiSave"  
    RibbonCommand="Ribbon.WikiPageTab.EditAndCheckout.Sa  
    runat="server"  
    Text="edit"/>  
<SharePoint:SFRibbonButton  
    id="btnWikiRevert"  
    RibbonCommand="Ribbon.WikiPageTab.EditAndCheckout.Sa  
    runat="server"  
    Text="Revert"/>  
</SharePoint:VersionedPlaceHolder>  
<SharePoint:EmbeddedFormField id="WikiField" FieldName="Wiki  
    <table id="layoutsTable" style="width:100%;">  
        <tbody>  
            <tr style="vertical-align:top;">  
                <td colspan="2"><div class="ms-rte-layoutszone-outer">  
                    <div></div></div></td>  
                </tr>  
                <tr style="vertical-align:top;">  
                    <td style="width:49.95%;><div class="ms-rte-lay  
                    <WpNs0:SiteFeedWebPart runat="server" _MarkupType="xmlmarkup" W  
                    <WebPart xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi=...  
                    <Title>Site Feed</Title>  
                    <FrameType>None</FrameType>  
                    <Description>Site Feed contains microblogging conversations on  
                    <IsIncluded>true</IsIncluded>  
                    <ZoneID>wp2</ZoneID>  
                    <PartOrder>1</PartOrder>  
                    <FrameState>Normal</FrameState>  
                </div></td>  
            </tr>  
        </tbody>  
    </table>  
</div>
```

The 'Code' tab is selected at the bottom. The status bar at the bottom right shows 'STYLE APPLICATION: AUTO', '10.0 KB', 'STANDARD', 'XHTML 1.0 S', and 'CSS 2.1'.



Editing Pages in Advanced Mode: Customization

- When editing a page, Advanced Mode is available on the Home tab
- Advanced mode editing removes the restrictions in basic mode
 - All code is editable
- Making changes in advanced mode to a default (site definition) file in SharePoint, such as default.aspx, is referred to as customizing

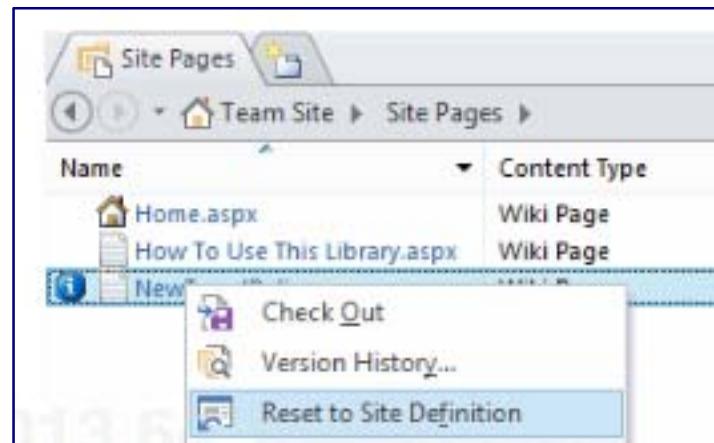


- When a file has been customized, it is no longer based on the site definition stored on the server
 - A warning dialog notifies you that you are detaching this file
 - A copy of this file will be made and stored in the content database



To Customize or Not To Customize?

- **Customized items will be labeled with an “i” icon in the gallery page**
 - Reports are also available to show customized content sitewide
- **Customization is often necessary, but should be considered carefully**
- **Files no longer based on the site definition can cause long-term problems**
 - Updates to the server will not affect customized files
 - Future migrations to later versions of SharePoint may cause problems
- **If you have customized a resource and wish to reset it to its site definition, you can do so from the contextual menu**
 - Right-click the file and choose “Reset to Site Definition”



Hands-On Exercise 3.1

*In your Exercise Manual, please refer to
Hands-On Exercise 3.1:
Working With Sites in SharePoint Designer 2013*



- An Introduction to SharePoint Designer 2013
- Page Editing in SharePoint Designer 2013
- An Introduction to Dreamweaver CS6
- Creating and Editing New Pages in Dreamweaver



Introduction to Adobe Dreamweaver CS6

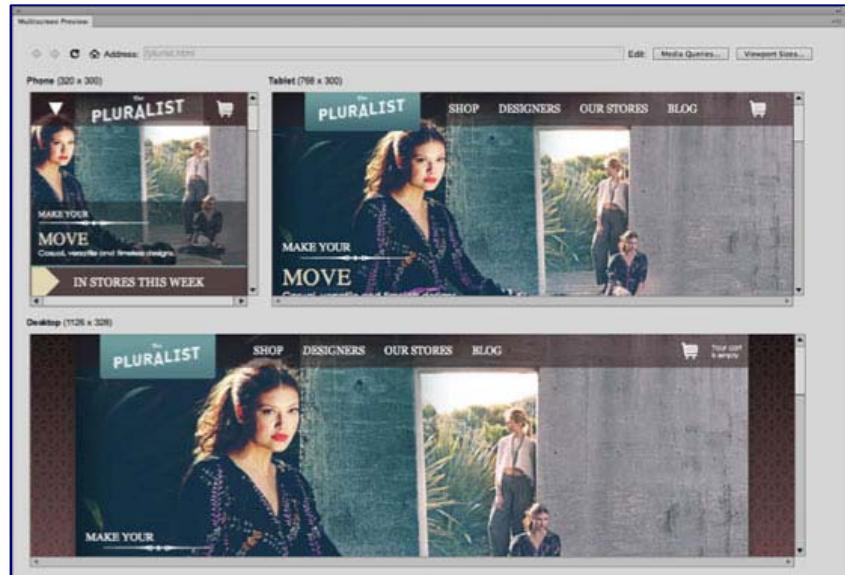
► Dreamweaver is a leading website development and site management tool

► Designed to support basic web standards:

- HTML
- XHMTL
- CSS
- JavaScript

► Offers features that appeal to visual designers and traditional coders

- Visual page building with a rich toolset
- Standards-compliant code with a rich coding toolset
- Supports HTML5 and CSS3
- Support for mobile web design with fluid grid layout

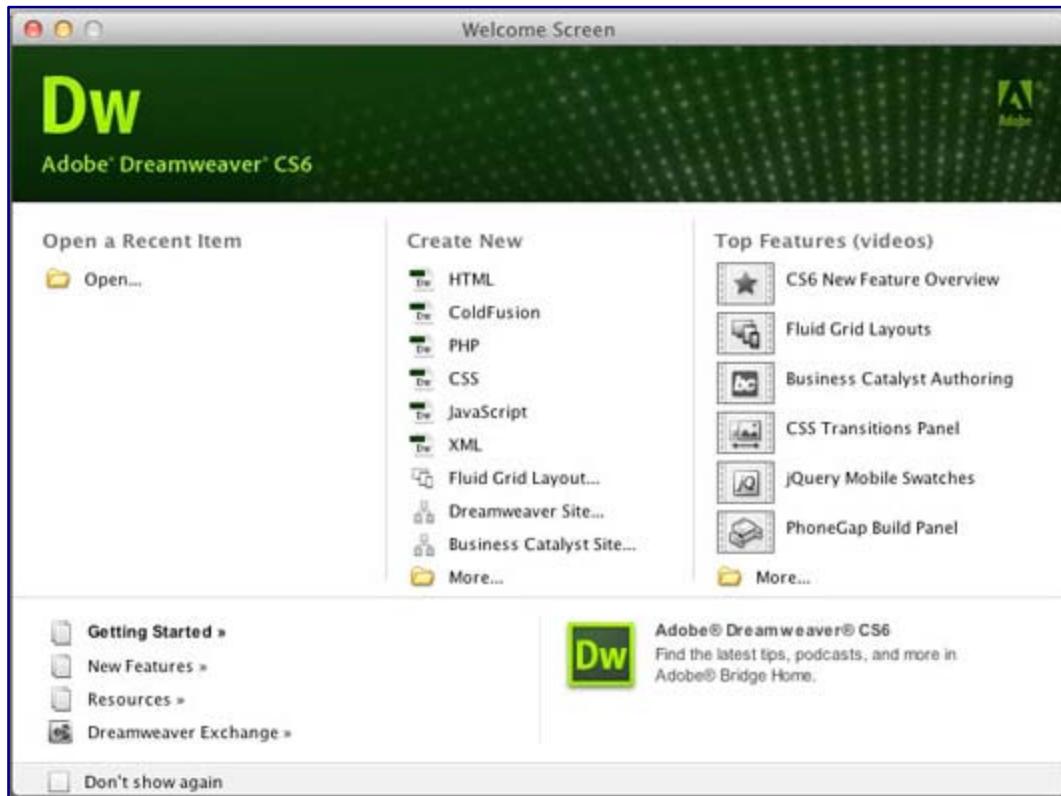


Launching Dreamweaver CS6

► When you open Dreamweaver, the Welcome Screen appears with options

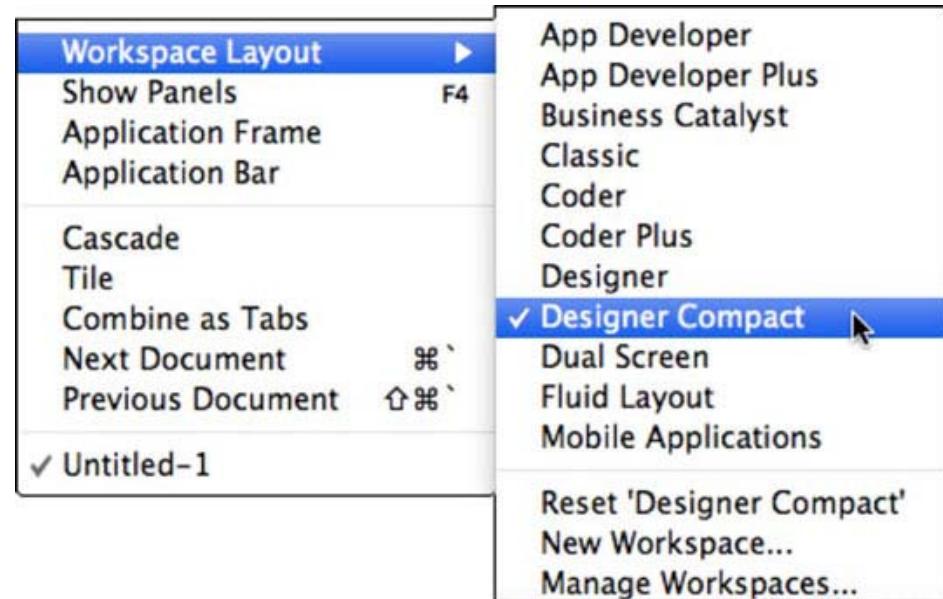
- Open...
- Recent Items
- Options for creating new resources
- Links to top features

► Welcome Screen changes as you use Dreamweaver CS6



Workspace Layouts

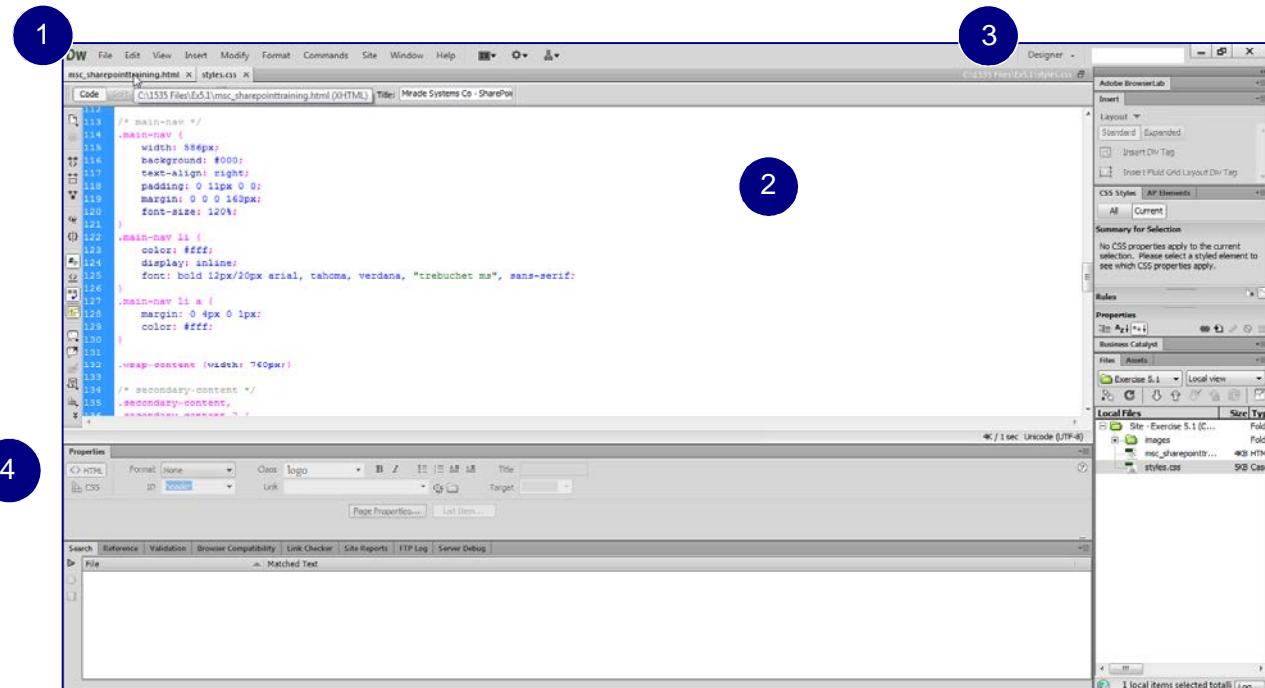
- Dreamweaver includes panels to help you manage files
- As with other Adobe Creative Suite products, Dreamweaver includes Workspace Layouts
 - Arrangement of panels can be customized
 - New workspace layouts can be created
- Different Workspace Layouts may suit different workflows



Dreamweaver CS6 Panels

- Designer, the default workspace layout, will suffice for most projects
 - Contains most commonly used panels

- 1 Document toolbar
- 2 Document window
- 3 Workspace switcher
- 4 Property inspector



Document Toolbar Options

- Unlike SharePoint Designer 2013, multiple views are available, offering a WYSIWYG designer a visual way to design HTML layouts
 - Code
 - Split
 - Design
 - Live
 - A noneditable, browser-based view of the page or document



- Other options to assist with page viewing are available
 - Preview/Debug in browser
 - W3C Validation
 - Check Browser Compatibility
 - Visual Aids
 - Refresh Design view

W3C = World Wide Web Consortium



- An Introduction to SharePoint Designer 2013
- Page Editing in SharePoint Designer 2013
- An Introduction to Dreamweaver CS6
- ➔ Creating and Editing New Pages
in Dreamweaver



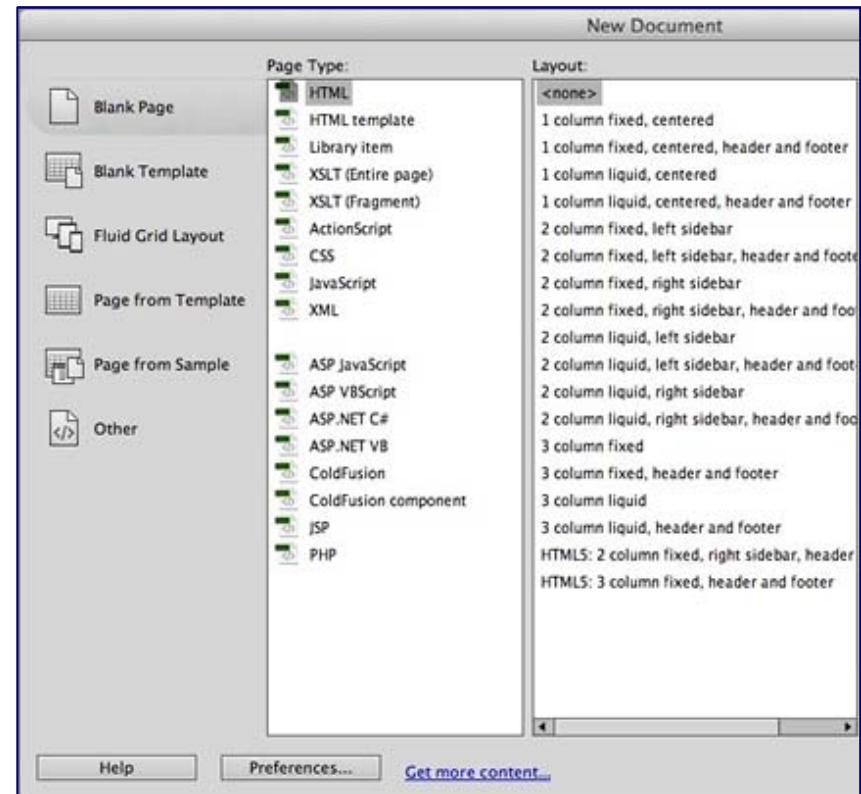
New Document Options in Dreamweaver CS6

► To create a new document, multiple options are available from the Welcome page

- New blank document
- New document based on one of more than 30 predefined CSS-based page layouts

► Dreamweaver supports a variety of additional file types

- CSS
- XML
- XSL
- JPEG/GIF



GIF = Graphics Interchange Format

JPEG = Joint Photographic Experts Group

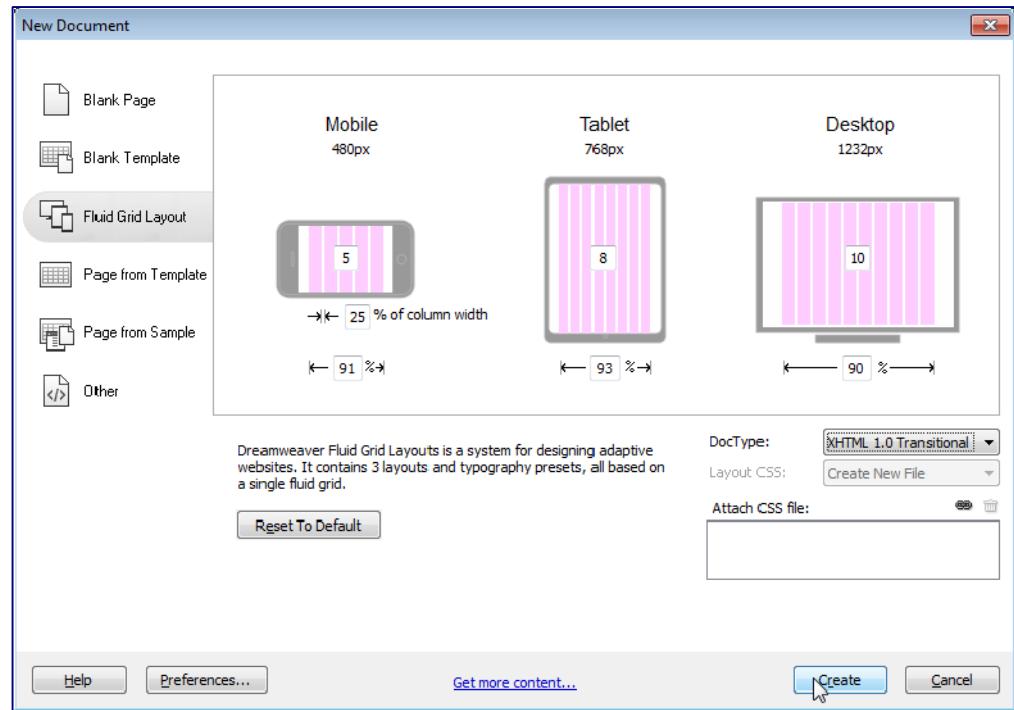
XSL = Extensive Stylesheet Language



Fluid Grid Layouts

► Fluid Grid Layouts are a new document type available in Dreamweaver CS6 that can provide a quick way to lay out pages in a grid

- Uses CSS extensively
- WYSIWYG view in Dreamweaver makes grid adjustments easy
- Adapts to different devices
- Available in multiple document types



Creating New HTML Files in Dreamweaver CS6

- To create a new page for editing
1. Select File | New
 2. Select the kind of page from the Page Type column
 3. Select a predesigned CSS layout (optional)
 4. Select an HTML document type
 5. If you selected a CSS layout, choose the location of the CSS
 6. Click Create
 7. Save the document



Creating New HTML Files Based on a Sample

- To create a new page from one of Dreamweaver's professionally designed sample files

1. Select File | New

2. Select the Page From Sample category

3. In the Sample Folder column, select CSS Style Sheet or Mobile Starters; then select a sample file from the list on the right

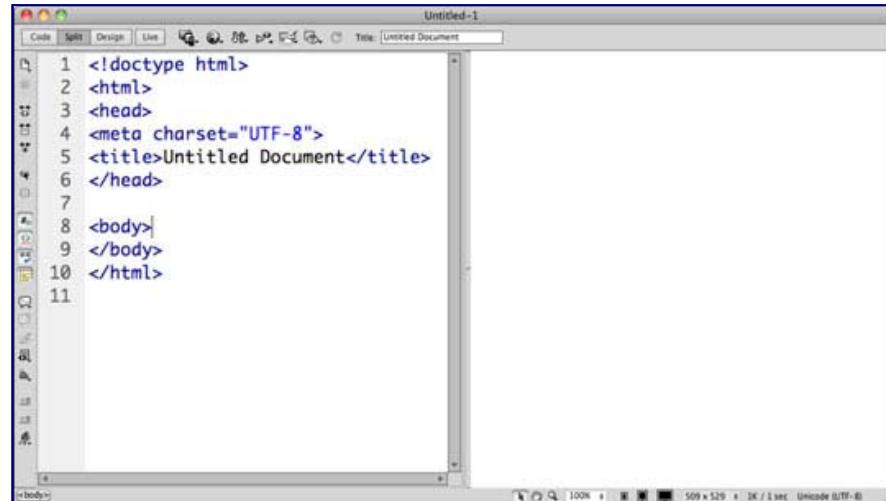
4. Click Create

5. Save the document



Editing Documents in Dreamweaver CS6

- Upon launching Dreamweaver, the Document window appears with the default HTML for your starting document
 - Differs depending on options selected
- In addition to its WYSIWYG views, includes tools similar to SharePoint Designer 2013 to help manage code
 - Code coloring
 - Code completion



The screenshot shows the Dreamweaver CS6 interface with the title bar "Untitled-1". The main window displays the following HTML code:

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Untitled Document</title>
</head>
<body>
</body>
</html>
```

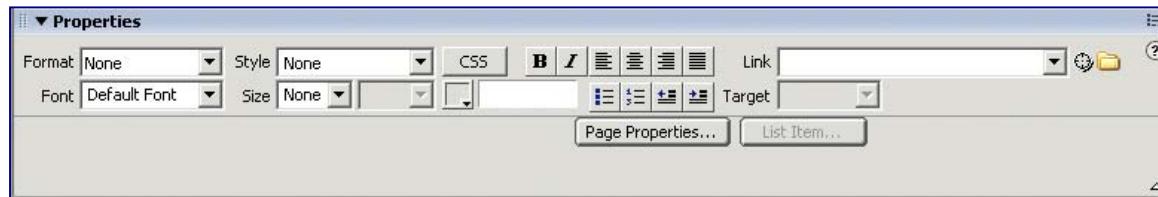
The code is color-coded, with tags in blue and attributes in green. The interface includes a toolbar at the top, a vertical toolbar on the left, and status bars at the bottom.



