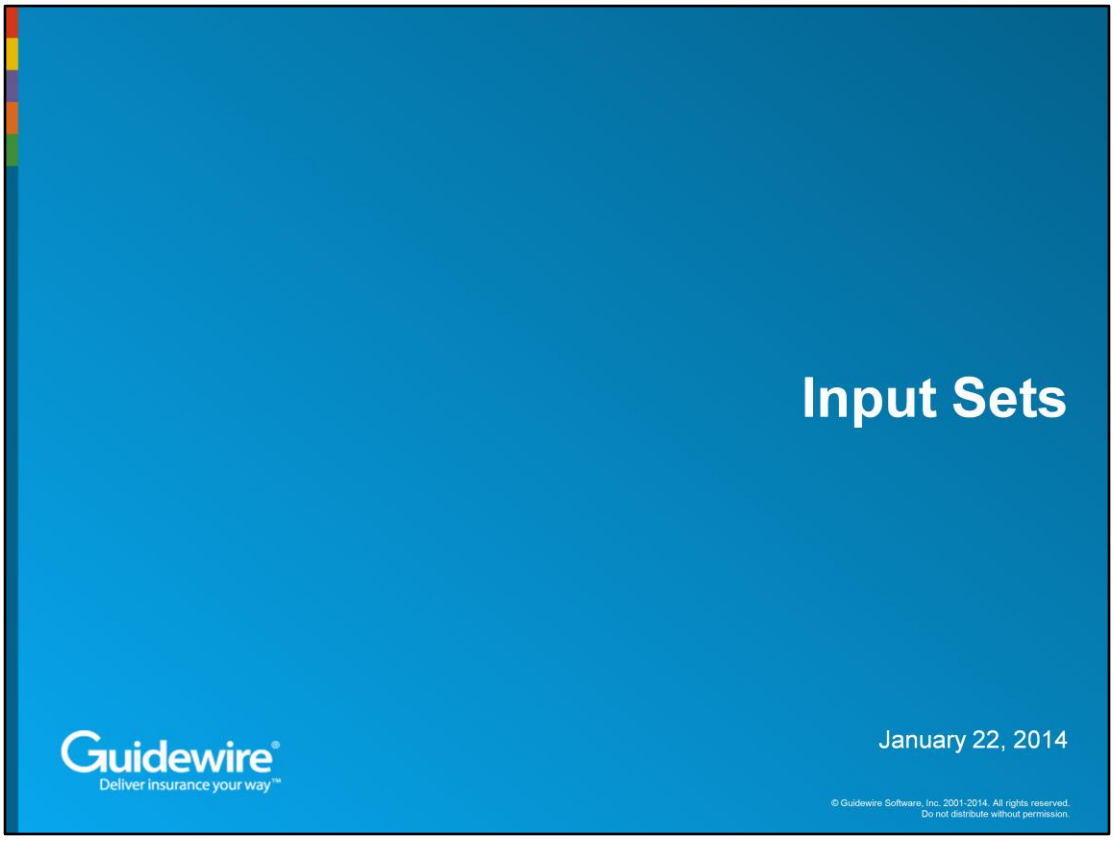

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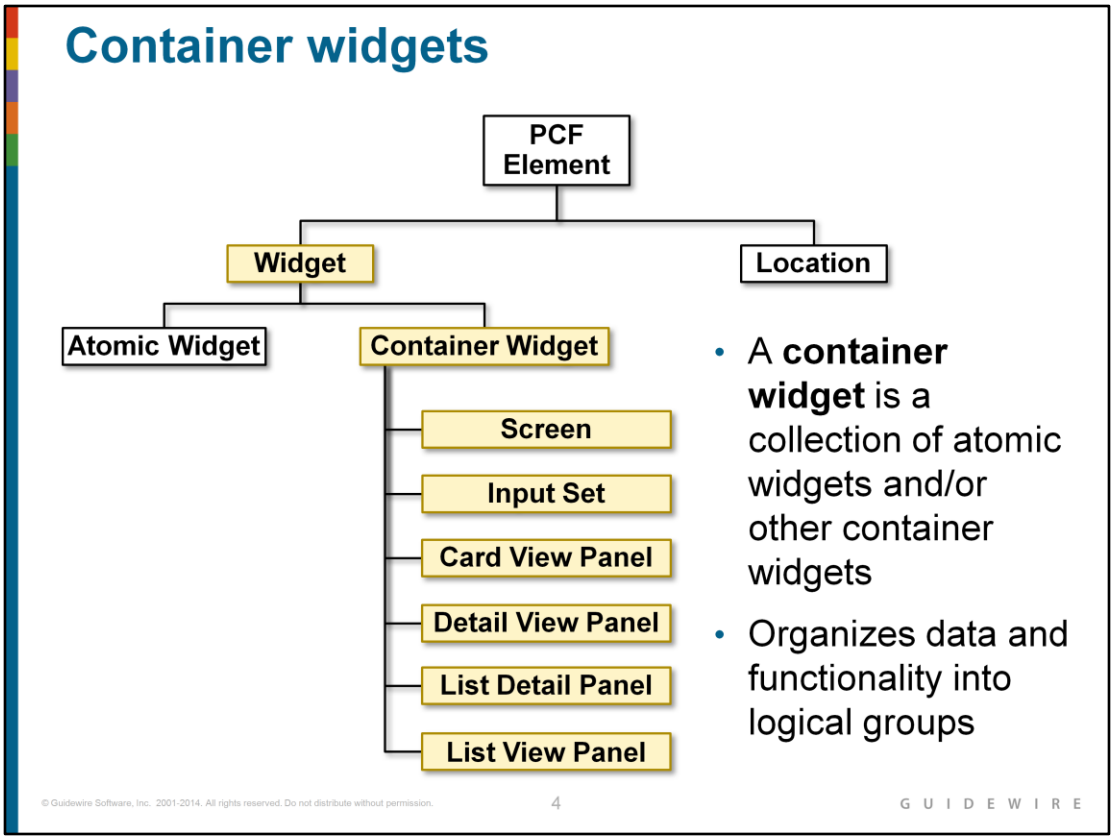
Lesson objectives

