Timeline Playable Wizard

The Playable Wizard is a tool used to make creating Playables for use with Timeline easier. To open the Playable Wizard select “Timeline Playable Wizard…” from the Window menu. The wizard will create scripts with all boilerplate code already written. It is important to note that the Playable Wizard only creates scripts, to change how the resultant Playables work the scripts will need to be edited using your normal code editor.

The Timeline Playable Wizard works in two modes: Normal and Standard Blend Playable. This mode is selected by checking or unchecking the Standard Blend Playable checkbox. In Normal mode (with the box unchecked) the Playables created by the wizard are much more flexible but will need their mixers completed. To do this, once your Playable has been created, open the script that has been created with the MixerBehaviour suffix using your normal code editor and complete the code as appropriate for your particular Playable. Standard Blend Playables are less flexible and follow a specific format but all of the code will be written for you. They can still be edited after creation like all scripts.

Below are the settings for when the Timeline Playable Wizard is in Normal mode. Details of Standard Blend Playables and their creation follows afterwards.

1. Show Help
   This option pertains just to the wizard itself. Disabling it will hide all the help boxes for the wizard, enabling it will show them.
2. Playable Name
   A number of classes are required for Playables to work with Timeline. The Playable Name that you choose will be a prefix for those classes and so it must not have any special characters or spaces and must start with a capital letter. The suffixes created for the scripts are ‘Behaviour’, ‘Clip’, ‘MixerBehaviour’, ‘Track’ and optionally ‘Drawer’. Though it will not affect functionality it is best to not use these words in your Playable Name to avoid confusion.
3. Track Binding
   This is the output of the Playable. It is generally an object in the scene such as a Component or GameObject. If - for example - your Playable is designed to move a GameObject then the Track Binding is most likely to need to be a Transform.
4. Exposed References
   In order to reference objects in scenes Playables need to use Exposed References. These are useful for additional information from the scene that can affect how the Playable works. For example, to tween a ball GameObject between two Transform, the Transforms would need to be Exposed References.
5. Behaviour Variables
   These are all the variables that are required for your playable to perform its operations. For example, if your playable moves a Transform then a float variable called speed

时间线可玩向导

可播放向导是一种工具，用于创建可与 Playline 一起使用的 Playables。要打开可播放向导，请从“窗口”菜单中选择“时间轴可播放向导...”。该向导将创建包含已编写的所有样板代码的脚本。重要的是要注意，可播放向导仅创建脚本，以更改生成的 Playables 如何工作，脚本需要使用常规代码编辑器进行编辑。

时间轴可播放向导有两种模式：普通和标准混合可播放。通过选中或取消选中 Standard Blend Playable 复选框来选择此模式。在普通模式下（未选中此框），向导创建的 Playables 更加灵活，但需要完成混音器。为此，一旦创建了 Playable，使用普通代码编辑器打开使用 MixerBehaviour 后缀创建的脚本，并根据您的特定 Playable 完成相应的代码。标准混合播放器不太灵活，遵循特定格式，但所有代码都将为您编写。它们仍然可以像所有脚本一样在创建后进行编辑。

以下是时间轴可播放向导处于正常模式时的设置。之后是标准混合可玩游戏的详细信息及其创建。

1. 显示帮助
   此选项仅适用于向导本身。禁用它将隐藏向导的所有帮助框，使其能够显示它们。
2. 可播放的名称
   Playables 需要许多课程才能使用时间轴。您选择的可播放名称将是这些类的前缀，因此它不能包含任何特殊字符或空格，并且必须以大写字母开头。为脚本创建的后缀是 'Behavior'，'Clip'，'MixerBehaviour'，'Track'和可选的'Drawer'。
   虽然它不会影响功能，但最好不要在您的可播放名称中使用这些单词以避免混淆。
3. 跟踪绑定
   这是 Playable 的输出。它通常是场景中的对象，例如 Component 或 GameObject。如果 - 例如 - 您的 Playable 旨在移动 GameObject，那么 Track Binding 最有可能需要变换。
4. 暴露的参考文献
   为了在场景中引用对象，Playables 需要使用 Exposed References。这些对于场景中可能影响 Playable 工作方式的其他信息非常有用。例如，要在两个 Transform 之间补间球 GameObject，变换将需要是 Exposed References。
5. 行为变量
   这些是您的可玩游戏执行其操作所需的所有变量。例如，如果你的 playable 移动了一个 Transform，那么就是一个名为 speed 的浮点变量

might be appropriate. Note that any reference types (for example components) used here must not be in the scene, they may be references to assets such as prefabs.

