

Universal Coded Character Set UCS

Title: Proposal to remove FS (first residual stroke) value from submissions

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This document proposes that the inclusion of **first residual stroke** (aka FS) values be removed from the submission requirements for new CJK Unified Ideographs as stated in the IRG Principles and Procedures.

Background

The IRG Principles and Procedures, specifically document [IRG N2652](#) (Version 17, which is the current version), states in **Section 2.2.1.d.(5)e)** on page 8 that the FS value after the primary radical must be included in submissions for new CJK Unified Ideographs (aka vertical extensions), which include UNC (*Urgently Needed Character*) proposals and IRG working set submissions. This has proven to be problematic for the following reasons:

- FS values are often corrected in submissions, mainly due to differing regional conventions for some high-frequency components. For example, when Radical #40 serves as the first component after the primary radical, it is displayed as 冫 according to the regional conventions of Japan and ROK, and its FS value appears to be 2 due to the first stroke being a short vertical bar. However, the IRG's FS value for this particular component is 4, because Chinese-speaking regions display Radical #40 as 冫.
- To elaborate on the previous bullet, the ORT for [IRG Working Set 2024](#) already includes over 100 suggested FS value changes.
- The **IRG Chief Editor** has final authority to adjust FS values as deemed necessary, so any suggested change to FS values may be overridden.
- The **ISO/IEC 10646 Project Editor**, when compiling an IRG working set into a new CJK Unified Ideographs extension block, uses the FS values to sort ideographs that share the same Radical-Stroke (Radical + SC) value.

Furthermore, the ORT includes SC (residual number of strokes), FS, and TS (total number of strokes) values in the upper-right corner of each record that are calculated using the supplied IDS (*Ideographic Description Sequence*), and other than for a very small number of edge cases, these calculated values have been proven to be accurate.

In other words, valuable time is spent reviewing FS values in the ORT that could otherwise be automatically calculated or adjusted by the final authority on the matter.

Proposal

Given that the ORT is able to calculate FS values using the supplied IDS data to a high degree of accuracy, and for other reasons stated in the previous section, the requirement to include FS values in submissions for new CJK Unified Ideographs should be removed from the IRG Principles and Procedures.

Edge cases, which can include incorrect values or no value at all (set to 0 for easy identification), can be handled by the IRG Chief Editor who has final authority on the matter.

Next Steps

If the IRG agrees with this proposed change to the IRG Principles and Procedures, the IRG Convenor will produce a new draft for review at IRG Meeting #64.

That is all.