- By the end of this lesson, you should be able to:
  - Identify the parent containers for an Input Set
  - Describe Input Set reuse and shared logic
  - Create a shared logic input set
  - Create a reusable input set
  - Differentiate between an Input Set and Input Set Ref element

This lesson uses the notes section for additional explanation and information.
To view the notes in PowerPoint, select View → Normal or View → Notes Page.
When printing notes, select Note Pages and Print hidden slides.

Lesson outline

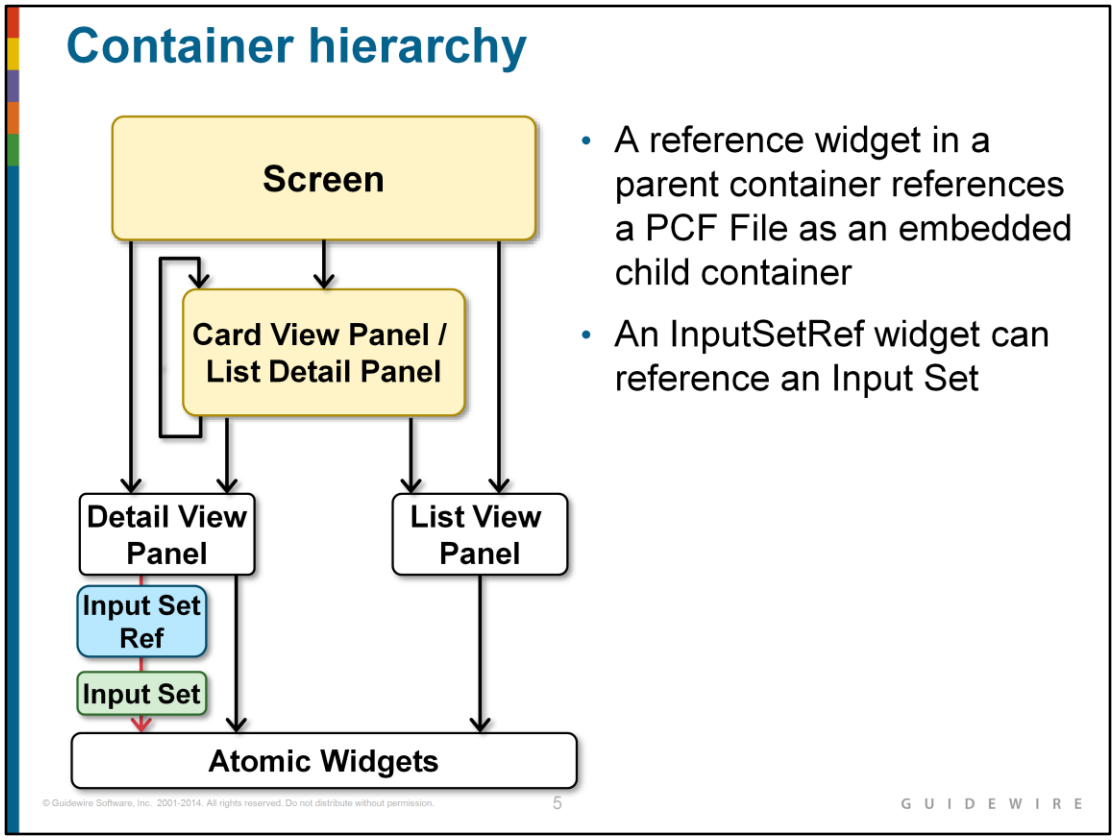
- Input set fundamentals
- Shared logic input set
- Reusable input set



Container widgets hold other widgets. Each one can be defined either in its own file or as a child container within some other PCF element file.

Both Widget and Location are conceptual representations in this diagram. There are no <Widget /> or <Location /> elements. Similarly, both Atomic Widget and Container Widget are conceptual representations. There are no <Atomic Widget /> or <Container Widget /> elements.

The PCF object model is container-based. Each screen element is modeled as an object, which may contain other objects. The hierarchical structure simplifies the task of locating and modifying visual elements. Furthermore, each element can be declared as an independent and therefore reusable element.



An input set can contain child input sets. An input set can be added to an input column defined within a detail view panel. An input set can referenced within an input column defined within a detail view panel. To reference an input set, you use an InputSetRef widget.

In practice, Studio automatically adds an input column to a detail view panel if you attempt to add an input set where there is not already an input column.

Although not reflect in the diagram, an input set can contain a List View Input that references a list view panel. In practice, there is not a frequent need to include a list view panel in an input set.

