

How to test a Flash project

Testing your Adobe Flash Professional content before you publish it is very important. This is especially true when publishing a movie for multiple screens. For example, you may find your movie appears to play fine in a web browser, only to discover that it displays incorrectly on the Apple iPad or your mobile phone.

When testing your Flash content, it's a good idea to perform technical, spelling, grammar, and usability tests. If you're creating a mobile application, you'll need to perform additional tests of features that are unique to mobile applications, including accelerometer, touch-screen, and geolocation functionality.

Conducting a technical test

A technical test answers questions such as the following:

- Do all the buttons work properly, according to the flowchart?
- Do the text, graphics, animation, and sound match the storyboard?
- Is there proper layout and coordination of text, graphics, animation, and sound as specified in the storyboard?
- Does the content in your mobile application react as expected when the device is rotated, tilted, or laid flat?
- Do touch screen features such as click and drag, press and tap, or two-finger tap work properly?
- Do screen gesture features such as swipe and zoom work properly?

To answer these questions, test the Flash content in each target screen or device. You can test SWF content in the Adobe Flash Player or in a web browser. You can test mobile application content by physically connecting your computer to a mobile device or by using the Adobe Flash device simulator.

Previewing Flash content in the Adobe Flash Player

To test a SWF file without embedding the content in an HTML file, you can open the movie in the Adobe Flash Player.

To preview a SWF in the Adobe Flash Player:

1. Select Control > Test Movie > In Flash Professional.

The SWF file opens in the Flash Player window.

2. Click through the content of your movie to see how it runs. Make sure the buttons function properly and that the text, graphics, animations, and sound are properly coordinated.
3. Close the preview window.

Previewing Flash content in a browser

You can also test how your content will play in a web page by using the Publish Preview command. For example, if you plan to publish the content as an HTML file for the web, you can preview the content in an HTML file.

To preview Flash content in a browser:

1. Select File > Publish Preview > HTML.

An HTML document containing the SWF file for your content opens in your default web browser.

2. Click through the content of your movie to see how it runs in a web browser. Make sure the buttons function properly and that the text, graphics, animations, and sound are properly coordinated.
3. Close the browser window.

Previewing a Flash mobile application by using the Flash device simulator

The Adobe Flash Professional device simulator enables you simulate running your application on a target mobile device. The device simulator is only available when your Flash document publish target is a mobile device, such as AIR 3.2 For Android or AIR 3.2 For iOS, as shown in the document Properties panel (**Figure 1**).

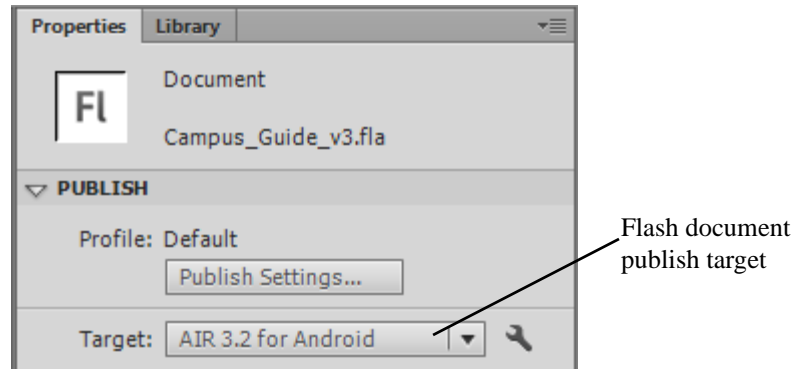


Figure 1 Properties panel

To preview a mobile app in the Flash device simulator:

1. Select File > Test Movie > In AIR Debug Launcher (Mobile).

The Simulator appears and your application opens in the Device preview window (**Figure 2**). You can use the sliders or change values in the Accelerometer, Touch And Gesture, and Geolocation sections to simulate common mobile application features.

