

TAnimated Component

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Unit

Animate.Pas

Description

The TAnimated component displays simple animations on the form.

The animation that appears is determined by the [BitMap](#) property. The bitmap consists of a series of two or more [Frames](#) arranged in [filmstrip](#) fashion.

[Filmstrip](#) frames may be sequenced automatically at fixed time intervals or may be changed under program control. When sequenced at fixed time intervals, the [Reverse](#) property determines the sequence direction and the [Loop](#) property determines if sequencing continues indefinitely.

Item 1

This is the Item 1 topic.

Properties

-  Key Properties
-  BitMap
-  Frame
-  FrameCount
-  Height
-  Interval
-  Loop
-  Play
-  Reverse
-  TransparentColor
- Visible
- Width

Using The TAnimated Component

TAnimated Reference

Tasks

To sequence the animation at timed intervals...

Set the Interval property to the desired interval, the Frame property to the starting frame number, and set the Play property to True to initiate sequencing.

- To sequence in the reverse direction, set the Reverse property to True.
- To sequence the filmstrip continuously, set the Loop property to True.
- To synchronize sounds or other events to a particular frame, use the OnFrameChange event and check the Frame property.

To sequence the animation under program control...

Set the Interval property to zero. Use the Frame property to specify the frame to be displayed.

TAnimated Frame Property

Declaration

```
property Frame: Boolean;
```

Description

The Frame property indicates or determines which filmstrip frame will be displayed.

Example:

```
with Film do  
  Frame := 3;
```

will cause frame 3 to be drawn. Frame values are constrained to be within 0 and FrameCount-1, so incrementing or decrementing Frame past the limits will result in wrap-around.

Reverse Property

Declaration

property Reverse: Boolean;

Setting Reverse to True will cause the Play property to play the filmstrip in reverse order.

BitMap Property

Declaration

property BitMap: TBitmap;

The BitMap property determines the animation that appears on the TAnimated control. The bitmap is arranged a series of two or more horizontal frames in filmstrip fashion.

TransparentColor Property

Declaration

property TransparentColor: TColor;

You can designate one of the bitmap's colors to represent a transparent area with the TransparentColor property. Instead of this color being painted, the form's color will show through.

The default value for TransparentColor is -1 indicating no transparent color. The object inspector displays clScrollBar for -1.

Drawing time is increased somewhat when a transparent color is used.

TAnimated Events



OnChangeFrame

OnDragDrop

OnDragOver

OnEndDrag

OnMouseDown

OnMouseMove

OnMouseUp

FrameCount Property

Description

property FrameCount: Integer;

FrameCount indicates how many frames the filmstrip has. The Frame property runs from 0 to FrameCount - 1.

OnChangeFrame Event

Declaration

property OnChangeFrame: TNotifyEvent;

The OnChangeFrame event occurs when a change is made in the Frame number. This event may be used to synchronize sounds with particular filmstrip frames.

Loop Property

Declaration

property Loop: Boolean;

The Loop property determines if the filmstrip will Play continuously or terminate when the last frame is displayed.

Play Property

Declaration

property Play: Boolean;

Once the Interval property has been set, setting Play to True will cause TAnimated to sequence through the frames of the filmstrip. Reverse determines the sequencing direction, and Loop determines whether the sequence loops continuously.

Example:

```
with MyAnimated do
  begin
    Frame := FrameCount - 1;    {Start at last frame}
    Reverse := True;           {do it backwards}
    Loop := True;              {and continuously}
    Play := True;              {start}
  end;
```

See Also:

[Frame Property](#)

[Interval Property](#)

[Loop Property](#)

[Reverse Property](#)

Interval Property

Declaration

property Interval: Integer;

Description

The Interval property specifies the time (in milliseconds) between frame changes when the filmstrip is Played.

Use an Interval value of 0 (the default) if you plan to program frame changes using the Frame property.

Note:

Because of the way the system timer operates, actual time intervals are in multiples of 55 milliseconds. Thus values from 1 to 55 will result in a 55 ms. interval, values between 56 and 110 will result in a 110 ms. interval, etc.

Filmstrip Layout

The bitmap used by the TAnimated component consists of a series of frames which normally are sequenced from left to right. The total length of the bitmap is exactly equal to the FrameCount property times the Width property.



Suggestions

Start by selecting a frame width and height. Estimate the number of frames required and make the total bitmap width exactly equal to the product of the width and framecount. The total width may be modified later if more or fewer frames are required.

Many animations can be accomplished by copying the same object for each frame and modifying each one in place. If the object is not to move, it's essential that the distance between objects be precisely equal to the frame width.

If it's necessary to change the bitmap width or height, be sure to **uncheck** the option which expands or shrinks the bitmap to fit the new size.

I've found that Borland's Resource Workshop works well for these bitmaps. The Delphi Image Editor may also be used but its 1024 limit for bitmap width might be overly restrictive for some situations.

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There is no charge for the use of the TAnimated component. However, if you come up with some interesting animations, I'd enjoy seeing them.

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Height Property

Declaration

```
property Height: Integer;
```

Description

The Height property determines the vertical size of a component or object. For TAnimated, the Height property is set automatically when a bitmap is loaded.

