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▼ Welcome to PBU203

Managing Screen Flows - Screen Flow with User Interactions Online Training

- ▶ Chapter 1: Forms - Introduction
- ▶ Chapter 2: Labs - Configuring Container Status Update
- ▶ Chapter 3: Triggering Business Logic on Forms Control Change
- ▶ Chapter 4: Guidelines for Building Screens for Low Resolution Mobile Devices
- ▶ End of Course

Managing Screen Flows - Screen Flow with User Interactions Online Training

Abstract:
This training will teach you how to create a simple user interface to capture information from users. You will learn how to configure text box and state button input types, as well as how to display information as labels. You will also learn how to configure one of the standard DELMIA Apriso template views, the PortalForm View.

Detailed objectives. After the training you will know:

- ▶ How to build user interfaces to capture and display input from users
- ▶ How to pass inputs from a Form to other Screens (standard and alternative ways)
- ▶ How to work with OnChange Operations, which trigger some business logic
- ▶ How to configure Screens to work with low resolution mobile devices

Target audience:

- ▶ People who need to configure screen flows as part of their customer projects

Requirements:

- ▶ Working knowledge of Process Builder

Role and level:

- ▶ DELMIA Apriso Process Authors
- ▶ DELMIA Apriso users that will be creating or managing screens

Duration: 3.5 hour

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▶ Chapter 1: Forms - Introduction

Forms

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- Form Controls, part 2
- Forms Groups
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▶ End of Course

Forms

Forms are a special kind of View. They serve the purpose of designing user interfaces with elements to capture inputs from users.

Using Forms allows you to build user interfaces without touching the HTML Layout Editor.

Forms are easy and quick to use. We have verified the time saving to build user interface using Forms is 70% as opposed to using the HTML Layout Editor.

Forms are particularly efficient on mobile devices.

Forms support AJAX validations.

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The main granular element of a Form is called a Control.

A Control is a user interface element that can be used to collect input from or display information to a user. In this case a Control can use one of the following types:

- ▶ an input box
- ▶ a drop down
- ▶ a radio button
- ▶ a label
- ▶ and more

Text Area, Time Picker, Date Picker

Text Area

TimePicker: 12 AM

Date Picker: 00 / January / 01

Button Primary and Secondary, Label

Text Box, Password, Drop-down List

Label: Text to display

Enter Password:

Drop-Down

Check Box, Radio Button, State Button

Check the box:

Inspected
Blocked
Loaded
Shipped
Unrestricted

State Button: Inspected Blocked Loaded Shipped Unrestricted

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Since Form Controls capture user inputs, their values must be available for other Views or Operations. Therefore once you add a Control, it will automatically be available as an External Variable. The name of this External Variable must be identical to the Control Code.

If you want to display a value from the system in a Control, similar logic applies. You will need to pass External Variables to your Form with names identical to the Form Controls.

Controls	Type	Data Type
Code	Label	Char
ContainerNo	Label	Char
ParentContainer	Label	Char
ContainerStatusDesc	Label	Char
control	Label	Char
ProductNo	Label	Char
ProductDesc	Label	Char
QuantityOnHand	Label	Decimal
Location	Label	Char
LotNo	Label	Char

GetContainerData

```

graph TD
    ContainerNo --> Container
    ContainerNo --> Count
    ContainerNo --> ProductNo
    ContainerNo --> LotNo
    ContainerNo --> QuantityOnHand
    ContainerNo --> ParentContainer
    ContainerNo --> Location
    ContainerNo --> ProductDesc
    ContainerNo --> ContainerStatusDesc
    ContainerNo --> ErrorCode
    ContainerNo --> IsError
    LanguageID --> Container
    LanguageID --> Count
    LanguageID --> ProductNo
    LanguageID --> LotNo
    LanguageID --> QuantityOnHand
    LanguageID --> ParentContainer
    LanguageID --> Location
    LanguageID --> ProductDesc
    LanguageID --> ContainerStatusDesc
    LanguageID --> ErrorCode
    LanguageID --> IsError
  
```

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For a better user experience, Controls can be pulled together into Groups.
A Group is used to display logically connected Controls together, and it can be expanded or collapsed.
The title of a Group can be shown or hidden.

Process Builder Help includes a layout configuration example of a Form View.

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Since Forms are a special kind of View, if you want to use a Form in your Screen, always use the **PortalForm** View as your starting point.

This View comes with a Forms tab, where 2 Groups with a few sample Controls are pre-configured.

Also, the PortalForm View has two buttons for potential use.

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Case Study for the Labs

In this training module you will use Forms to configure a flow which will allow you to change inventory status for a particular container.

The flow will consist of 2 stages:

- ▶ Enter the container ID
- ▶ Verify the container details and change the container status

In the process of configuring this flow you will learn how to design Forms, pass variables between them, prepopulate initial data, and a few ways to submit Forms to the system.

Container #: Submit

Container data

Container #: --
Parent Container: --
Current Container Status: --
Product No.: --
Product Name: --
Quantity: 0
Location: --
Lot No: --

Change Container Status

New Status: Inspected Blocked Shipped Unrestricted

Change Container Status

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LAB 1: Create a Screen to Enter Container Number

Task:
▶ Create your first Screen using a Form View

What you will learn:
▶ How to create a new Screen
▶ How to create a simple Form with a single Control to capture container ID
▶ How to add a button which will later be used to submit the entered container ID

Requirements:
▶ In case of any technical problems, please contact DELMIA.Apriso.training@3ds.com

 Remember to use the following to login and name Screens thorough this entire training:
- TRN<yourinitials> if you are an external self-paced learner
- TRN<yourtrigram> if you are a 3DS employee self-paced learner

 20 min

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LAB 1: Create a New Screen TRNXX_FRM

The first Screen you will need will be a simple Form to scan the container ID.

