AcroTEX.Net

Some Comments on Anime Button Layouts

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1. Introduction

This is (or may be) the final article on this topic of animation using AeB Pro. Previous articles in this series, beginning with the first, are

- *\btnAnime: Animation using Form Field Buttons with* **AeB Pro**
- *ocgAnime: Animation using OCG (Layers) with* **AeB Pro**
- *Moving the Control Buttons for Button and OCG Animation*
- *Custom Designing Anime Control Button Layout*

It is assumed you have read and loved every word of the above articles.

The reader is also directed to the following reference manuals,

- *AcroTeX eDucation Bundle Professional Reference*
- *eForms Reference*

Anything not explicitly mentioned is probably in one of these two manuals.

In this article we catalog the standard skins available through the parameters of \btnAnime (not used in this article), ocgAnime and \animeSetup. We also explore some methods for changing the layout of the buttons, and for changing the buttons themselves.

Note: All concepts are illustrated using the ocgAnime environment, with only two frames, one empty, and another with some text. Pressing a play button toggles the two frames on and off.

To make the verbatim listing of all the example less cluttered, we make the following definition that is used throughout the article.

\newcommand{\myAnimeOpts}{ocgAnimeName=aeb1,nFrames=2,type=loop,speed=1000}

Which lists the standard set of options that will be used throughout.

2. Standard Skins

Below is a catalog of the standard control buttons, with different options. For the most part, the usetworows only applies to skins what have the speed control buttons.

The following table shows all the standard button sets with no other options that effect the layout (nospeedcontrol, usetworows).

Button Set	Skin
	skin1
	skin2
	skin3
	skin4

The following table shows all the standard button sets with the usetworows option taken.

Button Set	Skin
	skin1
	skin2
	skin3
	skin4

The following table shows all the standard button sets with the nospeedcontrol option taken.

Button Set	Skin
	skin1
	skin2
	skin3
	skin4

3. Changing the Appearance of the Control Buttons

The appearance of all buttons are controlled as a set. There are two ways to change the appearance of the buttons: (1) there are a limited number of key-value pairs that can be passed to \animeSetup, these are ctrlwidth, ctrlheight, ctrlbdrycolor, and ctrlbdrywidth; (2) passing eForms parameters to the buttons using \btnAnimeCtrlPresets. These techniques will be illustrated in this section.

There are two other commands that effect the layout of the buttons, not their appearance, these are \btnanimebtnsep (distance between buttons) and \btnanimerowsep (distance between rows).

- **Buttons with contrasting border color.**

  \animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black}\insertCtrlButtons

  We use ctrlbdrycolor to color the boundary stroke. The value of this key is a sequence of three numbers (between 0 and 1) in the RGB color model space.

- **Changing the border size.**

  \animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
      ctrlbdrywidth=medium}\insertCtrlButtons

  Permissible values for ctrlbdrywidth are thin (the default), medium, and thick. You'll notice that increasing the size of the border stroke decreases the size of the icon contained on the face of the button. We need to change the dimensions of the button if we insist on a thicker border.

- **Changing the size of the buttons.**

  \animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
      ctrlbdrywidth=medium,ctrlwidth=18bp+4bp,ctrlheight=9bp+4bp}
      \insertCtrlButtons

  The default dimensions for these buttons are ctrlwidth=18bp and ctrlheight=9bp. You'll note above that we have increased the dimensions by 4bp to obtain the same size icon in the face. If we increase the border width from 1bp to 2bp then the button will be two points higher (1bp for upper border, 1bp for lower border) and wider (1bp each for the left and right borders). The viewer also creates an internal border of the same width (you can see this internal border by pressing on one of the buttons, and you will see a shadow effect, room must be left to create that shadowing, that's the internal border). Thus, when the border is increased by 1bp, a total of 4bp more space on the button face is need for the internal and external border. So, if we want the icons to be the same size, we must increase the dimensions by 4bp.

- **Changing spacing between buttons and rows**

```
\renewcommand{\btnanimebtnsep}{6bp}\renewcommand{\btnanimerowsep}{6bp}%
\animeSetup{\myAnimeOpts,controls=skin2,ctrlbdrycolor=black,usetworows,
    ctrlbdrywidth=medium,ctrlwidth=18bp+4bp,ctrlheight=9bp+4bp}%
    \insertCtrlButtons
```

We set \btnanimebtnsep and \btnanimerowsep each to 6bp to get a uniform spacing of the two rows of buttons.

- **No space between buttons.**

```
\renewcommand{\btnanimebtnsep}{-2bp}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
    ctrlbdrywidth=medium,ctrlwidth=18bp+4bp,ctrlheight=9bp+4bp}%
    \insertCtrlButtons
```

To get no space between buttons, we define \btnanimebtnsep to be *negative the border width* (thin is 1bp, medium is 2bp, and thick is 3bp).

- **Change the spacing in front of the Plus/Minus Button.**

```
\renewcommand{\btnanimebtnsep}{-2bp}\setspaceBtwnPMBtns{\qquad}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
    ctrlbdrywidth=medium,ctrlwidth=18bp+4bp,ctrlheight=9bp+4bp}%
    \insertCtrlButtons
```

We use \setspaceBtwnPMBtns to put a \qquad of space between the action control buttons and the speed control buttons.

```
\renewcommand{\btnanimebtnsep}{-2bp}\setspaceBtwnPMBtns{\kern-2bp}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
    ctrlbdrywidth=medium,ctrlwidth=18bp+4bp,ctrlheight=9bp+4bp}%
    \insertCtrlButtons
```

Here, the buttons fit together nicely. The argument of \setspaceBtwnPMBtns can be anything that takes up horizontal space, in this case \kern-2bp, the negative value of the border width.