Container widgets: Input Sets

- An **input set** is a named group of widgets
  - Can contain atomic widgets
  - Can be reused by detail view panels
  - Cannot be referenced by secondary views
  - Cannot have a toolbar directly associated with it
- Reuse single set of inputs across multiple detail view panels
- Apply visibility or editability logic across multiple widgets

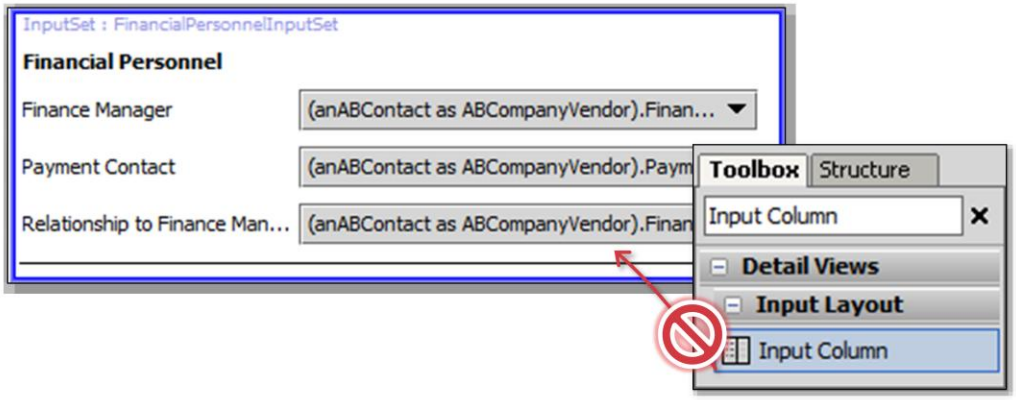
GUIDEWIRE

An input set groups together a set of widgets. There are two types of input sets: InputSet widget and Input Set PCF file.

An InputSet widget groups together input widgets and allow developers to apply shared logic to the grouped widgets. An InputSet widget is an inline widget within an input column of a detail view panel.

An Input Set PCF allows developers to create a group on input widgets within a file. An Input Set PCF can be referenced by one or more PCF files. Input Set PCFs allow for reuse.

Widgets for input sets



- Input sets can contain
  - Input widgets
  - Input dividers
  - Label widgets
  - List view panels
- Input sets cannot contain
  - Input columns

Unlike detail view panels, input sets cannot contain columns.

File & widget

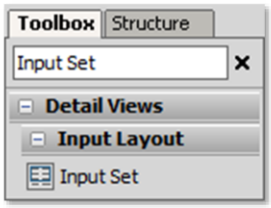
Input Set PCF file

- <InputSet /> is a top-level PCF element
- File name ends with InputSet
- Can define root object

Input Set PCF

InputSet widget

- Widget is defined in an Input Column that is within a Detail View Panel



It is possible to define a variable for an InputSet widget. In many cases, however, an InputSet widget inherits the root object associated with its parent Detail View Panel.

Reusability and inline

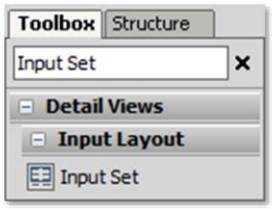
Reusability

- Reuse single set of inputs across multiple detail view panels
- Input Set is PCF file
- InputSetRef widget references the Input Set PCF file

Input Set PCF

Inline is Shared logic

- Apply visibility or editability logic for a group of widgets
- Input Set is often a widget in an input column within a detail view panel



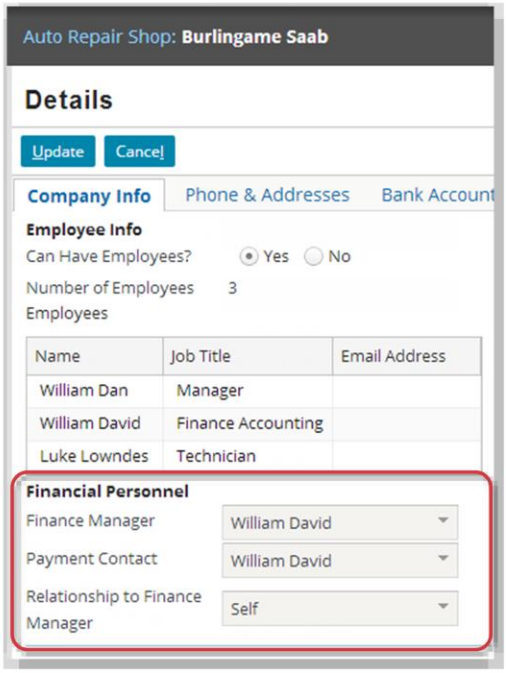
The two use cases for input sets—reusability and shared logic—are not mutually exclusive. It is possible to have an input set that extends a single visible or editable condition across its contents and gets reused under multiple circumstances.

