

GETTING STARTED WITH PCF CONTROLS

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Power Platform

COMMUNITY CONFERENCE

SEPTEMBER 18–20, 2024 • *Workshops: Sept 16, 17 & 21*
MGM GRAND • *Las Vegas, NV*



Power Platform
COMMUNITY CONFERENCE

GETTING STARTED WITH PCF CONTROLS

Ahmad Pirani

Carl de Souza

AHMAD PIRANI

- 15+ years Dynamics experience
- First time speaker
- HSO booth 228
- Parent of a teenager



Principal Solution Architect

CARL DE SOUZA

- 20+ years Dynamics experience
- 3 x Microsoft MVP (2021 – 2024)
- Worked in the Partner channel
- Parent of a toddler



carldesouza.com



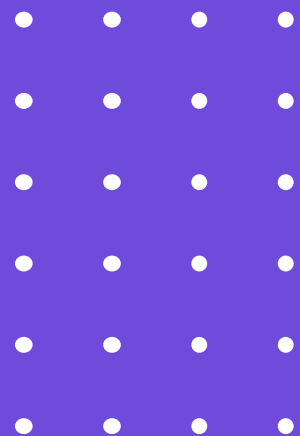
youtube.com/@carldesouza



linkedin.com/in/carld



Microsoft
FastTrack Solution Architect



HAVE YOU BUILT A PCF CONTROL BEFORE?

SCAN CODE TO VOTE

GIVEAWAY!

We're giving away
1 free SIGNED copy of
Danish's book at the end.



WHAT WE WILL COVER TODAY

What are PCF Controls

Where to use them

Why use them

When to use them

Let's build one

LET'S LOOK AT SOME PCF CONTROLS

REAL-WORLD EXAMPLES

- Model-driven apps
- Canvas Apps and Custom Pages
- Power Pages



PCF GALLERY MOST ACCESSED CONTROLS (RECENTLY)



