EB GUIDE tutorial

Using view transition animations

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1. Tutorial: Using view transition animations

	TIP	**Default window layout**
		All instructions and screenshots use the default window layout. If you want to follow the instructions, we recommend to set the EB GUIDE Studio or EB GUIDE Monitor window to default layout by selecting **Layout** > **Reset to default layout**.

View transition animation (VTA) is an animation that is done while moving from one view to another. The following instructions guide you through the process of creating these animations. You are going to create a model with views and animations that are played when you change views. You are going to create the following elements:

► Two view states

► Navigation elements, such as buttons and labels

► Events to trigger changes to the view states

► Animations that are played when you transition to another state

Approximate duration: 30 minutes.

	Creating the first view state

Create the first view and a button.

Prerequisite:

▪ The content area displays the **Main** state machine.

▪ The **Main** state machine contains an Initial state and a View state.

▪ The Initial state has a transition to the View state.

Step 1
In the **Navigation** component, rename the View state to `FirstState` and the View to `FirstView`.

Step 2
Open the `FirstView`.

Step 3
From the **Toolbox** component, drag a Rectangle into the `FirstView` and rename it to `RectNextView`.

This Rectangle is for the button that triggers the transition.

Step 4
In the **Properties** component, go to the **Widget feature properties** category and click **Add/Remove**. The **Widget features** dialog is displayed.

Step 5
Under **Available widget features**, expand the **Effect** category and select **Border**.

Step 6
Click **Accept**.

The **Properties** component displays the related widget feature properties.

Step 7
In the **Properties** component, enter the following:

▶ In the `width` text box, enter `220`.

▶ In the `height` text box, enter `70`.

▶ In the `x` text box, enter `290`.

▶ In the `y` text box, enter `150`.

▶ Set `fillColor` to black.

▶ In the `borderThickness` text box, enter `2`.

▶ Set `borderColor` to white.

Step 8
From the **Toolbox** component, drag a Label into the **Navigation** component and add it as a child widget of `FirstView`.

Step 9
Rename the Label to `LabelNextView`.

Step 10
In the **Properties** component, enter the following:

▶ In the `text` text box, enter `Go to the next view`.

▶ In the `font` text box, enter `25`.

▶ Set the `horizontalAlign` to centered.

Step 11
Link the dimensions of the Label to the dimensions of the Rectangle. Link the following properties:

▶ Link the `width` property of `LabelNextView` to `width` of `RectNextView`.

▶ Link the `height` property of `LabelNextView` to `height` of `RectNextView`.

▶ Link the `x` property of `LabelNextView` to `x` of `RectNextView`.

▶ Link the `y` property of `LabelNextView` to `y` of `RectNextView`.

Figure 1. The `FirstView` with the button

 Creating the second view state

The second view contains a button. Create this view by copying and renaming the elements you already created.

Prerequisite:

▪ You completed the previous instruction.

Step 1
Select the **Main** tab.

Step 2
Copy and paste the `FirstState` state.

Step 3
In the **Navigation** component, find the new state you created and rename the following widgets:

▸ Rename the View state to `SecondState`.

▸ Rename the View to `SecondView`.

▸ Rename `RectNextView` to `RectGoBack`.

▸ Rename `LabelNextView` to `LabelGoBack`.

Step 4
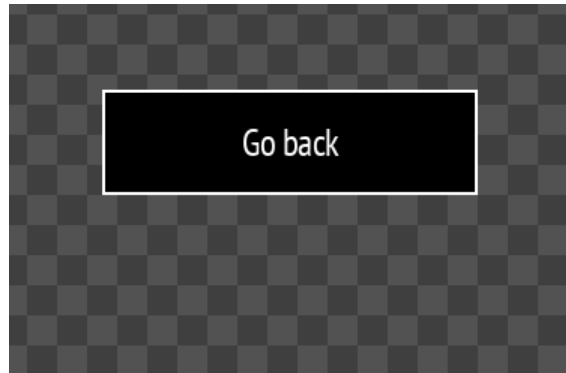Double-click `LabelGoBack`, and in the `text` text box, enter `Go back`.

