

# Immutable ArrayBuffers for stage 3

Mark S. Miller  Agoric

Peter Hoddie  moddable

Richard Gibson  Agoric

Jack-Works

107th Plenary

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TC  
39

# Status

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## Stage 3

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- ☐ committee approval
- ☐ merge test262 tests
- ☒ write test262 tests
  - ☒ [immutable-arraybuffer tests #4445](#)
- ☐ receive implementer feedback
  - ☒ XS: implemented, tested, all good
- ☐ resolve all normative stage 4 [issues](#)
  - ☒ [Document the permanent bidirectional stability of immutable ArrayBuffer contents #44](#)
  - ☐ [Order of operations, when to throw ~~or silently do nothing?~~ #16](#) was not a normative requirement for 2.7. It is normative for stage 3

## Stage 2.7

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# Status

## Stage 3

☐ commit

☐ merge

☒ write

☒ im

☐ receive

☒ XS: implemented, tested all good

☐ resolve all normative stage 4 [issues](#)

☒ [Document the permanent bidirectional stability of immutable ArrayBuffer contents #44](#)

☐ [Order of operations, when to throw or silently do nothing? #16](#) was not a normative requirement for 2.7. It is normative for stage 3

### 25.1.3.2 AllocateImmutableArrayBuffer ( *constructor*, *byteLength*, *fromBlock*, *fromIndex*, *count* )

The abstract operation AllocateImmutableArrayBuffer takes arguments *constructor* (a [constructor](#)), *byteLength* (a non-negative [integer](#)), *fromBlock* (a [Data Block](#)), *fromIndex* (a non-negative [integer](#)), and *count* (a non-negative [integer](#)) and returns either a [normal completion](#) containing an ArrayBuffer or a [throw completion](#). It is used to create an immutable ArrayBuffer (i.e., an ArrayBuffer with a an [\[\[ArrayBufferIsImmutable\]\]](#) slot) with contents from *fromBlock*. The contents of an immutable ArrayBuffer's [Data Block](#) are constrained to be permanently stable, and may not be modified by either ECMAScript code or by other activities inside an implementation or observable by it. It performs the following steps when called:

## Stage 2.7

# Status

## Stage 3

- ☐ committee a
- ☐ merge test2
- ☒ write test26
  - ☒ [immutable](#)
- ☐ receive implementer feedback
- ☒ XS: implemented, tested, all good
- ☐ resolve all normative stage 4 [issues](#)
  - ☒ [Document the permanent bidirectional stability of immutable ArrayBuffer contents #44](#)
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As close as possible to `slice(s,e)`

### 25.1.6.8 `ArrayBuffer.prototype.sliceToImmutable (start, end)`

This method performs the following steps when called:

1. Let *O* be the **this** value.
2. Perform ? `RequireInternalSlot(O, [[ArrayBufferData]])`.
3. If `IsSharedArrayBuffer(O)` is **true**, throw a **TypeError** exception.
4. If `IsDetachedBuffer(O)` is **true**, throw a **TypeError** exception.
5. Let *len* be `O.[[ArrayBufferByteLength]]`.
6. Let *bounds* be ? `ResolveBounds(len, start, end)`.
7. Let *first* be *bounds*.[[From]].
8. Let *final* be *bounds*.[[To]].
9. Let *newLen* be `max(final - first, 0)`.
10. NOTE: Side-effects of the above steps may have detached or resized *O*.
11. If `IsDetachedBuffer(O)` is **true**, throw a **TypeError** exception.
12. Let *fromBuf* be `O.[[ArrayBufferData]]`.
13. Let *currentLen* be `O.[[ArrayBufferByteLength]]`.
14. If *currentLen* < *final*, throw a **RangeError** exception.
15. Let *newBuffer* be ? `AllocateImmutableArrayBuffer(%ArrayBuffer%, newLen, fromBuf, first, newLen)`.
16. Return *newBuffer*.

## Stage 2.7

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## Stage 2.7

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# merge immutable-arraybuffer tests #4445

Open

phoddie wants to merge 1 commit into `tc39:main` from `Moddable-OpenSource:main`

Conversation0

Commits1

Checks5

Files changed50

phoddie commented 3 days ago

Member

⋮

Suite of test262 tests for the [Immutable ArrayBuffer](#) proposal.

merge immutable-arraybuffer tests

b77ff72

phoddie requested a review from `tc39/test262-maintainers` as a code owner 3 days ago

erights mentioned this pull request 14 minutes ago

Path to Stage 4! tc39/proposal-immutable-arraybuffer#1

Open

44 tasks

Review required

Code owner review required by reviewers with write access.

1 pending review >

Some checks were not successful

1 failing, 10 successful checks

1 failing check

Checks / Lint tests (pull\_request) Failing after 28s

Required

# Questions?

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