PCF Gallery

Thanks to
Guido Preite

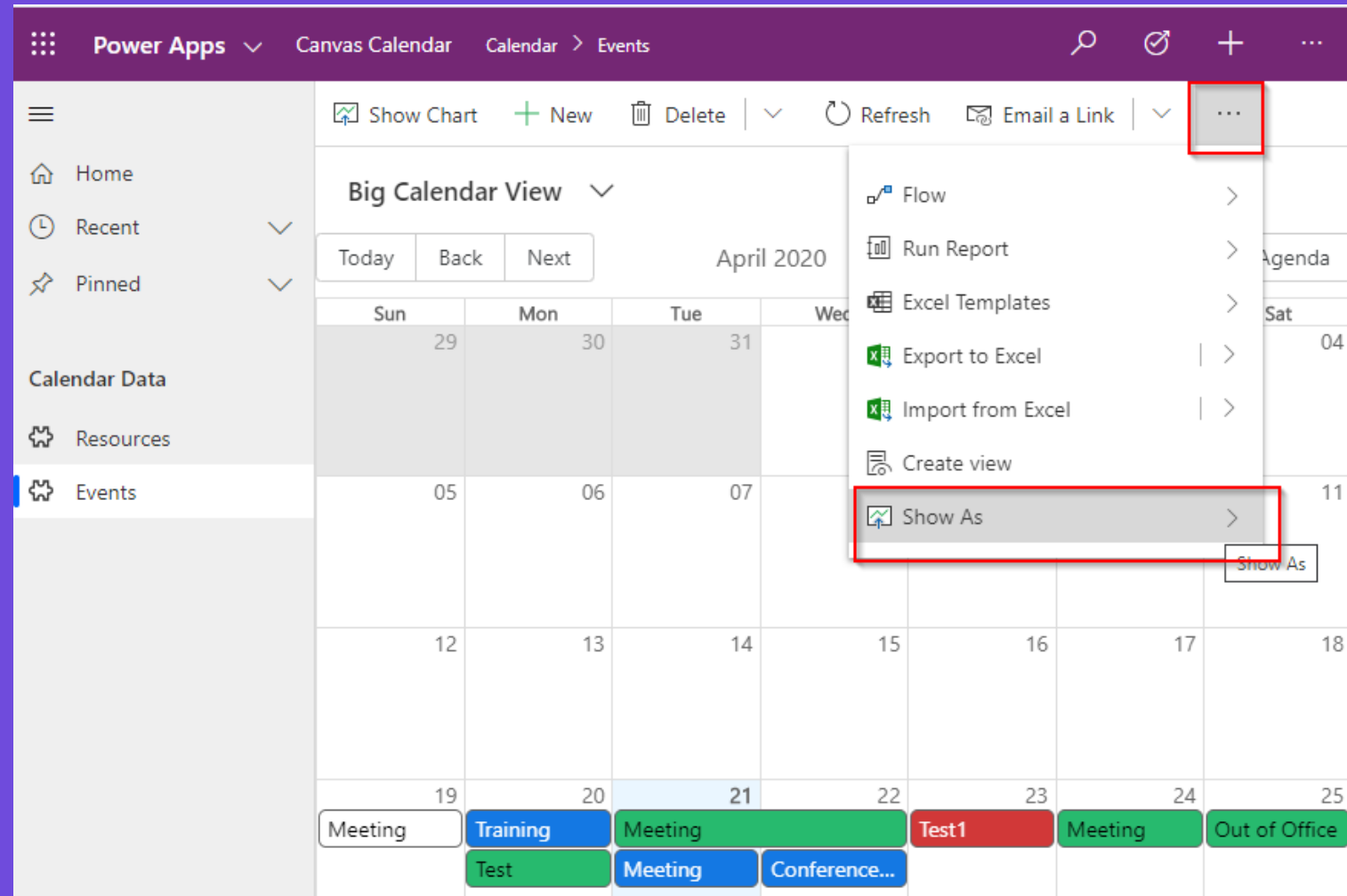
<https://pcf.gallery>

- Multi-select Lookup
- Multi-select Records
- Calendar
- N to N Multi-select
- AG Grid (Canvas)
- Colorful Optionset / Colorful Optionset Grid
- IFrame / Responsive IFrame
- Easy Reports
- Power Drag and Drop
- Smart Grid
- PolyLookup

CALENDAR CONTROL

Author: Richard Wilson

**PCF.GALLERY
MOST VIEWED
CONTROLS**



N TO N MULTISELECT

Author: Alex Shlega

PCF.GALLERY
MOST VIEWED
CONTROLS

Dynamics 365 ITA PCF TEST PCF > Tests > Test 2 **SANDBOX**

+ New Deactivate Delete Refresh Assign Share Email a Link Flow Word Templates ...

Test 2 Test · Multiselect **Test 2** Name

General Related

Name	Test 2
Test	<input type="text"/>
Drop Down	---
Test Phone	---
Owner	Alex Shlega

Add Existing Tag Refresh ...

✓ Name	↑	Created On
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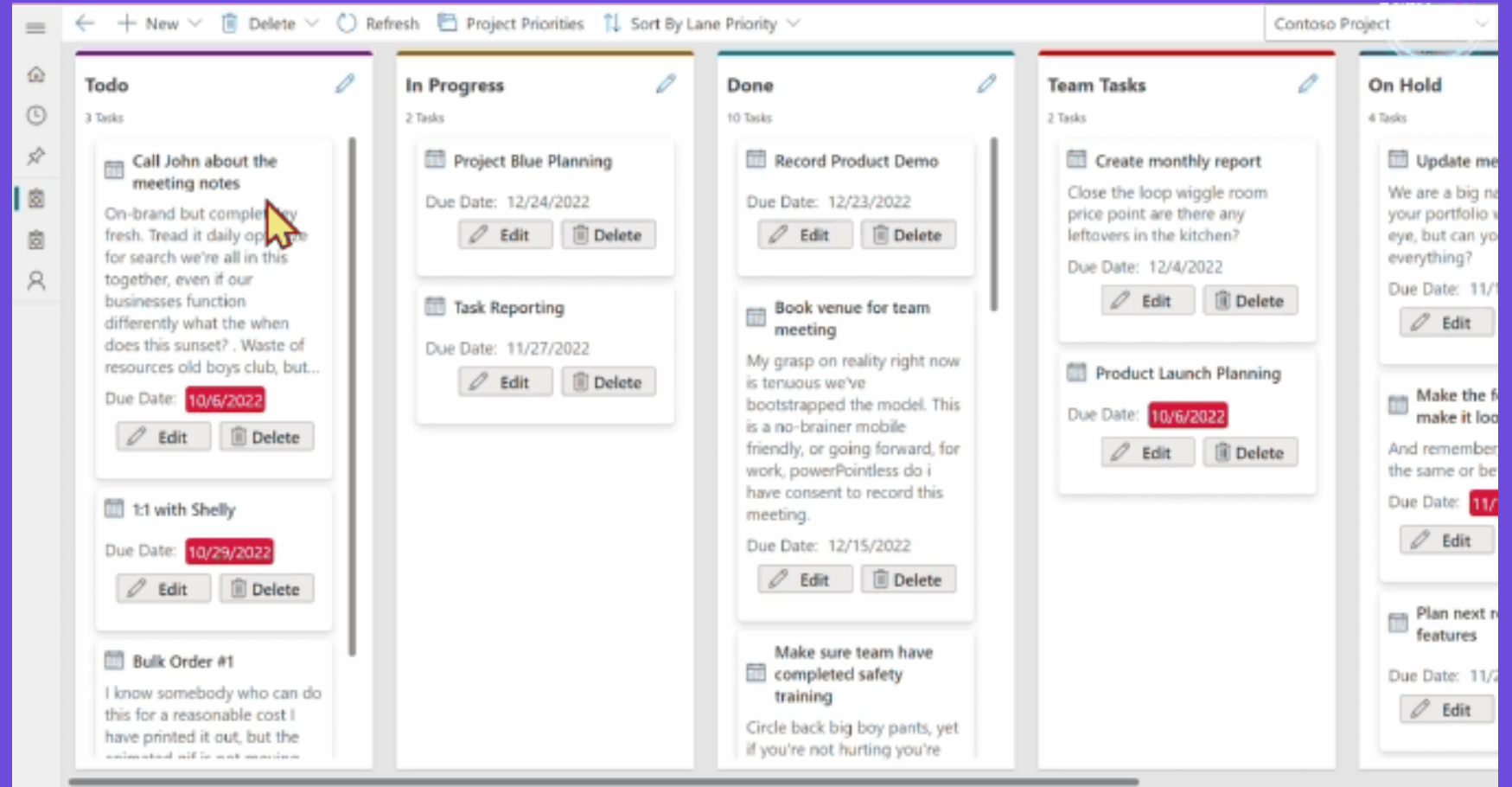
No data available.

