

Report from the TC39 Secretariat

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2023-05-10

Since the March 2023 TC39 Meeting

- *List of latest relevant TC39 and Ecma GA documents*
- *New TC39 Member*
- *Status of short summaries of TC39 meeting contrihs in the Minutes.*
- *Status of TC39 meeting participation*
- *TC39 standards download and access statistics*
- *Status of ES2023 approval*
- *Status of ES2023 «Nice PDF» Versions*
- *Status & Reminder: JTC1 Periodic Review of fast-tracked TC39 Standards*
- *Next TC39, GA and ExeCom meetings*

- **Ecma/TC39/2023/011** **Report from the TC39 Secretariat, March 2023 (Rev. 1)**
- **Ecma/TC39/2023/012** **Responses to the Ecma Contribution License Agreement (CLA), 17 March 2023**
- **Ecma/TC39/2023/013** **Slides for the 95th TC39 meeting, March 2023**
- **Ecma/TC39/2023/014** **Opt-out review period announcement for ECMA-262 (2023) draft Standard**
- **Ecma/TC39/2023/015** **Minutes of the 95th TC39 meeting, March 2023 (Rev. 1)**
- **Ecma/TC39/2023/016** **Opt-out review period announcement for ECMA-402 (2023) draft Standard**
- **Ecma/TC39/2023/017** **TC39 chair group's report to the ExeCom, April 2023 (Rev. 1)**

- **Ecma/TC39/2023/018** **Venue for the 96th TC39 meeting, May 2023**
- **Ecma/TC39/2023/019** **TC39 RF TG form signed by Oramasearch**
- **Ecma/TC39/2023/020** **Final draft ECMA-262 14th edition**
- **Ecma/TC39/2023/021** **Final draft ECMA-402 10th edition**
- **Ecma/TC39/2023/022** **Agenda for the 96th TC39 meeting, May 2023**
- **Ecma/TC39/2023/023** **"Well-formatted PDFs for TC39 Standards in 2022 and Beyond" by Allen Wirfs-Brock, July 2022**
- **Ecma/TC39/2023/024** **TC39 voting announcement on the submission of the final ES2023 drafts to the June 2023 GA**

- **Ecma/GA/2023/007 meeting, January 2023** **Minutes of the 94th TC39**
- **Ecma/GA/2023/009 meeting, March 2023** **Agenda for the 95th TC39**
- **Ecma/GA/2023/016 "ECMAScript"** **US trademark registration of**
- **Ecma/GA/2023/017** **Auditor's report for the year 2022**
- **Ecma/GA/2023/018 announcement for ECMA-262 (2023) draft Standard** **Opt-out review period**
- **Ecma/GA/2023/020 meeting, March 2023 (Rev. 1)** **Minutes of the 95th TC39**
- **Ecma/GA/2023/021 announcement for ECMA-402 (2023) draft Standard** **Opt-out review period**

- **Ecma/GA/2023/023** **Application of Oramasearch for SPC membership**
- **Ecma/GA/2023/024** **TC39 RF TG form signed by Oramasearch**
- **Ecma/GA/2023/026** **Final draft ECMA-262 14th edition**
- **Ecma/GA/2023/027** **Final draft ECMA-402 10th edition**
- **Ecma/GA/2023/029** **Final drafts submitted to the 125th General Assembly, Geneva, June 2023**
- **Ecma/GA/2023/031** **Agenda for the 96th TC39 meeting, May 2023**
- **Ecma/GA/2023/032** **TC39 voting announcement on the submission of the final ES2023 drafts to the June 2023 GA**

- **Venue for the 125th General Assembly, Geneva, June 2023**
- **Ecma/GA/2023/034 Minutes of the ExeCom meeting, Geneva, 19-20 April 2023**
- **Ecma/GA/2023/035 Ecma TC39 extensive meeting notes – guidelines for implementation**

Why are these lists of interest to TC39 members?

(just for reading as reminder....)

