

# Introducing flexible Power App solutions for Business Central

Evgenij Korovin  
Anders G. Nørskov



# Agenda


- Why Power Platform and Power Apps?
- Business Central sample apps
- Building Power Apps with BC
- Getting started
- Q&A

# Why Power Platform and Power Apps?




# Microsoft Power Platform


The world's most complete set of integrated, low-code development tools




**Power BI**  
Business analytics




**Power Apps**  
Application development



**Power Automate**  
Workflow automation



**Power Virtual Agents**  
Intelligent virtual agents



**Power Pages**  
Secure external business websites

Every developer  
(low-code)

Pro developer  
(code-first)



Additional capabilities



Connectors



AI Builder



Microsoft Dataverse

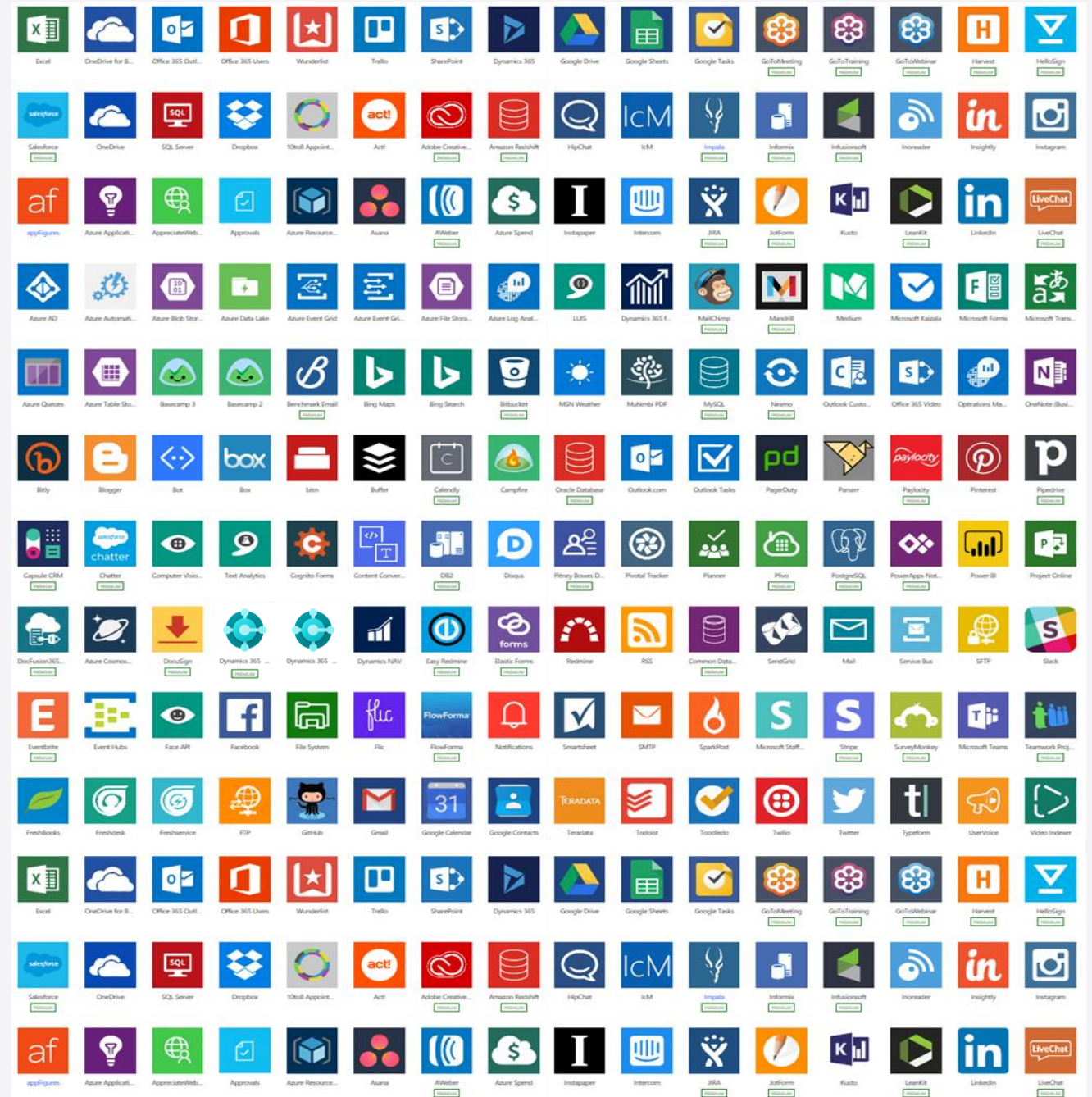


Power Fx



Managed Environments

1000  
~~900+~~ built-in  
connectors



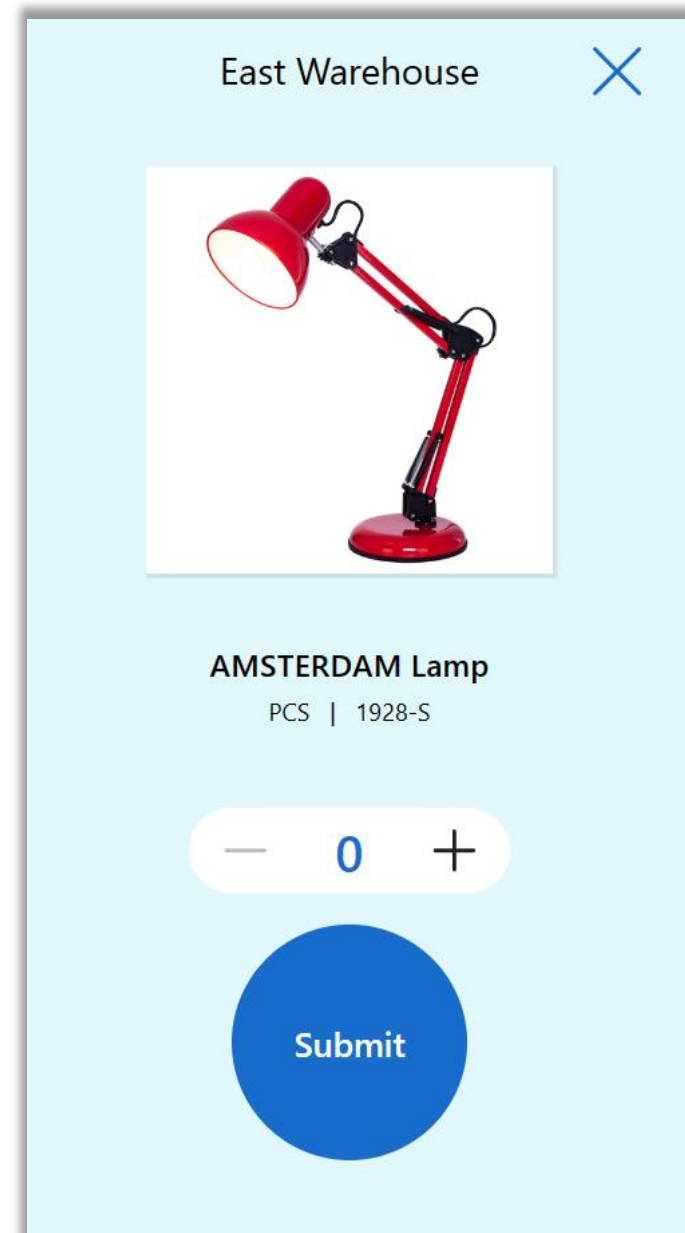
**When should you consider using Power Apps?**





# Power App for Business Central

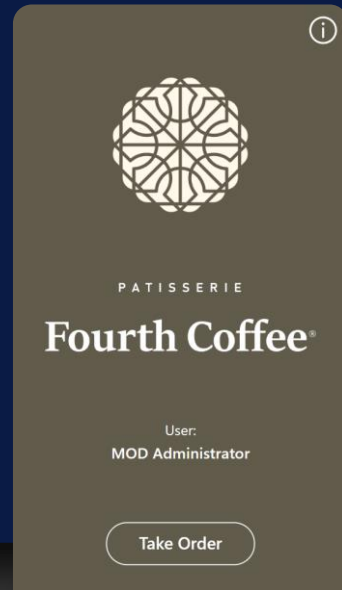
- Full flexibility to create customized UI/UX
- Easy access to additional data via connectors
- Rich platform capabilities
  - UI controls with device integration
  - Out of the box augmented reality
  - Integration to AI Builder
- Runs on devices, in Teams and in web player
- Power Apps usage rights are included in Business Central Essential and Premium licenses



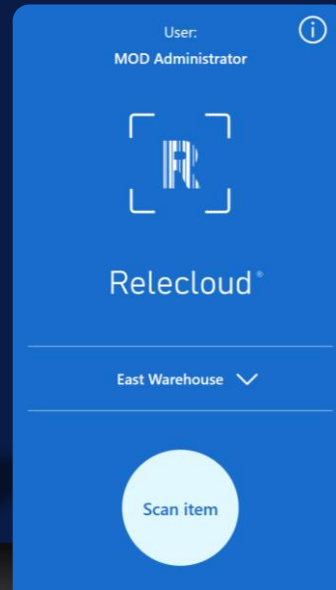
# Announcing Power App samples for Business Central

Public preview

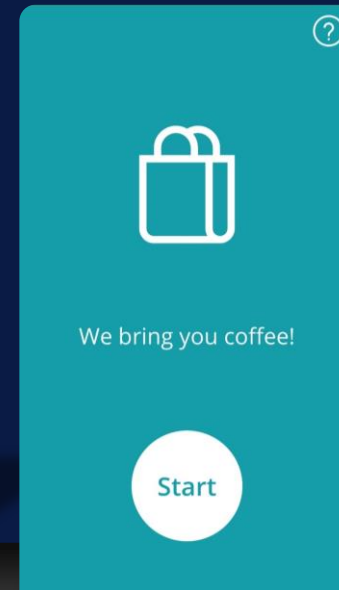
Take  
order



Warehouse  
helper



Coffee MR  
(coming soon)