Panels for Managing and Inserting Elements

► Multiple panels help with inserting and managing properties of elements

- Properties panel
 - Provides options for managing elements
 - Dynamic depending on the currently selected object



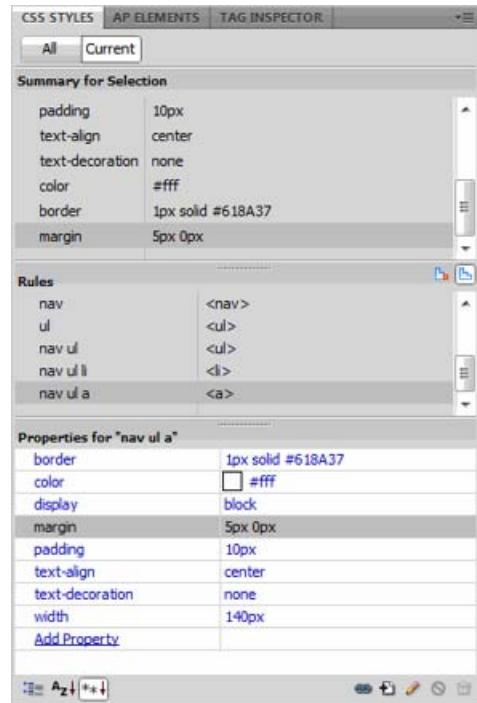
- Insert panel
 - Contains buttons for creating and inserting objects such as tables, images, and links
 - Organized into several categories, including
 - Common
 - Layout
 - Text



Tools for Managing Design and Code

► Multiple tools help you with design and coding tasks

- CSS Styles panel
 - Displays the CSS rules and properties affecting the currently selected page element
 - Displays the rules and properties affecting the document
- Files panel
 - Displays the contents of the local site
- Visual guides
 - Use tracing image for visual design creation in a div-based layout
 - Use rulers and guides to provide a visual cue for precise positioning and resizing of page elements



SharePoint WYSIWYG Tools

- SharePoint Designer 2013, Expression Web 2013, and Dreamweaver CS6 have many similarities
 - Also have differences and different intended uses

	SharePoint Designer 2013	Expression Web 2013	Dreamweaver CS6
SharePoint Site Management	Can manage all aspects of a SharePoint site	Cannot connect to a SharePoint site's resources	Cannot connect to a SharePoint site's resources
Branding SharePoint	Can directly edit pages and master page resources	Can be used to create and edit files for use with the Design Manager	Can be used to create files for use with the Design Manager
WYSIWYG Interface	Code view only	Design, Split, Code views	Design, Split, Code views



Hands-On Exercise 3.2

*In your Exercise Manual, please refer to
Hands-On Exercise 3.2:
Working With Pages in Adobe Dreamweaver CS6*



Chapter Summary

In this chapter, we have

- Identified the changing role of SharePoint Designer 2013
- Worked with sites and pages in SharePoint Designer 2013
- Understood the need for additional WYSIWYG tools in SharePoint 2013
- Used Dreamweaver CS6 to build custom HTML



An Introduction to the Design Manager



Chapter Objectives

In this chapter, we will

- Review the functionality available in the Design Manager
- Identify key building blocks for design in SharePoint 2013
- Understand branding differences in different templates
- Work with files in the Design Manager
- Review device channels for targeting multiple devices



- ➔ **Design Manager Overview**
- **Key Components of SharePoint 2013 Design**
- **Branding Differences in SharePoint Site Templates**
- **Working With Files in the Design Manager**



An Introduction to the Design Manager

- **The Design Manager in SharePoint 2013 is the most significant change to branding in SharePoint yet**
 - Allows for import/export of a visual design directly in a web browser
- **Capabilities in the Design Manager**
 - Design packages
 - Allow export of the visual design of a SharePoint site as a package
 - Device channels
 - Render a publishing site in multiple ways to multiple devices
 - Display templates
 - Templates that are used in Search Web Parts
 - Image renditions
 - Images for SharePoint publishing sites for delivery to multiple designs
 - Snippets
 - HTML code for SharePoint components for use in master pages
 - Composed Looks
 - Files for quick branding in the SharePoint 2013 theming experience



Benefits of the Design Manager

- The Design Manager largely replaces SharePoint Designer for branding
- Allows the creation of pixel-perfect design using the web design tools a designer is already familiar with
- The Design Manager handles the import and conversion of those resources to support SharePoint functionality



EDIT LINKS

Design Manager: Welcome

The Design Manager helps you create your own site design in SharePoint. [Learn how SharePoint sites work](#)

If you aren't creating your own design, you may instead want to choose from one of the following options:

- [Import a complete design package](#)
- [Pick a pre-installed look](#)

Otherwise, go ahead to the next step of the Design Manager. [Get an overview](#)



Create Design Mockups in Editor of Choice

- First, create a design in HTML/CSS in your favorite editor, such as Dreamweaver CS6
 - Allows you to focus on creative, not technical aspects of the design

The screenshot shows a website for 'miracle systems' SharePoint training experts. The header features the company logo with a stylized orange 'M' and the text 'miracle systems' and 'sharepoint training experts'. Below the header is a photograph of three people working together on a computer keyboard. A large orange hand icon is overlaid on the keyboard. The navigation menu at the top includes links for home, about us, course locations, sharepoint courses, sign up today, calendar, and contact us.

Lore ipsum dolor sit amet, consectetur adipiscing elit. Donec pulvinar fermentum neque, malesuada blandit lacus pulvinar vitae. Maecenas adipiscing tincidunt mauris, id feugiat ante mattis quis. Mauris dictum, sem sit amet tristique sollicitudin, quam enim condimentum quam, at viverra massa enim sed leo.

Miracle Systems Corporation - SharePoint Training

Lore ipsum dolor sit amet, consectetur adipiscing elit. Donec pulvinar fermentum neque, malesuada blandit lacus pulvinar vitae. Maecenas adipiscing tincidunt mauris, id feugiat ante mattis quis. Mauris dictum, sem sit amet tristique sollicitudin, quam enim condimentum quam, at viverra massa enim sed leo.

Pellentesque vel enim magna, sit amet accumsan mauris. Duis tortor justo, ultrices sed consectetur semper

Ut elementum, urna vel posuere malesuada, nunc odio dignissim felis, non facilisis diam ligula id tortor. Duis gravida ultrices elit, ornare lacinia nunc lacinia et. Phasellus tristique fringilla neque non dapibus. Nunc lobortis pellentesque imperdiet. Donec vehicula justo quam.

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Next, Upload Files Into the Design Manager

- Upload HTML for the master page
- Upload CSS, JavaScript, and images to complete the design

 EDIT LINKS

Design Manager: Upload Design Files

Map the following location as a network drive so you can work easily with your design files: http://mscserver/sites/team29pubsite/_catalogs/masterpage/

Use this drive to:

- Upload the HTML version of your Master Page
- Upload CSS and js files and any other design assets
- Access design files for editing

Need help mapping a network drive? [Learn more...](#)

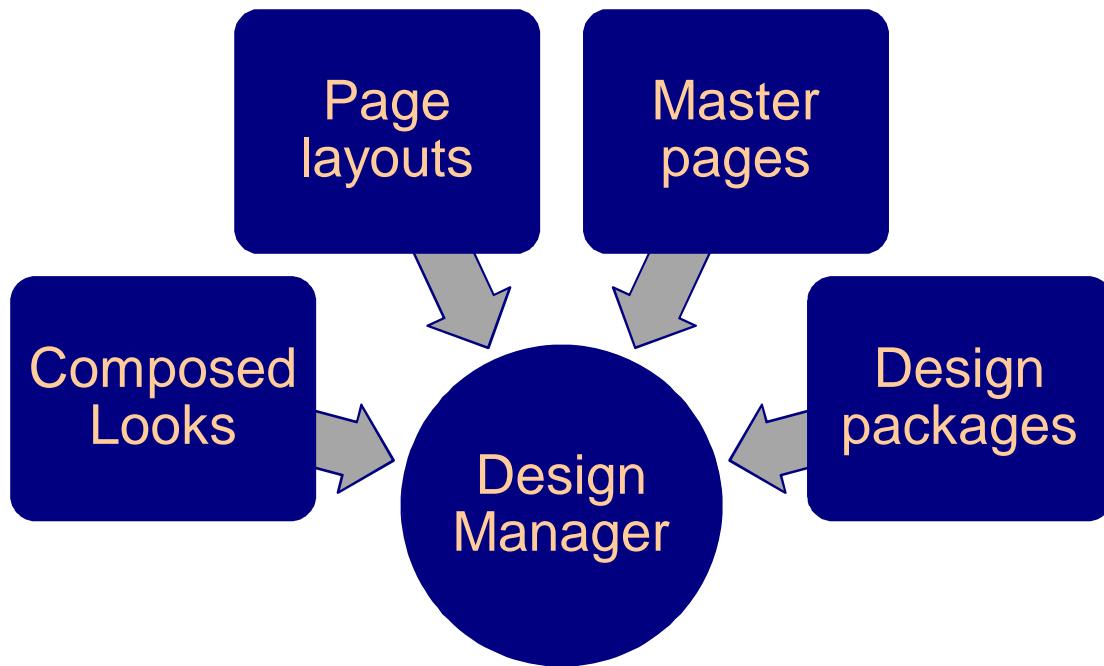


- Design Manager Overview
- Key Components of SharePoint 2013 Design
- Branding Differences in SharePoint Site Templates
- Working With Files in the Design Manager



Components of SharePoint 2013 Design

- The Design Manager serves as the central hub to manage all aspects of custom design
 - Multiple fundamental design components for SharePoint are managed in the Design Manager

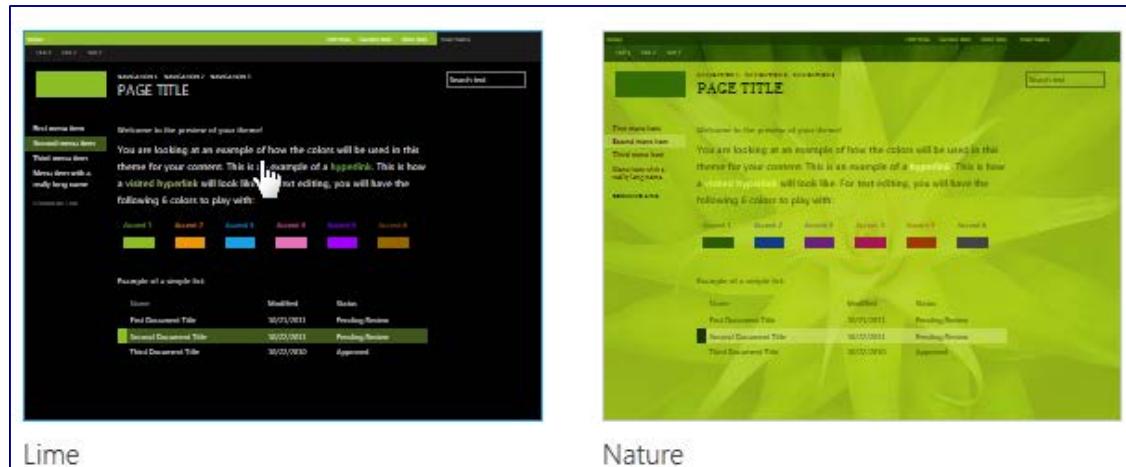


Composed Looks

- Composed Looks allows users to quickly change the look of their SharePoint site
- Composed Looks can be created to offer specific branding options to site managers

➤ A Composed Look consists of:

- Master pages
- CSS
- Color palette
- Font palette
- Background image



Design Manager: Master Pages

- In Edit Master Pages, a user can easily edit and work with the templates that contain the site's shared elements

Design Manager: Edit Master Pages

A master page defines common elements across all the pages of your site. You can use the net click on its file name or status. While previewing your HTML master page, use the Snippet Galle

- [Convert an HTML file to a SharePoint master page](#)
- [Create a minimal master page](#)

SharePoint will convert the uploaded HTML file of
your choice to a Master Page by adding the required
functionality.



Name

Status

Approval Status



Design Manager: Page Layouts

- Page layouts define the layout of a page class
- Default layouts can be modified and new ones can be added

Create a Page Layout X

Name

Master Page ▼

Page layouts fit within a master page's content placeholders.
Choose this page layout's master page.

Content Type ▼

Not all types of pages are the same. You might want to have a picture for some or to show the author for others. Content Type determines the availability of these fields. Advanced users can also [modify and create new content types](#)

Content Type
Welcome Page ▼
Welcome Page is a system content type template created by the Publishing Resources feature. It is the associated content type template for the default page layout used to create welcome pages in sites that have the Publishing feature enabled.

OK Cancel



Design Packages

► Design packages allow designers to build and export the visual design of a SharePoint site collection

- Allows a browser-based distribution option
- Can be easily installed into other site collections
- Exports as a **.wsp** package file



Design Manager: Create Design Package

You can create a package of your design for easy import to other site collections. The package does not include the files that make up your design.

Choose a name for this design. Even if you change this package's name later, we'll still recognize it as the same design.

Design Name

Version v1.0

Include Search Configuration in this package.

Create

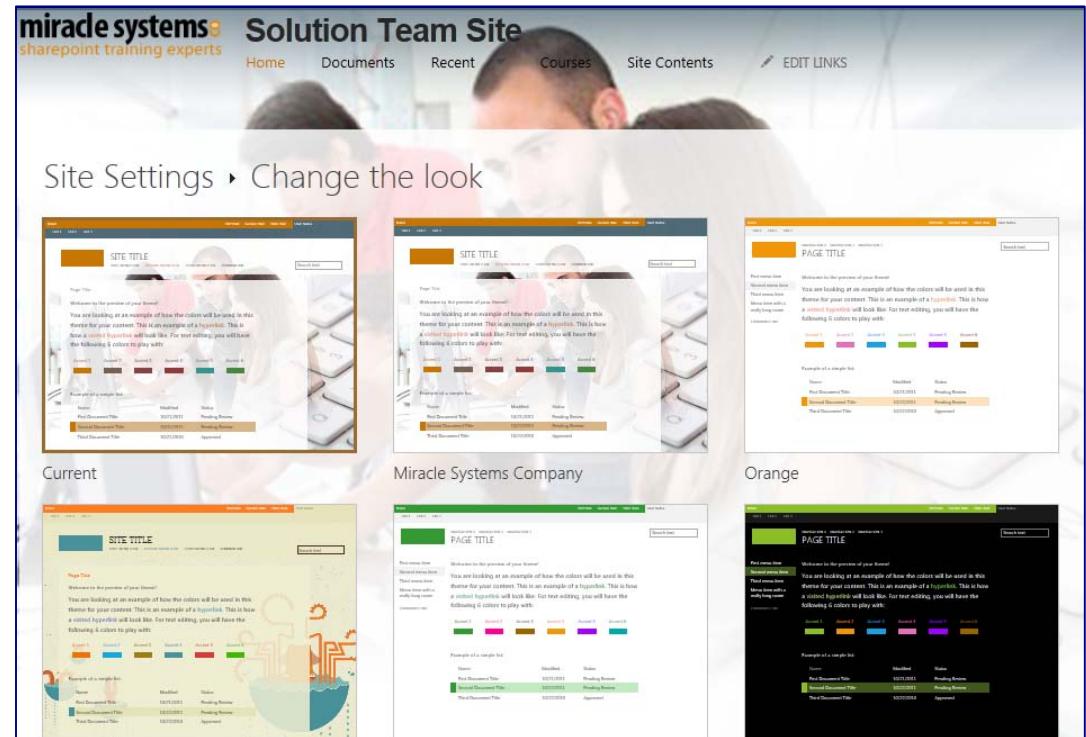


- Design Manager Overview
- Key Components of SharePoint 2013 Design
- ➔ Branding Differences in
SharePoint Site Templates
- Working With Files in the Design Manager



Branding Collaboration Team Sites

- Many sites used standard collaboration templates, such as Team Sites
- Only enterprise publishing sites include the Design Manager
- Options available in the browser in “Change the look”
- The same options generally available in previous versions in Site Settings | Look and Feel



Standard Options for Standard Site Templates

- While much more powerful than previous versions available in SharePoint, Composed Looks still has limitations
 - Similar to limitations in OOTB themes in previous versions of SharePoint
 - Provide background image option but no other options for incorporating custom structural formatting
 - Not created with Microsoft Office (as with themes in SharePoint 2010)
 - Require some technical background to create

NAVIGATION 1 NAVIGATION 2 NAVIGATION 3

PAGE TITLE

Welcome to the preview of your theme!

You are looking at an example of how the colors will be used in this theme for your content. This is an example of a [hyperlink](#). This is how a [visited hyperlink](#) will look like. For text editing, you will have the following 6 colors to play with:

Accent 1 Accent 2 Accent 3 Accent 4 Accent 5 Accent 6

Accent 1 Accent 2 Accent 3 Accent 4 Accent 5 Accent 6

Example of a simple list:

Name	Modified	Status
First Document Title	10/21/2011	Pending Review
Second Document Title	10/22/2011	Pending Review
Third Document Title	10/22/2010	Approved



Enabling Enterprise Features to Collaboration Sites

- With SharePoint Server, enterprise features can be enabled to allow Design Manager functionality in collaboration sites
- Like previous versions, requires a site-collection feature and a site feature to be enabled



1. Go to Site Settings
2. Click Site Collection Features under Site Collection Administration
3. Activate SharePoint Server Publishing Infrastructure
4. Return to Site Settings
5. Click Manage Site Features under Site Actions
6. Activate SharePoint Server Publishing



Hands-On Exercise 4.1

*In your Exercise Manual, please refer to
Hands-On Exercise 4.1:
Browser-Based Branding in a SharePoint 2013 Team Site*



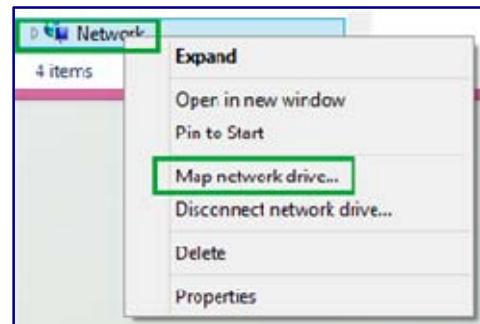
- Design Manager Overview
- Key Components of SharePoint 2013 Design
- Branding Differences in SharePoint Site Templates
- ➔ Working With Files in the Design Manager



Uploading Design Files

► To more easily upload files through Design Manager, files can be mapped as a network drive

- Makes design files more readily available
 1. Open Windows Explorer
 2. Right-click on Network
 3. Select “Map network drive”



► All files can be uploaded before performing any master page work

The screenshot shows the SharePoint Design Manager interface. On the left, there's a navigation bar with a blue ribbon icon and a list of options: 1. Welcome, 2. Manage Device Channels, 3. **Upload Design Files**, 4. Edit Master Pages, 5. Edit Display Templates, 6. Edit Page Layouts, 7. Publish and Apply Design, and 8. Create Design Package. Above the main content area, there's an 'EDIT LINKS' button. The main title is 'Design Manager: Upload Design Files'. Below the title, there's a note: 'Map the following location as a network drive so you can work easily with your design files: http://mscserver/sites/team29pubsite/_catalogs/masterpage/'. Underneath that, it says 'Use this drive to:' followed by a bulleted list: 'Upload the HTML version of your Master Page', 'Upload CSS and js files and any other design assets', and 'Access design files for editing'. At the bottom, there's a link: 'Need help mapping a network drive? [Learn more...](#)'.



Editing Master Pages

► Master Pages contains all of the site's shared elements, or chrome

► The Design Manager can be used to:

- Edit existing master pages
- Create a minimal master page
- Convert an HTML file into a master page

The screenshot shows the SharePoint Design Manager interface for editing master pages. At the top left is the SharePoint logo. To its right is a blue bar with the text "EDIT LINKS". Below this is the title "Design Manager: Edit Master Pages". On the left, there is a vertical navigation menu with the following items:

1. Welcome
2. Manage Device Channels
3. Upload Design Files
4. **Edit Master Pages** (this item is highlighted)
5. Edit Display Templates
6. Edit Page Layouts
7. Publish and Apply Design
8. Create Design Package

On the right side, there is a descriptive text block:

A master page defines common elements across all the pages of your site. You can use the network drive you mapped earlier to edit your master pages using any HTML editor. To preview your master page, click on its file name or status. While previewing your HTML master page, use the Snippet Gallery to get code snippets for SharePoint functionality that you can copy and paste into your HTML file.

- Convert an HTML file to a SharePoint master page
- Create a minimal master page

Below this text is a table showing two master pages:

	Name	Status	Approval Status
	oslo	... Conversion successful.	Draft
	seattle	... Conversion successful.	Draft



Hands-On Exercise 4.2

*In your Exercise Manual, please refer to
Hands-On Exercise 4.2:
Working With the Design Manager in a Publishing Site*



Chapter Summary

In this chapter, we have

- Reviewed the functionality available in the Design Manager
- Identified key building blocks for design in SharePoint 2013
- Understood branding differences in different templates
- Worked with files in the Design Manager
- Reviewed device channels for targeting multiple devices



HTML, CSS, and SharePoint 2013



Chapter Objectives

In this chapter, we will

- Review HTML fundamentals in SharePoint 2013
- Review CSS fundamentals for styling pages and content
- Identify CSS integration in SharePoint
- Review advanced features available with HTML5 and CSS3
- Use advanced selectors for styling content contextually
- Use the advanced theme engine in SharePoint 2013
- Add custom styles to reskin default SharePoint styles



- ➔ **HTML/CSS Overview**
- **CSS Integration in SharePoint**
- **HTML5 and CSS3**
- **Advanced CSS**
- **SharePoint 2013 Themes**
- **Reskinning With Custom CSS**



HTML, CSS, and SharePoint 2013

- **HTML and CSS code in SharePoint 2013 have been completely redeveloped from previous versions**
- **SharePoint 2013 provides better support for HTML5, CSS3, and JavaScript**
- **With support for current coding technologies, SharePoint is more readily able to support alternate devices**
- **Device channels provide opportunities for SharePoint to be adaptive and responsive**
 - Alternate Master Page and CSS provide the optimal viewing experience for the target device



Cascading Style Sheets: What Are They?

- **Cascading Style Sheets (CSS) are used to separate content from layout**
 - Content is contained in HTML
 - Layout and page design contained in CSS
- **CSS can offer simpler page maintenance**
 - Content can be edited separately from layout
 - Layout and style can be easily changed without affecting content
- **CSS offers other benefits**
 - Accessibility
 - W3C states that tables should be used for tabular data only and not for layout
 - Smaller file size
 - Using CSS can result in HTML that contains content only, with limited structural markup such as font tags



CSS Formatting Options

► Style properties direct the browser to apply formatting to elements

- Color
- Fonts
- Positioning
- Margins
- Borders

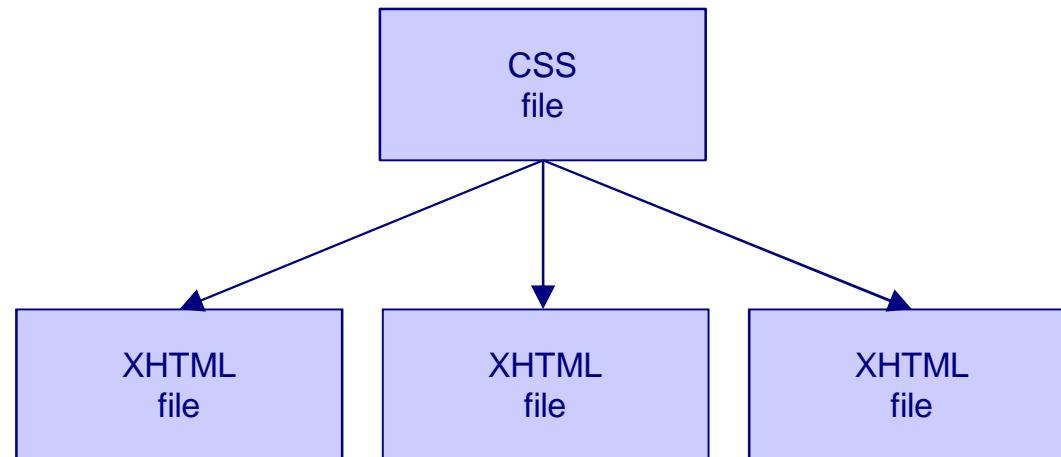
► Examples of properties available in Cascading Style Sheets syntax

- font-color: #ffcccc
- font-weight: bold
- border-bottom: 1px solid #c00
- background: #fcc url(mybackground.gif) repeat-y 0 5px
- margin: 0 4px 2px 0
- float: right
- position: absolute



CSS: The Separation of Content From Layout

- **Separation of content from formatting allows us to**
 - Make changes to an external CSS file
 - See the styles update across multiple-linked (X)HTML files
- **SharePoint handles this similarly with an external core cascading style sheet file**
- **We will examine core styles in the next section**



XHTML = extensible hypertext markup language



- The instructor will now demo what can be accomplished through CSS-based design with <http://www.csszengarden.com>



Basic CSS Syntax

► CSS consists of a selector and a declaration

- A *declaration* is a compound statement including a property and a value

- Basic syntax:

```
selector { property1: value; property2: value; }
```

- Examples:

```
h1 { color: #0033ff; border: 2px solid black; }
```

```
p { font-size: 14px; font-style: italic; }
```

► General rules:

- The selector can be an HTML tag, class, ID, or a combination of all three
- Multiple declarations (rules) are separated by semicolons
- Spaces and returns are not necessary, but make CSS more readable
- WYSIWYG tools, including SharePoint Designer, will format for us, but it is good to understand the syntax



Ways to Define Cascading Style Sheet Statements

- **Cascading Style Sheet statements can be made in multiple locations in an HTML document**
 - External style sheets
 - Linked style sheets
 - Imported style sheets
 - Embedded style sheets
 - Declared in the head of a document
 - Allow statements specific to an individual page
 - Inline style sheets
 - Styles can be declared to an individual element with a style attribute
 - Inline styles override embedded or external styles
 - Inline styles can make for messy HTML and should be avoided



CSS: External Style Sheets

```
<html>
  <head>
    <title>Linked Style Sheet Example</title>
    <link rel="stylesheet" href="style.css" type="text/css">
  </head>

  <body>
    <h1>Welcome to our new CSS site!</h1>
    <p>Basic content will go here</p>
  </body>

</html>
```

Name	Date modified	Type
doc1	7/17/2012 2:28 AM	HTML Document
doc2	7/17/2012 2:28 AM	HTML Document
style	7/17/2012 2:28 AM	CSS Document

HTML folder

```
body {
  background-color: #fcc
}
h1 {
  color: red;
  border-bottom: 1px solid #ccc
}
p {
  font-style: italic;
  line-height: 130%;
  font-family: Verdana, Arial,
  sans-serif;
}
```



CSS: Inline Style Sheets and Embedded Styles

```
<html>
  <head>
    <title>Coffee Shop</title>
    <style>
      h1 {color: blue;}
      strong {color:blue}
      h1 {color:red; font-size:24pt}
    </style>
  </head>

  <body>
    <h1>Coffee Lover</h1>
    <p>
      I want <strong>more coffee</strong>!
    </p>
    <p>
      <em style="background:orange">Espresso</em> to
      be more specific
    </p>
  </body>
</html>
```



Note: If multiple style statements exist *anywhere* in the CSS, the specificity of CSS generally says that the last statement takes precedence. We will leverage this thoroughly later.



