



MotionLayout

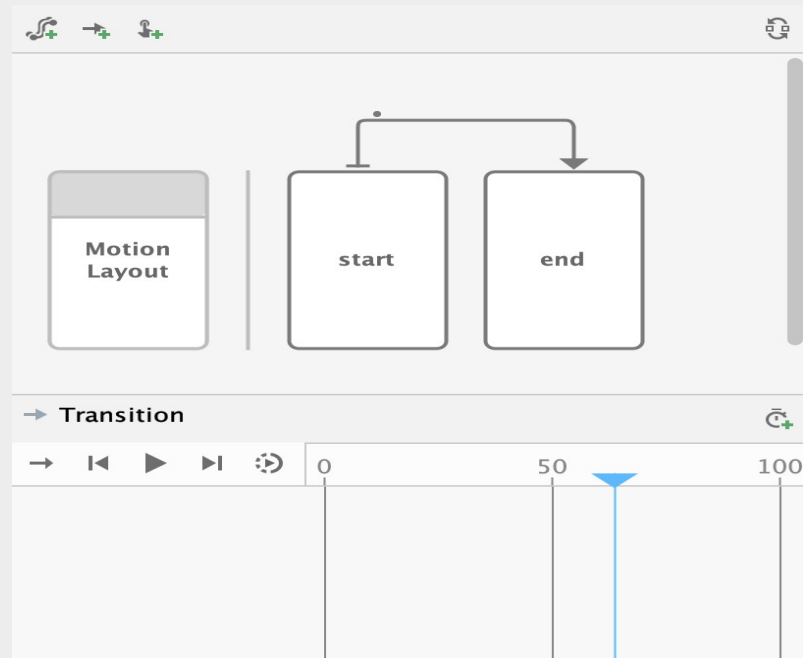
What is MotionLayout?

- A New Layout System in Android With Built-In Support for Animation
- Subclass of ConstraintLayout

How MotionLayout Works

- Has separate XML file aka motion scene
- Animates changes between end points

How MotionLayout Works(2)



How MotionLayout Works(3)



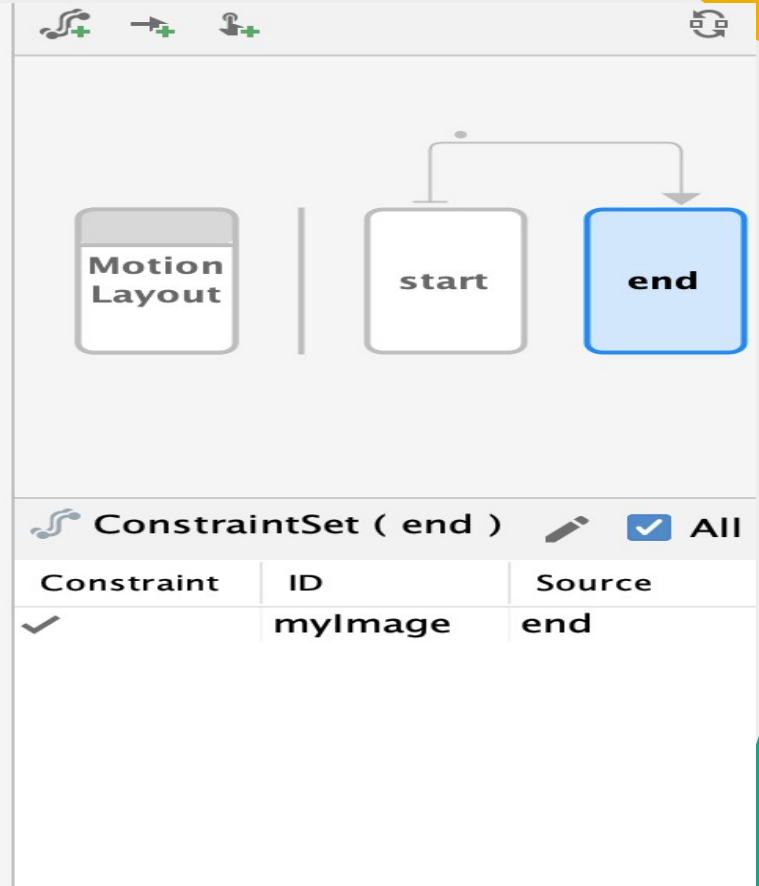
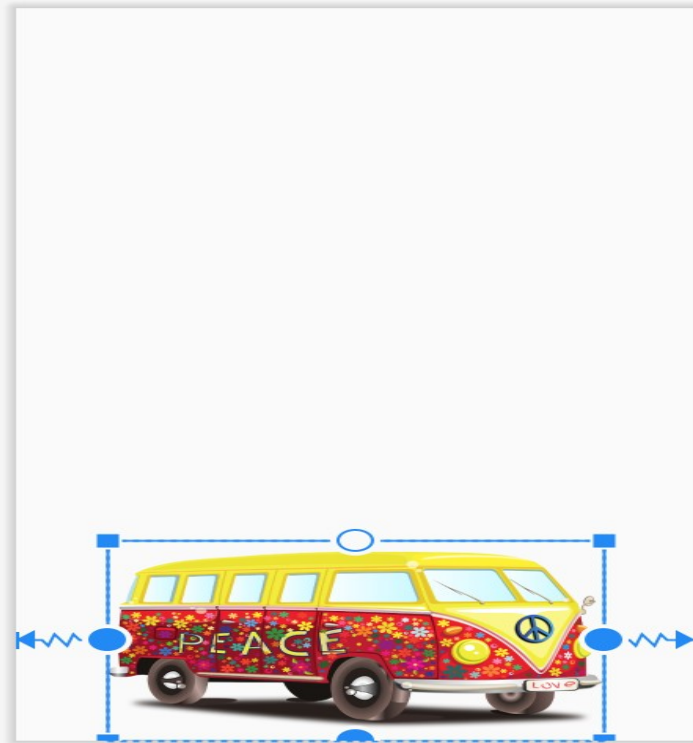
Diagram illustrating the MotionLayout workflow:

The workflow consists of three main components: **Motion Layout**, **start**, and **end**. Arrows indicate a flow from **start** to **end**.

Below the diagram, the **ConstraintSet (start)** configuration is shown, including a table of constraints:

| Constraint | ID | Source |
|------------|---------|--------|
| ✓ | myImage | start |

How MotionLayout Works(4)



Keyframes

- Keyframes in MotionLayout allows fine-grained customization of motion.
- Keyframe types:
 - KeyAttribute
 - KeyPosition
 - KeyCycle
 - KeyTrigger
 - KeyTimeCycle

Advantages

- Declarative animation (all in XML)
- No coding needed
- Visual editor
- Support for keyframes (Advanced motion)

Prerequisites

- ConstraintLayout 2.0

```
dependencies {  
    implementation "androidx.constraintlayout:constraintlayout:2.1.4"  
}
```