Desktop/mobile convergent applications with Kirigami
What is KDE

- Developers
- Translators
- Artists
- Writers
- Promoters
- Users
KDE Products

- Plasma
- KDE Frameworks
- KDE Applications
KDE Vision

"A world in which everyone has control over their digital life and enjoys freedom and privacy."
Convergence

- **Hardware**
  Plug a mouse and a monitor into a mobile and use it as a desktop

- **Software**
  Consistent UI/UX across both mobile and desktop
Convergence

- More than a technical term
  - What do the application repositories offer?
- Linux repositories
  - We need touch friendly applications
Kirigami

- UI framework for convergent apps
  - Qt Quick Controls based
  - Follows the KDE HIG
  - Tier 1 framework
  - Multiplatform
  - LGPLv2

```javascript
Kirigami.ApplicationWindow {
  id: root
  title: i18n("Hello Kirigami")

  globalDrawer: Kirigami.GlobalDrawer {
    id: root
    title: i18n("test")
    titleIcon: "applications-graphics"
    actions: [
      Kirigami.Action {
        text: i18n("File")
        onTriggered: showPassiveNotification(i18n("File"))
      },
      Kirigami.Action {
        text: i18n("View")
        onTriggered: showPassiveNotification(i18n("View"))
      }
    ]
  }

  contextDrawer: Kirigami.ContextDrawer {
    id: contextDrawer
  }

  pageStack.initialPage: mainPageComponent
}

Component {
  id: mainPageComponent

  Kirigami.Page {
    id: root
    title: i18n("Hello")

    Controls.Label {
      anchors.centerIn: parent
      text: i18n("Hello Kirigami")
    }
  }
}
```
KDE HIG

- Principles
- Recommendations
  - UI/UX patterns
  - Components
- Goal
  - Provide an optimal user experience per device type
  - Create consistent, intuitive and easy to learn UIs
Calindori

- The calendar of Plasma Mobile
  - Date navigation
  - Events and Tasks management
  - Reminders
  - Month, week and day views
  - Multiple calendars
Calindori and Convergence

- The primary target of Calindori is Plasma Mobile
- Minimal effort on convergence-specific bits
- Leverage Kirigami capabilities
- Develop, maintain and release a single version of the software
Calindori on Mobile
Surviving the surveillance pandemic
14:30 - 16:00

Online

When the COVID-19 pandemic hit most countries around the world, people had to move most of their interactions online, be them working interactions, home schooling, personal interactions or political activism. Many governments looked for technology to trace the spread of the virus in order to fight the pandemic. Current tracking practices and technologies raised many questions about privacy, particularly in the US. How to ensure students aren’t cheating on tests.

Employers start to use different surveillance technology to monitor their employees while working from home. With the uprising in the US against systemic racism, followed by protests all around the world and now with many protests related to election processes in different countries. The control of the Internet, online censorship as well as surveillance, is being applied against people who are fighting for their rights. Is it possible to survive the surveillance pandemic?

How to best protect yourself and your community?

Delivering Software like KDE
15:00 - 16:00

Offline

The journey of an idea into a piece of code that ends up running on over thousands of devices isn’t trivial. In this presentation, I would like to shed some light on how we do it in KDE by showing some tools that can help along the way. The end goal of this talk is to have everyone informed about what’s working for KDE nowadays with an emphasis on the mobile aspect of the story.

Desktop/mobile convergent applications with Kirigami
16:00 - 17:00

Offline

Nowadays, an increasing amount of desktop applications have a mobile counterpart. So, the creation of a mobile version for each desktop application is the way to go, isn’t it? There is, however, an alternative approach: desktop/mobile convergent applications.

From a development point of view, working on a single application that adapts to the device that it runs on means less code to maintain and release. At the same time, users are being offered an application ecosystem that follows similar UI and UX patterns, and, as a result, it is more intuitive and easy to learn.

Kirigami, the KDE framework that implements the KDE Human Interface guidelines, helps the developers create convergent, consistent and easy to use applications. In this talk, the main benefits of desktop/mobile convergence will be discussed and various convergence features of Kirigami as used in real applications will be shown.
Column Display

- No extra code
Global Drawer in Calindori

globalDrawer: Kirigami.GlobalDrawer {
drawerOpen: root.wideScreen
handleVisible: !root.wideScreen
modal: !root.wideScreen
}
Global Drawer (default)

- No extra code
globalDrawer: Kirigami.GlobalDrawer {
  isMenu: true
}

Global Drawer to Menu
Application Toolbar > Global Toolbar

- No extra code
• No extra code
Global Toolbar Style

- No extra code
On Demand Actions: SwipeListItem

- No extra code
Calindori: Rows to Columns

```
GridLayout {
    columns: root.wldeScreen ? -1 : 1
    rows: root.wideScreen : 1 : -1
}
```
Kirigami Gallery

Mobile
QT_QUICK_CONTROLS_MOBILE = true
QT_QUICK_CONTROLS_STYLE = Plasma

Desktop
QT_QUICK_CONTROLS_MOBILE = false
QT_QUICK_CONTROLS_STYLE = org.kde.desktop
Why Kirigami

- Framework for mobile and desktop
- Maintain a single application
- No design feedback available
- Content consumption software
- Made by a sustainable community
Thank you!

Questions?

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