



Njoo Tuinue viwango!

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EAST AFRICA



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Building Dynamic Power Apps Forms
Using JSON





AGENDA

- Intro to PowerApps forms
- The JSON way: Real world scenarios
- Why it matters
- Explore the JSON structure
- Reusable controls
- Demo
- Q&A





Percentage Completed

0%

CR Summary

CR Summary

Background

Background & Scope

Proposed Options

Option 1 - Do Nothing

Option 2 - Do Something

Option 3 - Do Something Else

Propose an option

Financial Benefits

Financial Benefits

Non-Financial Benefits

Non-Financial Benefits

Impact

CR Impact

Key Risks

CR SUMMARY-0

CR Summary Details

Change Request Name

Enter the Change Request Name

Division

Select the Change Request Division

Department

Select the Change Request Department

Back

Save Draft

Supporting documents

There is nothing attached.

Attach file

CR Collaborators

Business Process Automation

CR Owner

Emmanuel Atemba

RPA Consultant Developers



Intro to Power Apps forms

The screenshot shows a Power Apps form titled "Change Request System". The form has a header bar with a menu icon, the title, a "+ New Request" button, and a user profile for "Emmanuel" with a notification bell. The form body is divided into three columns. The first column contains five "Text input" controls. The second column contains a "Text input" control, a dropdown menu with the value "1", two radio buttons labeled "1" and "2", and another "Text input" control. The third column contains four "Text input" controls, with the last one containing the date "12/07/2025" and a calendar icon.

- Insert needed controls
- Update their properties: Color, Border, Fonts, Background Color, etc
- Copy and Keep Copying them across your forms in the app

- Repetitive
- Difficulty to maintain
- Too many controls slows the app
- Error prone
- High chances of ending up with unused controls
- Too much logic eg, Null check, value checks for all controls





The JSON way: Use Cases

The screenshot shows a web application interface for a 'Change Request System'. On the left is a sidebar with icons for menu, alerts, tasks, users, reports, and security. The main header includes the title 'Change Request System', a '+ New Request' button, and a user profile for 'Emmanuel' with a notification bell. The form contains a 'Text input' field, a dropdown menu with '1' selected, and a date field set to '12/07/2025'. Below these are two radio buttons labeled '1' and '2'.

- Multi step forms
- Forms with many repetitive controls/fields
- Forms with conditional display





Why it matters

- ❖ Increase reusability
 - A single control across a given form
- ❖ Improve app load
 - Less controls improve app load
- ❖ Increase maintainability
 - Single point of change e.g. visibility, mode, alignment etc
- ❖ One source of truth
 - Control the field types from the JSON. If a field changes, just update the JSON





```
1 ClearCollect(
2     CRFormFields,
3     [
4         {
5             Section: "CR Summary",
6             SubSection: "CR Summary",
7             ID: 0,
8             Completed: false,
9             SectionWeight: 8.3333,
10            Fields: [
11                {
12                    FieldID: "FD00001",
13                    FieldName: "Change Request Name",
14                    HelperText: "Enter the Change Request Name",
15                    FieldType: "Text",
16                    IsRequired: true,
17                    Value: "",
18                    LastModifiedDate: ""
19                },
20                {
21                    FieldID: "FD00002",
22                    FieldName: "Division",
23                    HelperText: "Select the Change Request Division",
24                    FieldType: "Dropdown",
25                    Options: ForAll(
26                        BusinessUnits As bsUnitData,
27                        {
28                            Value: bsUnitData.Title,
29                            Id: bsUnitData.ID
30                        }
31                    ),
32                    AllowMultiple: false,
33                    IsRequired: true,
34                    Value: "",
35                    LastModifiedDate: ""
36                },
37                {
38                    FieldID: "FD00003",
39                    FieldName: "Department",
40                    HelperText: "Select the Change Request Department",
```

Explore JSON structure

JSON Preview

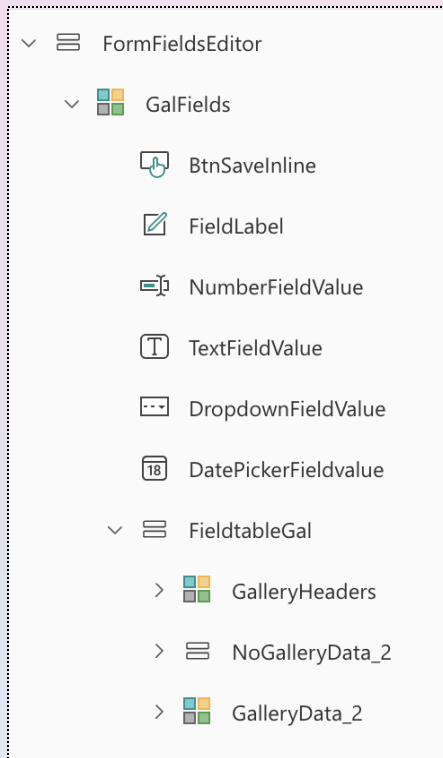
```
588 //Group Data
589
590 ClearCollect(
591     CRFormFieldsGrouped,
592     GroupBy(
593         CRFormFields,
594         Section,
595         SectionDetails
596     )
597 );
598 Set(
599     varSelectedSection,
600     First(CRFormFieldsGrouped)
601 );
602 Set(
603     varSelectedSubSection,
604     First(varSelectedSection.SectionDetails)
605 );
606
```