- **GA documents provide info about general Ecma matters (policy matters, what other TCs do, liaison with other SDOs, etc.). Not automatically available to TC39 members. Ask your GA Representative for copy.**
- **Ecma TC39 documents are the “official” Ecma TC39 documentation within Ecma (both for “long-term archival” and as info to other Ecma TC and GA members). It is linked to TC39 as an Ecma TC (includes like new formal Ecma members in TC39, status of ES20xx approval in Ecma etc. There are therefore partial overlaps of what is also available on TC39 GitHub)**

- **Ecma/GA/2023/023 Application of Oramasearch for SPC membership**
- **Ecma/GA/2023/024 TC39 RF TG form signed by Oramasearch**
- **<https://oramasearch.com>**
- **Scope: Software Development**
- **Location: San Francisco, California**
- **Founded: 2023**

Welcome to TC39 and Ecma!!!

- **It is much better now, because for the Minutes of the March 2023 TC39 meeting it worked. Thanks!**
- **Short “Summaries” of the Meeting Contributions are now included both in the main part of the Minutes of the TC39 meetings as well we in the Technical Notes. In the same way as the “Conclusions”.**
- **Convenient to those who are interested in the main part of the Minutes, but less in the attached Technical Notes.**
- **Separately we also publish in a separate ZIP file all the presentations of the TC39 meeting**
- **Of course without a synchronization of the presentation pages to the Technical Notes...**

Status of ES2023 approval

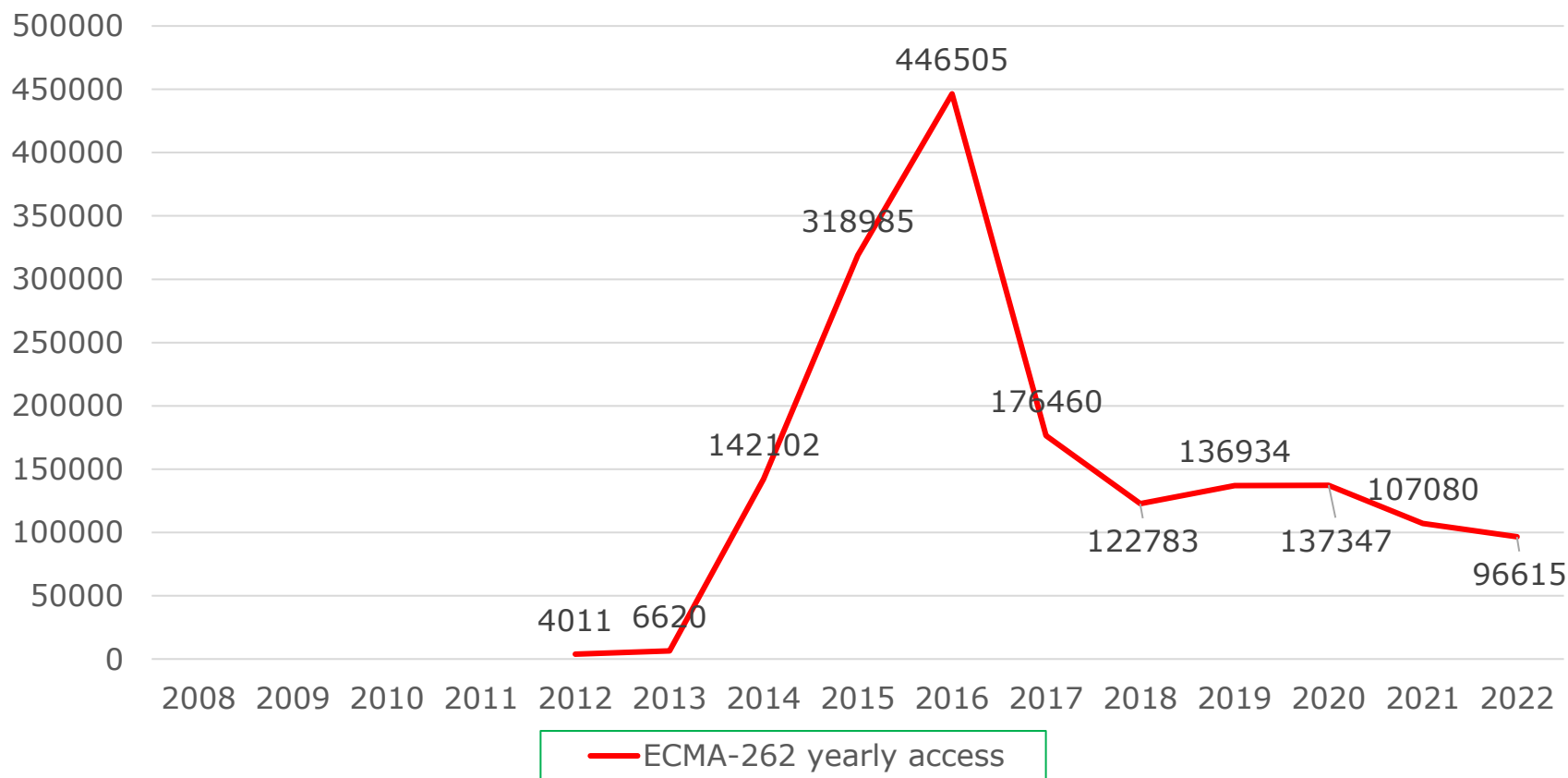
- The “frozen” version for the 2 months RF Patent Policy “opt out” has been launched just in time for a GA approval in June. Also the final drafts have been published.
- Assuming positive results from the “opt-out” the May 2023 TC39 meeting can formally – conditionally - accept ES2023 and ask the ECMA GA to approve ES2023 at the 125th GA Plenary on June 27-28, 2023 in Geneva.
- In the unlikely case should the May 2023 TC39 meeting formally not accept ES2023, or the “opt-out” results need further investigation then TC39 must revoke the June GA ES2023 approval request and the GA has to be asked to allow a letter ballot on ES2023 - after the 125th GA
- After the May 2023 TC39 Plenary editorial changes on the draft ES2023 are possible, but no substantive changes pls.

