

## Modal Custom Pages, Modern Commanding, and More – Level Up with Low Code

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#### **Presenters**



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Developer
Stoneridge Software













#### Agenda



- History of Low Code
- Custom Pages
- Modern Commanding
- Low-Code Dialogs
- Best Practices



# History of Low Code



- Dynamics has always been low code...
- But code still crucial for even simple things
- Skillset needs are changing
- Era of enablement
  - Empowering "citizen developers" to get started
  - Much like they would in Excel

```
__modifier_ob_
         mirror object to mirror
mirror_mod.mirror_object
     peration == "MIRROR_X":
 irror_mod.use_x = True
 mirror_mod.use_y = False
  ### Irror_mod.use_z = False
       operation == "MIRROR_Y"
  lrror_mod.use_x = False
    lrror_mod.use_y = True
       lrror_mod.use_z = False
           operation == "MIRROR_Z":
            rror_mod.use_x = False
            rror_mod.use_y = False
          rror_mod.use_z = True
         melection at the end -add
               ob.select= 1
                er ob.select=1
              ntext.scene.objects.action
             "Selected" + str(modified
                 rror ob.select = 0
          bpy.context.selected_obj
              ata.objects[one.name].se
         int("please select exactle
          --- OPERATOR CLASSES ----
                            mirror to the selected
                  ect.mirror_mirror_x
        context):
    context):
    context is not for
    context is n
```







#### **Microsoft Power Platform**

The low code platform that spans Microsoft 365, Azure, Dynamics 365, and standalone apps.



**Power BI**Business analytics



Power Apps
App development



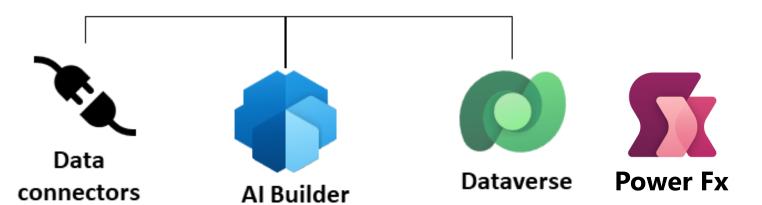
Process automation



Power Virtual Agents
Intelligent virtual agents



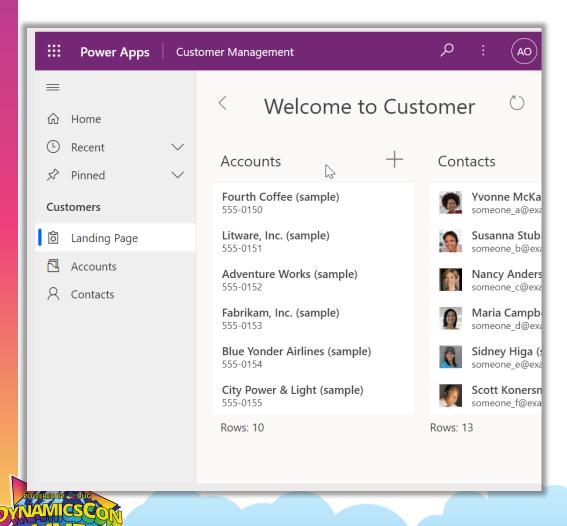
Power Pages External-facing websites



## Custom Pages

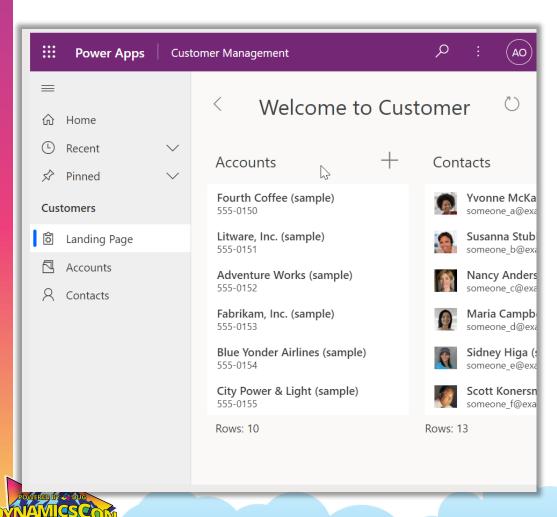


#### Intro to Custom Pages



- Convergence of model-driven and canvas apps
- Essentially a canvas app but more deeply embedded
- Low-code page authoring experience
- More flexibility than model-driven forms, views, and dashboards
- Power Platform connectors
- Some controls unavailable

#### Intro to Custom Pages

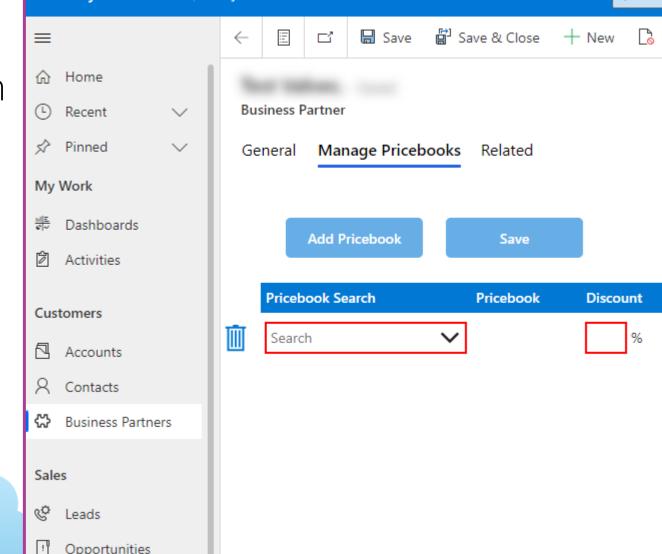


- Full pages
- Centered dialogs
- Side dialogs
- Side panes (persistent)



#### Same as Canvas Apps?

- No limits to how many apps
- More aware of the model-driven app
- Embedded canvas apps limited to model-driven forms
- Fewer issues deploying
- No more sharing



**Dynamics 365** 

**Bray Sales** 

∠ Sea



## **Custom Pages Demos**

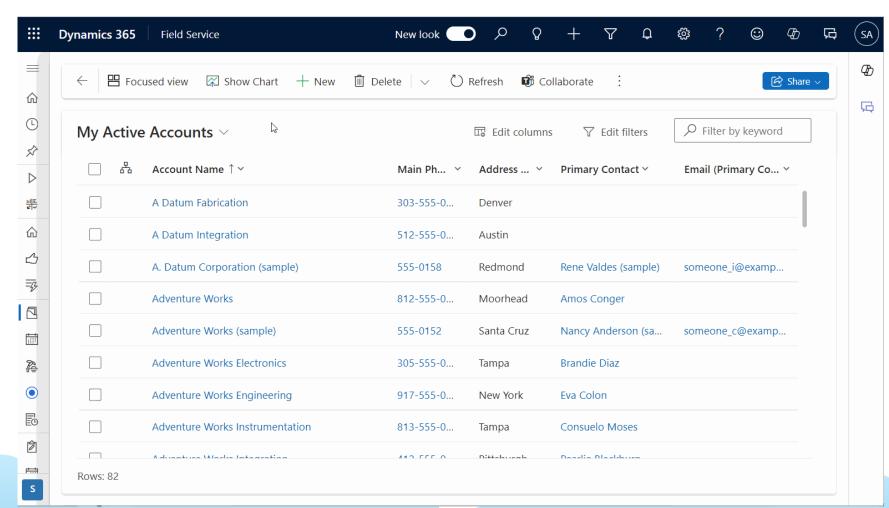
- See them in action
- See how to build them
- Templates





