

Release Management Group

Recommendations for 2023 – 2024

Releases

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At UTC #172, it was brought up in discussion that people resources available for general oversight of production of the next Unicode release would be changing after Unicode 15.0 was released. Specifically, Ken Whistler, who has voluntarily served for many years as “release manager” (and other roles), driving the complex process of preparing each Unicode release, will no longer be available for that role. To adapt to that change in resources, UTC needs to plan carefully how to transition.

Since UTC #172, the UTC Release Management ad-hoc group (“RM Group”) has met regularly to understand the many tasks involved in each release, and to develop plans for how to manage Unicode releases over the next couple of years and for how to transition processes and roles.

This document outlines recommendations from the RM Group, for UTC consideration, regarding proposed Unicode Standard release plans for 2023 and 2024.

Recommended UTC action

The RM Group recommends UTC take the following decision:

UTC approves the proposed scope and plan for Unicode 15.1 outlined in document L2/22-270.

UTC should also consider and provide feedback on tentative plans for Unicode 16.0, but no formal actions regarding Unicode 16.0 are recommended at this time.

High-level goals

The RM Group recommends the following as key goals for the 2023 – 2024 timeframe:

- Maintain the regular, annual release cadence that has been established over the past several years.

- Don't disrupt release cycles and schedules for downstream dependency projects—CLDR and ICU.
- Maintain consistency and predictability for vendor implementations.
- Develop release plans during a two-year transition period that aim to minimize risks due to change and increased ambiguity regarding resources and processes.
- During the first year, exercise the process under the new “regime” for as complete a set of content as is feasible.
- Assess processes and tools and identify investments that will make UTC and Unicode better prepared for on-going future releases.

Recommended two-year plan: summary

Given the above goals, we recommend continuing the cadence of an annual Unicode release in September each year—so, the next release in mid-September 2023, then in September 2024, etc.

The period from 2022/Q4 to 2023/Q3 is a crucial transition period, with the greatest ambiguities and risks. To mitigate risk while maintaining the annual release plan, and to allow for process or tooling changes that might happen in parallel, the scope for the September 2023 release should be significantly reduced. Since that release will have more limited scope, the version numbering should be a “dot” release—hence, Unicode 15.1.

As part of limiting scope for 15.1, *certain categories of content addition or change will be out of scope*. See below for details.

We should aim for returning to a “full” release in September 2024—hence, Unicode 16.0. Depending on progress over the next two years, it might be necessary to scope that release in some ways, but it should still be a “full” release, meaning that there is *no category of content addition or change that is kept out of scope*. As a stretch goal, we can aim to return to “normal” release scope for Unicode 16.0.

Some investments in new tools and processes have been started, and other work on tools or processes may be initiated in coming months. One major investment that has been in progress is new tools and processes for maintaining the core spec. We recommend that this particular work continue with a target timeline of being in production for the September 2024 release.

Recommended scope for Unicode 15.1

The RM Group recommends that the following be in scope for 15.1:

- A small number of new characters that don't entail significant work for properties, algorithms or charts.
 - The CJK & Unihan group will be proposing a few new ideographic description characters that follow properties for existing characters and require no essential documentation or algorithm changes.
- Glyph corrections and annotation changes in code charts.
 - A complete set of 15.1 charts would be generated.
- Character property changes.
- New character properties *if carefully scoped*.
- Minor revisions to UAXes.
 - Some UAXes could be intentionally limited to a boilerplate-only update.
- Significant revisions to UAXes or introduction of a new UAX or UTS *if carefully scoped*.
 - This category of content will need careful consideration and oversight to ensure success, and there is risk that some might need to be cut.
- Synchronized updates to UTS #10, UTS #39, UTS #46 and UTS #51.
- *Meta*-content associated with each release would be produced as usual
 - Alpha/beta/release landing pages, announcements/blogs, etc.
- An assessment of status of release processes in order to determine scope impact for Unicode 16.0.

The RM Group recommends that the following *not be in scope* for Unicode 15.1:

- Core spec changes
 - I.e., the core spec content from Unicode 15.0 will be used for 15.1.
- New scripts
 - Eliminates the need for additions to the core spec and significant amounts of work on charts and properties.
- Large number of new character additions for existing scripts

As mentioned above, work on new tools and processes for maintaining the core spec would continue in parallel. It would not be a goal to go into production for 15.1, however.

Also, a Charts Task Group should be formed with a goal of fully documenting chart production processes and ability for new contributors to be able to generate a complete set of charts.

Proposed timeline for Unicode 15.1

The proposed timeline for Unicode 15.1 would be comparable to past releases with alpha, beta and release phases.

- 2022-11-3, UTC #173:

- confirm scope plan for 15.1
- Proposed drafts for any new or major revision UTS / UAX
- 2023-1-12: snapshot of PRI feedback
- 2023-1-26, UTC #174: Finalize alpha content
 - New characters, charts
 - Property data
 - Advance in-progress UTSes / UAXes
- 2023-2-14: start of alpha
- 2023-4-11: end of alpha, snapshot of feedback
- 2023-4-27, UTC #175: Finalize beta content
 - Charts
 - Property data
 - Draft UTSes / UAXes
- 2023-5-30: start of beta
- 2023-7-11: end of beta, snapshot of feedback
- 2023-7-27, UTC #176: Finalize 15.1 content
- 2023-9-12: Unicode 15.1 release

Risk considerations

There are two particular risk factors in the proposed Unicode 15.1 plan that should be called out:

- Volume of changes that UTC seeks to incorporate into 15.1; and
- Available people resources to complete necessary tasks.

At UTC #172, we got advanced notice that the Source-Code Working Group might request significant change in certain UAXes as well as a new specification. Specific proposals will be presented to UTC #173. (See the summary in items 2 and 3 of [L2/22-234](#) as well as full details in [L2/22-229](#).) That already is a sizeable volume of work that will need to be very carefully tracked and managed over the coming year if it is to land in 15.1. Other significant proposals from the Properties and Algorithms Group may also be forthcoming. If the volume of work appears to be exceeding resource capacity, it may be necessary to postpone some initially planned work for a later release. There may be challenges in maintaining coherence with inter-dependent changes.

The other main risk consideration is people resources to complete the work. Several people may take on roles for the first time and be facing a learning curve, slowing down progress.

A key gap to be filled is the “release management” role previously filled by Ken—someone who tracks all of the tasks and deliverables to ensure on-time progress or to call out risks requiring triage. A request has been presented to the Unicode officers that a Consortium staff person be hired who can take on release management responsibilities. It is assumed that, if such a role were created, it would not happen

until well into the 15.1 cycle (2023/Q2?), and that the duration of the 15.1 cycle would be needed for that person to on-board. At best, then, a new staff person would be able to help for the Unicode 16.0 release.

Success for Unicode 15.1, therefore, will depend a lot on volunteer contributions. Most of the RM Group are volunteers, and all have other primary responsibilities for Unicode or their “day job”. Others interested in contributing to the development of Unicode 15.1 and 16.0, beyond the technical decisions made by UTC, would be welcome to help.