



# **Flex Effects:**

## **Transitions as design elements**

**Tink**

<http://www.tink.ws>

<http://www.tink.ws/blog>

<http://code.google.com/p/tink/>

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# Transitions

***All transitions are bad***

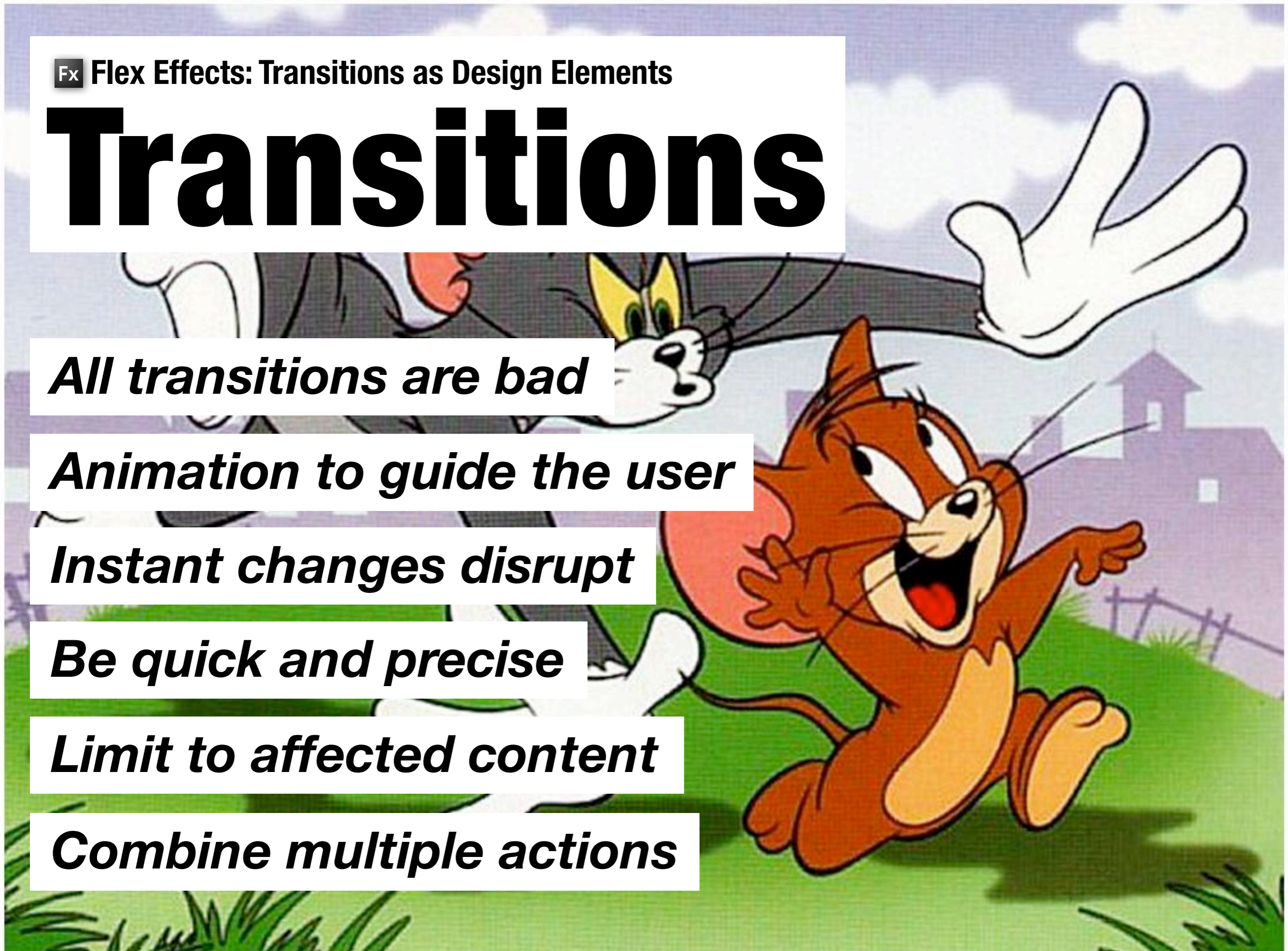
***Animation to guide the user***

***Instant changes disrupt***

***Be quick and precise***

***Limit to affected content***

***Combine multiple actions***



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# **States**

***Define the content and appearance***

***A state is a named set of overrides***

- › ***Add/Remove children***
- › ***Set/change properties***
- › ***Set/change styles***
- › ***Handle events***
- › ***Create custom overrides (implement IOverride)***