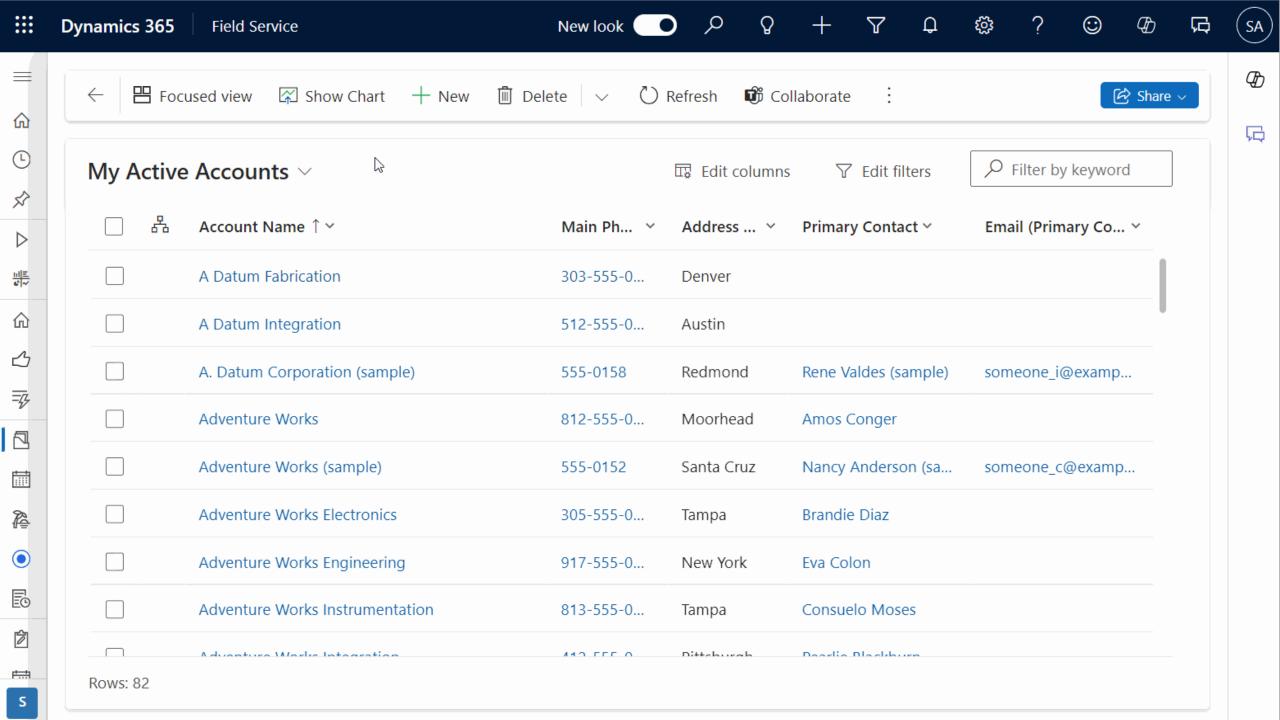


#### **Side Dialog**

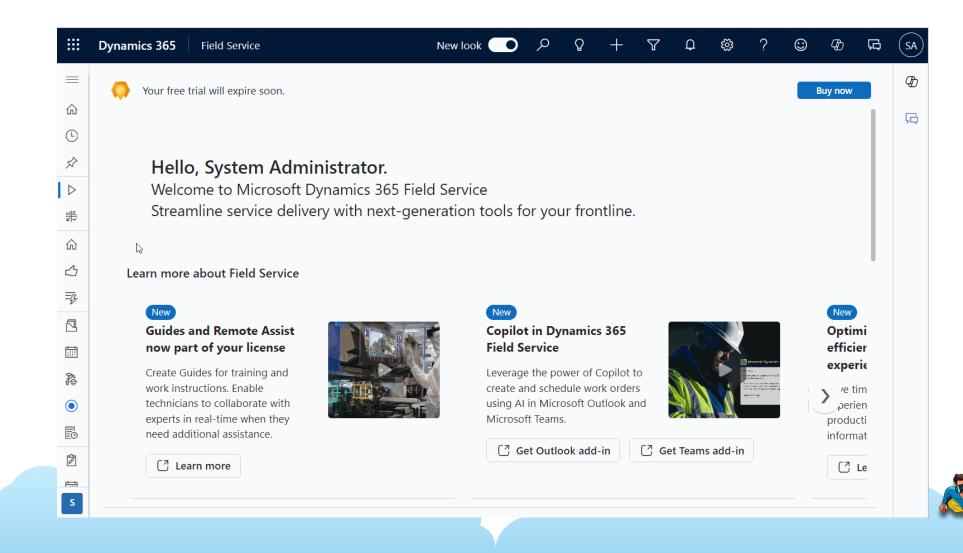




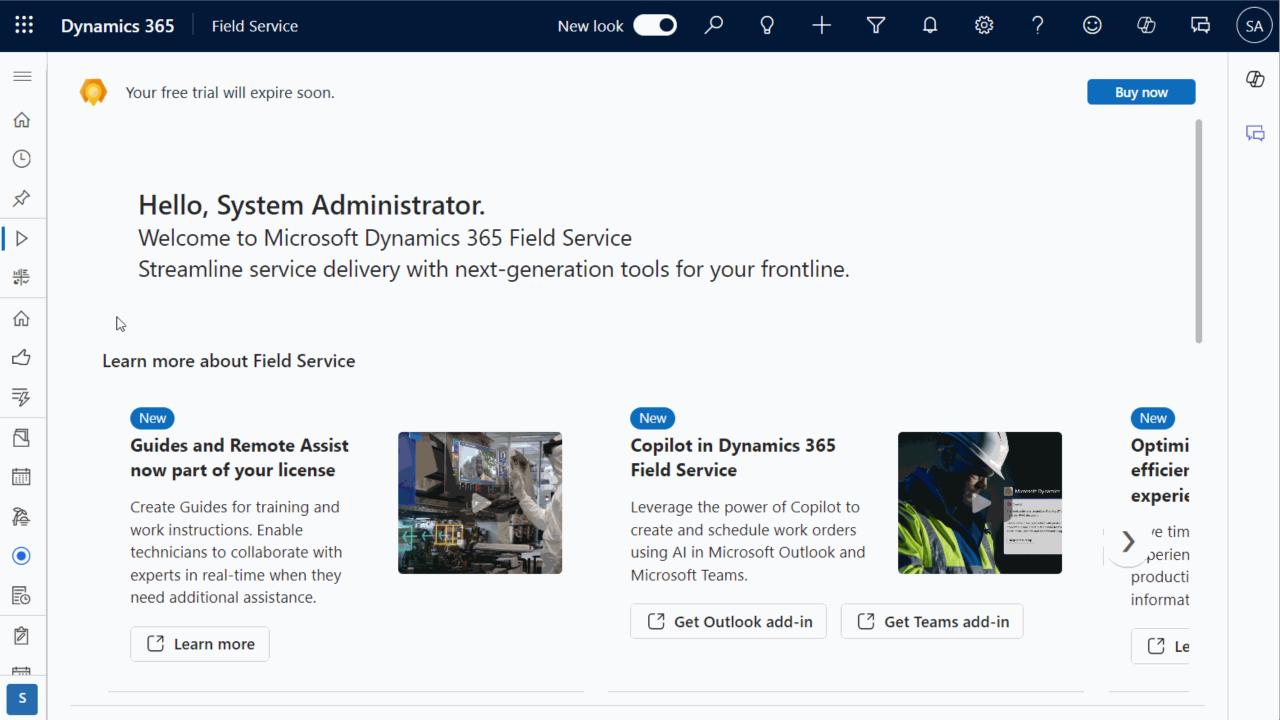




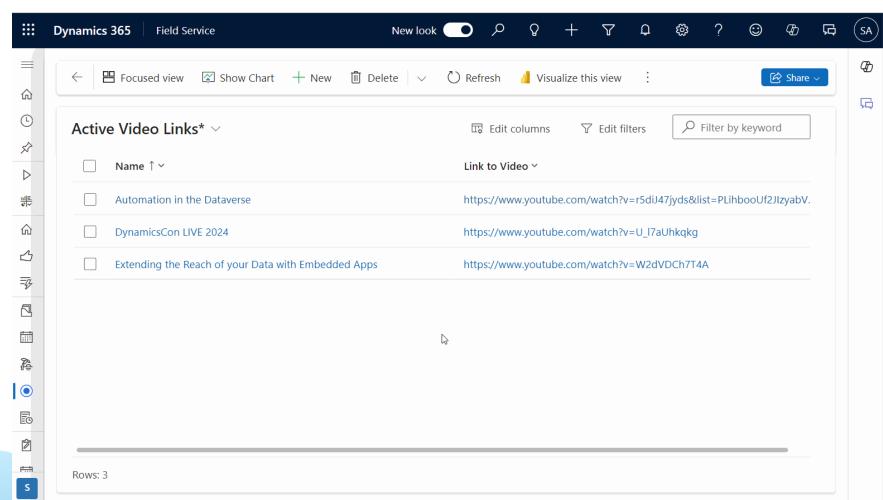
#### **Home Page**





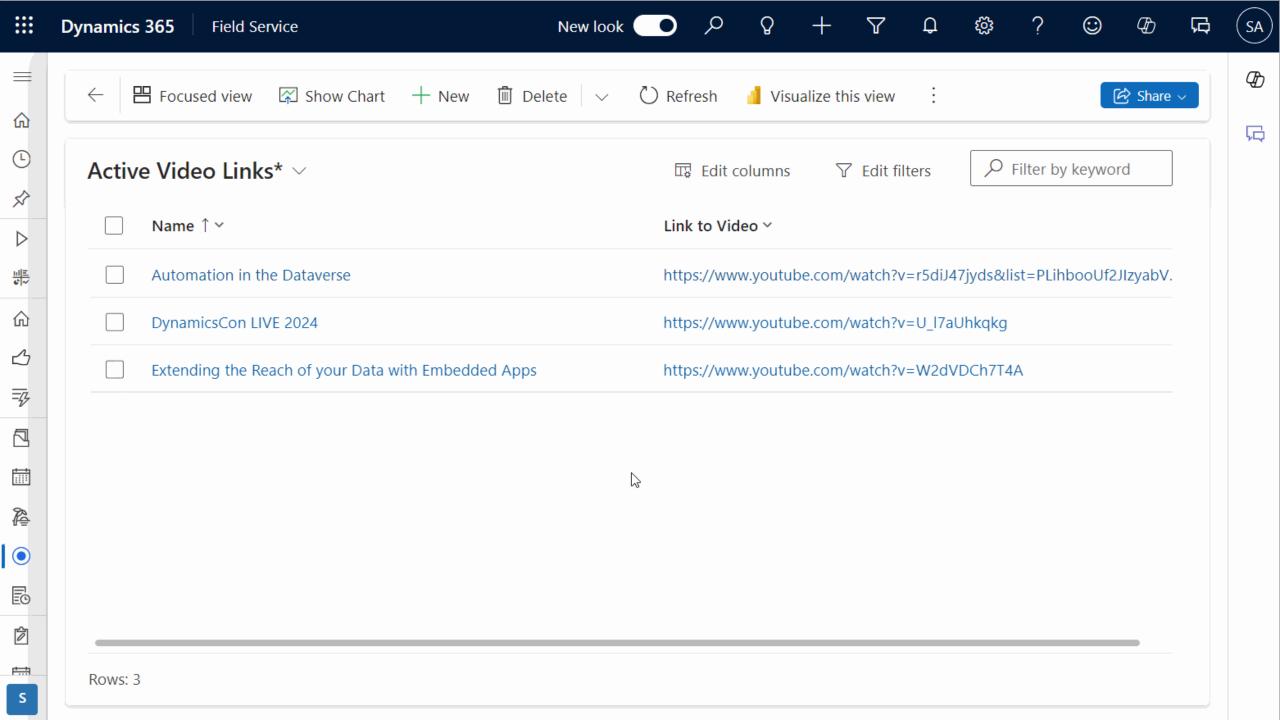


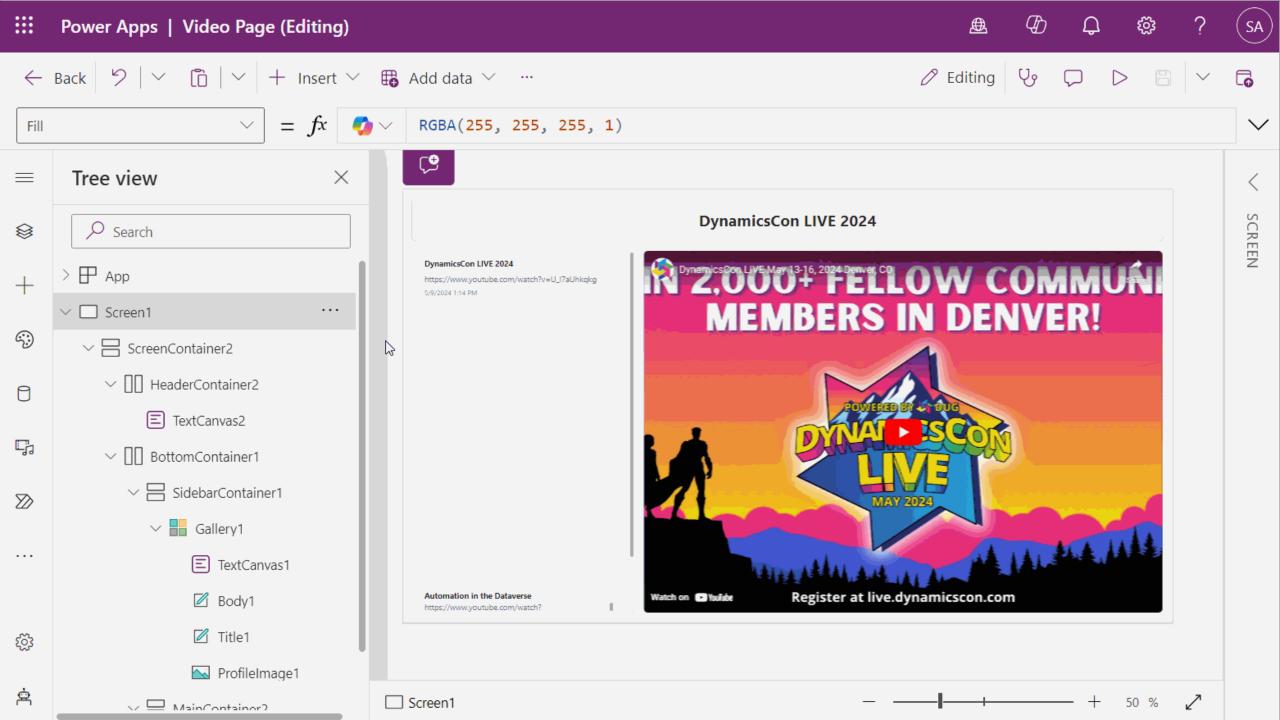
#### Video Player



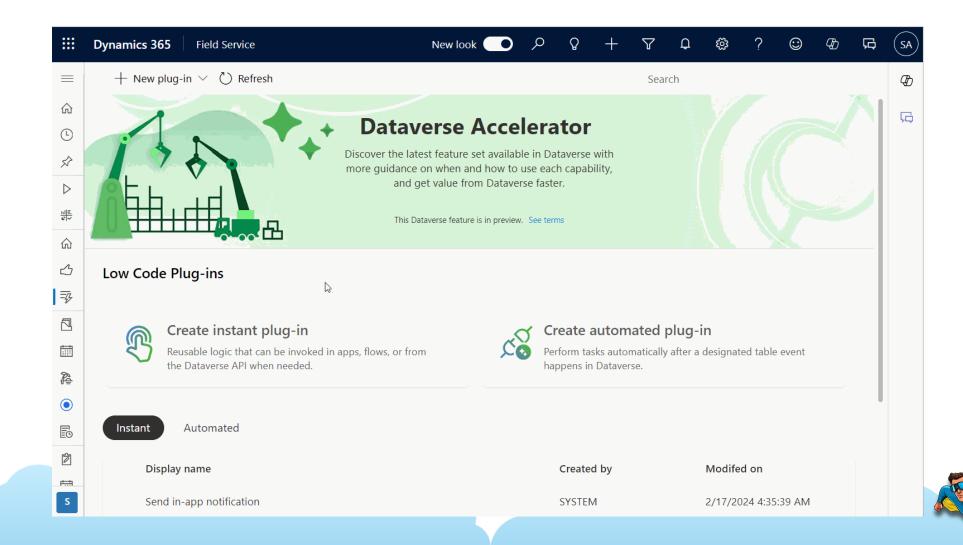




