

APL64 2025.0.6 Update is Coming

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Overview

This document describes the enhancements and bug fixes that are planned for the production update following APL64 2025.0.5. This document will be periodically updated until the next production update is officially released.

Interpreter Modifications

☐ PROFILE: Added APL64 system version number and date/time (UTC) info to the result

APL64 2025.0.5

APL64 2025.0.6 Update

```
53 )profile get text
54 Total 100.00% 55815.34ms #852156886 (GC: 6202.678ms)
55 XASPD(Apply dyadic scalar primitive) 23.84% 13305.7895ms #119471303
56 + (Dyadic) 7.89% 4406.238ms #39188107
57 IntScalar + BoolScalar 7.41% 4134.8133ms #36137024
58 DoubleScalar + DoubleScalar 0.47% 261.9849ms #3000014
59 IntScalar + IntVector 0.02% 8.6135ms #49002
60 BoolScalar + BoolScalar 0.00% 0.5714ms #2062
61 BoolScalar + DoubleScalar 0.00% 0.2549ms #5
62 < (Dyadic) 7.70% 4299.8152ms #36001067
63 IntScalar < IntScalar 7.70% 4299.8152ms #36001067
64 ÷ (Dyadic) 6.14% 3425.9173ms #37001055
65 IntScalar ÷ DoubleScalar 5.67% 3163.9126ms #34000000
66 IntScalar ÷ DoubleVector 0.27% 148.9803ms #2000000
67 DoubleScalar ÷ DoubleScalar 0.20% 111.9991ms #1000037
68 BoolScalar + DoubleScalar 0.00% 0.6852ms #1000
69 IntScalar + IntScalar 0.00% 0.3391ms #17
70 IntScalar + IntVector 0.00% 0.001ms #1
```

```
55 )PROFILE GET TEXT
56 Total 100.00% 57096.4064ms #852156886 (GC: 6698.504ms)
57 APL64 Version: 2025.0.6.18618
58 2025-04-14T14:22:28.096Z
59 XASPD(Apply dyadic scalar primitive) 24.29% 13871.0006ms #119471303
60 < (Dyadic) 7.77% 4437.0615ms #36001067
61 IntScalar < IntScalar 7.77% 4437.0615ms #36001067
62 + (Dyadic) 7.66% 4370.8085ms #39188107
63 IntScalar + BoolScalar 7.15% 4080.8237ms #36137024
64 DoubleScalar + DoubleScalar 0.49% 279.3573ms #3000014
65 IntScalar + IntVector 0.02% 9.6402ms #49002
66 BoolScalar + BoolScalar 0.00% 0.7496ms #2062
67 BoolScalar + DoubleScalar 0.00% 0.2377ms #5
68 + (Dyadic) 6.69% 3816.955ms #37001055
69 IntScalar ÷ DoubleScalar 6.24% 3563.5027ms #34000000
70 IntScalar ÷ DoubleVector 0.27% 156.2162ms #2000000
71 DoubleScalar ÷ DoubleScalar 0.17% 96.3543ms #1000037
72 BoolScalar + DoubleScalar 0.00% 0.5733ms #1000
```

☐ STRING updates

1. The FORMAT action will be removed from the help in the next update because it isn't ready for prime time. It may return when it's operational.
2. The SPLIT action is bookmarked in the documentation.