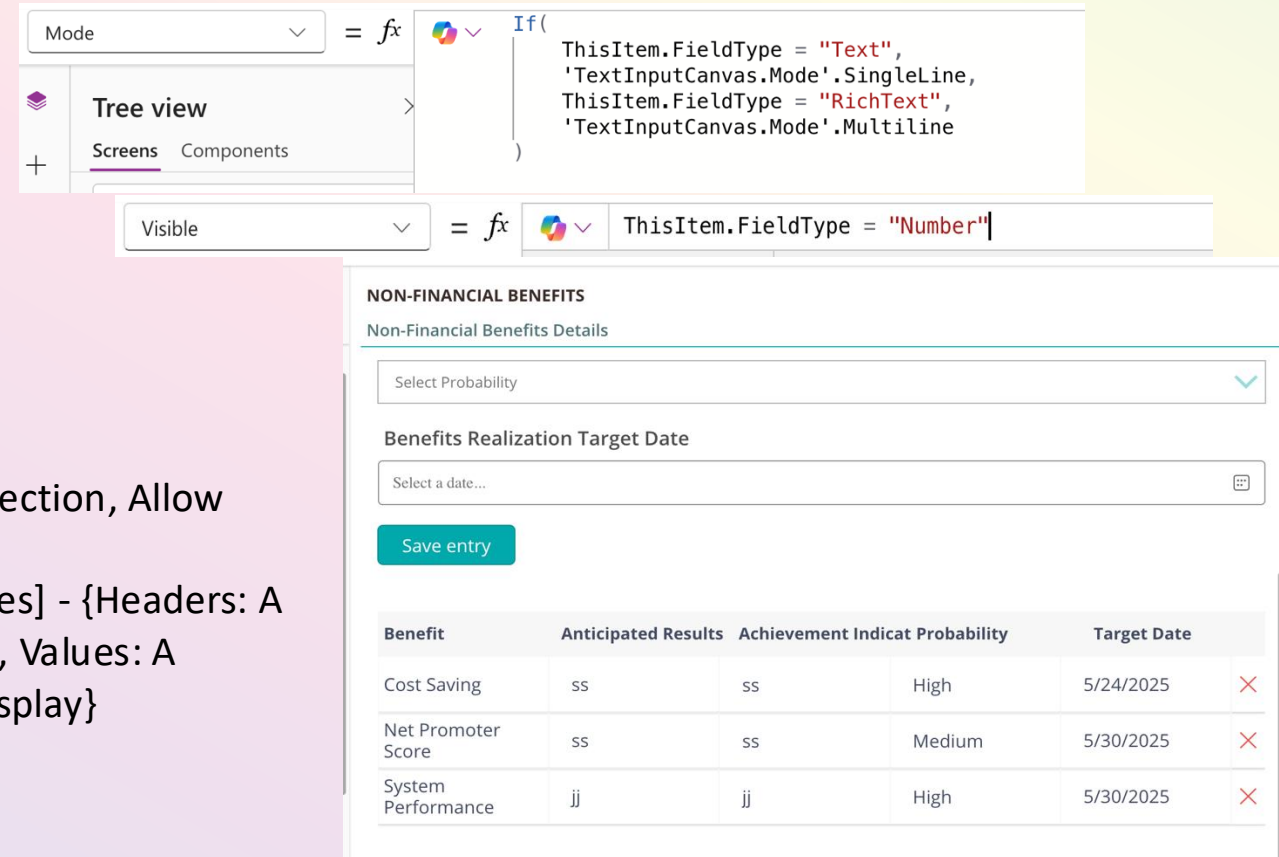
Reusable controls

JSON Preview



Field/Control Types

- ✓ Text
- ✓ Number
- ✓ RichText
- ✓ Date
- ✓ Radios
- ✓ CheckBox
- ✓ Dropdown [Options: collection, Allow Multiple: true/false]
- ✓ Table [For Galleries, Tables] - {Headers: A collection of header text, Values: A collection of values to display}





DEMO



Keep Learning

THANK YOU!

