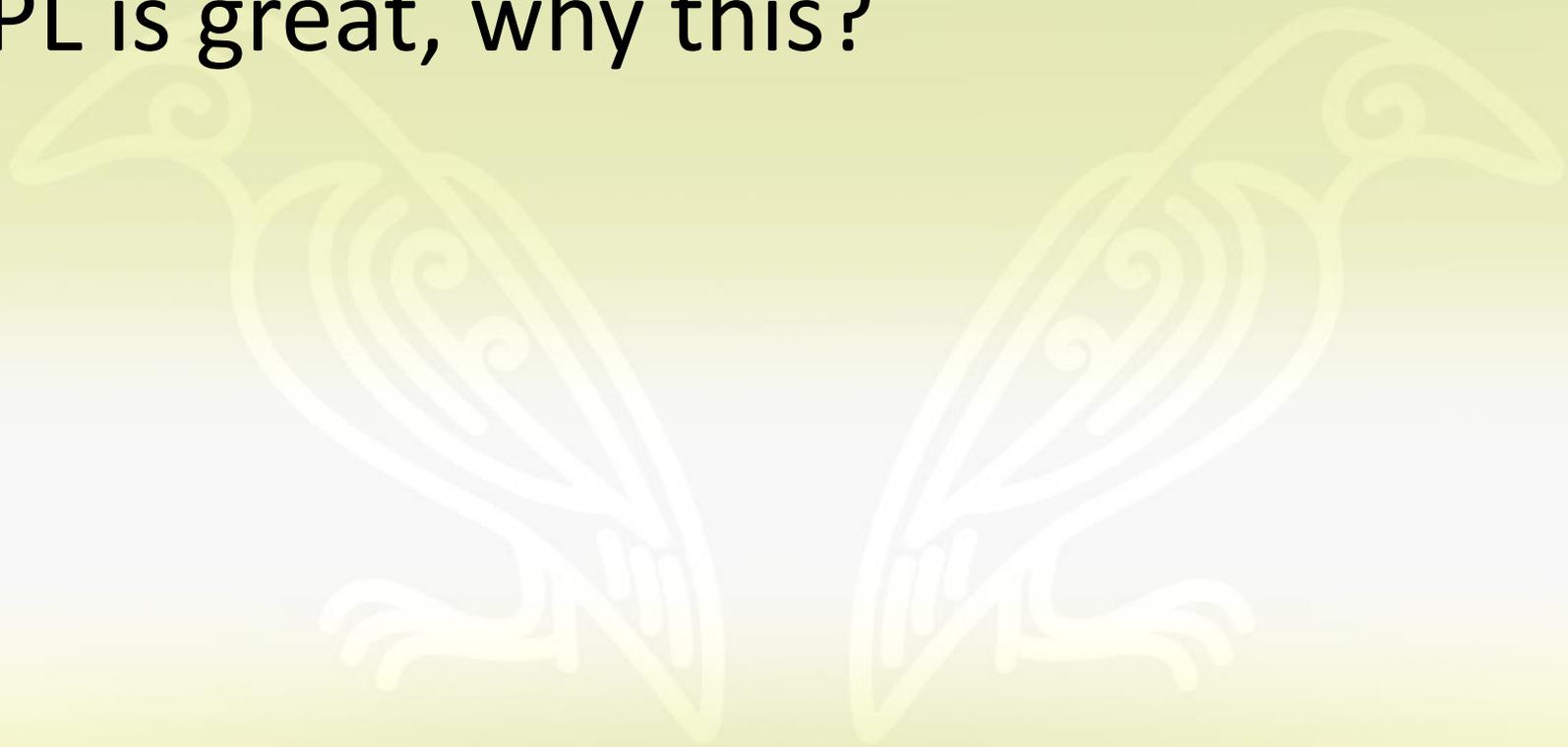


APL and Microsoft Excel

Richard Park



APL is great, why this?



APL is great, why this?

