

# Adaptive Cards

## Community call

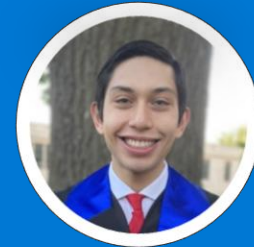
- Adaptive Cards Host Control in Microsoft PnP Library 🗨️
- Designer Device Emulator NEW
- Q&A ?



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# Adaptive Cards Host Control in Microsoft PnP Library

# Agenda

- Understanding the reasons behind the implementation of this control
- Why I chose to use the Adaptive Cards SDK
- Introduction to the control, how it was implemented and how to use it in SPFx
- Demo
- What's next steps?
- References

Understanding the reasons behind the implementation of this control

- Very often, in my development activities, customers ask me SPFx **customizations with identical functionality**, but which **may differ for the UI part**.
- This led me to think of **a way to have the ability to "change" the UI at runtime**, without having to recompile the SPFx solution.
- After several attempts and reasoning, **the choice fell on Adaptive Cards**.

# Why I chose to use the Adaptive Cards SDK

- **Because...** 😊

*Adaptive Cards are **platform-agnostic snippets of UI, authored in JSON**, that apps and services can openly exchange. When delivered to a specific app, the JSON is transformed into native UI that automatically adapts to its surroundings. **It helps design and integrate light-weight UI for all major platforms and frameworks.***

- The goals for Adaptive Cards are:

- **Portable** - To any app, device, and UI framework
- **Open** - Libraries and schema are open source and shared
- **Low cost** - Easy to define, easy to consume
- **Expressive** - Targeted at the long tail of content that developers want to produce
- **Purely declarative** - No code is needed or allowed
- **Automatically styled** - To the Host application UX and brand guidelines

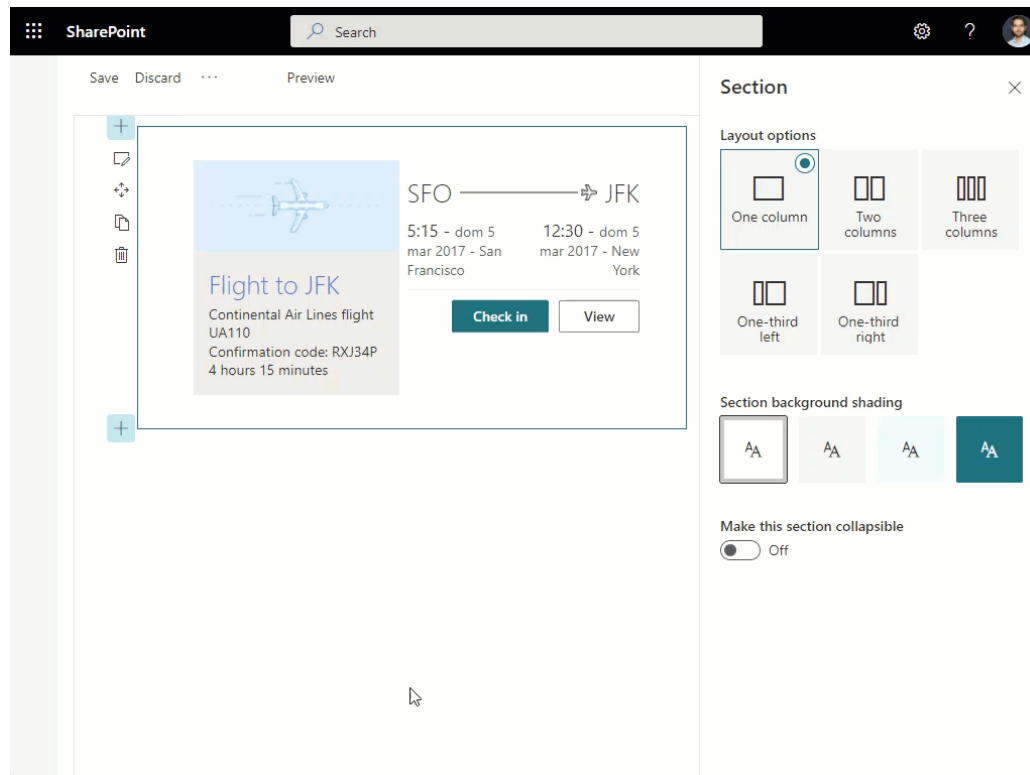
# Introduction to the control, how it was implemented and how to use it in SPFx

- **React Control** that render Adaptive Card **using the SDK**
- Using a **brand-new Fluent UI Elements** that use the **Fluent UI Theme both for SharePoint and Microsoft Teams**
- **Auto apply the AC Template** if data object is passed to the control
- **Callbacks** to intercept **Actions and Errors**
- **Callbacks** to **set custom Elements and custom Actions**
- **Callback** to **set custom Host Capability properties**