New ☐ XL actions: AddWorksheet , CreateWorkbook, DeleteWorksheet & WsCount

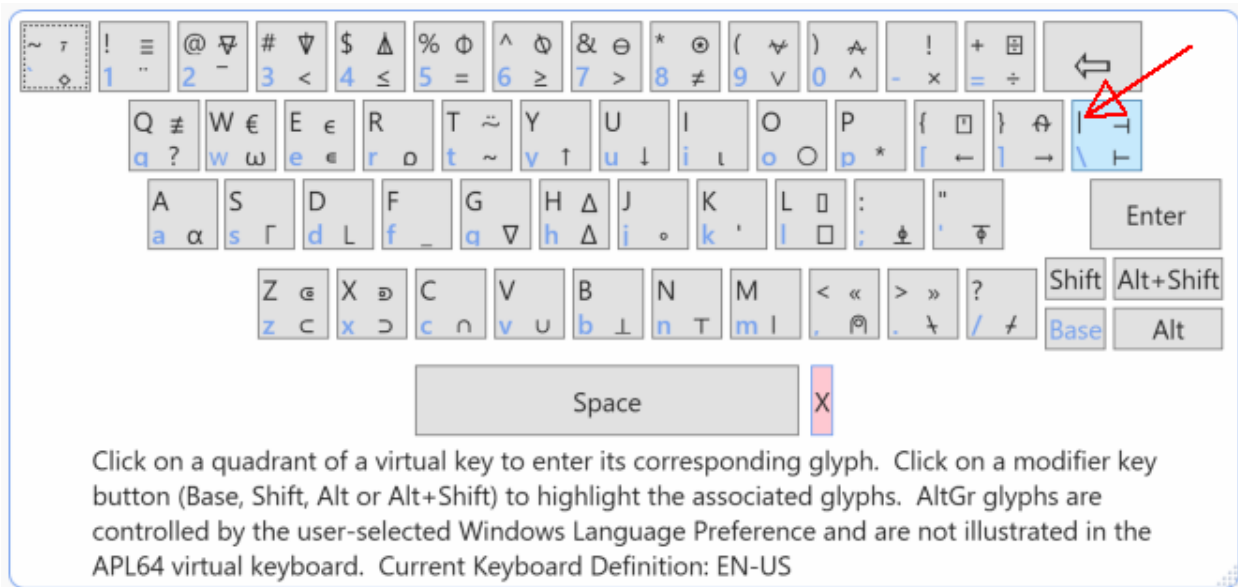
- ☐ xl 'AddWorksheet': Adds the specified worksheet to the specified Excel workbook
- ☐ xl 'CreateWorkbook': Creates a new Excel workbook
- ☐ xl 'DeleteWorksheet': Deletes the specified worksheet from the specified Excel workbook
- ☐ xl 'GetWorksheetCount': Returns the number of worksheets in the specified Excel workbook

Partition function returned an incorrect result when the right argument was a 0-element nested type

APL64 Developer Version GUI Modifications

The Magnitude and Residue glyph displayed with Shift+\☐ in the Virtual Keyboard was modified

For the EN-US and EN-UK keyboard definitions, because APL64 is Unicode aware, APL64 distinguishes between ☐av[124+☐io] (decimal Unicode 124) and ☐av[254+☐io] (decimal Unicode 8739). Decimal Unicode 8739 is the Unicode glyph specified for the APL Magnitude and Residue primitive functions. Therefore, unlike APL+Win, the Magnitude and Residue glyph are available from the US-EN keyboard using only Alt+M. For the EN-US and EN-UK keyboards Shift+\☐ generates the decimal Unicode 124 glyph. In the APL64 font, the decimal Unicode 124 and 8739 glyphs appear graphically identical.



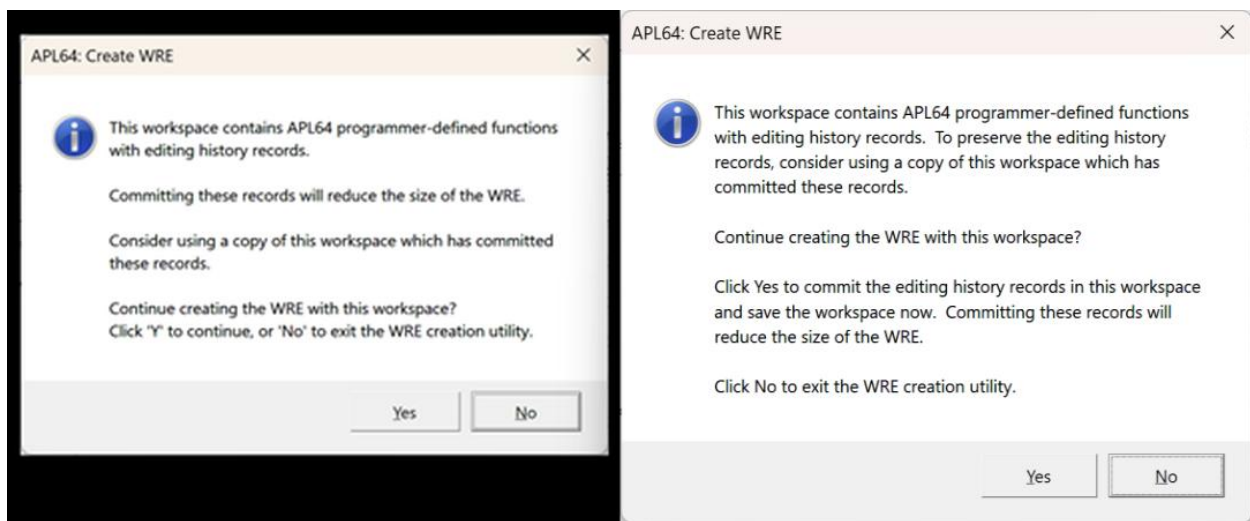
In prior versions, it was possible to display the Magnitude and Residue glyph that operated normally with the glyph represented in the same quadrant for Shift+\ in the Virtual Keyboard. This should not have been permitted. Therefore, the Virtual Keyboard was modified so that it is consistent with the physical keyboard operation.

