Visio Drawing Control (VISOCX.DLL) — WinForms Setup (x64)

Setup Steps

1. Install the right Visio: - Install Visio x64 (M365 or 2019/2021/LTSC). - Uninstall any 32-bit Office/Visio remnants first (mixed bitness breaks ActiveX).
2. Install SDK tools (to get Aximp/TlbImp): - In Visual Studio Installer → Modify → Individual components, install: - .NET Framework 4.8 SDK - .NET Framework 4.8 Targeting Pack - Tools will be here: C:\Program Files (x86)\Microsoft SDKs\Windows\v10.0A\bin\NETFX 4.8 Tools\x64\
3. Generate the AxHost wrapper (x64): "C:\Program Files (x86)\Microsoft SDKs\Windows\v10.0A\bin\NETFX 4.8 Tools\x64\Aximp.exe" ^ "C:\Program Files\Microsoft Office\root\Office16\VISOCX.DLL" ^ /out:"C:\Dev\Interop\AxVisOcx.dll" (Optional) Generate interop too—though the PIA exists already: "C:\Program Files (x86)\Microsoft SDKs\Windows\v10.0A\bin\NETFX 4.8 Tools\x64\TlbImp.exe" ^ "C:\Program Files\Microsoft Office\root\Office16\VISOCX.DLL" ^ /machine:x64 ^ /out:"C:\Dev\Interop\Interop.VisOcx.x64.dll"
4. Project configuration: - Target .NET Framework 4.8. - Platform target = x64 (or AnyCPU with 'Prefer 32-bit' unchecked). - Add references: - AxVisOcx.dll (from step 3). - Microsoft.Office.Interop.VisOcx (the PIA v15.0.0.0 from GAC).
5. Add the control via Designer (to get OcxState): - Open the Form designer → Toolbox → Microsoft Visio 16.0 Drawing Control → drag onto the form. - The designer writes the required OcxState into the form's .resx and wires it in InitializeComponent().
6. Run it: - Build and run (x64). You should see the Visio canvas.

Visual Studio 2022 Components to Install

In Visual Studio Installer → Modify → Workloads/Individual components, make sure these are selected:
- .NET Framework 4.8 SDK — required for Aximp.exe and TlbImp.exe (in Windows SDK tools folder).
- .NET Framework 4.8 Targeting Pack — required to build against .NET Framework 4.8.
- Windows 10 SDK (10.0.19041 or later) — optional but recommended; adds headers, libraries, and supporting tools.
- .NET Desktop Development workload — must be installed so WinForms projects can be created and built in Visual Studio.

Quick Verifications

- Check registration (must be x64): Run a PowerShell probe to confirm HKCR\Visio.DrawingControl.16 points to C:\Program Files\Microsoft Office\root\Office16\VISOCX.DLL.
- Confirm process bitness: Environment.Is64BitProcess must be True.

Deployment Notes

- The Visio Drawing Control is not redistributable. Target machines must have Visio x64 installed.

- At startup, check availability: bool IsVisioControlAvailable() { try { var t = Type.GetTypeFromProgID("Visio.DrawingControl.16"); return t != null; } catch { return false; } }

Common Pitfalls

- Trying regsvr32 on VISOCX.DLL (doesn't work).
- Using 32-bit Aximp.exe or running the app as 32-bit.
- Skipping the Designer so no OcxState gets generated.
- Mixing Office 32-bit and 64-bit on the same machine.