

perform a task, such as moving the mouse over the material. The following techniques can be used to provide such alternatives:

- Adding the word "Error" to the beginning of an error message, instead of relying on the red color of the message text to indicate an error
- Labeling buttons "Submit" and "Cancel", instead of using green or red images (or any particular color) to convey their purpose
- Adding larger fonts or boldface to colored text that highlights important content
- Adding asterisks or the word "required" to colored text that indicates required form fields
- Adding variable borders, shading, or other symbols to color-coded diagrams, pie charts, and graphs

To support users of screen readers, developers should also make sure that any information conveyed via color is provided programmatically using accessibility properties or other relevant Flex component properties. For example, color is commonly used to indicate state, such as when inactive elements are grayed out. When a component is not enabled, the `enabled` property should be set to `false` rather than simply disabling the event handlers and changing the color manually. When the `enabled` property is set to `false` for a component, this information will be conveyed to users of screen readers and the focus manager will remove the component from the tab order.

```
//ActionScript setting a component's enabled property false
btnSearch.label = "Search";
btnSearch.enabled = false;
```

```
//MXML for setting a component's enabled property to false
<s:Button id="btnSearch" label="Search" enabled="false" />
```

When developers use the `FormItem` class and set the `required` property to `true`, an asterisk will be added to the form field's label and it will appear in red. In addition, the word "required" will be added to the accessible name of the form field automatically. This programmatic approach provides multiple ways of indicating that the field is required, which results in an application that is more accessible than one that uses any one technique by itself.

```
//MXML code for setting a textual equivalent for color
<mx:FormItem label="SSN" required="true">
    <s:TextInput id="txtSSN" />
</mx:FormItem>
```

Provide sufficient contrast

Users with low vision or color blindness may have difficulty reading Flex elements that provide insufficient contrast between foreground and background colors. Some of these users may not be using assistive technology and many will not be using a screen reader. Applications should be designed with color and contrast requirements in mind from the earliest stages. During that time, designers and developers should consider the color contrast of all elements, including:

- Text
- Form fields and labels
- Images, graphs, and charts
- Other components and controls (such as media play buttons)

Decorative elements, essential logos or trademarks, or inactive elements are not required to meet sufficient color contrast requirements.

Provide options for color, contrast, and text size

Currently, Flex components do not support the color and contrast settings selected by users in the operating system platform. Additionally, font and zoom size selection within the browser do not automatically translate to larger components in a Flex application running in Flash Player. Depending on the regulatory requirements