6. Clip Caps
   These are the settings that affect the way that the Timeline Editor works with the Playable. For details on how Clip Caps work, see the Timeline documentation.
7. Track Color
   To make Playables and Tracks more easily identifiable they can be given a colored stripe. This color is set here. It is recommended that you choose color that is different to the other Playables that you will be using to make identifying what each Track does easy.
8. Create Drawer?
   Check this box in order to have a PropertyDrawer automatically created for the Playable. This has the effect of tidying how the inspector looks when the Playable is selected in the Timeline Editor. It will be shown as all Exposed References followed by all Behaviour Variables. It has the benefit of meaning that if you wish to adjust how the Playable is seen in the inspector you only need edit a script rather than write one from scratch. It is important to note that it is created for all the Behaviour Variables declared in the Wizard, if more variables are declared subsequently then they will need to be added to the PropertyDrawer. Also note that the PropertyDrawer targets the PlayableBehaviour script and so does not affect how the Exposed References are shown.

The Timeline Playable Wizard can also create a specific type of Playable called a Standard Blend Playable. These are a special case of the Playables which require no code to be written. The special case which they cover override the values of a component's properties for the duration of a clip. This can be combined with blending between clips and setting curves for the values to animate a component in a piecemeal fashion without the use of Animators or AnimationClips. For example a Playable that changes the color and range of a Light component for its duration then returns to the values set on the Light in the scene. To make this type of Timeline Playable check the "Standard Blend Playable" box near the top of the Playable Wizard. Details of how to proceed are described below.

1. Playable Name
   A number of classes are required for Playables to work with Timeline. The Playable Name that you choose must work with those class names as it will be a basis for them. That means that the name must not have any special characters or spaces and must start with a capital letter.
2. Track Binding
   All Standard Blend Playables must have an output and this represents that output. In the above example of blending the variables of a Light, the Track Binding would be a Light component.
3. Default Values
   Normally all the properties of the Track Binding have no set values and default to

可能是合适的。请注意，此处使用的任何引用类型（例如组件）都不能在场景中，它们可能是对诸如预制件之类的资产的引用。

6. 夹帽
   这些设置会影响时间轴编辑器与 Playable 一起使用的方式。有关 Clip Caps 如何工作的详细信息，请参阅时间轴文档。
7. 跟踪颜色
   为了使 Playables 和 Tracks 更容易识别，可以给它们一个彩色条纹。此颜色在此处设置。建议您选择与您将用于识别每个 Track 所做的其他 Playables 不同的颜色
   简单。
8. 创建抽屉？
   选中此框以便为 Playable 自动创建 PropertyDrawer。
   这样可以在时间轴编辑器中选择“可播放”时整理检查器的外观。它将显示为所有 Exposed References，后跟所有行为变量。它具有以下含义：如果您希望调整在检查器中看到 Playable 的方式，则只需编辑脚本而不是从头开始编写脚本。重要的是要注意它是为向导中声明的所有行为变量创建的，如果随后声明了更多变量，则需要将它们添加到 PropertyDrawer 中。另请注意，PropertyDrawer 以 PlayableBehaviour 脚本为目标，因此不会影响 Exposed References 的显示方式。

时间轴可播放向导还可以创建一种称为标准混合可播放的特定类型的可播放。这些是 Playables 的一个特例，它不需要编写代码。它们覆盖的特殊情况会覆盖剪辑持续时间内组件属性的值。这可以与剪辑之间的混合和值的设置曲线相结合，以便在不使用动画制作者或动画剪辑的情况下以零散的方式为组件制作动画。例如，Playable 在其持续时间内更改 Light 组件的颜色和范围，然后返回到场景中 Light 上设置的值。要使此类型的时间轴可播放，请选中“可播放向导”顶部附近的“标准混合可播放”框。下面描述如何进行的细节。

1. 可播放的名称
   Playables 需要许多课程才能使用时间轴。您选择的可播放名称必须与这些类名一起使用，因为它将成为它们的基础。这意味着该名称不得包含任何特殊字符或空格，并且必须以大写字母开头。
2. 跟踪绑定
   所有标准混合可播放器必须具有输出，这表示该输出。在上面混合 Light 的变量的示例中，Track Binding 将是 Light 组件。
3. 默认值
   通常，Track Binding 的所有属性都没有设置值，默认为

whatever their zero-value is. By creating a component matching the Track Binding and using it to set the default values all the Track Binding properties on the playable will have defaults equal to their equivalent property on the assigned component.

4. Standard Blend Playable Properties
   These are the variables of the Track Binding that will be affect. It is important that the Track Binding is selected before choosing which properties to affect because changing the Track Binding will clear this list. The list shows all public instance properties of the selected component that it makes sense to either blend or assign. For example, it is possible to blend floats and Vector3s because they can both be multiplied by a weight and added together. It is possible to assign bools and enums based on which Playable has the greatest weight at the time.
5. Track Color
   To make Playables and Tracks more easily identifiable they can be given a colored stripe. This color is set here. It is recommended that you choose color that is different to the other Playables that you will be using to make identifying what each Track does easy.

