

EB GUIDE tutorial

Making an ellipse move across the screen

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1. Tutorial: Making an ellipse move across the screen

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**.

The following instructions guide you through the process of animating an ellipse so that it continually moves across the screen when the simulation starts.

Approximate duration: Five minutes.



Adding widgets

In the following steps, you add three widgets to the view and organize the hierarchy of the widgets.

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 content area, double-click the View state.

The View is displayed in the content area.

Step 2

Drag an Ellipse from the **Toolbox** into the View.

Step 3

Drag an Animation from the **Toolbox** into the Ellipse.

Step 4

In the **Navigation** component, click the Animation, and press the **F2** key. Rename the Animation to `MyAnimation`.

Now, if you start the simulation, an ellipse is displayed in a View. The ellipse does not move yet.



Adding a user-defined property of type `Conditional script`

As a next step, you add a user-defined property to the Ellipse. With the conditional script property, rendering the ellipse during simulation starts the animation.

Prerequisite:

- You completed the previous instruction.

Step 1

Select the Ellipse.

Step 2

In the **Properties** component, go to the **User-defined properties** category, and click **+**.

A menu expands.

Step 3

In the menu, click `Conditional script`.

A user-defined property of type `Conditional script` is added to the Ellipse.

Step 4

Rename the property to `startAnimation`.

Step 5

Next to the `startAnimation` property, select the **Value** column and click `{ }`.

An EB GUIDE Script editor opens.

Step 6

Enter the following EB GUIDE Script:

```
function(v:arg0::bool)
{
  f:animation_play(v:this->MyAnimation)
}
```



Making the animation visible

The following instructions guide you through the process of making the animation visible.

Prerequisite:

- You completed the previous instruction.
- The content area displays the `View 1 View`.

Step 1

Go to the **Animation editor**. Next to **Animated properties**, click **+** and select `View 1`.


A menu expands.

Step 2

Under `Ellipse 1` select the `x` property and then the **Linear interpolation curve**.

Step 3

Click **Accept**.

The  button is displayed next to the `target` property.

Step 4

Link the `end` property to the `width` property of the `View`.

With these settings, when the animation starts, the `x` property of the `Ellipse` changes from zero to the width of the `View`. Thus the ellipse moves from the left boundary to the right boundary of the view.

Step 5

To make the animation run in infinite repetitions, enter `0` in the `repeat` property.

Step 6

Save the project.

Step 7

To start the simulation, click  in the command area.

Result:

The ellipse continually moves from the left side of the view to the right side of the view.