

Test Bus Discussion

1. What is a test bus?
2. What are the motivations for incorporating test buses into an architecture?
3. What are the consequences when incorporating test buses into an architecture?
4. What are test robots and what are problems with using them?
5. What are the three architectural separations proposed to support automated acceptance testing?
6. What are some validations that might need to be tested in our project?
7. What support do presentation frameworks such as Google Web Toolkit provide for testing the UI?

Test Bus Discussion

1. What is a test bus?
 - Built-in test access

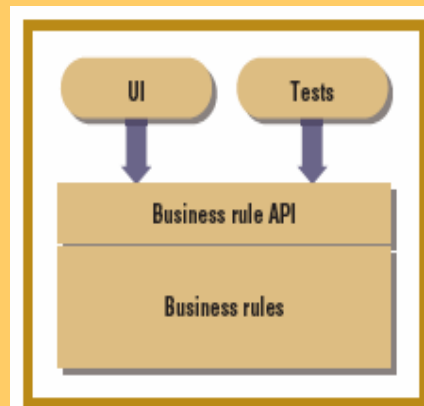


Figure 1. A testable system includes a test bus that can access the API independent of the UI.

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2. What are the motivations for incorporating test buses into an architecture?

- Automate more tests (acceptance tests)
- Faster testing
- Increased test coverage
- Better designs
 - Remove control from view

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4. What are test robots and what are problems with using them?
 - Robots are software agents that can be programmed to execute tests on a GUI
 - Small changes in the UI can require big changes in the robot scripts
 - Robot scripts can be tedious and slow to build
 - Robot scripts can be slow to execute

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3. What are the consequences when incorporating test buses into an architecture?
- New API's must be introduced
 - Make simple things hard

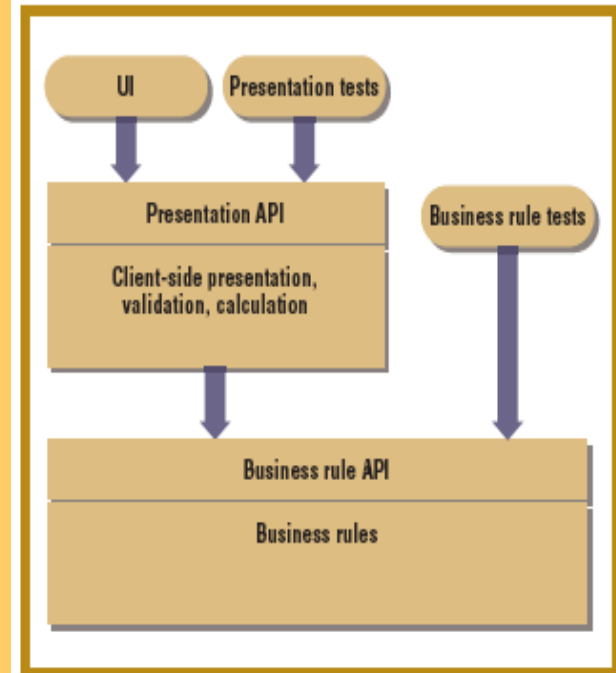


Figure 2. The presentation API separates the presentation, validation, and calculation rules from the UI's low-level details. This helps ensure developers can test all the business rules—even those that extend into the UI.

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5. What are the three architectural separations proposed to support automated acceptance testing?

- Bypassing the UI
- Isolating the test bus
 - Don't let tests cover tests in other API's
- Separating the database
 - DAO's and embedded RAM DB's like HSQLDB

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6. What are some validations that might need to be tested in our project?
 - User name is an email address
 - Password follows security rules

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7. What support do presentation frameworks such as Google Web Toolkit provide for testing the UI?

- GWT supports JUnit integration
 - <http://code.google.com/webtoolkit/documentation/com.google.gwt.doc.DeveloperGuide.JUnitIntegration.html>
- Beware, consider upgrading to newer version

```
public class FooTest extends GWTTTestCase {  
    /* * Specifies a module to use when running this test case. The returned  
     * module must cause the source for this class to be included.  
     * * @see com.google.gwt.junit.client.GWTTTestCase#getModuleName() */  
    public String getModuleName() { return "com.example.foo.Foo"; }  
    public void testStuff() { assertTrue(2 + 2 == 4); }  
}
```