Figure 2. The `SecondView` with the button

👣 Creating transitions and events

Prerequisite:

- You completed the previous instruction.

Step 1
Double-click the **Main** state machine.

Step 2
Create transitions from the edges of the **Main** state machine to both view states.
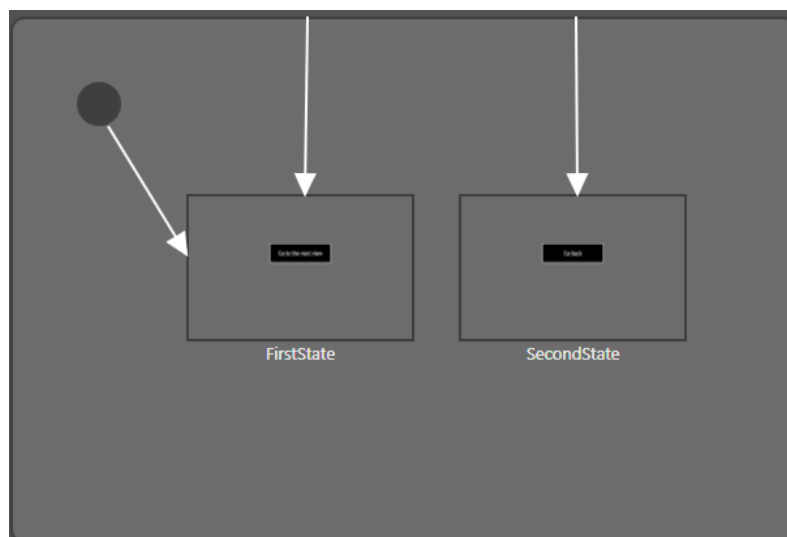

Figure 3. The `Main` state machine with transitions

Step 3
Select the transition from the **Main** state machine to `FirstState`.

Step 4
In the **Properties** component, in the **Trigger** combo box, enter `goToFirstState` and click **Add event**.

A new event is created.

Step 5
Select the transition to `SecondState`.

Step 6
In the **Properties** component, in the **Trigger** combo box, enter `goToSecondState` and click **Add event**.

A new event is created.

Connecting buttons and events

Now you define the following behavior: when a button is clicked, the transition to another state is triggered.
For this you use EB GUIDE Script.

Prerequisite:

▪ You completed the previous instruction.

Step 1
In the **Navigation** component, double-click `LabelNextView`.

Step 1.1
In the **Properties** component, go to the **Widget feature properties** category and click **Add/Remove**. The **Widget features** dialog is displayed.

Step 1.2
Under **Available widget features**, expand the **Input handling** category and select **Touch released**.

Step 1.3
Click **Accept**.

The related widget feature properties are added to the **Properties** component.

Step 1.4
Next to the `touchShortReleased` property, click {}.

An EB GUIDE Script editor opens.

Step 1.5
Enter the following EB GUIDE Script that fires the `goToSecondState` event when the button is clicked:

```
function(v:touchId::int, v:x::int, v:y::int, v:fingerId::int)
{
    fire ev:goToSecondState()
    false
}
```

Step 1.6
Click **Accept**.

Step 2
In the **Navigation** component, double-click `LabelGoBack`.

Step 2.1
In the **Properties** component, go to the **Widget feature properties** category and click **Add/Remove**. The **Widget features** dialog is displayed.

Step 2.2
Under **Available widget features**, expand the **Input handling** category and select **Touch released**.

Step 2.3
Click **Accept**.

The related widget feature properties are added to the **Properties** component.

Step 2.4
Next to the **touchShortReleased** property, click {}.

An EB GUIDE Script editor opens.

Step 2.5
Enter the following EB GUIDE Script that fires the `goToFirstState` event when the button is clicked:

```
function(v:touchId::int, v:x::int, v:y::int, v:fingerId::int)
{
    fire ev:goToFirstState()
    false
}
```

Step 2.6
Click **Accept**.

