Selection/Image Control

Image Carousel
(Rotating Menu)

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Problem

The user needs to browse through a set of images and possibly select one of them.
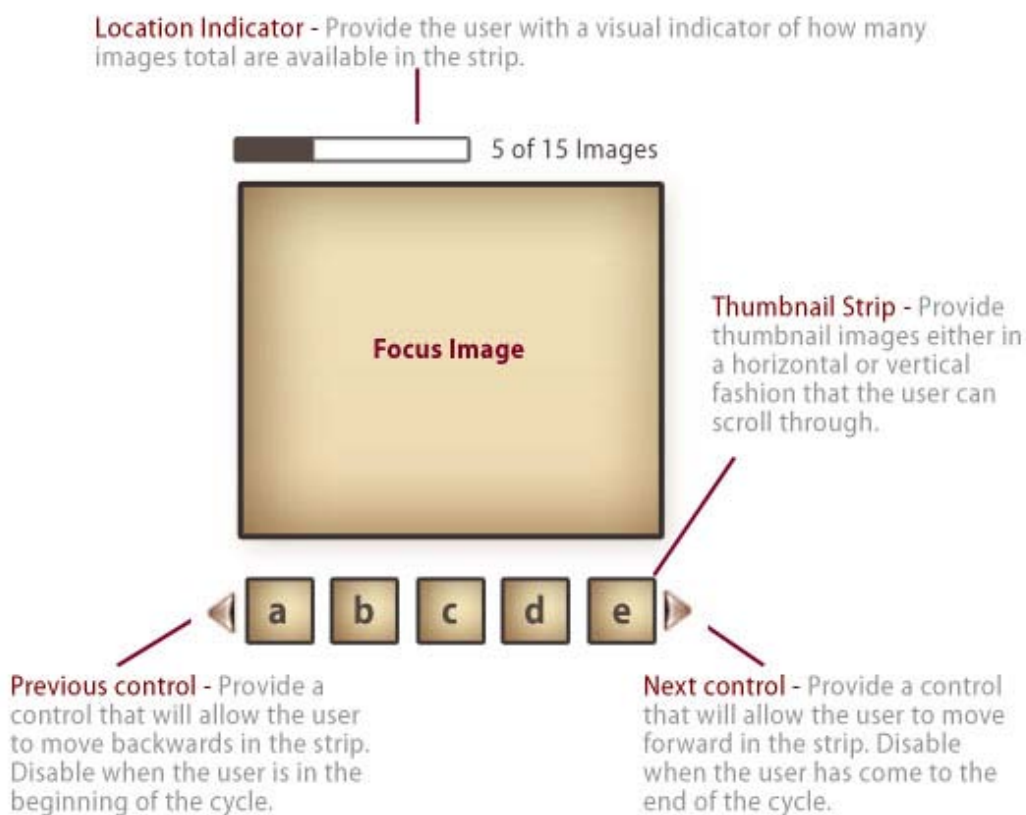
Use When

- User needs to browse among a set of like objects represented pictorially.

- When you do not have enough space to show all items at once: The images need considerable space to display, at the same time the space for displaying items is limited (4-7 items).

- There is a large set of items/images to show, but it is beneficial to let the user concentrate his or her attention on a select group of items at a time

- You want to tease the user by letting him or her know that there are more items available than what is currently shown.

- You want a dynamic option to display the group that engages the user.

Solution

Show the items to the user in a cyclical fashion so that the user sees a portion of the group at a glance. The set/strip of images should be displayed as thumbnail images. Even though the list of items is long – only 3-8 images should be shown at a time.

Provide user manual controls to cycle through the entire group/set of images:

- If the user wants to view the rest of the items on the list, they can hover on - or click on - the controls.

- Once one of the controls is activated, the next "view" of images is shown.

  - This is done with an animation that scrolls (or shifts) the current group of items to the side and replaces them with new images.

- The user can then browse the list of items back and forth.

Location Indicator - Provide the user with a visual indicator of how many images total are available in the strip.

