现代操作系统应用开发实验报告

学号：15331191   **班级**   ：15 软件工程教务三班（早上班）

姓名：廖颖泓   **实验名称：**Homework8

一．参考资料

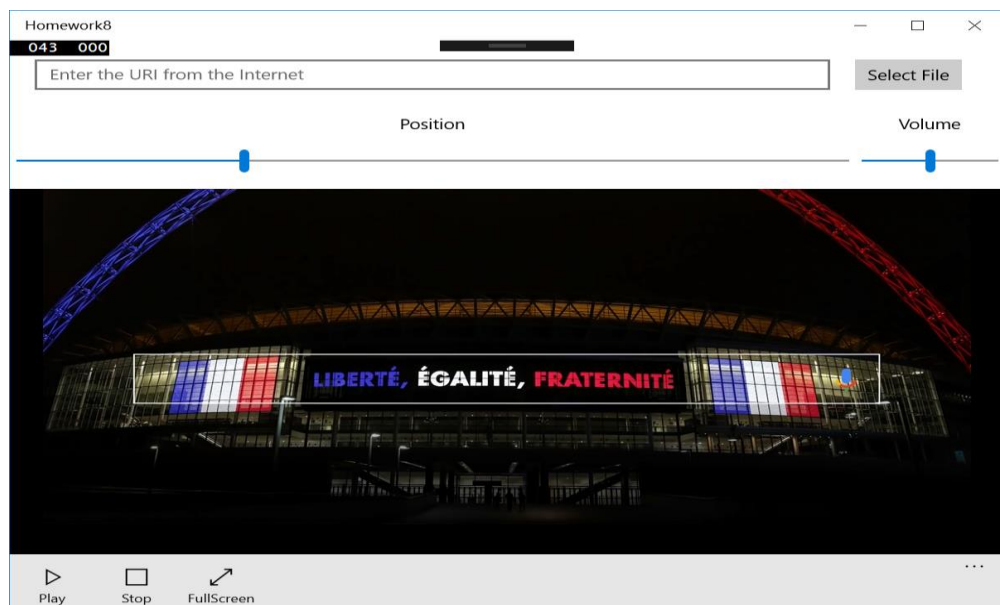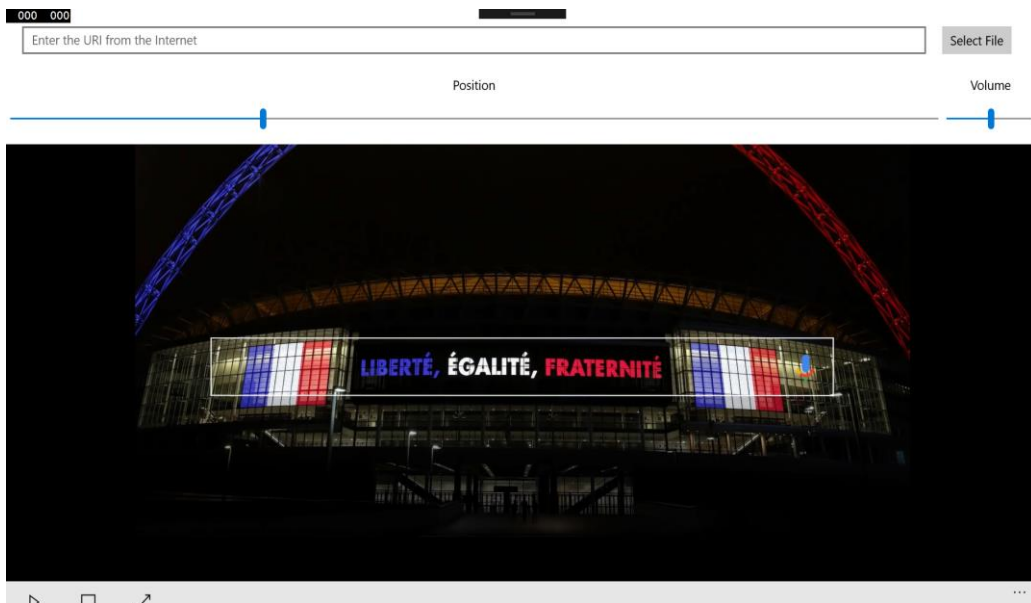1、https://msdn.microsoft.com/en-us/library/windows/apps/mt187272.aspx