CSS: Classes and IDs

- In addition to using tags (such as `h1`) as a CSS selector, we can also use classes and IDs
- Classes are for reusable styles that can be used more than once on a page
 - Example in CSS:
`.warning {background-color: red; font-weight: bold;}`
 - HTML modified by above:
`<p class="warning">This text is important</p>`
- IDs are used similarly to classes, but with some differences:
 - IDs are intended primarily for page regions and can be used only once on a page
 - IDs are referenced with a `#` symbol instead of a `.` like classes
 - Example in CSS:
`#page-header {background-color: blue; position: absolute}`
 - HTML modified by above:
`<div id="page-header">This is the header area</div>`



CSS: Advanced Selectors

► IDs and classes can also be referenced in CSS using a tag

- `p.warning` is equivalent to `.warning` when modifying a `<p>`
- `div#page-header` is equivalent to `#page-header` when modifying a `<div>`

► Group selectors can be used to apply styles to multiple tags

- `h1, h2, h3, h4, h5 {color: red; font-family: Verdana, Arial, Helvetica, Sans-Serif}`



Hands-On Exercise 5.1

*In your Exercise Manual, please refer to
Hands-On Exercise 5.1: Modifying CSS Styles*



- HTML/CSS Overview
- CSS Integration in SharePoint
- HTML5 and CSS3
- Advanced CSS
- SharePoint 2013 Themes
- Reskinning With Custom CSS



Styles in SharePoint Pages

- All SharePoint pages use Cascading Style Sheets extensively to format their look and feel

The screenshot displays a SharePoint Team Site page with several UI components and their associated CSS styles:

- Page Title:** "Team 29 Team Site" (highlighted with a blue box).
CSS:

```
.ms-core-pageTitle { font-size: 2.77em; white-space: nowrap; } .ms-core-pageTitle, .ms-core-pageTitle a { color: #262626; font-family: "Segoe UI Light", "Segoe UI", "Segoe", Tahoma, Helvetica, Arial, sans-serif; }
```
- Section Headers:** "Get started with your site" (highlighted with a blue box) and "Share your site.", "Working on a deadline?", "Add lists other apps.", "What's your style?", "Your site. Your brand.".
CSS:

```
h1, .ms-h1 { color: #777777; font-family: "Segoe UI Light", "Segoe UI", "Segoe", Tahoma, Helvetica, Arial, sans-serif; font-size: 2.3em; font-weight: 200; }
```
- Text and Buttons:** "ms-webpart-titleText" (highlighted with a yellow box), "Documents", "new document or drag files here", "Name".
CSS:

```
.ms-webpart-titleText.ms-webpart-titleText, .ms-webpart-titleText > a { color: #444444; font-family: "Segoe UI Semilight", "Segoe UI", "Segoe", Tahoma, Helvetica, Arial, sans-serif; text-align: justify; white-space: nowrap; }
```
- Image:** A speech bubble icon.



Storage of CSS: SharePoint's Many Files

- SharePoint uses numerous files for declaring CSS styles
- The primary file for handling SharePoint styles is `corev15.css`
- The `core15.css` file is a default configuration file in the 15 Hive
 - Stored in: 15\TEMPLATES\LAYOUTS\1033\STYLES\corev15.css
- In addition to properties declared in `corev15.css`, the selected theme contains styles that override `corev15.css`
- All properties can be modified and overridden
 - Core Styles
 - Custom Style Sheets



- **HTML/CSS Overview**
- **CSS Integration in SharePoint**
- ➔ HTML5 and CSS3**
- **Advanced CSS**
- **SharePoint 2013 Themes**
- **Reskinning With Custom CSS**



HTML5 and CSS3 in SharePoint 2013

- Because the Design Manager is so flexible, HTML5 and CSS3 can be integrated in SharePoint 2013
- **HTML5 offers features for cross-platform mobile applications**
 - Offers new syntactic features for rich media
 - The standard development began in 2004 and is not yet finalized
- **CSS3 offers advanced features**
 - Page layout features, boxes, formatting, and positioning
 - Transitions, transforms, and animation



HTML5 New Features

- **HTML5 supports numerous new features not possible in previous versions**
 - Media playback in the browser's default player with new tags <video> and <audio>
 - Support for local storage
 - New tags to support content-specific coding
 - <article>
 - <header>
 - <footer>
 - <nav>
 - <section>



CSS3 New Features

► CSS3 supports numerous new features not possible in previous versions

- Downloadable fonts now possible with @font-face
- Rounded corners possible with border-radius property
- Shadows with the box-shadow property
- Dynamic widths for mobile device compatibility
- Opacity support for objects from transparent to opaque
- Gradient options with a value setting for background, border-image, and list-style-image
- Multiple background images
- Transform options for rotate, scale, skew, translate, and matrix
- A transition property for dynamic element changes



- HTML/CSS Overview
- CSS Integration in SharePoint
- HTML5 and CSS3
- **Advanced CSS**
- SharePoint 2013 Themes
- Reskinning With Custom CSS



CSS: Advanced Selectors

- Contextual selectors can be used to apply styles only to a tag within another tag



`td p strong {color: blue; font-style: italic}` applies to:

```
<td>
  <p>This is paragraph text
    <strong>and this is bold and blue</strong>
  </p>
</td>
```

- SharePoint uses many contextual selectors to identify any elements used in the SharePoint environment



Anchor Pseudo-Selectors

- Pseudo-selectors are used to provide more control over the styling of anchors (and some other tags)

a:link { color:blue; }	Unvisited links
a:visited { color:purple; }	Visited links
a:hover { color:red; }	Rollover effect
a:active { color:yellow; }	Active links (just clicked)

- The styles *must be defined in this order:*
Link, Visited, Hover, Active (LVHA)



SharePoint Default CSS

► !important can be used to apply a CSS style no matter where else it may be referenced differently

- Even in cases where specificity says that something should be styled differently, !important takes precedence
- A global-style trump card

```
.s4-breadcrumb-anchor, .ms-qatbutton {  
    position: absolute;  
    top: -112px !important; }
```

► Classes are used extensively in SharePoint

- A class is used to format numerous elements, as a way to be more specific than identifying an individual tag

► IDs in SharePoint are used to style unique elements

- Similar to classes, but intended for use only once on a page



Internet Explorer CSS Browser Tools

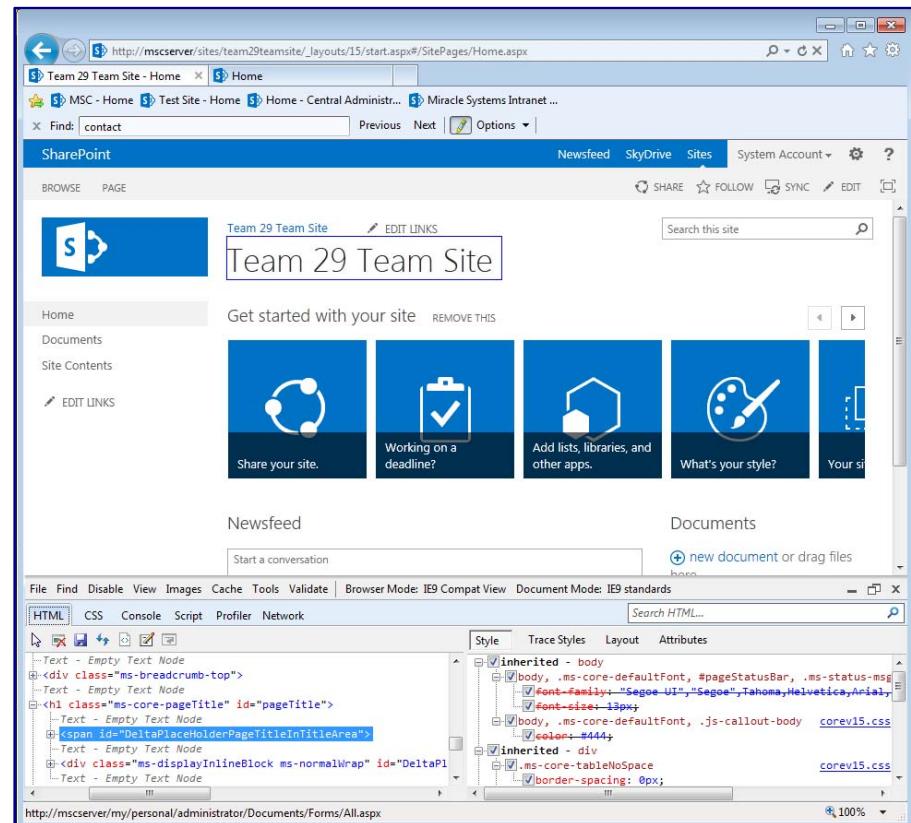
► The challenge of modifying CSS in SharePoint Designer is the number of files and the amount of CSS code that SharePoint generates by default

- Several *free* tools exist that allow you to analyze browser HTML/CSS output in Internet Explorer or Firefox

► Developer Toolbar: IE

- Available in Internet Explorer 7+
- Requires a download in earlier versions
- Allows you to view CSS elements and syntax for selected elements

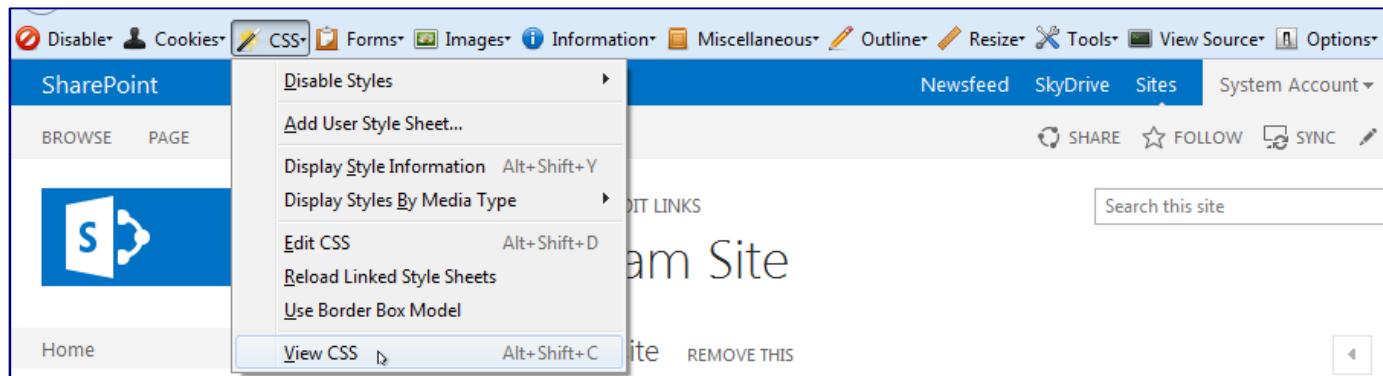
IE = Internet Explorer



Internet Explorer Developer Toolbar



Firefox CSS Browser Tools



➤ Web Developer Toolbar

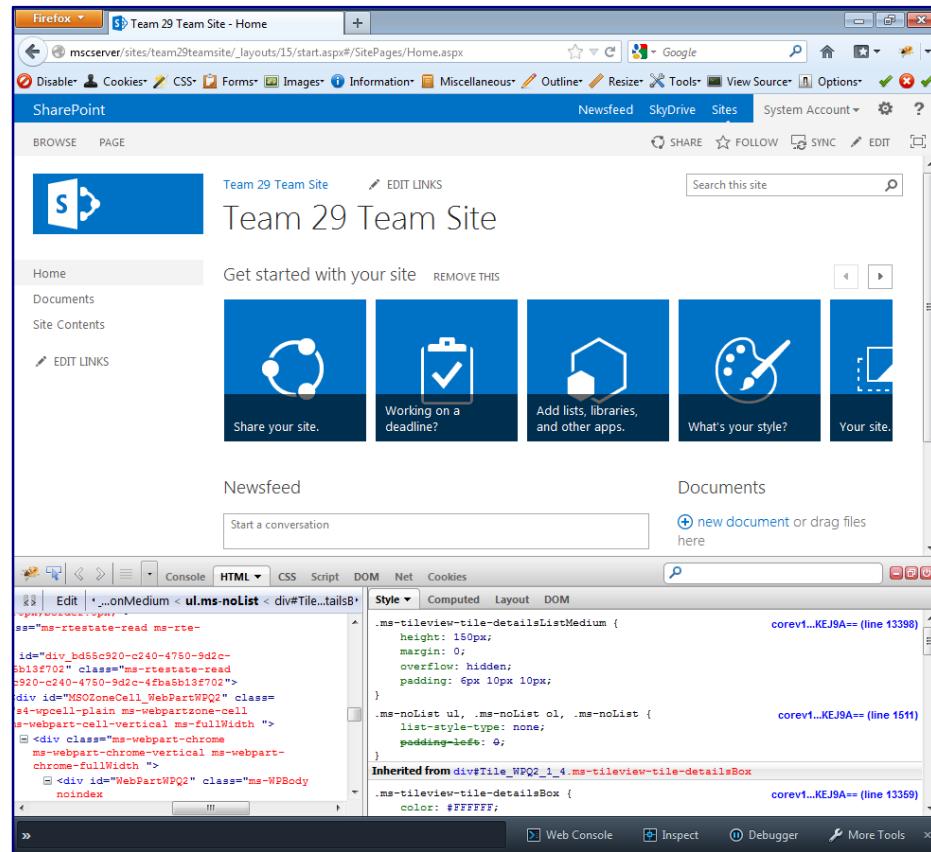
- A free Firefox toolbar by Chris Pederick
- Adds a menu and a toolbar with various web developer tools
 - CSS features
 - Image features
 - Document information
 - Container outlining
 - Source tools
- <http://addons.mozilla.org/en-US/firefox/addon/60>



Firefox CSS Browser Tools

► Firebug

- Integrates with Firefox to put development tools at your fingertips while you browse
- Edit, debug, and monitor CSS, HTML, and JavaScript live
- <http://getfirebug.com>



Hands-On Exercise 5.2

*In your Exercise Manual, please refer to
Hands-On Exercise 5.2:
Working With Tools to Analyze SharePoint CSS Styles*



- **HTML/CSS Overview**
- **CSS Integration in SharePoint**
- **HTML5 and CSS3**
- **Advanced CSS**
- ➔ SharePoint 2013 Themes**
- **Reskinning With Custom CSS**



SharePoint 2013 Themes

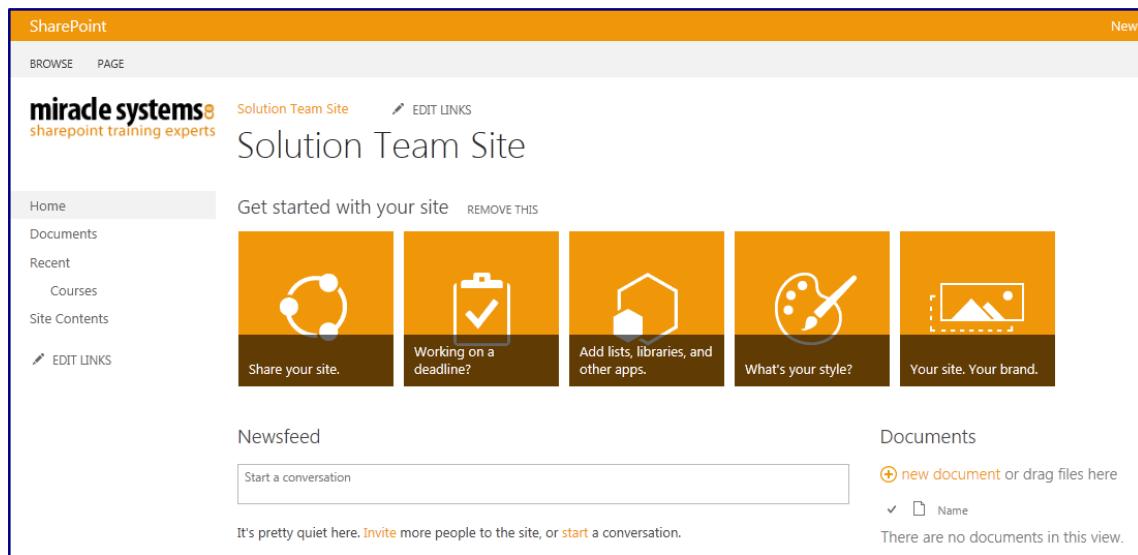
➤ Composed Looks provides a quick, easy way to apply lightweight branding to a SharePoint 2013 site

➤ A Composed Look (theme) includes

- Site layout
- Color palette
- Font scheme
- Background image

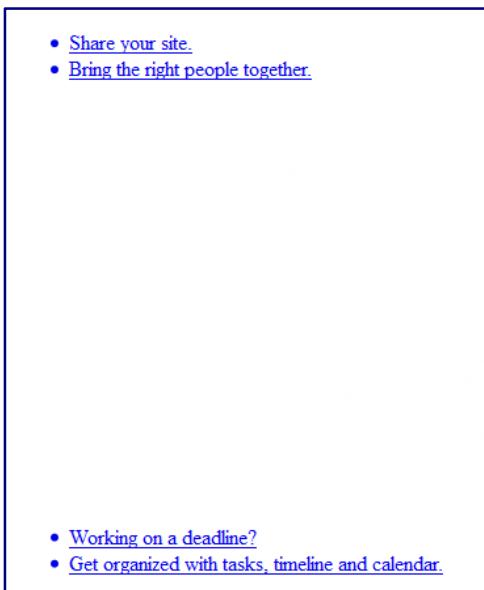
➤ SharePoint now uses XML files for containing color and font information

- .spcolor
- .spfont

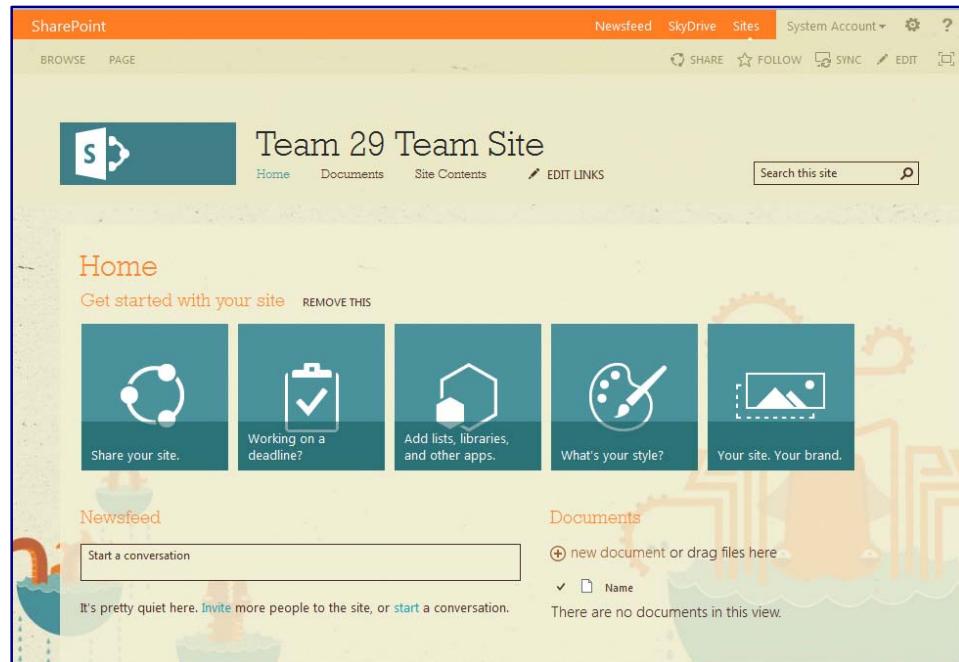


Themes and the SharePoint CSS Cascade

- As the browser loads a **default.aspx** document, the **core.css** is rendered dynamically, incorporating theme styles directly



A SharePoint site with *no* CSS



A SharePoint site after loading **core.css**
including theme styles



Custom Themes

- Custom themes called Composed Looks can be created to allow additional default design options to users
- Composed Looks display in the Designer Gallery when selecting a theme in Site Settings | Change the Look
- Files are uploaded in the Design Manager to respective locations
 - Master Pages to the Master Page Gallery
 - Themes to the Theme Gallery
 - Custom CSS and Images to the Style Library



SharePoint Color Palettes

- In SharePoint 2010, color schemes could be saved from Microsoft Office
- In SharePoint 2013, Color Palettes are an XML configuration file containing color values for each area:

```
<?xml version="1.0" encoding="utf-8"?>
<s:colorPalette isInverted="true"
previewSlot1="BackgroundOverlay" previewSlot2="BodyText"
previewSlot3="AccentText"
xmlns:s="http://schemas.microsoft.com/sharepoint/ ">
    <s:color name="BodyText" value="FFFFFF" />
    <s:color name="SubtleBodyText" value="AFABAB" />
    <s:color name="StrongBodyText" value="FFFFFF" />
    <s:color name="DisabledText" value="898E77" />
    <s:color name="SiteTitle" value="B1B329" />
```

- Color Palettes can also contain transparency effects



SharePoint Color Palette Tool

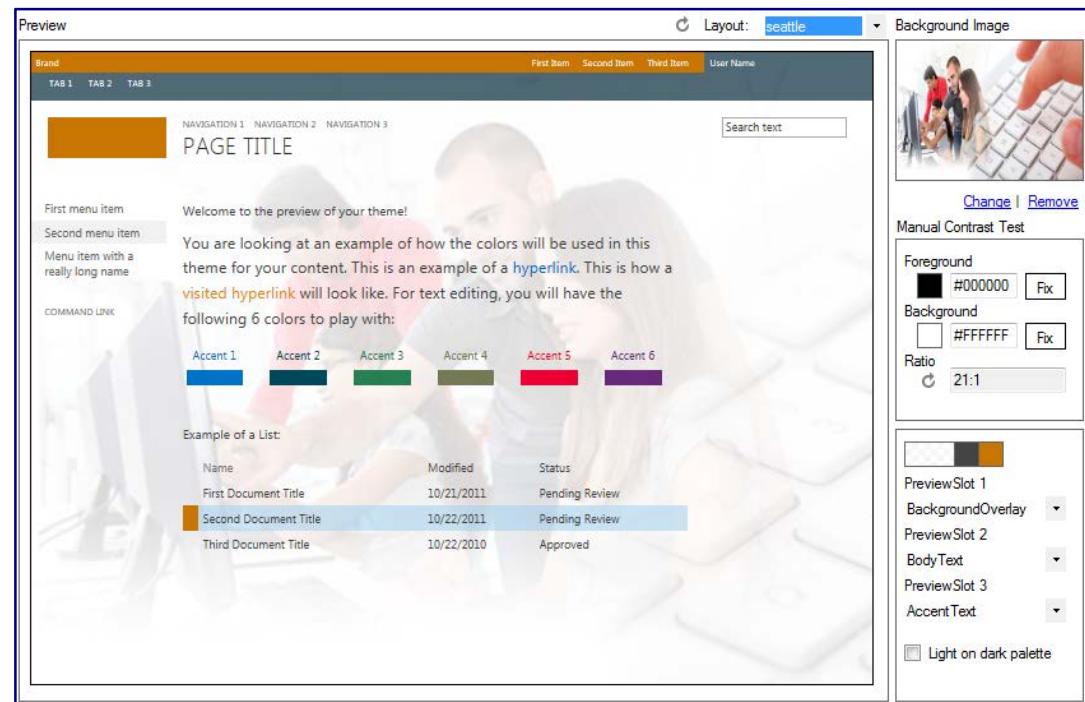
► Microsoft offers a free SharePoint Color Palette Tool

- www.microsoft.com/en-us/download/details.aspx?id=38182
- The Color Palette Tool provides color palette functionality for use with SharePoint designs

