

View Animation

And yet it moves

Animation



Animation

- Move views across the screen
- Fade in, fade out
- Activity transitions
- Defined in XML

Animation XML

- `<scale>` - size
- `<alpha>` - transparency
- `<translate>` - position
- `<rotate>` - angle

- `<set>` - collection of the above

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:interpolator="@[package:]anim/interpolator_resource"
    android:shareInterpolator=["true" | "false"] >
    <alpha
        android:fromAlpha="float"
        android:toAlpha="float" />
    <scale
        android:fromXScale="float"
        android:toXScale="float"
        android:fromYScale="float"
        android:toYScale="float"
        android:pivotX="float"
        android:pivotY="float" />
    <translate
        android:fromXDelta="float"
        android:toXDelta="float"
        android:fromYDelta="float"
        android:toYDelta="float" />
    <rotate
        android:fromDegrees="float"
        android:toDegrees="float"
        android:pivotX="float"
        android:pivotY="float" />
    <set>
        ...
    </set>
</set>
```

Activity Transitions

- Use animation resources to define transitions
- Call `overridePendingTransition(...)`
 - Sets an animation resource for the leaving, and incoming activity.

```
<translate android:fromXDelta="100%" android:toXDelta="0%"  
    android:fromYDelta="0%" android:toYDelta="0%"  
    android:duration="@integer/animation_duration"  
    android:interpolator="@android:anim/decelerate_interpolator"/>
```

Limitations

- This is the old way of animating views
- Only applies to Views
- Only works for a few specific properties

Value Animator

- Can animate anything, not just views
- Animates a value from a start to end
- Extendable: can animate any object type
- Generates values from A to B, you process them

Object Animator

- Same as Value animator
- Can set the values directly on a specific object
- Uses `get<name>`, `set<name>` pattern

Questions?