How Contour became Plasma Active
the next step of the mobile platform

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Quick Introduction

- Who's Eva?
- Who's basysKom?
- What's Contour?
- What's Plasma Active?
Summer 2010 - Ideas Floating Around

- Semantic Data
- Activities
- Recommendations
- Context

- Mobile
- Touchscreen
- Daily Usage

CONTOUR

- Plasma Workspace
- Qt on Mobile Devices
- KDE Frameworks & Apps
The Contour Project

- Autumn 2010  
  *Forming the Project out of the Ideas*
  - Various meetings basyskom internal & with Plasma/Nepomuk community members
  - Decision on using Qt & KDE technology
  - Writing a project proposal

- March 2011 – Feb 2012  
  *Officially Funded Project Contour*
  funded by basysKom

- When starting  
  - Involvement with Community unclear
  - Focus on getting concept & prototype done
Core ideas of Contour
The Vision

Available user paradigms
- App centric
- Static
- Handling more and more data

Designing a new user paradigm
- Information centric
- Using context and usage information
- A learning system,
- Adapting to the user
- Reacting to the user
Activities and Recommendations

Pattern

context

tracks and considers location, time, current activity, active files, apps and recent action history

Activity

created by the user to gather diverse content like apps, widgets and contacts that belong together, either public or private

Context

regular actions and usage patterns of the user in similar contexts

Recommendations

propositions for images and web pages based on the current location and usage heuristics of the user
Plasma Active as a Platform

User Layer
- Contour UX

Plasma Active shell
- Primary User Interface, Widgets, 3D Window compositing (OpenGL), File management, System info and configuration

Active applications

Data services
- Activity manager
- Recommendations manager

Application Development Platform
- KDE
  - Solid: Hardware, Network, Power
  - Nepomuk: Semantic search
  - Phonon: Multimedia
  - Oxygen: Artwork
  - Plasma: User interface, Data access
- Qt
  - Webkit
  - Graphics
  - QtQUICK, QML

Core Infrastructure: MeeGo, Mer, Balsam

Automotive Settop Tablet
User Interface Design
Activity Switcher - first prototype

+ intuitive interaction pattern
+ slide-In mechanism prevents unintended touch
- only few elements visible
- text too small
Activity Switcher - adaption and optimization

+ more elements visible
+ innovative wheel metaphor
- slide-in too cumbersome with thumb
- edit icon on thumbnail too small, cluttered design
Activity Switcher - final Design

+ better visible thumbnails
+ fluid wheel navigation
+ single tap for quick access
+ edit icon placed in activity
Activity Screen - first prototype of Mindmap Metaphor

- endless possibility of adding content
- mindmap metaphor suitable for clustering data
- UI not suitable for smaller screens
Activity Screen - Zooming Interfaces

- 3 different data visualisation with normal view, zoomed-in focused view and zoomed-out overview
- performance issues
- technical challenge to differ from single touch, horizontal scrolling and pinch&zoom gesture
Activity Screen - final Design

- vertically and horizontally stretchable boxes
- visual indicators (arrow, number) for amount of items
- boxes can be rearranged in grid by the user
Add Resources - first prototype

+ multiselection of items
+ search for quicker results
- first category screen doesn't offer any information
- less overview over data
Add Resources - Final Design

- tabs for quicker access
- global search
- recommendations integrated in „TOP“ tab
More features

- Launcher, Task Switcher
- Webkit Integration
- Private Activities
- ScreenSaver / Shutdown
Alternative UX: In Vehicle Infotainment
Contour Implementation
User Interface Design Process

Sketches on Paper

Wireframes in Photoshop

Implementation in QML

Iterations

Iterations
The Software Architecture

Part 1: Plasma

Part 2: Activities & Recommendations

Plasma

Data fetch and manipulation

Dataengine
- Data access
- Activities
- Weather

Services
- API for data manipulation, one for DataEngine
- Activities setup
- Recommendations execution

Visualization

Containment
- Activity screen
- Widget strip

Applet
- Weather
- Clock
- Res widget

Components
- Buttons, line edits, sliders etc.

SVG themes
- General look and feel

Activity Manager

Applications
Usage events
Activity controls
Workspace

SQLite
Nepomuk

Contour Daemon

Recommendation plugins
System Integration

- Continuous Integration
  - rpm
  - OBS
  - hudson

- Base Linux System
  - MeeGo
  - Mer

- Hardware
  - WeTab
  - Archos
How Contour Became Plasma Active
March 2011 - Plasma Active being Announced

- Workshop in Darmstadt
  joining forces

Plasma Mobile UI
Sebas / open-slx

Activities & Recommendations
Contour / basysKom

Share Like Connect
Aaron Seigo / Coherent Theory

- September 2011 coding sprint at basysKom
- Oct 10, 2011 Plasma Active One Release
- Dec 12, 2011 Plasma Active Two Release
- March 2012 Plasma Active Sprint at basysKom
Why did basysKom contribute Contour to KDE?

Because

– only way to develop upstream

– to be able to create a joint process (community / company)

– It is a chance for KDE in the mobile space

– I care about KDE
Review

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<tr>
<th>Challenges</th>
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<tr>
<td>– Cooperation company – community not always easy</td>
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<td>– Embedded development processes not established</td>
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<td>– Desktop technology too large and slow for embedded hardware</td>
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<table>
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<th>Cool Stuff</th>
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<tbody>
<tr>
<td>– Lots of framework could be reused</td>
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<td>– Highly motivated people</td>
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<td>– Very quick results</td>
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Done? No, It is a starting point!

- Source code fully available in Trunk
- Mailing list, Mer build system in place and available
- Image creation infrastructure: more automation required
- Contribution Needed: Release Management, Quality Assurance

You want to give it a try? Contribute?

- get an Archos G9
- Get image from http://share.basyskom.com/plasma-active
- Improve by contributing
Thanks to the Contour Team!

- Marco Martin: Plasma Core Development, Plasma Active UX Development
- Ivan Cucik: Implementation of Recommendations
- Sebastian Trüg: Pre-Study for Recommendations
- Daniel Beckert: Early UX concepts
- Fania Bremmer: UX concepts, refinements, working with community
- Maurice de la Ferte: continuous system integration, implementing image creation
- Lamarque: Plasma Active UX Development
- Karlheinz Hohm: project management
- Stefan Werden: system integration input
- Eva Brucherseifer: strategy & feedback, marketing

Thanks to the KDE team!
Contact

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