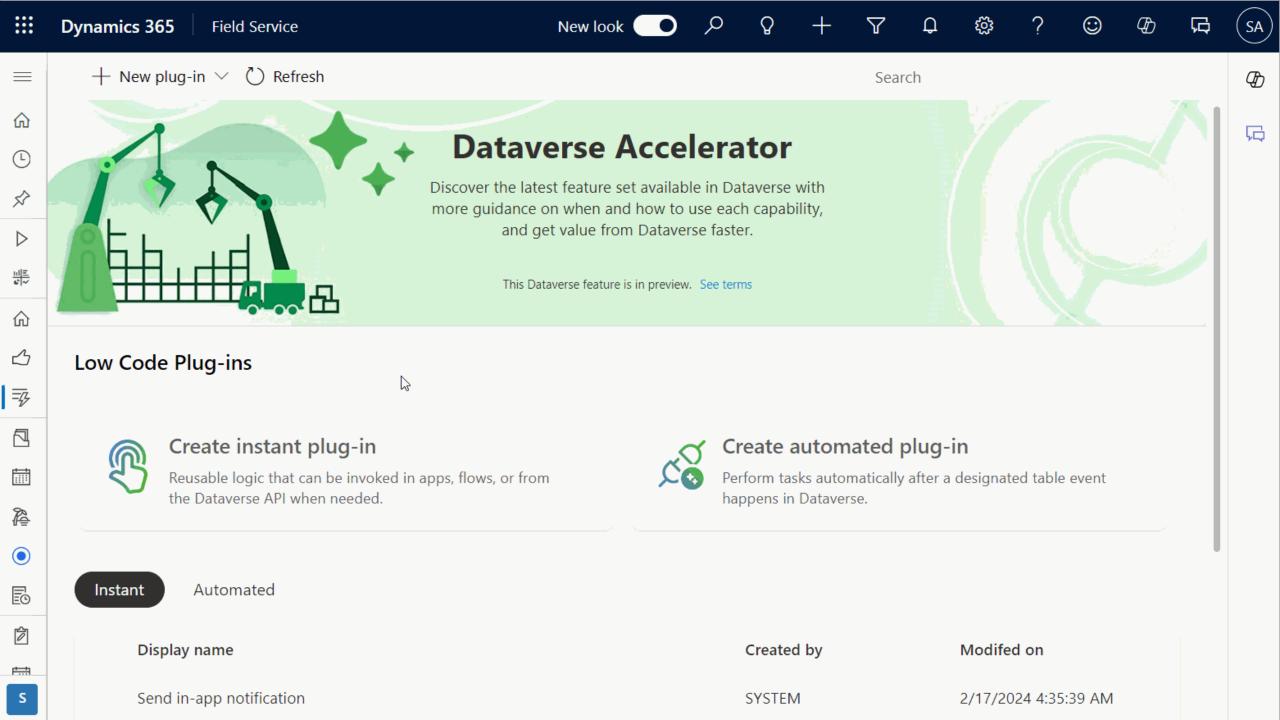




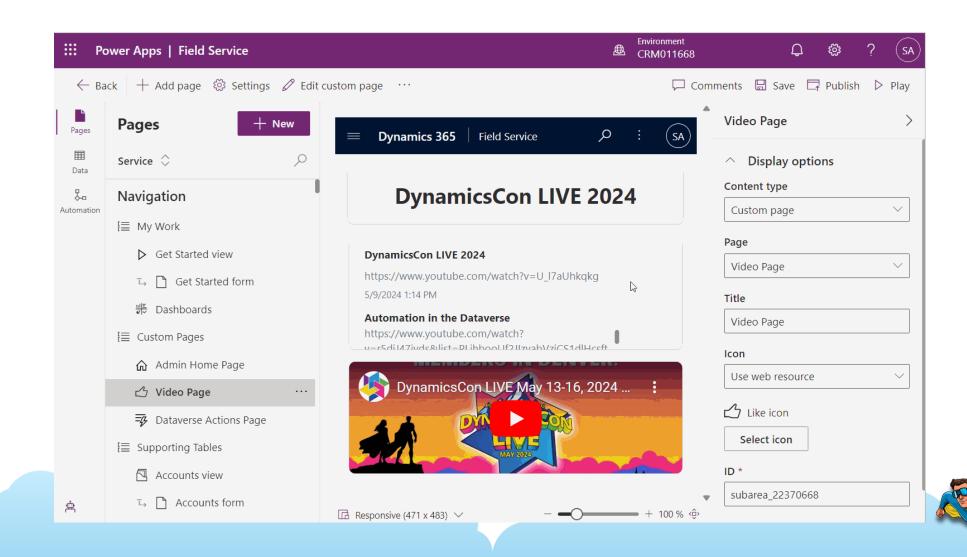
#### **Low-Code Plugins**



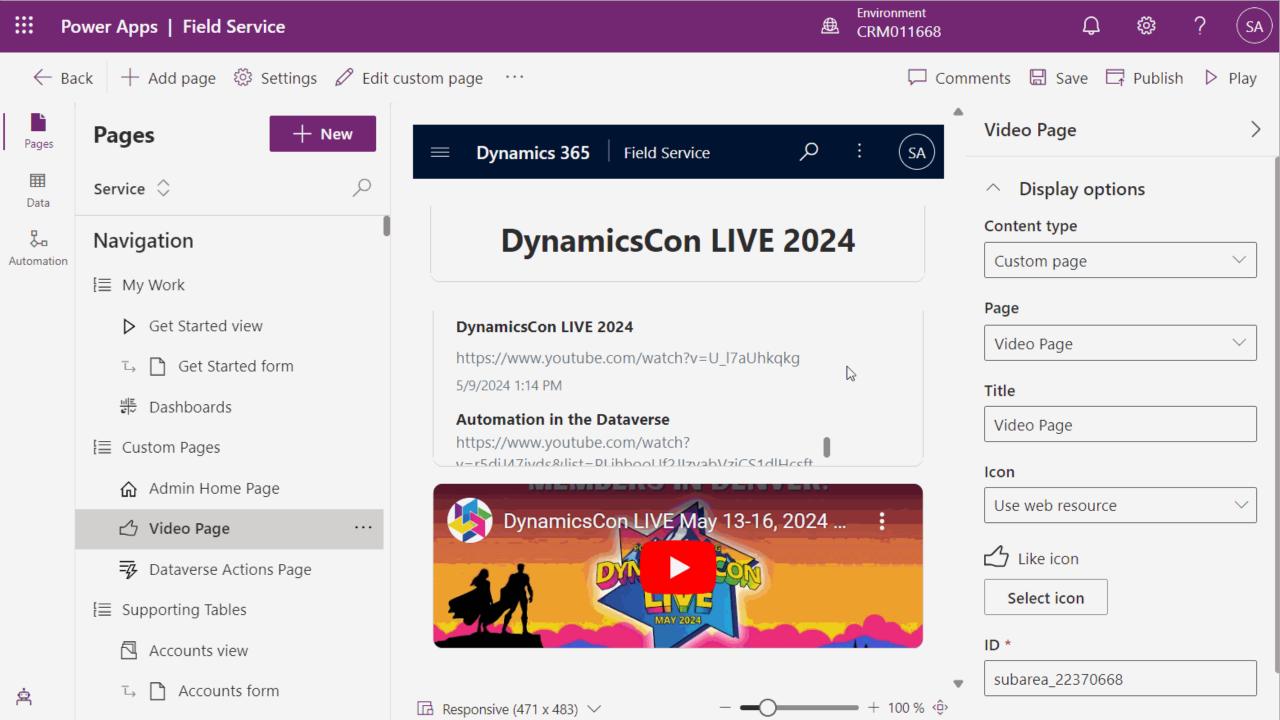




#### **Start From a Template**







## **Custom Pages Demos**

#### Best Practices + Tips:

- Always use containers
- Handle errors with every action
- Consider navigation
- Don't veer too far from default styling/sizing
- Avoid multiple pages