Microsoft Excel still commonly used

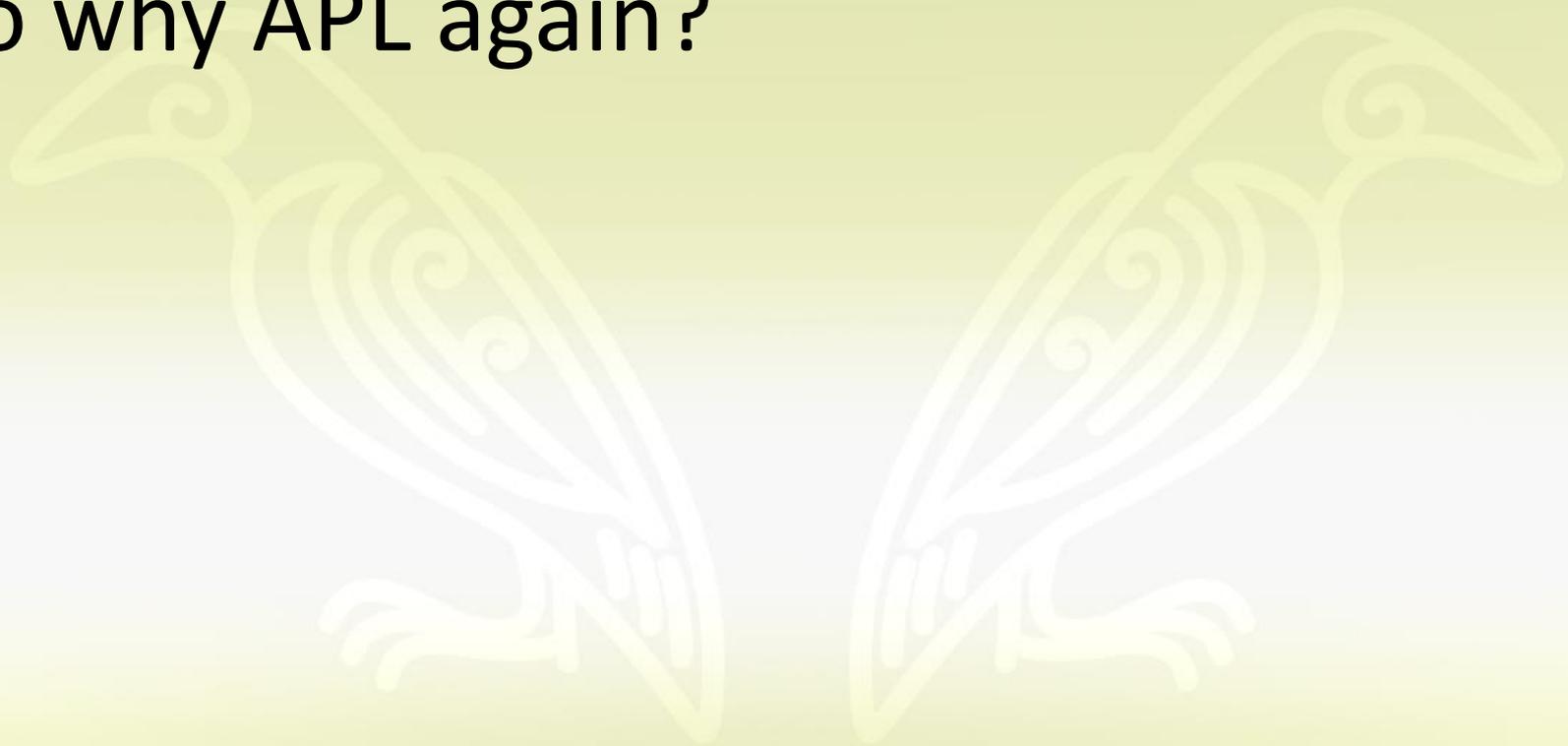
Data entry

Processing

Graphics

... + much more

So why APL again?



So why APL again?

Great for data processing

Especially arrays (duh!)

