FlowCover

Creates a "CoverFlow" like user interface using OpenGL ES on the iPhone.

I threw this together in the course of an evening in protest of Apple's rejection of the Plausible Labs "Peeps" application because they created a CoverFlow like UI without using the private APIs--and was rejected for using private APIs.

Of course this is a little rough around the edges. However, if you do decide to use this as a starting point for your own application, all software herein is licensed under a BSD-style license:

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Sources

The source files which comprise FlowCover are:

FlowCoverView.m (.h)   Defines the primary view class. This is an OpenGL ES viewport, but it can be embedded in another view. Text can also be drawn in a transparent view overlaying this view to provide things like captions.

DataCache.m (.h)   Provides a simple data caching scheme where old objects are dropped to keep the total number of stored objects to the number requested.

Using

To add FlowCover to your own project, you would add the four source files listed above. FlowCover calls into a delegate class which implements the FlowCoverViewDelegate protocol for supporting FlowCover. The methods in the FlowCoverViewDelegate class that need to be implemented are:

- (int)flowCoverNumberImages:(FlowCoverView *)view;

Returns the number of images that are to be displayed in the FlowCoverView view.

- (UIImage *)flowCover:(FlowCoverView *)view cover:(int)cover;

Returns an image which is to be displayed for the specific cover in the FlowCoverView view. This image is scaled to fit in a 256x256 pixel texture.

- (void)flowCover:(FlowCoverView *)view didSelect:(int)cover;

Called when the user touches the cover in the FlowCoverView view. This can be used to trigger another action.

Limitations

This is a hack; I tossed it together in a day, so it's not very well tested.

Code is missing to handle rotating a view like the CoverFlow implementation on the music player on the iPhone. However, this could easily be added by adding a second animation parameter (the rotation of the front pane) and coordinating that animation with the rotation of a separate view with other controls.

The behavior does not exactly emulate CoverFlow. The flow is a little more fluid, unlike CoverFlow which 'snaps'. Further, the deceleration code needs tweaking.

Changes

June 17, 2009: From Alessandro Tagliati <alessandro.tagliati@gmail.com>: Reworked draw to only draw the visible tiles. (The caching and memory code depend on not drawing all the tiles, but then I drew them anyway. This significantly reduces the footprint as well as allows Flow Cover to work with a lot more tiles.)

May 23, 2009: Fixed a memory leak in FlowCoverView.m. Changed the demo template to exercise releasing a flow cover view to test the memory release functionality.

About the Author

My name is Bill Woody, and I can be reached at woody@chaosinmotion.com.