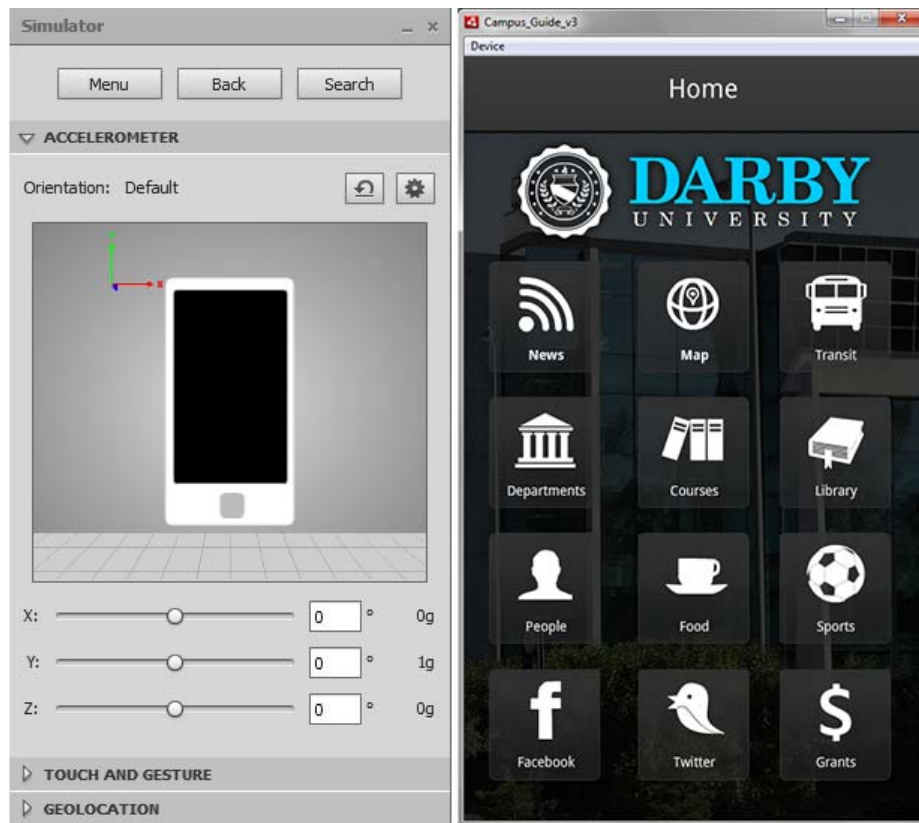


Figure 2 Simulator and Device preview windows

2. In the Accelerometer section of the Simulator window, change the X, Y, and Z values or drag the sliders to simulate rotating and tilting the mobile device (Figure 3).

3. Click the Reset button to return to the default values.

4. Expand the Touch And Gesture section in the Simulator window and select the Touch Layer option (Figure 4).

You can adjust and test the functionality of touch and gesture features, such as tapping and swiping. When you position the pointer over the preview window, it has a yellow circle attached to simulate a finger-tip (Figure 5). You can change the size and pressure by using the values at the bottom of the Simulator window.

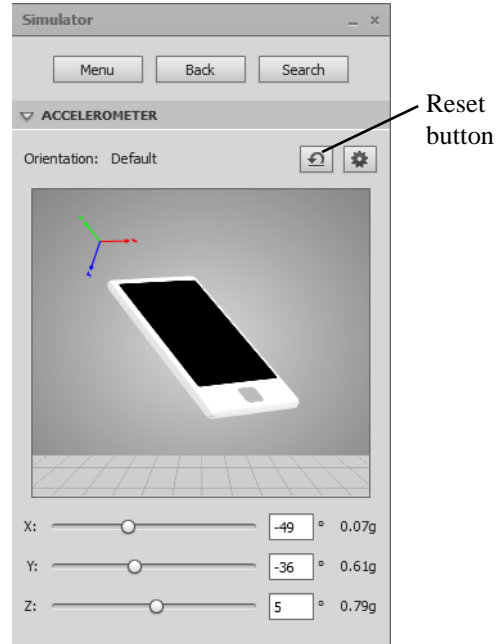


Figure 3 Simulator, Accelerometer section



Figure 4 Simulator, Touch and Gesture section



Figure 5 Touch And Gesture simulation pointer

5. Select the feature you want to adjust or test and use the mouse pointer in the preview window to test the selected feature.