- **Generally Ecma standards / TRs are edited in ECMA-376 Format (ooxml) = Templates under TOOLS on the Ecma Server:** <https://members.ecma-international.org>
- ***TOOLS-017.dotx*** *New Ecma template for the preparation of draft Standards (update January 2023)*
- ***TOOLS-018.dotx*** *New Ecma template for the preparation of draft Technical Reports (update January 2023)*
- **Generally Ecma standards / TRs are electronically published on the Ecma Web-site in PDF Format.**
N.B. Printed and bound paper copies are available on request (rare). PDF is the electronic version of the paper "book".

- **TC39 ES20xx Standards are since 2016 different:**
- **TC39 ES20xx Ecma standards / TRs are electronically published on the Ecma Web-site both in “interactive html” and in PDF “book” format.**
N.B. html is the “Master Format” and PDF is the “slave”, in case of conflicts html has preference
- **Old issue since 2016: Lacking good TC39 tools especially ECMA-262 Editors can not provide the Secretariat with perfect quality PDF “book” format. For ECMA-402 the PDF quality is much better.**
- **Solution ES2023 = Solution ES2022**
For the last time: again with the help of Allen Wirfs-Brock. For ES2024 and beyond we need a solution.

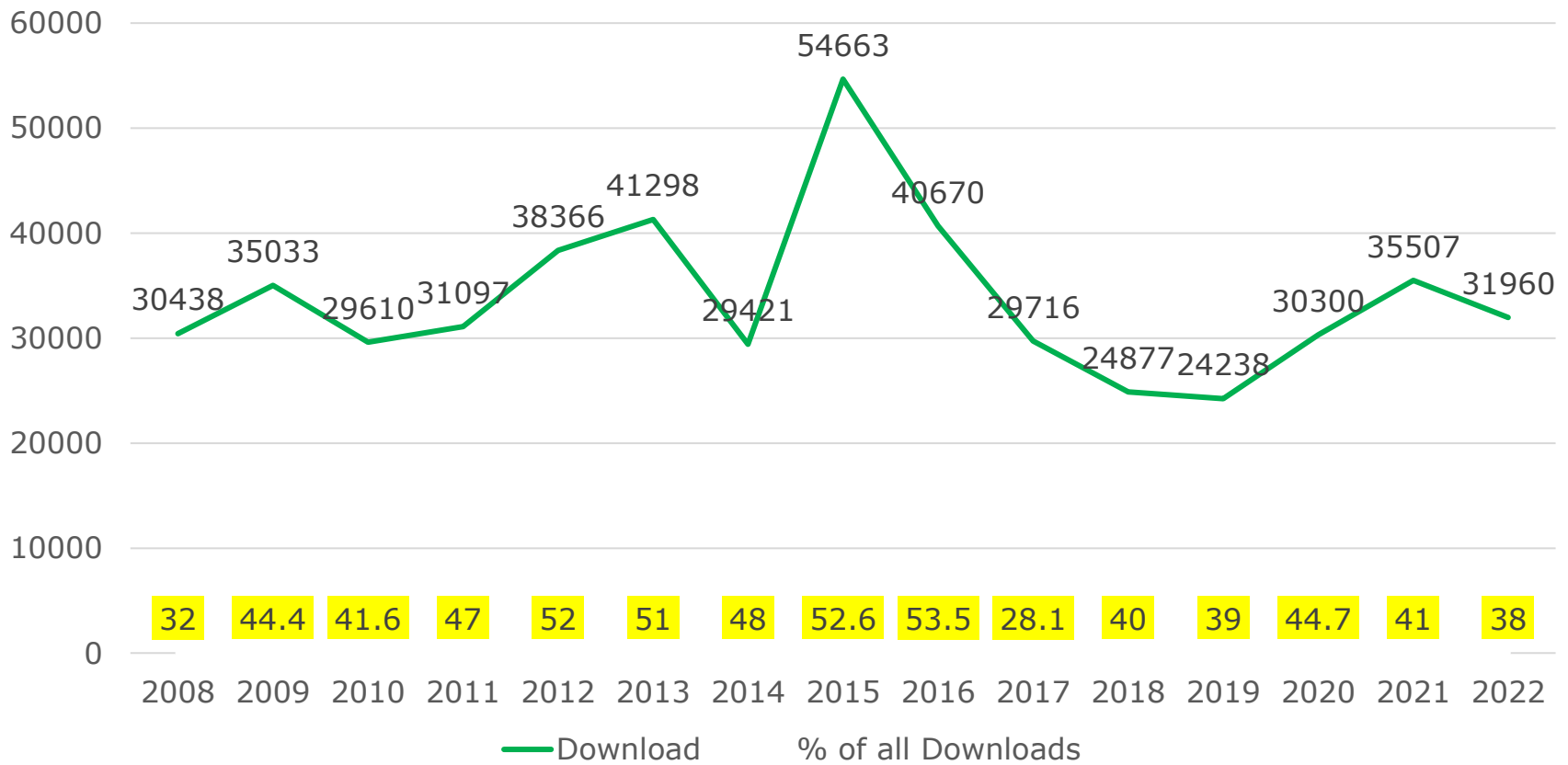
Why does Ecma need “nice PDF” ES20xx Standards ? (1)

