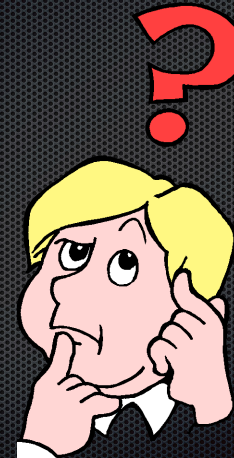


# Wonderful World of Windows

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## What is so wonderful???



## Windows evolution



Themes/Visual styles

GDI+

## Windows evolution



DWM and Aero

Direct2D/DirectWrite

HiDPI support w/virtualization

## Windows evolution



DWM permanent

Per-monitor HiDPI

Windows store

## Windows evolution



Free upgrade

Universal C Runtime

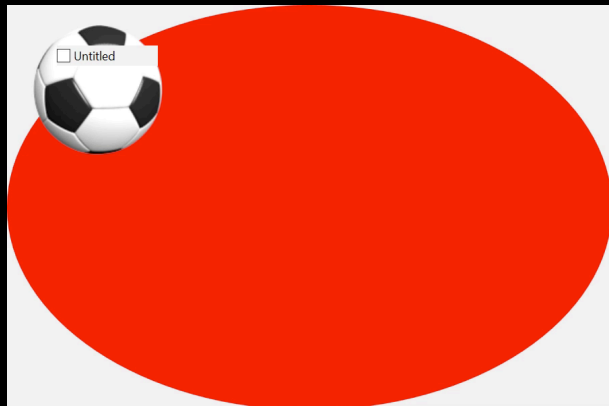
## Xojo on Windows

- Native Win32 controls
- Supports visual styles
- ActiveX/COM
- Direct2D
- HiDPI support
- Universal C Runtime
- Xojo Core Framework
  - ICU, Number formatting, Dates

## Recent milestones

- 64-bit debugger
- Pseudo-Transparency model

## Why Pseudo-Transparency



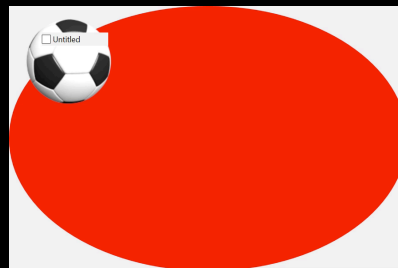
## Win32 UI control issues

- Not naturally transparent
  - But has an option to enable it, but flickers
- Not composited
  - But has an option to enable it, though slow
- Not dead
  - Too many apps still depend on it

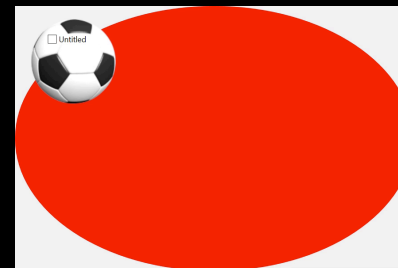
## Pseudo-Transparency

- Removes the need for true Transparency
  - `EraseBackground` obsolete
- Handles compositing for parent/child
- Not new, utilized by WinForms.NET

## Pseudo-Transparency in action

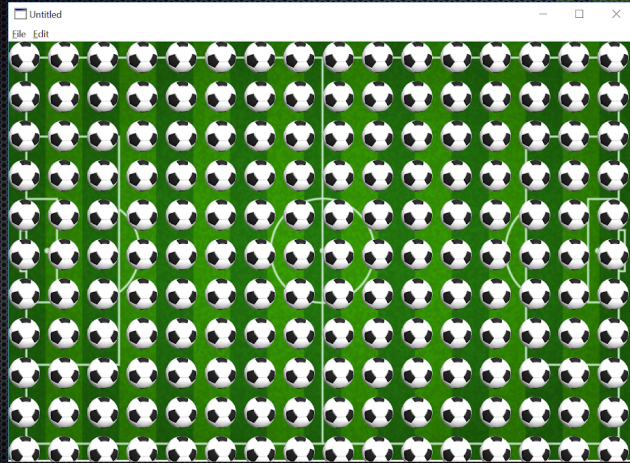


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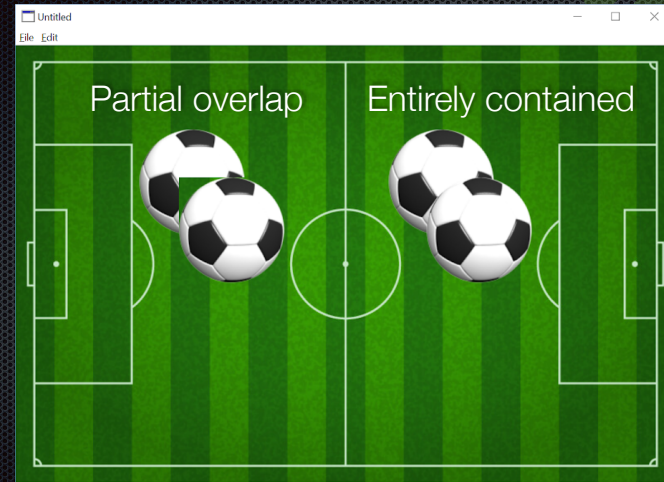


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## The expense...