Instructions for testing the selected feature appear at the bottom of the Simulator window (**Figure 6**).

6. Expand the Geolocation section in the Simulator window (**Figure 7**).

If your application includes geolocation features, you can test those here. For example, you may have an application that returns a list of local restaurants based on the longitude and latitude (location) of the device. To test this feature you would enter test Latitude and Longitude values, click Send, and evaluate the results in the Device preview window.

7. When you're finished testing your mobile app, close the Simulator and Device preview windows.

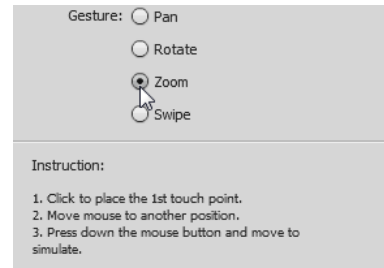


Figure 6 Touch And Gesture option instructions

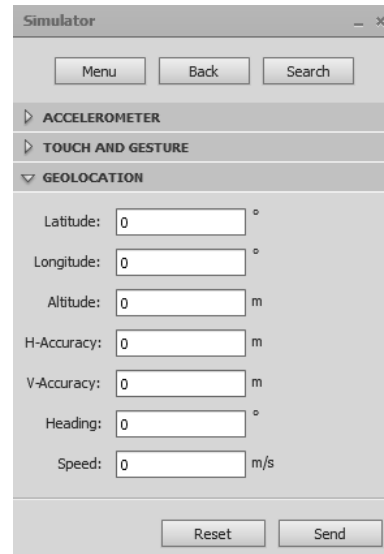


Figure 7 Simulator, Geolocation section

Proofing the Flash content

There is no better way to proof your Flash content than to read each screen or page carefully several times, checking against your storyboard. Read text slowly and aloud to check for spelling and grammar errors. Have someone who is less familiar with your project proofread the content too.

You can also use the built-in spell checker. Before Flash will check spelling in a document, you must select your spell checking options in the Spelling Setup dialog box (**Figure 8**). Select Text > Spelling Setup to open the Spelling Setup dialog box.

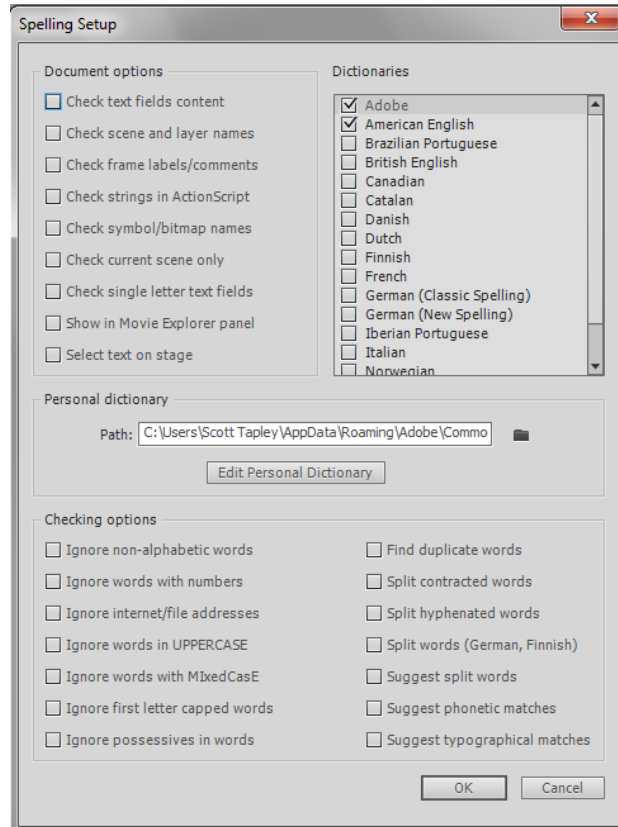


Figure 8 Spelling Setup dialog box

To check spelling:

1. Select Text > Spelling Setup.

The Spelling Setup dialog box appears.

