

(420-PS4-AB)
Master Pages

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Defining a Common Page Layout

Common
Header



Common
Menu

Page Content

Working with Master Pages

- **Master Pages allow a common page layout to be defined across a Website using a single file**
- **Master Page Features:**
 - Extend the UserControl class
 - Can be nested to handle more complex page layout needs
 - Define areas where content should be placed within the defined page layout
 - Have a .master extension
 - Can have a code behind page

Creating Master Pages

- Can be created by adding a new item of type master Page
- Master Pages allow the overall layout of pages to be defined in one place:

```
<%@ Master %>

<html >
<body bgcolor="White">
  <b>Header</b>
  
  <asp:ContentPlaceHolder id="ph1" runat="Server"/>
  <b>Header</b>
</body>
</html>
```

MySite.master

Demo: Master Pages

- Add a new master page to the TimeTracker Application
- Add the following in the master page:
 - Header with title name (big font and bold on the right)
 - Date label on the left
 - Footer with copy rights

Time Tracker Web Application	[!bDate]
© 2017	

The screenshot shows the 'Add New Item' dialog in Visual Studio for a project named 'TimeTracker2'. The 'Web Forms Master Page' template is selected. The 'Name' field is set to 'Site1.Master'. The 'Code' view of the master page is displayed, showing the following HTML structure:

```

4
5 <html>
6 <head runat="server">
7     <title>Time Tracker Application</title>
8
9     <asp:ContentPlaceholder ID="head" runat="server">
10    </asp:ContentPlaceholder>
11 </head>
12 <body>
13     <!-- HEADER -->
14     <div style="float:left;width:50%;text-align:left;font-size:16pt;font-weight:bold">
15         TIME TRACKER Web Application
16     </div>
17     <div style="float:right;width:45%;text-align:right;">
18         <asp:Label ID="lbDate" runat="server" Text=""></asp:Label>
19     </div>
20     <br />
21     <!-- MAIN BODY -->
22     <form id="form1" runat="server">
23         <div>
24             <asp:ContentPlaceholder ID="mainContentPH" runat="server">
25             </asp:ContentPlaceholder>
26         </div>
27     </form>
28     <br />
29     <!-- FOOTER -->
30     &copy; 2018
31 </body>
32 </html>
33

```

Two red ovals highlight the content placeholders: one around the header placeholder on line 9 and another around the main content placeholder on line 24.

Creating Content Page

- Content Pages reference a Master Page and contain one or more Content Controls:

```
<%@ Page MasterPageFile="Mysite.master"%>
```

```
<asp:content id="bodyContent"  
contentPlaceholder id="ph1" runat="server"/>
```

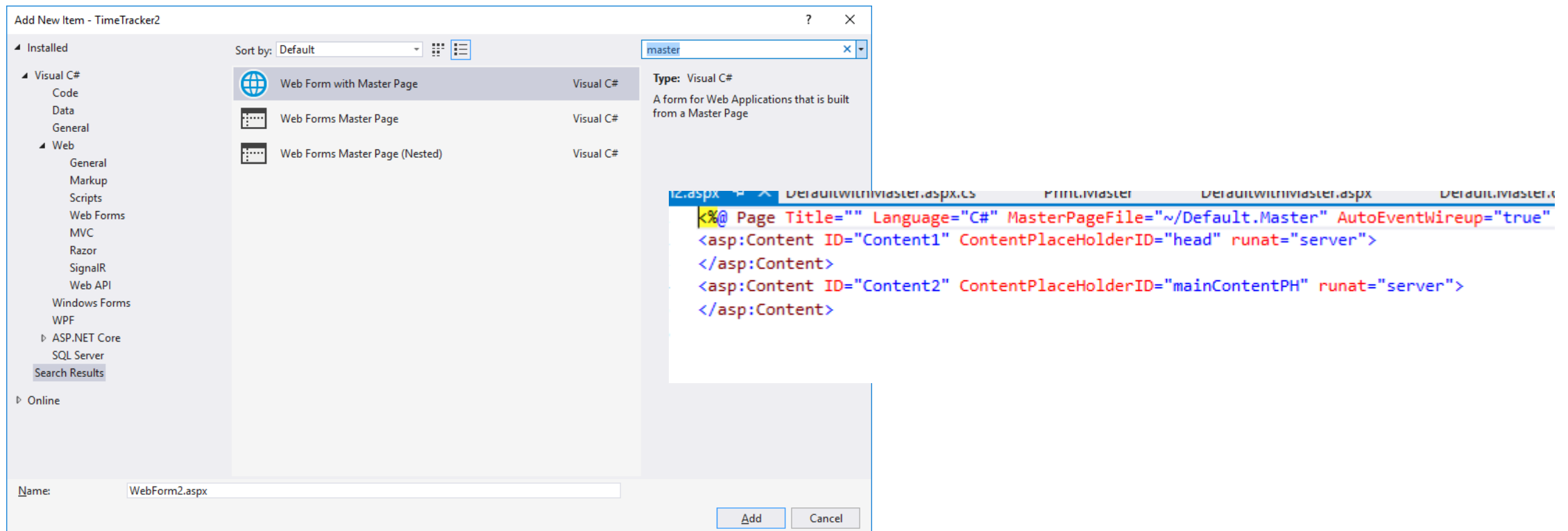
Page Content Goes Here

```
</asp:content>
```

Page.aspx

Demo: Master Pages

- Add content pages to the master page you have created.



Dynamically Changing Master Pages

- Master Pages can dynamically be changed using the Page PreInit event handler in the code behind

```
void Page_PreInit (object src, EventArgs e)
{
    MasterPageFile = "~/CustomMasterPage.master";
}
```

Demo: Changing a Master Page

- Create a second master page without the header or footer for printing propose.

- Add a hyper link to the same page with string query

```
<a href="default.aspx?Print=true">
```

```
    PRINTABLE VERSION
```

```
</a>
```

Demo: Changing a Master Page

```
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="mainContentPH" runat="server">
<div>
  <a href ="DefaultwithMaster.aspx?Print=true">PRINTABLE VERSION</a>
  <br />
  <asp:GridView ID="GridView1" runat="server" AutoGenerateColumns="False" Cel
    <AlternatingRowStyle BackColor="White" />
    <Columns>
      <asp:CommandField ShowSelectButton="True" />
    </Columns>
  </asp:GridView>
</div>
</asp:Content>
```

Main page source

```
using System.Web.UI.WebControls;

namespace TimeTracker2
{
    public partial class DefaultwithMaster : System.Web.UI.Page
    {
        void Page_PreInit(object sender, EventArgs e)
        {
            if (Request.QueryString["Print"] != null)
            {
                MasterPageFile = "~/Print.Master";
            }
        }
        protected void Page_Load(object sender, EventArgs e)
        {
        }
    }
}
```

Code behind

Summary

- Master Pages provide a simple way to provide a Website with a common page layout.
- Master Pages contain a Master directive along with a ContentPlaceHolder server control.
- Content Pages contain a MasterPageFile attribute and one or more Content server controls.
- Master Pages can be changed dynamically

Q & A