Spreadsheets are arrays

So
C
E
S

The image shows a screenshot of a spreadsheet application window. The window title bar indicates the active cell is A1. The spreadsheet grid has columns labeled A through O and rows labeled 1 through 29. The cell A1 is selected, indicated by a green border. The formula bar at the top shows a checkmark and a function icon. At the bottom, the sheet tabs are labeled Sheet1, Sheet2 (which is the active sheet), and Sheet3. A scroll bar is visible on the right side of the spreadsheet area.

So
C
E
S

The image shows a spreadsheet application window. At the top, the formula bar displays 'A1'. The main grid has columns labeled A through O and rows numbered 1 through 30. A floating menu is positioned over the grid, showing a list of numbers (28, 29, 30) and a sheet tab bar with 'Sheet1', 'Sheet2', and 'Sheet3'. 'Sheet2' is highlighted in green. The status bar at the bottom of the window shows 'Ready' and a refresh icon. The bottom-most status bar of the application shows 'Sheet1', 'Sheet2', and 'Sheet3' tabs, with 'Sheet2' selected.

Modes of Operation

Using Microsoft Excel Files (.xls .xlsx)

Read Excel Files with Dyalog

Write Excel Files with Dyalog

Dyalog & Excel inter-processing

Dyalog as Client

Dyalog as Server

Using Microsoft Excel Files

Acquiring data from

- The internet
- Databases
- Files
- Computations
- Etc...

Using Microsoft Excel Files

Acquiring data from

➤ Microsoft Excel!

Using Microsoft Excel Files

Acquiring data from

➤ Microsoft Excel!

