

ECMAScript Internationalization API

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Specification Update

- Require normalization by default
- Allow canonically equivalent strings to compare $\neq 0$ if normalization is off
- Added two numbering systems
- Require information about 12-hour formatting only if format includes hour
- Specified formatting with 12-hour time

One More Update

- Don't use year 0 in date/time formatting
 - 2 AD, 1 AD, 1 BC, 2 BC, ...

Conformance Tests

- Now at 137 tests
- Reach almost all algorithms
- Coverage still pretty thin
- Draft test report

Implementor's Report: Google

- Nebojša Ćirić

Implementor's Report: Microsoft

- Luke Hoban

Implementor's Report: Mozilla

- Prototype within SpiderMonkey
- Uses ICU for comparison, formatting, feature detection
- JavaScript/C++ for everything else
- Extensions not supported yet
- 9 test failures

History

- 2010-09 Internationalization ad-hoc chartered
- 2011-11 First complete draft
- 2012-05 Full-day TC 39 review
- 2012-09 TC 39 approval

Approvals, Please

- Approve for submission to Ecma CC & GA
- Standard: ECMAScript
Internationalization API Specification
 - Current draft plus year 0 change
- Technical report: ECMA-402 Test Suite

Harmonization

- Integrate Internationalization API into Harmony?
- Keep it separate?
- Split Harmony spec into language and standard library?

2nd Edition

- Charter internationalization ad-hoc with scoping out 2nd edition
 - Message formatting
 - Text breaking

Annex: Optional Features

All Functionality

- Supported locales
- Default locale
- Supported subset of Unicode
- Best fit matcher for locales
- Supported Unicode extension values per locale
- Additional values per Conformance clause

Collation

- Collation:
 - Adherence to Unicode collation algorithm
 - Support for Unicode extensions keys kf, kk, kn and parallel options caseFirst, normalization, numeric
 - Localized sort orders
 - Default search sensitivity per locale

NumberFormat

- Support for numbering systems
- Implementation of non-decimal numbering systems
- Localized decimal & grouping separators, representation of negative numbers, percent sign
- Localized grouping
- Localized currency symbols and names

DateTimeFormat

- Supported date/time formats per locale beyond core set
- Best fit matcher for formats
- Supported calendars
- Support for numbering systems
- Localized format patterns, weekday names, month names, era names, am/pm, time zone names