PEGA Academy

Dynamic functionality on UI elements

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Dynamic functionality on UI elements

Dynamic UI design

Dynamic UI design is the practice of designing a user interface to adapt according to user input. When designing a dynamic user interface (UI), you control the fields that users see and interact with, according to specified conditions. Dynamic UI content is a key element of an intent-driven UI design. Choices made by users drive what controls are displayed so that only relevant fields are presented.

For example, when submitting a loan request, customers specify their marital status. If customers select married, the application displays user entry fields for their partner.

In the center of the following image, drag the vertical line to see the loan request with **Single** and **Married** selected.

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Loan request with Single selected

The benefits of using dynamic UI design include real-time response to end-user behavior, robust functionality available for most user interactions, reduced visual clutter on the screen, and fewer full-page refreshes, which results in improved UI responsiveness.
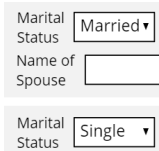
Dynamic attributes for UI elements

To configure dynamic behavior for UI elements, you can manipulate when elements are visible and disabled.

By default, UI elements have a visibility setting of Always, meaning the UI element always displays on screen. The following table contains other visibility setting options.

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Visibility setting	UI element behavior	Example	Example description
Always	Always displays	Name [ ]	You want the **Name** field, where the application user enters their name, to be visible always.
Condition (expression)	Displays when an expression (can be a when rule) returns true. Use this option for short expressions that you do not need to reuse throughout your case.	Meal preference ○ Meat ○ Fish ○ Vegetarian ◉ Special meal [Type of meal ▾]	If a user chooses the **Special meal** option, the **Type of meal** drop-down list is displayed. Otherwise, the drop-down list is not displayed. You determine that this is the only place where you need this expression, so it is appropriate to use the Condition (expression) option.
Condition (when rule)	Displays if a when rule returns true. Use this option for more complex when rules or for when rules you reuse throughout the case type.	Marital Status [Married ▾] Name of Spouse [ ] Marital Status [Single ▾]	You create a when rule, when *Marital Status* = *Married*, which you plan to reuse. You reference this when rule so that when the user selects **Married** as their **Marital Status**, the **Name of Spouse** field is visible. **Name of Spouse** is not visible otherwise.
If not blank	Displays if the value of the field is not blank	Next appointment date [02-02-19]	When confirming a doctor's appointment, patients can optionally select a date for their next appointment. If patients select a date, the **Next appointment date** field is visible. If the patient does not select a date, the **Next**

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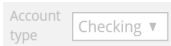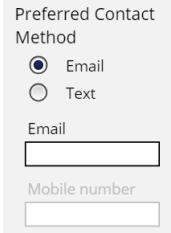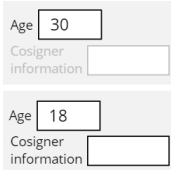|			greater than zero, then it displays. If the calculated order total is zero, then **Order total** is hidden.

Disabled

Configure when a field or layout is disabled to limit user access to a field. A field or layout is disabled when a specific condition is satisfied.

By default, UI elements are never disabled, meaning users always have access to the UI elements. The following table displays options for disabling UI elements.

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Disable setting	UI element behavior	Example	Example description
Never	Never disabled	Name [ ]	You want a user to always be able to enter their name in the **Name** field.
Always	Always disabled	Account type [Checking ▾]	A customer chooses the type of account when opening a bank account. After account creation, the customer can see but not modify the account type. You configure the **Account type** field to be disabled always to achieve this behavior.
Condition (expression)	Disabled when an expression (can be a when rule) returns true	Preferred Contact Method ◉ Email ○ Text Email [ ] Mobile number [ ]	If the user selects **Email** as their **Preferred Contact Method**, the **Mobile number** field is disabled. If the user selects **Text** as their **Preferred Contact Method**, the **Email** field is disabled. You determine that this is the only place where you need this expression, so it is appropriate to use the Condition (expression) option.
Condition (when rule)	Disabled if a when rule returns true	Age [30] Cosigner information [ ] Age [18] Cosigner information [ ]	You reference a when rule, *when age is greater than or equal to 21*, so that when a customer applies for a credit card, if the customer is greater than or equal to 21 years of age, the **Cosigner information** field is disabled.

By default, UI elements are never required, meaning the user can proceed with case processing without specifying a value. The following table displays options for making UI elements required.

Required setting	UI element behavior	Example	Example description
Never	Never required	Email [＿＿＿]	You want the **Email** field to be optional but not required for users.
Always	Always required	Account type * [Checking ▾]	When customers open a bank account, they must choose the account type. The **Account type** field is always required.
Condition (expression)	Required when an expression (can be a when rule) returns true	Preferred Contact Method ○ Email ⦿ Text Email [＿＿＿] Mobile number* [＿＿＿]	If the user selects **Email** as their **Preferred Contact Method**, the **Email** field is required. If the user selects **Text** as their **Preferred Contact Method**, the **Mobile number** field is required. You determine that this is the only place where you need this expression, so it is appropriate to use the Condition (expression) option.
Condition (when rule)	Required if a when rule returns true	Age [30] Cosigner information [＿＿＿] Age [18] Cosigner* information [＿＿＿]	You reference a when rule, *when age is less than 21*, so that when a customer applies for a credit card, if the customer is less than 21 years of age, the **Cosigner information** field is required. Otherwise, providing cosigner information is optional.

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Drag the visibility option to the appropriate field.

You are designing a view for online order confirmation. If the custom **this order a gift?**, the **Gift note** field is visible.

Visibility option   **F**

| Always |

| Never |

| Condition (expression) |

| If not zero |

| If not blank |

Is this order
⌐ ─ ─ ─ ─ ┐
│   │
│   │
└ ─ ─ ─ ─ ┘

Gift note
⌐ ─ ─ ─ ─ ┐
│   │
│   │
└ ─ ─ ─ ─ ┘

✓ Check answer

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This Topic is available in the following Module:

- [Configuring UI elements](#) v3

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