If MacGyver was a Spec Editor.

Simple tools. Unbelievable results.

Testable assertions

- MUST, SHOULD, MAY, etc.
- The only bits that really matter.
- We need to guarantee they all get tested and verified.

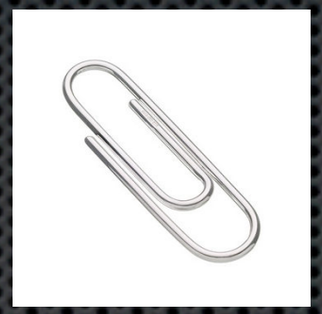
MUST are expensive

- MUST = average ~3 tests+
- Redundancies are expensive.
- Variability and bugs are expensive.

So what would MacGyver do?

Spec
(XHTML)

XHR



Test Suite
(Selector API)

XHR

XHR

Tests
(widgets)

Test Description
(XML)

Test results
(XML)

Test Suite Visualized

Compatibility table

Testable assertions are derived from the editor's draft of the *Widgets 1.0: Packaging and Configuration Specification*.

TODO: define PASS, FAIL, etc.

Testable Assertion	Test cases	Opera	Windows Mobile	BlackBerry	Samsung	LG	BONDI	Wookie
User Agent 45/49 i.e 92% coverage, 147 test cases								
1. ta-RRZxvvTFHx — If a user agent encounters a file matching a file name given in the file name column of the default start files table in an arbitrary folder, then user agent *must* treat that file as an arbitrary file.	widget / source — ✔ Tests that a UA does not go searching in an arbitrary folder ("abc123") for default start files. To pass, the user agent must treat this widget as an invalid widget.	totest	incomplete	pass	totest	pass	pass	pass
	widget / source — ✔ Tests that a UA does not go searching in an arbitrary folder ("foo/bar") for default start files. To pass, the user agent must use index.html at the root of the widget as the start file	totest	pass	pass	totest	fail	pass	pass
2. ta-dxzVDWpaWq — A user agent *must* treat any file in an arbitrary folder or locale folders that uses the file name `config.xml` as an arbitrary file.	widget / source — ✔ Test to make sure that the UA only checks the root of the widget for config files, and not in an arbitrary folder. To pass, the user agent must treat this widget as an invalid widget (config file is not at the root).	totest	pass	pass	totest	pass	pass	pass
	widget / source — ✔ Test to make sure that the UA only checks the root of the widget for config files, and not in a locale folder. To pass, the user agent must treat this widget as an invalid widget (config file is not at the root, but in locale folder).	totest	pass	pass	totest	pass	pass	pass
3. ta-GVVIvsdEUo — If a user agent supports acquisition of a potential Zip archive from a protocol that labels resources with a media type, then a user agent	widget / source — ✔ Test the ability for the user agent to handle correctly MIME labelled widgets. To pass, the widget start file must be index.htm	totest	cannottest	cannottest	totest	cannottest	cannottest	cannottest

Spec - XHTML

- “If this is not the first name element encountered by the user agent, then the user agent must skip this element.”

Spec - XHTML

```
• <p id="ta-LYL">
  ... the
  <span class="product-ua">
     user agent
  </span>
  <em class="ct">
     must
  </em>
     skip this element.
  </p>
```

Test Descriptions

- <testsuite for="http://somespec/index.html">

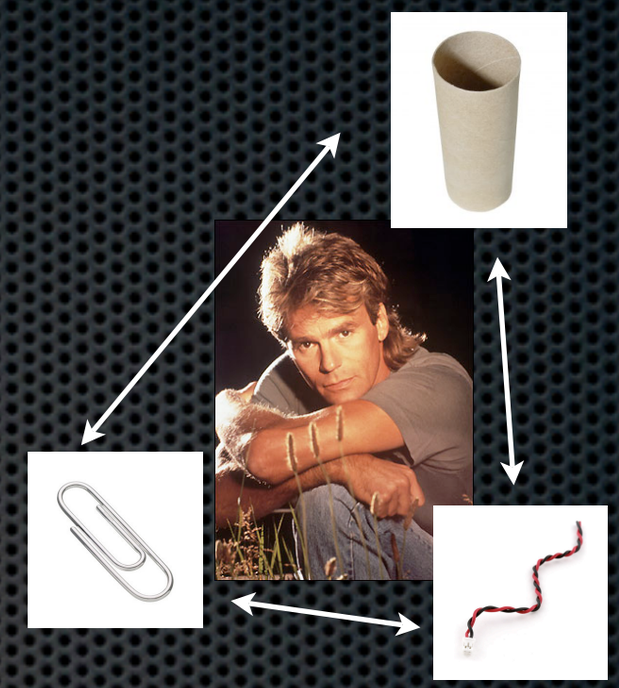
```
<test   id   = “xyz”
        for  = "ta-YAY"
        src  = "xyz.wgt">

  Tests the UA's ability to ignore subsequent repetitions of
  the name element. To pass, the name of the widget must be
  "PASS"

</test>

  ...
</testsuite>
```

Test Results

- <testsuite for="http://somespec/inde.html">

```
<result
        for       = "ta-YAY"
        verdict = "fail" >
Test failed because
</result>
 ...
</testsuite>
```

Take Away



- Reduce your redundant MUSTs
- Use SHOULDs and MAYs with caution!
- Write in active voice
- Write for readers and write for testing.
- Keep things simple.