



Desktop/mobile convergent applications with Kirigami

GHCon2020

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

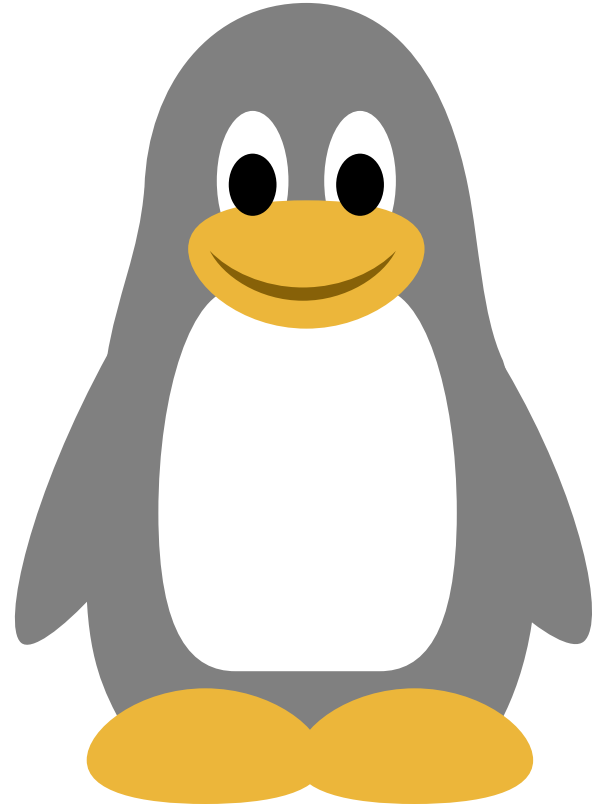
Consistent UI/UX across both mobile and desktop



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

```
Kirigami.ApplicationWindow {
    id: root

    title: i18n("Hello Kirigami")

    globalDrawer: Kirigami.GlobalDrawer {
        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

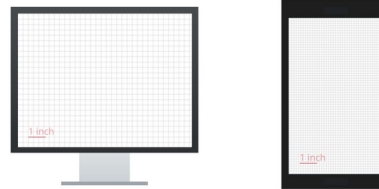
        Kirigami.Page {
            title: i18n("Hello")

            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



September 2020

4 Friday
September 2020

5 events

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4	5
6	7	8	9	10	11	12
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Navigation icons: hamburger menu, back, calendar, forward, and vertical ellipsis.

Calindori on Desktop



Calindori

November 2020 Today Previous Next Tasks Events

View: Month, Day, Week, All Tasks, All Events

Calendar Management, Settings, About

21 Saturday
November 2020
3 events

Mon	Tue	Wed	Thu	Fri	Sat	Sun
26	27	28	29	30	31	1
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Events

New Event

Surviving the surveillance pandemic

14:30 - 15:00
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. Contact tracing practices and technologies raised many questions about privacy, particularly: is it possible to trace the virus while respecting people's privacy? Surveillance is also being applied to remote schooling as a way 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 U.S. 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?

Delete Edit

Delivering Software like KDE

15:00 - 15:30
Online

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.

Delete Edit

Desktop/mobile convergent applications with Kirigami

16:00 - 16:30
Online

Nowadays, an increasing amount of desktop applications have its 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.

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Column Display



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Navigation icons: menu, back, calendar, forward, settings.