ECMA-262 yearly access

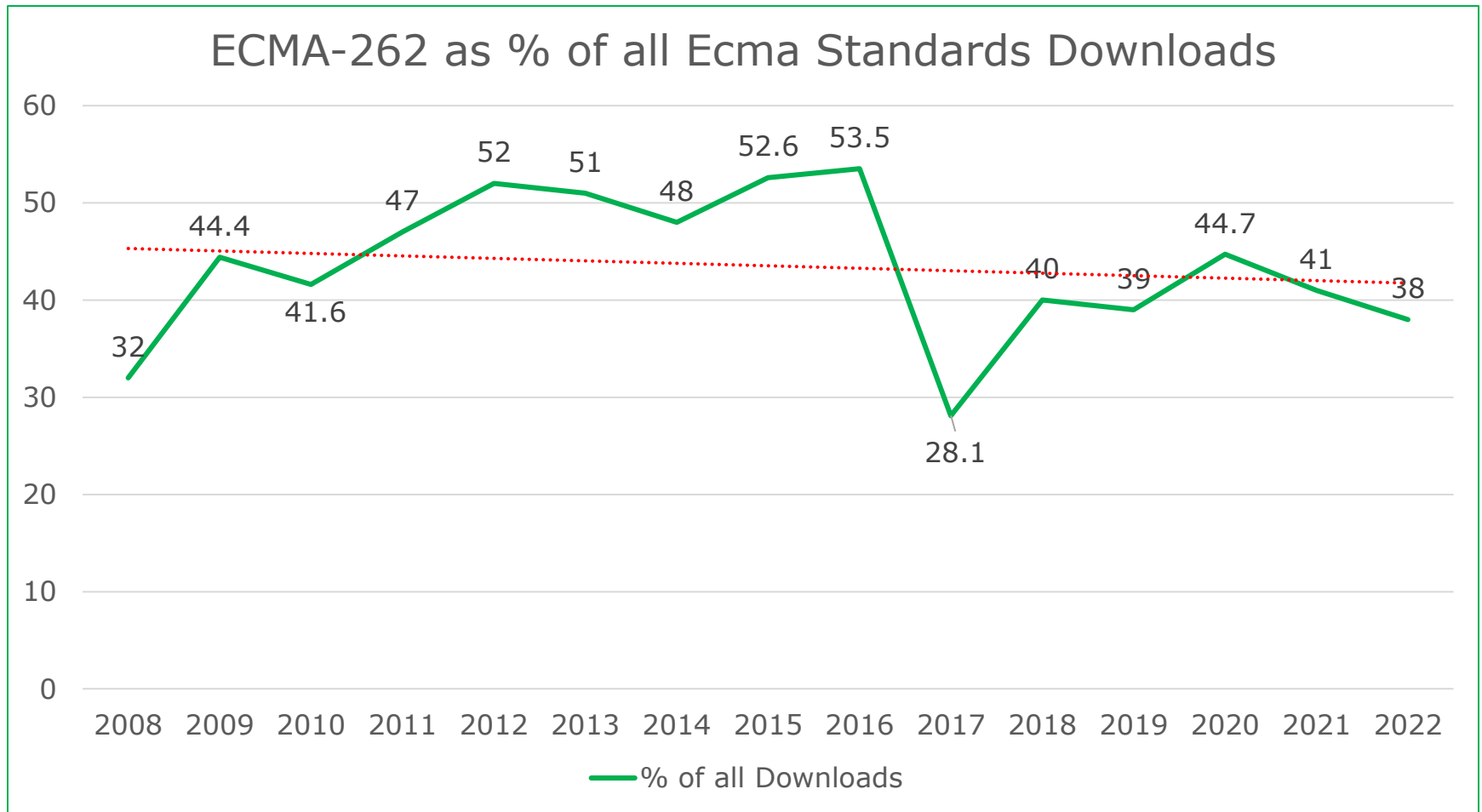


Why does Ecma need “nice PDF” ES20xx Standards? (2)

ECMA-262 yearly download



Why does Ecma need “nice PDF” ES20xx Standards? (3)



Ecma pdf Standards download

2023-05-01 (TC39 Stds = 54%)