► Color palettes can be opened directly from the theme gallery

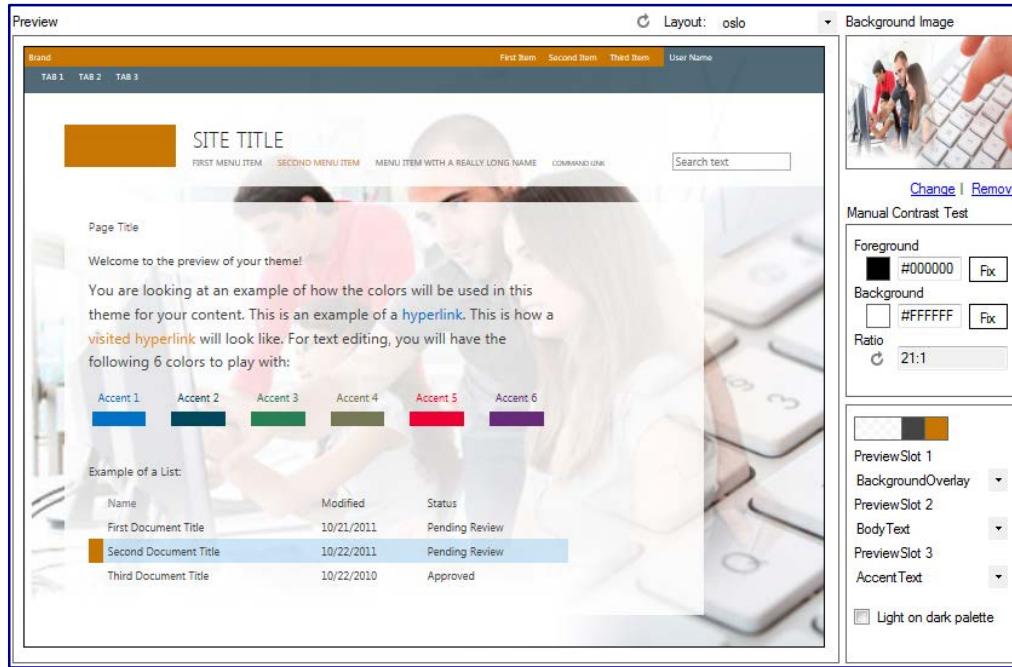
► Colors can be chosen with a preview showing changes

► You can choose colors with an eyedropper or directly enter hex color codes



SharePoint Color Palette Tool

- Users can also change the background image in the tool



- Errors and warnings help ensure that your color palette will be compatible with SharePoint 2013



Composed Looks Gallery

- Composed Looks are stored in Web Designer Galleries | Composed Looks
- A list type that contains metadata fields for basic design parameters

Composed Looks ①

[+ new item or edit this list](#)

All Items [...](#)

	Name	Master Page URL	Theme URL	Image URL	Font Scheme URL
Current					
Orange	/sites/dev/_catalogs/masterpage/seattle.master	/sites/dev/_catalogs/theme/15/palette015.spcolor			
Sea Monster	/sites/dev/_catalogs/masterpage/oslo.master	/sites/dev/_catalogs/theme/15/palette005.spcolor	/layouts/15/images/image_bg005.jpg	/sites/dev/_catalogs/theme/15/fontscheme003.spfont	
Green	/sites/dev/_catalogs/masterpage/seattle.master	/sites/dev/_catalogs/theme/15/palette013.spcolor			
Lime	/sites/dev/_catalogs/masterpage/seattle.master	/sites/dev/_catalogs/theme/15/palette026.spcolor			
Nature	/sites/dev/_catalogs/masterpage/seattle.master	/sites/dev/_catalogs/theme/15/palette006.spcolor	/layouts/15/images/image_bg006.jpg	/sites/dev/_catalogs/theme/15/fontscheme001.spfont	
Blossom	/sites/dev/_catalogs/masterpage/seattle.master	/sites/dev/_catalogs/theme/15/palette002.spcolor	/layouts/15/images/image_bg002.jpg		



Composed Looks Items

► A Composed Look consists of

- Title
- Name (to display in Design Gallery)
- Master Page URL
- Theme URL
- Image URL
- Font Scheme URL
- Display Order
- Master Page Preview (to display in Design Gallery)

Title *	Miracle Systems Company
Name *	Miracle Systems Company
Master Page URL	Type the Web address: (Click here to test) http://mscserver/sites/solutionteamsite/_catalogs/masterpage/oslo.r
Theme URL	Type the Web address: (Click here to test) http://mscserver/sites/solutionteamsite/_catalogs/theme/15/mscthe Type the description: http://mscserver/sites/solutionteamsite/_catalogs/theme/15/mscthe
Image URL	Type the Web address: (Click here to test) http://mscserver/sites/solutionteamsite/SiteAssets/miraclesystemsba Type the description: http://mscserver/sites/solutionteamsite/SiteAssets/miraclesystemsba
Font Scheme URL	Type the Web address: (Click here to test) http:// Type the description: http://
Display Order	1
Created at 7/17/2013 3:34 PM by <input type="checkbox"/> System Account	
Last modified at 7/17/2013 3:34 PM by <input type="checkbox"/> System Account	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	



Hands-On Exercise 5.3

*In your Exercise Manual, please refer to
Hands-On Exercise 5.3: Creating a New Composed Look*



- HTML/CSS Overview
- CSS Integration in SharePoint
- HTML5 and CSS3
- Advanced CSS
- SharePoint 2013 Themes
- ➔ Reskinning With Custom CSS



Custom Cascading Style Sheets

- Custom style sheets may be developed in addition to creating custom themes
- By linking to the custom style sheet last, we can override styles declared in both the corev15.css style sheet and the theme style sheet
- A **CssRegistration** control can be added to the master page
 - Now includes **After** property to declare position of CSS link tag
 - ```
<SharePoint:CssRegistration name="<% $SPUrl:~sitecollection/
 Style Library/styles.css %>" After="corev15.css" runat="server" />
```



```
<asp:Content ContentPlaceHolderId="PlaceHolderBodyAreaClass" runat="server">
<asp:Content ContentPlaceHolderId="PlaceHolderTitleAreaClass" runat="server">
<SharePoint:SPPageManager runat="server"/>
<SharePoint:SPHelpPageComponent Visible="false" runat="server"/>
<SharePoint:CssRegistration Name="/sites/trainingteam/SiteAssets/styles.css"
 After="corev15.css" runat="server" />
</head>
<body scroll="no" onload="if (typeof(_spBodyOnLoadWrapper) != 'undefined') _spBodyOnLoadWrapper(); if (typeof(_spFormOnSubmitWrapper) != 'undefined') _spFormOnSubmitWrapper();">
<form runat="server" onsubmit="if (typeof(_spFormOnSubmitWrapper) != 'undefined') _spFormOnSubmitWrapper(); return true;">
<asp:ScriptManager id="ScriptManager" runat="server" EnablePageMethods="false">
<WebPartPages:SPWebPartManager id="m" runat="Server"/>
</form>
</body>
</html>
```



# Using Alternate CSS Styles

- As mentioned earlier, the easiest way to apply custom CSS is using Alternate CSS Styles in Master Page Settings
  - Requires publishing features to be enabled

**Alternate CSS URL**

Specify the URL of a cascading style sheet (CSS) to apply to this site. The CSS files should contain every class you might reference from any control and from any page in your site. This will help ensure that your site is displayed exactly as you want it to.

Select the first option to use the parent CSS URL of this site. Select the second option to use the Microsoft SharePoint Foundation default style. Select the third option to specify your own CSS URL.

Inherit Alternate CSS URL from parent of this site  
 Use Microsoft SharePoint Foundation default styles  
 Specify a CSS file to be used by this publishing site and all sites that inherit from it:  
http://mscserver/sites/msctraining/Styl... [Browse...](#)

[Reset all subsites to inherit this alternate CSS URL](#)

- If you are not using publishing features, you will need to use the `AlternateCssUrl` property or a `CssRegistration` control in the Master Page



# Adding Custom CSS to Master Pages

- Unlike publishing sites, standard sites do not include Master Page settings to allow attachments of custom CSS
- Custom CSS must be added to the Master Page using SharePoint Designer
- SharePoint 2013 now includes a way to specify After="corev15.css" in the CssRegistration
  - Custom CSS is referenced after the OOTB corev15.css files
- Custom CSS can be referenced from the 15 Hive

```
<SharePoint:CssRegistration name="customfolder/samplecustom.css" After="corev15.css" runat="server" />
```

- Custom CSS can be referenced from the content database

```
<SharePoint:CssRegistration name="<%$SPUrl:~sitecollection/Style Library/samplecustom.css %>" After="corev15.css" runat="server" />
```



# SharePoint CSS Challenges

---

- **Multiple options exist for modifying CSS styles, but the environment is complex**
- **Microsoft has made improvements to SharePoint, such as better browser editing, to help end users style SharePoint sites**
- **However, challenges still exist for developers**
  - Master Page Settings requires feature-enabling that may not be available depending on your edition of SharePoint
  - A thorough understanding of CSS is required to fully manipulate styles in SharePoint 2013



# Best Practices With CSS and Themes

---

- **Themes/Composed Looks offer the ability to lightly reskin a SharePoint site directly in the browser**
  - If users need to modify styles slightly and don't wish to learn CSS, manipulating Composed Looks in the browser is an option
  - More advanced styling can be done by creating custom Composed Looks
- **Alternate CSS is the most powerful way to add additional styles or CSS overrides to SharePoint**
  - Particularly appealing if already using publishing site templates
    - Only available for SharePoint Server
  - Offers a simple way to apply a custom style sheet to the current site and all subsites
  - Additional work with Visual Studio may be required to distribute custom CSS and image files throughout an entire SharePoint farm



# Hands-On Exercise 5.4

---

*In your Exercise Manual, please refer to  
Hands-On Exercise 5.4:  
Creating and Adding an External Style Sheet*



# Chapter Summary

---

In this chapter, we have

- Reviewed HTML fundamentals in SharePoint 2013
- Reviewed CSS fundamentals for styling pages and content
- Identified CSS integration in SharePoint
- Reviewed advanced features available with HTML5 and CSS3
- Used advanced selectors for styling content contextually
- Used the advanced theme engine in SharePoint 2013
- Added custom styles to reskin default SharePoint styles



# Master Pages in SharePoint 2013



# Chapter Objectives

In this chapter, we will

- Review master page structure
- Use the Design Manager with master pages
- Customize out-of-the-box master pages
- Create a fully branded master page



- ▶ **Master Pages Overview**
- ▶ **Customizing Out-of-the-Box Master Pages**
- ▶ **Creating a Fully Branded Master Page**



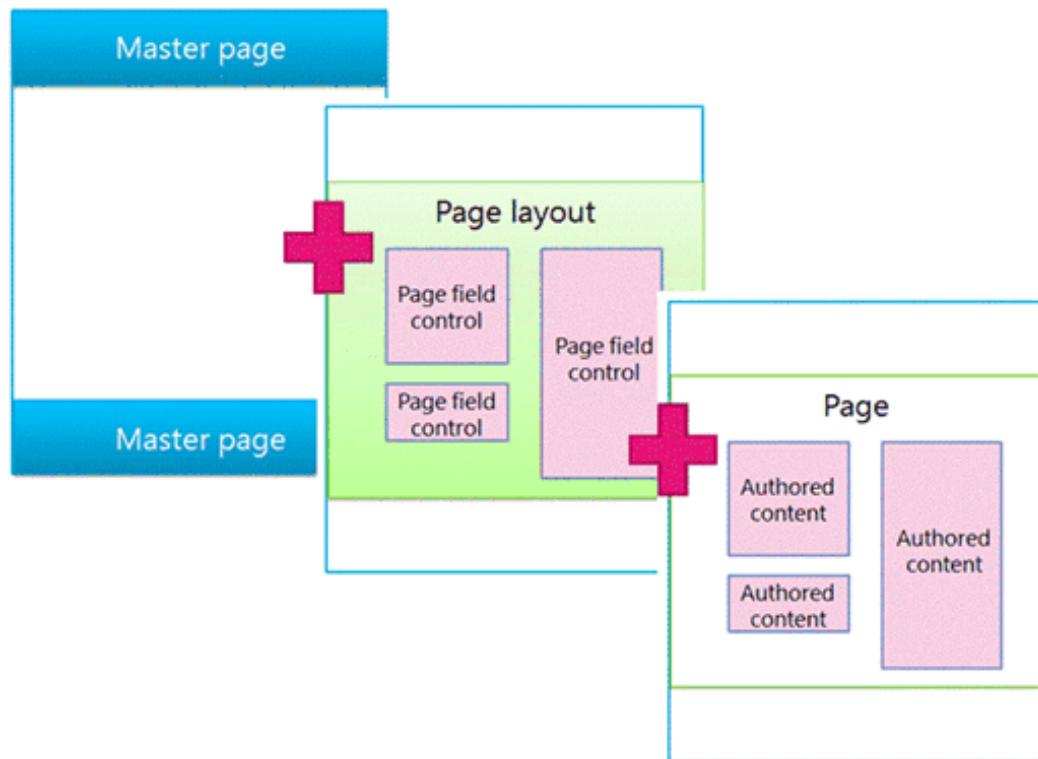
# Master Pages Overview

- **Master pages are an ASP.NET 2.0 technology**
  - Not exclusive to SharePoint sites
- **Used to create a template to affect overall layout of multiple pages in an ASP.NET website**
  - In SharePoint, define the shared framing elements for all site pages
- **Hold all primary structural HTML containers for all areas**
  - Top navigation
  - Breadcrumbs
  - Site logo
  - Headers
  - Footers
- **Also include HTML content in the head of the document, such as**
  - DOCTYPE
  - Meta information
  - CSS links



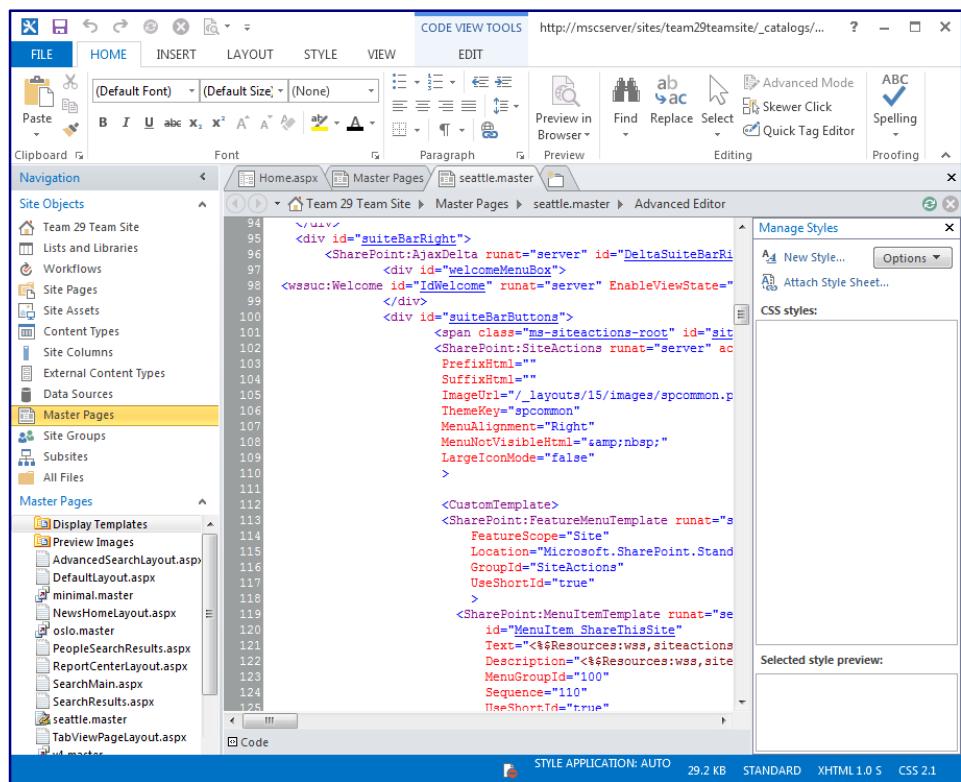
# SharePoint 2013 Page Model

- The master page is the overall page “wrapper” or “skeleton” for SharePoint pages
  - Contains all elements that appear on all SharePoint pages
- Page layouts also play an integral role
- A rendered page in SharePoint is the combination of:
  - A master page
  - A page layout
  - A content page



# Master Pages Overview

- Master pages offer separation of the layout of your SharePoint pages and the content of each page
- Multiple master pages exist in SharePoint to allow changes to the look and feel of your entire site
- Content pages connect to a master page for layout
- The default master page in SharePoint 2013 is `seattle.master`
- New master pages can be created



```
<div id="suiteBarRight">
 <SharePoint:AjaxDelta runat="server" id="DeltaSuiteBarRight">
 <div id="welcomeMenuBox">
 <wssuc:Welcome id="IdWelcome" runat="server" EnableViewState="true" />
 </div>
 <div id="suiteBarButtons">

 <SharePoint:SiteActions runat="server" id="siteActions" PrefixHtml="" SuffixHtml="" ImageUrl="/_layouts/15/images/spcommon.png" ThemeKey="spcommon" MenuAlignment="Right" MenuNotVisibleHTML=" " LargeIconMode="false" />

 </div>
 </SharePoint:AjaxDelta>
</div>

<CustomTemplate>
<SharePoint:FeatureMenuTemplate runat="server" FeatureScope="Site" Location="Microsoft.SharePoint.StandardGroup" GroupId="SiteActions" UseShortId="true" />
<SharePoint:MenuItemTemplate runat="server" id="MenuItem_ShareThisSite" Text="<%$Resources:wss,siteactions%>" Description="<%$Resources:wss,siteactions%>" MenuGroupId="100" Sequence="110" UseShortId="true" />
```



# Benefits of Using Master Pages

---

- **Provide a single page to control look and feel to reinforce your branding guidelines throughout your SharePoint site**
  - Advantages for maintaining the site
  - Ability to make sweeping design changes
  - Can be deployed throughout your SharePoint environment to provide global control of your brand
- **Consistency can be tightly controlled**
  - Design
  - Navigation
  - Default SharePoint controls
- **Multiple master pages can be leveraged to allow variations in branding across different areas of your site**
  - With a combination of master pages and page layouts, in most cases, one master page will suffice



# What's New With Master Pages in SharePoint 2013

- SharePoint 2013 significantly changes the model many developers will be familiar with from past versions
- In SharePoint 2010 and 2007, manipulating a `masterpage.master` file in SharePoint Designer required technical knowledge
  - HTML, CSS, ASP.NET
  - SharePoint page model, controls, etc.
- In SharePoint 2013, a master page can be built directly from imported HTML/CSS in the Design Manager
  - Still requires HTML/CSS knowledge
  - Reduces need for ASP.NET and SharePoint background
- HTML5 full compatibility
- A linked `masterpage.html` file can be edited, and SharePoint will sync the changes to `masterpage.master`
  - Reduces complexity of code while editing the file
  - Allows a designer to focus on structural formatting



# Default SharePoint Content

---

- SharePoint master pages include everything that “makes SharePoint SharePoint”
  - Settings gear
  - Ribbon
- SharePoint does this with one of two items:
  - Delegate control
  - Content placeholder
- A delegate control is a region in a master page that allows the content to be replaced with custom content
- Content placeholders define replaceable content regions within a master page

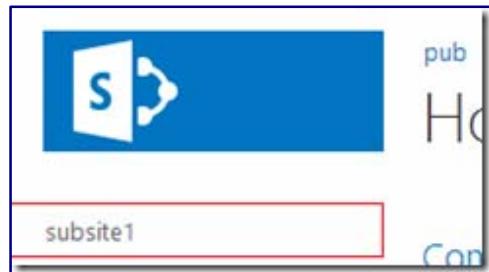


# Delegate Controls

- When editing a master page, you will see numerous delegate controls that represent standard functionality, some of it new to SharePoint 2013
  - SuiteLinksDelegate



- QuickLaunchDataSource

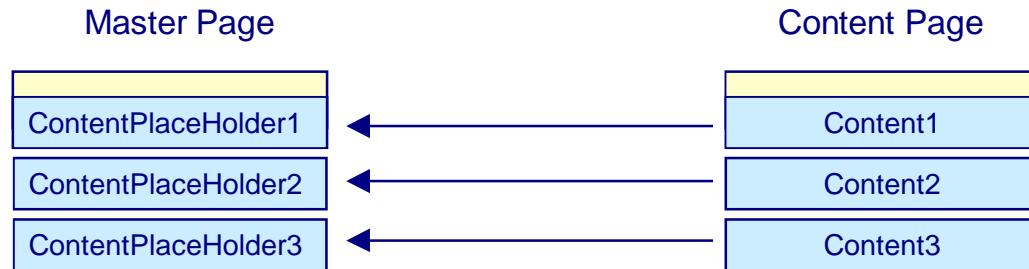


- PromotedActions



# Content Placeholders

- Used in a master page to define areas where content from a content page will be placed



- Within master page
  - Use ASP :ContentPlaceholder tag
  - Reserves position in master page



# Content Placeholders

## ► Default content placeholders come with existing master pages

- The content placeholder PlaceHolderMain defines the container where content in a content page is to be placed

Placeholder	Description
<asp:ContentPlaceHolder id="PlaceHolderPageTitleInTitleArea">	Title of the page
<asp:ContentPlaceHolder id="PlaceHolderQuickLaunchBottom">	Links that appear at the bottom of the left navigation
<asp:ContentPlaceHolder id="PlaceHolderLeftNavBar">	Left navigation (quick launch)



# Accessing Master Pages

- Master pages reside in the Master Page gallery
- Master pages can be manipulated in several ways
  - Edit directly in SharePoint Designer 2013
  - Download a copy and edit in any other HTML editor
  - Edit in Design Manager
    - Only available for publishing sites and sites with publishing features enabled

CatalogArt	<a href="#">View Properties</a> <a href="#">Edit Properties</a>	4/27/2013 9:05 PM
CatalogWeb	<a href="#">Check Out</a>	4/27/2013 9:05 PM
Custom_M	<a href="#">Publish a Major Version</a>	4/29/2013 1:14 PM
Custom_M	<a href="#">Version History</a>	4/29/2013 1:14 PM
DefaultLayout	<a href="#">Compliance Details</a>	10/26/2012 1:41 AM
Enterprise	<a href="#">Workflows</a> <a href="#">Download a Copy</a>	2013 9:05 PM
ErrorLayout	<a href="#">Download a Copy</a>	4/27/2013 9:06 PM
minimal.m	<a href="#">Shared With</a>	4/28/2013 10:29 PM



# Hands-On Exercise 6.1

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*In your Exercise Manual, please refer to  
Hands-On Exercise 6.1: Collaboration and Publishing Master Pages*



- Master Pages Overview
- Customizing Out-of-the-Box Master Pages
- Creating a Fully Branded Master Page



# Editing Master Pages in SharePoint 2013

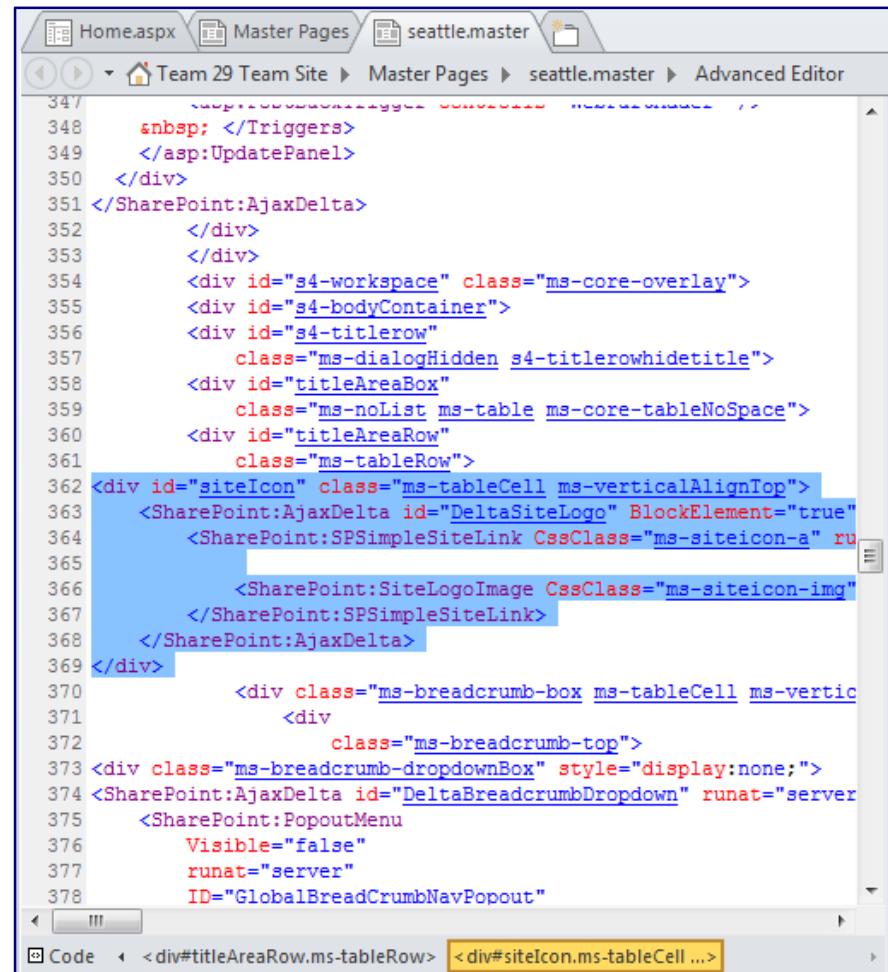
## ► Two options for making changes to master pages in SharePoint 2013