# Announcing Power App samples for Business Central

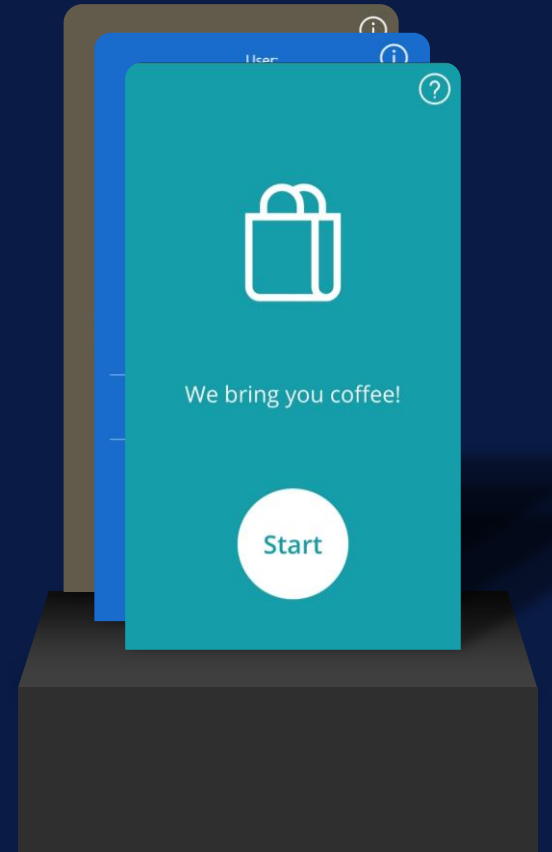
Public preview

Easy starting point for partners

Practice what you preach

Best practices for developing with Business Central

Build using the AI-go for GitHub templates



# Announcing Power App samples for Business Central

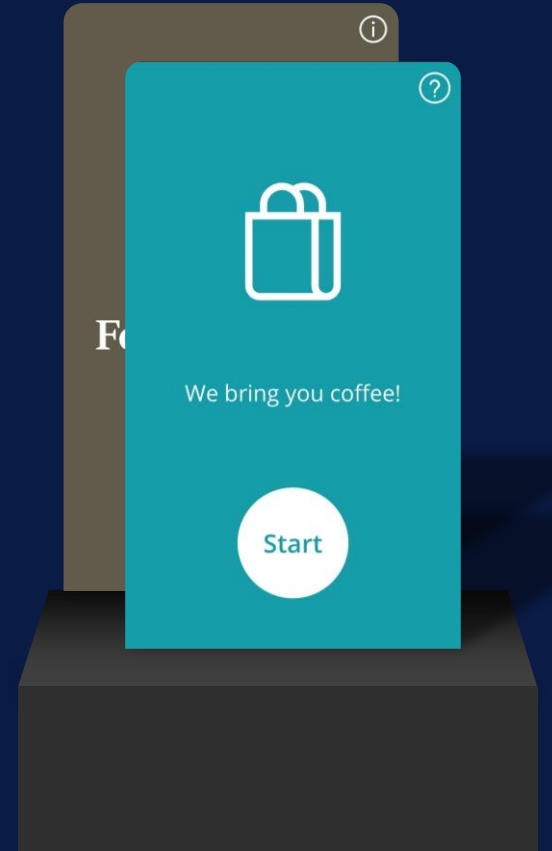
Public preview



## Warehouse Helper

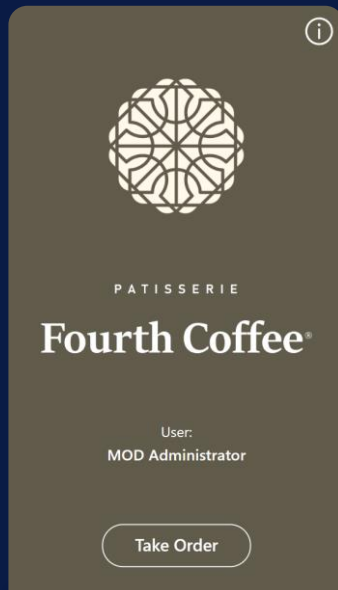
Simple app that lets you scan items and update inventory

Meant as foundation not end-user product



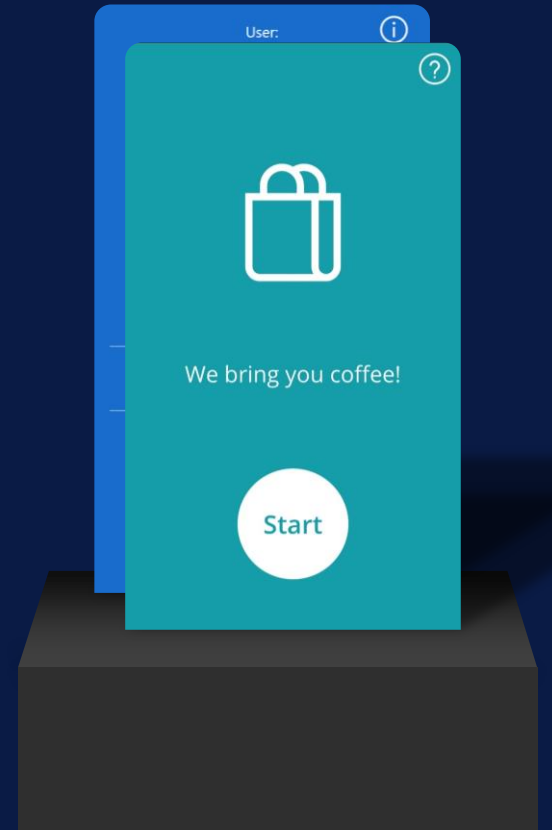
# Announcing Power App samples for Business Central

Public preview



## Take Order

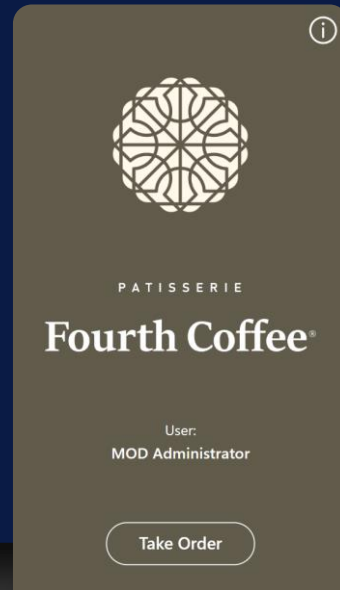
More complete scenario that lets restaurant servers assign tables and take orders



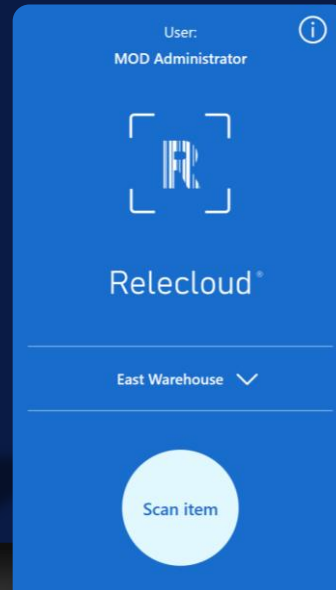
# Announcing Power App samples for Business Central

Public preview

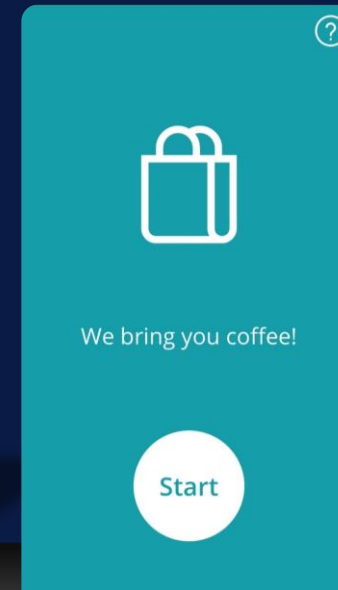
Take  
order



Warehouse  
helper



Coffee MR  
(coming soon)

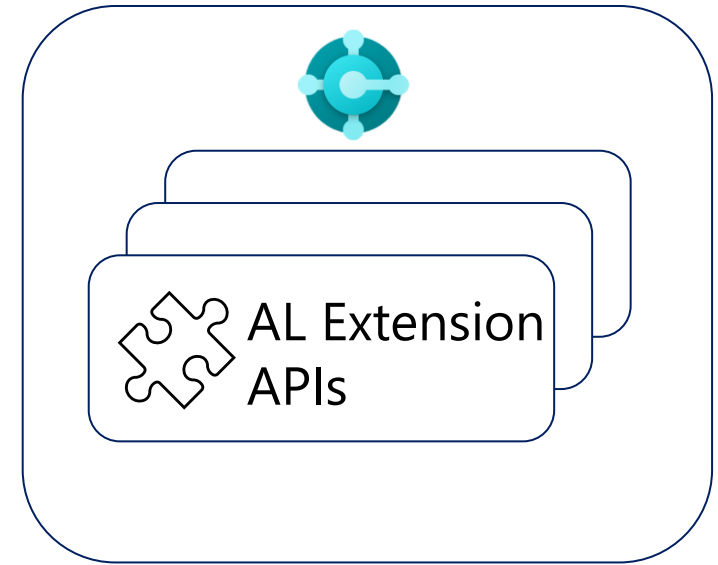
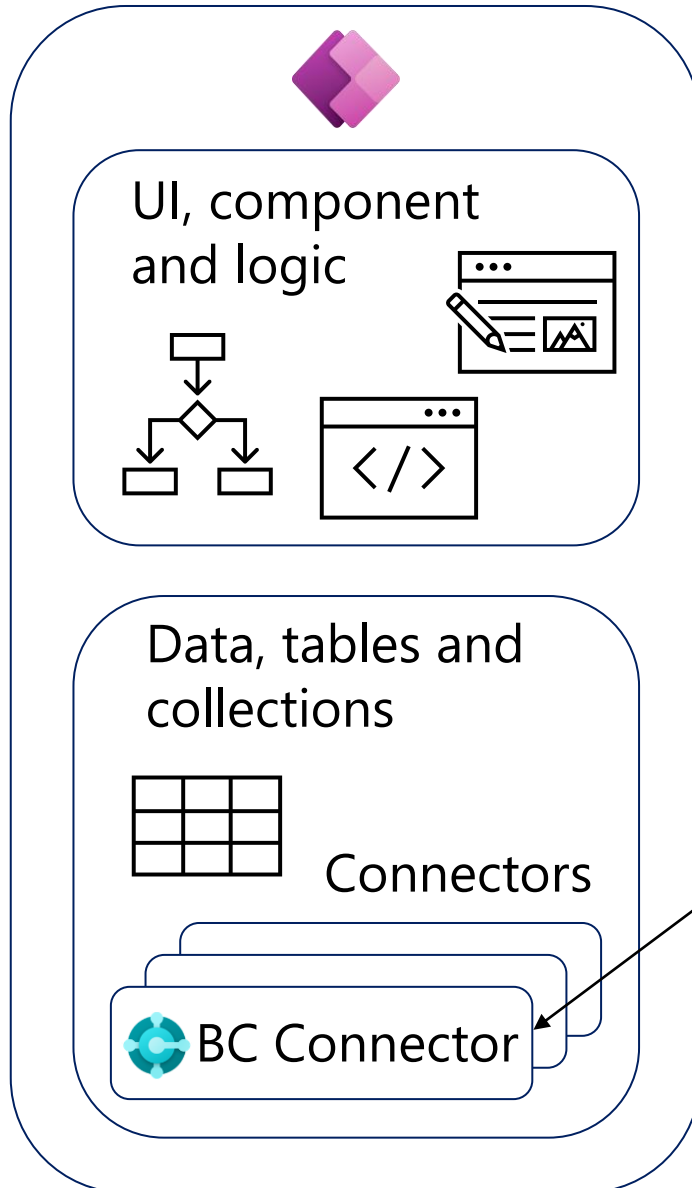