TransformTween

This type of playable should be used for very simple transform movements. It supports several different movement styles but all translation happens in a straight line. For more complex movement use an Animation playable. The TransformTween track binds to the Transform in the scene you wish to move.

Start Location	This is a reference to a Transform in the scene that marks the position and/or rotation of the moving Transform when the playable starts. If it is left null the position/rotation of the moving Transform when the playable starts will be used.
End Location	This is a reference to a Transform in the scene that marks the position and/or rotation of the moving Transform when the playable finishes.
Tween Position	Whether or not the position of the Transform should change.
Tween Rotation	Whether or not the rotation of the Transform should change.
Tween Type	In what way should the Transform move.
Linear	The Transform moves uniformly throughout the duration of the playable.
Deceleration	The Transform starts off moving quickly then slows down as

无论他们的零价值是多少。通过创建与 Track Binding 匹配的组件并使用它来设置默认值，playable 上的所有 Track Binding 属性的默认值将等于其在指定组件上的等效属性。

4. 标准混合可播放属性
   这些是将影响的轨道绑定的变量。在选择要影响的属性之前选择“轨道绑定”非常重要，因为更改“轨道绑定”将清除此列表。该列表显示所选组件的所有公共实例属性，它们对于混合或分配是有意义的。例如，可以混合浮点数和 Vector3，因为它们都可以乘以权重并加在一起。可以根据 Playable 当时具有最大权重来分配 bool 和枚举。
5. 跟踪颜色
   为了使 Playables 和 Tracks 更容易识别，可以给它们一个彩色条纹。此颜色在此处设置。建议您选择与您将用于识别每个 Track 所做的其他 Playables 不同的颜色
   简单。

变形金刚

这种类型的可玩性应该用于非常简单的变换运动。它支持几种不同的运动风格，但所有翻译都是直线进行的。对于更复杂的移动，使用动画可玩。TransformTween 轨道绑定到您要移动的场景中的 Transform。

开始位置	这是对场景中的变换的引用，该变换在可播放开始时标记移动变换的位置和/或旋转。如果它保持为空，则将使用当可播放开始时移动变换的位置/旋转。
结束位置	这是对场景中的变换的引用，该变换在可播放完成时标记移动变换的位置和/或旋转。
补间位置	变换的位置是否应该改变。
补间旋转	变换的旋转是否应该改变。
补间类型	变换应以何种方式移动。
线性	变换在可玩的持续时间内均匀地移动。
减速	变换开始快速移动然后减速为

	it reaches the End Location.
Harmonic	The Transform starts off moving slowly, speeds up as it reaches the middle of the tween then slows down as it reaches the End Location.
Custom	When this option is selected, the playable tries to calculate the distance the Transform should move each frame based on normalised speeds set for the start and end of the tween. This works as an approximation - for fine tuned control use and Animation playable.
Custom Starting Speed	The normalised speed of the Transform as it starts the tween.
Custom Ending Speed	The normalised speed of the Transform as it ends the tween.

TextSwitcher

This type of playable should be used to display different messages to the screen using a UI Text component. It is ideal for things like subtitles. The TextSwitcher track binds to a Text component in the scene. This will be the component that the text is displayed through. This playable can be used with blending, meaning that you can blend between different clips and a weighted average will be used to determine the font size and color of the text. The message with the most weight will be used.

Message	This is the string that will be displayed by the generated by Text component.
Font Size	The size of the text to be displayed.
Color	The color of the text to be displayed.

TimeDilation

This type of playable will adjust the Time.timeScale for the duration of the clip. The most common use would be to create bullet-time effects. By default each clip will have an unchanging variable for time scale but it is recommended that you use the Timeline's animate properties feature to change the time scale over the course of the clip. You can do this by clicking the record button for the track and setting values for the time scale at various points along the clip (controlled using the play head). It is important to note that changing the timescale will affect the speed that the timeline executes. This means if you slow down time,

	它到达最终位置。
谐波	变换开始缓慢移动，当它到达补间的中间时加速，然后在到达结束位置时减慢。
习惯	选择此选项后，可播放器会尝试根据为补间开始和结束设置的标准化速度计算 Transform 应移动每帧的距离。这可以作为近似值 - 用于微调控件使用和动画可播放。
自定义启动速度	Transform 启动补间时的归一化速度。
自定义结束速度	变换的标准化速度，因为它结束了补间。