- Make changes to an existing master page
  - Generally acceptable when minor changes are required
  - Can use any editor of choice
- Create a new master page
  - Used when design requirements are significantly different from what is available out of the box
  - Requires knowledge of HTML/CSS
  - Can be managed with the Design Manager
  - Requires a static HTML/CSS layout/design to be designed beforehand in an editor of your choice



# Determine Master Page Modifications

- Master pages can be modified by opening them for editing in SharePoint Designer 2013 or other editors
- Existing HTML can be changed in Code view
  - Content placeholders can be styled by identifying CSS and overriding
  - Content placeholders can be hidden with custom CSS
  - Overall layout can be changed by directly editing HTML



```
347 </asp:Triggers>
348 </Triggers>
349 </asp:UpdatePanel>
350 </div>
351 </SharePoint:AjaxDelta>
352 </div>
353 </div>
354 <div id="s4-workspace" class="ms-core-overlay">
355 <div id="s4-bodyContainer">
356 <div id="s4-titlerow"
357 class="ms-dialogHidden s4-titlerowhidetitle">
358 <div id="titleAreaBox"
359 class="ms-noList ms-table ms-core-tableNoSpace">
360 <div id="titleAreaRow"
361 class="ms-tableRow">
362 <div id="siteIcon" class="ms-tableCell ms-verticalAlignTop">
363 <SharePoint:AjaxDelta id="DeltaSiteLogo" BlockElement="true"
364 <SharePoint:SPSimpleSiteLink CssClass="ms-siteicon-a" ru
365
366 <SharePoint:SiteLogoImage CssClass="ms-siteicon-img"
367 </SharePoint:SPSimpleSiteLink>
368 </SharePoint:AjaxDelta>
369 </div>
370 <div class="ms-breadcrumb-box ms-tableCell ms-vertic
371 <div
372 class="ms-breadcrumb-top">
373 <div class="ms-breadcrumb-dropdownBox" style="display:none;">
374 <SharePoint:AjaxDelta id="DeltaBreadcrumbDropdown" runat="server
375 <SharePoint:PopoutMenu
376 Visible="false"
377 runat="server"
378 ID="GlobalBreadCrumbNavPopout"
379 </SharePoint:PopoutMenu>
380 </div>
381 </div>
382 </div>
383 </div>
384 </div>
385 </div>
```



# CSS Modifications: Hide “Edit Links”

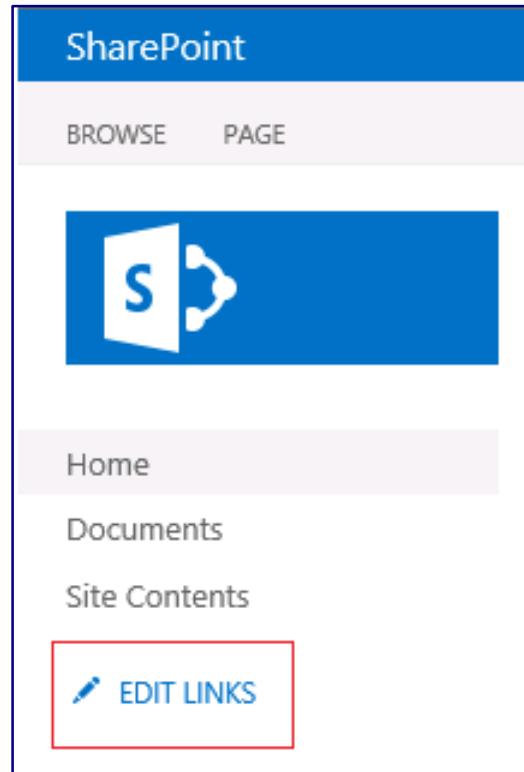
- ▶ **Links at the bottom of the QuickLaunch now allow users to edit the QuickLaunch links for themselves**

- This level of control may not be desirable
- Quick Launch links can be hidden with

```
.ms-core-listMenu-verticalBox
 .ms-listMenu-editLink {
 display: none;
 }
```

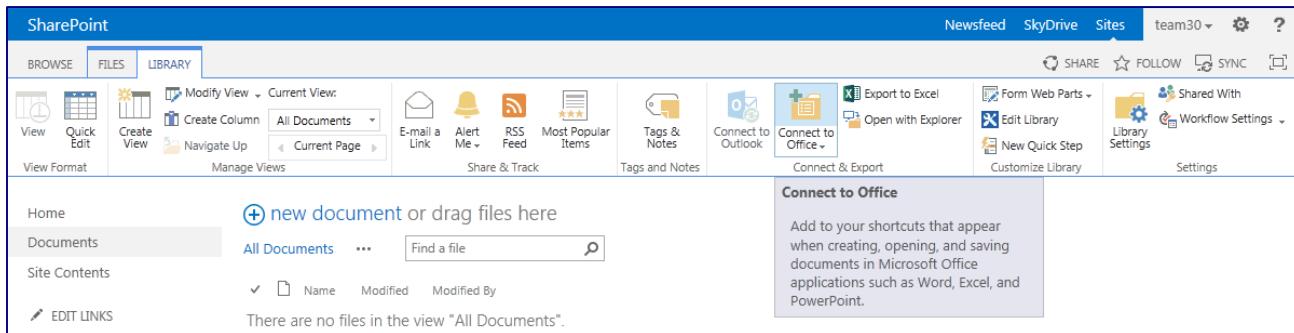
- Top navigation links can be hidden with

```
.ms-navedit-editLinksText {
 display: none;
}
```



# Challenges With Master Pages: The Ribbon

- The prominent SharePoint ribbon impacts branding decisions in the header region of the page
- The ribbon code is about 300 lines of code
  - Included in most starter master pages

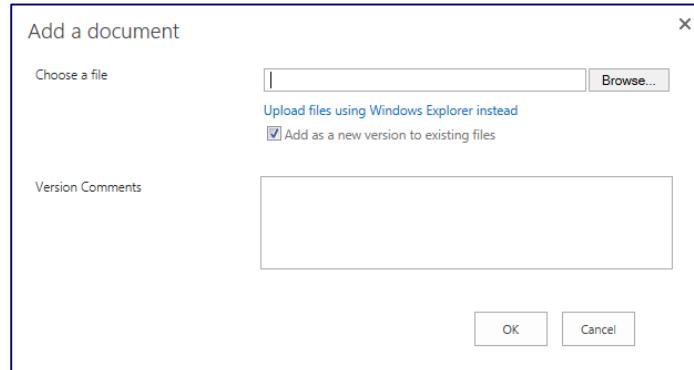


- The ribbon is coded to appear at the top of the page in a fixed-position div
  - Any scrollbar appears at the right of the page, beneath the ribbon
  - Placement of the ribbon in the master page in SharePoint 2013 causes fewer headaches than in SharePoint 2010

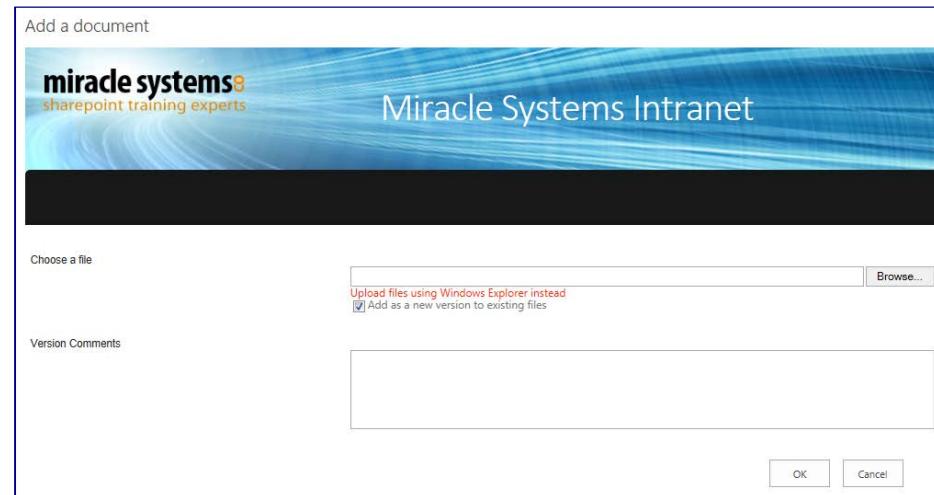


# Challenges With Master Pages: Dialogs

- **Dialog boxes in SharePoint 2013 appear in a separate div instead of a new window**
- **The master page is applied to the dialog just as any other page**
  - This may not be the desired effect
- **Microsoft includes a method to override this effect**
  - Adding a `.s4-notdlg` class to any HTML element in the master page will hide it from displaying in any dialogs



**With s4-notdlg class**



**Without s4-notdlg class**



# Starter Master Pages

- Like SharePoint 2010, starter master pages can be downloaded from Microsoft and other sites
  - Like SharePoint 2010, starter master pages can be downloaded from Codeplex
    - [startermasterpages.codeplex.com/](http://startermasterpages.codeplex.com/)
- Starter master pages provide a functional, minimal master page to begin applying design with custom HTML/CSS
  - Include all required content placeholders
  - Include some SharePoint controls for functionality
  - Include very minimal style and layout
- Starter master pages can also be created in the Design Manager
- Starter master pages can be useful if
  - You want to build your design around SharePoint functionality rather than starting with an existing design
  - You want to quickly prototype functionality that requires significant customization



# Hands-On Exercise 6.2

*In your Exercise Manual, please refer to  
Hands-On Exercise 6.2: Modifying Existing Master Pages*

Bonus: Restore the "Navigate Up" breadcrumb navigation lost after SP 2010

1. Look for <div class="ms-breadcrumbm-dropdownBox" style="display:none;">
2. Remove it
3. Look a couple lines beneath this line for the visible="false" attribute and remove it.



- Master Pages Overview
- Customizing Out-of-the-Box Master Pages
- ➔ Creating a Fully Branded Master Page



# Custom Master Pages

## ► Custom Master Pages are the biggest change in branding in SharePoint 2013

- With the HTML editor of your choice, you can create your HTML and import it to SharePoint 2013 via the Design Manager
- Starter master pages can also be used
- Example: [www.ferrari.com](http://www.ferrari.com)



# Achieving a Fully Branded Master Page From Scratch

- The new method for fully branded master pages in SharePoint 2013 publishing sites is to:
  1. Create a custom HTML/CSS design in the editor of your choice
  2. Convert the HTML into a custom master page in the Design Manager
  3. Add code snippets to incorporate SharePoint functionality
  4. Make adjustments to master page HTML, CSS, and JavaScript by editing the associated HTML file
- When preparing an HTML file for Design Manager
  - Your HTML file must be XML-compliant
  - Don't use any embedded styles
    - Embedded styles will be removed with comments
    - External style sheets should be used instead



# How To: Converting an HTML File Into a Master Page

1. Map a network drive to SharePoint as done previously
2. Upload all HTML, CSS, and image files to your SharePoint 2013 site
3. Navigate to your publishing site
4. Click Settings | Design Manager
5. Click “Convert an existing HTML file to a SharePoint master page”

Design Manager: Edit Master Pages

A master page defines common elements across all the pages of your site. You can use the net click on its file name or status. While previewing your HTML master page, use the Snippet Galle

- [Convert an HTML file to a SharePoint master page](#)
- Create a minimal master page

Name	Status	Approval Status

SharePoint will convert the uploaded HTML file of your choice to a Master Page by adding the required functionality.



# How To: Converting an HTML File Into a Master Page

6. In the “Select an Asset” dialog, select your HTML file
7. Click Insert
8. Any errors will be identified, or the Status will be “Conversion Successful”

	Name	Status	Approval Status
	Minimal Master Page	...	Conversion successful.
	oslo	...	Conversion successful.
	seattle	...	Conversion successful.
	twocolumn1 *	...	<u>Conversion successful.</u>

9. Fix any errors by editing the HTML file in the mapped drive with the editor of your choice
10. A ContentPlaceholder with a <div> for your page layout content will appear within the master page



# Master Page Code

- Upon conversion of your HTML, SharePoint will add all required content to make the page function as a master page
- When you edit the associated HTML, SharePoint will apply the updates to the master page
- Some of the code that gets added includes
  - Document properties: metadata about the file
    - <mso:HtmlDesignConversionSucceeded msdt:dt="string">True</mso:HtmlDesignConversionSucceeded>
  - Comments: <CS> and <CE> for Comment Start and Comment End
    - <!--CS: Start Page Head Contents Snippet--> ... <!--CE: End Page Head Contents Snippet-->
  - Snippets: SharePoint controls that add SharePoint functionality
    - <!--MS:<SharePoint:CssLink runat="server" Version="15"><!--ME:</SharePoint:CssLink>-->



# Custom Master Page

miracle systems  
sharepoint training experts

## Miracle Systems Intranet

by HTML5Templates.com

About MSC Contact Us MSC Courses MSC Instructors MSC Locations Edit Links

1531

1533

1534

1535

Integer gravida nibh quis un

Sidebar 1

October 23

Donec leo, vivamus fermentum nibh in augue praesent a lacus at urna congue rutrum.

October 20

Donec leo, vivamus fermentum nibh in augue praesent a lacus at urna congue rutrum.

Our Custom Master Page After Conversion: Exercise 6.3



# Code Snippets and the Snippet Gallery

## ► The Snippet Gallery provides a way to add SharePoint functionality to your master page

- Top navigation
- Vertical navigation
- Search box
- Site title
- Site logo
- Sign in
- Edit mode panel
- Security trim
- Device channel panel
- Media and content
- Dynamic content
- Other Web Parts
- Custom ASP.NET

The screenshot shows the SharePoint Snippet Gallery interface. The top navigation bar includes 'BROWSE' and 'DESIGN' tabs, and various icons for different snippet types like 'Vertical Navigation', 'Search Box', 'Site Title', etc. The main area is titled 'Top Navigation' with a preview showing a navigation menu with links like 'About MSC', 'Books', 'Contact Us', 'Media', 'MSC Courses', 'MSC Instructors', 'Course Notes', 'Exercise Manual', 'CD-ROM', 'Download', and 'MSC Locations'. Below the preview are 'HTML Snippet' and 'Custom ASP.NET Markup' buttons, and 'Update' and 'Reset' buttons.

Top Navigation snippet

The screenshot shows the SharePoint Snippet Gallery interface. The top navigation bar includes 'BROWSE' and 'DESIGN' tabs, and various icons for different snippet types like 'Vertical Navigation', 'Search Box', 'Site Title', etc. The main area is titled 'Site Logo' with a preview showing a logo for 'mirade systems® sharepoint training experts'. Below the preview are 'Customization - Site Logo' and 'Customization - Site Logo ( AjaxDelta )' buttons. On the right, there is a detailed customization pane for the 'Site Logo' component, showing sections for 'Important' (with 'CssClass' field), 'Accessibility' (with 'AccessKey' and 'TabIndex' fields), and 'Appearance' (with 'BackColor', 'BorderColor', 'BorderStyle', 'BorderWidth', and 'Font' fields).

Site Logo snippet

Customizing a snippet



# Copying Code Snippets From the Snippet Gallery

- You can use the Design Manager with the Snippet Gallery to
  1. Select a component such as a search box
  2. Configure its properties
  3. Copy/paste the generated HTML file from the Snippet Gallery to your master page (in your HTML editor)
  4. Use CSS to further customize

The screenshot shows the SharePoint Design Manager interface. A blue circle labeled '1' highlights the 'DESIGN' tab in the top navigation bar. Another blue circle labeled '2' highlights the 'Search Box' component in the 'Preview' section. A third blue circle labeled '3' highlights the 'HTML Snippet' code pane, which contains the following HTML:

```
div data-name="SearchBox" > <!--CS: Start Search Box Snippet-->
<!--SPM:<%@Register Tagprefix="SearchWC"
Namespace="Microsoft.Office.Server.Search.WebControls"
Assembly="Microsoft.Office.Server.Search, Version=15.0.0.0,
Culture=neutral, PublicKeyToken=71e9bc111e9429c%"--><!--MS:
<SearchWC:SearchBoxScriptWebPart
UseSiteCollectionSettings="true" EmitStyleReference="false"
ShowQuerySuggestions="false" ChromeType="None"
UseSharedSettings="true" TryInplaceQuery="false"
ServerInitialRender="true" runat="server">--><!--PS: Start of
READ-ONLY PREVIEW (do not modify)--><div class="ms-webpart-...
```



# Hands-On Exercise 6.3

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*In your Exercise Manual, please refer to  
Hands-On Exercise 6.3: Creating a Fully Branded Master Page*



# Chapter Summary

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In this chapter, we have

- Reviewed master page structure
- Used the Design Manager with master pages
- Customized out-of-the-box master pages
- Created a fully branded master page





# Web Content Management With Publishing Sites



# Chapter Objectives

In this chapter, we will

- Review publishing site template functionality
- Edit content in a SharePoint publishing site
- Modify and create page layouts



- **An Introduction to Publishing Sites**
  - **Adding Pages and Editing Content**
  - **Publishing Site Page Layouts**
- 



# Enterprise Content Management

- Enterprise content management (ECM) is the strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes
  - ECM covers the management of information within the entire scope of an enterprise, whether that information is in the form of a paper document, an electronic file, a database print stream, or even an email\*
- SharePoint offers ECM capabilities through content management, social networking, and advanced search capacity
  - Team sites allow easy collaboration on documents and web pages
  - Publishing sites allow content management capability for a large amount of content with multiple roles for content editors and consumers

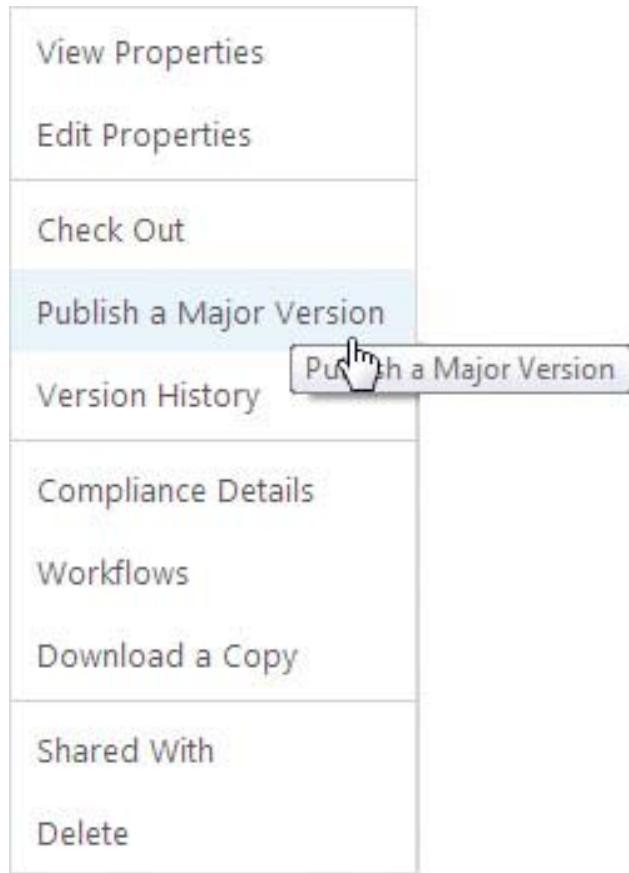
\*Source: AIIM: The Global Community of Information Professionals. "What Is Enterprise Content Management?" [www.aiim.org/What-is-ECM-Enterprise-Content-Management.aspx](http://www.aiim.org/What-is-ECM-Enterprise-Content-Management.aspx).



# SharePoint Publishing Sites Overview

► SharePoint publishing site templates include advanced ECM features

- Content approval workflow
- More powerful page-editing features
- Advanced navigation controls
- Master page and CSS settings
- Better control over content with page layouts



# Publishing Site Content Management Features

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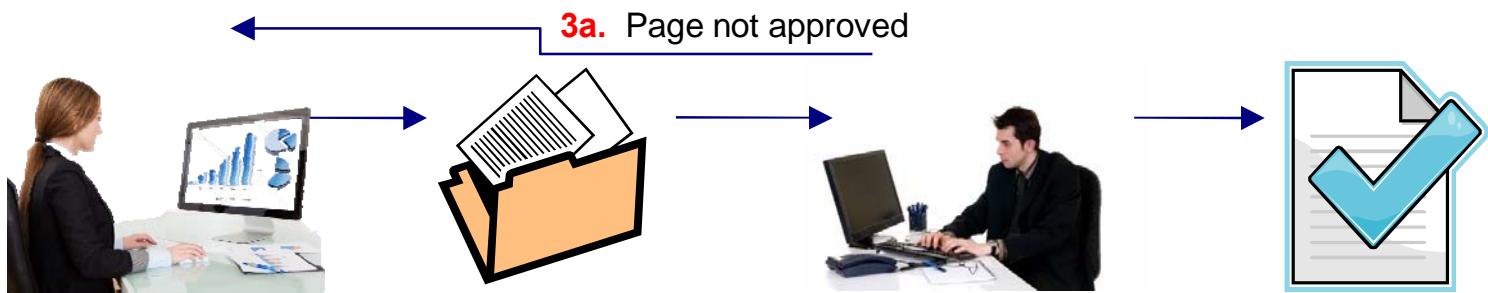
- **Publishing sites in SharePoint Server 2013 allow publishers to**
  - Publish content directly to a SharePoint site
  - Consistently keep the content up to date
- **Can be particularly useful for Internet-facing SharePoint sites**
  - Are not available in SharePoint Foundation 2013
- **With content management features in publishing sites**
  - Multiple users create and publish content
  - A select group of individuals approve the content for display
  - SharePoint version control, content approval, and security architecture make this possible



# SharePoint 2013 Publishing Process

## ➤ SharePoint 2013 publishing workflow

- 3b.** Page returns to Publisher for edits.



- 1.** Publisher creates new page and publishes to SharePoint site.
- 2.** A minor version of the page is created and notifies approver of task to approve. Only publisher and approver see page.
- 3.** Is page approved?
- 4.** A major version of the page is created and published to the site. The page is viewable to all visitors.