Try them now!: <https://github.com/topics/bcsamples>

What does it take  
to build a  
repeatable Power  
App



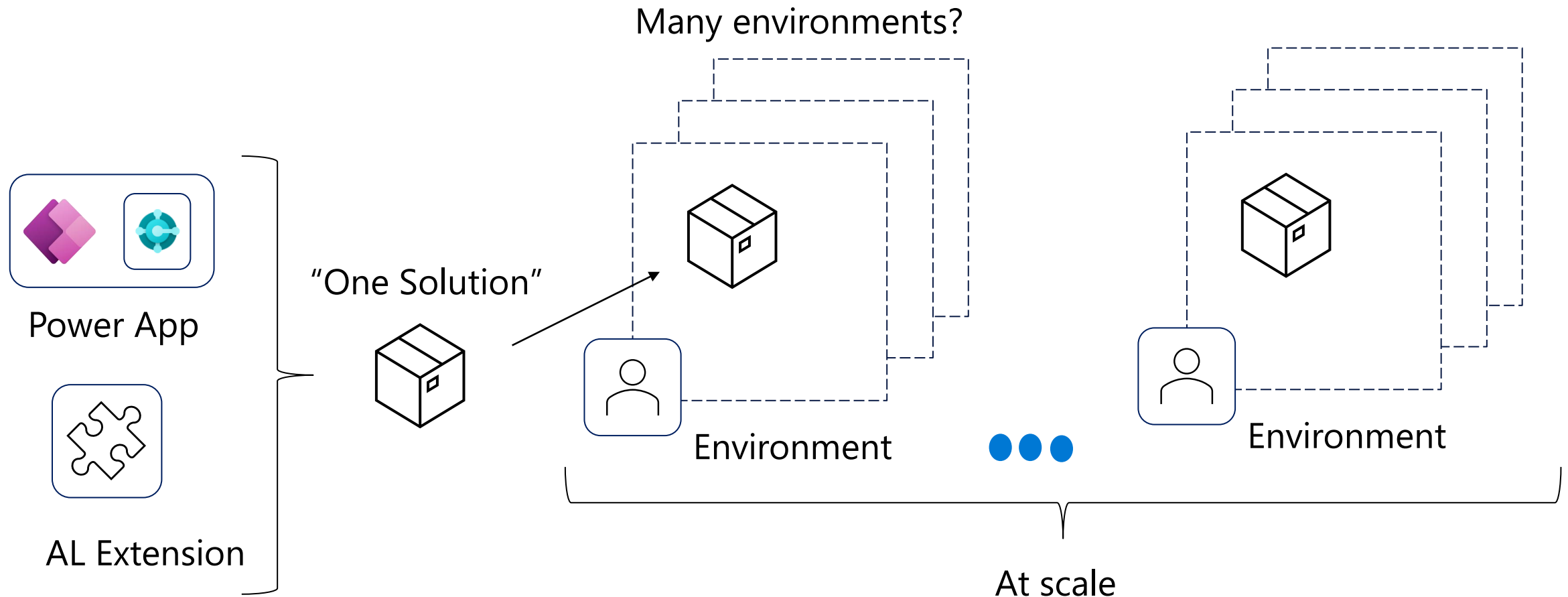
# Power App for Business Central Design



Major investments wave over wave:

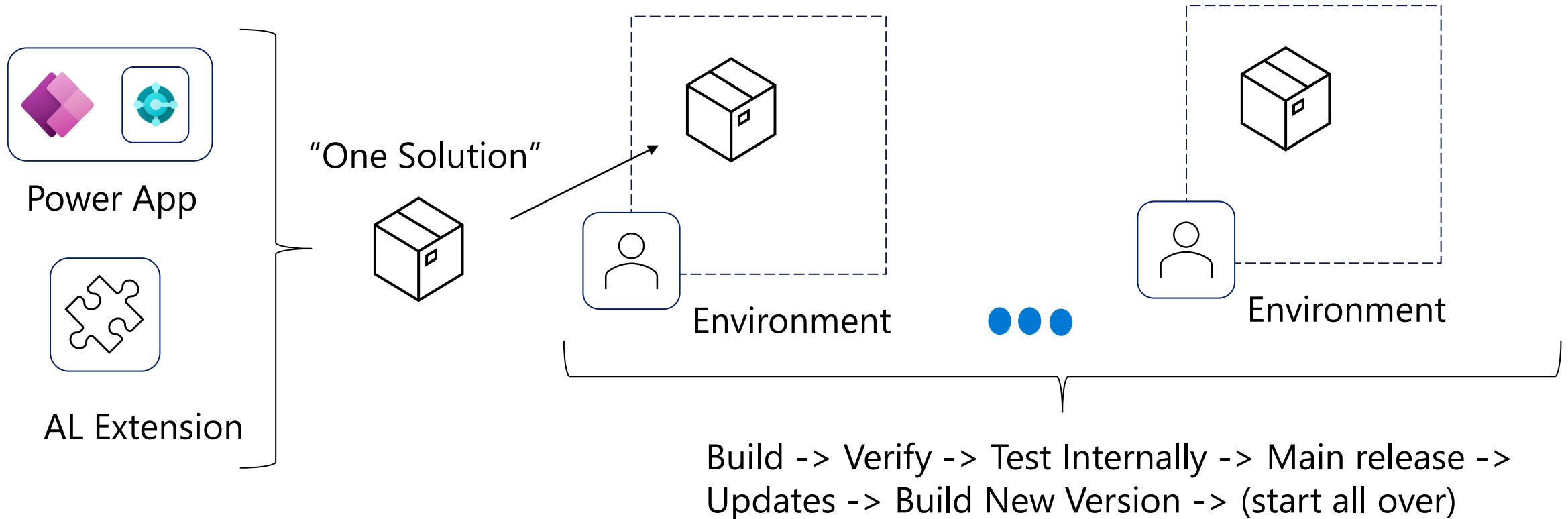
- Support image and pdf attachments (new)
- Support more data (new)
- Supports translations and captions (new)
- Supports custom APIs

# External: Include Power Apps in your solution

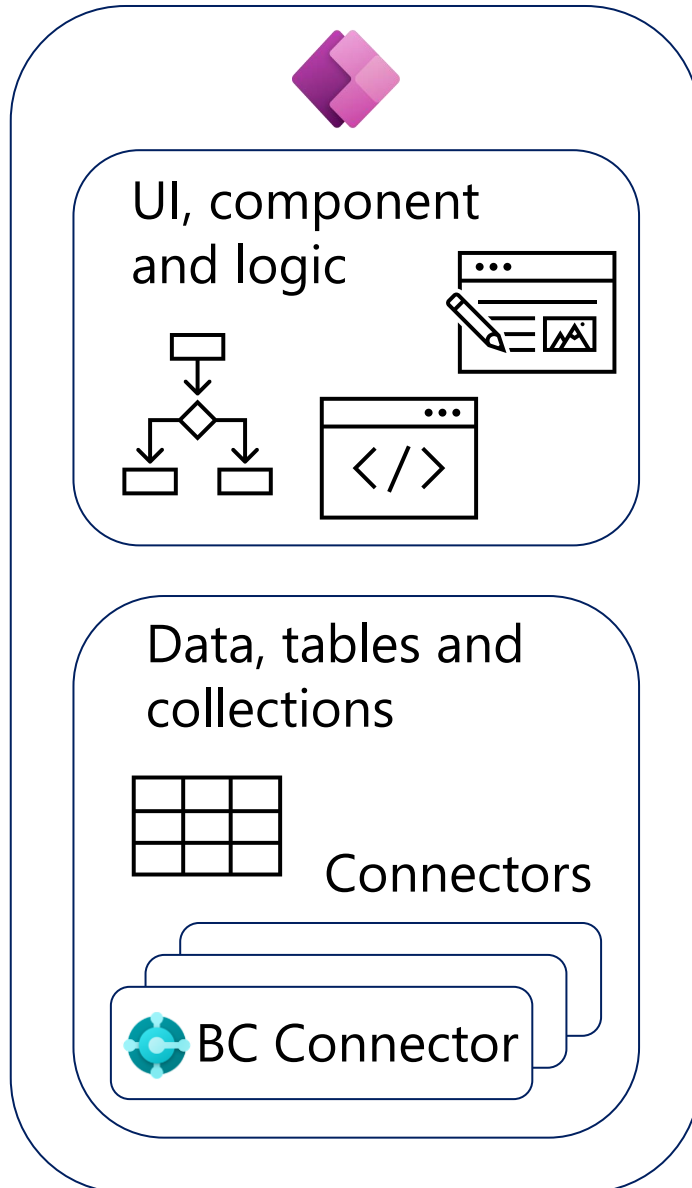




# Internal: Include Power App in your dev process

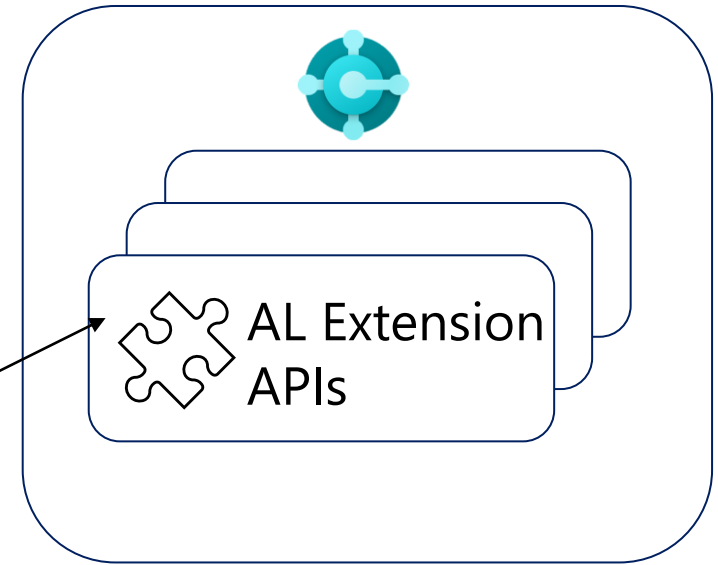


# Main challenges: AL APIs

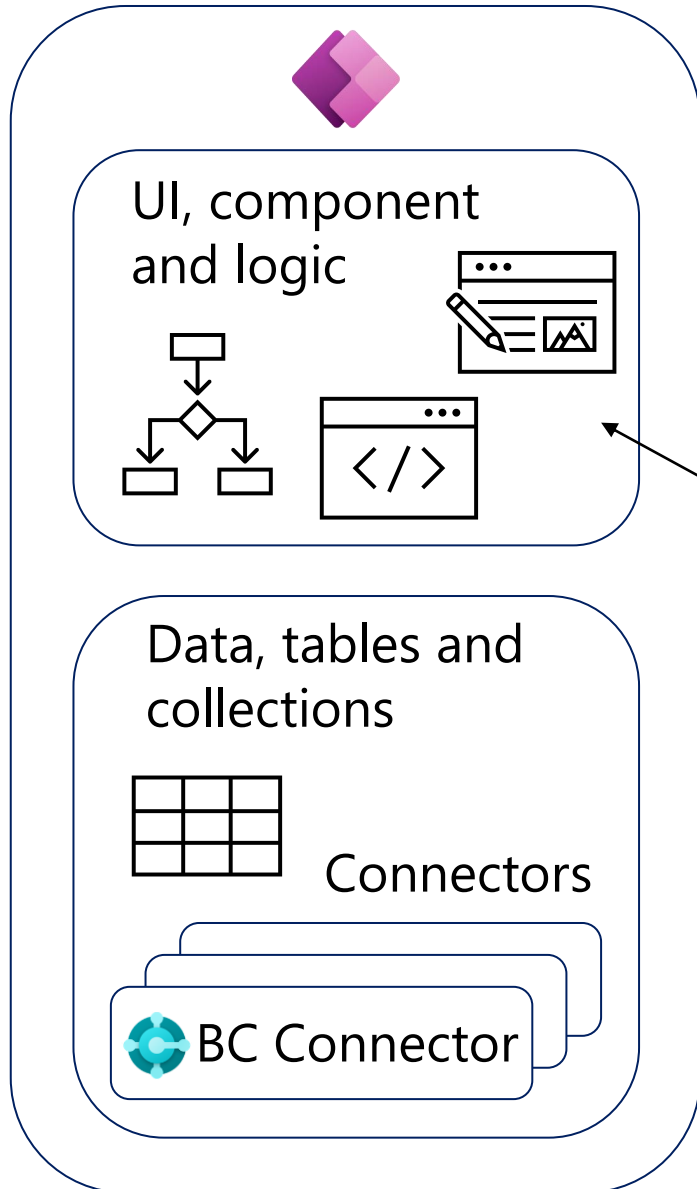


Not a problem:

- Tons of tools to expose APIs
- Still a development effort (no low code yet, but coming soon)
- Community tools to auto create API pages

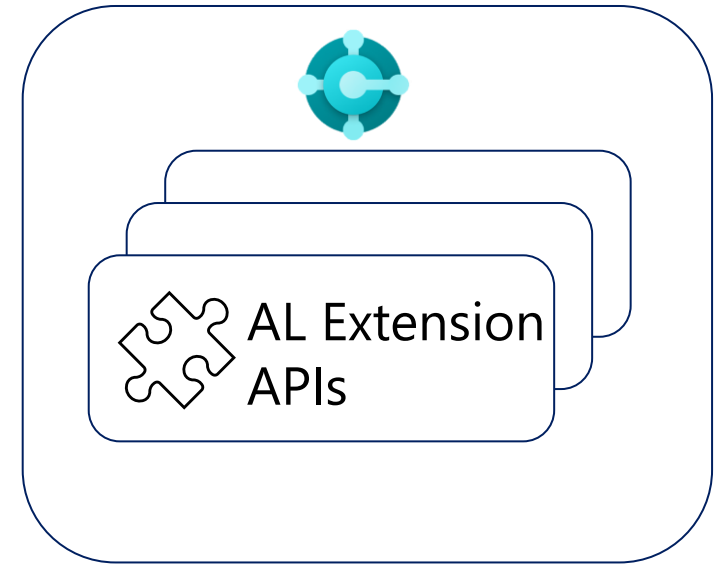


# Main challenges: Power App code



(Was) Not a problem:

- Power Platform team continue to invest in ALM tools wave after wave
- Great tools to manage source code
- <https://learn.microsoft.com/en-us/power-platform/alm>



Filter by title

- Application lifecycle management (ALM)
- Overview
- ALM basics
- Environment strategy
- > Solutions
- Tools and apps used
- > Implementing healthy project and solution ALM
- > Implementing healthy component ALM
- > ALM for admins and makers
  - ALM for admins and makers
  - Manage solutions using PowerShell
  - > Deploy solutions using pipelines
- > ALM for developers
  - ALM for developers
  - > Build Tools
  - > GitHub Actions
  - > Work with solution components
  - > Leverage solution and packaging tools
  - > Verify quality of solutions and packages
  - > Manage solutions using code
  - Edit the customizations file
  - Pipeline table reference

Learn / Power Platform /

# Application lifecycle management (ALM) with Microsoft Power Platform

Learn how to implement application lifecycle management (ALM) using Microsoft Power Platform (Power Apps, Power Automate, Dataverse, Power Virtual Agents).

## About ALM with Power Platform

### OVERVIEW

[What is ALM?](#)

### CONCEPT

[ALM basics with Power Platform](#)

[Environment strategy](#)

### REFERENCE

[Tools and apps used for ALM](#)

## For developers

## Understand and work with solutions

### CONCEPT

[Solution concepts](#)

[Understand solution layers](#)

[Use solutions to customize](#)

[Segment solutions](#)

## ALM automation

### OVERVIEW

[Use Power Platform Build Tools for Azure DevOps](#)

[Use GitHub Actions for Power Platform](#)

## Implement healthy ALM

### CONCEPT

[Scenario 0: ALM for a new project](#)

[Scenario 1: Citizen development ALM](#)

[Scenario 2: Moving from a single environment](#)

[Scenario 3: Moving from unmanaged to managed solutions](#)

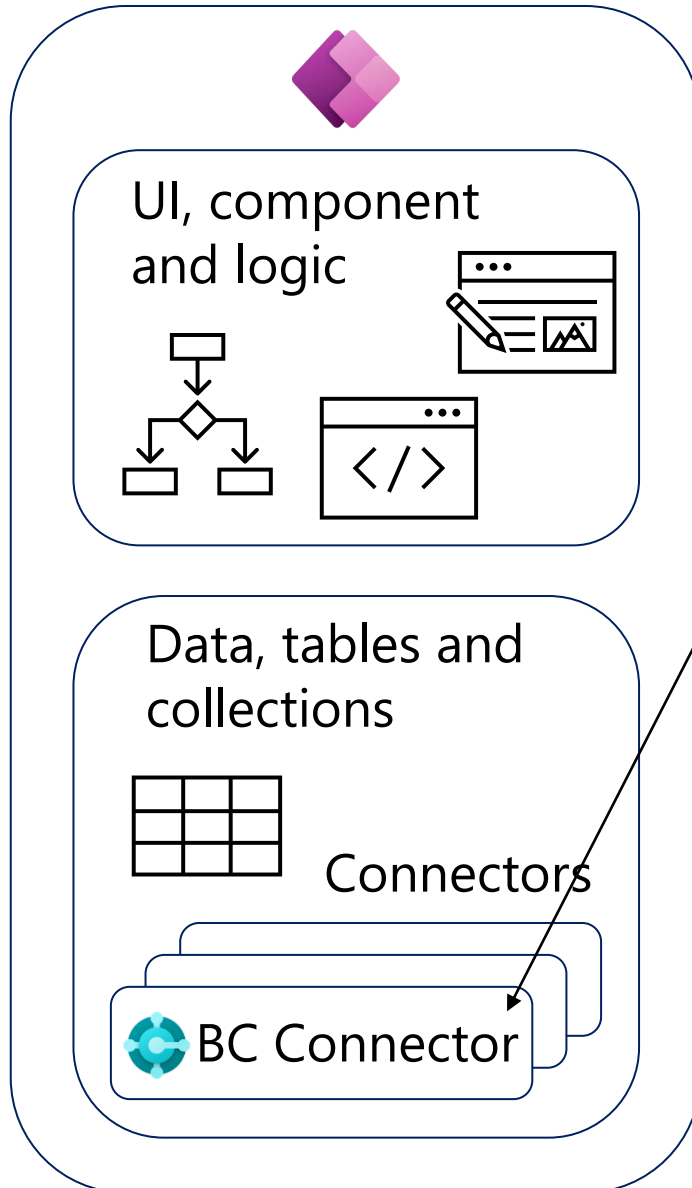
[Scenario 4: Use DevOps for automation](#)

[Scenario 5: Support team development](#)

[Scenario 6: Embrace citizen developers](#)

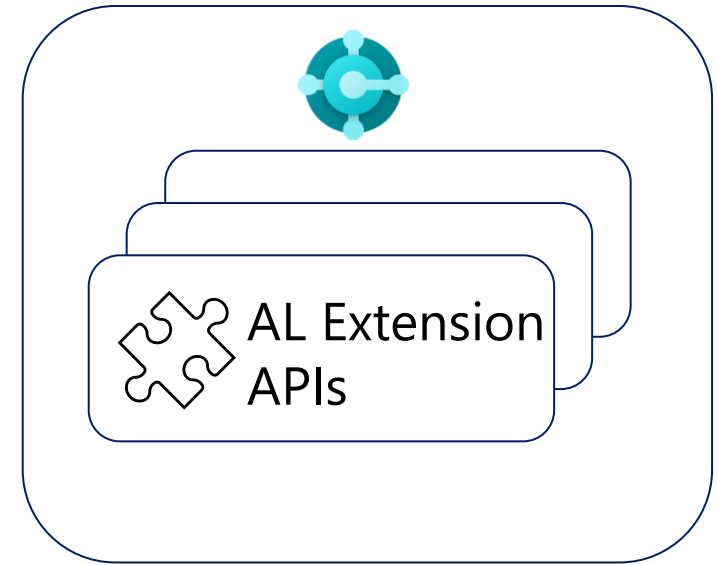
## Related docs

# Main challenges: BC Connector



## Real problem:

- BC connection requires a very specific data {environment and company}
- The connection reference is **"hard coded"** within a Power App
- No way to for user to configure in UI that connection

