

# Plasma Animations Overview

aka. *Pimp my Plasmoids!*

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July 7th, 2010



**Who are we?**





*(Nokia Technology Institute)*



# Plasma Animations Overview

Fade | Geometry | Grow | QPixmapTransition | Pulsar  
Rotation | RotationStacked | Slide | Zoom



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Animations can be subclassed from:

## **Plasma::Animation**

Implements *updateCurrentTime(int)*

## **Plasma::EasingAnimation**

Implements *updateEffectiveTime(int)*



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**Fade** | Geometry | Grow | QPixmapTransition | Pulsar | Rotation | RotationStacked | Slide | Zoom

*Transforms the opacity of an object from a starting value to a target value*

Ranges from **0.0** (transparent) to **1.0** (opaque)

Properties:

**startOpacity** – sets the initial opacity value

**targetOpacity** – sets the final opacity value



# Plasma Animations Overview

Fade | **Geometry** | Grow | QPixmapTransition | Pulser | Rotation | RotationStacked | Slide | Zoom

*Updates the widget geometry (position, size) from a start QRectF to a target QRectF*

Properties:

**startGeometry** – sets the initial geometry value

**targetGeometry** – sets the final geometry value  
*(target is an adjusted QRectF from start)*



# Plasma Animations Overview

Fade | Geometry | **Grow** | QPixmapTransition | Pulsar | Rotation | RotationStacked | Slide | Zoom

*Updates the widget geometry (position, size) using a grow factor (qreal)*

Properties:

**factor** – grow factor which is a multiple from the initial values



# Plasma Animations Overview

Fade | Geometry | Grow | **PixmapTransition** | Pulser | Rotation | RotationStacked | Slide | Zoom

*Animates a faded transition between two QPixmaps*

Properties:

**startPixmap** – Initial pixmap displayed

**targetPixmap** – Target pixmap (animation end)

**currentPixmap** – Current animation pixmap



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Fade | Geometry | Grow | QPixmapTransition | **Pulser** | Rotation | RotationStacked | Slide | Zoom

*Creates a pulse effect behind the widget, scaling and diminishing opacity until it disappears*

Properties:

**targetScale** – Pulse scaling factor (*qreal*)



# Plasma Animations Overview

Fade | Geometry | Grow | QPixmapTransition | Pulser | **Rotation** | RotationStacked | Slide | Zoom

*Rotates a widget on a given axis, using a rotation reference with a given angle*

Properties:

**axis** – Rotation axis

*(X, Y or Z)*

**reference** – Rotation reference

*(Center, Up, Down, Left, Right)*

**angle** – Rotation angle

*(eg. 0, -90 or 180)*



# Plasma Animations Overview

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*Flips one widget (front) with another (back)*

Properties:

**movementDirection** – Flipping direction

*(MoveUp, MoveDown, MoveLeft, MoveRight or MoveAny)*

**reference** – Rotation reference

*(Center, Up, Down, Left, Right)*

**layout** – Layout where both widgets are inserted

**backWidget** – Pointer to the back widget



# Plasma Animations Overview

Fade | Geometry | Grow | QPixmapTransition | Pulser | Rotation | RotationStacked | **Slide** | Zoom

*Moves a widget to a given direction with a given distance*

Properties:

**distance** – Movement distance in pixels

**movementDirection** – Movement direction

*(MoveUp, MoveDown, MoveLeft, MoveRight or MoveAny)*

**distancePointF** – Movement distance as a *QpointF*



# Plasma Animations Overview

Fade | Geometry | Grow | QPixmapTransition | Pulsar | Rotation | RotationStacked | Slide | **Zoom**

*Scales a widget using a given zoom factor*

Properties:

**zoom** - Scaling factor (*qreal*)



**Future of Plasma Animations?**

**JavaScript!**

# JavaScript Animations

- Easier to maintain
- Implemented on a single file which is unique for each theme
- No significant performance loss when comparing to C++ animations
- Development is ongoing!



# Thank you!

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