Lesson outline

- Input set fundamentals
- Shared logic input set
- Reusable input set

Input set shared logic

- Group the visibility and/or editable property conditions for a set of widgets
- Widgets placed within input set
- Visibility and/or editability set at input set level
- Example:
  - If the root object is of type ABCompanyVendor, then FinancialPersonnelInputSet is visible

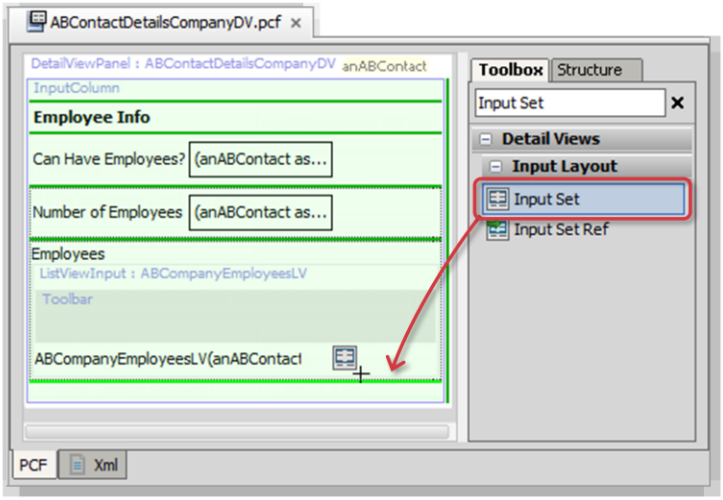


It is also possible to set an editable or visible property for an InputSet widget. The input set property applies to all the contained widgets within the input set. In this manner, you can eliminate the need to configure the individual widget properties for a group of related widgets.

Steps to create a shared logic input set

1. Add an InputSet widget
2. Specify shared logic
3. Add atomic widgets
4. Deploy PCF

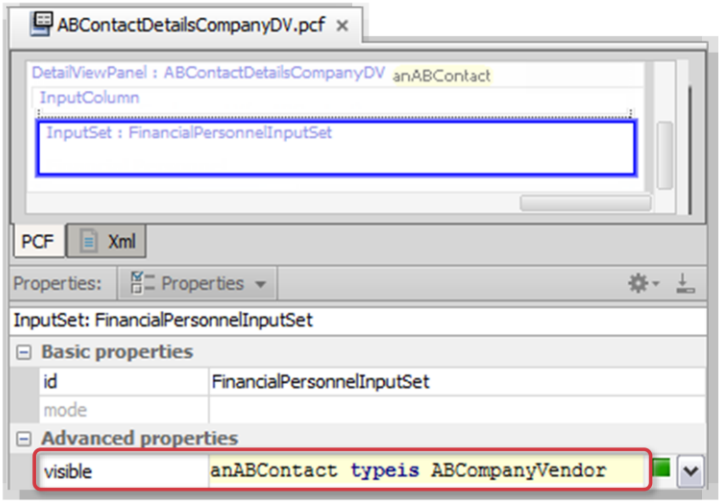
Step 1: Add an InputSet widget



- Light green line - current place where new widget will go
- Dark green line - places where new widget can go

- Add an InputSet widget
  - In an Input Column within a Detail View Panel
  - Can reference parent container variables

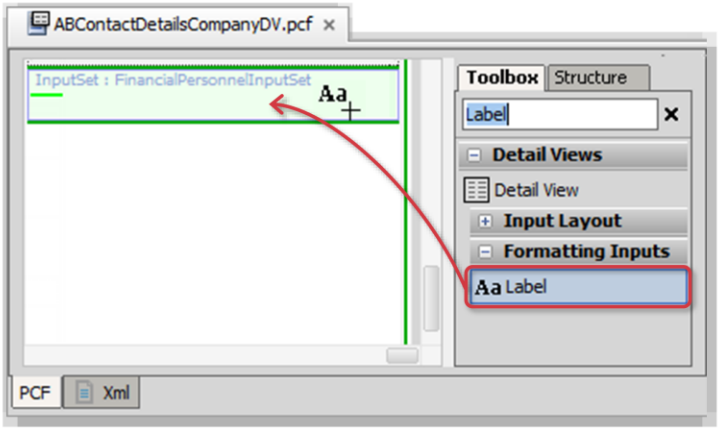
Step 2: Specify shared logic



- Input set is parent container for its child widgets
- Editable and or Visible properties affect all child widgets of the input set

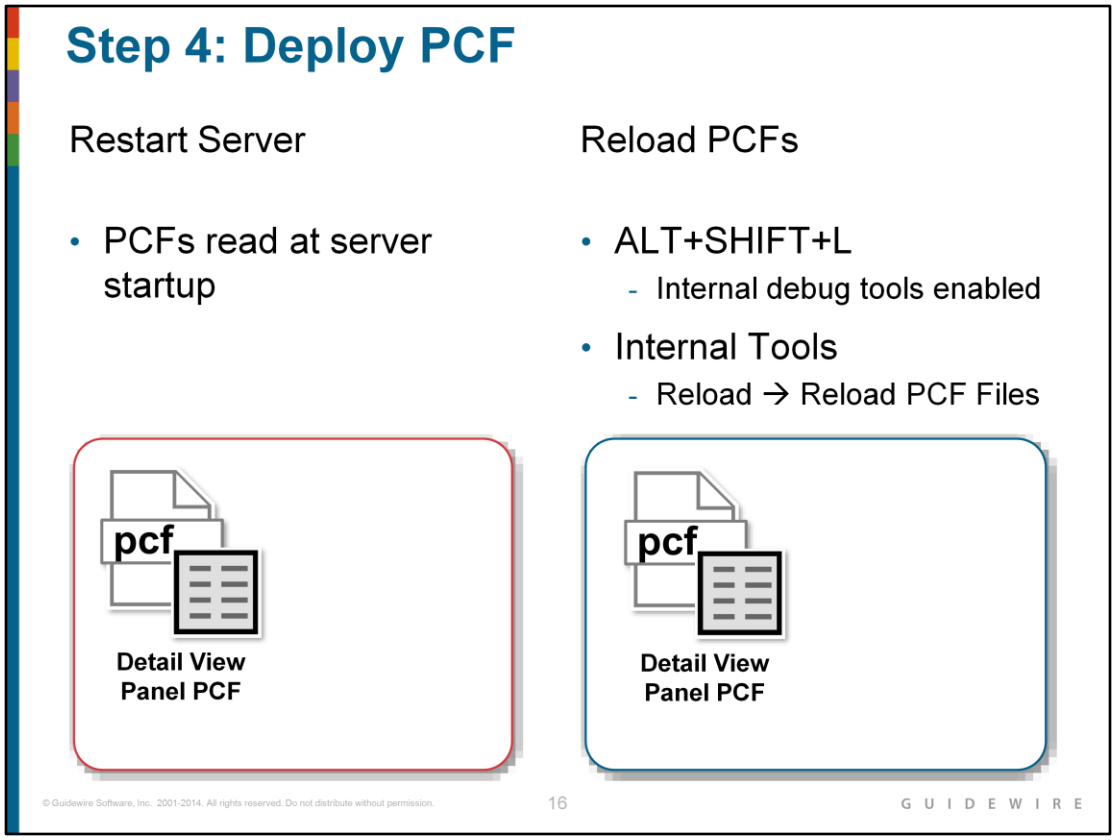
- Example:
  - Visible is true when object is of the type ABCompanyVendor
  - **`typeis`** is a Gosu operator to compare object to a type