		Total Standards 2023	26300
1	ECMA-262	ECMAScript® Language Specification	9539
2	ECMA-404	The JSON Data Interchange Syntax	4066
3	ECMA-376	Office Open XML File Formats	3788
4	ECMA-334	C# Language Specification	1312
5	ECMA-335	Common Language Infrastructure (CLI)	1218
6	ECMA-74	Measurement of Airborne Noise emitted by Information Technology and Telecommunications Equipment	377
7	ECMA-388	Open XML Paper Specification	352
8	ECMA-48	Control Functions for Coded Character Sets	373
9	ECMA-402	ECMAScript® Internationalization API Specification	273
10	ECMA-418	Psychoacoustic metrics for ITT equipment — Part 1 (prominent discrete tones) and Part 2 (models based on human perception)	326
11	ECMA-119	Volume and File Structure of CDROM for Information Interchange	205
12	ECMA-422	<u>C# Specification Suite</u>	255
13	ECMA-414	ECMAScript® Specification Suite	223
14	ECMA-370	TED - ECO declaration	205
15	ECMA-408	Dart Programming Language Specification	168

ECMA-262 html Standards Access Statistics 2022 and 2023

ST-262 11th edition	5452
ST-262 12th edition	7293
ST-262 13th edition	27934
Total	40679

2023-05-01

ST-262 11th edition	23405
ST-262 12th edition	52334
ST-262 13th edition	44281
Total	120020

2022

ECMA-402 html Standards Access Statistics 2021 and 2022

ST-402 7th edition	31
ST-402 8th edition	89
ST-402 9th edition	549
Total:	669

2023-05-01

ST-402 7th edition	351
ST-402 8th edition	1994
ST-402 9th edition	1874
Total:	4219

2022

Recent TC39 Meeting participation

Meeting 2019-2021	Total	Local	Remote	Companies
July 19 Redmond	76	46	30	24
October 19 New York	70	46	24	26
December San Francisco	73	52	21	28
February 20 Honolulu	58	27	31	23
April 20 remote	73	0	73	28
June 20 remote	66	0	66	21
July 20 remote	76	0	76	28
Sept 20 remote	66	0	66	25
November 20 remote	62	0	62	22
January 21 remote	95	0	95	27
March 21 remote	80	0	80	25
April 21 remote	81	0	81	26

Recent TC39 Meeting participation (2)

Meeting 2021-2022	Total	Local	Remote	Companies
May 21 remote	74	0	74	27
July 21 remote	57	0	57	23
August 21 remote	80	0	80	28
October 21 remote	54	0	54	22
December 21 remote	69	0	69	24
January 22 remote	66	0	66	29
March 22 remote	92	0	92	30
June 22 remote	59	0	59	23
July 22 San Francisco "mixed"	62	19	43	24
September 22 remote	44	0	44	20
November 22 A Coruña "mixed"	62	19	43	23
January 2023 remote	68	0	68	27

Recent TC39 Meeting participation (3)

Meeting 2021-2022	Total	Local	Remote	Companies
March 23 "mixed" Seattle	65	20	45	24

Dates and locations of future meetings


Dates	Location	Host
2023-05-15 to 2023-05-18	<i>Remote: "Chicago"</i>	
2023-07-11 to 2023-07-13	Bergen, Norway	University of Bergen
2023-09-26 to 2023-09-28	Tokyo, Japan	Bloomberg
2023-11-27 to 2023-11-30	<i>Remote: "SF"</i>	

- **6 meetings per-year**
- **3 remote, 3 hybrid (one US, one Europe, one Asia)**
- **Remote meetings are up to four days
...and sometimes we rejoice when we can end early
and claim a day back**
- **In-person meetings are three days
...to permit Monday/Friday as travel days**

- **JTC1 requires that every 5 years a Periodic Review of Fast-Tracked Standard takes place**
- **TC39 is involved in ECMA-404 (JSON = ISO/IEC 21778:2017) and ECMA-414 (ECMAScript® specification suite. 3rd edition, December 2017; ISO/IEC 22275: 2018)**
- **ECMA-404 is a very stable standard that actually would be ideal for JTC1 “stabilization”. Never a change...**
- **ECMA-414 contains “undated” normative references to ECMA-262 and ECMA-402. “Undated” means that it solves the problem of too “fast” and “frequent” updates of ES202x standards.**

ECMA-404 (JSON) confirmed! = ISO/IEC 21778:2023)

Good NEWS!

