Note from the Authors: This article is an excerpt from Chapter 10, Section 10.6 of *C# for Experienced Programmers*. This article introduces using Windows Media Player in a C# application. Windows Media Player allows program users to play video and music. In the article we provide an example of a form that displays a Windows Media Player control. Readers should be familiar with C# syntax, as well as objects, classes, modules and basic GUI development. The code examples included in this article show readers programming examples using the DEITEL™ signature LIVE-CODE™ Approach, which presents all concepts in the context of complete working programs followed by the screen shots of the actual inputs and outputs.

13.12 Windows Media Player

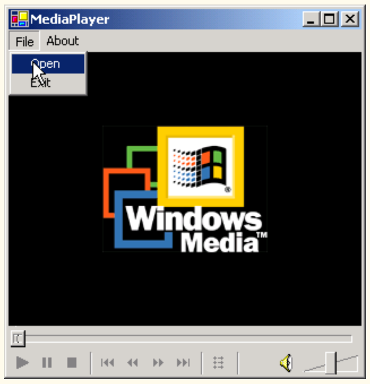
The Windows Media Player control enables an application to play video and sound in many multimedia formats. These include MPEG (Motion Pictures Experts Group) audio and video, AVI (audio-video interleave) video, WAV (Windows wave-file format) audio and MIDI (Musical Instrument Digital Interface) audio. Users can find preexisting audio and video on the Internet, or they can create their own files, using available sound and graphics packages.

The application in Fig. 13.27 demonstrates the Windows Media Player control, which enables users to play multimedia files. To use the Windows Media Player control, programmers must add the control to the **Toolbox**. This is accomplished by first selecting **Customize Toolbox** from the **Tool** menu to display the **Customize Toolbox** dialog box. In the dialog box, scroll down and select the option **Windows Media Player**. Then, click the **OK** button to dismiss the dialog box. The icon for the Windows Media Player control now should appear at the bottom of the **Toolbox**.

```
// Fig. 13.27: MediaPlayerTest.cs
// Demonstrates the Windows Media Player control

using System;
using System.Drawing;
using System.Collections;
using System.ComponentModel;
using System.Windows.Forms;
using System.Data;

// allows users to play media files using a
// Windows Media Player control
public class MediaPlayer : System.Windows.Forms.Form
{
   private System.Windows.Forms.MainMenu applicationMenu;
   private System.Windows.Forms.MenuItem fileItem;
   private System.Windows.Forms.MenuItem openItem;
   private System.Windows.Forms.MenuItem exitItem;
   private System.Windows.Forms.MenuItem aboutItem;
   private System.Windows.Forms.MenuItem aboutMessageItem;
   private System.Windows.Forms.OpenFileDialog
      openMediaFileDialog;
   private AxMediaPlayer.AxMediaPlayer player;

   private
      System.ComponentModel.Container components = null;

   [STAThread]
   static void Main()
   {
      Application.Run( new MediaPlayer() );
   }

   // Visual Studio .NET generated code

```

Fig. 13.27 Windows Media Player demonstration. (Part 1 of 3.)

```
      // open new media file in Windows Media Player
      private void openItem_Click(
         object sender, System.EventArgs e)
      {
         openMediaFileDialog.ShowDialog();

         player.FileName = openMediaFileDialog.FileName;

         // adjust the size of the Media Player control and
         // the Form according to the size of the image
         player.Size = new Size( player.ImageSourceWidth,
            player.ImageSourceHeight );

         this.Size = new Size( player.Size.Width + 20,
            player.Size.Height + 60 );

      } // end method openItem_Click

      private void exitItem_Click(
         object sender, System.EventArgs e)
      {
         Application.Exit();

      } // end method exitItem_Click

      private void aboutMessageItem_Click(
         object sender, System.EventArgs e)
      {
         player.AboutBox();

      } // end method aboutMessageItem_Click

   } // end class MediaPlayer
```



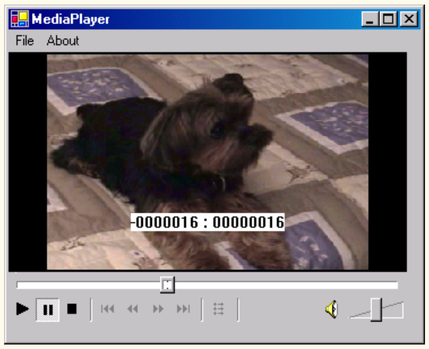
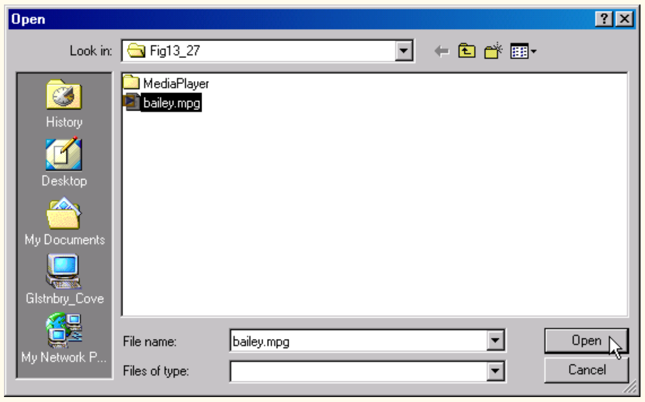
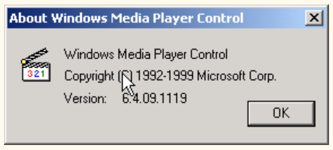


Fig. 13.27 Windows Media Player demonstration. (Part 2 of 3.)





Windows Media Player Control
Copyright (C) 1992-1999 Microsoft Corp.
Version: 6.4.09.1119

Fig. 13.27 Windows Media Player demonstration. (Part 3 of 3.)

The Windows Media Player control provides several buttons that allow the user to play the current file, pause, stop, play the previous file, rewind, forward and play the next file. The control also includes a volume control and trackbars to select a specific position in the media file.

The application provides a **MainMenu**, which includes **File** and **About** menus. The **File** menu contains the **Open** and **Exit** menu items; the **About** menu contains the **About Windows Media Player** menu item.

When a user chooses **Open** from the **File** menu, event handler **openItem_Click** (lines 37–52) executes. An **OpenFileDialog** box is displayed (line 40), allowing the user to select a file. The program then sets the **FileName** property of the player (the Windows Media Player control object of type **AxMediaPlayer**) to the name of the file chosen by the user. The **FileName** property specifies the file that Windows Media Player currently is using. Lines 46–50 adjust the size of **player** and the application to reflect the size of the media contained in the file.

The event handler that executes when the user selects **Exit** from the **File** menu (lines 54–59) simply calls **Application.Exit** to terminate the application. The event handler that executes when the user chooses **About Windows Media Player** from the **About** menu (lines 61–66) calls the **AboutBox** method of the player. **AboutBox** simply displays a preset message box containing information about Windows Media Player.