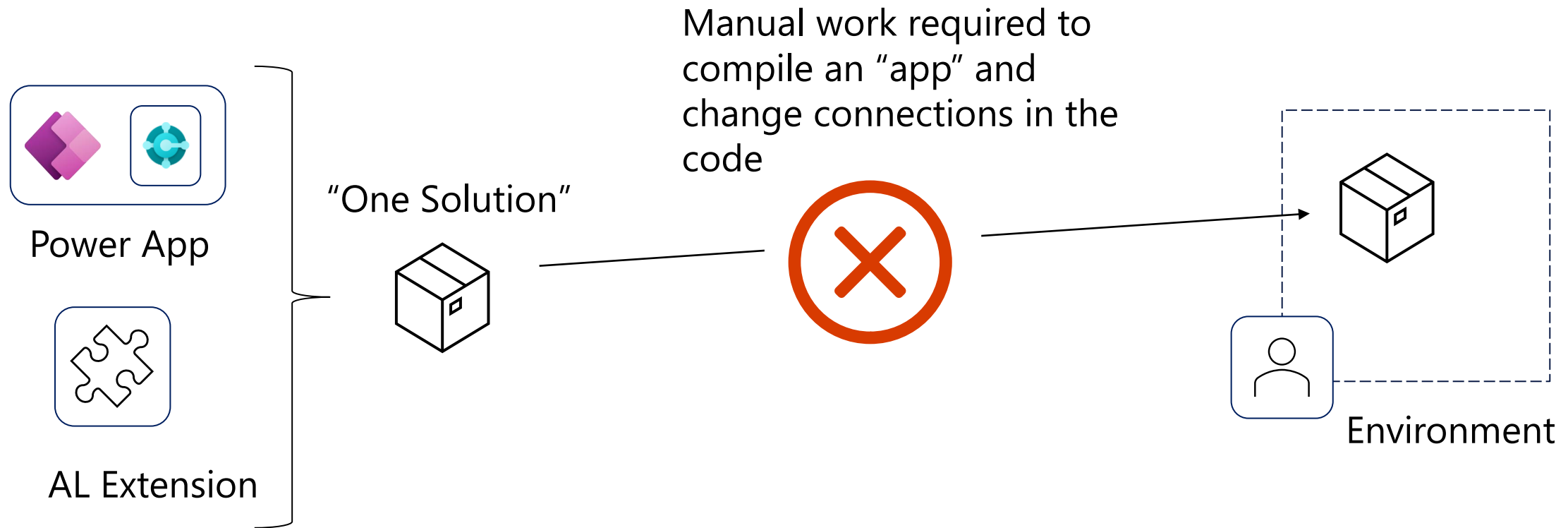


{ Connections.json X

BcSampleAppsSolution &gt; CanvasApps &gt; src &gt; new\_takemyorder\_5a368 &gt; Connections &gt; {} Connections.json &gt; {} 6cb6806c-e815-4e58-8693-91bcb31c69e7 &gt; [ ] dataSources

```
38   "dependents": [],
39   "id": "150e2896-54f3-405b-a1ae-bdda9e197568"
40 },
41 "6cb6806c-e815-4e58-8693-91bcb31c69e7": {
42   "connectionRef": {
43     "apiTier": "Premium",
44     "displayName": "Dynamics 365 Business Central",
45     "iconUri": "https://connectoricons-prod.azureedge.net/releases/v1.0.1624/1.0.1624.3220/dynamicssmbsaas/icon.png",
46     "id": "/providers/microsoft.powerapps/apis/shared_dynamicssmbsaas",
47     "parameterHints": {},
48     "parameterHintsV2": {}
49   },
50   "datasets": {
51     "Sandbox,dc50d5e8-f9c9-ed11-94cc-000d3a220b2f": {
52       "dataSources": {
53         "customersWithImage (microsoft/powerApps/beta)": {
54           "tableName": "customersWithImage,microsoft%252FpowerApps%252Fbeta"
55         },
56         "itemsWithImage (microsoft/powerApps/beta)": {
57           "tableName": "itemsWithImage,microsoft%252FpowerApps%252Fbeta"
58         },
59         "localizationInformations (microsoft/powerApps/beta)": {
60           "tableName": "localizationInformations,microsoft%252FpowerApps%252Fbeta"
61         },
62         "powerappLanguageResources (microsoft/powerApps/beta)": {
63           "tableName": "powerappLanguageResources,microsoft%252FpowerApps%252Fbeta"
64         },
65         "salesOrderLines (v2.0)": {
66           "tableName": "salesOrderLines,v2.0"
67         },
68         "salesOrders (v2.0)": {
69           "tableName": "salesOrders,v2.0"
70         }
71       }
72     }
73   },
74   "dataSources": [
75     "customersWithImage (microsoft/powerApps/beta)",
76     "itemsWithImage (microsoft/powerApps/beta)",
77     "salesOrders (v2.0)",
78     "salesOrderLines (v2.0)"
```

# Manual work needed to move “solution”

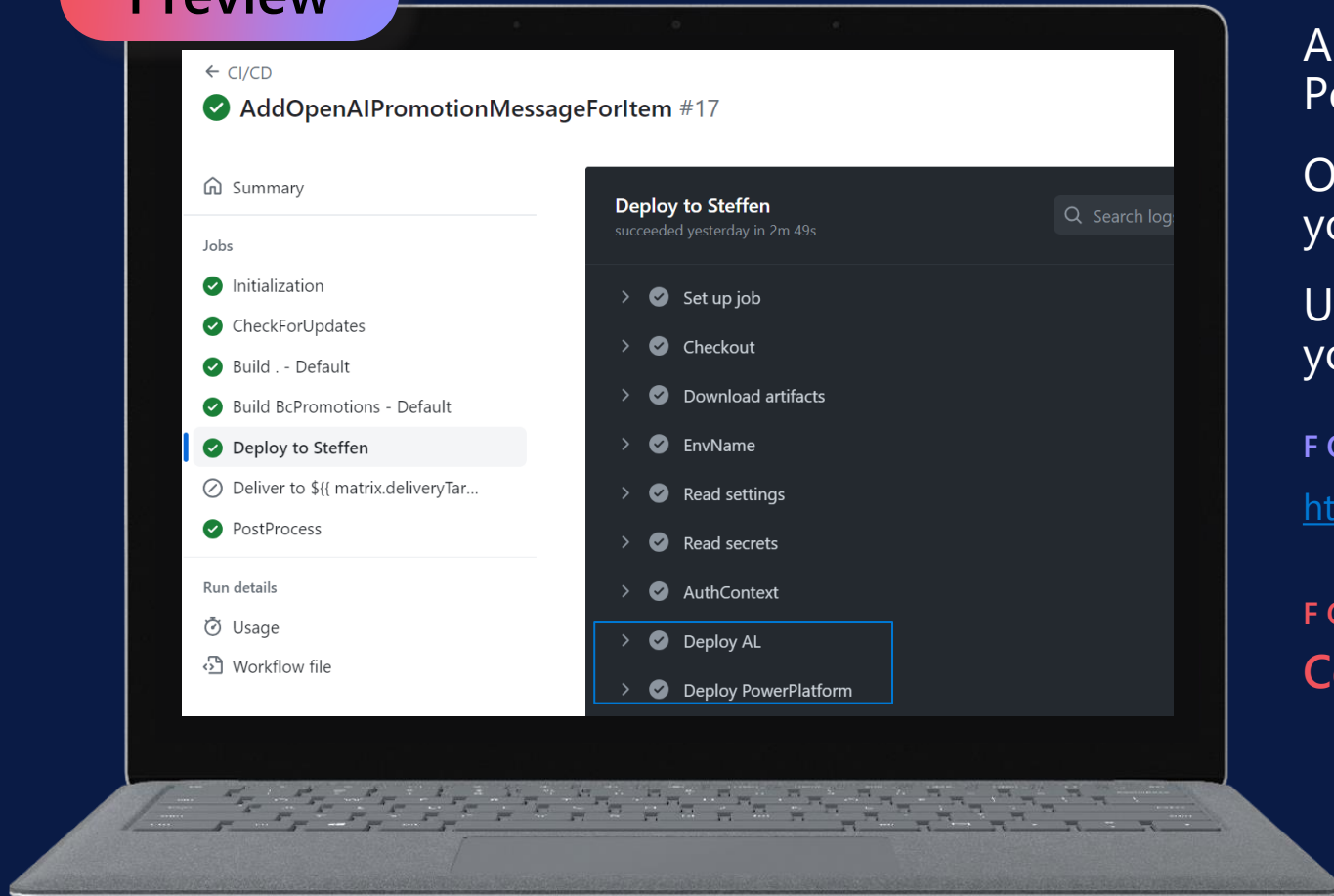




# AL-Go for GitHub and Power Platform

Full ALM support for Power Platform solutions for Per Tenant Extensions

## Preview



A single repository for your AL and Power Platform artifacts

One set of configuration for all your environments

Unified management and deployment of your solutions across BC and Power Platform

FOR VARS

<https://github.com/microsoft/AL-Go-PTE-PPPReview>

FOR ISVS

Coming soon

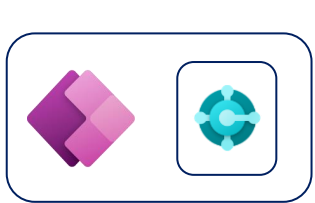
Try the preview with your AL and Power Platform code today

# Demo : Internal - Working with Power Apps across environments

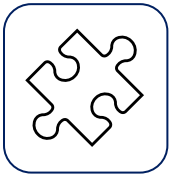
# Under the hood - Pull



AL-Go for GitHub

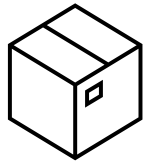


Power App



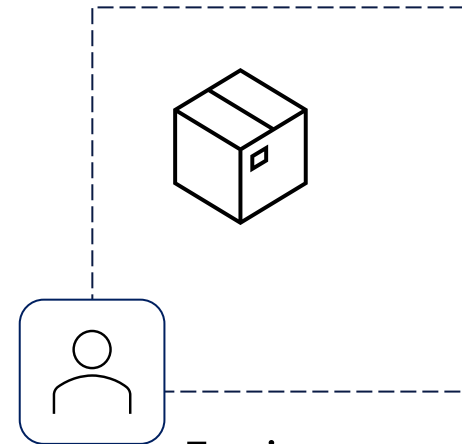
AL Extension

"One Solution"



"Save changes"

Dev environment



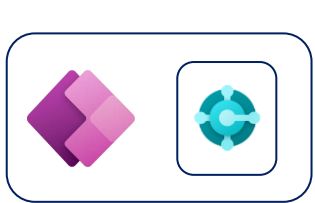
Environment

# Demo : External - Working with Power Apps across environments

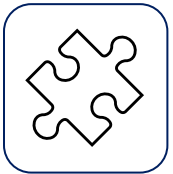
# Under the hood - Publish



AL-Go for GitHub

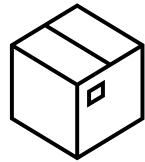


Power App



AL Extension

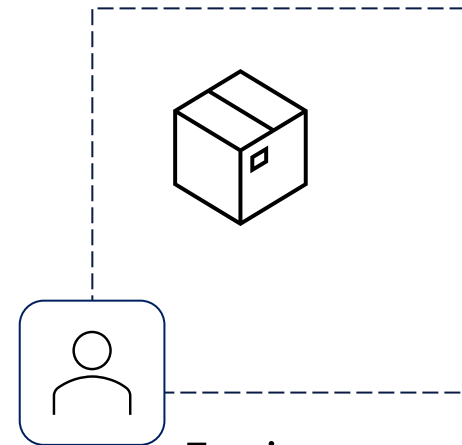
"One Solution"



"Deploy changes"

