



JavaScript spec adds async functions, shared memory

ECMAScript 2017, due in June, also incorporates string padding and trailing commas

By **Paul Krill** | [Follow](#)

Editor at Large, InfoWorld FEB 3, 2017



A few months before its expected approval, ECMAScript 2017, the latest official specification underlying JavaScript, has been fleshed out with async functions and shared memory capabilities.

ECMAScript 2017 is due to be finalized in June, in line with a release cadence that has seen midyear upgrades recently. "Async functions are a terrific tool for writing asynchronous code, and SharedArrayBuffer (shared memory) will enable library authors to experiment with real multiprocessing in JavaScript," said blogger Axel Rauschmayer, who follows JavaScript's development.

[Use JavaScript in your dev shop? InfoWorld looks at 17 JavaScript editors and IDEs and 22 JavaScript frameworks ready for adoption. | Keep up with hot topics in programming with InfoWorld's App Dev Report newsletter.]

Async functions were a candidate for inclusion last year but were pushed out to this year. Shared memory, meanwhile, is coupled with atomics, providing atomic operations on shared memory locations.

ECMAScript 2017 also will include `Object.values/Object.entries`. Similar to the `Object.keys` capability, `Object.values` and `Object.entries` would return arrays, with an ordering matching `Object.keys`, with indices of all three resulting arrays matching the same key, value, or entry of an object, according to the ECMA proposal.

Also on tap is string padding, intended to improve the performance of the web and developer productivity. "Without a reasonable way to pad a string using native methods, working with JavaScript strings today is more painful than it should be," the proposal states. String padding functions exist in a majority of websites and frameworks.

The `Object.getOwnPropertyDescriptors` feature will simplify some common boilerplate, and allowing trailing commas in function parameter lists will provide for code attribution while making no changes to semantics. The proposal states that other languages, including Python and D, allow this capability so that code contributors can end a parameter addition with a trailing comma in a per-line parameters list, addressing the issue of code attribution.

Different features of ECMAScript are implemented in browsers at varying times. The most recent version of the specification, ECMAScript 2016, was approved last June and was limited in scope.

Paul Krill is an editor at large at InfoWorld, whose coverage focuses on application development.

➤ **From CIO: 8 Free Online Courses to Grow Your Tech Skills**

YOU MIGHT LIKE

Ads by Revcontent

**Bollywood
Secret: Burn Kgs
in 15 Days with
This 1 Odd Trick
(Try Tonight)**

SlimNow

**Bangalore Guys
Are Using This
Crazy Method To
Get 5 Shades
Fairer In 14 Days**

Fit Mom Daily

**Fake? - 16
Pictures You
Won't Believe
Are Real**

Viral IQ

**Generate A
High-Quality
User Experience
with Revcontent**

Revcontent

**Join Revcontent
To Increase User
Engagement and
Reach**

Revcontent

**Google AMP
Builds a Better
User Experience
on Mobile**

Adotas

**The new BYOD
backlash hides
an ulterior
motive**

**Uninstall
QuickTime for
Windows now!**

**Doing business
in Europe?
Trump just
screwed that up**

**Patch.com
Chooses
Revcontent for
Superior Ad
Quality and User
Experience**

Bloomberg.com

Copyright © 2017 IDG Communications, Inc.