Stage 

Stage	Version	Description	Edit draft	Target date	Limit date	Started	SI
90.20	1	International Standard under periodical review		2022-10-15		2022-10-15	(
90.60	1	Close of review		2023-03-04		2023-03-05	(
90.93	1	International Standard confirmed				2023-03-06	(
90.20	2	International Standard under periodical review		2028-01-15			f
90.60	2	Close of review		2028-06-03			f
90.99	1	Withdrawal of International Standard proposed by TC or SC					f


[Show all stages](#) 

- **Now ECMA-414 (ECMAScript® specification suite. 3rd edition, December 2017; ISO/IEC 22275: 2018) is under the 5 years reconfirmation – pls. talk to your ISO/IEC JTC1 SC22 National Body !**

Ballot source information

Reference: ISO/IEC 22275:2018

Type: ISO/SR (Systematic review)


Committee: ISO/IEC JTC 1 

Opening date: 2023-04-15

ISO closing date: 2023-09-02

Title: Information technology – Programming languages, their environments, and system software interfaces – ECMAScript® Specification Suite

Reference documents and links

 [ISO/IEC 22275:2018 ed.1 - id.73002 / Publication / PDF \(en\)](#)

- **The following pages were presented twice at the TC39 meeting. These are here just as reminder, since the voting is still going on and is relevant.....**

- **In JTC1 SC22 is responsible to carry out the 5 years a Periodic Review of the Ecma TC39 standards**
- **ISO/IEC JTC 1/SC 22 Programming languages, their environments and system software interfaces is a standardization subcommittee of ISO/IEC JTC 1 that develops and facilitates standards within the fields of programming languages, their environments and system software interfaces.**
-

- **Membership of SC22:**
- **Secretariat: ANSI (USA)**
- **The 23 "P" (participating) members of ISO/IEC JTC 1/SC 22 are: Austria, Bulgaria, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Israel, Italy, Japan, Kazakhstan, Republic of Korea, Netherlands, Poland, Russian Federation, Slovenia, Spain, Switzerland, Ukraine, United Kingdom, and United States of America. They are obliged to vote.**
- **SC22 has also 21 "O" (observing) members. They may vote.**
- **Voting rule: Simple majority of those who have voted**

- **Structure: SC 22 has had a total of 24 working groups (WGs), many have been disbanded when the focus of the working group was no longer applicable to the current standardization needs.**
- **ISO/IEC JTC 1/SC 22 is currently made up of eight (8) active working groups: COBOL, Fortran, Ada, C, Prolog, C++, Programming Language Vulnerabilities, Linux Standard Base (LSB)**
- **ECMAScript in the Plenary only?**
- **We need lobbying where ever the vote on the periodic review takes place.**
- **Liaison person to SC22: Rex Jaeschke**

- *GA 125: 27-28 June 2023 (Geneva, CH, Host: Ecma)*
- *GA 126: 5-6 December 2023 (Cupertino, CA, USA, Host: Apple)*
- *GA 127: 26-27 June 2024 (Geneva, CH, Host: Ecma)*
- *GA 128: 11-12 December 2024 (USA, TBD)*

ExeCom venue and dates

- *5-6 October 2023, Geneva, starting at 9:00. TC Chairs are invited.*
- *24-25 April 2024, Geneva, starting at 9:00. TC Chairs are invited.*
- *1-2 October 2024, Geneva, starting at 9:00. TC Chairs are invited.*

- **Thank You for your attention!**



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