

Master Pages in ASP.Net

Supplemental Material:
ASP.NET LESSON 3

Master Page Concepts

- Defines a consistent look and feel for a website
- Provides a re-usable, easy to manage mechanism to build the site layout
- Provide "place holders" for the content
- Content pages use the shell designed with the master page layout and content can be plugged-in to the Content controls.
- WYSIWYG support for viewing the content embedded in the master page at design time.

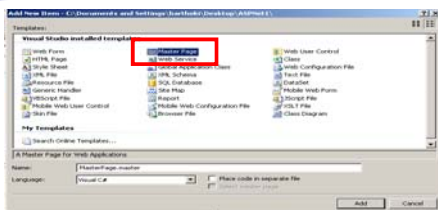
Web Forms in ASP.Net-.aspx Pages

- The main page type used in a ASP.Net projects is a web form
- This page type has a **.aspx** file extension
- A web form has a form tag with a runat="server" which means it is executed on a web server
- Sometimes you will hear this called "**server-side**" programming

Master Pages - .master file

- Master Pages are a web form even though the file extension is **.master**
- ASP.Net form pages that are created using a master page must be run from a Microsoft web server
- Running an application from the Visual Studio environment uses the local Microsoft web server called IIS

Creating a Master Page



- Choose File->New->File then Master Page

Naming the Master Page

- As you choose to create a master page, name the page at the same time
- The Master Page should have the **.master** file extension
- For our purposes, uncheck the place code is a separate file box

How It Works

- Master pages are created to define common layout or blueprint for a group of pages
- This layout includes **asp:contentplaceholder** controls that are place holders for future content.
- Content pages created from a master page merge their content into the Master page layout.

The Master Page Template

- Master pages have a special **@Master directive** at the top of the file
- Do not change this directive in any way
- Master pages can contain HTML tags and other ASP.Net controls like the **asp:contentplaceholder**.

```
<%@ Master Language="C#" %>
```

Basics of a Master Page

- Page Directive for the Master Page (template)

```
<%@ Master Language="C#" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<script runat="server">

</script>

<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
  <title>Untitled Page</title>
</head>
```

Basics of a Master Page

- Delete the <script> </script> tags

```
<%@ Master Language="C#" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<script runat="server">

</script>

<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
  <title>Untitled Page</title>
</head>
```

Basics of a Master Page

- Copy and paste the start.htm meta tags in the head

```
<%@ Master Language="C#" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
  <meta name="author" content="Your name here..." />
  <meta name="class" content="INFO 2450 - Web Content Design" />
  :
  <meta name="keywords" content="Project #, INFO 2450, UVSC, HTML,
Web Content Design, whatever else you want..." />
  <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
  <title>Untitled Page</title>
</head>
```

Basics of a Master Page

- Link your CSS stylesheet in the head of the page

```
<head runat="server">
  <meta name="author" content="Your name here..." />
  <meta name="class" content="INFO 2450 - Web Content Design" />
  :
  <meta name="keywords" content="Project #, INFO 2450, UVSC, HTML,
Web Content Design, whatever else you want..." />
  <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
  <title>Untitled Page</title>
  <link href="StyleSheet.css" rel="stylesheet" type="text/css" />
</head>
```

Basics of a Master Page

- Editable region uses a contentplaceholder control

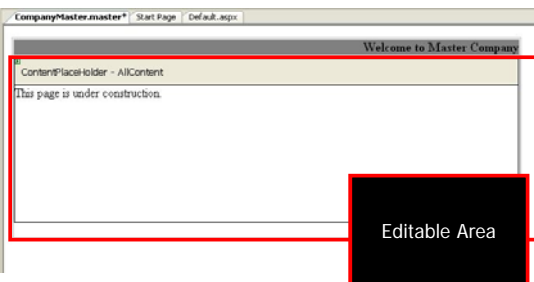
```
<%@ Master Language="C#" %>
:
<form id="form1" runat="server">
<div>
<h3>Welcome to Pets R Us</h3>
<asp:contentplaceholder id="ContentPlaceholder1" runat="server">
</asp:contentplaceholder>
</div>
</form>
```

Basics of a Master Page

- You can have multiple contentplaceholder controls, each needs a unique id.

```
<%@ Master Language="C#" AutoEventWireup="true"
CodeFile="CompanyMaster.master.cs" Inherits="CompanyMaster" %>
:
<form id="form1" runat="server">
<div>
<b>Welcome to Master Company</b>
<asp:contentplaceholder id="ContentPlaceholder1" runat="server">
This page is under construction.
</asp:contentplaceholder>
</div>
</form>
```

Master Page in Design Mode



ContentPlaceholder Frustration

- When the Master Page creates a contentplaceholder area
- It is not easily movable
- Need to use a div tag or another mechanism to place it
- There is top and bottom padding on this control that cannot be removed



Creating a Content Page

- To create a content page in ASP.Net:
 - Select File->New->File and choose a Web Form which is an .aspx page
 - Visual Studio allows you to select the Master page by checking the box
 - For our purposes, uncheck the choose to have the code-behind page created for you.
 - Name your new form page something.aspx