文本切换器

这种类型的可播放应该用于使用 UI 文本组件向屏幕显示不同的消息。它非常适合字幕之类的内容。TextSwitcher 轨道绑定到场景中的 Text 组件。这将是文本显示的组件。此可播放可用于混合，这意味着您可以在不同剪辑之间进行混合，并且将使用加权平均值来确定文本的字体大小和颜色。将使用权重最大的消息。

信息	这是由 Text 组件生成的字符串。
字体大小	要显示的文本的大小。
颜色	要显示的文本的颜色。

提速

这种类型的可播放将在剪辑的持续时间内调整 Time.timeScale。最常见的用途是创建子弹时间效果。默认情况下，每个剪辑都有一个不变的时间尺度变量，但建议您使用时间轴的动画属性功能来更改剪辑过程中的时间刻度。您可以通过单击轨道的录制按钮并在剪辑的各个点设置时间刻度值（使用播放头控制）来完成此操作。请务必注意，更改时间刻度会影响时间线执行的速度。这意味着如果你减慢时间，

the TimeDilation clip itself will take longer to finish. Keep this in mind when deciding how long your clips should be.

Time Scale	The value Time.timeScale will be set to for the duration of the clip.

ScreenFader

This type of playable is used to act on an UI Image component, typically one that has been stretched across a camera's field of view, though this is not a requirement. The ScreenFader track binds to an Image component. It is designed to have easily controllable fades when doing things like switching scenes or cameras. Blending is enabled for this playable so having one fade transitioning into another is possible. Note that fading a full screen image in and out is not the only use of this playable, just it's intended purpose. It simply sets the color of an Image component with optional fading. It could also, for example, be used to make a menu button flash.

Color	The Color that the Image component will be set to for the duration of the clip.

LightControl

This type of playable is bound to a Light component and is used to override its properties for the duration of the clip. The purpose of the LightControl playable is to produce light effects without the need for an animator. Blending is supported so transitioning to new lighting is easy.

Color	The Color that will override the Color property of the Light component that the track is bound to.
Intensity	The value that will override the Intensity property of the Light component that the track is bound to.
Bounce Intensity	This is also called Indirect Multiplier on Light Components. It will affect how much light will bounce off surfaces it hits. Setting a value for this in the inspector will override the value on the Light component that is bound to the track.
Range	The value that will override the Range property of the Light component that the track is bound to.

TimeDilation 剪辑本身需要更长的时间才能完成。在决定剪辑的长度时，请记住这一点。

时间尺度	Time.timeScale 的值将在剪辑的持续时间内设置为。

电影放映员

这种类型的可播放用于作用于 UI 图像组件，通常是在相机的视野范围内拉伸的组件，尽管这不是必需的。ScreenFader 轨道绑定到 Image 组件。它可以在切换场景或相机等操作时具有易于控制的淡入淡出效果。这种可玩的混合是可能的，因此可以将一个淡入淡出过渡到另一个淡入淡出。请注意，淡入淡出全屏图像并不是这种可玩性的唯一用途，只是它的用途。它只是设置具有可选淡入淡出的图像组件的颜色。例如，它还可用于使菜单按钮闪烁。

颜色	在剪辑持续时间内，Image 组件将设置为 Color。

光控制

这种类型的可播放器绑定到 Light 组件，用于在剪辑持续时间内覆盖其属性。LightControl 的目的是在不需要动画师的情况下产生光效。支持混合，因此很容易过渡到新的照明。

颜色	将覆盖轨道绑定的 Light 组件的 Color 属性的 Color。
强度	将覆盖轨道绑定到的 Light 组件的 Intensity 属性的值。
弹跳强度	这也称为 Light Components 上的间接乘数。它将影响从其击中的表面反射多少光。 在检查器中为此设置值将覆盖绑定到轨道的 Light 组件上的值。
范围	将覆盖轨道绑定到的 Light 组件的 Range 属性的值。

NavMeshAgentControl

The NavMeshAgent track binds to a NavMeshAgent component and sets its destination. The destination is set on the first frame that the clip's weight is greater than 0.5. For most cases this will be on the clip's first frame. Blending is not supported for this playable and since the destination is generally set on the first frame, having a duration of longer than one frame has no purpose. Having a longer duration will not be detrimental, it is just not required.

Destination	A Transform whose position will be used for the destination of the nav mesh agent.

导航控制

NavMeshAgent 轨道绑定到 NavMeshAgent 组件并设置其目标。目标设置在剪辑的权重大于 0.5 的第一帧上。对于大多数情况，这将是剪辑的第一帧。这种可玩性不支持混合，并且由于目的地通常设置在第一帧上，持续时间长于一帧没有目的。持续时间较长不会有害，只是不需要。

目的地	一个 Transform，其位置将用于导航网格代理的目标。