

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:

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|----------------------|---|
| 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.