- ▶ Create a new Screen using the PortalOneWindow Layout, and give it a name of **TRNXX_FRM**
- ▶ Unlink the Header (you will not use any)
- ▶ For the Panel, copy and link the PortalForm View to a new View, and name it **TRNXX.Container.Scan**

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LAB 1: Modify Groups in TRNXX.Container.Scan View, part 1

Go to **TRNXX.Container.Scan** View.

- ▶ In the Forms tab, click to mark the GROUP Group and remove it

In the new Screen, there will be only one Control, so we need only one Group.

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LAB 1: Modify Groups in TRNXX.Container.Scan View, part 2

▶ Click on GROUP1 Group
 ▶ Rename it to SCANCONTAINER
 ▶ Uncheck Show Title box

Now you have only one Group, and it will not show the title.

Container #: → Submit

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LAB 1: Modify Controls in TRNXX.Container.Scan View, part 1

In this step, you will adjust the Controls. The SCANCONTAINER Group has two controls, and you need only one.

▶ Click on the Control you want to delete. Use the Del key, or the Remove button
 ▶ Click on the remaining Control, because in the next step you will change its properties

Container #: → Submit

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LAB 1: Modify Controls in TRNXX.Container.Scan View, part 2

Set the Control properties in the following way:

- ▶ **Code: ContainerNo**
- ▶ **Show Title: checked**
- ▶ **Translation: Container #**
- ▶ **Type: Text Box**
- ▶ **Data Type: Char**

The most important setting for the Control is the Code. You will use it in the business logic of your configuration later on.

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LAB 1: Modify Buttons in TRNXX_FRM View

Go to the Actions tab of the TRNXX_FRM View

Remove one of the buttons. Use **Del** key or right-click and **Delete** option in the Entity Explorer

Set the remaining button properties:

- **Name: SUBMIT**
- **Show Title: checked**
- **Translation: Submit**
- **Type: Button (Primary)**

You may add an Image of your choice.

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- LAB 1: Update Parameters, If Needed

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LAB 1: Update Parameters, If Needed

If when changing the Screen Status to prototype you get any error messages related to parameters, do the following:

- Go to Screen Properties, Parameters tab
- Use the Update button to refresh the parameters

The screenshot shows a parameter configuration window for "TRN Container Scan - TRN 000.000.000". The "Parameters" tab is selected. An "Update" button is highlighted. Below the window is a "Validation Messages" dialog box showing three errors related to undefined parameters: "Parameter test_as is not defined in any Operation or Group Control", "Parameter check_box is not defined in any Operation or Group Control", and "Parameter date_picker is not defined in any Operation or Group Control".

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25 min

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25 min

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LAB 2: Create New Screen TRNXX_FRM-010

The second Screen in your flow will have more Controls, because it will show more Container details, and it will allow changing Container status.

- ▶ Create a new Screen using the PortalOneWindow Layout, and name it **TRNXX_FRM-010**
- ▶ For the Panel, copy and link the PortalForm View to a **TRNXX.ContainerStatus.Change** View

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LAB 2: Change Container Properties, part 1

▶ Go to TRNXX.ContainerStatus.Change View
 ▶ In the Forms tab, change the properties of the first Group:

- Name: **CONTAINER**
- Translation: **Container Data**
- Show Title: checked

This Group will be used to display container information.

Properties

General
Name: CONTAINER
Title:
Code:
Translation: Container Data
<input checked="" type="checkbox"/> Show Title
Position Order:

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LAB 2: Change Container Properties, part 2

▶ Now, change the properties of the second Group:

- Name: **CONTAINER_STATUS_CHANGE**
- Translation: **Change Container Status**
- Show Title: checked

This Group will be used to display available status values, and to take action from the screen user.
 The next step will be to add Controls to both Groups.

Properties

General
Name: CONTAINER_STATUS_CHANGE
Title:
Code:
Translation: Change Container Status
<input checked="" type="checkbox"/> Show Title
Position Order:

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LAB 2: Change Container Properties, part 1

LAB 2: Change Container Properties, part 2

LAB 2: Add Control, part 1

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LAB 2: Add Control, part 1

► Go to the CONTAINER Group.
► Add the ContainerNo Control:
 Code: **ContainerNo**
 Show Title: **checked**
 Translation: **Container #**
 Type: **Label**
 Data Type: **Char**

The Control Type „Label“ is used to add a display only Control. All Controls in this Group will be labels, because you are using the Group to show selected container details.

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LAB 2: Create a Screen to Display Container Details

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LAB 2: Change Container Properties, part 1

LAB 2: Change Container Properties, part 2

LAB 2: Add Control, part 1

LAB 2: Add Control, part 2

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LAB 2: Add Control, part 2

► Add the ParentContainer Control:
 Code: **ParentContainer**
 Show Title: **checked**
 Translation: **Parent Container**
 Type: **Label**
 Data Type: **Char**

This will be the information about a container, in which the selected container is stored. An example will be a box (child container) stored on a pallet (parent container).

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LAB 2: Add Control, part 3

▶ Add the ContainerStatusDesc Control:

- **Code: ContainerStatusDesc**
- **Show Title: checked**
- **Translation: Current Container Status**
- **Type: Label**
- **Data Type: Char**

You will display the current status of the selected container.

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LAB 2: Add Control, part 4

▶ Add the ProductNo Control:

- **Code: ProductNo**
- **Show Title: checked**
- **Translation: Product No**
- **Type: Label**
- **Data Type: Char**

This will be information about the product code stored in the container. We will work with containers which have just one type of a product.

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