- **Changing background color.**

```
\btnAnimeCtrlPresets{\BG{webyellow}}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black}%
    \insertCtrlButtons
```

Set the background color through the \BG key, passed to the control buttons through \btnAnimeCtrlPresets. The faces of the buttons are icons imported in the preamble of the document; their color cannot be changed unless you create a new set of icons with a different color. For now, black is the only option.

- **Creating a beveled button.**

```
\btnAnimeCtrlPresets{\S{B}}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black}%
    \insertCtrlButtons
```

Pass \S{B} to the buttons through the \btnAnimeCtrlPresets command. The size of the icons are reduced, so we should make some adjustment to their dimensions. We'll try it again.

```
\btnAnimeCtrlPresets{\S{B}}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
    ctrlwidth=18bp+4bp,ctrlheight=9bp+4bp}%
    \insertCtrlButtons
```

We now have the right size for the icons. The beveling takes 4bp in each direction.

```
\btnAnimeCtrlPresets{\S{B}}%
\animeSetup{\myAnimeOpts,controls=skin3,ctrlbdrycolor=black,
    ctrlwidth=9bp+4bp,ctrlheight=9bp+4bp}%
    \insertCtrlButtons
```

The icons are square, so why now make the buttons square as well. That might look better to the eye.

If you indulge me a little while longer, we'll look at some fancier ideas.

- **Using** \fboxcolor **for a background.**

  ```
  \renewcommand{\btnanimebtnsep}{2bp}\renewcommand{\btnanimerowsep}{2bp}%
  \animeSetup{\myAnimeOpts,controls=skin3,usetworows,
      ctrlbdrywidth=thin,ctrlbdrycolor=black}%
      \fcolorbox{black}{webyellow}{\insertCtrlButtons}
  ```

  The \insertCtrlButtons expands to the button set, and are contained in a \parbox of exactly the width and height to hold the button set. We can, therefore, enclose \insertCtrlButtons in an \fcolorbox for a nicer look.

- **Using** \fgraphicxbox **for a background, with caption.**

  ```
  \renewcommand{\btnanimebtnsep}{2bp}\renewcommand{\btnanimerowsep}{2bp}%
  \animeSetup{\myAnimeOpts,controls=skin3,usetworows,
      ctrlbdrywidth=thin,ctrlbdrycolor=black}%
      \fgraphicxbox{red}[hiresbb]{graphics/news_bgr}
          {\parbox{\widthFirstRow}{\insertCtrlButtons\\[2pt]
          \footnotesize\bfseries\centering Anime Control}}
  ```

  The \widthFirstRow expands to the width of the longest row of the layout; we use it to set up a \parbox to contain \insertCtrlButtons and a caption.

  One of the package I wrote several years ago is graphicxbox. The commands of this package generalize \colorbox and \fcolorbox to put in a graphical background to the boxed content. Here, we use \fgraphicxbox using red border and a graphical image as the background. I've tossed in a caption free of charge.

The last two examples work well if the button set has been moved away from the default location. In this case, we work directly with \insertCtrlButtons. If the button set remains in its default location, we have not direct access to \insertCtrlButtons, or do we? The command \ctrlButtonsWrapper gives access to \insertCtrlButtons. It's default definition is

```
\newcommand{\ctrlButtonsWrapper}[1]{#1}
```

\insertCtrlButtons appears in the \btnAnime command and the ocgAnime environment as

```
\ctrlButtonsWrapper{\insertCtrlButtons}
```

This allows you to redefine \ctrlButtonsWrapper to manipulate \insertCtrlButtons. Here's an example...
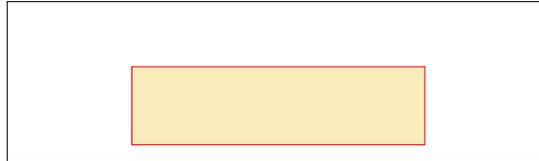
```
1    \begin{center}
2    \renewcommand{\ctrlButtonsWrapper}[1]{\fcolorbox{red}{webyellow}{#1}}
3    \makeatletter\renewcommand{\aep@vspacectrlsep}{6bp}\makeatother
4    \fbox{\begin{minipage}[c][.75in][c]{.5\linewidth}\centering
5    \begin{ocgAnime}{\myAnimeOpts,controls=skin2,usetworows}
6        \animeBld\eBld\color{red}%
7        \animeBld\textbf{\large{Acro\negthinspace\TeX} Rocks the World!}\eBld
8    \end{ocgAnime}
9    \end{minipage}}
10   \end{center}
```

Comments: Within the center environment, we redefine, in line (2), \ctrlButtonsWrapper to keep the redefinition local. The definition uses \fcolorbox to enclose the unseen button set in a color frame box. In line (3) we redefine \aep@vspacectrlsep, a command that sets the vertical space between the bottom of the animation and the top of the button set. The rest is the same old ocgAnime. Using the techniques illustrated earlier, you can also place a caption beneath the button set.

That's all for now, back to my retirement. 𝔇𝔖