Step 3: Add atomic widgets



- Select the best input for the data type from the Toolbox
- Specify required and optional properties

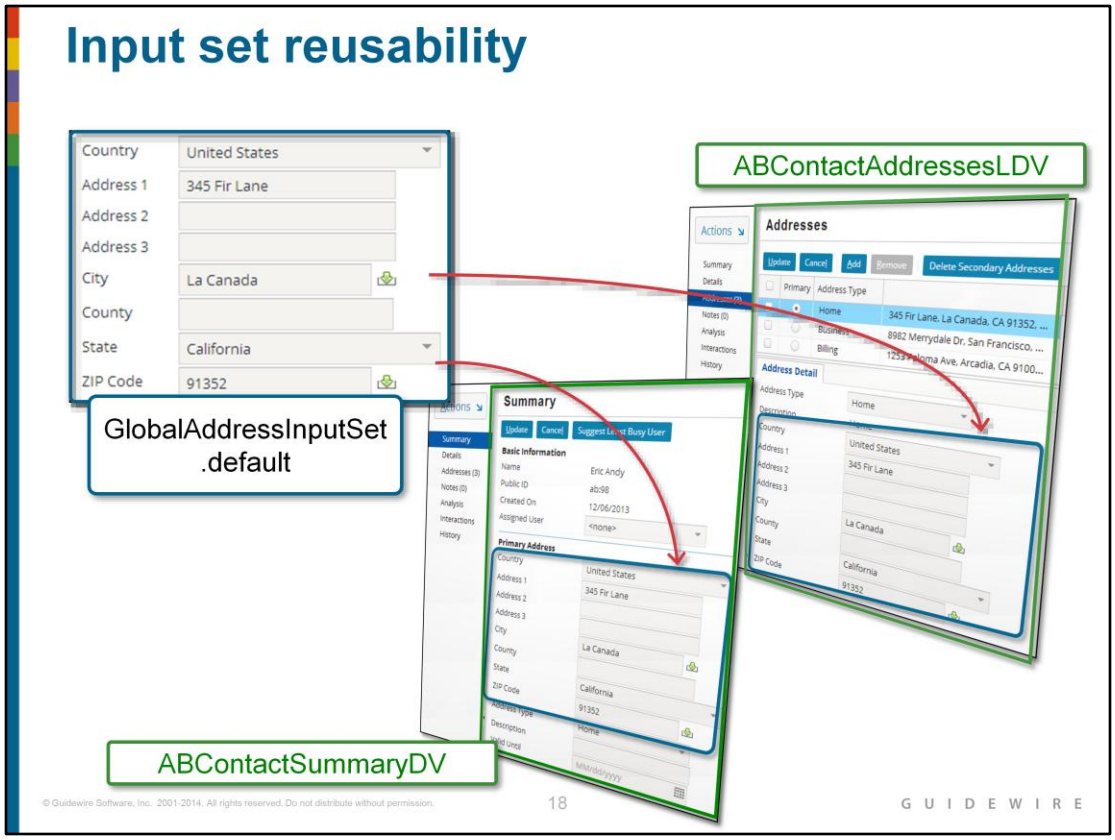
Add an atomic widget as you would for a detail view panel.



It is also possible to reload PCF files using the Guidewire API and/or internal server tools. The Reload PCF command can be found on the Reload page in Internal Tools. To access Internal Tools, you must log in as an administrator user, e.g., su/gw. Then, use ALT+SHIFT+T. In the tab bar, select Internal Tools → Reload. On the Reload page, click the Reload PCF Files button. The Reload PCF Files button calls the static method gw.api.tools.InternalToolsUtil.reloadPCFs().

