Catch regressions early with Unit Test Cases (LibreOffice Impress)

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Agenda

- Quick Introduction
- Impress Test Cases
- Skeleton Code and Example

Catch regressions early with Unit Test Cases

Unit Test Cases

- Check for specific values and behavior of a module.

- For example:
  - Is the specific object in the file imported correctly?
  - Is the API behaving properly (for known inputs)?

- Why unit test cases?
  - Catch problems early
  - Change-Regressions
  - Kind of a documentation

Unit Tests in Impress

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Unit Tests in Impress

- Tests are in sd/qa/
  - Currently only a few tests there

- APIs:
  - Calling the Impress (sd) helpers directly
  - Using UNO APIs
  - Using templates (xml)

Skeleton Code + Example

Test case skeleton

```
E.g. sd/qa/unit/filters-test.cxx
Ref: http://cgit.freedesktop.org/libreoffice/core/commit/?
id=3a25a6503dea6dcbcca676f2d9ae741b8ed1696f

    void test();
    // Ensure CVEs remain unbroken
    void testCVEs();
+   void testN778859();

    CPPUNIT_TEST_SUITE(SdFiltersTest);
    CPPUNIT_TEST(test);
+   CPPUNIT_TEST(testN778859);
    CPPUNIT_TEST(testCVEs);
    CPPUNIT_TEST_SUITE_END();
```

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Skeleton

```
+void SdFiltersTest::testN778859()
+{
+    ::sd::DrawDocShellRef xDocShRef =
loadURL(getURLFromSrc("/sd/qa/unit/data/pptx/n778859.pptx"));
+    CPPUNIT_ASSERT_MESSAGE( "failed to load", xDocShRef.Is() );
+    CPPUNIT_ASSERT_MESSAGE( "in destruction", !xDocShRef-
>IsInDestruction() );
+
+    SdDrawDocument *pDoc = xDocShRef->GetDoc();
+    CPPUNIT_ASSERT_MESSAGE( "no document", pDoc != NULL );
+    const SdrPage *pPage = pDoc->GetPage(1);
+    CPPUNIT_ASSERT_MESSAGE( "no page", pPage != NULL );
+    {
+        // Get the object
+        SdrObject *pObj = pPage->GetObj(1);
+        SdrTextObj *pTxtObj = dynamic_cast<SdrTextObj *>( pObj );
+        CPPUNIT_ASSERT(!pTxtObj->IsAutoFit());
+    }
+}
+
```

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Code

Thank you!

- http://wiki.documentfoundation.org/Development/Unit_Tests

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