***Can be combined with effects***

***Not what we're talking about today!***

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# Effects

***Audible or visual change to component***

AnimateProperty, Blur, Dissolve, Fade, Glow, Iris, Move, Pause, Resize, Rotate, SoundEffect, WipeLeft, WipeRight, WipeUp, WipeDown, Zoom, Parellel, Sequence

***Use CSS***

***Invoked by triggers (triggerEffect)***

***You can define your own***

```
[Event(name="custom", type="flash.events.Event")]  
[Effect(name="customEffect", event="custom")]
```

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# **Limitations**

***Limited to the targets properties***

***Cropped by other content***

***No easy way to disable other content***

***show/hide split on ViewStacks***



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# ContainerEffect

**Inheritance:** ContainerEffect → TweenEffect

**Subclasses:** MovieClipEffect, BitmapDataEffect

***Hides target by default***

***Creates a new container for the effect***

***Can specify x, y, width and height of effect***

***Can be a popUp (modal)***

***Abstract class***

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# MovieClipEffect

Inheritance: [MovieClipEffect](#) → [ContainerEffect](#) → TweenEffect

Subclasses:

***Timeline animated effects!***

***Requires a Class reference to a MovieClip***

***Can specify frame from and to***

***Can apply easing***

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# BitmapDataEffect

**Inheritance:** BitmapDataEffect → ContainerEffect → TweenEffect

**Subclasses:** TileEffect, PaperVision3DEffect

***Forces validation of component***

***Method to override to creation of BitmapData***

***Array to store BitmapData***

***Disposes of all BitmapData when complete***

***Abstract class***

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# TileEffect

**Inheritance:** `TileEffect` → `BitmapDataEffect` → `ContainerEffect` → `TweenEffect`

**Subclasses:** [TileFade](#)

***Creates tiles (numColumns, numRows)***

***Specify duration for a tile***

`tileDurationPercent`

***Order to apply effect to tiles***

`"random"`, `"topRightToBottomLeft"`, `"topLeftToBottomRight"`, `"bottomRightToTopLeft"`, `"bottomLeftToTopRight"`

***Access to tiles***

`getTileAt( column:uint, row:uint ):Bitmap`

***Tween value for each tile (0-1)***

`getTileValueAt( column:uint, row:uint ):Number`

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# Papervision3DEffect

**Inheritance:** Papervision3DEffect → BitmapDataEffect → ContainerEffect → TweenEffect

**Subclasses:** [FlipPapervision3D](#)

***Creates a basic 3D view***

***Creates and destroys BitmapMaterial***

***Allows the change of camera focus & zoom***

***Takes care of rendering***

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# ViewStackEffect

Inheritance: ViewStackEffect → TweenEffect

Subclasses: [Squash](#), [Fade](#), [FadeZoom](#), [Scroll](#), [Grid](#), [GridZoom](#), PaperVision3DStackEffect

***Forces creation & validation of all children***

***Creates BitmapDatas***

***Can combine hide/show***

***Can be popUp***

***Gives access to object to store data***

***Defines selectedIndexTo/selectedIndexFrom***

***Warns or interruption to effect***

***Create BitmapData of view when interrupted***

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# Papervision3DViewStackEffect

Inheritance: Papervision3DViewStackEffect → ViewStackEffect → TweenEffect

Subclasses: [FlipPaperVision3D](#)

*Creates a basic 3D view*

*Creates and destroys BitmapMaterials*

*Allows the change of camera focus & zoom*

*Takes care of rendering*

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# Todo

**BitmapDataEffect:** Pixelatte, DisplacementMapEffect, Away3DEffect++, FlintEffect++

**ContainerEffect:** PageTurn, Sticker

**TileEffect:** TileMove, TileExplode, TileBlur, TileResize, TileWipe, TileZoom

**ViewStackEffect:** PageTurn, Sticker, DisplacementMapEffect, DoorPapervision3D, TileViewStackEffect++, FlintViewStackEffect++, Away3DViewStackEffect++

**TileViewStackEffect:** TileMove, TileExplode, TileBlur, TileResize, TileWipe, TileZoom

**FlintViewStackEffect:** ExplodeFlint

**Papervision3DViewStackEffect:** CubePapervision3D, DoorPapervision3D, WorldPapervision3D, ReflectionPapervision3D, DoorPapervision3D

**Away3DViewStackEffect:** CubeAway3D, DoorAway3D, WorldAway3D, ReflectionAway3D, DoorAway3D

**PixelBenderEffect:** ????

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# Questions

*Worth creating a project for contribution?*

*If so, any ideas on names?*

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