APL64 2024.0.9 Update

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Overview

This document describes the enhancements and bug fixes that are present in the APL64 2024.0.9 Update.

IMPORTANT: APL64 programmers can help to improve the performance of their applications by using the new ⎕PROFILE system function included in this update and sending 'profile' information to the APL64 development team.

IMPORTANT: Installation of this APL64 2024.0.9 update is recommended in preparation for a future update that will enhance the function editor to optionally retain programmer edits between APL64 'sessions' and provide a 'comparison' function editor format. After applying this APL64 2024.0.9 update, the check of the APL64 XML-format configuration file version is improved. If the version of the configuration file is not appropriate, an improved message will be displayed:
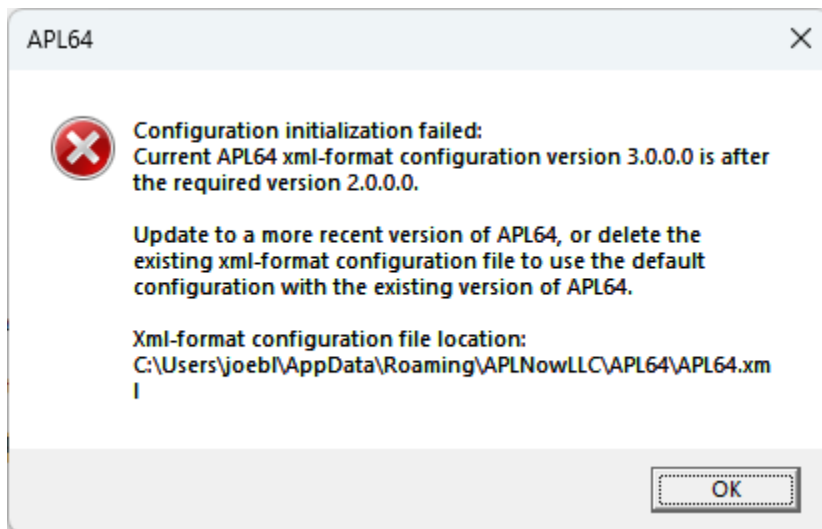
The improved message will replace a message which does not identify the inappropriate configuration file version:
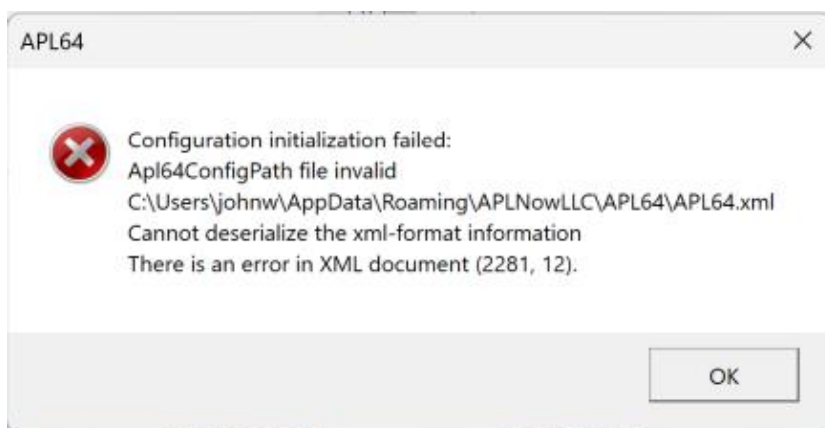
Interpreter Modifications

New)PROFILE system command and ☐PROFILE system function

Using the 'profile' tools an APL64 programmer can obtain detailed information about interpreter actions and processing times for all or part of an APL64-based application system. Providing such application-specific profiles to the APL64 development team, can help to identify potential APL64 performance improvements.

Enhanced Grade Up (⍋) and Grade Down (⍒) primitive functions now support Unicode character and string arrays.

APL64 Developer Version GUI Modifications

Fetching an APL64 variable and inserting the object into a rectangular selection in a function or variable editor is now supported.

### Alt+NumCodes Support in APL64

The APL64 history formats, function editor and variable editor support the entry of ALT+#### codes to render Unicode characters which are not directly accessible by the keyboard. **Note**: The virtual On-Screen Keyboard is not supported.