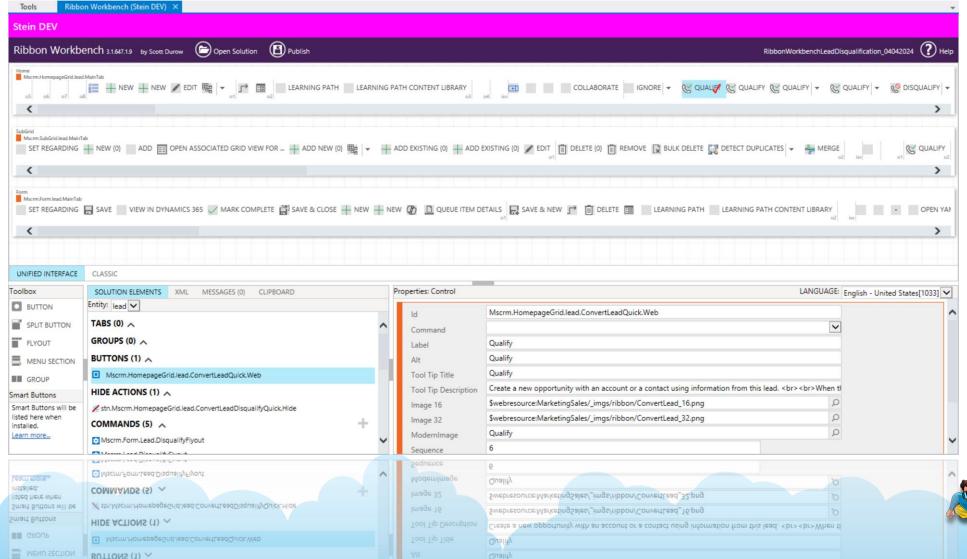




## Modern Commanding

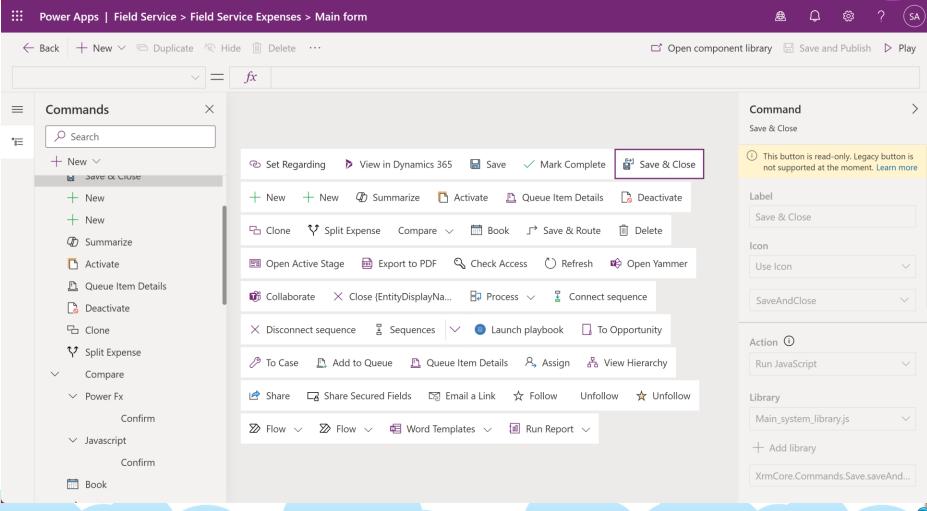


#### Ribbon Workbench





#### Intro to Modern Commanding

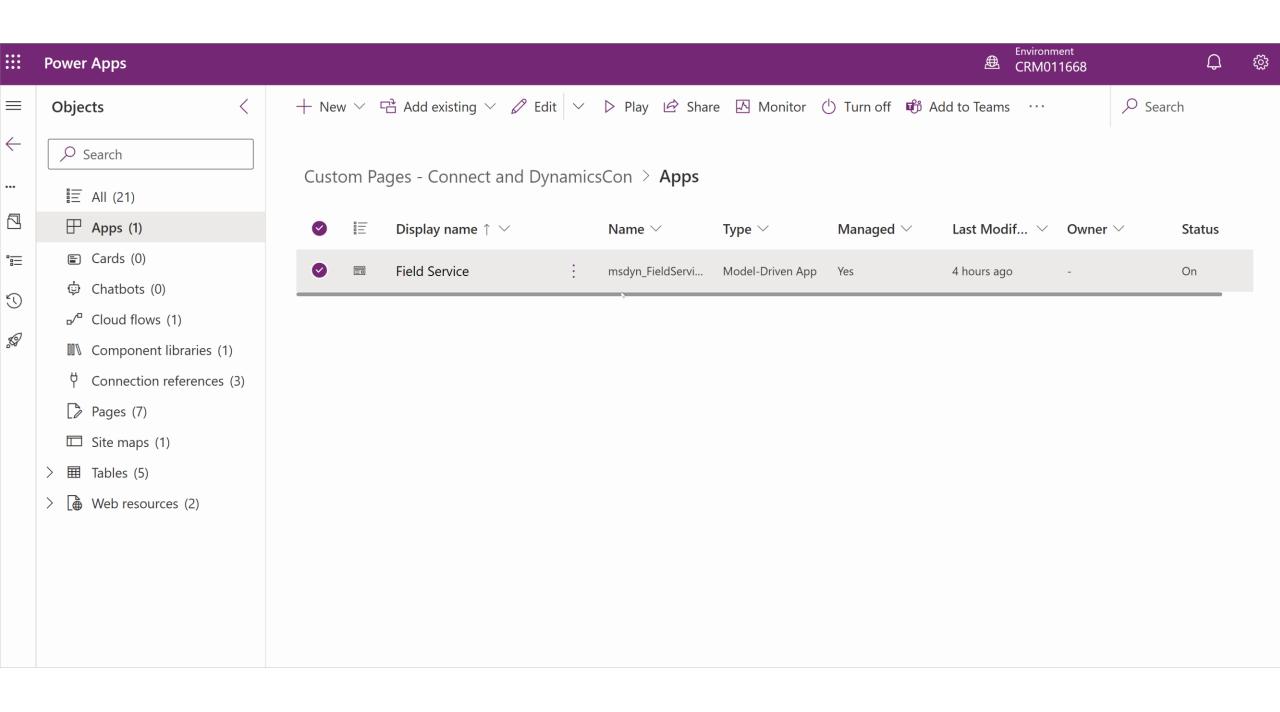




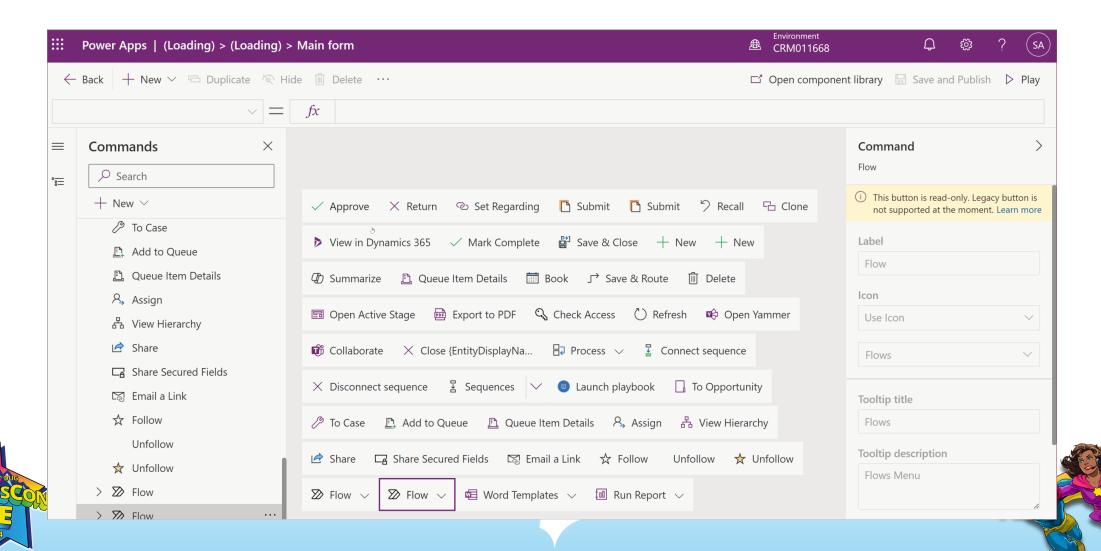