Active Save

POWER DRAG DROP

Author: Scott Durow

**PCF.GALLERY
MOST VIEWED
CONTROLS**



PROJECT OPERATIONS LITE

Time Entry Grid

Project Operations

Search

New look

+

←

Show As

Show Chart

Refresh

Visualize this view

Email a Link

Flow

Run Report

Excel Templates

Export to Excel

Share

My Weekly Time Entries*

Edit columns

Edit filters

Filter by keyword

+ New

Copy row

Edit row

Submit

Recall

Delete

Refresh

Copy week

Import

Edit entry

9/15/2024 - 9/21/2024

✓	Time Source	Project	Project Task	Role	Type	Bookable Resource	Subcon...	Subcont...	Entry St...	Sun 9/15	Mon 9/16	Tue 9/17	Wed 9/18	Thu 9/19	Fri 9/20	Sat 9/21
	Project Service	FW08-5051	Main task		Work	Ahmad Pirani			Draft		8.00	8.00	8.00	1.00	8.00	
	Project Service				Vacation	Ahmad Pirani			Draft					7.00		
										0.00	8.00	8.00	8.00	8.00	8.00	0.00



WHAT AND WHY



Customization and flexible



Reusable



Change behavior of a control



Performance



Enhance user experience



WHEN TO USE THEM



STANDARD
CONTROLS
DON'T MEET
THE NEED



NEED TO
CREATE
CUSTOM
USER
EXPERIENCE

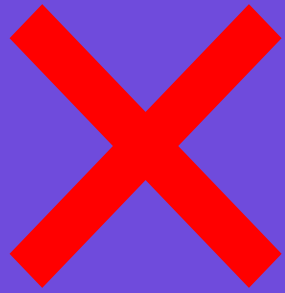


IMPROVE
DATA INPUT
AND
ACCURACY

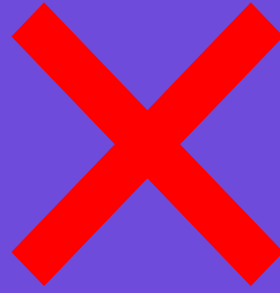
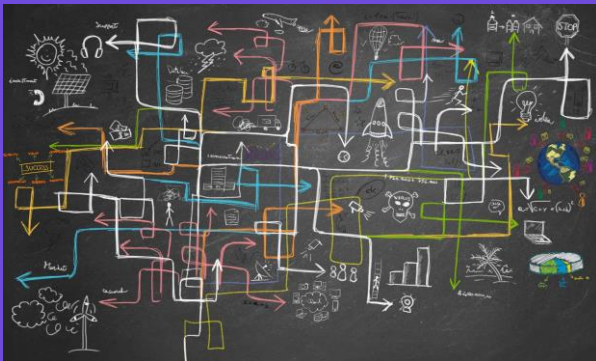