2. Review the options in the dialog box and make any changes you like.
3. Click OK to close the Spelling Setup dialog box.
4. Select Text > Check Spelling.

The Check Spelling dialog box opens (**Figure 9**).

5. Use the Check Spelling dialog box as you would any other spell checker. For example, click Change to change a misspelled word to the word in the Change To text box.

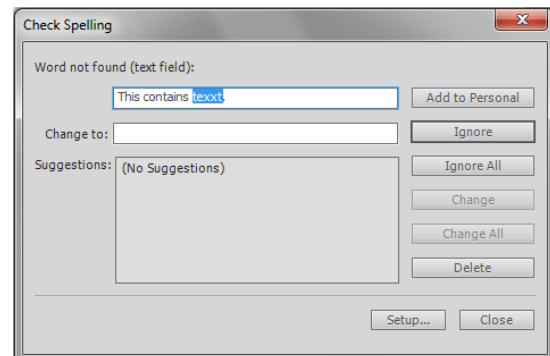


Figure 9 Check Spelling dialog box

Conducting a usability test

Usability tests are sessions in which you observe visitors as they use your application. Their feedback can help you improve the application's organization, navigation, text, use of color, and other factors. To conduct a usability test, you need to do the following:

1. Define the audience for your usability test. This audience should resemble the actual users of your application.
2. Develop your goals for the usability testing project. Start by asking the following questions: What should the intended audience be able to get out of the application? What do you want to learn about your application? Are there any problem areas you're especially concerned about, such as an unconventional navigation bar?
3. Create a test script. This is a list of tasks the test's moderator will ask the tester to accomplish. The script should also include feedback and follow-up questions to be posed by the moderator. Phrase the questions asked, tasks presented, and opinions sought in a way that allows participants to feel they are contributing to the project rather than being tested by the moderator. Ask questions such as Do you like the colors? Can you read the text? Where would you click to get information on the company/organization?
4. Recruit your testers. Use the characteristics you initially defined for your audience. In addition to these characteristics, choose testers for practicality. For example, they should live close enough to the testing location to get there easily. You want to make the process as simple as possible for your testers. For maximum efficiency, usability professionals recommend a minimum of eight testers.
5. Provide a comfortable, quiet, private testing environment. Ideally, you should videotape participants. Set up the camera so it does not point directly at either the participant or the screen, but instead is angled in a way that includes both the screen and some part of the user. In professional software testing, there are usually two cameras: one camera records the tester's face and another records the screen. Test moderators then analyze the session by viewing both recordings side-by-side so that the tester's reaction can be compared to what the tester is doing.
6. Observe the tester (or analyze the video). Look for *latent behavior*, behavior of which the participants are unaware. Latent behavior is found in body language or facial expressions that participants do not verbalize. An example of latent behavior is participants moving the pointer around the screen for a short while, looking for something, but not documenting that the item was difficult to find. Another example is participants sighing or frowning after clicking a link because they are tired of waiting for an image to load; this behavior indicates that an image file is too large, but the participant might not document this occurrence.
7. After completing the tests, compile and review your data. As you do so, keep your participants' comments central. Resist the temptation to impose your own opinion. For example, if several users complain about the location of a menu, avoid concluding that "they'll get used to it once they use it."

For additional information, go to: <http://www.utexas.edu/learn/usability/index.html> or en.wikipedia.org/wiki/Usability_testing