Example

Shapes - Reverse, Offset, Restart

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description:	reverses shape on part of fixtures, offsets them, restarts shape
remarks:	most useful for circle shapes

When creating shapes, in order to make a symmetrical look (e.g. circle shape with left fixtures turning clockwise, right fixtures turning counter-clockwise) you need to (1) select half of the fixtures, (2) reverse the shape for them, (3) offset them by 180°, and (4) restart the shape to see the effect. This macro does everything (for a predefined number of fixtures at least - there are macros for other fixture quantities as well).

shape, reverse, invert, offset, restart

functions

- Editor.Shapes.ProgrammerShapesList
- Editor.Shapes.SelectAllShapes
- ActionScript.SetProperty.Integer
- Command.RunCommand
- ActionScript.SetProperty.Boolean
- Editor.Shapes.Reverse
- ActionScript.SetProperty.Double
- Programmer.RefireProgrammer
- Selection.Context.Global.ClearPatternSelect

affected properties

- Editor.Shapes.ProgrammerShapes.Empty
- Editor.Shapes.EditShapesEmpty
- Editor.Shapes.Spread
- Selection.Context.Global.RepeatPattern
- Editor.Shapes.PhaseOffset
- Programmer.CurrentProgrammerIds

control structures

- condition

Matias made more macros for various fixture quantities:

mm_symmetrical_shape.xml

Code

ReverseOffsetRestart16.xml

```
<?xml version="1.0" encoding="utf-8"?>
<avolites.macros>

<!-- Symmetrical Shape -->

  <macro id="Macros.Shapes.SymmShape16" name="Symmetrical Shape 16
Fix">
    <sequence>
      <step pause="0.001">Editor.Shapes.ProgrammerShapesList()</step>
      <step condition="!Editor.Shapes.ProgrammerShapes.Empty">
        Editor.Shapes.SelectAllShapes()
      </step>
      <!--  <step condition="!Editor.Shapes.EditShapesEmpty">  // not
from v12 on! -->
      <step
pause="0.001">ActionScript.SetProperty.Integer('Editor.Shapes.Spread',
8)</step>
      <step pause="0.001">Command.RunCommand("PATTERN 8 IN 16")</step>
      <step
pause="0.001">ActionScript.SetProperty.Boolean("Selection.Context.Globa
l.RepeatPattern", true)</step>
      <step pause="0.001">Editor.Shapes.Reverse()</step>
      <step
pause="0.001">ActionScript.SetProperty.Double('Editor.Shapes.PhaseOffse
t', 180)</step>
      <step
pause="0.001">Programmer.RefireProgrammer(Programmer.CurrentProgrammerI
ds)</step>
      <step
pause="0.001">Selection.Context.Global.ClearPatternSelect()</step>
    </sequence>
  </macro>

</avolites.macros>
```

Explanation

This explains the functional steps within the sequence. For all the other XML details please refer to Formats and syntax

- `Editor.Shapes.ProgrammerShapesList()` gets the currently running shapes
- `Editor.Shapes.SelectAllShapes()` selects all shapes

- the next step was conditional until Titan v11 - but `!Editor.Shapes.EditShapesEmpty` returns false from v12 on
- `ActionScript.SetProperty.Integer('Editor.Shapes.Spread', 8)` sets a spread of 8
- `Command.RunCommand("PATTERN 8 IN 16")` is a nice way of selecting half of the fixtures, togetether with `ActionScript.SetProperty.Boolean("Selection.Context.Global.RepeatPattern", true)`
- `Editor.Shapes.Reverse()` reverses the shape(s) for the previously selected first half of fixtures
- `ActionScript.SetProperty.Double('Editor.Shapes.PhaseOffset', 180)` offsets them by 180° - note that this property is of type Double
- `Programmer.RefireProgrammer(Programmer.CurrentProgrammerIds)` restarts the shapes
- `Selection.Context.Global.ClearPatternSelect()` finally clears the selection pattern

How to use it

1. make this macro available
2. select 16 fixtures in a row, create a circle spread, set it to medium size and speed ⇒ all fixtures will move simultaneously
3. fire this macro. Immediately the fixtures will be divided in half, with suitable spread, left and right half turning in opposite directions but in perfect sync

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