二．实验步骤

利用课件提供的资料和 MSDN 的文档，在 XAML 中插入 MediaElement 标签元素，

并在 cs 文件中进行相应的播放、暂停、停止等功能。

三．实验结果截图

播放器（未全屏）

播放器（未全屏）


```csharp
private void Play_Click(object sender, RoutedEventArgs e)
{
    if (Display.CurrentState == MediaElementState.Playing)
    {
        Display.Pause();
        Play.Icon = new SymbolIcon(Symbol.Play);
        Play.Label = "Play";
    }
    else
    {
        Display.Play();
        Play.Icon = new SymbolIcon(Symbol.Pause);
        Play.Label = "Pause";
    }
}

1 reference
private void Stop_Click(object sender, RoutedEventArgs e)
{
    TimeSpan ts = new TimeSpan(0, 0, 0, 0, 0);
    Display.Position = ts;
    Display.Stop();
}

1 reference
private void Go_KeyDown(object sender, KeyRoutedEventArgs e)
{
    Library.Go(ref Display, Value.Text, e);
}
```

播放、暂停和停止代码

```csharp
1 reference
private void Volume_ValueChanged(object sender, RangeBaseValueChangedEventArgs e)
{
    if (Display != null && Volume != null)
    {
        Display.Volume = (double)Volume.Value * 0.01;
    }
}


1 reference
private void Display_MediaOpened(object sender, RoutedEventArgs e)
{
    Position.Maximum = (int)Display.NaturalDuration.TimeSpan.TotalMilliseconds;
    Display.Play();
    Play.Icon = new SymbolIcon(Symbol.Pause);
    Play.Label = "Pause";
}


1 reference
private void Display_MediaEnded(object sender, RoutedEventArgs e)
{
    Play.Icon = new SymbolIcon(Symbol.Play);
    Play.Label = "Play";
    Display.Stop();
    Position.Value = 0;
}
```

播放控制代码

```csharp
private void Display_CurrentStateChanged(object sender, RoutedEventArgs e)
{
    Library.Timer(Display.CurrentState == MediaElementState.Playing);
}


1 reference
private void SeekToMediaPosition(object sender, RoutedEventArgs e)
{
    int SlideValue = (int)Position.Value;
    TimeSpan ts = new TimeSpan(0, 0, 0, 0, SlideValue);
    Display.Position = ts;
}
```

进度条代码

```csharp
1 reference
private async void Select_Click(object sender, RoutedEventArgs e)
{
    FileOpenPicker open = new FileOpenPicker();
    open.ViewMode = PickerViewMode.Thumbnail;
    open.SuggestedStartLocation = PickerLocationId.PicturesLibrary;
    open.FileTypeFilter.Add(".mkv");
    open.FileTypeFilter.Add(".mp4");
    open.FileTypeFilter.Add(".mp3");
    open.FileTypeFilter.Add(".wmv");
    open.FileTypeFilter.Add(".avi");
    open.FileTypeFilter.Add(".wma");

    StorageFile file = await open.PickSingleFileAsync();
    if (file != null)
    {
        var stream = await file.OpenAsync(Windows.Storage.FileAccessMode.Read);
        Display.SetSource(stream, file.ContentType);
        Display.Play();
    }
}
```

```csharp
1 reference
private void FullScreen_Click(object sender, RoutedEventArgs e)
{
    if (!fullscreen)
    {
        ApplicationView.GetForCurrentView().TryEnterFullScreenMode();
        fullscreen = true;
    }
    else
    {
        ApplicationView.GetForCurrentView().ExitFullScreenMode();
        fullscreen = false;
    }
}
```

全屏设置代码

```csharp
1 reference
public void Go(ref MediaElement display, string value, KeyRoutedEventArgs args)
{
    if (args.Key == Windows.System.VirtualKey.Enter)
    {
        try
        {
            display.Source = new Uri(String.Format(value), UriKind.Absolute);
            display.Play();
        }
        catch
        {

        }
    }
}
```

输入 URI 播放代码

四．实验过程遇到的问题

不知道如何设置专辑封面旋转。

五．思考与总结

这次实验完成了一个简单的多媒体播放器，功能虽然有些单一，但是实现了一个播放器还是

很有成就感的。