# Finding the Command Bar

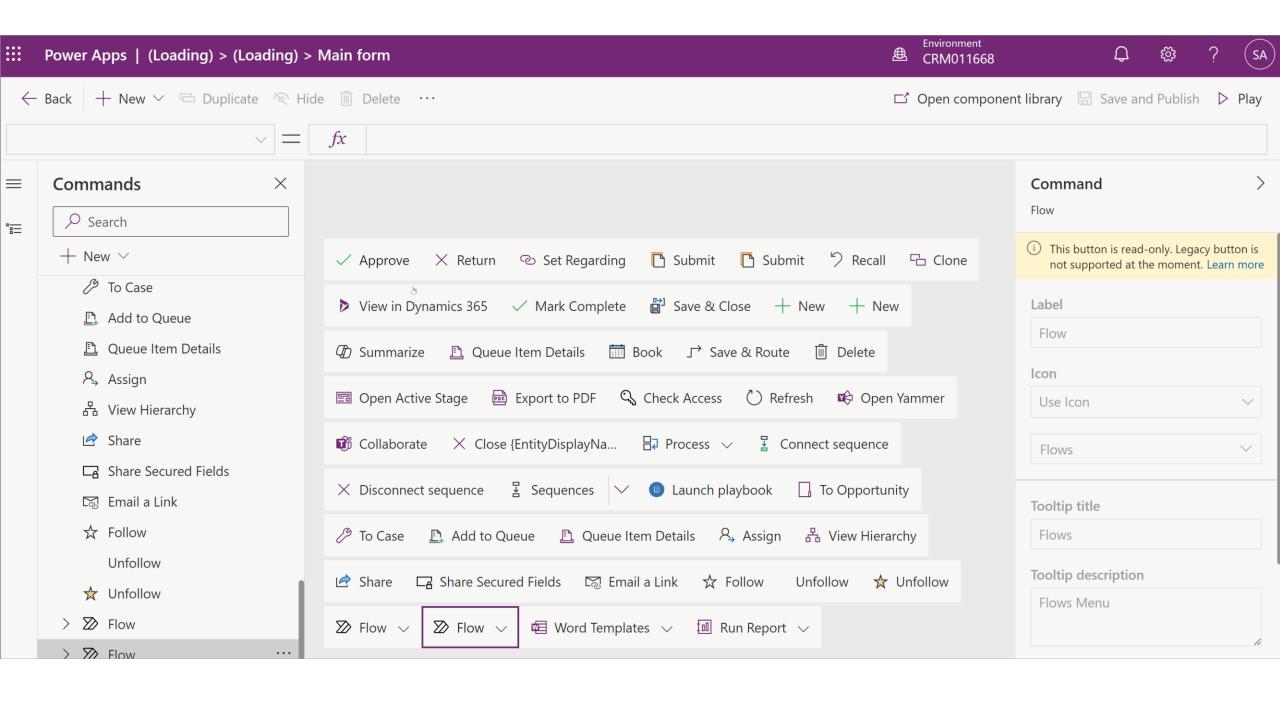






#### **Types of Commands**

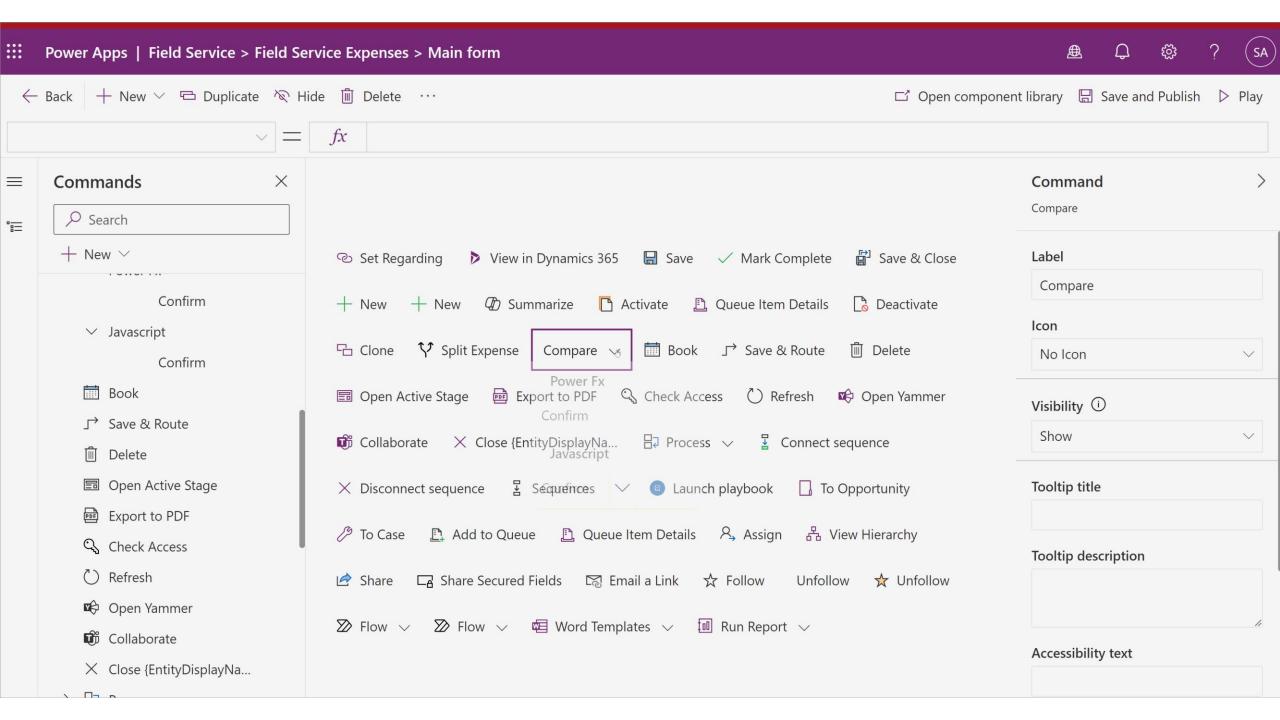




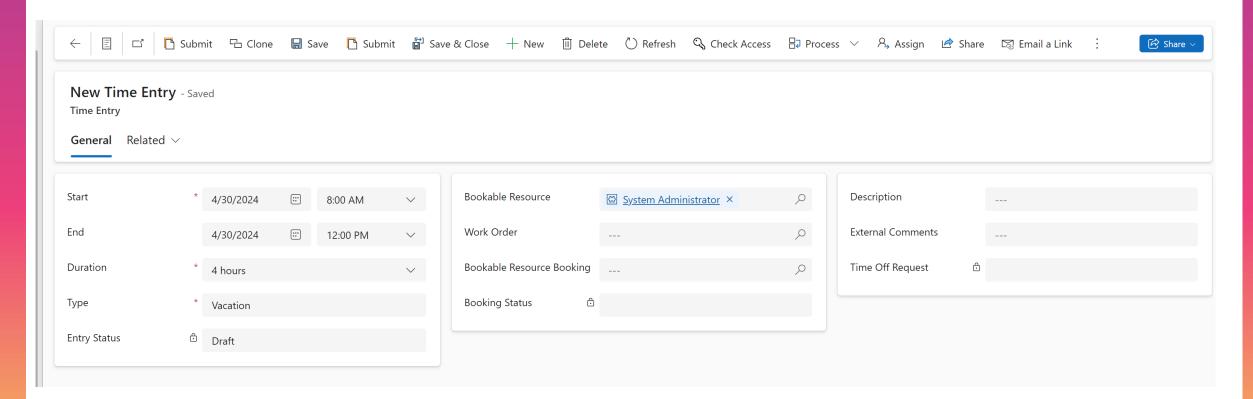
## Confirmation Dialog





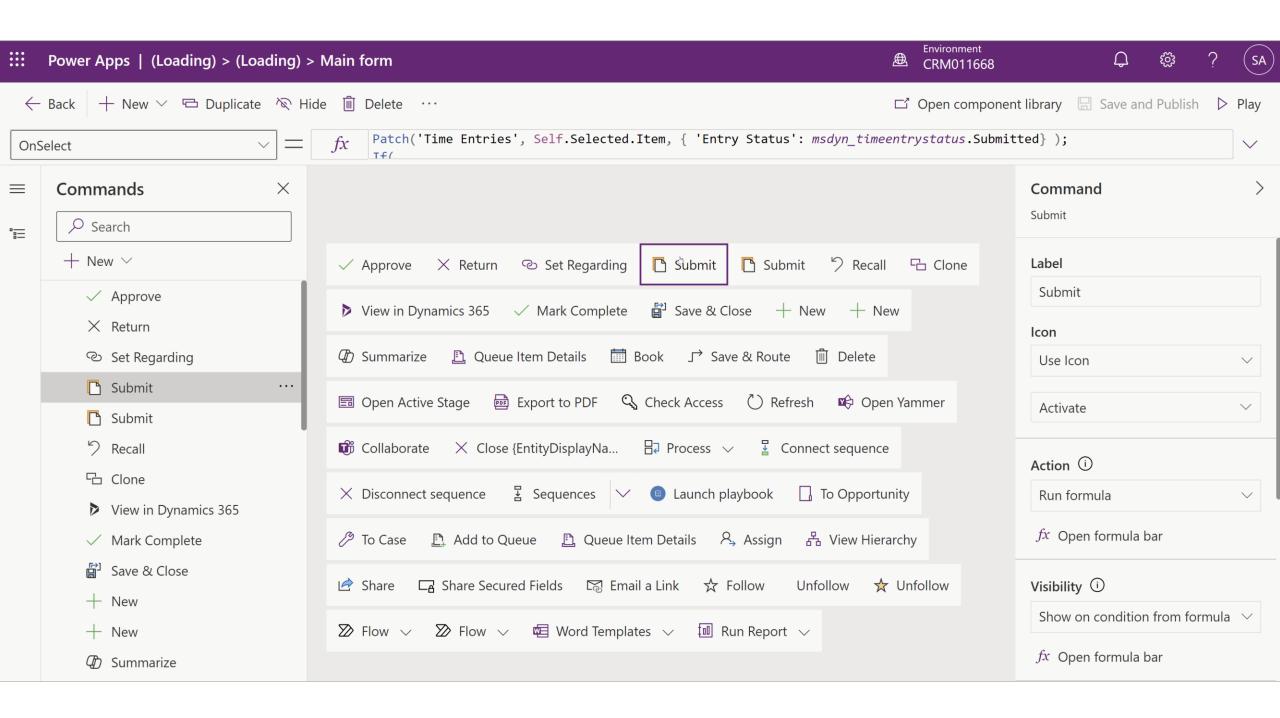


### **Time Entry Demo**





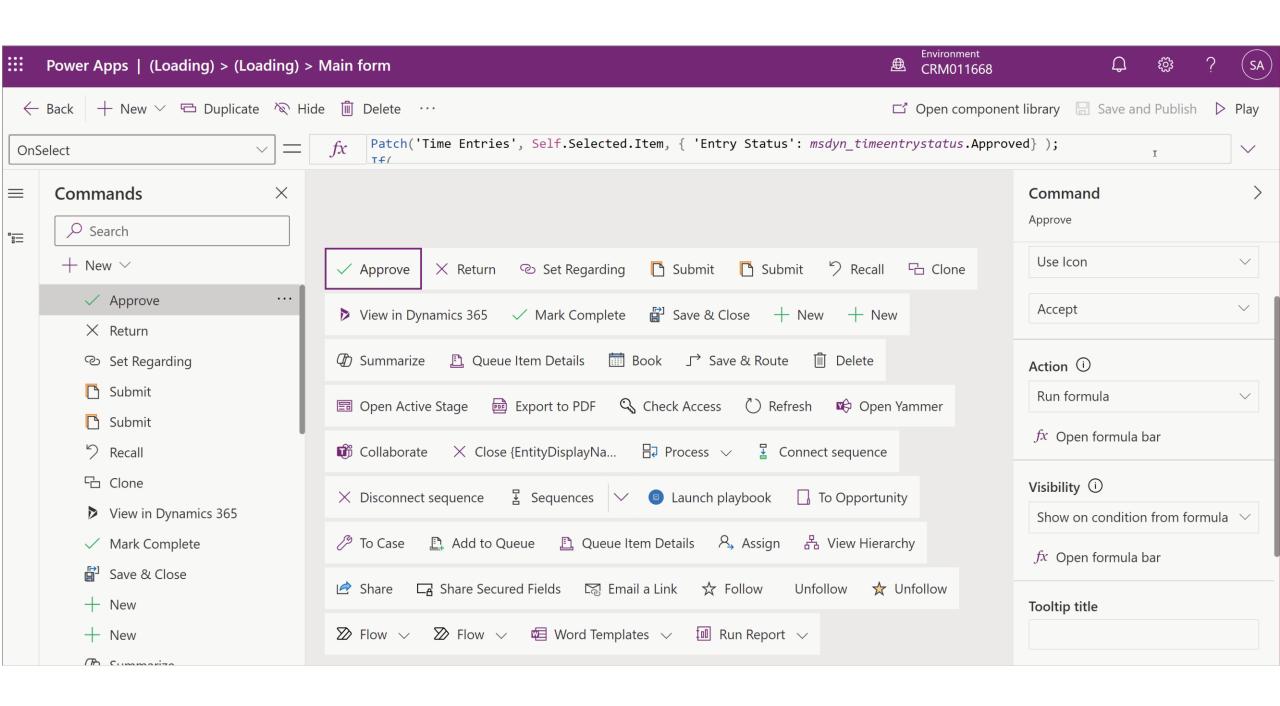




