The Plasma Handbook

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Contents

Abstract

Plasma is the core user interface to the desktop.

Chapter 1

Introduction

Plasma provides a modern and customizable environment for running your favorite applications and accessing your information wherever it may be. Other common attributes of the Plasma Desktop include advanced window management and desktop effects, support for KDE Plasma Widgets, integrated search, hardware management and a high degree of customizability. Plasma is simple by default and powerful when needed. This means that a user can configure pretty much anything about the desktop, but doesn't have to. It is KDE's flagship product.

This manual tells you how to use Plasma.

Chapter 2

Using Plasma

2.1 Plasma Components

2.1.1 Plasma Widgets and Containments

Plasma is based on the concepts of Widgets and Containments. Widgets are small applications that live in a containment. Containments are places to put these widgets.

The containments of the Plasma desktop are the panel and the desktop.

2.2 Default Plasma Desktop

The default Plasma desktop consists of:

- A menu in the top left corner, which gives you options regarding widgets and activities

- Hovering over the same corner will show all open apps

- A panel stretching across the bottom of the screen, including an application launcher, a pager, a task manager, a digital clock, a system tray, and a **Panel Settings** menu. Each of these are described in the following sections.

2.3 Widgets

Widgets are small applications that live in either the Plasma panel or the Plasma desktop.

To change a widget to one with a similar function, right click on it (preferably an empty space inside it) and choose **Alternatives**.

To change the settings for a widget called Widget, right click on it (preferably an empty space inside it) and click **Widget Settings**.

2.3.1 Application Launchers

2.3.1.1 Application Launcher

The default launcher (cleverly named **Application Launcher**) consists of 5 menus. These are seen in the part of the launcher closest to the panel.

KDE launchers have five categories: **Favorites**, **Applications**, **Computer**, **History**, and **Leave**.

One can simply search their files and folders by typing when focused on the application launcher.

Favorites lists apps you have marked as favorite. By default, these include a web browser, a software manager, a text editor, a setting manager, and a file manager.

Applications is divided into 10 categories. Most of them are self-explanatory.

- **Development** lists apps for those who create software. It has a subcategory for translation.

- **Education** is divided into subcategories like **Mathematics**, **Miscellaneous**, and **Science**. It includes everything relevant to academics and learning.

- **Settings** has configuration applications in it.

- **Games**, **Graphics**, **Multimedia**, **Internet**, and **Settings** are self-explanatory.

- **Office**, **Utilities**, **Lost and Found**, and **System** contain everything that does not belong in other categories. They are otherwise self-explanatory.

Right clicking on an app under **Applications** allows you to add it to your **Favorites** or your panel.

Computer lists available data devices, along with system actions and important system folders.

History lists recently opened files and applications.

Leave has various actions for when you stop using your computer. It allows you lock the screen, log out, switch your user, reboot, suspend, or shut down.

2.3.1.2 Application Dashboard

In addition to the default launcher, Plasma provides 2 other launchers: the **Application Dashboard** and the **Application Menu**. You can select an app menu by right-clicking on the current one and then **Alternatives**.

Application Dashboard shows **Favorites** and **Applications** by default. On the right sidebar, all the default **Applications** categories are visible, in addition to **Recent Applications** and **Recent Documents** categories replacing **History** and a **Power/Session** category replacing **Leave**.

Interestingly, by selecting the option in the top-bar, one can add widgets via the **Application Dashboard**.

2.3.1.3 Application Menu

Application Menu has the same categories as on the right sidebar of the **Application Dashboard**. Hovering over these categories opens a popup menu with the contents of them. **Application Menu** has a left sidebar with your favorite apps and some power options.

2.3.2 Pagers

2.3.2.1 Desktop Pager

The **Desktop Pager** lets you switch between virtual desktops. It shows diagrams of all the windows on each desktop. Virtual desktops are explained in detail later.

2.3.2.2 Activity Pager

The **Activity Pager** is like the **Desktop Pager** but with activities. Activities are explained later.

2.3.3 Task Managers

Task Managers list open windows. Right-clicking on an app in a task manager other than **Window List** allows you to do most anything that could be done in the header-bar, as well as moving it between desktops, starting a new instance of the same app, and pinning it to the task manager.

2.3.3.1 Task Manager

Task Manager shows a list of open windows in the current activity with icons and window titles.

2.3.3.2 Icons-only Task Manager

Icons-only Task Manager shows a list of open windows in the current activity with icons only.

2.3.3.3 Window List

Window List is a panel icon which, when clicked, shows a list of open windows in the current activity with icons and window titles.

2.3.4 Clocks

Clocks tell the time. Clicking on a clock opens a calendar.

2.3.4.1 Digital Clock

The **Digital Clock** shows the time in a digital format (Hour:Minute AM/PM).

2.3.4.2 Analog Clock

The **Analog Clock** shows the time like a mechanical clock would.

2.3.4.3 Fuzzy Clock

The **Fuzzy Clock** shows the time in the imprecise format you might sometimes use when talking to friends.

2.3.4.4 Calendar

The **Calendar** shows the date of the month. When at a large size on the desktop, it shows a calendar by default.

