

Лабораторная работа № 9 Работа с мультимедиа в Silverlight	Студент, группа	Голубев А. В.
	Дата выполнения	
	Подпись	
	Дата отчёта	
	Оценка	
	Подпись	

Цель работы: получение общих сведений о технологии Silverlight, получение практических навыков создания web-приложений, использующих мультимедийные возможности Silverlight.

Задачи:

1. Создать Silverlight-форму для воспроизведения видео
2. Включить в форму дополнительные элементы для управления воспроизведением видео
3. Создать ASP.NET приложение, в котором используется Silverlight-форма

Исходный код:

Главная страница

```

1  using System;
2  using System.Collections.Generic;
3  using System.Linq;
4  using System.Net;
5  using System.Windows;
6  using System.Windows.Controls;
7  using System.Windows.Documents;
8  using System.Windows.Input;
9  using System.Windows.Media;
10 using System.Windows.Media.Animation;
11 using System.Windows.Shapes;
12 using System.IO;
13 using System.Windows.Threading;
14
15 namespace Lab09
16 {
17     public partial class MainPage : UserControl
18     {
19         private TimeSpan TotalTime;
20         private DispatcherTimer timerVideoTime = new DispatcherTimer();
21         private List<Stream> streams = new List<Stream>();
22         private int index = 0;
23         public MainPage()
24         {
25             InitializeComponent();
26             slider.AddHandler(MouseLeftButtonUpEvent, new MouseButtonEventHandler(slider_MouseLeftButtonUp
27 ), true);
28         }
29         private void Button_Click(object sender, RoutedEventArgs e)
30         {
31         }
32         private void Button_Click_1(object sender, RoutedEventArgs e)
33         {
34             if (media.CurrentState == MediaElementState.Paused)
35             {
36                 media.Play();
37             }
38             else
39             {
40                 media.Pause();
41             }
42         }
43     }
44
45     private void stop_Click(object sender, RoutedEventArgs e)

```

```

46     {
47         media.Stop();
48     }
49
50     private void listBox_MouseLeftButtonDown(object sender, MouseButtonEventArgs e)
51     {
52     }
53
54     private void media_MediaOpened(object sender, RoutedEventArgs e)
55     {
56         TotalTime = media.NaturalDuration.TimeSpan;
57
58         // Create a timer that will update the counters and the time slider
59         timerVideoTime.Interval = TimeSpan.FromMilliseconds(1000);
60         timerVideoTime.Tick += new EventHandler(timer_Tick);
61         timerVideoTime.Start();
62         slider.Maximum = media.NaturalDuration.TimeSpan.TotalSeconds;
63         slider.Minimum = 0;
64     }
65     void timer_Tick(object sender, EventArgs e)
66     {
67         slider.Value = media.Position.TotalSeconds;
68         if (media.Position.TotalSeconds == media.NaturalDuration.TimeSpan.TotalSeconds)
69         {
70             video_list(+1);
71         }
72     }
73
74     private void slider_MouseLeftButtonUp(object sender, MouseButtonEventArgs e)
75     {
76         int pos = Convert.ToInt32(slider.Value);
77         media.Position = new TimeSpan(0, 0, 0, pos, 0);
78     }
79
80     private void open_Click(object sender, RoutedEventArgs e)
81     {
82         OpenFileDialog fdlg = new OpenFileDialog();
83         fdlg.Multiselect = true;
84         fdlg.Filter = "All supported files|*.wmv;*.mp4;*.avi";
85         if (fdlg.ShowDialog() != true)
86         {
87             return;
88         }
89         playlist.Items.Clear();
90         foreach (var file in fdlg.Files)
91         {
92             Stream fileStream = file.OpenRead();
93             streams.Add(fileStream);
94             playlist.Items.Add(file.Name);
95         }
96         video_list(0);
97     }
98
99     private void video_list(int adder)
100     {
101         int tmp = sindex + adder;
102         if (tmp >= 0 && tmp < streams.Count)
103         {
104             sindex += adder;
105             media.SetSource(streams[sindex]);
106             playlist.SelectedIndex = sindex;
107             media.Position = new TimeSpan(0);
108         }
109     }
110     private void next_Click(object sender, RoutedEventArgs e)
111     {
112         video_list(+1);
113     }
114
115     private void prev_Click(object sender, RoutedEventArgs e)
116     {
117         video_list(-1);
118     }
119
120     private void playlist_SelectionChanged(object sender, SelectionChangedEventArgs e)
121     {

```

```

122         sindex = playlist.SelectedIndex;
123         video_list(0);
124     }
125 }
126 }

```

Разметка главной страницы

```

1  <UserControl x:Class="Lab09.MainPage"
2      xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
3      xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
4      xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
5      xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
6      mc:Ignorable="d"
7      d:DesignHeight="300" Width="610.309">
8
9      <Grid x:Name="LayoutRoot" Background="White" Margin="0,0,-100,0">
10         <MediaElement x:Name="media" HorizontalAlignment="Left" Height="255" Margin="10,10,0,0"
            VerticalAlignment="Top" Width="450" Source="/video/01.mp4" AutoPlay="False" MediaOpened="
            media_MediaOpened"/>
11         <Button x:Name="play" Content="Play/Pause" HorizontalAlignment="Left" Margin="10,268,0,0"
            VerticalAlignment="Top" Width="75" RenderTransformOrigin="0.5,0.5" Click="Button_Click_1"/>
12         <Button x:Name="stop" Content="Stop" HorizontalAlignment="Left" Margin="90,268,0,0"
            VerticalAlignment="Top" Width="43" Click="stop_Click"/>
13         <Slider x:Name="slider" HorizontalAlignment="Left" Margin="291,270,0,0" VerticalAlignment="Top"
            Width="169" Height="22" MouseLeftButtonUp="slider_MouseLeftButtonUp"/>
14         <Button x:Name="next" Content="Next" HorizontalAlignment="Left" Margin="185,268,0,0"
            VerticalAlignment="Top" Width="42" Click="next_Click"/>
15         <Button x:Name="prev" Content="Prev" HorizontalAlignment="Left" Margin="138,268,0,0"
            VerticalAlignment="Top" Width="42" Click="prev_Click"/>
16         <Button x:Name="open" Content="open" HorizontalAlignment="Left" Margin="232,268,0,0"
            VerticalAlignment="Top" Width="43" Click="open_Click"/>
17         <ListBox x:Name="playlist" HorizontalAlignment="Left" Height="280" Margin="465,10,0,0"
            VerticalAlignment="Top" Width="235" SelectionChanged="playlist_SelectionChanged"/>
18
19     </Grid>
20 </UserControl>

```

Скриншоты:



Play/Pause

Stop

Prev

Next

open



Clip_480_5sec_6mbps_h264.mp4

cows & cows & cows.mp4

meow mix.mp4

winsatencode.wmv

Лучшие смешные котики!(20 мин).mp4



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