## Approve



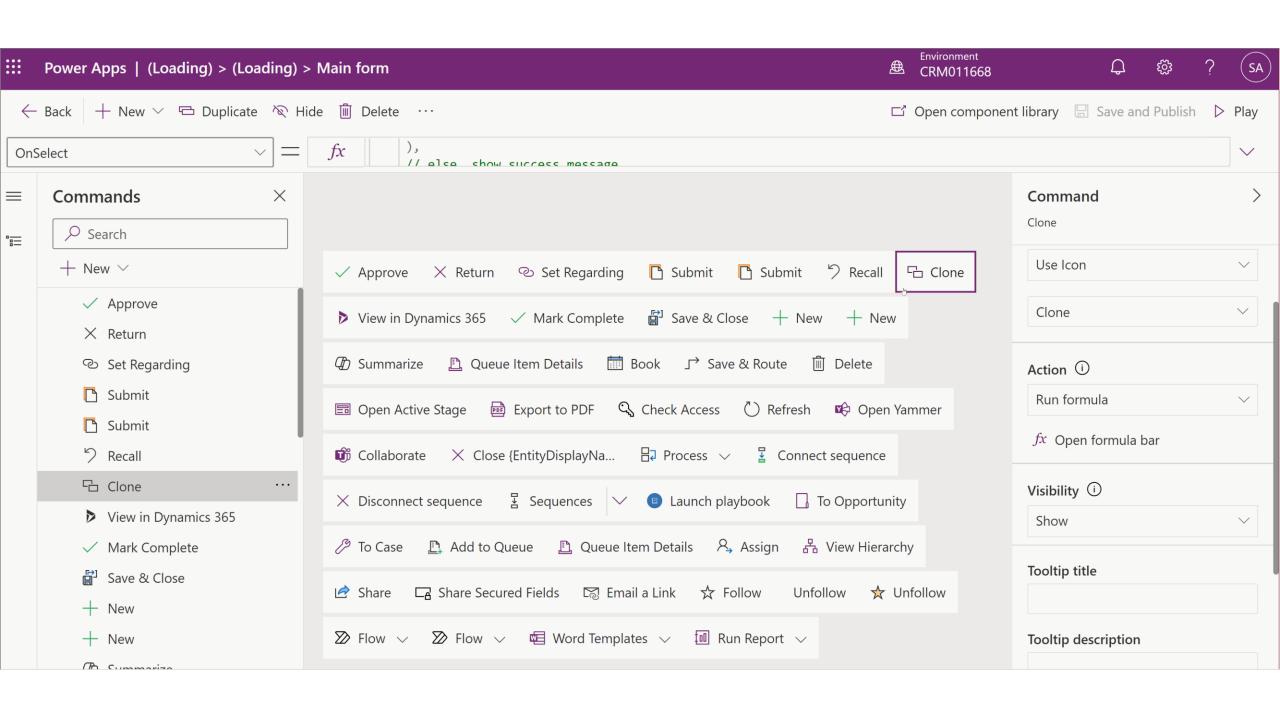




## Clone







## **Modern Commanding**

#### Best Practices + Tips:

- Consider behavior after action is taken – both success and failure
- Handle visibility thoughtfully
- Consider duplicating the commands from forms to views