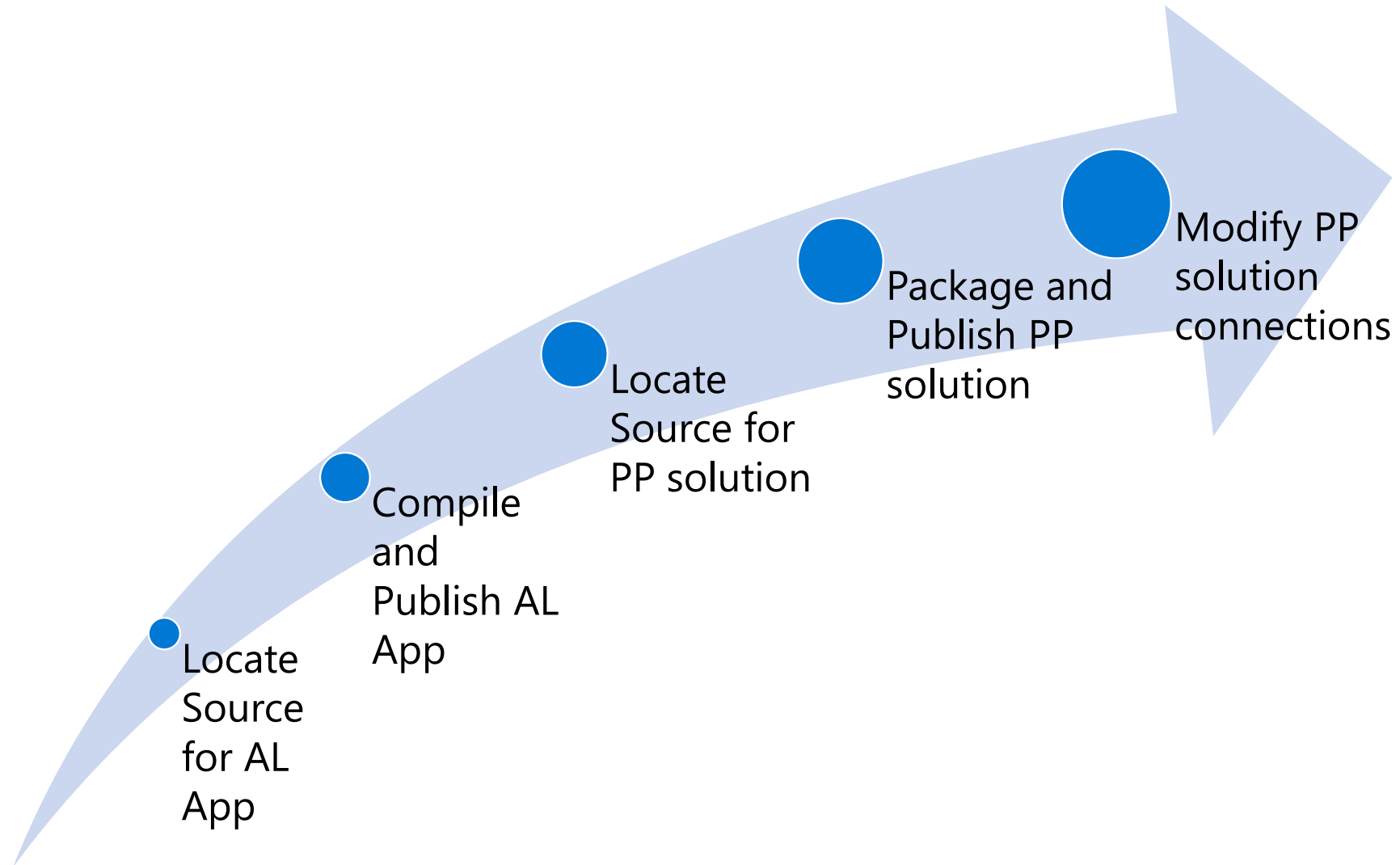
- Update connections with a right company/environment etc

New environment

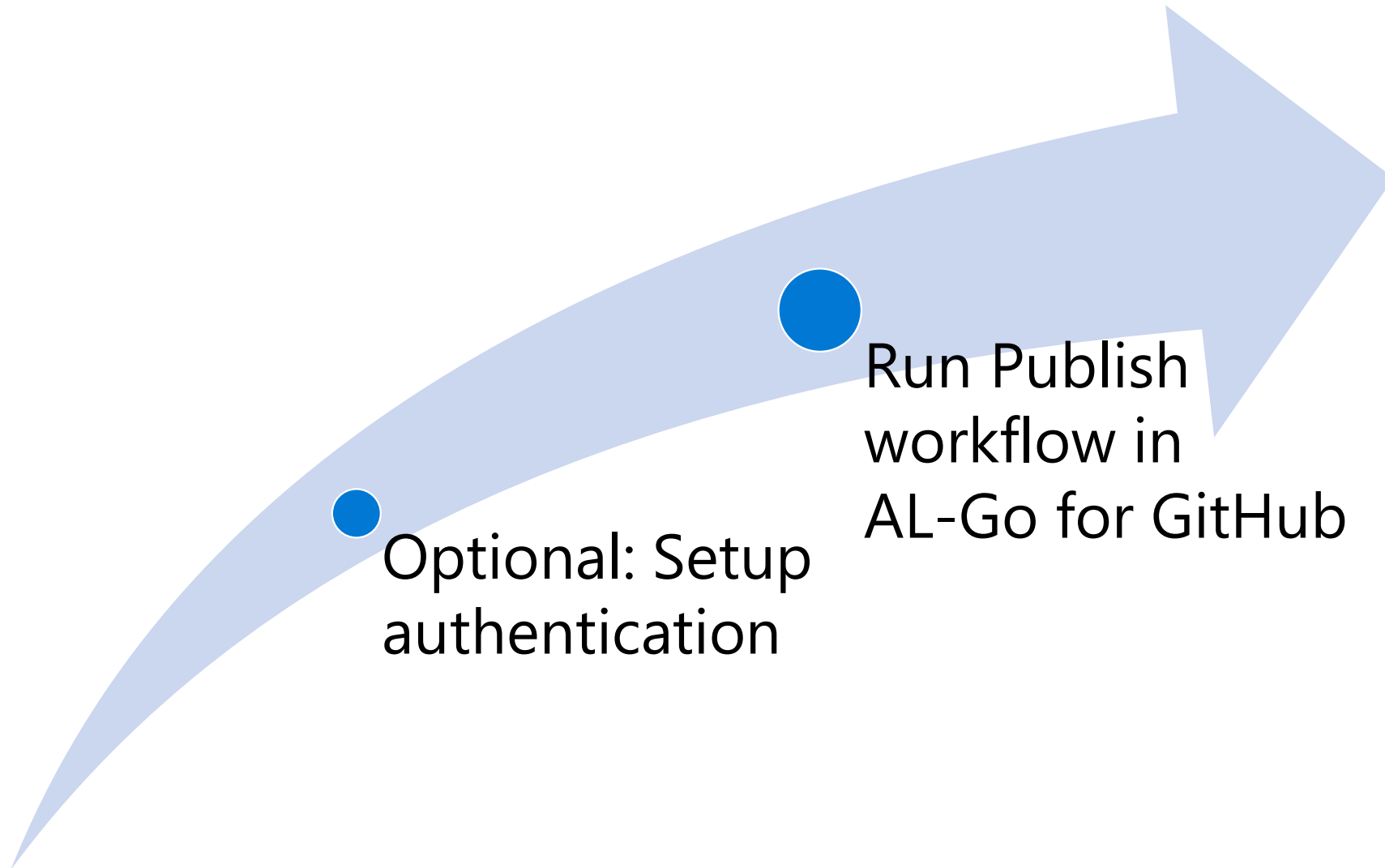


Environment

# Getting your solution to your customer!



# With AL-Go for GitHub







Getting started

# Getting started

Public preview

1. Get a repository
2. Configure your environment
3. Add you code

# Getting started

Public preview

<https://aka.ms/BcPapps>

We are excited to see what you can build!!

# Q&A

Any Questions?

Thank  
You!



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas porttitor congue massa. Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

Name

Company or position





Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas porttitor congue massa. Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

Name

Company or position



Lorem ipsum dolor sit amet, consectetur  
 adipiscing elit. Maecenas porttitor congue  
 massa. Fusce posuere, magna sed pulvinar  
 ultricies, purus lectus malesuada libero, sit  
 amet commodo magna eros quis urna.

Name

Company or position



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Maecenas porttitor congue massa. Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

Name

Company or position

# Q&A

Any Questions?



Thank  
You!



Thank you

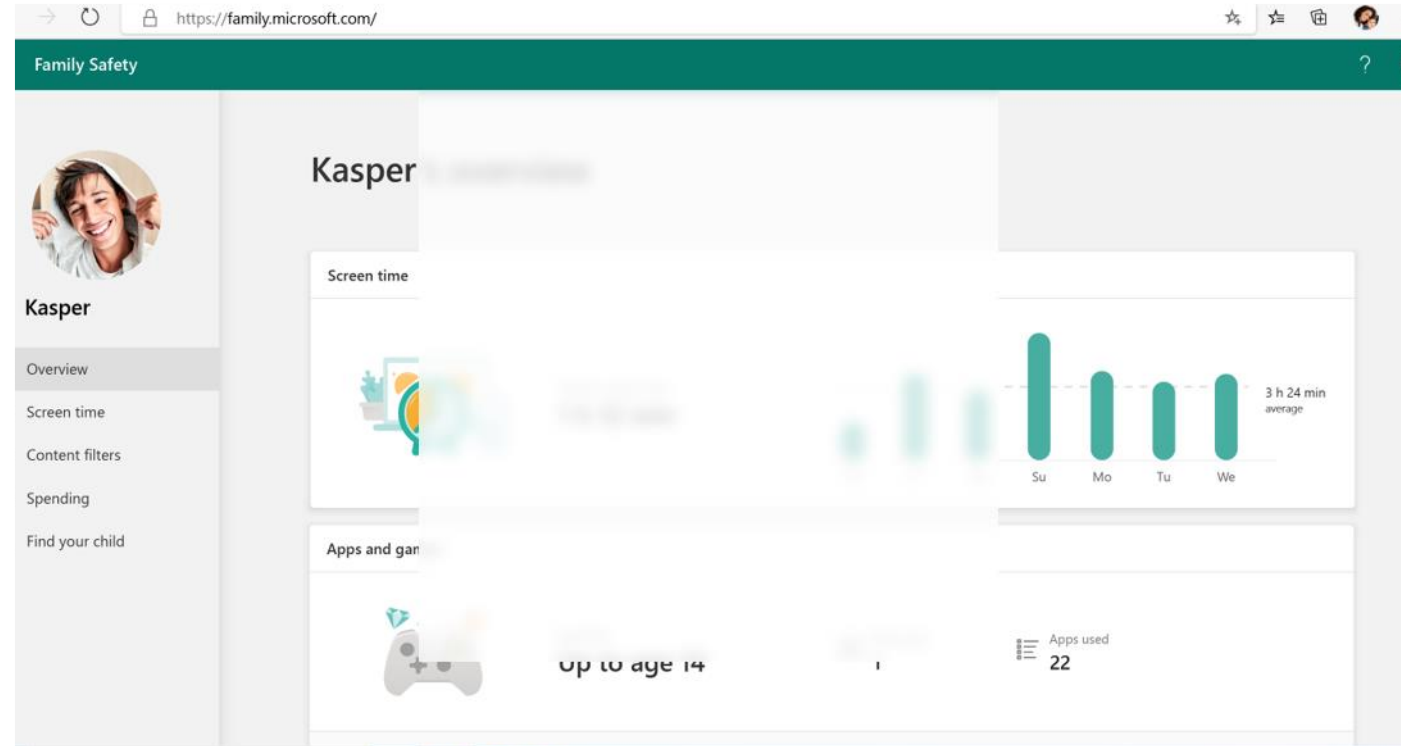


Thank you

# Screenshot layout

Update this device frame placeholder to display a tablet or desktop screenshot. 16:9 UI screens work best.

You may adjust the frame's placement on the slide, and/or the slide color to another template accent.