Lesson outline

- Input set fundamentals
- Shared logic input set
- Reusable input set



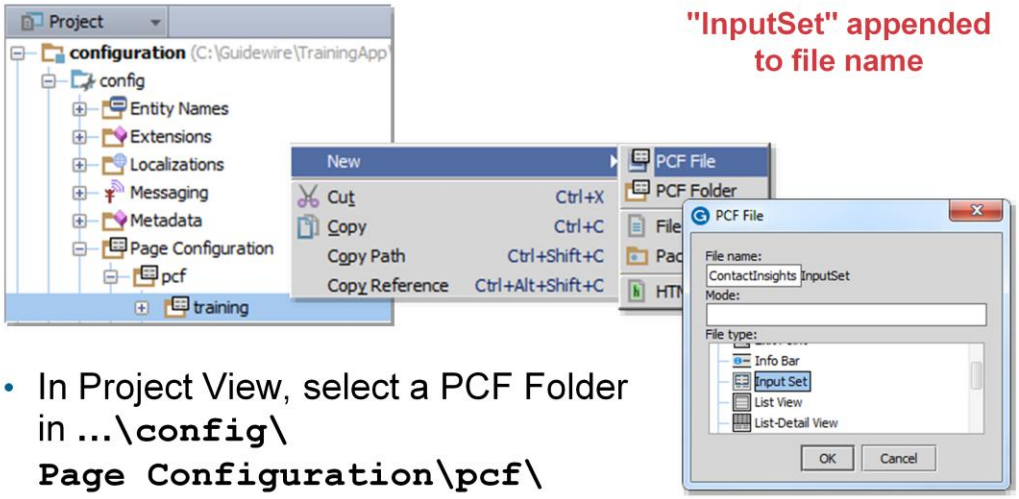
GlobalAddressInputSet is a globalization input set and is modal. Modal widgets are discussed in greater detail later in this course. It is not a requirement for a PCF to be modal in order for it to be reused.

Input sets often define a set of widgets that are reused in multiple detail view panels. Reuse of widgets as an input set reduces and simplifies development, configuration, and administration.

Steps to create a reusable input set

1. Create an input set PCF
2. Specify required variable(s)
3. Add atomic widgets
4. Reference the input set from parent
5. Deploy PCFs

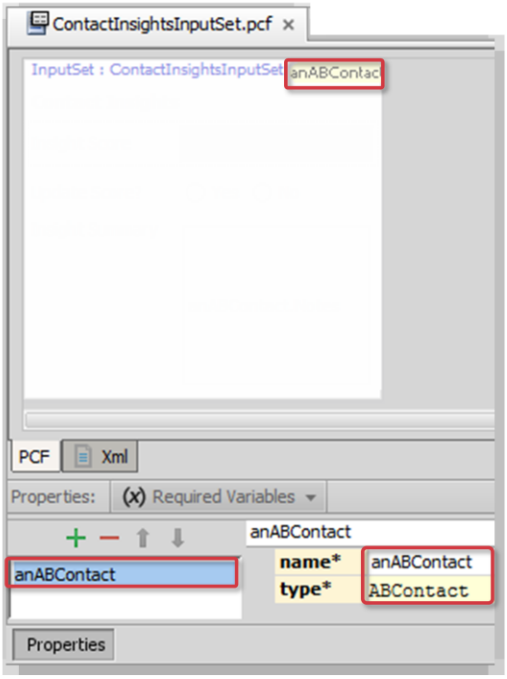
Step 1: Create an input set PCF



"InputSet" appended to file name

- In Project View, select a PCF Folder in **...\config\Page Configuration\pcf**
- Context menu → New → PCF File
- Enter File Name and select Input Set as file type in PCF File dialog

Step 2: Specify required variable(s)

