

# Building Diagram Frame Web Part

using the SPFx framework for better  
experience embedding Visio diagrams on  
modern pages

Nikolay Belykh






# Nikolay Belykh

## About me



- ▶ Independent Software Developer/Consultant (Vienna)
- ▶ Former MVP (Visio, Office & services)

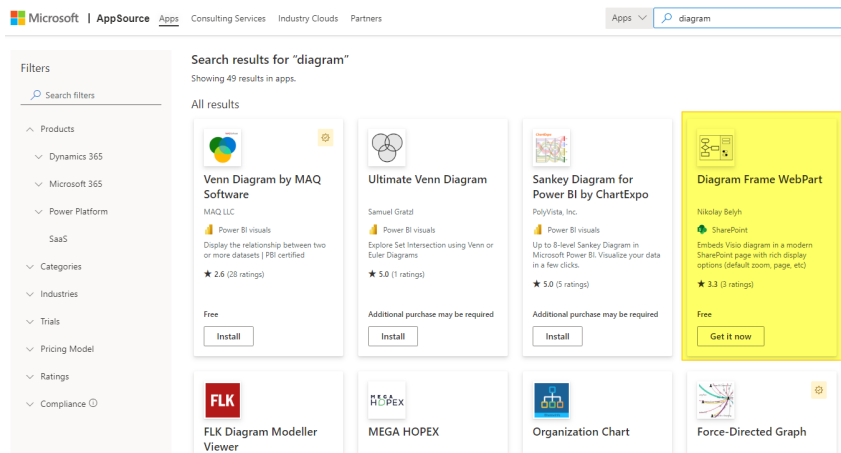
<https://unmanagedvisio.com> 

	GitHub	<a href="#"><u>nbelyh</u></a>
	Stack Overflow	<a href="#"><u>nbelyh</u></a>
	LinkedIn	<a href="#"><u>nbelyh</u></a>
	VS Marketplace	<a href="#"><u>Nikolay Belykh</u></a>
	VisPlan	

# Overview

- ▶ Motivation: replacing classic Visio diagram web part
- ▶ Demo
- ▶ Hosting Visio Online API, wrapping office.js (code)
- ▶ Using FluentUI and SPFx controls for UI (code)
- ▶ Using Azure DevOps for build, SPFx localization extension for translation
- ▶ Submitting to the AppSource store, ISV portal, procedure and feedback
- ▶ Thank you (links)

# Diagram Frame in Microsoft AppSource store



- ▶ Open-source web part published to the public AppSource store
- ▶ Available for any organization to install using the store UI
- ▶ Can be also installed “manually” by direct admin upload to app catalog

# Motivation: Classic Visio web part and Diagram Frame web part

The image displays a SharePoint page titled "Test Page" by Nikolay Belykh. It features two web parts: "Visio Web Access" and "Diagram Frame".

**Visio Web Access Web Part:**

- Buttons: OPEN IN VISIO, REFRESH, SHAPE INFO, Page-1
- Warning: Visio Services and its web part for SharePoint are being deprecated on September 30, 2021. We recommend that you prepare for the change now and upgrade to Visio for the web. [Learn More](#)
- Diagram: A network diagram with a central hub and various peripheral nodes.
- Legend:

Symbol	Count	Description	Common link
Wireless access point	1	Wireless access point	
Coupler	1	Coupler	
Firewall	1	Firewall	

**Diagram Frame Web Part:**

- Buttons: Drawing Display, Visio Document, Browse...
- URL: <https://unmanaged/visio.sharepoint.com/Shared Documents/AAA.vsd>
- Initial Page:
- Page (name) to activate on load:
- Default Zoom (%):
- Zoom level (percent) to set on load:
- Appearance:

  - Diagram width:  100 % of the frame
  - Specify width value and units:
  - Diagram height:  50 % of the screen
  - Specify height value and units:
  - Hide Toolbars: ☐ Off
  - Hide Diagram Boundary: ☐ Off
  - Hide Borders: ☐ Off

- Drawing Interactivity: ☐ Off
- About: ☐ Off

# Visio Online API

- ▶ Allows Embedding Visio diagram in your app
- ▶ Provides basic methods for controlling the frame content and manipulating the diagram
- ▶ The diagram is embedded as an IFRAME
- ▶ Available as npm package(@microsoft/office-js @types/office-js)
- ▶ <https://learn.microsoft.com/en-us/office/dev/add-ins/reference/overview/visio-javascript-reference-overview>

# Code overview, libraries used

- ▶ Project created using @microsoft/sharepoint yo webpart generator
- ▶ SPFx framework 1.15 (typescript, react)
- ▶ pnp-js (for convenient access to SharePoint)
- ▶ Fluent UI 8 (basic UI and adapt to the site theme)
- ▶ SPFx controls react (<https://pnp.github.io/sp-dev-fx-controls-react>)
  - ▶ Placeholder
  - ▶ File Picker (adapted)
- ▶ Custom property control implementation sample

# “Infrastructure” tools used

- ▶ Azure DevOps (public pipeline, free for starter and open-source projects) connected to GitHub  
[https://dev.azure.com/unmanagedvisio/UV-GitHub-Public/\\_build?definitionId=18&\\_a=summary](https://dev.azure.com/unmanagedvisio/UV-GitHub-Public/_build?definitionId=18&_a=summary)
- ▶ GitHub releases plugin
- ▶ SPFx localization extension (translating UI to other languages). CSV/XLSX file support by Elio Struyf:  
<https://marketplace.visualstudio.com/items?itemName=eliostruyf.vscode-spfx-localization>



# Publishing to the AppSource

- ▶ Need to register in Microsoft partner center
- ▶ The app is submitted via partner portal
- ▶ EULA, Privacy policies are important
- ▶ Review and testing loop took a few weeks (free)
- ▶ Many thanks to SPFx submission team for the guidance.
- ▶ <https://learn.microsoft.com/en-us/sharepoint/dev/spfx/publish-to-marketplace-overview>

# Thank you

- ▶ Web Part GitHub repository:
  - ▶ <https://github.com/nbelyh/VisioOnlineSpfxWebPart>
- ▶ App Source store:
  - ▶ <https://appsource.microsoft.com/en-us/product/office/wa200002491>
- ▶ Web part website:
  - ▶ <https://unmanagedvisio.com/products/diagram-frame-sharepoint-visio-web-part>
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