# Security Within Publishing Pages

- Default permission levels within SharePoint can be leveraged to apply to the publishing process
- Publishing sites can utilize workflow to control the process

<b>Full Control</b>	Full control
<b>Design</b>	View, add, update, delete, approve, and customize
<b>Manage Hierarchy</b>	Create sites and edit pages, list items, and documents
<b>Approve</b>	Edit and approve pages, list items, and documents
<b>Contribute</b>	View, add, update, and delete
<b>Read</b>	View only
<b>Restricted Read</b>	View pages and documents, but not previous versions or user rights information
<b>Limited Access</b>	View specific lists, document libraries, list items, folders, and documents when given permission



- An Introduction to Publishing Sites
- Adding Pages and Editing Content
- Publishing Site Page Layouts



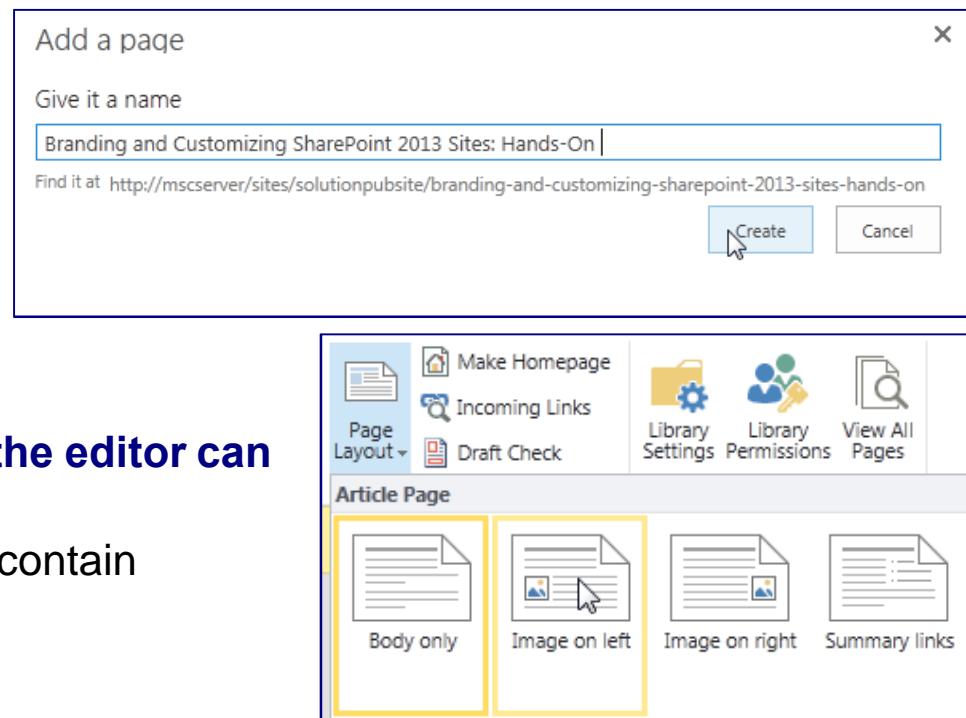
# Editing Content

- The process of editing content in SharePoint publishing sites is similar to collaboration sites

- Users must have the appropriate permissions
- Edit by selecting Settings | Edit Page
- Add pages by selecting Settings | Add a Page or New | Page on the ribbon

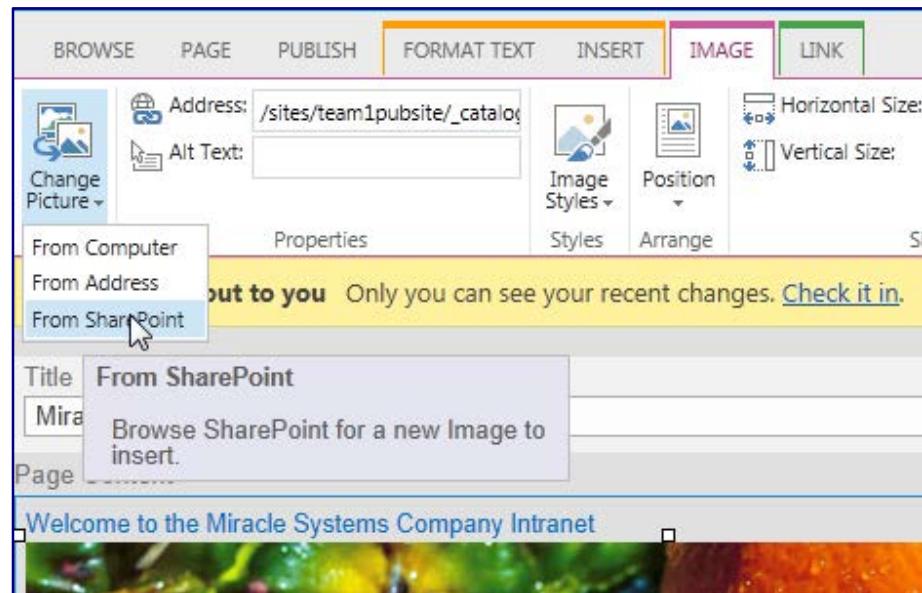
- Upon creating a new page, the editor can select a page layout

- Different page layouts may contain different metadata



# Creating New Content

- Publishing sites are similar to creating and editing pages in a team site
- WYSIWYG editing features behave largely the same, but with more features
  - The ribbon provides more options with more control
  - Content is highly structured, expecting specific content for specific areas
  - Different page layouts provide options for placing different types of content



# Page Layouts in Action

- **Page layouts offer consistent structures with fields that contributors use to enter content**
  - Publishing pages ensure authors follow a process to push content to the site
  - Includes workflow capability for content approval
  - Uses standard HTML for layout
- **The page layout can easily be changed, similar to changing the layout in a collaboration site**
- **Default page layouts are available, and new page layouts can be created**

The screenshot shows a SharePoint 2013 page layout editor interface. At the top, there's a title bar with the text "SharePoint® 2013 Technologies: A Comprehensive Hands-On Introduction – Course 1531". Below the title bar, there are several input fields and sections:

- Title:** SharePoint® 2013 Technologies: A Comprehensive Hands-On Introduction – Course 1531
- Page Image:** A placeholder for an image, currently showing a woman working at a laptop.
- Article Date:** A date picker field.
- Byline:** A text input field.
- Page Content:** A rich text editor area containing the course description: "SharePoint® 2013 Technologies: A Comprehensive Hands-On Introduction – Course 1531. This course provides a comprehensive introduction to SharePoint 2013 for the management, apply rapid changes with Composed Looks, Design Manager and Managed Navigation. Integrate custom HTML and Cascading Style Sheets (CSS) into Master Pages and page layouts. Enable cross-site publishing and search-driven Web Parts. Deploy a branding solution with reduced complexity using Design Packages".
- You Will Learn How To:** A section listing learning objectives: "Customize a SharePoint 2013 site with your company's brand. Apply rapid changes with Composed Looks, Design Manager and Managed Navigation. Integrate custom HTML and Cascading Style Sheets (CSS) into Master Pages and page layouts. Enable cross-site publishing and search-driven Web Parts. Deploy a branding solution with reduced complexity using Design Packages".



# Hands-On Exercise 7.1

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*In your Exercise Manual, please refer to  
Hands-On Exercise 7.1: Working With Publishing Sites*

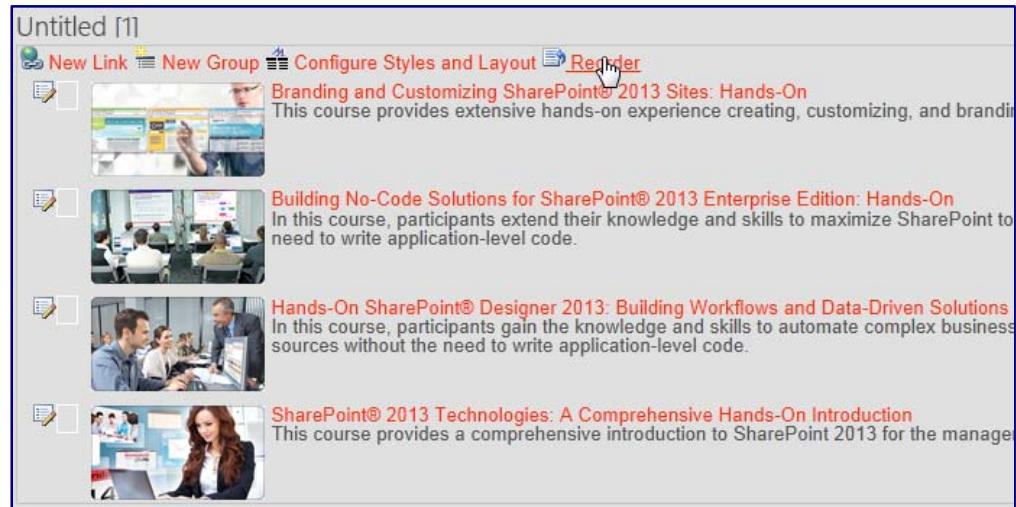


- An Introduction to Publishing Sites
- Adding Pages and Editing Content
- ➔ Publishing Site Page Layouts



# What Are Page Layouts?

- Page layouts use field controls to define their content
- Editing content in page layouts is similar to editing list content



Editing content in a Summary Links Web Part



# Out-Of-The-Box Page Layouts

## ► Several out-of-the-box page layouts are included by default

- ArticleLeft
- ArticleLinks
- ArticleRight
- CatalogArticle
- CatalogWelcome
- EnterpriseWiki
- WelcomeSplash

The screenshot shows a SharePoint Publishing Site homepage. At the top, there's a navigation bar with links for Newsfeed, SkyDrive, Sites, System Account, Share, Follow, and Help. Below the navigation is a search bar labeled "Search this site". The main content area features a large blue ribbon with a white "S" logo and the word "Home". To the left, there are "EDIT LINKS" and "Site Contents" buttons. The central text reads "Welcome to Your Publishing Site" followed by "These links will help you get started." Below this, there are several sections with links:

- I'm the Information Architect**: Set up site permissions, Import a design package.
- I'm the Visual Designer**: Make your site multilingual, Configure image renditions.
- Set up site permissions**: Manage users' permission levels.
- Import a design package**: Import a design package to apply to your site.
- Make your site multilingual**: Use the variations feature to manage sites and navigation across languages.
- Configure image renditions**: Define the dimensions that will be used and available for uploaded images that appear throughout this site.
- Define content types**: Create content types for the page, document, and item types in this site.
- Design your site**: Create the brand of your site through device channels, master pages, page layouts, and display templates.
- Configure navigation**: Choose and configure the navigation mode for this site.
- Choose availability of site templates**: Specify which page layouts and site templates will be available for use on this site or any subsites.
- Create and configure site content**: Create libraries, lists, apps, and subsites to store content, and configure them to use content types.
- Customize your search center**: Configure the search settings for this site.

WelcomeSplash Page Layout  
Default Home Page for Publishing Sites



# Design Manager and Content Types

► Page layouts are managed in the Design Manager

► New page layouts can be created using just the browser

- In Design Manager, click “Create a page layout”

► Existing page layouts can also be edited

► Page layouts are a type of content defined in the content type gallery

► The field controls are based on site columns

The screenshot shows the SharePoint Design Manager interface titled "Design Manager: Edit Page Layouts". At the top, there's a navigation bar with links like "About MSC", "Books", "Contact Us", "Media", "MSC Courses", "MSC Instructors", and "MSC". Below the navigation, the page displays a list of page layouts. On the left, a sidebar lists navigation items: 1. Welcome, 2. Manage Device Channels, 3. Upload Design Files, 4. Edit Master Pages, 5. Edit Display Templates, 6. Edit Page Layouts (which is selected and highlighted in blue), 7. Publish and Apply Design, and 8. Create Design Package. The main content area contains a descriptive paragraph about page layouts and a list of three existing page layouts:

Name	Status	Associated Content Type	Approval Status
CatalogItem-Product Hierarchy	Conversion successful.	Catalog-Item Reuse	Approved
Category-Product Hierarchy	Conversion successful.	Catalog-Item Reuse	Approved
Two Column	Conversion successful.	Welcome Page	Approved



# Content Types

- A content type is a reusable collection of metadata (columns), workflow, behavior, and other settings for a category of items or documents in a SharePoint list or document library

- Content types are reusable

- SharePoint has many common predefined content types

- Announcement
- Web Part page
- Document
- Video

- A page layout is an existing content type

- New page layouts can be created using the page layout content type

The screenshot shows the SharePoint Site Content Types page for the 'Article Page' content type. The URL in the address bar is [http://sharepoint/training/experts/\\_vti\\_bin/ListData.svc/ContentType\(1531\)](#). The page title is 'Site Content Types > Site Content Type'. The left navigation menu includes links for About MSC, Books, Course Notes, Exercise Manual, Contact Us, Media, CD-ROM, Download, MSC Courses (with items 1531, 1533, 1534, 1535), MSC Instructors, MSC Locations, and Site Contents. The right pane displays 'Site Content Type Information' for 'Article Page', showing its name, description, parent (Page), group (Page Layout Content Types), and settings. The 'Settings' section lists options like Name, description, and group, Advanced settings, Workflow settings, Manage document conversion for this content type, Information management policy settings, Document Information Panel settings, and Delete this site content type. Below this is a 'Columns' table:

Name	Type	Status	Source
Name	File	Required	Document
Title	Single line of text	Optional	Item
Comments	Multiple lines of text	Optional	System Page
Scheduling Start Date	Publishing Schedule Start Date	Optional	System Page
Scheduling End Date	Publishing Schedule End Date	Optional	System Page



# Content Types

- When creating a new page layout, it must be associated to a content type
- This will determine the fields of metadata that the user can enter
  - As with a list, fields can be set to be required

Create a Page Layout X

Name

Master Page  Page layouts fit within a master page's content placeholders. Choose this page layout's master page.

Associated Content Type Or Remote Catalog  Content Type  Article Page is a system content type template created by the Publishing Resources feature. It is the associated content type template for the default page layouts used to create article pages in sites that have the Publishing feature enabled.

Remote Catalog  Team 1 Catalog Site - Products  
Default list for product catalogs



# Site Columns for Page Layouts

- Site columns are grouped into specific categories for logical grouping
  - Base columns
  - Core contact and calendar columns
- Categories exist for page layout columns and publishing columns

Page layout column	Type
Byline	Single line of text
Image Caption	Publishing HTML
Page Content	Publishing HTML
Page Icon	Publishing image
Redirect URL	Hyperlink or picture
Rollup Image	Publishing image
Summary Links	Summary links
Summary Links 2	Summary links

Publishing column	Type
Article Date	Single line of text
Contact	Publishing HTML
Contact E-Mail Address	Publishing HTML
Contact Name	Publishing image
Contact Picture	Hyperlink or picture
Right Content	Publishing image
Scheduling End Date	Summary links
Scheduling Start Date	Summary links
Target Audiences	Audience targeting



# Creating Page Layouts in Design Manager

- When creating a new page layout in the Design Manager, two files will be created
  - An .aspx file for use by SharePoint
  - An .html file that can be edited in your visual editor of choice
- The .html file and .aspx file are associated, so changes to the .html will be reflected in the .aspx file
  - Behavior is very similar to master pages
- When the page layout is created
  - All markup required by SharePoint is added to the page layout
  - The HTML required for layout of content is added to the .html file
  - The page fields defined by the content type are added to the .aspx file



# Creating Page Layouts in Design Manager

## ► To create a page layout in Design Manager

1. From your publishing site, click Settings | Design Manager
2. Click Edit Page Layouts
3. Click “Create a Page Layout”
4. Enter a name
5. Select a master page
6. Select the content type
7. Click OK
8. Click the link in the status column to preview the page layout
9. If any errors are encountered, edit the HTML



# Page Layouts: HTML

- The .html file contains all the required placeholders dictated by the content type
- Add any HTML/CSS required to format the content accordingly

```
<!--MS:<asp:ContentPlaceHolder ID="PlaceHolderMain" runat="server">-->
<div>
 <!--CS: Start Page Field: Title Snippet-->
 <!--SPM:<%@Register Tagprefix="PageFieldTextField"
 Namespace="Microsoft.SharePoint.WebControls"
 Assembly="Microsoft.SharePoint,
 Version=15.0.0.0,
 PublicKeyToken=71e9bce111e9429c%"%>-->
 <!--SPM:<%@Register
 Tagprefix="Publishing"
 Namespace="Microsoft.SharePoint.Publishing.WebControls"
 Assembly="Microsoft.SharePoint.Publishing, Version=15.0.0.0,
 Culture=neutral, PublicKeyToken=71e9bce111e9429c%"%>-->
 <!--MS:<Publishing:EditModePanel runat="server" CssClass="edit-mode-
 panel">-->
 <!--MS:<PageFieldTextField:TextField FieldName="fa564e0f-0c70-4ab9-
 b863-0177e6ddd247" runat="server">--> <!--ME:</
 PageFieldTextField:TextField>-->
</div>
```



## Hands-On Exercise 7.2

---

*In your Exercise Manual, please refer to  
Hands-On Exercise 7.2: Working With Page Layouts*



# Chapter Summary

In this chapter, we have

- Reviewed publishing site template functionality
- Edited content in a SharePoint publishing site
- Modified and created page layouts





# Working With SharePoint Content



# Chapter Objectives

In this chapter, we will

- Understand dynamic content options in SharePoint 2013
- Review cross-site publishing functionality
- Use the Content Search Web Part
- Deploy the Content Query Web Part
- Leverage managed navigation
- Create a new device channel



- ➔ **Dynamic Content Options in SharePoint 2013**
  - New Content Options Through Search
  - Rolling up SharePoint Content
  - Managed Navigation
  - Device Channels



# SharePoint 2013 Content Management Improvements

- **Content management features in SharePoint 2013 have been significantly improved over previous versions**
  - Simplify how you design publishing sites
  - Enhance the authoring and publishing processes
  - Contain new features that use enterprise search to surface dynamic web content on publishing sites
- **Previously, users had two options for dynamic content**
  - Web Parts in the browser for displaying content from the same site
  - Content Query Web Parts in the browser to display content from other sites
  - Needed to use SharePoint Designer for more options
    - Required a more technical skillset



# SharePoint 2013 Content Publishing Improvements

- **Cross-site publishing now uses search technology to provide content**
  - Another powerful tool in addition to the Content Query Web Part
- **Content is stored in an authoring site collection and displayed to a publishing site collection**
- **New Content Search Web Part provides the mechanism to display content**



# Cross-Site Publishing: Page Layouts

- Category pages and catalog item pages are page layouts for cross-site publishing
  - Can be used to show structured catalog content across a site
  - Allow greater consistency for product representation
- Pages based on these layouts are created in the Pages library of a publishing site when you connect the site to a catalog
- Use Design Manager to create category page layouts and catalog item page layouts



- Dynamic Content Options in SharePoint 2013
- ➔ **New Content Options Through Search**
- Rolling up SharePoint Content
- Managed Navigation
- Device Channels



# Cross-Site Publishing With Search

## ► Cross-site publishing offers distinct advantages

- Empowers content *across* site collections, web applications, or entire SharePoint farms
- Provides options to expand upon lists and libraries
- More separation of content from branding and design

## ► Cross-site publishing requires some key components

- Cross-Site Publishing feature must be enabled
- Libraries and lists must be shared as catalogs in the authoring site collection
- SharePoint search-crawls the content and builds an index
- When the user views the page on a publishing page, the query for the Search Web Part is triggered

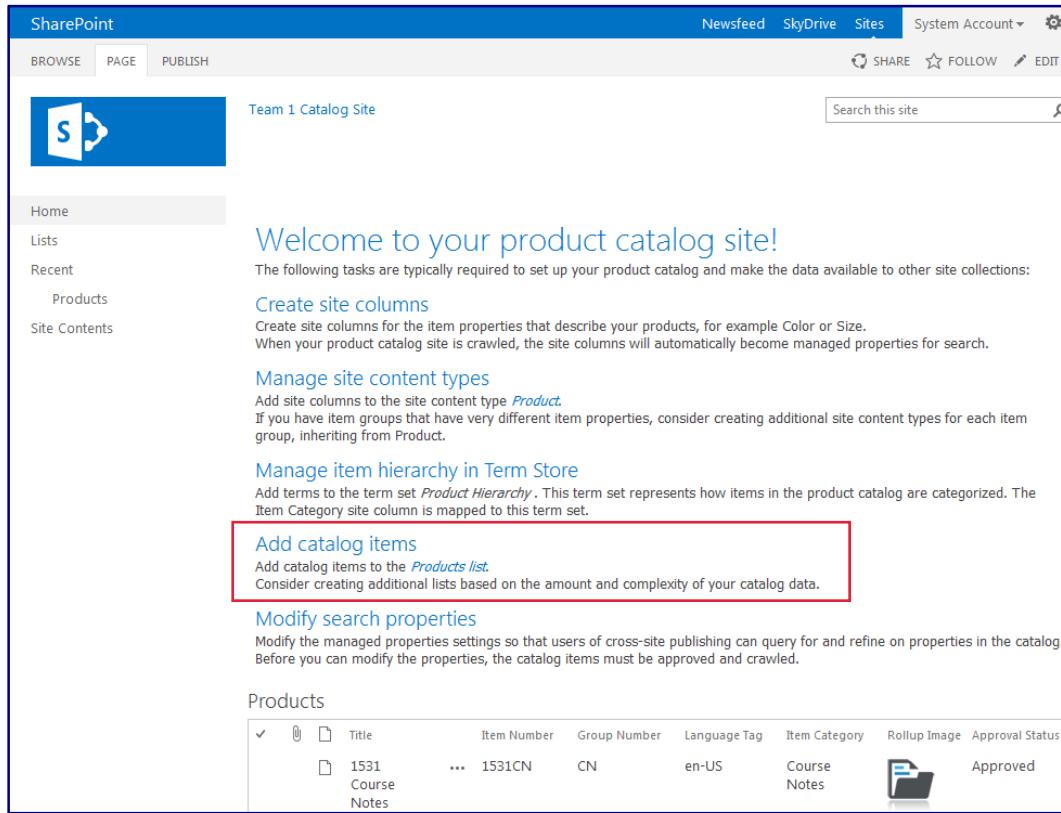
## ► Useful for Internet-facing SharePoint sites

- Display content from a catalog to show to customers
- Product content can be featured in multiple ways throughout the site



# Cross-Site Publishing: Authoring Site Collections

- **Authoring site collections serve as a separate site collection from the site collections that users browse**
  - In Central Administration, choose Product Catalog when creating your site



The screenshot shows a SharePoint site titled "Team 1 Catalog Site". The left navigation bar includes links for Home, Lists, Recent, Products, and Site Contents. The main content area features a welcome message: "Welcome to your product catalog site!". Below it, several tasks are listed:

- Create site columns**: Create site columns for item properties like Color or Size. When the catalog site is crawled, these become managed properties for search.
- Manage site content types**: Add site columns to the content type "Product". If item groups have different properties, consider creating additional content types for each group, inheriting from Product.
- Manage item hierarchy in Term Store**: Add terms to the term set "Product Hierarchy". This represents how items are categorized. The Item Category column is mapped to this term set.
- Add catalog items**: Add catalog items to the "Products list". Consider creating additional lists based on complexity.
- Modify search properties**: Modify managed properties settings for cross-site publishing.

A red box highlights the "Add catalog items" section. At the bottom, there's a table titled "Products" showing one item:

	Title	Item Number	Group Number	Language Tag	Item Category	Rollup Image	Approval Status
1531 Course Notes	1531CN	... CN	en-US	Course Notes		Approved	

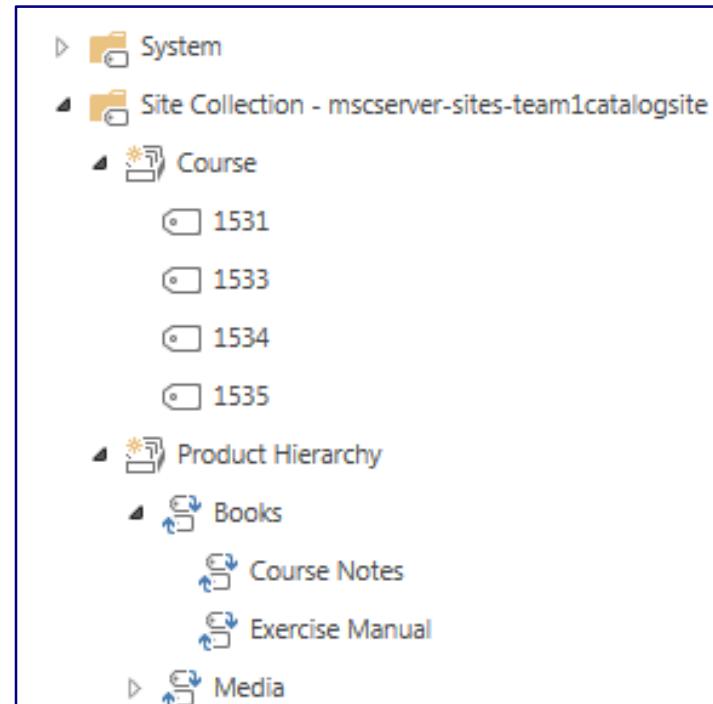


# Cross-Site Publishing: Authoring Site Collections

## ➤ Catalog content can be

- Pages
  - Allows web pages to be shared across site collections
  - Content publishing/approval workflows can be leveraged
- Lists
- Asset library
- Document library

## ➤ Term sets are used to tag content with metadata, refining the search to properly deliver the right content



# Cross-Site Publishing: Content Catalogs

- Content must be shared as a catalog to be used in Search Web Parts
- Options are provided in list settings or library settings
  - Catalog sharing
  - Anonymous access
  - Primary key
  - Catalog navigation

Catalog Sharing

Sharing a catalog makes it available to other sites on other collections. List items can then be reused on multiple sites through the taxonomy service and search engine.

Share this list as a catalog for other sites and collections

Allow anonymous search access

When this option is enabled anonymous users can search and view results from this catalog.

Anonymous access on

Primary Key:

Select the field or combination of fields that uniquely identify an item (max 5) in this list or library. You may also pick fields that would serve as display text on the URL of items in the catalog.

Available fields

Copy Source	<input type="button" value="Add &gt;"/>
Group Number	<input type="button" value="Remove &lt;"/>
Item Category	
Item Number	
ListCost	
Product Color	
Product Name	
<b>Product-Name</b>	
Title	

Selected fields

ID
----



# Content Search Web Part

► The Content Search Web Part displays search results in a way you can easily format

- A Content Search Web Part is associated with a search query
- Look and feel of search results is handled with a Display Template

The screenshot shows the 'Add a Web Part' dialog box. On the left, under 'Categories', the 'Content Rollup' option is selected and highlighted with a blue border. On the right, under 'Parts', there is a list of web part types: Content Query, Content Search, Relevant Documents, Summary Links, Table Of Contents, Term Property, and Timeline. The 'Content Search' part is also highlighted with a blue border, matching the selection in the categories list. At the bottom of the dialog, there is a link 'Upload a Web Part ▾'.