Creating the `FirstView` entry animation

Enable the **VTA** component and create an animation that moves the button in from the right. To create an animation, you need to define which property is animated, how long the animation lasts, where it starts, and where it ends. In this tutorial only the `x` property is used.

Prerequisite:

- You completed the previous instruction.

Step 1
The **VTA** component is not visible in the default layout. You need to enable it.

In the command area click **Layout** > **VTA (view transition animations)**.

The **VTA** component is displayed.

Step 2

In the **Navigation** component double-click `FirstState`.

Step 3

In the **VTA** component click + and select **Entry animation**

The **Entry animation** table is displayed.

The **Animation editor** is displayed below the content area.

Step 4

Click + and select **Exit animation**.

The **Exit animation** table is displayed.

Step 5

In the **Animation editor** in the drop-down list select `Entry animation 1`.

Step 6

Click + and select **Destination:** `FirstView`. The **Animation properties** dialog is displayed.

Step 7

Click `RectNextView`, then `x` then **Fast start curve** and **Accept**.

A new animation is added to the **Animated properties** list.

Step 8

In the **Properties** component enter the following:

▶ In the `start` text box, enter `900`.

▶ In the `end` text box, enter `290`.

When you start the simulation you can see the button move in.

Creating the `FirstView` exit animation

Create an animation that moves the button out to the right.

Prerequisite:

▪ You completed the previous instruction.

Step 1

In the **Animation editor** in the drop-down list select `Exit animation 1`.

Step 2

Click + and select **Source:** `FirstView`. The **Animation properties** dialog is displayed.

Step 3

Click `RectNextView` then `x` then **Fast start curve** and **Accept**.

A new animation is added to the **Animated properties** list.

Step 4
In the **Properties** component enter the following:

▶ In the `duration` text box, enter `500`.

▶ In the `start` text box, enter `290`.

▶ In the `end` text box, enter `800`.

Creating the `SecondView` entry animation

Create an animation that moves the button in from the right.

Prerequisite:

▪ You completed the previous instruction.

Step 1
In the **Navigation** component double-click `SecondView`.

`SecondView` is displayed in the content area.

Step 2
In the **VTA** tab click +

Step 3
Add an **Entry animation** and an **Exit animation**.

The **Animation editor** is displayed below the content area.

Step 4
In the **Animation editor**, in the drop-down list, select `Entry animation 2`.

Step 5
Click + and select **Destination:** `SecondView`. The **Animation properties** dialog is displayed.

Step 6
Click `RectGoBack` then `x` then **Fast start curve** and **Accept**.

A new animation is added to the **Animated properties** list.

Step 7
In the **Properties** component enter the following:

▶ In the `start` text box, enter `900`.

▶ In the `end` text box, enter `290`.

Creating the `SecondView` exit animation

Create an animation that moves the button out to the right.

Prerequisite:

▪ You completed the previous instruction.

<u>Step 1</u>
In the **Animation editor**, in the drop-down list, select `Exit animation 2`.

<u>Step 2</u>
Click `+` and select **Source:** `SecondView`. The **Animation properties** dialog is displayed.

<u>Step 3</u>
Click `RectGoBack` then `x` then **Fast start curve** and **Accept**.

A new animation is added to the **Animated properties** list.

<u>Step 4</u>
In the **Properties** component enter the following:

▶ In the `duration` text box, enter `500`.

▶ In the `start` text box, enter `290`.

▶ In the `end` text box, enter `800`.

Saving and testing the EB GUIDE model

Prerequisite:

▪ You completed the previous instruction.

<u>Step 1</u>
To save the project, click 💾 in the command area.

<u>Step 2</u>
To start the simulation, click ▷ in the command area.

Click `Go to the next view`. The view changes and an animation is played.

Click `Go back`. The view changes back to the first view and an animation is played.