

Release Management Group Report to UTC #178

January 18, 2024

Peter Constable & UTC Release Management Group

The Release Management Group (“RMG”) is composed of UTC working group leaders and other volunteers working on the process for development of the Unicode 16.0 release and for evolving processes for future Unicode Standard releases.

Unicode 16.0 timeline

A timeline for the development and release of Unicode 16.0 was proposed in [L2/23-264](#) and confirmed by UTC #177 (cf. [177-C1](#)). The following is a summary of key dates:

- 2024-1-25, UTC #178: Finalize alpha content
- 2024-2-6: Start of alpha
- 2024-4-25, UTC #179: Finalize beta content
- 2024-5-21: start of beta review
- 2024-7-25, UTC #180: Finalize 16.0 content
- 2024-9-10: Unicode 16.0 release

Unicode 16.0 alpha review

The 16.0 alpha review period will begin soon after UTC #178, on February 6. The RMG together with the Charts Group and PAG have begun preparing for this milestone. As agreed by UTC #177, the expected deliverables will consist of:

- code charts;
- a subset of data files (UCD, Emoji);
- a small sample of core spec pages using the new HTML format;
- a PRI cover page; and
- a Unicode blog post.

As in the past, we assume that data files will minimally include those needed to establish the character and emoji repertoire, and that charts will include draft delta charts for new repertoire or glyph changes to existing repertoire. Based on input from Markus Scherer regarding interaction with IETF and ICANN, we recommend that the alpha also include IDNA (UTS #46) data files.

RMG recommends the following UTC action:

[178-C] Consensus: The UTC authorizes starting the alpha review for Unicode 16.0.

[178-A] Action Item for Peter Constable, RMG: Coordinate the publication of the Unicode 16.0 alpha review.

[178-A] Action Item for Ken Whistler, RMG: Prepare a background document for a PRI on the Unicode 16.0 alpha review.

[178-A] Action Item for Rick McGowan, UTC: Post the PRI for the Unicode 16.0 alpha review, to close April 2, 2024.

Process development

To help in tracking progress on provisionally assigned characters or repertoire approved for a particular version, as well as other key chart changes (glyph changes, addition of new horizontal extensions), RMG has created a *Pipeline dashboard* project in GitHub. The following snapshot shows a representative sample of information:

Title	Intake	Charts	PAG	EDC	RMG	UTC	Milestone
21 Two character additions to Tulu-Tigalari... #34	recommended	font ready	collation done		ok to approve	approved	uni16
22 Arabic characters for Pegon (0897, 10EC... #36	recommended	font ready	collation done		ok to approve	approved	uni16
23 Arabic Combining Alef Overlay (10EFC) #37	recommended	font ready	collation done		ok to approve	approved	uni16
24 CJK STROKE HZYG & CJK STROKE SZP (... #70	recommended	font ready	data merged	graphics done	ok to approve	approved	uni16
25 7 emoji for uni16 (1FA89, 8F, BE, C6, DC... #71	recommended	font ready	data merged			approved	uni16
26 Horizontal extension: 36.422 J-source id... #74	recommended	font ready	ready for depl...		ok to approve	approved	uni16
27 Horizontal extension: U+24138 (J-source) #75	recommended	font ready	ready for depl...		ok to approve	approved	uni16

Each row is backed by an issue in RMG's private repo with additional details, such as links to proposal docs, UTC decisions. Representatives from other UTC work groups (SAH, etc.) update status related to their area of responsibility.

Recommendations for stabilization of a UAX

As of UTC #177, UTC's plan of record for the future of UAX #42 was that it be stabilized as of Unicode 15.1, and RMG was given an action item [\[177-A105\]](#) to start the process for stabilization of UAX #42.

[PRI #486](#) was posted announcing the plan for stabilization of UAX #42, and several items of feedback were received indicating that there are several projects that have relied on UCDXML.

That feedback led to a volunteer being identified who is willing to take on responsibility for on-going maintenance. Owing to those factors, PAG is now recommending that UAX #42 not be stabilized but that it continue to be maintained for Unicode 16.0 and beyond.

Nevertheless, given the decisions at UTC #177 and 177-A105, RGM developed a plan for how stabilization of UAX #42 should be implemented, in the event that UTC continues with the plan as of UTC #177.

- No new changes to UAX #42 are made; the version from Unicode 15.1 remains the latest version.
- In future updates to UAX #41, the information for UAX #42 remains unchanged.
- On the [Unicode Technical Reports](#) page, move the entry for UAX #42 to the Stabilized Reports section.
- Create a new landing page for UAX #42 explaining the stabilized status. (For comparison, see <https://www.unicode.org/reports/tr13/>, which is a landing page so superseded UAX #13.)
- In the components page for Unicode 16.0 (cp. [Components of Unicode 15.1.0](#)), do not include UAX #42.
- Revise UAX #44 removing references to UAX #42.
- Remove UAX #42 from RMG release work item tracking.

These steps could also be used in the future in the event that a UAX is stabilized, superseded or withdrawn.

Challenges in referencing Unicode components

The scope and complexity of the Unicode releases has grown significantly over the decades. The RMG is concerned that the growth in complexity is causing problems both for ongoing maintenance and for the public perception of what the content of any given release consists of, and how to attain all of the relevant content in an understandable way. The complexity of the locations of all the component parts (their URLs) and the differences in the way version specification is done for the core spec, the UCD files, the annexes, and other UTSeS and their data files also is inhibiting the ability to design more modern and seamless ways to do cross-referencing between all of the components of any given release.

The RMG recommends that the UTC start thinking about these issues and consider spawning off a working group whose charter would be to analyze the structure of Unicode releases and come up with suggestions for how to restructure them so that it would be easier to point to a specific version and automatically have that reference lead to correct versions of all the various components, identified in a consistent way.

As for a time frame, the RMG suggests not starting this kind of work right now, as most of the parties who might be expected to participate in such a working group are already fully committed in 2024 for work on the difficult 16.0 release. This should be considered after 16.0 is released, however.