Flake: Compound Documents

Compose your documents from individual objects:

- text frames, images, vector graphics, tables, connectors

Suitable for:
- presentations, text documents, spreadsheets, charts, graphs, images, drawings
Pillars of KDE: Flake

History

Claris/GoBe
Apple's OpenDoc
Microsoft OLE
KDE's KParts
OpenOffice's XP-COM

Flake
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Why not?

Widgets?

Embedded documents?

QGraphicsView?
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What Flake is and is not

Is:

Flexibly object composition resulting in compound documents on a specialized bsae document type

Not:

A canvas -- applications provide a specific canvas
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Controller, model, view

KoTool

KoShape

KoCanvasBase

KoTextTool

KoPathTool

Freehand, Selection...

NotationTool

KWord Canvas (page based)

Krita Canvas (infinite sheet)

KSpread Canvas (tabbed sheets)

KPresenter (slides)

KoTextShape

KoPathShape

KritaImageShape

MusicShape

KWord Canvas

Krita Canvas

KSpread Canvas

KPresenter
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And View begat Tool and Tool begat Shape

* A KoTool creates a KoShape
* A KoShape is added to the KoShapeController
* The KoShapeController adds the KoShape to a KoCanvas
* The KoCanvas asks the KoShape to paint itself
* The View Widgets passes QEvents to the Tool Proxy
* The ToolProxy passes events to the Tool that belongs to the current Shape
* The Tool alters the data associated with the Shape
* The Shape asks to the Canvas to repaint
Shapes

* Shapes are created by Factories
* Shapes can be created from templates
* Shapes can be nested, grouped, aligned
* Shapes know how to draw themselves
* Shapes can save and load themselves
* Decorated with borders
* For every input device for every view, a tool instance
* Tools are associated with shapes; when a shape is selected the default tool for that shape is activated.
* Tool implementations are plugins
* Tool settings are visible in the Option Widget
* Tools get all events -- the shape does not handle events
* Tools handle undo/redo
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Canvases

Not a single canvas implementation

But specialisations: pages, sheets, infinite sheet

OpenGL, Arthur

Managed by KoCanvasController for scrolling, zooming, panning, decorating with shadows, drag and drop
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Resolution

Big problem in KOffice 1.x

In 2.0: shapes are internally in postscript points

Translated to screen and printer ppi and dpi

So, for raster graphics, three units:
- raster ppi (or dpi) (300 ppi)
- postscript resolution (72 ppi)
- output resolution (on my laptop, 129 x 127)
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Color Management

Pigment

* input color description (scanner or camera profile)
* Working color profile (sRGB for all of KOffice except Krita)
* Output color profile (printer, pdf, cmyk, rgb_
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ODF, saving and loading

* Saving/loading, but also: cut/copy/paste
* either inline, or in frame objects
* it does push ODF: we are using ODF in a way that conforms to the standard, but we are innovating
* OpenRaster
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User Interface
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Integration

Open Clipart

Get Hot New Stuff

Scriptability

Nepomuk

availability of flake, odf and pigment outside KOffice?
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State of The Art

KWord
Karbon
Krita
KPresenter
KSpread
Kivio
KChart
KPlato
Kexi
Kugar
KoShell
Shapes We're Sorely Missing

* Textual Table Shape
* Video Shape
* Map Shape