#### Gotchas:

- Limited Power Fx functions
- Power Fx only supported in Dataverse
- In the correct Command Bar



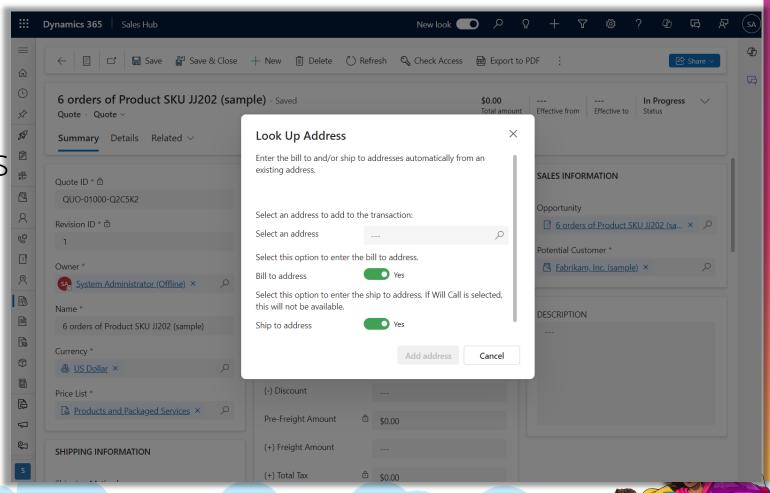






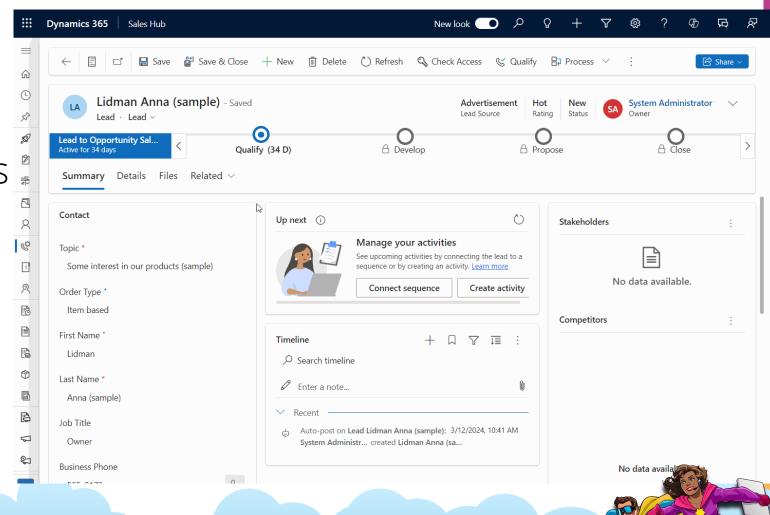
### **Dialogs Intro**

- Pop-up windows requesting user input
- Often triggered by button click and prompts user to take action
- Focuses user on just a few fields
- Used commonly by Microsoft in Dynamics 365 applications

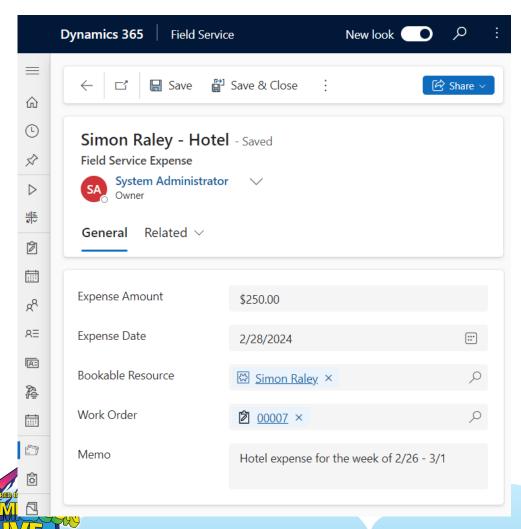


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## Split Expense Scenario



- Field service environment tracking expenses against work orders
- Sometimes expenses must be split between two work orders
- Portion of one expense is to be moved into a new expense and related to another work order
- User to trigger dialog window:
  - Enter dollar amount for new work order and select new work order
  - New expense to be created with entered amount
  - Original expense to be decremented by the same amount
  - Related attachments to be copied

# Traditional Approach

- A developer is needed to write code which can include a combination JavaScript, HTML and C# Plugins
- Lacking the same look and feel as the modern UI
- Can be costly with time and effort
- Requires working with an API directly

```
OII C
```

```
(!DOCTYPE html>
<html lang="en">
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Old Style Dialogs in Dynamics 365</title>
   <style>
        .dialog-box {
           background-color: #f8f8f8;
           border: 2px solid ■#ccc;
           padding: 20px;
           width: 300px;
           position: absolute;
           top: 50%;
           left: 50%;
           transform: translate(-50%, -50%);
           box-shadow: 0 0 15px □rgba(0,0,0,0.2);
           text-align: center;
        .dialog-button {
           margin-top: 20px;
           padding: 10px 20px;
           background-color: ■#4CAF50;
           color: white;
           border: none;
           cursor: pointer;
        .dialog-button:hover {
           background-color: ■#45a049;
       input[type="text"] {
           padding: 8px;
           width: 80%;
           margin-top: 10px;
   </style>
</head>
   <div class="dialog-box" id="dialogBox">
        <h2>Enter Your Name</h2>
        <input type="text" id="userName" placeholder="Your Name Here">
        <button class="dialog-button" onclick="submitName()">Submit</button>
```

### The Low Code Dialog Solution

#### **Bringing it all together**



### RESPONSIVE CUSTOM PAGE

- Modern controls
- Responsive design
- Buttons to cancel or take action
- Powerful expressions to create/update
   Dataverse records
- Validation of user input
- Error handling



