Test262-ES6

GFT READY FOR ES6

Status

- Recent update to website with a few test fixes (Thanks Adobe!)
- Loads of Work Items (test bugs, additional test collateral) tracked on bugs.ecmascript.org.
- (Un)Official IRC channel set up: irc.mozilla.org #test262.
- Microsoft nearly ready to contribute test cases for let, const, Map, WeakMap, and Set (modulo some updates for recent spec revisions).

Proposed changes – with patches!

Code Changes



Policy & Procedure

- Formalize test262-core members on the wiki
- Website refresh process
- Make algorithm step identification optional

Website Changes

- New Endpoint for test262-es6
- New Landing Page for all ECMAScript-related collateral

Code Changes

Repository Refactoring

Basics

- Proposed by Norbert Lindenberg (bug id: 575).
- Group suites together ecma262, ecma402, best practices – and make room for future ancillary test suites
- Group test case dependencies together outside of harnessing.
- Group common harness files together (preventing duplication), and group all harness files under one location
- Make generated assets more clear.

Details

New layout:

- tests/ecma402
- tests/ecma262
- tests/bestPractices
- tests/includes
 - Any shared test helpers go here. Packager will pick most specific include available.
- harness/shared
- harness/website
- harness/console
- tools/ (same as today)
- website/ and console/ are auto-generated directories that won't be checked in.
- docs/ and external/ untouched.

Branch for ES5

Goals

- As friction-free as possible for edge ECMAScript collateral
- Clearly delineate ES5 collateral from ES6 collateral.
- Ability to update collateral for ES6 without breaking ES5 collateral.
- Easily integrate fixes between branches

Proposal

- Once refactor is complete, create ES5 branch.
- ES6 collateral goes into master
- ES5-specific fixes made to off of ES5 branch.
- Collateral fixes that cross versions can will simply be integrated.

ES6 updates to current collateral

(depends on agreed-upon procedures)

- Programmatically move collateral from ES5 to ES6 locations
- Persist ES5 @path attribute (which should match filepath) as @es5id
- Add @es6id attribute that matches new file path
- Note: proposal to refactor/flatten sub-folders of section

Procedure Additions & Updates

Test262 Core

- Has commit rights
- Has access to update the website
- Documented at http://wiki.ecmascript.org/doku.php?id=test262:coreteam
- (Currently only has 3 names, who else has commit rights??)

(Also, pretty sure I completely hosed the wiki creating this page, the index is broken at least)

Website Refresh Procedure

- Ensure harness runs in Top 4 rendering engines Chrome/Opera, FF, IE,
 Safari.
- Examine results for drastic changes in pass rates
- Send mail to test262-discuss with changes that will be going live
- Wait 24 (?) hours
- Follow process documented here (modulo previous changes): http://wiki.ecmascript.org/doku.php?id=test262:submission_process

Optional Algorithm Step Designation

- Goal: reduce friction to contribute & reduce friction carrying forward collateral from previous versions.
- Proposal:
 - All tests MUST have either @es5id or @es6id.
 - An ID MUST contain a section identifier, and MAY contain an algorithm identifier.
- Drawbacks
 - Ensuring 100% coverage becomes much harder.

Work Items

Owner	Description
Brian Terlson	Repo Refactoring
Brian Terlson	Branch for ES6
?	Create mapping of ES5 sections to ES6 sections
Brian Terlson	Move ES5 collateral to ES6 locations
Everyone ©	Contribute ES6 collateral

Open Questions

- How to create cross-host-compatible collateral for realms and scripts?
- How to verify proxies broadly? Can we leverage existing collateral?
- Strict Mode: harness should run strict-agnostic tests in both modes.
- Harness should hit fast path (ie. run tests in a loop).
- Poisoning of built-ins can we test this broadly in the harness?
- Others?