

APL+Win 13.1
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July 24, 2013

The APL+Win v13.1 release is available and recommended for all current APL+Win subscribers. To download this release, visit <http://www.apl2000.com/software.php> and click the file "APL+Win v13.1 Update" using your software download username and password. For a new installation, click the file "APL+Win v13.1 installer".

The APL+Win 13.1 includes the following enhancements/bug fixes:

Note: Workspaces saved in v13.1 will not load in prior versions of APL+Win.

1. The Windows visual styles (Themes) in `□WI` controls and the session manager window are now supported with external manifest files, `aplw.exe.manifest` and `aplwr.exe.manifest`, included with APL+Win v13.1. This has two important changes which are:

1(a) To enable the Windows visual styles in the APL+Win development and runtime systems, you must install the manifest file into the same directory with `APLW.EXE` and `APLWR.EXE` and it must be named the same as the `.EXE` file (including the `.EXE` extension but with `".manifest"` appended at the end). For example, if you are starting `MYPROGRAM.EXE` then the manifest must be named `MYPROGRAM.EXE.manifest`.

1(b) The Microsoft Visual C++ 2008 runtime library is no longer a requirement of APL+Win v13.1; meaning the following four files are no longer required to be distributed with your APL+Win runtime application:

```
Microsoft.VC90.CRT.manifest
msvcr90.dll
msvcm90.dll
msvc90.dll
```

2. Interpreter: New Mismatch primitive function (`≠`)

Mismatch determines the non-equivalence of two arrays.

It is the logical NOT of `≡` {Match} primitive;

$(A \neq B) = (\sim A \equiv B)$

Aliases: "Not Match" and "Not Equivalent".

The keyboard shortcut key is `Alt+Shift+Q`.

For example,

```
'bex' ≠ 'b' 'e' 'x'
0
```

3. Interpreter: New Commute operator (`~`)

The commute operator reverses the arguments before applying the function; $(A \text{ fn } \sim B) \equiv (B \text{ fn } A)$.

The keyboard shortcut is `Alt+Shift+T`.

For example,

```
10 - 7
3
7 -~ 10
3
```

4. Interpreter: Optimized Catenation

The syntax for optimized catenation is as follows:

```
A ,← B
```

This is functionally the same as

```
A ← A,B
```

The syntax is similar to the in-place operations in other programming languages like C++ and C#. However, in APL+Win, besides the shorter notation, this can also provide significant performance gains particularly in cases that involve repetitive catenations with large arrays such as inside an iterative control structure (a :for loop).

5. Interpreter: Added Euro glyph (€) shortcut key

The new keyboard shortcut is Alt+Shift+W.

6. Session: New Log File Size setting in the APL Session Log window

The new setting supports the following:

1. Impose a Limit on Log File Size
2. Show Alert Message When Log File Size Exceeds Specified Threshold

7. OWI Windows Interface: XUExec method on the APL+Win ActiveX Server class

The XUExec method executes an APL expression and returns a Variant value from a Unicode-aware client application.

8. APL+Win Language Help File (aplplang.chm) updated.

9. Below is the list of the updated APL+Win Fonts with the new Commute primitive function and Mismatch operator (copied to the \APLWIN13\FONTS folder by the installer):

```
APL2000.ttf
APLFONT.FON
Aplhelp.ttf
Aplplus.ttf
Aplplusi.ttf
aplwinl.ttf
```

10. WINDOWS.W3 and REL13.W3 Workspaces: Included support for Windows 8 and Windows Server 2012 operating systems in the GetWinVersion and GetWinVer functions.

11. Updated APLNext Virtual APL Keyboard to include the new Mismatch, Euro and Commute glyphs.

12. Bug Fix [APLGUI] - Fixed bug that caused APL+Win to hang and become unresponsive when dropping down a style 1 or 2 DateTime control when the Windows visual styles (Themes) are enabled.

13. Bug Fix [APLGUI] - Fixed bug that caused the Option and Check controls to display with a blackened background color when they're children of a style 1, 2 or 3 Frame control and the Windows visual styles (Themes) are enabled. This fix applies to all operating

systems except Windows XP. The workaround workaround for this bug in Windows XP is to set [Compatibility]TrueChildren=0 in the .INI file or disable Windows visual styles (Themes).

14. Bug Fix [APL GRID] - Fixed bug that caused the tracking window to appear clipped by the edges of the APL Grid.

15. Bug Fix [APL GRID] - Fixed bug that resulted in the very slow performance in the virtualized APL Grid object when copying data to the Windows clipboard.

Please send any questions or comments to support@apl2000.com.

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