5 of 15 Images

Focus Image

Thumbnail Strip - Provide thumbnail images either in a horizontal or vertical fashion that the user can scroll through.

| a | b | c | d | e |

Previous control - Provide a control that will allow the user to move backwards in the strip. Disable when the user is in the beginning of the cycle.

Next control - Provide a control that will allow the user to move forward in the strip. Disable when the user has come to the end of the cycle.

Although the word 'carousel' implicates a circular structure, many carousels are not circular. It then becomes a 'sliding window' over a strip

How

- Align all items horizontally or vertically so that a 'strip' of items is created. Then reveal only some items of the strip and hide all the others.

- Allow the user to cycle through additional (hidden) thumbnails if more images are available.

- The complete group of items that cycle through shouldn't be too large, to prevent time lags and frustration on the user's end. As a rule:

    o Do not exceed 3x times the total amount of items that are visible at one time (for instance, if you're showing 4 items at a time – do not have the total group of items larger than 12).

- Provide a control device to enable the user to cycle back and forth through the available carousel of images.

- Present the user with an indicator that they have reached the end of the cycle of images – or if they are at the beginning of the cycle.

    o The "back" or "previous" control should be disabled when the user is at the beginning of the cycle. There should be a visual indicator to show it is disabled.

    o The "forward" or "next" control should be disabled when the user is at the end of the cycle. There should be a visual indicator to show it is disabled.

- Scroll the images one at time for each click on next and previous controls.

- When the user selects one of the images (via clicking or hovering on the thumbnail) present them with a full size image in the focus area.

- Highlight the image that the user has currently selected in the strip.

Animation

- Use a **slide animation transition** to make the sliding effect of the strip look nice: http://developer.yahoo.com/ypatterns/pattern.php?pattern=slide

    o Provide a way to toggle the slide effect (slide in/slide out).
    o Provide transitional effects to animate the slide effect (both in and out).
    o Make the slide happen quickly (usually this means in 0.25 - 0.5 seconds.)

- o Have the animation end by slowing down during the last few pixels of animation (creating the feeling that something keeping it attached to another area on the page.

- Use a **fade in/fade out animation transition** on the focus image area. Use the following Yahoo references for examples of a fade in and fade out

  http://developer.yahoo.com/ypatterns/pattern.php?pattern=fadein

  http://developer.yahoo.com/ypatterns/pattern.php?pattern=fadeout

Examples of code snippet:

Examples are taken from http://billwscott.com/carousel/#examples

- Ajax-based:

  - o http://billwscott.com/carousel/carousel_ajax_load.html
- javascript-based carousel

  - o http://billwscott.com/carousel/carousel_dhtml_load.html

Rationale

Because the carousel only shows a portion of the list items at a time, you only need a small space to show a large group of items. Because of the nature of the strip, users can easily reach all the items either by going left or going right.

Things to keep in mind in general when creating a carousel:

- Let users see what all the elements are without clicking

- Make them flexible enough to handle different types of content (pictures, videos, multiple links etc).

- Make sure they are easy to understand how to control

- Make it obvious what to click to change the content of the carousel, and what to click to go to the next page.

- If elements rotate automatically, make sure it's clear what is happening and when.

Accessibility

- Make each item selectable and move the strip so that the selected item is in the middle.

- Support keyboard navigation.