#### **MODERN COMMAND**

- New command designer
- Re-usable JavaScript function to open the custom page







## Modern Command Opens Custom Page



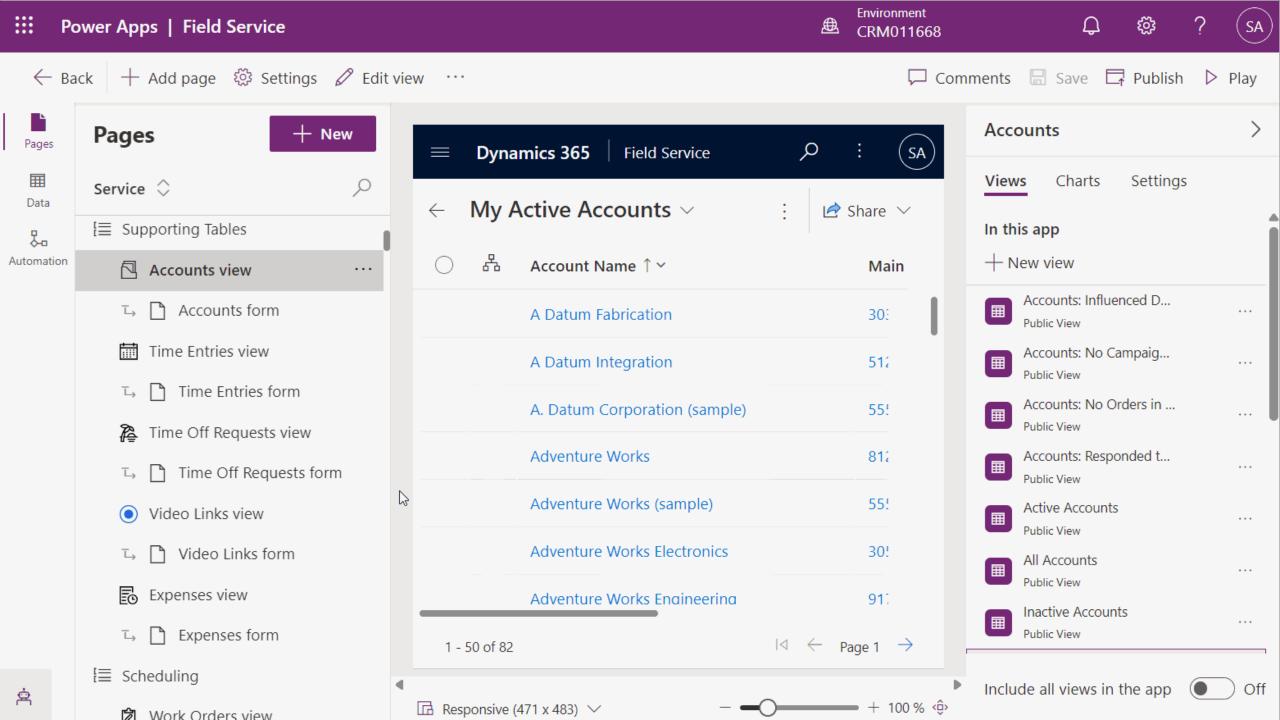


# JavaScript openCustomPageAsDialog

```
function openCustomPageAsDialog(itemIds, primaryControl, selectedControl, entityName, title, name, width, height)
    /* parameters in command bar button:
        Parameter 1: PrimaryItemIds,
        Parameter 2: PrimaryControl,
        Parameter 3: SelectedControl,
        Parameter 4: <string> entityName = logical name of table where command bar button is placed,
        Parameter 5: <string> title = text to display in header of custom page dialog,
8
        Parameter 6: <string> name = logical name of custom page,
        Parameter 7: <number> width of modal dialog, (e.g. 750)
        Parameter 8: <number> height of modal dialog (e.g. 500)
    ⊟{
14
          var guid = itemIds[0].replace(/[{}]/g, ""); //context. data.entity. entityId.guid;
16
         // Centered Dialog
         var pageInput = {
             pageType: "custom",
19
             name: name,
             entityName: entityName,
             recordId: guid,
         var navigationOptions = {
24
             target: 2,
             position: 1,
             width: width,
                                  //{value: width, unit:"%"},
27
             height: height,
                                  //{value: height, unit:"%"},
28
              title: title
29
         };
         Xrm.Navigation.navigateTo(pageInput, navigationOptions)
                 function () {
                      // Called when the dialog closes
34
             ).catch(
                  function (error) {
                     // Handle error
39
             );
40
```



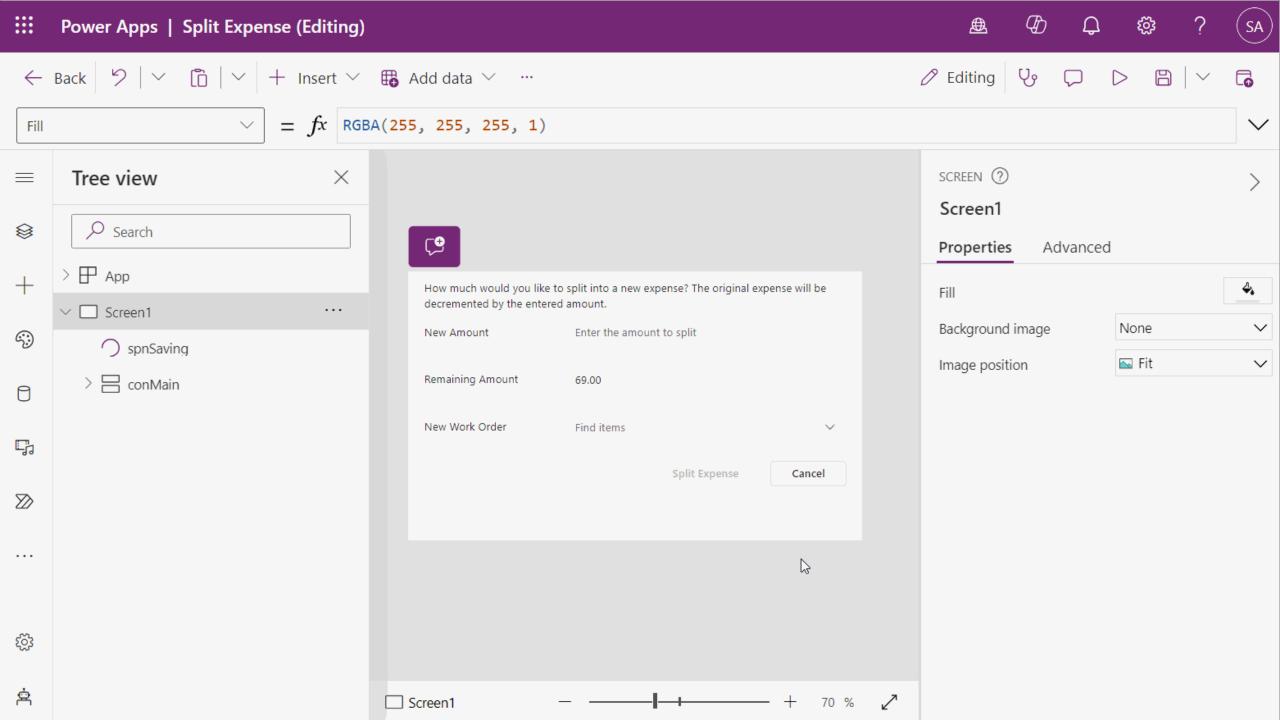




## Custom Page Design



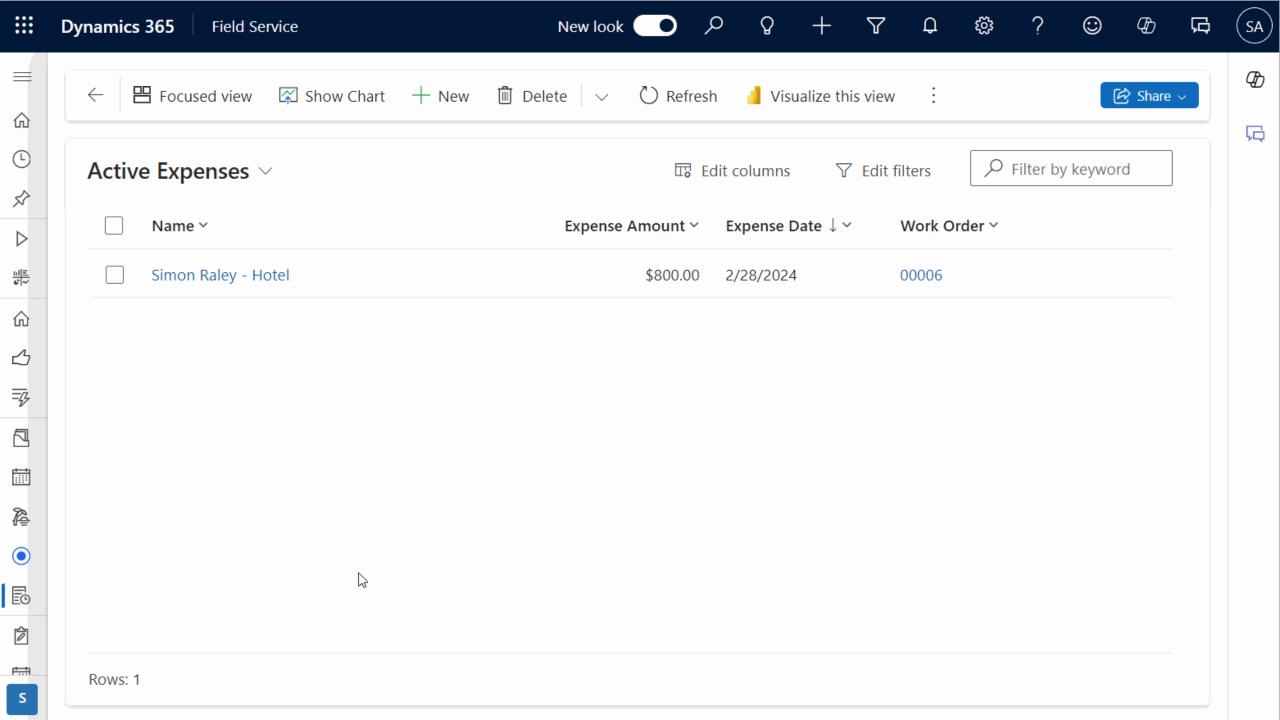




## Using the Dialog

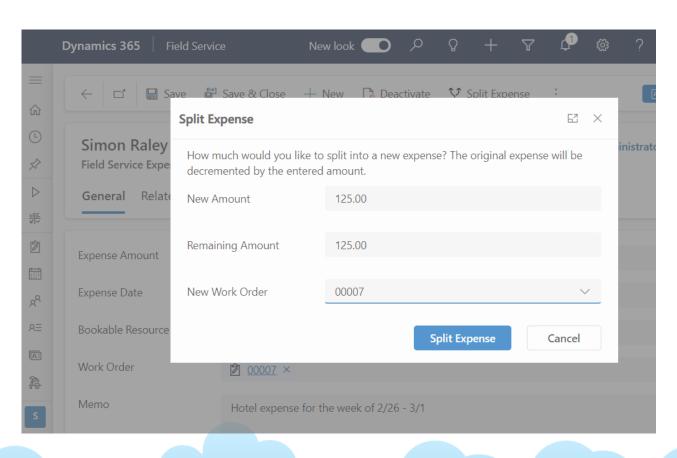






## **Best Practices & Suggestions**

- Keep it simple for the end user
- Use modern controls for a seamless look and feel
- Handle errors proactively on the page
- Return errors back to user



- Consider containers for a responsive app
- Include the page in your app

- Consider what kind of navigation upon a successful transaction
- "Low code" does not mean "low effort"



## What will you build next?

Go out and give it a shot!



Questions?







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