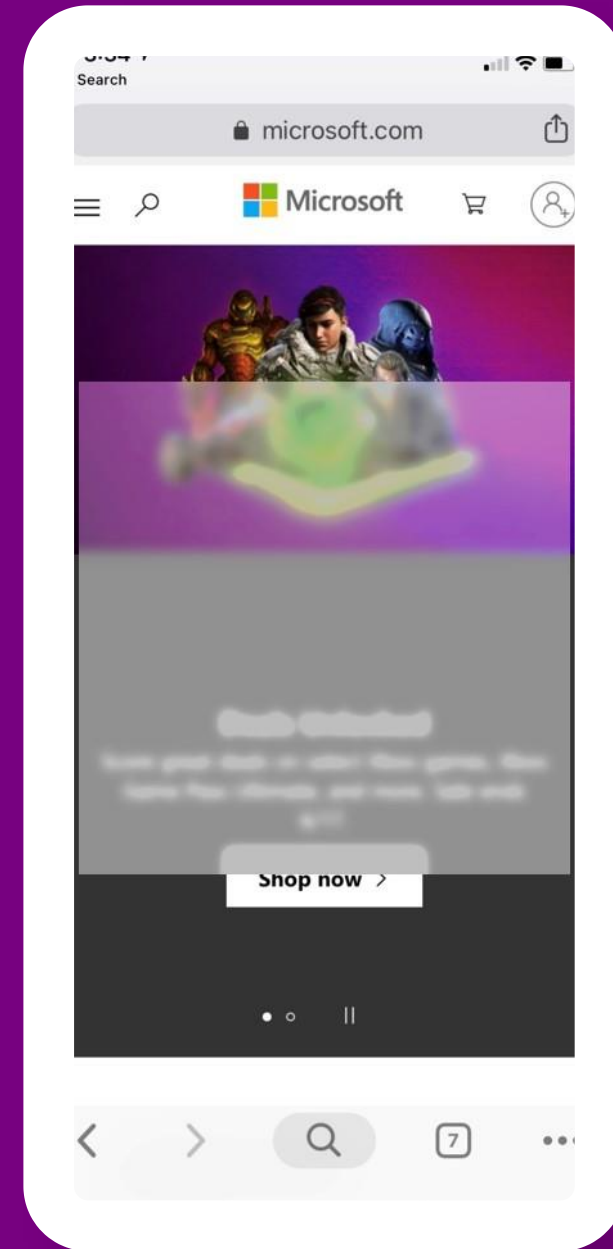




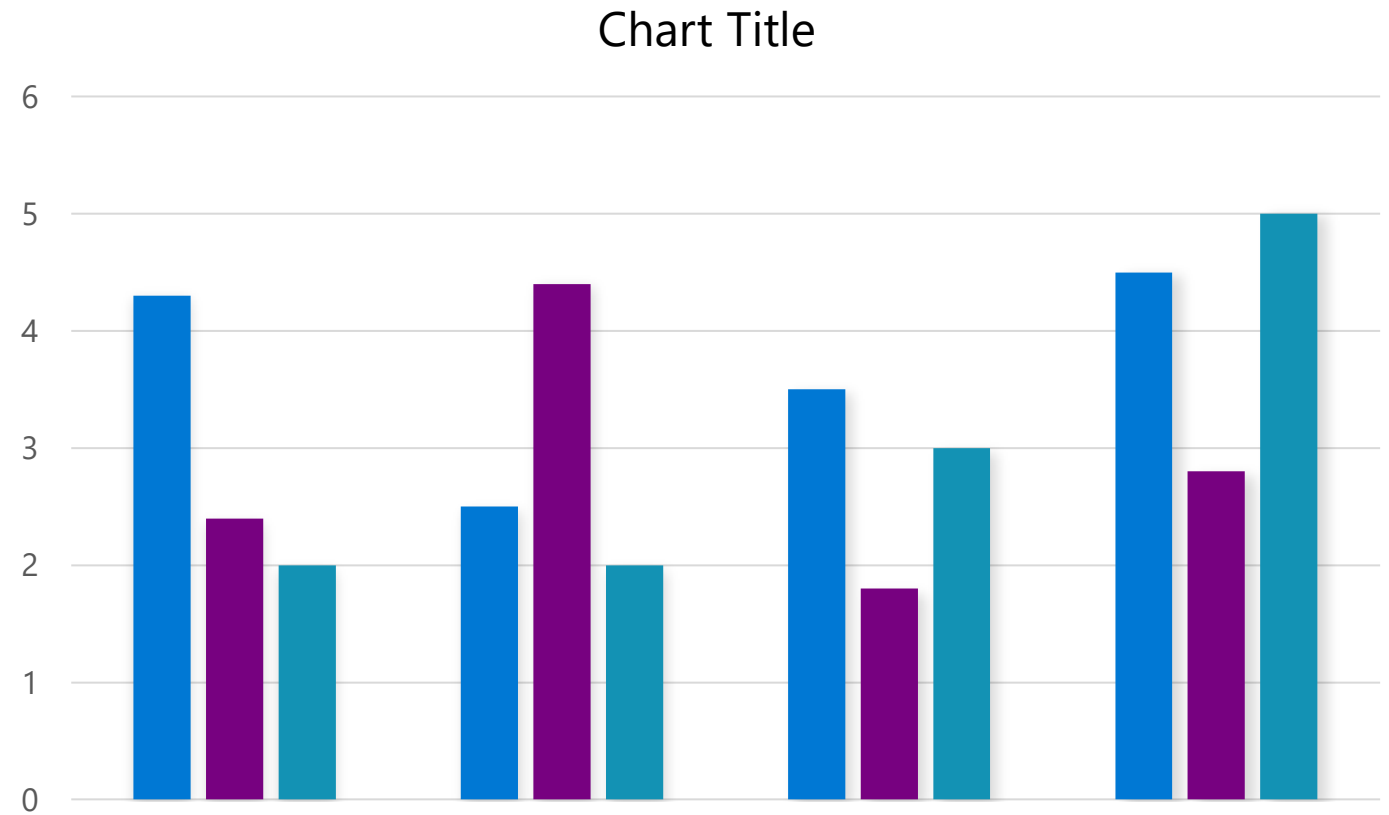
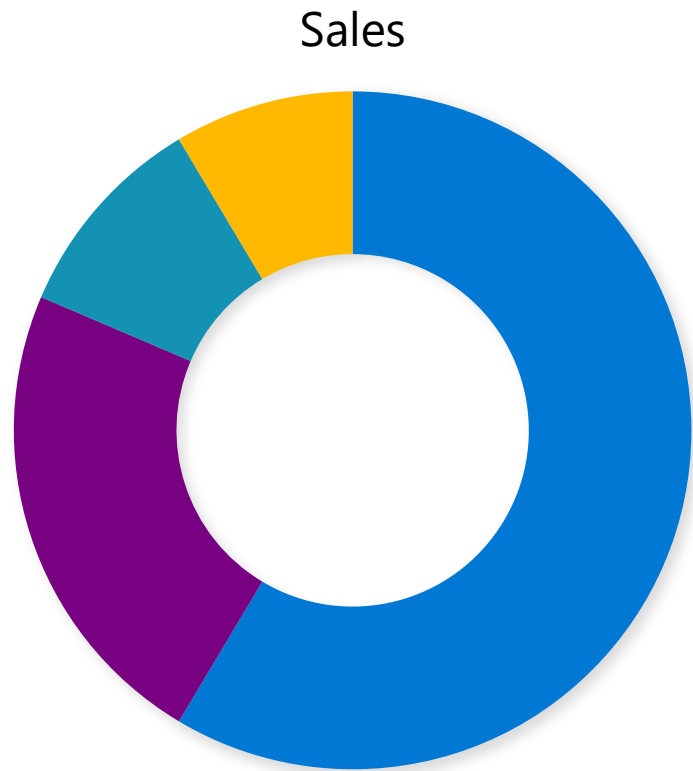
# Mobile screenshot layout

Update this device frame placeholder to display a mobile screenshot.

You may adjust the frame's placement on the slide, and/or the slide color to another template accent.



# Chart design



# Event name or presentation title

Subtitle or speaker name

---

# Agenda

- 
- Click to add text

# Text layout (without bullet points)

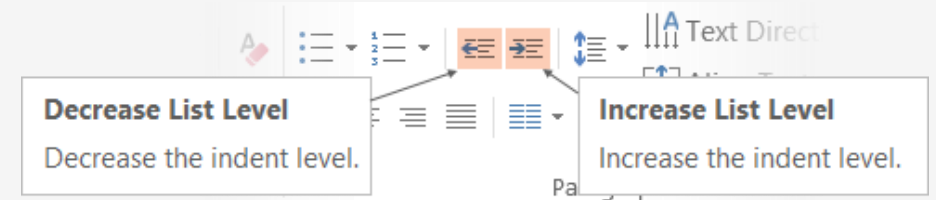
Main topic: Segoe UI, size 28pt

Segoe UI, size 20pt for second level

Segoe UI, size 16pt for third level

# Text layout with bulleted text

- Learn how to adjust list levels
- Follow the steps on the right



Use the “**Decrease List Level**” and “**Increase List Level**” tools on the **Home** menu to change text levels.

## Try this:

1. Place your cursor in the line of text that says “Segoe UI, size 20pt for second level”
2. Next click the Home tab, and then on the “**Decrease List level**” tool. Notice how the line moves up one level.
3. Now try placing your cursor in one of the top “Main topic...” line of text. Click the “**Increase List Level**” tool and see how the text is pushed in one level.

Use these 2 tools to adjust your text levels as you work

# Two text columns with subheads

## Add a subhead here

- This placeholder is designed with bulleted text
- It's easy to remove bullets
- Select the text, then on the Home menu, click the bullet list icon

## Add a second subhead here

- Keep the top edge of text blocks aligned
- More text
- More text

# Three text columns with subheads

## Space for a two-line subhead here

- This placeholder is designed with bulleted text
- It's easy to remove bullets
- Select the text, then on the Home menu, click the bullet list icon

## Wrap short subheads

- Keep the top edge of text blocks aligned
- More text
- More text

## Adjust lower text blocks up or down

- Keep the top edge of text blocks aligned
- More text
- More text



# Four text columns with subheads

## Space for a two-line subhead here

- This placeholder is designed with bulleted text
- It's easy to remove bullets
- Select the text, then on the Home menu, click the bullet list icon

## Wrap short subheads

- Keep the top edge of text blocks aligned
- More text
- More text

## Consistent line wraps look better

- Keep the top edge of text blocks aligned
- More text
- More text

## Adjust lower text up or down as needed

- Keep the top edge of text blocks aligned
- More text
- More text

# Title square photo layout

Smaller text



**Square photo layout**





# Two photos side-by-side layout



Click [Home](#) > [Layout](#) to find more photo layouts



Text placeholder



# Three photos layout



Click [Home > Layout](#) to find more photo layouts



Text placeholder



Text placeholder

# Four photos layout



Click [Home](#) > [Layout](#) to find more photo layouts



Text placeholder



Text placeholder



Text placeholder



# Four round photos



Click [Home](#) > [Layout](#)  
to find more [round](#)  
[photo](#) layouts



Text placeholder



Text placeholder



Text placeholder

# Two filmstrip photos



Click [Home](#) > [Layout](#) to find [filmstrip](#) layouts  
for three, four and five photos

Text placeholder



# Five filmstrip photos



Click [Home > Layout](#) to find [filmstrip](#) layouts for two, three and four photos



Text placeholder



Text placeholder



Text placeholder



Text placeholder





**Top photo with Title**





Full bleed photo lower Title

# Slide palette info

The PowerPoint palette for this template has been built for you and is shown below.  
Avoid using too many colors in your presentation.