Calindori

View: Month, Day, Week, All Tasks, All Events, Calendar Management, Settings, About

November 2020

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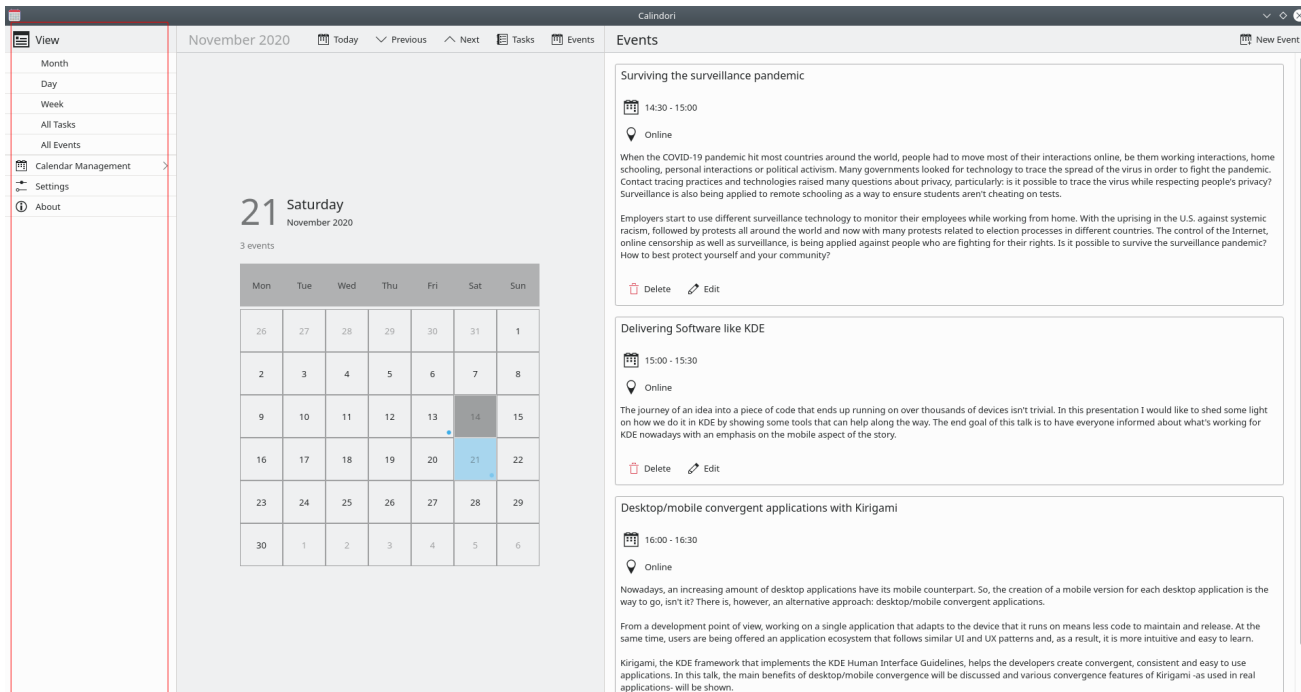
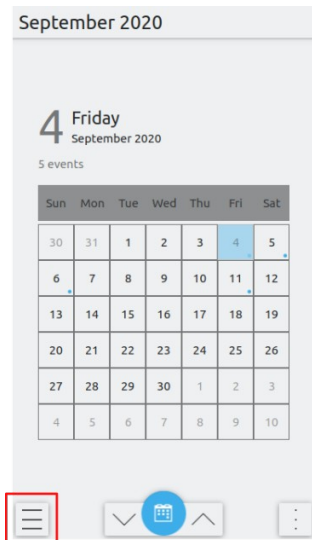
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- No extra code

Global Drawer in Calindori



```
globalDrawer: Kirigami.GlobalDrawer {  
    drawerOpen: root.wideScreen  
    handleVisible: !root.wideScreen  
    modal: !root.wideScreen  
}
```

Global Drawer (default)