# Content Search Web Part: Building a Query

## ► The Query Builder is used in several areas of SharePoint 2013

- Building queries for the Content Search Web Part
- Configuring a Search Results Web Part
- Creating a Result Source

## ► The Query Builder has four tabbed areas

- Basics
  - Choose content to query
  - Scope to a specific site, library, list, or URL
  - Restrict by a tag
  - Sort
  - Most configuration done here

Build Your Query

**BASICS** REFINERS SETTINGS TEST

Switch to Advanced Mode

Select a query  
Choose what content you want to search by selecting a [result source](#).

Team 1 Catalog Site - Products Res ▾

Restrict by tag  
You can limit results to content tagged with specific terms, including site navigation terms.

Don't restrict by any tag  
 Restrict by navigation term of current page  
 Restrict by current and child navigation terms  
 Restrict on this tag:

Add additional filters  
Using syntax as if you were creating your own query, add additional filters and search terms here.

{searchboxquery}



# Content Search Web Part: Query Refiners, Settings, Sorting

## ► The Query Builder has four tabbed areas

- Refiners
  - Include basic filters as part of the query
  - More powerful than using the Property Filter in the Basics tab
- Sorting
  - Available only in Advanced mode
- Settings
  - High-level options for when the search actually runs

Build Your Query

BASICS REFINERS SETTINGS TEST

Choose your refiners

Download  
CD-ROM  
Exercise Manual

**People**  
| System Account | 5348  
System Account

**SPContentType**  
Product with Image

**SPSiteURL**  
http://mscserver/sites/te

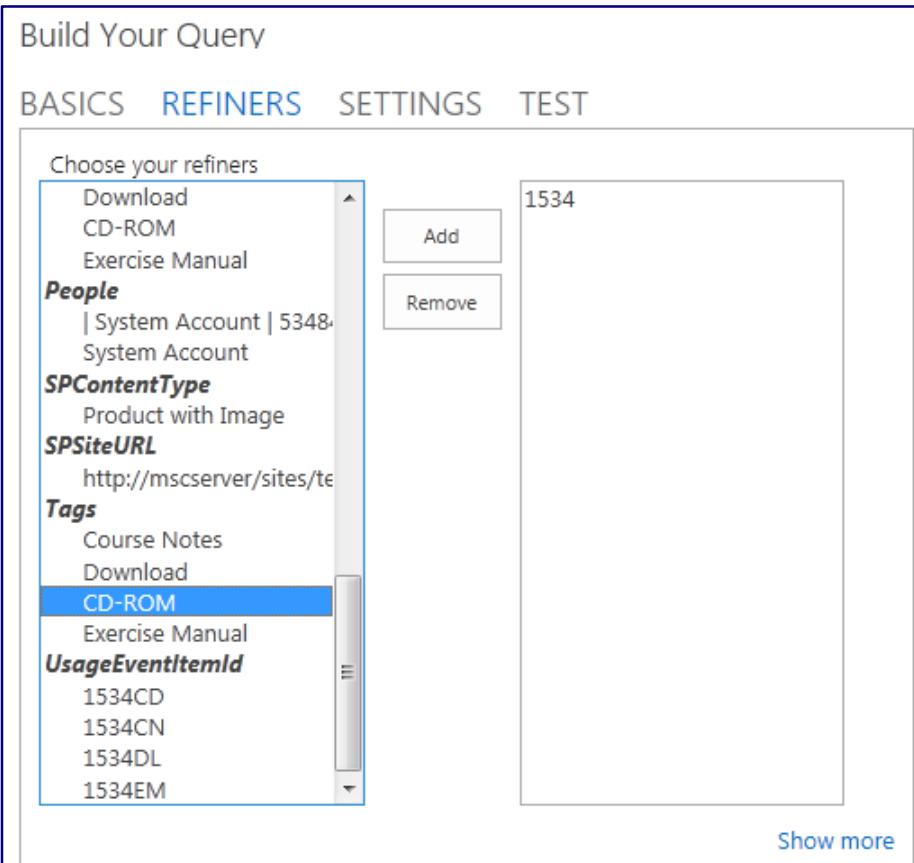
**Tags**  
Course Notes  
Download  
**CD-ROM**  
Exercise Manual

**UsageEventItemId**  
1534CD  
1534CN  
1534DL  
1534EM

Add  
Remove

1534

Show more



# Content Search Web Part: Connecting to Content Query Results

## ► Select any of your content queries

- Search result preview is useful to confirm you have the correct query

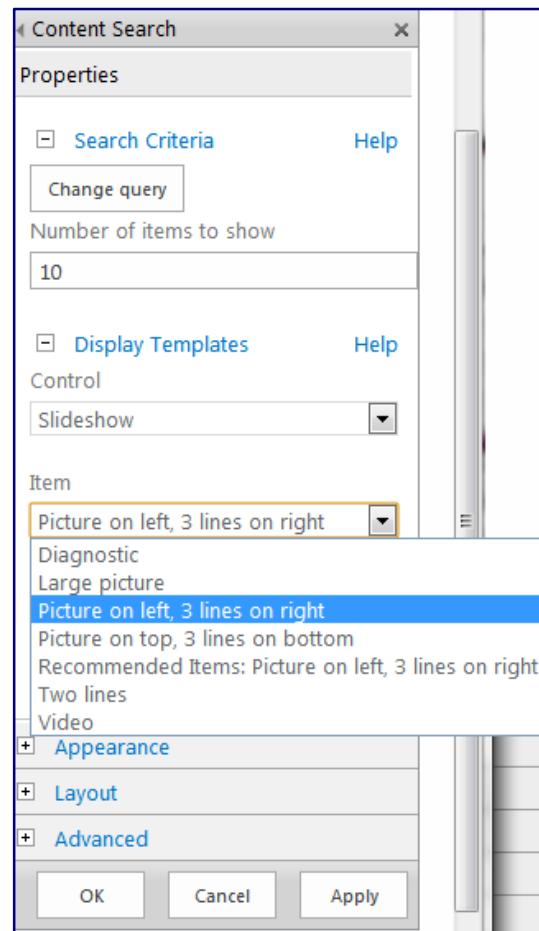
## ► Display Templates provide formatting options in Web Part properties

- Control Options
- Item Options
  - Large picture
  - Two lines
  - Etc.

**SEARCH RESULT PREVIEW**

❑ RelevantResults (16)

- 1531 CD-ROM  
mscserver/sites/solutionpubsite/media/cd-rom/1531CD
- 1533 CD-ROM  
mscserver/sites/solutionpubsite/media/cd-rom/1533CD
- 1534 File Download  
mscserver/sites/solutionpubsite/download/1534DL
- 1531 Course Notes  
mscserver/sites/solutionpubsite/course-notes/1531CN
- 1531 Exercise Manual  
mscserver/sites/books/exercise-manual/1531EM
- 1531 File Download  
mscserver/sites/solutionpubsite/download/1531DL
- 1533 Exercise Manual  
mscserver/sites/books/exercise-manual/1533EM
- 1533 File Download  
mscserver/sites/solutionpubsite/download/1533DL
- 1534 Course Notes  
mscserver/sites/solutionpubsite/course-notes/1534CN
- 1534 Exercise Manual  
mscserver/sites/books/exercise-manual/1534EM



# Content Search Web Part: Display Templates

► **Display Templates offer a way to change the look and feel of content with the Design Manager**

- Consists of an HTML and a JavaScript file
- Requires no editing of XSL

► **Display Templates can be edited in SharePoint Designer 2013 or the editor of your choice**

- New display template variations can be created by duplicating OOTB templates

Master Page Gallery › Display Templates ⓘ					
Type	Name	Modified	Modified By	Checked Out To	Compatible UI Version(s)
Content Web Parts	Content Web Parts	10/26/2012 1:42 AM	System Account		
Filters	Filters	10/26/2012 1:42 AM	System Account		
Language Files	Language Files	10/26/2012 1:42 AM	System Account		
Search	Search	10/26/2012 1:42 AM	System Account		
Server Style Sheets	Server Style Sheets	10/26/2012 1:42 AM	System Account		
System	System	10/26/2012 1:42 AM	System Account		



# Hands-On Exercise 8.1

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*In your Exercise Manual, please refer to  
Hands-On Exercise 8.1: Content Search Web Parts*



- Dynamic Content Options in SharePoint 2013
- New Content Options Through Search
- ➔ Rolling up SharePoint Content
- Managed Navigation
- Device Channels



# Content By Query Web Part

## ► The Content By Query Web Part is used to aggregate content

- Roll up content from multiple sources
- Show content based on a set of rules you define, e.g.:
  - Other news articles related to the current news article
- Display using preset options
- Can be used in the browser or SharePoint Designer

### MSC Courses



**Building No-Code Solutions for SharePoint® 2013 Enterprise Edition: Hands-On**

This course provides extensive hands-on experience creating, customizing, and branding SharePoint sites with the Design Manager and other tools.



**Hands-On SharePoint® Designer 2013: Building Workflows and Data-Driven Solutions – Course 1533**

This course provides extensive hands-on experience creating, customizing, and branding SharePoint sites with the Design Manager and other tools.



**SharePoint® 2013 Technologies: A Comprehensive Hands-On Introduction – Course 1531**

This course provides a comprehensive introduction to SharePoint 2013 for the management, aggregation and centralization of enterprise content.



# Displaying Related Content

- For MSC, adding a Content By Query Web Part could allow you to show related courses based on a query
- The query properties of the Web Part will define the logic that displays related courses
- The presentation properties of the Web Part will allow us to choose
  - Fields to show
  - Item style (similar to Display Template options in Search Web Parts seen previously)

**List Type:**  
Show items from this list type:  
Document Library

**Content Type:**  
Show items of this content type group:  
Folder Content Types  
Show items of this content type:  
Folder  
 Include child content types

**Additional Filters:** ⓘ  
Show items when:  
<no filter>  
is equal to  
  
Ⓐ And Ⓑ Or  
<no filter>  
is equal to  
  
Ⓐ And Ⓑ Or  
<no filter>  
is equal to

**Presentation**  
**Grouping and Sorting:**  
Group items by:  
<None>  
 Show groups in ascending order.  
(A, B, C, or 1, 2, 3).  
 Show groups in descending order.  
(C, B, A, or 3, 2, 1).  
Number of columns:  
1  
Sort items by:  
Created  
 Show items in ascending order.  
(A, B, C, or 1, 2, 3).  
 Show items in descending order.  
(C, B, A, or 3, 2, 1).  
 Limit the number of items to display  
Item limit: 15

Presentation properties

Query properties



# Content Query vs. Content Search

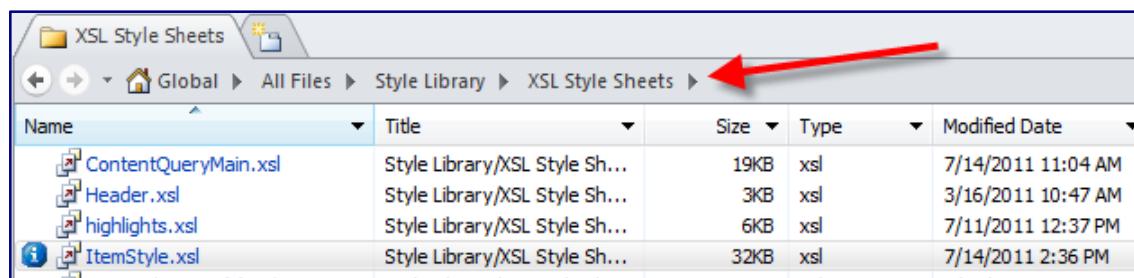
- The Content Query Web Part and Content Search Web Part have very similar uses with a few differences
  - Content Search Web Part is SharePoint Server Enterprise–only, but it provides more powerful, simpler configuration options

	<b>Content Query Web Part</b>	<b>Content Search Web Part</b>
Server Edition	All versions	SharePoint Server Enterprise only
Scope	Current site collection only	All site collections
Formatting	Display Templates (and XSL)	Display Templates (HTML, JavaScript)



# Content By Query Web Part and XSLT

- The Content By Query Web Part uses three primary .xsl files to define HTML output
  - ContentQueryMain.xsl
  - ItemStyle.xsl
  - Header.xsl
- These files can be modified in SharePoint Designer 2013 (or the editor of your choice) to more finely tune the HTML output



- Dynamic Content Options in SharePoint 2013
- New Content Options Through Search
- Rolling up SharePoint Content
- ➔ Managed Navigation
- Device Channels



# Managed Navigation Revisited

- Managed navigation is a new concept in SharePoint 2013
- A navigation term set drives navigation
  - Each term in the navigation term set can correspond to a page to display
    - Appearance can be customized to determine number of levels of navigation

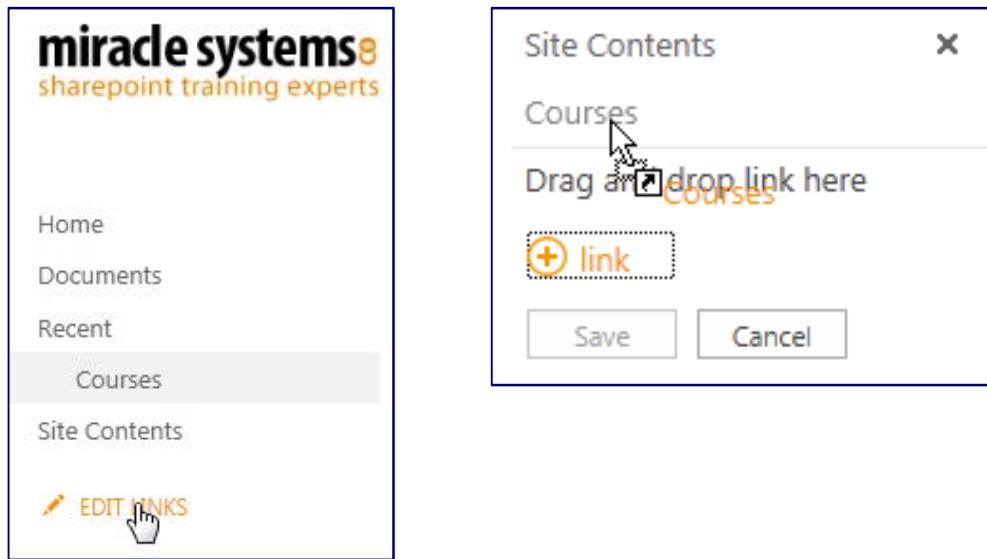
The screenshot displays a SharePoint site with a navigation bar and a content area. On the left, a 'Site Navigation' pane shows a hierarchy of items under 'MSC Courses': 'About MSC', 'MSC Courses' (which is expanded), '1531', '1533', '1534', and '1535'. The 'MSC Courses' item is highlighted with a yellow box. In the center, the main content area has a header 'miracle systems sharepoint training experts' and 'Miracle Systems Intranet by HTML5Templates.com'. The navigation bar includes links for 'About MSC', 'Contact Us', 'MSC Courses' (which is currently selected and highlighted in grey), 'MSC Instructors', 'MSC Locations', and 'Edit Links'. Below the navigation bar, there is a grid of five items. The first item contains the text 'Integer gravida nibh quis ur' and a small image of a green frog. The other four items are numbered 1531, 1533, 1534, and 1535. To the right of the grid is a sidebar with the heading 'Sidebar 1' and two entries: 'October 23' with the text 'Donec leo, vivamus fermentum nibh in augue praesent a lacus et urna congue rutrum.' and 'October 20' with the text 'Donec leo, vivamus fermentum nibh in augue praesent a lacus et urna congue rutrum.'



# Navigation by Drag and Drop

## ► Navigation settings can be modified by drag and drop in SharePoint 2013

- When using managed navigation, terms are added or modified automatically in the background



## Hands-On Exercise 8.2

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*In your Exercise Manual, please refer to  
Hands-On Exercise 8.2:*

***Rolling Up Content With CQWP and Leveraging Managed Navigation***

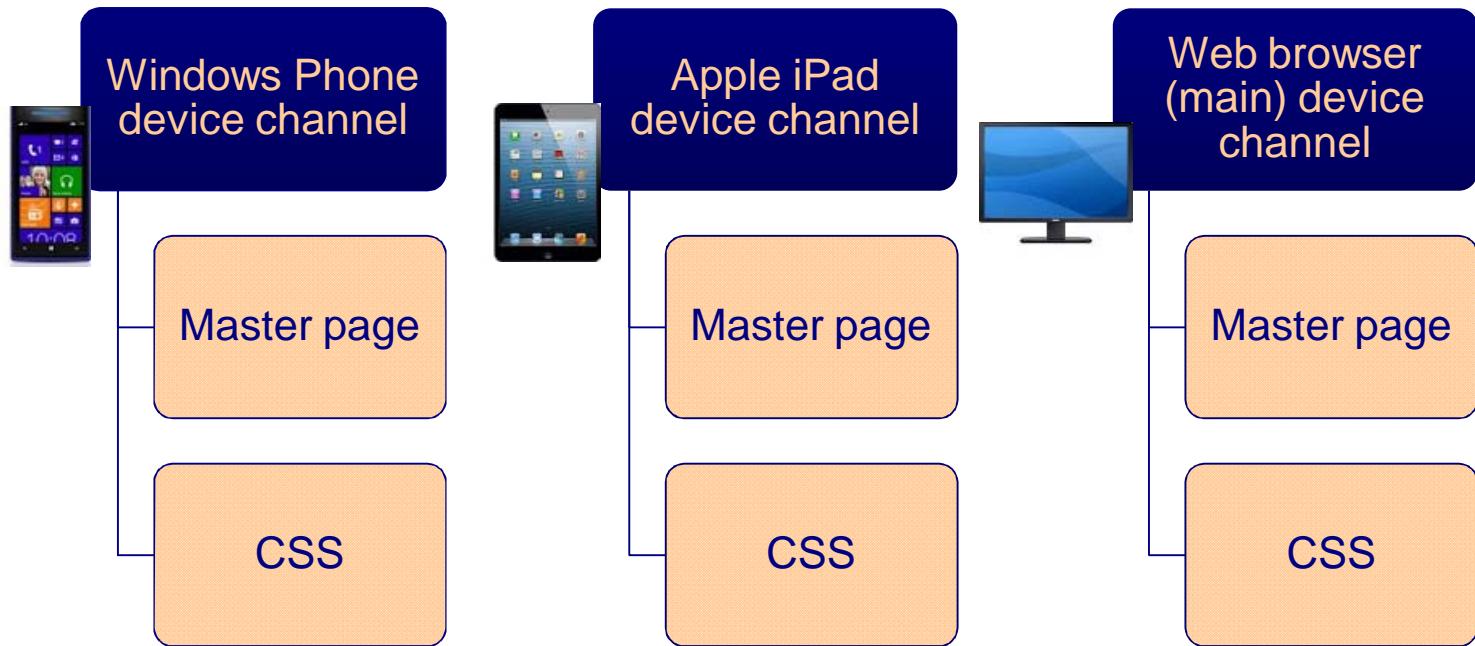


- **Dynamic Content Options in SharePoint 2013**
- **New Content Options Through Search**
- **Rolling up SharePoint Content**
- **Managed Navigation**
- ➔ **Device Channels**



# Introduction to Device Channels

- ▶ Device channels allow you to create separate design files for specific devices



# Device Channels: Driving Content to Phones and Tablets

- The shift to a mobile Internet presents new challenges to web designers
- Responsive content is critical to provide the best experience to users regardless of browsing device
- Device channels offer a way to deliver custom-tailored content, including different images to different devices, while maintaining the same URL
- Device channels are available only for SharePoint 2013 publishing sites

The screenshot shows the SharePoint Design Manager interface for managing device channels. At the top, there's a navigation bar with links for Newsfeed, SkyDrive, Sites, System Account, and various site navigation options like About MSC, Books, Contact Us, Media, MSC Courses, MSC Instructors, and MSC Locations. Below the navigation is the title "Design Manager: Manage Device Channels". On the left, a sidebar lists navigation items: 1. Welcome, 2. Manage Device Channels (which is currently selected and highlighted in blue), 3. Upload Design Files, 4. Edit Master Pages, 5. Edit Display Templates, 6. Edit Page Layouts, 7. Publish and Apply Design, and 8. Create Design Package. The main content area contains a descriptive paragraph about device channels and two tables showing channel configurations. The first table shows a single channel for Internet Explorer 10, and the second table shows a Default channel for iPhone.

Active	Name	Alias	Description
No	Internet Explorer 10	IE10	This is a test channel for IE10.

Device	Active	Name	Alias	Description
iPhone	Yes	iPhone	iphone	
Default	Yes	Default	Default	This channel is the default for your site. A device will see the look and feel specified by this channel when no other channels are active or when the device's user-agent string does not match the device inclusion rules for any active channels.



# Device Channels: Master Pages and CSS

- A device channel requires a separate master page and CSS
- When browsing to a site, the User Agent String identifies the device to the server
  - Happens in the HTTP Get request
  - Based on the User Agent String, different content can be delivered
- Other content considerations
  - Image sizes
  - Use of JavaScript
  - Reduced versions of content

Device Channels - New Item

EDIT

Save Cancel Cut Copy ABC Spelling  
Commit Clipboard Spelling

Name \* iPhone  
The name used by authors and others to identify this channel

Alias \* iphone  
Pick a word to identify this channel in code, Device Channel panels, previews and other contexts. Warning: If you later change the channel alias, you will have to manually update Master Page mappings, Device Channel panels, and any custom code or markup.

Description

A quick description of the Device Channel

Device Inclusion Rules \* Mozilla/5.0 (iPhone; CPU iPhone OS 6\_1\_3 like Mac OS X)  
AppleWebKit/536.26 (KHTML, like Gecko) Version/6.0  
Mobile/10B329 Safari/8536.25

Specify one or more user agent substrings (for example: Windows Phone OS), placing each substring on its own line. When the user agent string of a visiting device contains any of the specified substrings, the channel will force site pages to display using that channel's optimizations, like a different Master Page or Device Channel Panel. You can also trigger this special



# Device Channels: Preparing for Variations

- In Master Page Settings, mobile and browser options are available by default

Site Master Page

The site master page will be used by all publishing pages - the pages that visitors to your website will see. You can have a different master page for each Device Channel. If you don't see the master page you're looking for, go to the Master Page Gallery in Site Settings and make sure it has an approved version.

You may inherit these settings from the parent site or select unique settings for this site only.