WRE and CPC Utility

Provide the option to commit function editing history within the CPC and WRE creation tools

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New option in WRE creation process to exclude the .Net Runtime Libraries

The purpose of the option is to allow the programmer to publish a WRE application without the .NET Runtime libraries, thereby reducing the resulting WRE by approximately 154 MB.

Using this option requires that appropriate version of the .NET Runtime libraries be installed separately. When the WRE application is run, missing .NET Runtime libraries will be detected, and a prompt to download and install them will be presented.

APL64: Create Windows Runtime Executable

Runtime Workspace Filename: * Browse

EXECUTABLE CONTENT

Runtime Windows Executable Target Folder: * Browse

Runtime Executable Name: * ☒ Same as Runtime Workspace Name

Digital signature command: ☐ Digitally sign output

WRE Output Type: * **Self-contained Exe Including All Dependencies** ▼

APL64 xml-format Configuration File: Browse ☒ Include APL64 xml-format Configuration File

APLNow32 adf-format Configuration File: C:\APL64\Git\NetCore\bin\Release\net9.0\APLNow32.adf Browse ☒ Include APLNow32 adf-format Configuration File

APLNow32 ini-format Configuration File: C:\APL64\Git\NetCore\bin\Release\net9.0\APLNow32.ini Browse ☒ Include APLNow32 ini-format Configuration File

APLNow32 Manifest File: C:\APL64\Git\NetCore\bin\Release\net9.0\APLNow32.exe.Manifest Browse ☒ Include APLNow32 manifest File

Additional Files Required for the Application

Source Path Base Target Path Target Path Suffix Overwrite

ASSEMBLY META-DATA

Properties.Details: File Description:

Properties.Details: Product Name:

Properties.Details: Copyright: * ©

Properties.Details: File Version:

Properties.Details: Version: ☒ Same as File Version

Assembly.Info: Company Name:

Assembly.Info: Application Description: Part of Assembly.Info. It affects the WRE user path (USERPATH). ☐ Same as File Description

Assembly.Info: Version: ☒ Same as File Version

Assembly.Info: Neutral Language:

Assembly.Info: Description: ☒ Same as File Description

Application Icon File: Browse

Create Exit New WRE Info Load WRE Info Save WRE Info * Required entries

The available drop-down list options:

APL64: Create Windows Runtime Executable

Runtime Workspace Filename: * Browse

EXECUTABLE CONTENT

Runtime Windows Executable Target Folder: * Browse

Runtime Executable Name: * ☒ Same as Runtime Workspace Name

Digital signature command: ☐ Digitally sign output

WRE Output Type: * **Self-contained Exe Including All Dependencies** ▼

APL64 xml-format Configuration File: Browse ☒ Include APL64 xml-format Configuration File

APLNow32 adf-format Configuration File: C:\APL64\Git\NetCore\bin\Release\net9.0\APLNow32.adf Browse ☒ Include APLNow32 adf-format Configuration File

APLNow32 ini-format Configuration File: C:\APL64\Git\NetCore\bin\Release\net9.0\APLNow32.ini Browse ☒ Include APLNow32 ini-format Configuration File

APLNow32 Manifest File: C:\APL64\Git\NetCore\bin\Release\net9.0\APLNow32.exe.Manifest Browse ☒ Include APLNow32 manifest File

Additional Files Required for the Application

Source Path Base Target Path Target Path Suffix Overwrite

Descriptions of each option:

Self-contained Exe Including All Dependencies

The output is the traditional WRE application with the APL64 runtime files and supported .NET Runtime libraries in a single standalone WRE executable file.