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Events

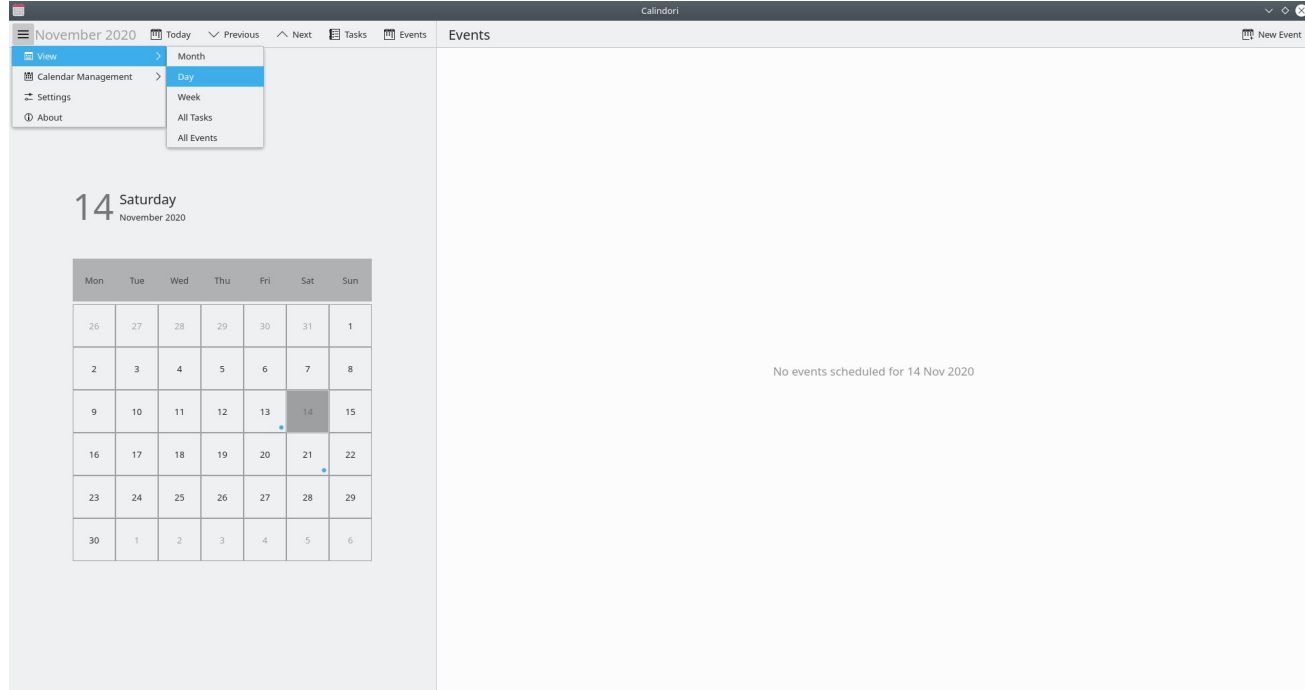
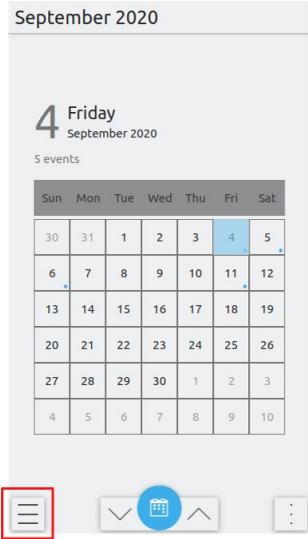
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Delete Edit

- No extra code

Global Drawer to Menu



```
globalDrawer: Kirigami.GlobalDrawer {  
    isMenu: true  
}
```


Application Toolbar > Global Toolbar



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Application toolbar with navigation arrows and a calendar icon highlighted in a red box.

Calendar window showing November 2020. The 'Today' button is highlighted in a red box.