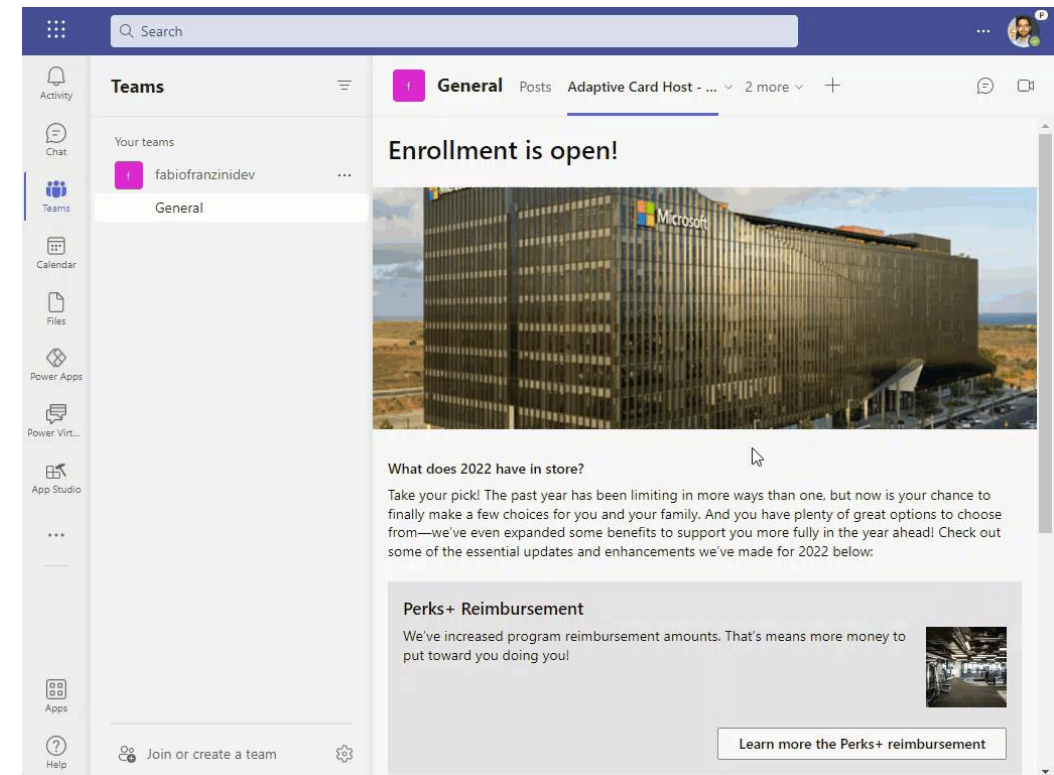
```
return (  
  <AdaptiveCardHost  
    card={sample.template}  
    data={sampleData}  
    style={null}  
    className={null}  
    theme={this.props.theme}  
    themeType={themeType}  
    hostConfig={null}  
    onInvokeAction={({action: IAdaptiveCardHostActionResult}) => alert(JSON.stringify(action))}  
    onError={({error}) => alert(error.message)}  
    onSetCustomElements={({registry: CardObjectRegistry<CardElement>}) => { }}  
    onSetCustomActions={({registry: CardObjectRegistry<Action>}) => { }}  
    onUpdateHostCapabilities={({hostCapabilities: HostCapabilities}) => {  
      hostCapabilities.setCustomProperty("__customProperty", Date.now);  
    }}  
    isUniqueControlInPage={true}  
  />  
);
```

# Demo

## Web Part in SharePoint



## Web Part as Teams Tab



## What's next steps?

- Implement the Designer component for the PnP Reusable React Controls Library
- Create a set of new Adaptive Cards elements (targeted only for Js SDK):
  - Maybe using Fluent UI React 😊
  - Maybe using Fluent UI Web Components 😊
  - Maybe using MGT (Thanks to Joao Mendes) 😊
  - Maybe using another libraries...



## References

- AdaptiveCardHost - @pnp/spfx-controls-react:  
<https://pnp.github.io/sp-dev-fx-controls-react/controls/AdaptiveCardHost/>
- Demo (Will be available here):  
<http://aka.ms/spfx-webparts>

# About Me

**CEO Apvee Solutions, Microsoft MVP** in  
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# New Designer Device Emulator



# Teams Nation 2022

Wednesday 23<sup>rd</sup> March  
Online



Adaptive Cards today

Tim Cadenbach, Tomasz Poszytek,  
Luise Freese

Time: 12.00 CET

Room: Build and Extend

Register today | <https://teamsnation.rocks/register>

# Q&A



# Resources

Let us know the features you need

<https://aka.ms/ACRoadmap>

Get started with Templating

<https://aka.ms/ACTemplating>

Browse the Adaptive Cards Code

<https://aka.ms/ACRepo>

Find tools, sample cards and more

<https://www.madewithcards.io>

# Microsoft 365 developer community calls

Microsoft 365 platform call (weekly)

<https://aka.ms/m365-dev-call>

Adaptive Cards (monthly)

<https://aka.ms/adaptivecardscommunitycall>

Microsoft identity platform (monthly)

<https://aka.ms/IDDevCommunityCalendar>

Office Add-ins (monthly)

<https://aka.ms/officeaddinscommunitycall>

Power Apps (monthly)

<https://aka.ms/PowerAppsMonthlyCall>

Microsoft 365 Community (bi-weekly)

<https://aka.ms/m365-dev-sig>

SharePoint Framework (bi-weekly)

<https://aka.ms/spdev-spfx-call>

<https://aka.ms/m365pnp>