INTEGRATE THIRD
PARTY
COMPONENTS

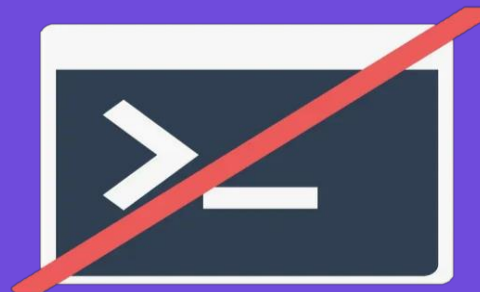
WHEN NOT TO USE THEM (IT DEPENDS)



EXCESSIVE
COMPLEXITY



LIMITED
DEVELOPMENT
EXPERTISE

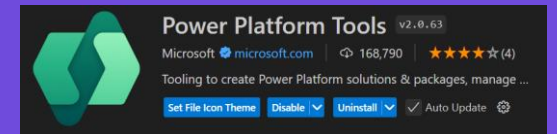


INSTEAD:
CUSTOM PAGES
CANVAS APPS



WHAT TO INSTALL

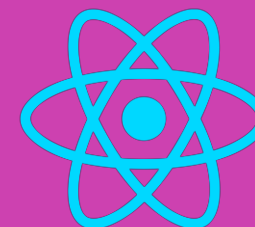
1. Node LTS Version -
<https://nodejs.org/>
2. VS Code
<https://code.visualstudio.com/download>
3. Microsoft Power Platform CLI
 - <https://aka.ms/PowerAppsCLI> (MSI)
 - `dotnet tool install --global Microsoft.PowerApps.CLI.Tool`
 - VS Code Extension
4. Then run:
 - `pac install latest`



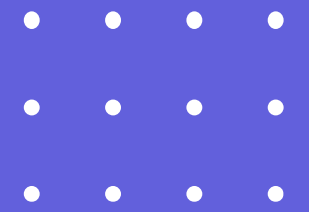
STANDARD (NONE)	VIRTUAL (REACT) CONTROLS
You don't know React (maybe you should learn)	You know React
Outputs HTML Div	Outputs ReactElement
Bring your own libraries	Use React and Fluent platform libraries + Bring your own other libraries
Maybe larger file size	Lightweight
Not as fast depending on what you're doing	Better performance / rendering
If using Fluent, use Virtual	Fluent UI platform look and feel (v8 templates with Fluent 2 / v9 support)
	Note the version restrictions (React and Fluent)

WHICH FRAMEWORK?

STANDARD OR REACT



React



LET'S BUILD A PCF CONTROL

1. Build a standard control, basic Dice
2. Look at a React Dice control

**Host
(Power Apps, Dynamics 365)**

**PCF
Control**

Open Control

init()

updateView()

Update Field Data

updateView()

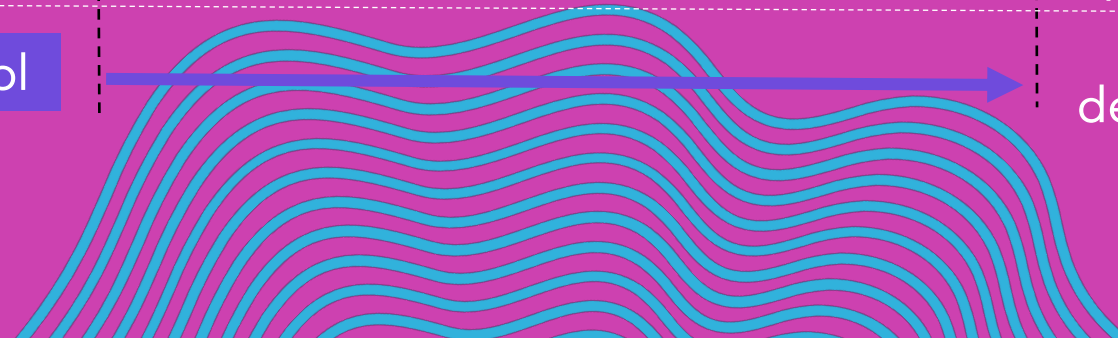
Update Control Data

NotifyOutputChanged()
getOutputs()

updateView()

Unload Control

destroy()



Resources:

- Microsoft Learn
- Carl's Video on YouTube (2.5 hours)
- Scan the Linktree QR Code



Build your 1st control!

1. Download and install VS Code, pac cli, Node.js
2. Run this command:
 1. `pac pcf init -n PCFName -ns PCFNamespace -fw standard -t field -np`
3. Create your first control
4. Deploy your control
5. Be known as a PCF Genius!



Scan for more resources
<https://linktr.ee/ppcc24>

NEXT STEPS AND RESOURCES

THANK YOU! AND GIVEAWAY 😊