View: Today Previous Next Tasks Events

21 Saturday
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3 events

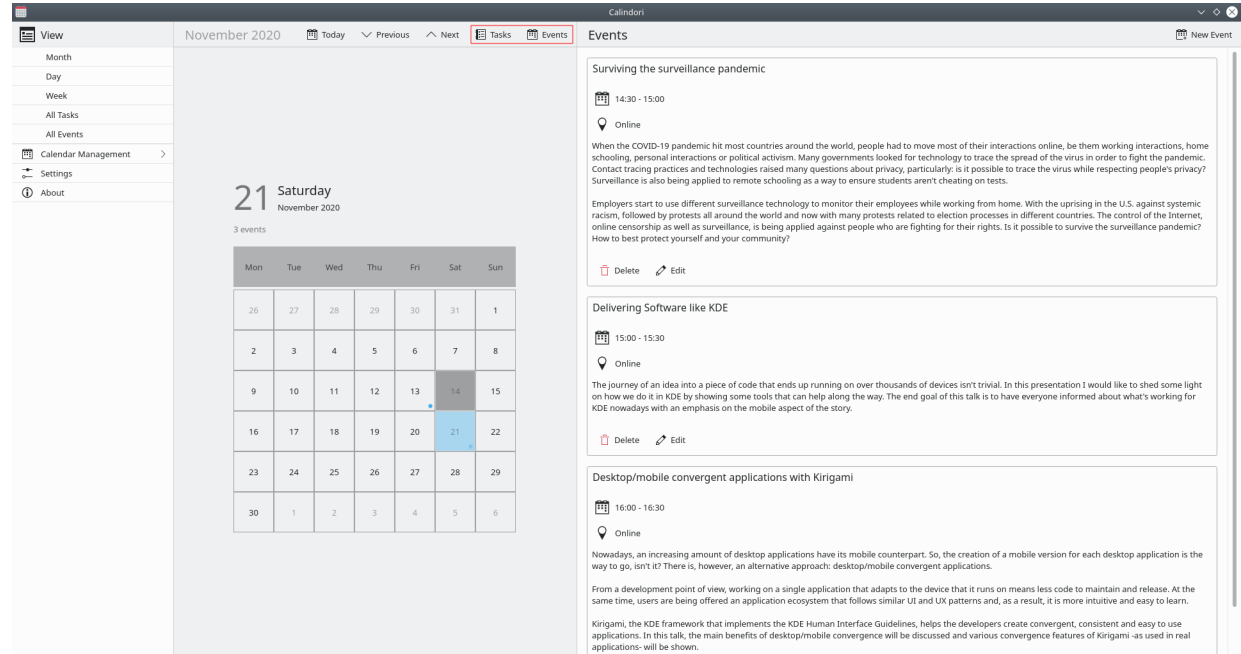
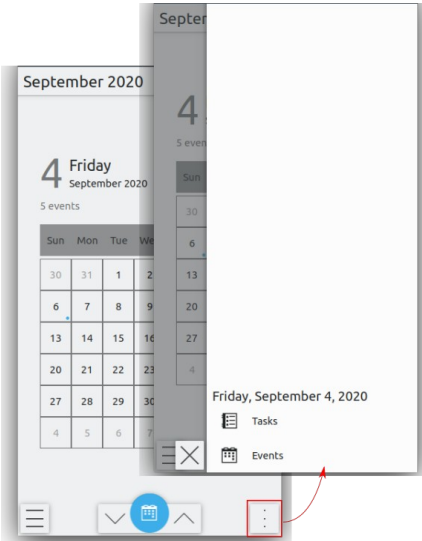
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Events list:

- Surviving the surveillance pandemic**
14:30 - 15:00
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- No extra code

Context Drawer > Global Toolbar



- No extra code

Global Toolbar Style



November 2020 > Events > New event

Calendar: Akademy2020

Summary:

Start: 9/4/20 17:00
End: 9/4/20 18:00
 All day

Location:

Repeat: Never

Description:

Reminders Add

15 minutes before start

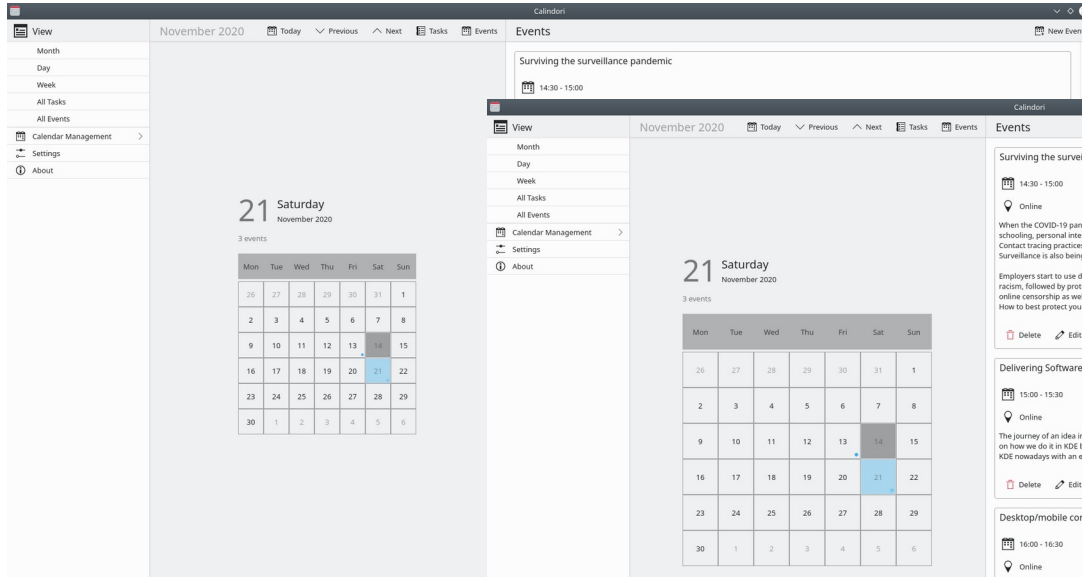
The screenshot shows the Calindori application interface. On the left is a sidebar with a 'View' menu (Month, Day, Week, All Tasks, All Events) and a 'Calendar Management' section (Settings, About). The main area displays a list of events:

- Surviving the surveillance pandemic**: 14:30 - 15:00, Online. Description: "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. Contact tracing practices and technologies raised many questions about privacy, particularly: is it possible to trace the virus while respecting people's privacy? Surveillance is also being applied to remote schooling as a way to ensure students aren't cheating on tests." Actions: Delete, Edit.
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On the right, the 'New event' form is visible, mirroring the form in the first image but with a 'Calendar: test' setting.

- No extra code

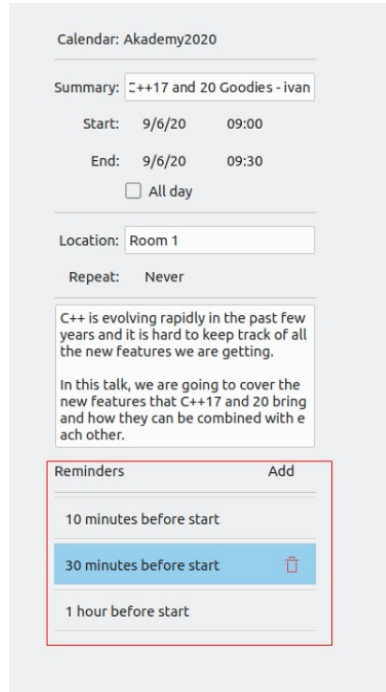
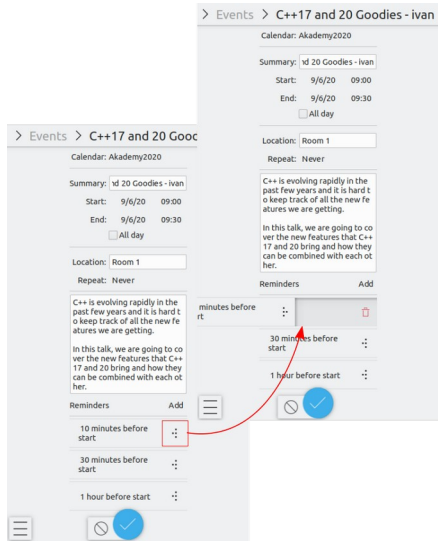
Scaling



```
CalendarMonthPage {  
    //...  
    dayRectangleWidth: Kirigami.Settings.isMobile ? Kirigami.Units.gridUnit * 2.5 : Kirigami.Units.gridUnit * 3.5  
    //...  
}
```

`dayRectangleWidth: Kirigami.Settings.isMobile ? Kirigami.Units.gridUnit * 2.5 : Kirigami.Units.gridUnit * 3.5`

On Demand Actions: SwipeListItem



- No extra code

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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