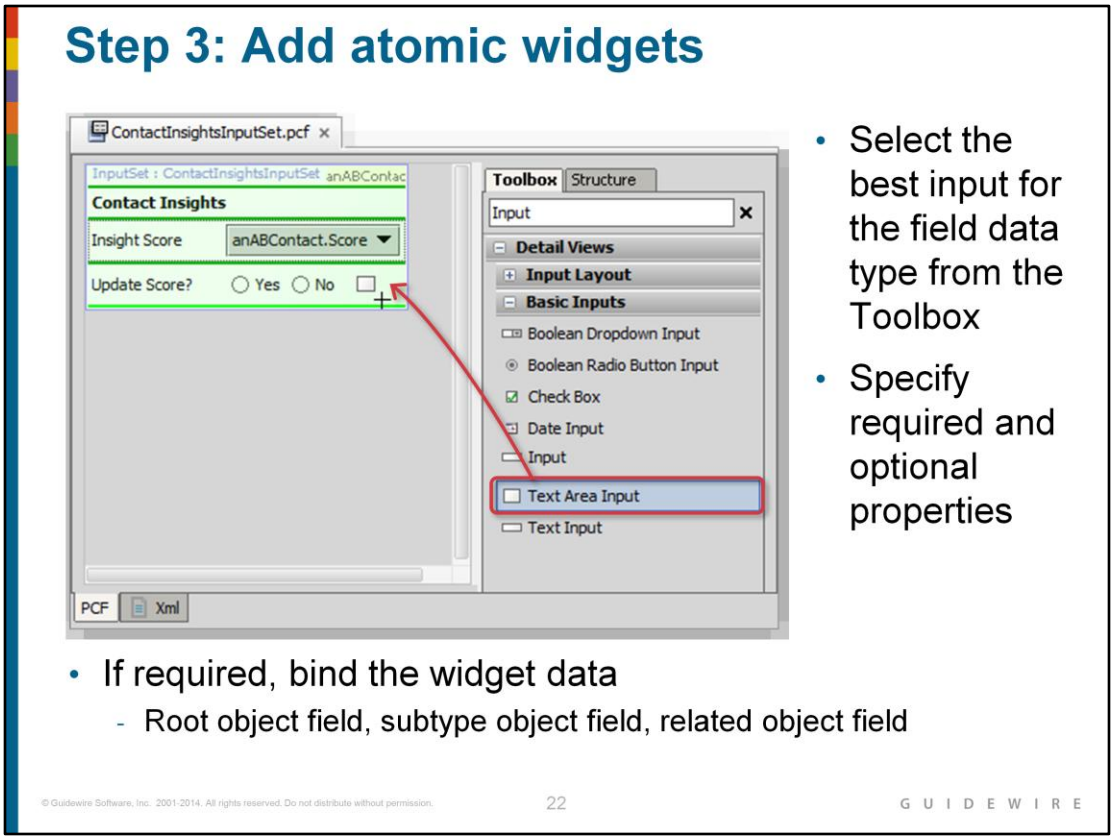


- Required Variables tab
  - Defines data object variable name and type
  - Example: anABContact is of type ABContact

- Object data can be
  - Data backed (database)
  - Virtual property
- Container data comes from defined variable object(s)
  - Typically, at least one variable
  - Not required

Most container widgets have at least one required object that contains data fields. One way to think of this is that there is at least one root object for a given container.

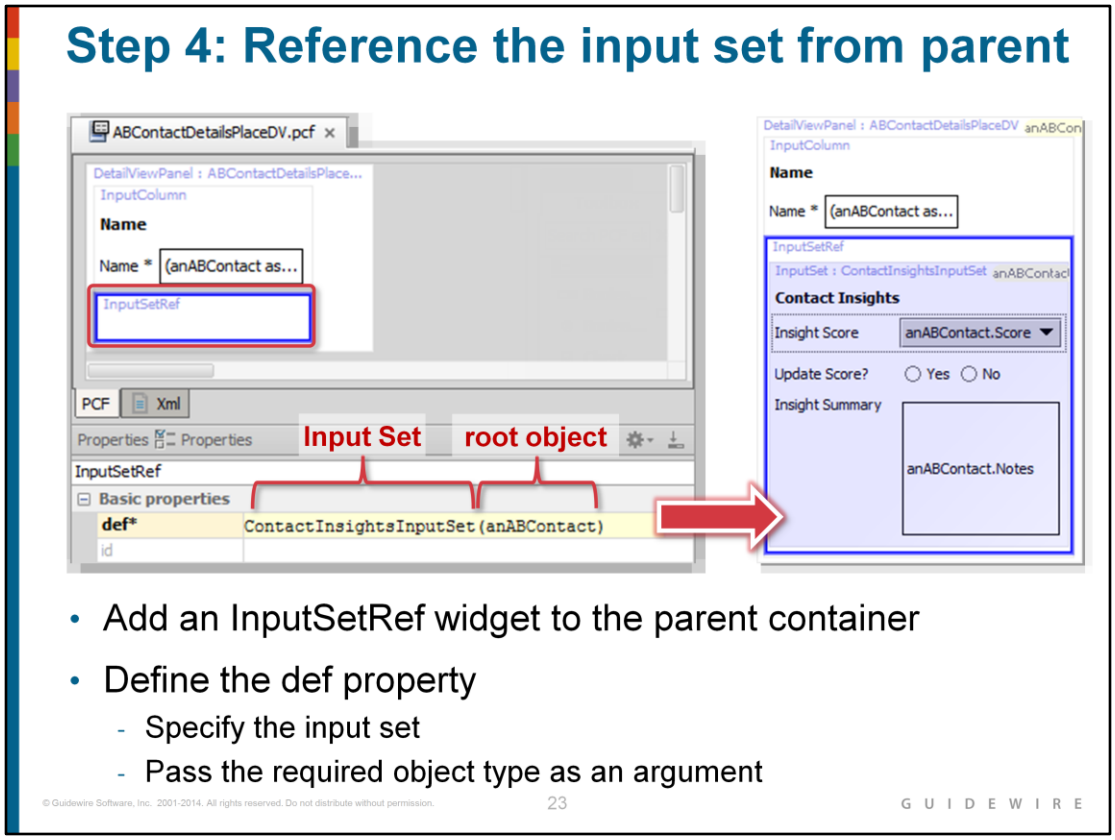
It is possible to have more than one defined object as it is also possible to not have a required object at all.



Atomic widgets are added to an input set in the same way that they are added to a detail view panel. To add a widget, click its name in the Toolbox and hold the mouse cursor down. As you begin to drag the widget, Studio changes the mouse cursor so that it includes the icon for that widget. Studio places a green line on the canvas at every location on the canvas that it is possible to place the widget. Studio highlights the green line that is nearest on the canvas to the cursor. Studio also overlays in green the element containing the highlighted green line.

All PCF elements have definable properties in the Properties window. To view properties of a PCF file, click its title link in the upper-left corner. To view properties of any element, click that element. The Properties window contains multiple property tabs. Click a tab to edit the associated properties. Some properties are not editable. Other properties are required. Required properties have an asterisk and the property name appears against a yellow background. If you select a property, variable, or entry point, an "X" icon appears on the right-hand side of the cell for that property, variable, or entry point. You can click the "X" to restore the selected property, variable, or entry point to its default value. The Properties window validates each property expression and/or and value.