Basics of a Content Page

- Page directive for Content Page

```
<%@ Page Language="C#"
MasterPageFile="~/MasterPage.master" Title="Untitled Page"
%>

<asp:Content ID="Content1"
ContentPlaceHolderID="ContentPlaceholder1"
Runat="Server">

<!-- Your page content will go here! -->

</asp:Content>
```

Basics of a Content Page

- Change the Content Page Title

```
<%@ Page Language="C#"
MasterPageFile="~/MasterPage.master" Title="Untitled Page"
%>

<asp:Content ID="Content1"
ContentPlaceHolderID="ContentPlaceHolder1"
Runat="Server">

<!-- Your page content will go here! -->

</asp:Content>
```

Basics of a Content Page

- ContentPlaceHolder area on page

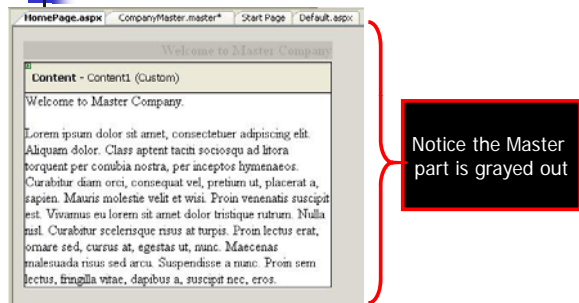
```
<%@ Page Language="C#"
MasterPageFile="~/MasterPage.master" Title="Untitled Page"
%>

<asp:Content ID="Content1"
ContentPlaceHolderID="ContentPlaceHolder1"
Runat="Server">

<!-- Your page content will go here! -->

</asp:Content>
```

Content Page in Design Mode



See MasterTest Example

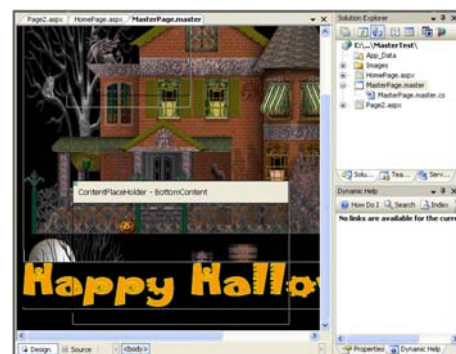
- A Halloween MasterTest page was created
 - A background image and text graphic were added
 - Two ContentPlaceHolder areas were on the page
 - Just copied one to make the other and gave it a unique ID

MasterPage.master-Source Mode

- Two ContentPlaceHolder areas

```
<%@ Master Language="C#" %>
:
<div class="topcontent" >
<asp:contentplaceholder id="TopContent" runat="server" >
</asp:contentplaceholder>
</div>
<div class="bottomcontent">
<asp:contentplaceholder id="BottomContent" runat="server" >
</asp:contentplaceholder>
</div>
</div>
```

MasterPage.master- Design Mode



HomePage.aspx – Source Mode

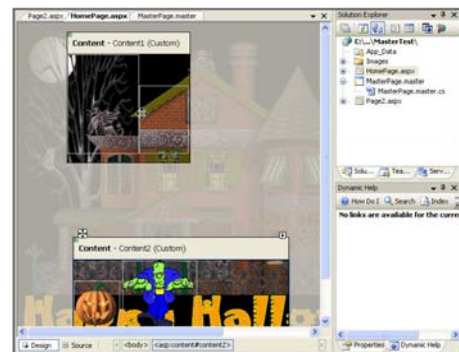
- Two content areas use the ContentPlaceholder IDs from the MasterPage

```
<%@ Page Language="C#"
MasterPageFile="~/MasterPage.master" Title="Halloween Home"
%>
<asp:Content ID="Content1"
ContentPlaceHolderID="TopContent" runat="server">
 
</asp:Content>

<asp:Content ID="Content2"
ContentPlaceHolderID="BottomContent" runat="server">


</asp:Content>
```

HomePage.aspx – Design Mode



Homepage.aspx – Live Page



Page2.aspx – Source Mode

- Two content areas use the ContentPlaceholder IDs from the MasterPage

```
<%@ Page Language="C#"
MasterPageFile="~/MasterPage.master" Title="Halloween 2" %>
<asp:Content ID="Content1"
ContentPlaceHolderID="TopContent" Runat="Server">

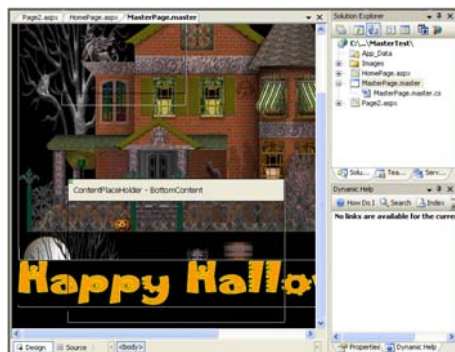
</asp:Content>

<asp:Content ID="Content2"
ContentPlaceHolderID="BottomContent" Runat="Server">



</asp:Content>
```

Page2.aspx – Design Mode



Page2.aspx – Live Page





Summary

- The Master Page mechanism in ASP.Net is similar to templates in other languages
- The Editable areas are created with a ContentPlaceHolder control
- Content pages are created from a Master Page