<input type="radio"/> Inherit site master page from parent of this site	<input checked="" type="radio"/> Specify a master page to be used by this site and all sites that inherit from it:
Internet Explorer 10	Follow Default Channel
iPhone	iphone
Default	twocolumn1

- Before enabling device channels

- Enable Publishing features
- Disable Mobile View feature



# Hands-On Exercise 8.3

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*In your Exercise Manual, please refer to  
Hands-On Exercise 8.3: Creating Device Channels*



# Chapter Summary

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In this chapter, we have

- Understood dynamic content options in SharePoint 2013
- Reviewed cross-site publishing functionality
- Used the Content Search Web Part
- Deployed the Content Query Web Part
- Leveraged managed navigation
- Created a new device channel





# HTML5 and jQuery for Advanced Interaction



# Chapter Objectives

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In this chapter, we will

- Leverage JavaScript for better site interactivity
- Simplify advanced interactions with jQuery
- Achieve fluid design with HTML5



- **An Introduction  
to JavaScript**
- **jQuery and SharePoint**
- **HTML5 and SharePoint**



# What Is JavaScript?

- **JavaScript is a scripting language used to add interactivity to HTML pages**
- **JavaScript is an interpreted language**
  - Code embedded directly in HTML
  - An external JavaScript file can be linked from a web page
- **JavaScript provides many types of interactions for users**
  - React to an event
    - React to a mouseover event
  - Manipulate HTML elements
    - Control a drop-down menu
  - Create cookies
    - Store and retrieve information to/from the user's computer
- **JavaScript source code is just text**
  - Created with any standard text editor
  - JavaScript code is case-sensitive



# Embedding JavaScript in HTML

► Place code where the generated output should appear

- `<script> ... </script>`

► Place code in HTML tags when modifying their behavior

- Event handlers

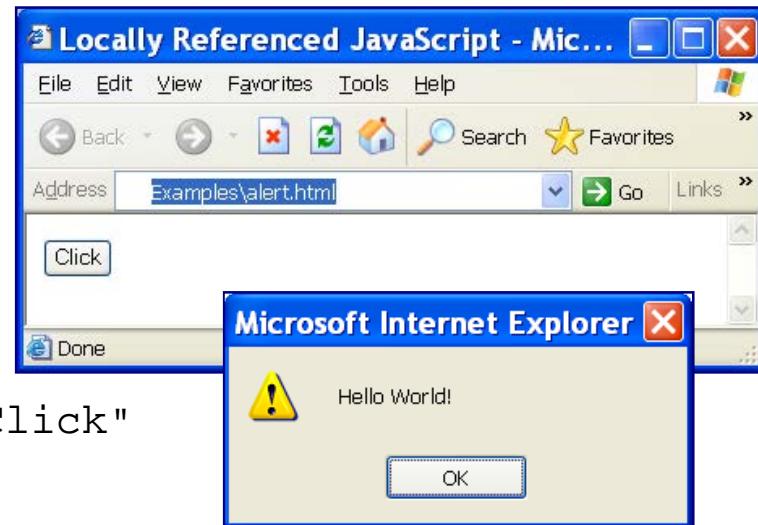
► Can place functions or local referenced JavaScript in the `<head>` section

- Browsers will begin to display a document before it is fully loaded
  - Must not attempt to execute JavaScript not yet loaded
- The `<head>` section always loads first
  - JavaScript in the `<body>` section can safely refer to it
- Simplest way to ensure functions are available before use
  - May affect how fast the page loads



# Embedding JavaScript in HTML

```
<html><head>
<title>Locally Referenced JavaScript</title>
<script type="text/javascript">
 function hello() {
 window.alert("Hello World!");
 }
</script></head>
<body>
 <form action="#">
 <p>
 <input type="button" value="Click"
 onclick="hello()" />
 </p>
 </form>
</body>
</html>
```



This example found in C:\crs489\Examples\alert.html



# Accessing the Web Page

## ➤ JavaScript can be used to reference the currently loaded HTML page

- The currently loaded HTML page is known as the document object

## ➤ Operations can be performed on the document

- Operations are also known as *functions* or *methods*
- `document.write( "<b>Hello!</b>" );`
  - Writes **Hello!** to the web page

## ➤ Can also access *properties* of the document

- `document.lastModified`
  - Returns the last modified date of the page
- `document.write(document.lastModified);`
  - Writes the last modified date to the web page



# Accessing the Browser

- **JavaScript can be used to reference the browser window**
  - The browser window is known as the `window` object
- **Three commonly used *operations* of the `window` object**
  - `window.alert()`
  - `window.confirm()`
  - `window.prompt()`
  - Allow collection of user input and the display of warnings



# Writing or Defining Functions

## ► Functions organize code into manageable units

- A typical script is composed of many functions

## ► A function definition has four components

1. The `function` keyword
2. The name of the function
3. A list of parameter names in parentheses, separated by commas
4. A body of JavaScript statements, contained within `{ }` curly brackets

The diagram illustrates the four components of a function definition:

- function keyword**: Points to the word `function` at the beginning of the line.
- Name of function**: Points to the identifier `addTax` following the `function` keyword.
- Parameters passed to function**: Points to the comma-separated parameters `purchaseAmount` and `taxPercent` inside the parentheses.
- End of function**: Points to the closing brace `}` at the end of the function body.

```
function addTax(purchaseAmount, taxPercent) {
 // JavaScript statements to perform the task
}
```



# Document Object Model (DOM)

- Standard API for accessing the content of an HTML page
- Allows JavaScript to interact with HTML in the browser
  - Any part of the HTML document may be read or modified
  - An essential technique in building dynamic pages
- DOM techniques are portable
  - Principles apply to XML as well as HTML
    - There are some extensions specific to HTML
  - A W3C standard
    - Vendor independent
    - Implemented in many languages: JavaScript, Java, C#, C++, etc.
- Some differences in actual implementation
  - Particularly between IE and other browsers
- Our focus is on a practical approach to the common functionality
  - Terminology reflects the W3C Level-2 DOM model
    - [www.w3.org/TR/2000/REC-DOM-Level-2-Core-20001113](http://www.w3.org/TR/2000/REC-DOM-Level-2-Core-20001113)



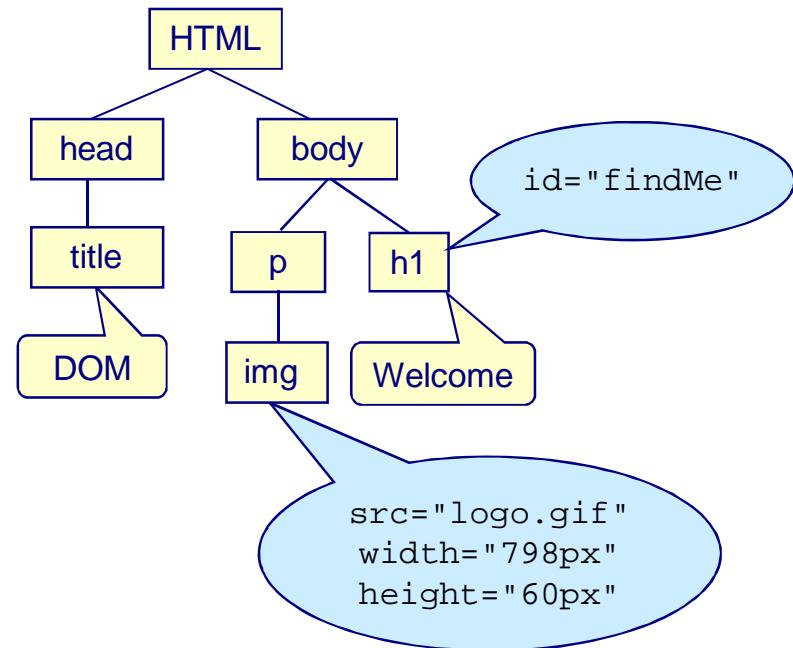
# Browsers Use DOM to Process HTML

- **Browsers load HTML using DOM**
  - HTML is just text
- **DOM converts HTML text into a tree structure**
  - Quicker and easier to process

```
<html>
 <head>
 <title>DOM</title>
 </head>
 <body>
 <p>

 </p>
 <h1 id="findMe">Welcome</h1>
 </body>
</html>
```

C:\www\webroot\examples\basic\_dom.html



# DOM Attribute Methods and Properties

- **Attributes may also be created, deleted, and manipulated in JavaScript**
  - Through built-in JavaScript DOM methods and properties

Method or property	Notes
<code>getAttribute(name)</code>	Returns value of the named attribute
<code>setAttribute(name, value)</code>	Sets new value for the named attribute (creates attribute if it does not exist)
<code>removeAttribute(name)</code>	Removes the attribute with value of name
<code>attributes</code>	Returns a <code>NamedNodeMap</code> (collection of Attribute nodes)

```
var element = document.getElementById('status');
element.setAttribute('id', 'message');
```



- An Introduction to JavaScript
- **jQuery and SharePoint**
- HTML5 and SharePoint



# What Is jQuery?

- **jQuery is the most popular JavaScript library in use today**
  - Cross-browser compatible
  - Simplifies client-side scripting of HTML
  - Open source
- **jQuery provides a large set of reusable functions to simplify using JavaScript for dynamic interactions**
- **jQuery abstracts the core functionality of JavaScript**
  - Makes common functionality available without programming
    - Animation
    - Event handling
    - AJAX interactions
    - Traversing the DOM
  - Increases productivity of the developer by reducing the need to program commonly used functionality

AJAX = asynchronous JavaScript and XML



# Separation of Behavior From Content

- As we learned previously, modern HTML uses CSS to separate presentation from content
- Similarly, modern JavaScript trends are to separate JavaScript functionality from HTML
  - Previously, JavaScript was commonly referenced inline in HTML
    - `<a onclick="doSomething()" href="#">Click!</a>`
  - It is more accessible and maintainable to keep JavaScript separate from HTML
    - All JavaScript functions can be placed in a separate file using a script tag
      - `<script type="text/javascript" src="myscript.js"></script>`
    - The `<a>` tag can simply be referenced with a class
      - `<a href="backuplink.html" class="doSomething">Click!</a>`
    - JavaScript can provide the same functionality shown above
      - `$( 'a.doSomething' ).click(function() {  
 alert('You did something, woo hoo!');  
});`



# Leveraging jQuery in SharePoint

- **jQuery libraries can be downloaded for free from [jQuery.com](http://jQuery.com)**
- **The jQuery file can be placed directly in the Style Library of the SharePoint site**
- **The jQuery script can be called into SharePoint in several ways**
  - Using a Content Editor Web Part
  - In the master page with a script tag in the head of the document
    - `<script type="text/javascript" src="/Style  
Library/scripts/jquery.js"></script>`
- **jQuery is simply JavaScript**
  - Cross-browser compatible
  - Nothing to be installed on the client
  - No DLLs to install on the server



# What Can jQuery Do?

## ► Manipulate HTML

- Show/Hide elements
- Dynamically adjust style by changing a CSS class
  - .addClass()
  - .removeClass()
- Set the HTML of an element

- ```
<script type="text/javascript">
    $('#btnDemo').click(function () {
        $('#myDemo').html('Hello world');
    });
</script>

...
<button id="btnDemo" type="button">Set HTML</button>
```
- ```
<h1 id="myDemo"></h1>
```



# jQuery for Navigation

## ► jQuery is often used to supplement interactivity in navigation

- Reveal HTML dropdown menus dynamically
  - Transitional fades
  - Animated motion
- Reveal content dynamically
  - Hyperlink set as event receiver can hide/reveal a div

## ► We will use a slide effect to hide/show the navigation menu in our iPhone master page device channel



# Hands-On Exercise 9.1

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*In your Exercise Manual, please refer to  
Hands-On Exercise 9.1: Using jQuery in SharePoint 2013*



- An Introduction to JavaScript
- jQuery and SharePoint
- ➔ HTML5 and SharePoint



# Advantages of HTML5

- **HTML5 offers advantages for developers**
- **While not a fully released standard, many browsers support much of the functionality**
- **SharePoint 2013 incorporates some HTML5 out of the box**
  - SharePoint 2013 uses a built-in media player to play videos
  - Uses the <video> capability in HTML5
- **Other features of HTML5 include**
  - Canvas
    - Easily renders images without relying on jQuery
  - Geolocation
    - Location identification through multiple technologies
  - Application cache
    - Stores information more easily on the local client
- **With HTML5, SharePoint 2013 can be made to be responsive**
  - Depending on the type of device accessing, HTML can render accordingly



# HTML5 and CSS3

- **CSS3 offers capabilities that can be immediately leveraged with support offered in modern browsers**
  - @font-face property provides the ability to embed and transfer fonts
  - Border-radius property allows you to make rounded corners on containers
  - Box-shadow generates a shadow with property options
  - More flexible layouts through dynamic widths on divs and other containers
- **Browser support is mixed for all options**
  - Degrade gracefully!

	IE	Firefox	Chrome	Safari
@font-face	9	3.6	4	3
Border-radius	9	4	5	5
Box-shadow	9	4	10	5.1



# Chapter Summary

In this chapter, we have

- Leveraged JavaScript for better site interactivity
- Simplified advanced interactions with jQuery
- Achieved fluid design with HTML5





# Deploying Your SharePoint Brand



# Chapter Objectives

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In this chapter, we will

- Assemble a design package for rapid brand deployment
- Examine solutions for deploying a SharePoint brand
- Deploy and activate a SharePoint branding solution



- ➡ **Branding Review**
  - SharePoint Design Packages
  - SharePoint Features/Solutions
  - Deploying a SharePoint Solution



# Branding Overview

---

- We have seen a variety of ways that branding a custom look and feel can be performed in SharePoint
  - Master pages
  - Custom CSS
  - Page layouts
  - Pages
  - Custom JavaScript/jQuery
  - Images
- However, our branding files currently only exist on one site
  - Other current sites will not reflect the brand
  - Newly created sites will not reflect the brand
- Our branding solutions need to be deployed throughout the environment



# Deploying Customized Content

## ► Several methods for deploying SharePoint content across multiple sites

Options	Comments
<b>Brute Force</b> Manually replicate a site's infrastructure each time using the browser and SharePoint Designer.	Potentially viable for extremely small sites, but even then generally not realistic as it is time consuming and not reliable; too easy to make errors.
<b>Features and Solutions</b> Package all customized site files into Features and deploy using SharePoint solutions functionality. Deploy to servers from a single file.	Generally the most robust option; developers package multiple components of a SharePoint site into a single file. The file is distributed to multiple servers quickly and easily.



# SharePoint Customization Tools

## ➤ **Browser**

- Light editing such as selecting themes and changing site logo
- Design Manager offers new powers for managing design assets

## ➤ **WYSIWYG editor of choice**

- HTML/CSS/JavaScript files can be created in tools like Dreamweaver

## ➤ **SharePoint Designer 2013**

- More advanced customization of sites
- More control over styles, such as master pages, CSS, and JavaScript

## ➤ **Visual Studio .NET**

- Most advanced customization of sites
- Limits in browser or SharePoint Designer can be overcome by Visual Studio
- Used to create solution packages for distributing branding files

## ➤ **Windows PowerShell**

- Used for advanced administration tasks
- Customizations created in other tools can be deployed with PowerShell



# Browser-Based Customization

## ► **Browser-based SharePoint solution creation**

- Point-and-click editing architecture directly within the browser
- Data storage within SharePoint objects
  - Lists/libraries
  - Content types
- Customization via the new theme engine
- Selection of master pages
- Ability to change page icons, titles, navigation
- Customization of content within publishing sites
- Design Manager
  - Master pages and page layouts
  - Device channels

## ► **Used by power users**

## ► **Skills needed**

- Familiarity with SharePoint concepts
- Basic web knowledge



# SharePoint Designer or Other WYSIWYG Editors

## ► **WYSIWYG editors in combination with Design Manager allow for**

- Enhanced customization of user interfaces
- Direct editing of CSS and JavaScript
- Full control of SharePoint design content
  - Default pages
  - Custom pages
  - Master pages
  - Page layouts
- No-code development environment

## ► **Used by**

- Solution creators (no-code developers)
  - Attendees of this course

## ► **Skills needed**

- Basic understanding of HTML and ASP.NET
- Familiarity with CSS
- Comfort with software development principles



# Visual Studio Customization

---

## ► Visual Studio

- Several SharePoint APIs for the most detailed levels of programming
- Each with a specialized purpose
- Code-intensive
- Advanced site-deployment options
- Rich handling of SharePoint features and solutions

## ► Used by .NET developers

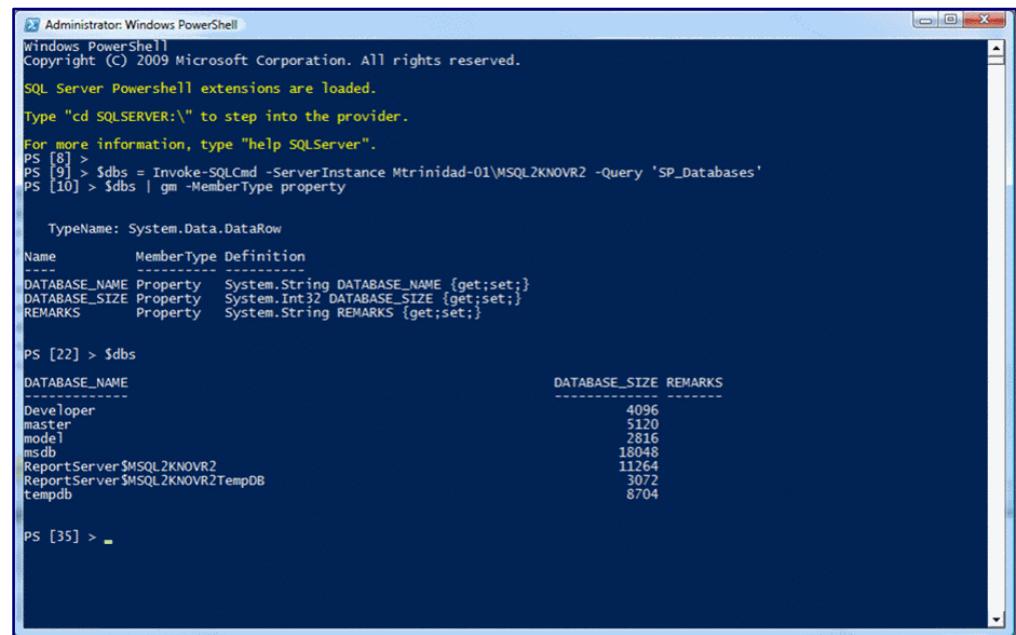
## ► Skills needed

- Advanced .NET development skills
- In-depth ASP.NET
- Detailed understanding of SharePoint architecture



# Windows PowerShell Administration

- PowerShell provides a powerful scripting environment for administration
- Included as part of Windows Server operating system
- Full .NET programming capabilities
  - Loops
  - Variables
  - Etc.
- Built with capacity to script and manage very large environments



The screenshot shows a Windows PowerShell window titled "Administrator: Windows PowerShell". The session starts with standard PowerShell setup messages and then runs a script to query SQL Server databases. The output displays a table of database properties:

Name	MemberType	Definition			
DATABASE_NAME	Property	System.String	DATABASE_NAME	{get;set;}	
DATABASE_SIZE	Property	System.Int32	DATABASE_SIZE	{get;set;}	
REMARKS	Property	System.String	REMARKS	{get;set;}	

Below this, another table lists databases with their sizes and remarks:

			DATABASE_SIZE	REMARKS
Developer			4096	
master			5120	
model			2816	
msdb			18048	
ReportServer	\$MSQL2KNOVR2		11264	
ReportServer	\$MSQL2KNOVR2TempDB		3072	
tempdb			8704	



# Choosing an Approach

- Choosing the right tool for the job is important

Editing/admin needs	Preferred tool
Create new publishing pages based on page layouts	Browser
Create new page layouts	SharePoint Designer
Develop a feature/solution package to distribute page layouts across sites	Visual Studio
Deploy features and solutions to multiple servers	Windows PowerShell



- Branding Review
- SharePoint Design Packages
- SharePoint Features/Solutions
- Deploying a SharePoint Solution



# Design Manager: Design Packages

- Designers can now create design packages within Design Manager to package up design files
  - Previously this was only possible in Visual Studio

The screenshot shows the 'Design Manager: Create Design Package' page. At the top left is a blue ribbon icon with a white 'S' and a gear. To its right is a pencil icon and the text 'EDIT LINKS'. The main title 'Design Manager: Create Design Package' is centered above a list of steps. Step 8, 'Create Design Package', is highlighted in blue. To the right of the steps is a descriptive text block. Below that is a form with 'Design Name' set to 'Team 26 Publishing Site', 'Version' set to 'v1.0', and an unchecked checkbox for 'Include Search Configuration in this package'. A 'Create' button is at the bottom.

1. Welcome  
2. Manage Device Channels  
3. Upload Design Files  
4. Edit Master Pages  
5. Edit Display Templates  
6. Edit Page Layouts  
7. Publish and Apply Design  
8. [Create Design Package](#)

You can create a package of your design for easy import to other site collections. The package does not include default SharePoint design files.

Choose a name for this design. Even if you change this package's name later, we'll still recognize it as related to all packages exported from this site collection.

Design Name   
Version v1.0

Include Search Configuration in this package.

[Create](#)



# Design Package Contents

- A design package consists of all contents that make up your visual design
  - Master pages
  - Themes
  - Style library contents
  - Site assets contents
  - Content types
  - Composed looks
  - Device channels
- Our design package for our case study would consist of all the files we have designed in previous exercises
  - Master pages
  - CSS
  - Images
  - JavaScript



# Exporting and Importing a Design Package

## ► The Design Manager is used to create the design package

- Export all design files into a solution package
- Solution is a .wsp file

## ► Design Manager is then used to import the design package

- Package is imported to the site collection

The screenshot shows the SharePoint Design Manager welcome page. At the top left is the SharePoint logo. To its right are links for 'EDIT LINKS' and a search bar labeled 'Search this site'. The main title 'Design Manager: Welcome' is centered above a list of eight numbered options. To the right of the list is descriptive text about the Design Manager and links for importing a package or picking a pre-installed look. Below that is a link to get an overview.

1. Welcome  
2. Manage Device Channels  
3. Upload Design Files  
4. Edit Master Pages  
5. Edit Display Templates  
6. Edit Page Layouts  
7. Publish and Apply Design  
8. Create Design Package

The Design Manager helps you create your own site design in SharePoint. [Learn how SharePoint sites work](#)

If you aren't creating your own design, you may instead want to choose from one of the following options:

- [Import a complete design package](#)
- [Pick a pre-installed look](#)

Otherwise, go ahead to the next step of the Design Manager. [Get an overview](#)

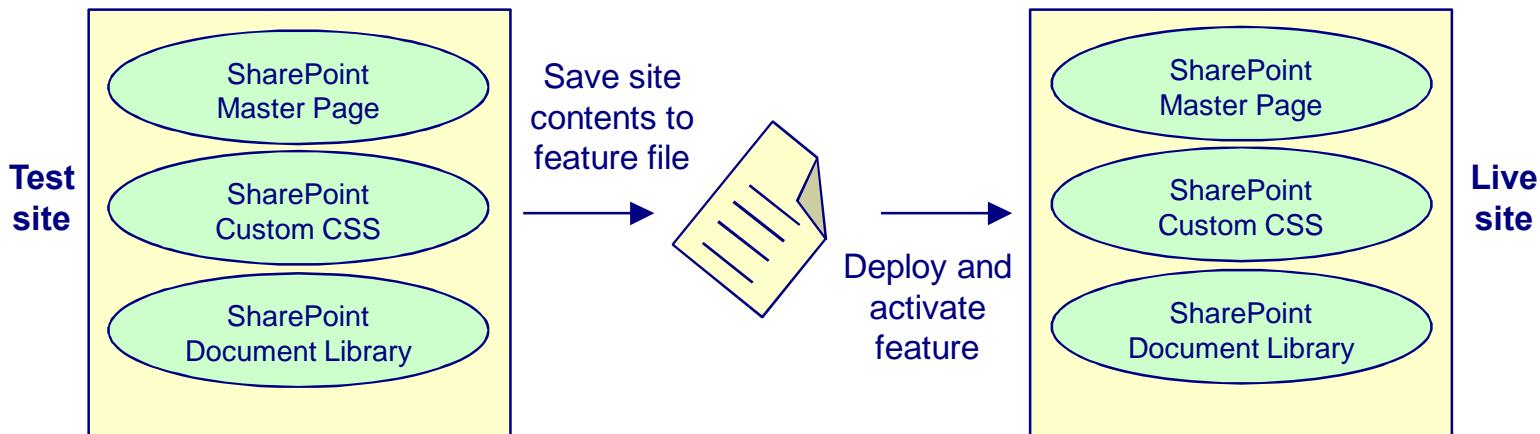


- Branding Review
- SharePoint Design Packages
- ➔ **SharePoint Features/Solutions**
- Deploying a SharePoint Solution



# SharePoint Features

- SharePoint's primary mechanism for distributing files is a feature
- Deploying custom features allow you to package functionality from one SharePoint site and distribute it to other sites



# Inside SharePoint Features

- **The primary file of every feature is `feature.xml`**
  - Describes the feature
  - Describes the location to one or more manifest XML files (`elements.xml`)
    - Manifest file simply describes what the feature should do when it is activated
  - Once feature is deployed, it must be activated within the browser
- **SharePoint solutions are the framework to distribute the customized files**
  - A solution is a cabinet file with a `.wsp` extension
  - A structured way to move files between servers
- **Features and solutions for branding**
  - Solution file packages up the branding files for delivery
  - Activating the feature distributes the branding files into the site (collection)



# Farm Solutions vs. Sandboxed Solutions

## ► Two types of solutions are available in SharePoint 2013

- Farm solutions
  - Deployed by server administrators
  - Require direct access to the server
- Sandboxed solutions
  - Allow an administrator to
    - Deploy developers' custom code via the browser
    - Ensure that deployed code does not harm the farm
    - Reduce responsibilities for administrator and empower users
  - Since sandboxed solutions are deployed via the browser, they do not require direct access to the server

## ► Sandboxed solutions offer many advantages over farm solutions and are the preferred way of distributing branding files in SharePoint 2013



- Branding Review
- SharePoint Design Packages
- SharePoint Features/Solutions
- ➔ Deploying a SharePoint Solution



# Wait! I'm Just a Designer!

- While you may not create the feature/solution package, you need to be aware of what the developer will require
- All elements used in your customized site need to be available to the developer to create the solution
  - Master pages
  - Custom CSS
  - Page layouts
  - Images
  - JavaScript files
- Document your customized solution thoroughly
- As we have learned, the number of customized files and the number of locations they reside in can be large



# Hands-On Exercise 10.1

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*In your Exercise Manual, please refer to  
Hands-On Exercise 10.1:  
Creating a Design Package for Branding in SharePoint 2013*



# Chapter Summary

In this chapter, we have

- Assembled a design package for rapid brand deployment
- Examined solutions for deploying a SharePoint brand
- Deployed and activated a SharePoint branding solution





# Course Summary



# Course Summary

Upon completing this course, you are now able to

- Understand SharePoint 2013 options for creating, designing, and maintaining a consistent look and feel
- Identify information architecture and navigation considerations in SharePoint
- Create design concepts for SharePoint
- Customize a site with SharePoint Designer 2013 and other WYSIWYG tools such as Adobe Dreamweaver CS6
- Create custom master pages and page layouts
- Apply Cascading Style Sheets and HTML code within SharePoint sites
- Leverage the Design Manager to control the redesign process
- Enable cross-site publishing and search-driven Web Parts
- Deploy a branding solution with reduced complexity using design packages

