

# Create a better version of HTML Text Component using PCF in Canvas Apps

Fabio Franzini – CEO Apvee Solutions – Microsoft MVP

# About Me

I'm:

- CEO at Apvee Solutions, company focused on building solutions on top of Microsoft 365 ecosystem.
- Microsoft MVP in Office Development and Business Applications categories.
- Developer that use code & low-code.

Find me using:

- Mail: [fabio@apvee.com](mailto:fabio@apvee.com)
- Twitter: [@franzinifabio](https://twitter.com/franzinifabio)
- LinkedIn: [www.linkedin.com/in/fabiofranzini](https://www.linkedin.com/in/fabiofranzini)
- GitHub: <https://github.com/fabiofranzini>



# Agenda

- HTML Text component in Power Apps Canvas
- Proof of concept of the PCF Html Template Component
- Demo & Code
- References

# HTML Text component in Power Apps Canvas

- Power Apps Canvas control to show static HTML text
- Any dynamic HTML must be generated by the application, normally using string concatenation, which can affect app performance.
- All graphic styles must be set using the style attribute, which is complex in case of complex styles
- Used to “create” custom controls based on HTML.
- No support for internal state
- No support for interactivity like custom events



# Proof of concept of the PCF Html Template Component

Code Component that support:

- Dynamic HTML creation using 2 properties, HtmlTemplate & JsonData
- Template syntax derived from Microsoft Graph Toolkit Templating
- Handle internal state
- Handle custom style using Tailwind CSS
- Handle custom event to notify App using OnChange and 2 properties: EventType & EventData.

It basically allows you to create new controls, with behaviours and internal state, using only HTML and a json string

# Proof of concept of the PCF Html Template Component - Syntax

```

<div class="bg-gray-200 p-6 h-full">
  <h3 class="text-lg font-medium leading-6 text-gray-900"> Last 30 days</h3>
  <dl class="mt-5 grid grid-cols-1 gap-5 sm:grid-cols-3">
    <a class="overflow-hidden rounded-lg bg-white px-4 py-5 shadow sm:p-6 cursor-pointer"
      data-for='item in data.stats'
      data-props="{{@click: toggleState, stateName:'detailId', stateValue:item.id}}">
      <dt class="truncate text-sm font-medium text-gray-500">{{item.name}}</dt>
      <dd class="mt-1 text-3xl font-semibold tracking-tight text-gray-900">{{item.value}}</dd>
    </a>
  </dl>
  <div class="shadow mt-5 rounded-lg bg-white px-4 py-5" data-if="getState('detailId')">
    <p class="cursor-pointer"
      data-props="{{@click: invokeEvent, eventType:'detailClick', eventData:getState('detailId')}}">
      {{getState('detailId')}}
    </p>
  </div>
</div>

```

# Proof of concept of the PCF Html Template Component – Internal Template Functions

- **setState**: Invocable from the template to set an internal state of the control. Accepts two parameters, 'stateName' and 'stateValue'.
- **getState**: Invocable from the template to get the one of the internal state of the control. Accepts one parameters, 'stateName'
- **toggleState**: Invocable from the model to toggle the value of an internal state within the control. Accepts two parameters, 'stateName' and 'stateValue'.
- **invokeEvent**: Invocable from the model to emit a custom event via OnChange property. Accepts two parameters, 'eventType' and 'eventData'.



# DEMO & CODE



# References

- <https://learn.microsoft.com/en-us/power-apps/maker/canvas-apps/controls/control-html-text>
- <https://learn.microsoft.com/en-us/power-apps/developer/component-framework/create-custom-controls-using-pcf>
- <https://learn.microsoft.com/en-us/graph/toolkit/customize-components/templates>
- <https://twind.dev/handbook/introduction.html>

# Thank you!

Fabio Franzini – CEO Apvee Solutions – Microsoft MVP