To use this feature:

(a) Place the keyboard focus on the desired APL64 pane
(b) Depress and hold the Alt keyboard key
(c) Use the numeric keypad to enter digits
(d) Release the Alt key

The programmer-entered digits are interpreted by APL64 as the decimal Unicode code point for the desired glyph.

For example:
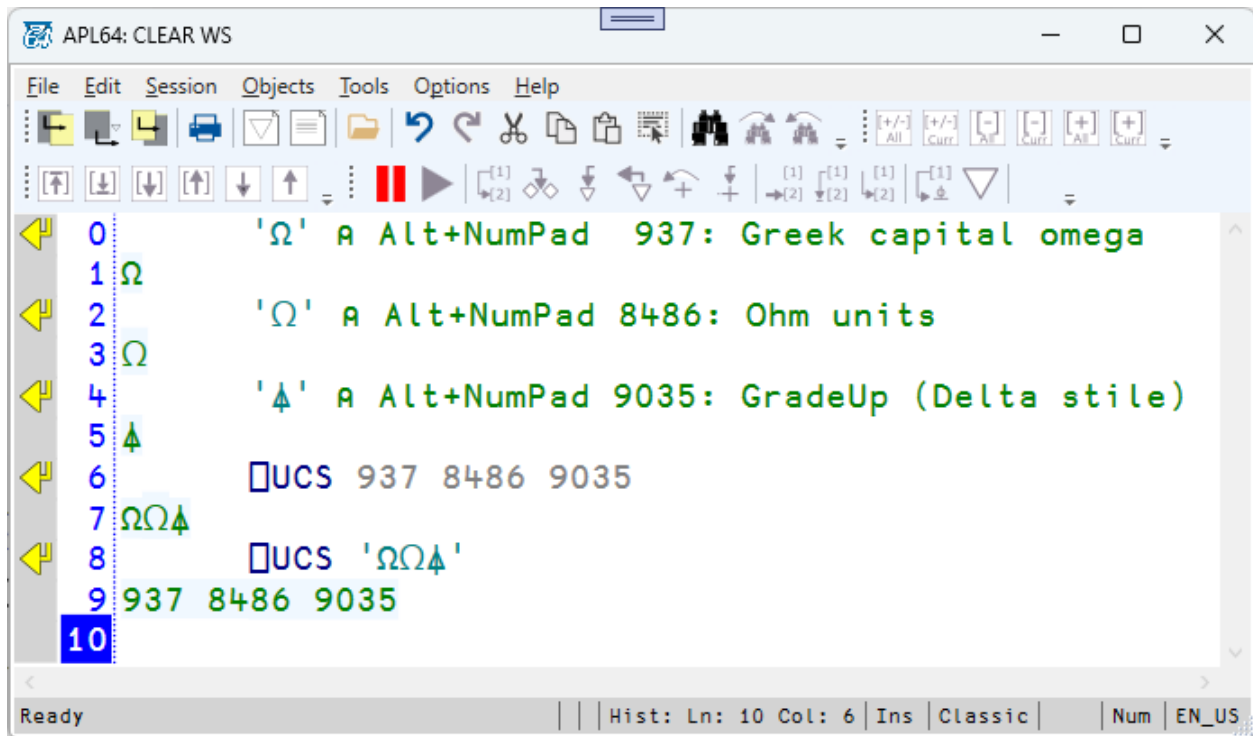
For more information about Unicode code points, see here: https://www.codetable.net/

Miscellaneous

⎕USERPATH: Removed reference to WebView2 browser cache files in System Functions manual

⎕ACBD, ⎕CPCINFO, ⎕CRLF, ⎕EXEPATH, ⎕NOVALUE, ⎕SYSCONFIGFILE and ⎕XSO descriptions moved to System Function manual

Help | APL+Win Compatibility | Draw Control Reference menu opens APL2000 Draw manual

Bug Fixes

The user=n command line argument value was improperly saved in the APL64 XML-format configuration file

The APL2000 Draw ActiveX Control was not installed with the APL64 update

A new line delimiter (↵) was incorrectly present when copying text from APL64 to the Windows Clipboard instead of a paragraph delimiter (¶).

Niladic system functions were incorrectly reported as system variables in a value tip.