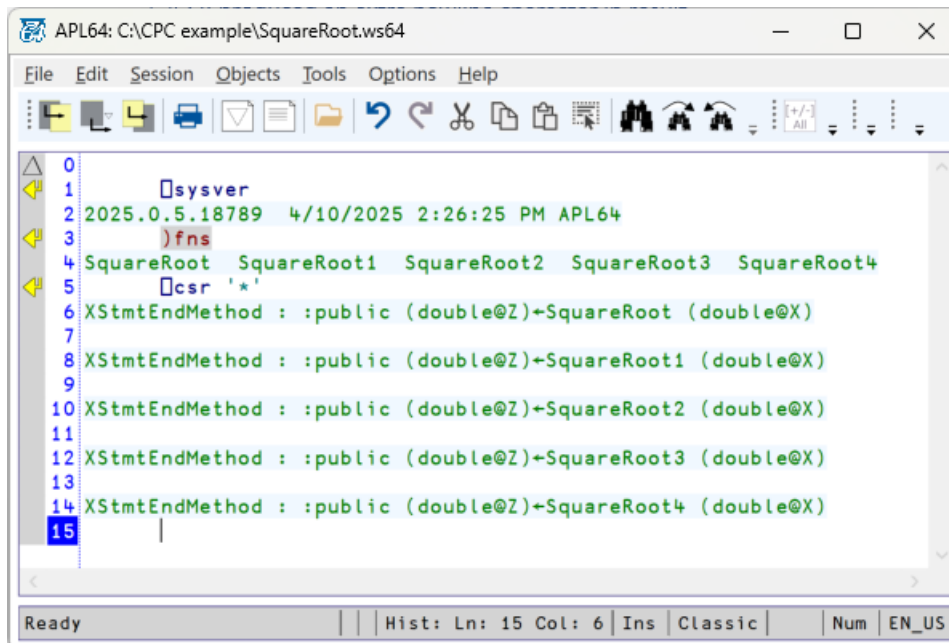
Folder of Files Without .Net Runtime

The output is a folder named Publish with the WRE executable file and the APL64 runtimes files that must be deployed together.

Bug Fixes

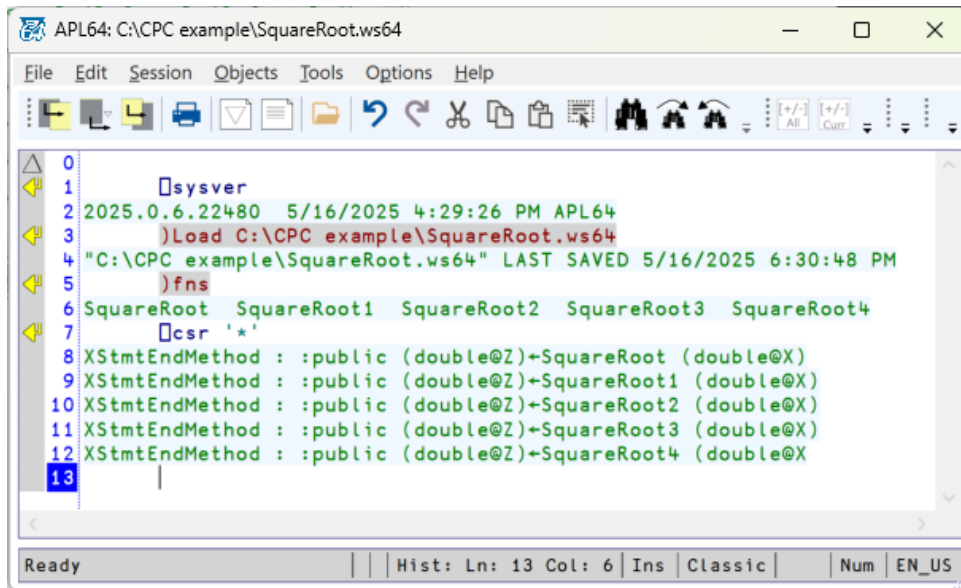
☐ CSR produced an extra new line character in the result