<https://github.com/the-carlisle-group/XL2APL>

Excel Objects

COM: Component Object Model

Collection of workbooks: object

Workbook: object

Sheet: object

Range: object

Excel Objects

COM: Component Object Model

OLE: Object Linking and Embedding

Modes of Operation

Dyalog as Client

Control Microsoft Excel from inside the Dyalog session

Modes of Operation

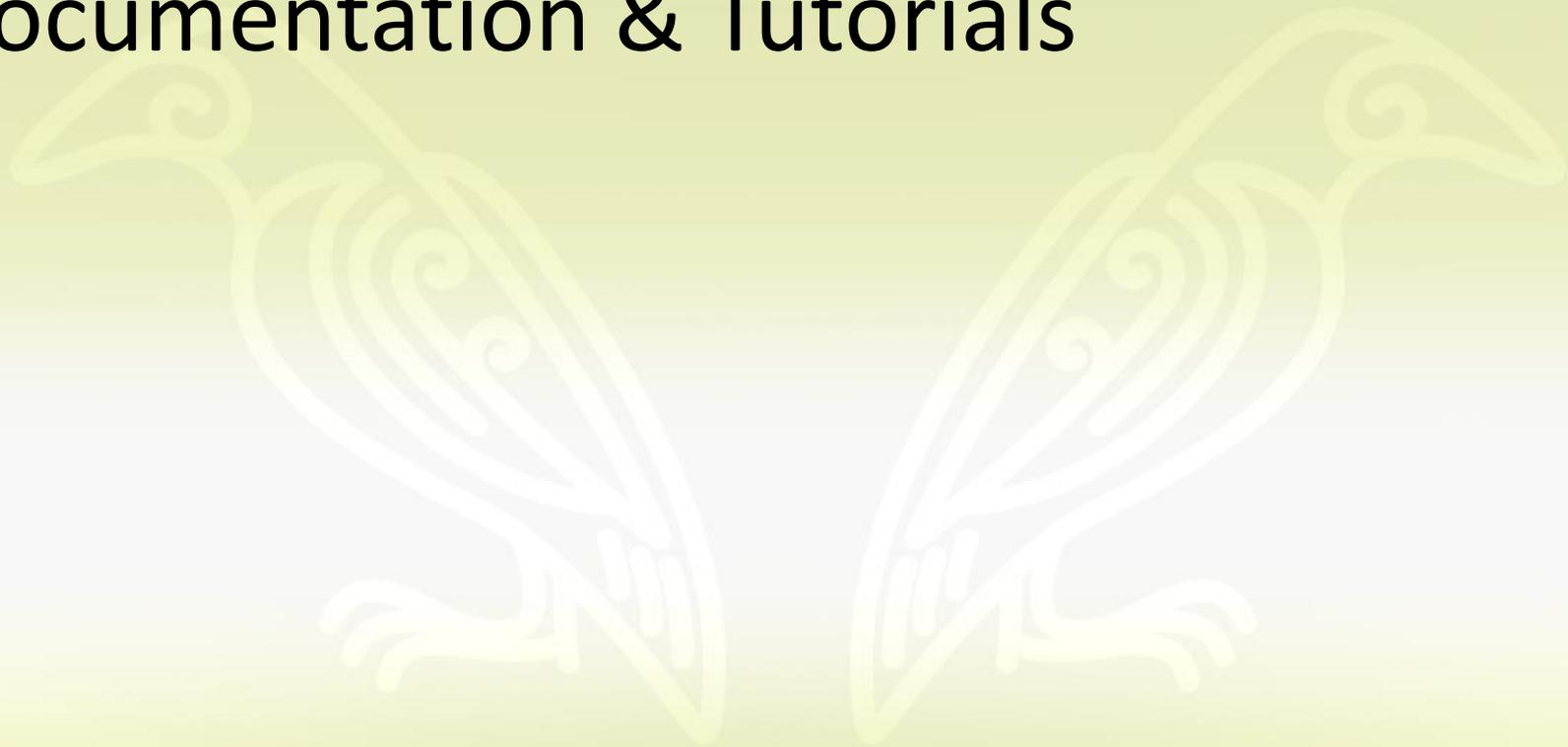
Dyalog as Server

Write functions and macros as in APL!

Carlisle group: APL2XL
 XL2APL

<https://github.com/rikyedyp/>[APL2XL , XL2APL]

Documentation & Tutorials



https://www.dyalog.com/documentation_180.htm#WINDOWS

160%

Microsoft Windows-Specific Documentation

These documents are specific to running Dyalog on the Microsoft Windows operating system.



Dyalog for Microsoft Windows Installation and Configuration Guide ([summary](#))



Dyalog for Microsoft Windows UI Guide ([summary](#))



Dyalog for Microsoft Windows Object Reference Guide ([summary](#))



Dyalog for Microsoft Windows Interfaces Guide ([summary](#))



Dyalog for Microsoft Windows .NET Framework Interface Guide ([summary](#))

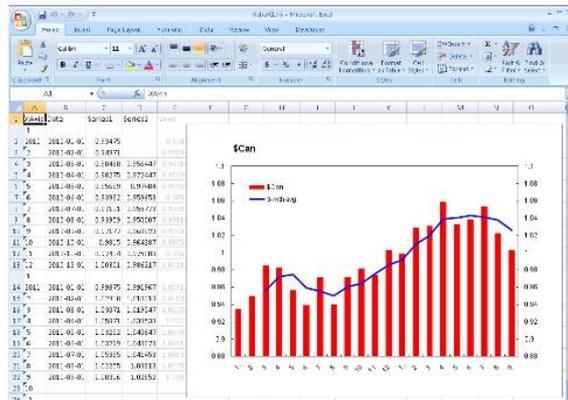


Comparison of .NET Framework/Core Interfaces

Charting the APL/Excel Waters

Using Excel and other Applications with Dyalog APL

Richard Procter, APL Borealis Inc., Canada
 rjp@aplborealis.com



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Upcoming webinars

4 June 2020

[BAA webinar](#): Paul Grosvenor (BAA Chairman) hosts
the **British APL Association AGM** (15:00 UTC)

11 June 2020

[Dyalog webinar](#): Adám presents
Language Features of Dyalog version 18.0 in Depth (part 2) (15:00 UTC)