- Allow for an autoPlay functionality to be turned on and/or off:
  - When the autoPlay function is turned, on, the content will scroll every 5 seconds.
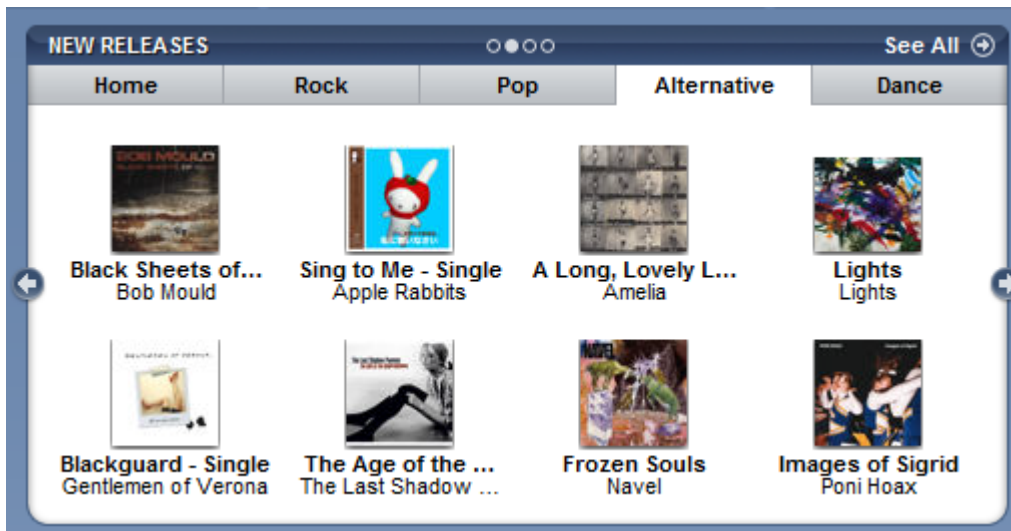 - When the user interacts, autoPlay is automatically turned off until the user triggers it on again.

Examples

Chevy: http://www.chevrolet.com/

iTunes Store
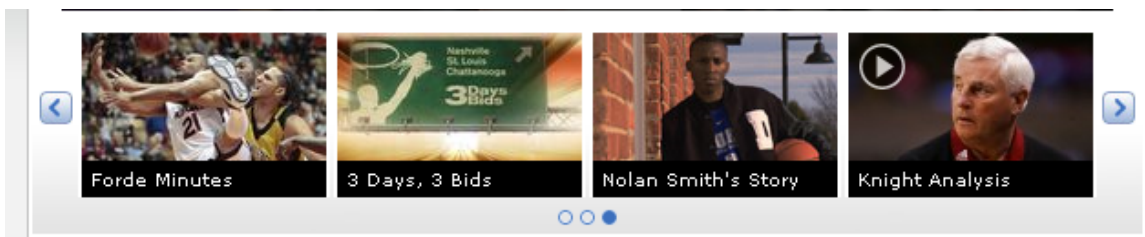
Ford: http://www.ford.com/vehicles/vehicle-showroom#/ford

Ford's carousel is represented by the little vehicle icons. When the user hovers over the icon, a tooltip appears that gives a photographic representation of the vehicle the icon represents (see second image)

Hilite is subtle – but when the user scrolls over the image, the image and text enlarge:

Mia & Maggie: http://www.miaandmaggie.com/

Mia and Maggie's website doesn't offer the arrow navigation, but it automatically scrolls through the images upon the user entering the site. The user can override this functionality by placing the cursor to the beginning (or end) of the strip – where it will scroll. The carousel does a nice job of highlighting the image that is currently being displayed in the focus area:

Yahoo tv: http://tv.yahoo.com/

Instead of images, Yahoo's entertainment page offers text teasers that are highlighted when the associated image is in the focus area.

The carousels on the rest of the page use a more traditional approach with the images in a rotating strip:

http://tv.yahoo.com/

Tivo's product specials:
https://www3.tivo.com/store/boxes.do?type=renewed&WT.ac=tivohome_renewed_s2_img

Larger Images

Resources

James Kalbach, *Designing Web Navigation*

Welie.com, Carousel
http://www.welie.com/patterns/showPattern.php?patternID=carrousel

Yahoo.com Developer Network, Carousel
http://developer.yahoo.com/ypatterns/pattern.php?pattern=carousel

Ui patterns:

http://ui-patterns.com/pattern/Carousel

Content Carouself reviewed: http://www.malcolmcoles.co.uk/blog/content-carousels-reviewed/

Cross-Reference/Links

Yahoo patterns – slide animation/transition:
http://developer.yahoo.com/ypatterns/pattern.php?pattern=slide

Yahoo patterns – fade in transition:
http://developer.yahoo.com/ypatterns/pattern.php?pattern=fadein

Yahoo patterns – fade out transition:
http://developer.yahoo.com/ypatterns/pattern.php?pattern=fadeout

Home Page Carousel Showcae: 40+ Carousel Designs:
http://www.smileycat.com/miaow/archives/000947.php