How to play videos on Unity using new VideoPlayer

justcode.me/unity2d/how-to-play-videos-on-unity-using-new-videoplayer
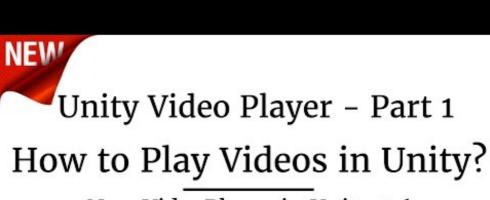
Unity 5.6 might be released this month. Playing Videos on Unity Apps and Games was one of the most awaited update and finally Unity is working on new video player. And here's how to play videos on Unity using new VideoPlayer.

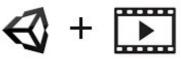Introduction to Unity new VideoPlayer

VideoPlayer is a new game object component for playing back movies in your scenes in Unity. It aims at using the video hardware capabilities of both the editor and target platforms

The VideoPlayer can play movies that were imported with the new VideoClip importer. It can also read movies from StreamingAssets, local files or http sources, using progressive streaming.

[Video Tutorial] on **How to play videos on Unity using new VideoPlayer**

Watch Video At: https://youtu.be/nGA3jMBDjHk

Prerequisite

     Unity 5.6 (or Unity 5.6 Beta for now, Download Here)

Download this project from Github. *(Please, do not hesitate to **star** the project in Github, it really means alot.)*

After new Unity 5.6 Beta is installed, let's first create a new Unity 2D project, methods are almost same for Unity 3D projects as well.

After creating new Unity Project, let's add RawImage component on which we'll be loading out Video by adding a script to that will attach VideoPlayer to the RawImage component.

Video Formats Supported by Unity Video Player

All supported video formats:

- ogv
- vp8
- webm
- mov
- dv
- mp4
- m4v
- mpg
- mpeg

Extra supported video formats on Windows:

- avi
- asf
- wmf

Some of these formats don't work on some platforms. See <u>this</u> post for more information on supported video formats.

Writing Script on C# to play videos on Unity using new VideoPlayer

So, to add and play video on RawImage component, lets create a new C# script for RawImage, and name it StreamVideo. Open the <u>C# script with any IDE,</u> I prefer Visual Studio 2017.

Here's what StreamVideo.cs looks like.

How to play videos on Unity using VideoPlayer
C#

```
1    using System.Collections;
2    using System.Collections.Generic;
3    using UnityEngine;
4    using UnityEngine.UI;
5    using UnityEngine.Video;
6
7    public class StreamVideo : MonoBehaviour {
8
9        public RawImage image;
```

```
10
11      public VideoClip videoToPlay;
12
13      private VideoPlayer videoPlayer;
14      private VideoSource videoSource;
15
16      private AudioSource audioSource;
17      // Use this for initialization
18  void Start () {
19          Application.runInBackground = true;
20          StartCoroutine(playVideo());
21  }
22
23      IEnumerator playVideo()
24      {
25
26          //Add VideoPlayer to the GameObject
27          videoPlayer = gameObject.AddComponent<VideoPlayer>();
28
29          //Add AudioSource
30          audioSource = gameObject.AddComponent<AudioSource>();
31
32          //Disable Play on Awake for both Video and Audio
33          videoPlayer.playOnAwake = false;
34          audioSource.playOnAwake = false;
35          audioSource.Pause();
36
37          //We want to play from video clip not from url
38
39          videoPlayer.source = VideoSource.VideoClip;
40
41          // Vide clip from Url
42          //videoPlayer.source = VideoSource.Url;
43          //videoPlayer.url =
44  "http://www.quirksmode.org/html5/videos/big_buck_bunny.mp4";
45
46
47          //Set Audio Output to AudioSource
48          videoPlayer.audioOutputMode = VideoAudioOutputMode.AudioSource;
49
50          //Assign the Audio from Video to AudioSource to be played
51          videoPlayer.EnableAudioTrack(0, true);
52          videoPlayer.SetTargetAudioSource(0, audioSource);
53
54          //Set video To Play then prepare Audio to prevent Buffering
55          videoPlayer.clip = videoToPlay;
56          videoPlayer.Prepare();
57
58          //Wait until video is prepared
59          WaitForSeconds waitTime = new WaitForSeconds(1);
60          while (!videoPlayer.isPrepared)
61          {
62              Debug.Log("Preparing Video");
63              //Prepare/Wait for 5 sceonds only
```

```
64          yield return waitTime;
65          //Break out of the while loop after 5 seconds wait
66          break;
67      }
68
69      Debug.Log("Done Preparing Video");
70
71      //Assign the Texture from Video to RawImage to be displayed
72      image.texture = videoPlayer.texture;
73
74      //Play Video
75      videoPlayer.Play();
76
77      //Play Sound
78      audioSource.Play();
79
80      Debug.Log("Playing Video");
81      while (videoPlayer.isPlaying)
82      {
83          Debug.LogWarning("Video Time: " +
84   Mathf.FloorToInt((float)videoPlayer.time));
85          yield return null;
86      }
87      Debug.Log("Done Playing Video");
88   }
   }
```

TL;DR – On the above script I've added a RawImage object as public so that to point to RawImage UI Component from Unity Editor. Similarly, create an object of new VideoPlayer, VideoSource and AudioSource classes. Remember this comes with the latest Unity 5.6, which is still in beta, and is supposed to be release by the end of this month.

Latest Unity bring new Classes, one of which is UnityEngine.Video that is required for VideoPlayer to work.

Playing videos on Unity from Assets folder

For this you'll need VideoClip class and its object that holds the video clip that is to be played from the assets folder.

Create VideoClip object

```
1   public VideoClip
    videoToPlay;
```

Allocate source for videoPlayer

```
1   videoPlayer.source =
    VideoSource.VideoClip;
```

Using Video URL to play Video on Unity

To play videos for URL, use VideoSource.Url

```
1   videoPlayer.source = VideoSource.Url;
2   videoPlayer.url =
    "http://www.quirksmode.org/html5/videos/big_buck_bunny.mp4";
```

Remove, the code that was written to add video clip from assets folder.

StackOverflow References: Using new Unity VideoPlayer and VideoClip API to play video by Programmer