Most atomic widgets require IDs. However, some widgets, such as labels and dividers, do not require IDs. The value property defines the data field. You specify a field using dot notation. You can reference a direct object field or related object field. If the field is a "data" field, you can set the editable property of the widget to "true". Only data fields are editable.

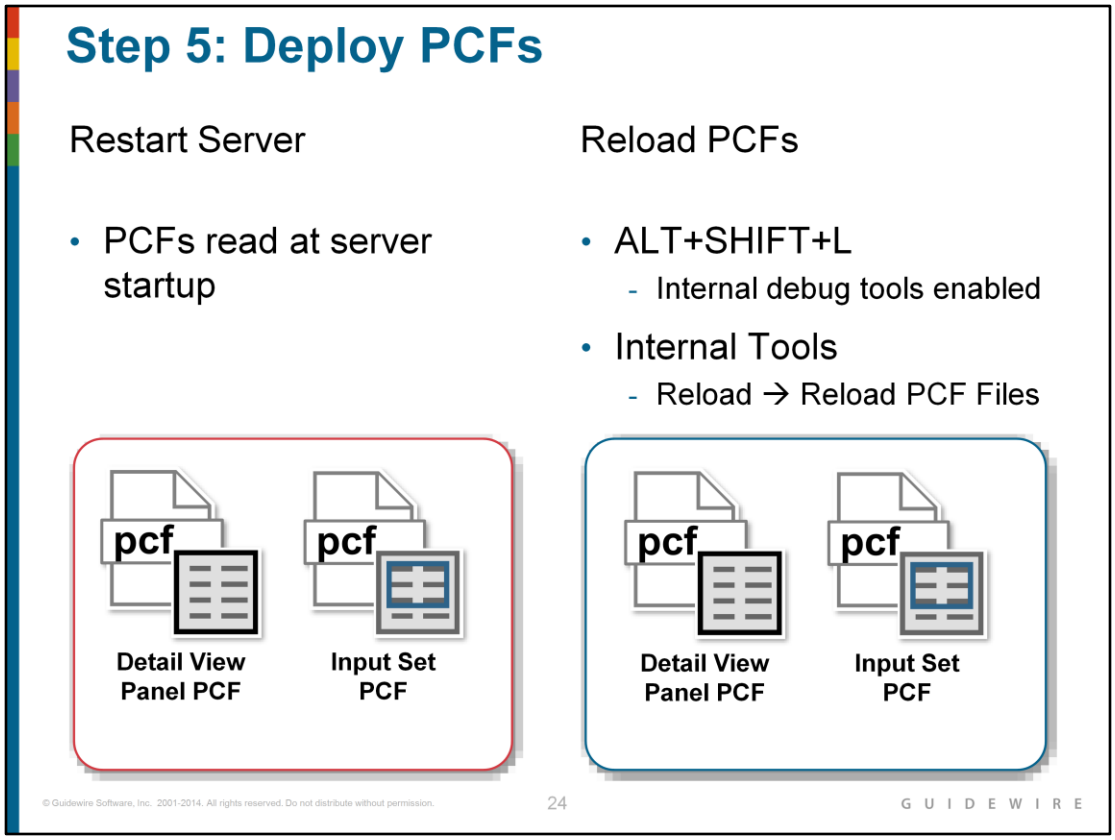


A PanelRef widget references a detail view panel. In a similar manner, an InputSetRef widget references an input set. An input set can be added or referenced only inside a detail view panel input column. The PCF Editor in Guidewire Studio automatically adds an input column to a detail view panel if you attempt to add an input set ref where there is not already an input column.

To reference an input set from a parent container:
- Add an InputSetRef widget at the appropriate place in the parent container.
- In the input set ref's def property, specify the input set name. After the name, inside parentheses, specify the required object(s) to pass to the input set.

In the slide example, ABContactDetailsPlaceDV defines an root object named anABContact. ABContactDetailsPlaceDV contains a newly added Input Set Ref. The Input Set Ref requires a value for the def property. The def property references the Input Set named ContactInsightsInputSet. The def property passes the anABContact root object as argument to ContactInsightsInputSet.

Similar to the Input Set itself, an Input Set Ref has editable and visible widget properties. Setting these properties affect the referenced Input Set.



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Lesson objectives review

- You should now be able to:
  - Identify the parent containers for an Input Set
  - Describe Input Set reuse and shared logic
  - Create a shared logic input set
  - Create a reusable input set
  - Differentiate between an Input Set and Input Set Ref element

Review questions

1. What are the two primary use cases for input sets?
2. Which of the following can be included in input sets:
   a) Embedded list views
   b) Inputs
   c) Input columns
   d) Input dividers
   e) Labels
3. What is the difference between the "input set" widget and the "input set ref" widget?

Answers

1) Reuse of widgets across detail view panels and/or logic shared for a group of widgets such as editability and/or visibility.
2a) Yes
2b) Yes
2c) No
2d) Yes
2e) Yes
3) The InputSet widget groups widgets together and is placed within an input column within a detail view panel. You use an InputSetRef widget to reference an Input Set PCF file. An Input Set PCF can be referenced by one or more InputSetRef widgets. Input Set PCFs are reusable input sets.

Notices