Prior version:



```
APL64: C:\CPC example\SquareRoot.ws64
File Edit Session Objects Tools Options Help
[Icons]
0
1  [sysver
2 2025.0.5.18789 4/10/2025 2:26:25 PM APL64
3  )fns
4 SquareRoot SquareRoot1 SquareRoot2 SquareRoot3 SquareRoot4
5  [csr '*'
6 XstmtEndMethod : :public (double@Z)+SquareRoot (double@X)
7
8 XstmtEndMethod : :public (double@Z)+SquareRoot1 (double@X)
9
10 XstmtEndMethod : :public (double@Z)+SquareRoot2 (double@X)
11
12 XstmtEndMethod : :public (double@Z)+SquareRoot3 (double@X)
13
14 XstmtEndMethod : :public (double@Z)+SquareRoot4 (double@X)
15  |
Ready | Hist: Ln: 15 Col: 6 | Ins | Classic | Num | EN_US
```

Correct behavior:



□xfstie operation failed with "HOST ERROR Open 30359 0" message under Linux/Wine
An example of the complete error message:

HOST ERROR Open 30359 0 -2147024809 Empty path name is not legal. (Parameter 'path')

□rowfind returned only the first indice for Unicode characters in a character matrix

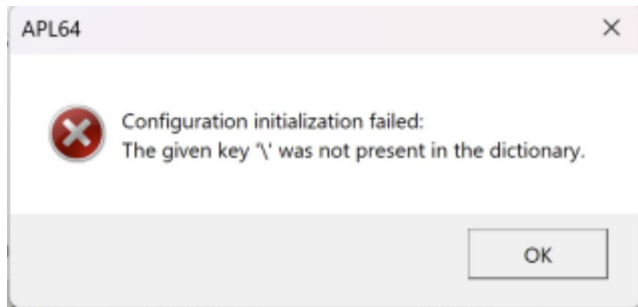
Syntax coloring issue in Function Editor Compare Format Utility for lines length greater than 9600 characters

SYSTEM ERROR Exception occurred instead of DOMAIN ERROR when attempting to create a □wse instance within a □wse instance

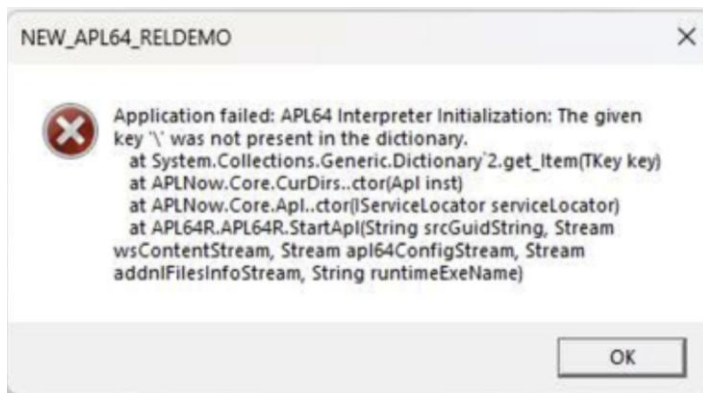
Ctrl+/ and Ctrl+Shift+/ keyboard shortcuts and corresponding toolbar buttons didn't operate
These keyboard shortcuts to insert and remove the comment symbol did not function properly when the caret appeared without a selection on the row above or below the row(s) that was currently highlighted (selected).

APL64 developer system and WRE failed to start when run from a network drive that was not mapped to a drive letter

This was a typical error message for the APL64 developer system:



This was the typical error message for a WRE:



The [xfstie](#) operation reported a **HOST ERROR** error message in Linux/Wine
This was reported for a WRE running in Linux/Wine.

Miscellaneous

[Command line arguments to set the Internet Proxy Information in the License Status dialog at startup](#)

Refer to the following command line arguments in [Help | APL Command Line Arguments](#):

- ActivationWebProxyType
- ActivationProxyServerUrl
- ActivationProxyServerUserName
- ActivationProxyServerUserPassword
- ActivationWebProxyType