## The expense...



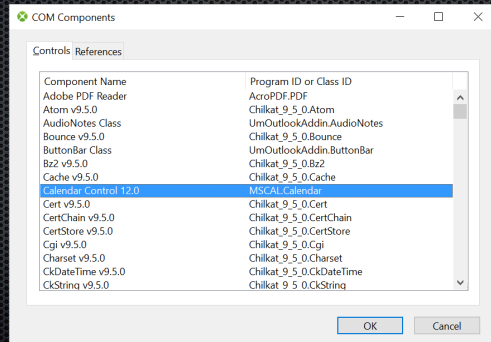
## Pseudo-Transparency Demos

## Best Practices

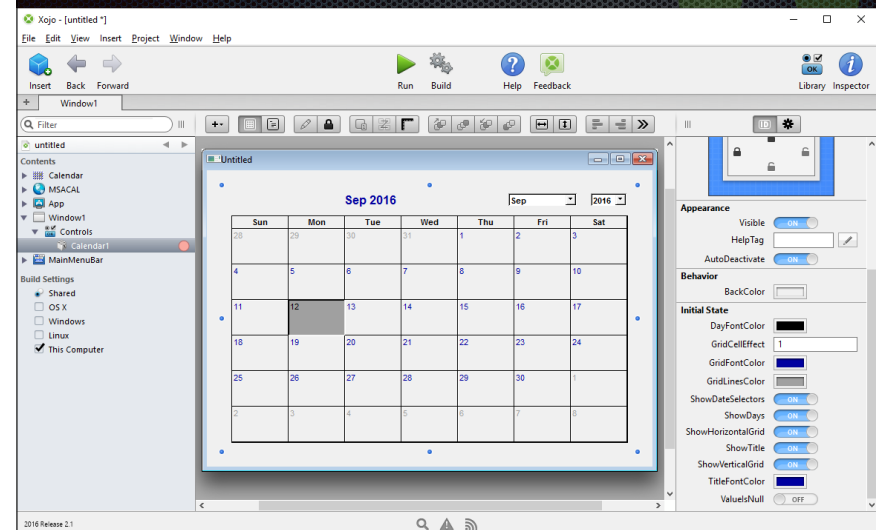
- Limit Transparency
- Do not partially overlap controls
- `ContainerControl.DoubleBuffer` for smoother scrolling
  - Or trigger `Refresh` after moving many controls
  - Or delay refreshes with `WM_SETREDRAW`

# ActiveX/COM features

- HTMLViewer, MediaPlayer, Xojo.Net.HTTPSocket
- Windows IDE menu: Insert->ActiveX Component

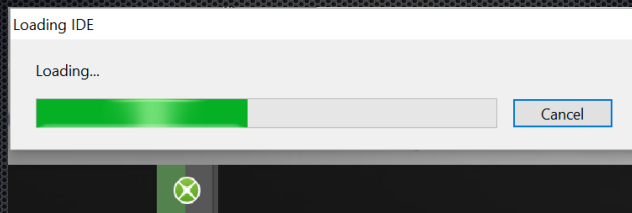


# ActiveX control added



# COM features

- Task bar progress uses COM



- Extending features
- Deleting folder recursively

# ActiveX/COM Demos

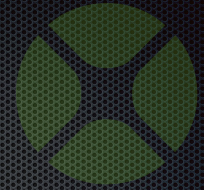
## Best Practices

- Installers for ActiveX controls
- OLEObject communicates via IDispatch
- OLEParameter
  - Pass by name/position



## Extending features

- Declares
  - Adding other Win32 controls
  - Transparent window
  - WM\_SETREDRAW
- .NET controls via Plugins SDK



## Extending Features Demos



## Windows tips

- Preferences
  - HKEY\_LOCAL\_MACHINE\SOFTWARE
  - HKEY\_CURRENT\_USER\Software
- Debugging
  - DebugView
  - Windows Error Reporting



# Windows tips



- Single vs. Multi-instance
  - Use Mutex
- Declares
  - Libs folder, current directory, system directory

# Q & A



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Give us feedback on this session in the XDC app!