## PowerPoint Theme Accent colors



Use **Accent 1** as the main accent color.

Use **Accent 2** and **Accent 3** only when additional colors are needed.

Use **Accents 4-6** sparingly

# Ensure slide content is accessible

Take the following steps to create accessible content that everyone can consume effectively.

## Contrast

Use high contrast colors for maximum readability  
The recommended contrast ratio is at least 4.5:1



### Color Contrast Analyzer

Download this tool to determine the legibility of text and the contrast of visual elements



## Shape and color

Use different shapes with a legend to indicate statuses to accommodate for color blindness

### Example:

Subject 1	●
<hr/>	
Subject 2	▲
<hr/>	
Subject 3	×
<hr/>	
● C1	▲ C2
×	C3

## Alt text

Alt text helps people with screen readers understand the content of slides  
You should create alternative text for shapes, pictures, charts, tables, SmartArt graphics, or other objects

### Here's how:

- Right click on item
- Select **Edit Alt Text**
- Enter a **Description**

If an object is meant to add visual styling and doesn't contain meaning (e.g. stylistic borders), do not add alt text and instead check **Mark as decorative**

## Slide layouts

Using a built-in slide layout that matches your content ensures a hierarchical reading order of text blocks

### Example:

If a new slide will have a title, rather than starting with a blank layout and adding a text block for the title, choose one of the built-in layouts with a title placeholder



## Reading order

Screen readers describe content on the screen in the order it was created

To ensure your content is read back in the order you prefer, arrange your objects in the Selection Pane appropriately. Objects on the bottom of the selection pane are read first

### Here's how:

- Click the **Home** tab
- In the **Drawing** group, select the **Arrange** drop-down menu
- Click **Selection Pane...**

## Additional tips

Be sure to run the **Accessibility Checker**! Go to **File** → click the **Check for Issues** drop down menu → click **Check Accessibility**

**Videos need to be accessible:** If your presentation includes a video, ensure it is captioned and audio described (if appropriate)

Visit the [Office Accessibility Center](#) to learn more about accessibility in PowerPoint



# Brand and accent colors accessibility

Type and background combinations must meet a minimum 4.5:1 contrast ratio to help ensure people of all abilities can access and understand our communications.

Pick colors carefully and avoid relying on color alone to convey information. Always provide text or other graphical cues to guide customers to our message.

Examples demonstrate correct color use for on-screen applications.

- [Get the Color Contrast Analyzer](#)
- [Get more information on accessibility](#)
- [Get the Microsoft color guidelines PDF](#)

	<div>Dark Orange</div> <div>Rich Black</div> <div>R255 G147 B73</div> <div>Hex #FF9349</div>	<div>Dark Yellow</div> <div>Rich Black</div> <div>R254 G240 B0</div> <div>Hex #FEF000</div>	<div>Dark Green</div> <div>Rich Black</div> <div>R155 G240 B11</div> <div>Hex #9BF00B</div>	<div>Dark Teal</div> <div>Rich Black</div> <div>R48 G229 B208</div> <div>Hex #30E5D0</div>	<div>Dark Blue</div> <div>Rich Black</div> <div>R80 G230 B255</div> <div>Hex #50E6FF</div>	<div>Dark Purple</div> <div>Rich Black</div> <div>R213 G157 B255</div> <div>Hex #D59DFF</div>
	<div>White</div> <div>Rich Black</div> <div>R216 G59 B1</div> <div>Hex #D83B01</div>	<div>Rich Black</div> <div>R255 G185 B0</div> <div>Hex #FFB900</div>	<div>White</div> <div>R16 G124 B16</div> <div>Hex #107C10</div>	<div>White</div> <div>Rich Black</div> <div>R0 G133 B117</div> <div>Hex #008575</div>	<div>White</div> <div>Rich Black</div> <div>R0 G120 B212</div> <div>Hex #0078D4</div>	<div>White</div> <div>Rich Black</div> <div>R134 G97 B197</div> <div>Hex #8661C5</div>
	<div>Light Orange</div> <div>White</div> <div>R107 G41 B41</div> <div>Hex #6B2929</div>	<div>Light Yellow</div> <div>White</div> <div>R106 G75 B22</div> <div>Hex #6A4B16</div>	<div>Light Green</div> <div>White</div> <div>R5 G75 B22</div> <div>Hex #054B16</div>	<div>Light Teal</div> <div>White</div> <div>R39 G75 B71</div> <div>Hex #274B47</div>	<div>Light Blue</div> <div>White</div> <div>R36 G58 B94</div> <div>Hex #243A5E</div>	<div>Light Purple</div> <div>White</div> <div>R59 G46 B88</div> <div>Hex #3B2E58</div>
<div>White</div> <div>R255 G255 B255</div> <div>Hex #FFFFFF</div>	<div>Orange</div> <div>Dark Orange</div>	<div>Dark Yellow</div>	<div>Green</div> <div>Dark Green</div>	<div>Teal</div> <div>Dark Teal</div>	<div>Blue</div> <div>Dark Blue</div>	<div>Purple</div> <div>Dark Purple</div>
<div>Rich Black</div> <div>R0 G0 B0</div> <div>Hex #000000</div>	<div>White</div> <div>Light Orange</div> <div>Orange</div>	<div>White</div> <div>Light Yellow</div> <div>Yellow</div>	<div>White</div> <div>Light Green</div> <div>Green</div>	<div>White</div> <div>Light Teal</div> <div>Teal</div>	<div>White</div> <div>Light Blue</div> <div>Blue</div>	<div>White</div> <div>Light Purple</div> <div>Purple</div>
	<div>Extra Light Gray</div> <div>R242 G242 B242</div> <div>Hex #F2F2F2</div>	<div>Light Gray</div> <div>R230 G230 B230</div> <div>Hex #E6E6E6</div>	<div>Gray</div> <div>R210 G210 B210</div> <div>Hex #D2D2D2</div>	<div>Mid Gray</div> <div>R115 G115 B115</div> <div>Hex #737373</div>	<div>Dark Gray</div> <div>R80 G80 B80</div> <div>Hex #505050</div>	<div>Extra Dark Gray</div> <div>R47 G47 B47</div> <div>Hex #2F2F2F</div>

# PowerPoint Design Ideas

## Get suggestions for slides

PowerPoint Designer can create suggestions for your slide content.

To access Design Ideas, click the “Design” tab in the Ribbon and then “Design Ideas” on the right.

Designer will also trigger when you insert an image.



Design  
Ideas

Accelerating adoption of Microsoft products and services in construction industry



Accelerating adoption of Microsoft products and services in construction industry



Accelerating adoption of Microsoft products and services in construction industry



Accelerating adoption of Microsoft products and services in construction industry



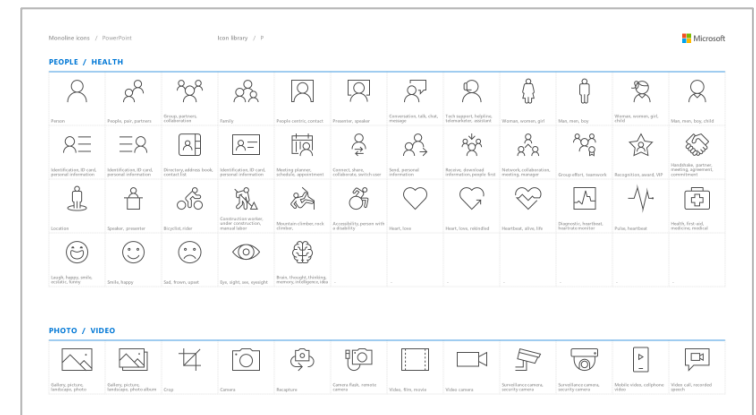
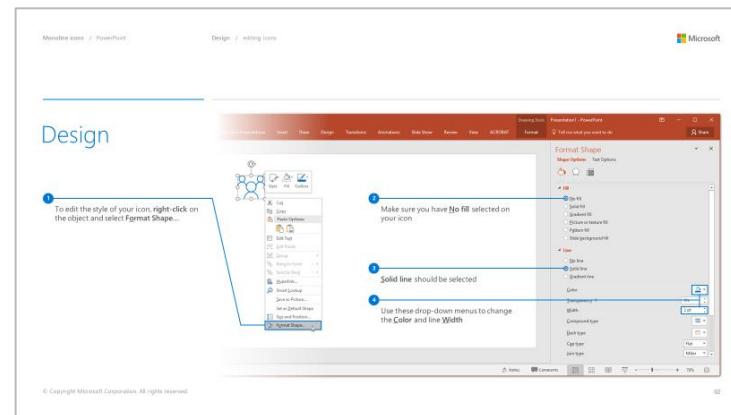
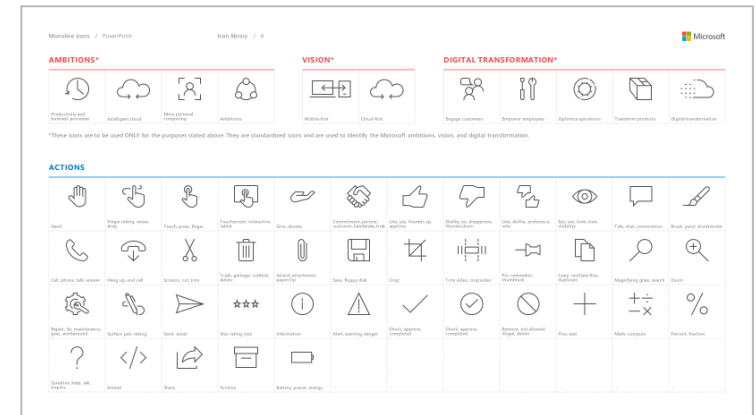
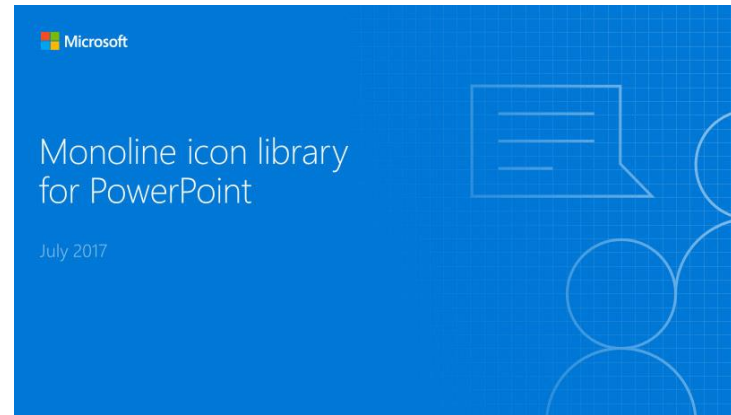
# Microsoft monoline icons

## Looking for icon resources?

The Monoline icon library for PowerPoint is a slide deck that provides a library of icons for use in PowerPoint presentations.

The Monoline icon style guide for PowerPoint is a pdf with additional guidelines.

Download both from [Brand Central](#).





# Software code layout

main.js

```
async loadHeroes() {  
  this.message = 'getting the heroes, please be patient';  
  await this.getHeroesAction();  
  this.message = '';  
},
```

# Demo

Speaker name

# Demo

Speaker name

# Demo

Speaker name