2.3.5 System Tray

The **System Tray** is a collection of various widgets:

- Menus/launchers for running, but closed applications

- **Wifi manager**. Click on it for a list of available networks.

- **Device Notifier** - Plug in a USB disk and a dialog will open that allows you to open the device in Dolphin or another associated application. Can be used as a standalone widget.

- **Clipboard** - clipboard viewer. Can be used as a standalone widget.

- **Volume Control** - allows you to set volume for certain devices and applications. Can be used as a standalone widget.

- **Notifications** - notifications from various apps

- **Battery Monitor** - shows remaining batteries' capacity and whether it is charging. Also lets you change screen brightness

- **Updates** - allows you to upgrade when upgrades are available. Can be used as a standalone widget.

- **Printers** - lists connected printers

- **KDE Connect** - allows you to view and manage connected smartphones and Android™ tablets

The **System Tray** shows only currently relevant widgets. For example, if the battery is charging or discharging, the **Battery Monitor** displays.

2.3.6 2D Plots

The **2D Plot** applet allows you to enter an equation in the top bar, then see it plotted in a random color below.

2.3.7 Activities

The **Activities** widget is meant for panels. Clicking on it opens the Activity Manager in a sidebar to the left.

2.3.8 Activity Bar

The **Activity Bar** is like a task manager, except for activities.

2.3.9 Calculator

The **Calculator** is a basic elementary calculator app.

2.3.10 Color Picker

Click on the dropper button and then on a color to pick a color from the desktop. Hover over the color to get its hex number.

2.3.11 Comic Viewer

Allows you to view comics straight from the Internet. Requires one to install comics; this can be done through Discover or by going into the widget settings and clicking **Get New Comics**.

2.3.12 Monitoring Widgets

Monitoring widgets include activity graphs for various things.

2.3.12.1 CPU Load Monitor

Monitors the overall CPU load as well as the load for each CPU core.

2.4 Panel Settings

On the right of any panel is a button which opens the **Panel Settings** menu. This menu allows you to change the size of the panel; drag the arrows pointing left to change the minimum width of the panel and drag the arrows pointing right to change the maximum width. The **Screen Edge** button acts like a handle to move the panel to any side of the screen. The **Height** button can be dragged up and down to change the height of the panel. **Add Widgets** and **Add Spacer** are self-explanatory. Under **More Settings**, one can change the panel's alignment and visibility. That menu also allows the user to increase the panel's minimum size to its maximum (**Maximize Panel**), remove the panel, and prevent widgets from being edited (**Lock Widgets**).

2.5 Adding Widgets

To add widgets, right click on the desktop and go to **Add Widgets...** or click the same option under **Panel Settings**. This will open up a vertical menu on the left side of the screen to add widgets.

The **Get New Widgets** button allows you to add widgets you've previously downloaded and download new Plasma widgets. Currently it supports native Plasmagik packages and some Mac OS X™ dashboard widgets. Widgets you install this way can then be accessed just like regular, preinstalled widgets.

2.6 The Desktop

The desktop is in fact another containment. One that does not put size constraints on the applets. Applets can be moved and sized freely. On the unlocked desktop, Plasma widgets will show a frame when you move the mouse over them. This applet handle allows you to move, resize, relocate and realign the panel. It also allows you to drag Plasma widgets on the desktop. The buttons in the corner are used to resize, rotate configure and remove the applet. When rotated, a Plasma widget will act magnetic towards 12 o'clock, so it is easy to get them back into sensible position. By default, most applets keep their aspect ratio when they are being resized. If you want to freely resize an applet, hold the **Ctrl** key pressed while resizing.

Right clicking on the desktop and clicking **Configure Desktop** also offers you to configure aspects such as the wallpaper and the layout used, and the mouse actions. It offers to download new wallpapers through KNewStuff.

On the **Tweaks** page you can configure to hide the desktop Toolbox and adjust the widget handling.

To change the Plasma theme or download a new one through KNewStuff open the **Appearance** → **Desktop Theme** page in the System Settings.

With open applications, it quickly gets hard to see the Plasma widgets on your desktop.

2.7 KRunner

KRunner is a versatile mini command-line. You can use it to start applications, open web pages, access bookmarks, search through your desktop data, calculate short equations, and many more. Pressing **Alt-Space** or **Alt-F2** opens the KRunner dialog. You just start typing and KRunner will start searching matches as soon as you've entered more than two characters. You can open the settings dialog to learn about KRunner's functionality, provided by plugins. You can navigate through the matches using the tab and arrow keys.

Use the button to open the **Plasma Search** System Settings module and configure where and what to search for in KRunner.

KRunner supports **Desktop Actions** which are additional actions an application can offer to perform common actions or jump directly to a certain task from Task Manager. Common examples are **Open New Incognito Window** to open your browser directly in private mode, **Compose Email** without launching the full-fledged email client first or take photos with the actions provided by Spectacle.

If you press the **Down** key in an empty KRunner a history of the recent entities is shown. After invoking a search result, its query will move to the top, so repeatedly used commands never fall out of the list.

Remove single entries from the list using the red cross button or clear the complete history in the KRunner settings.

If you want to know what is going on on your system, pressing **Ctrl-Esc** gives you quick access to a list of windows and processes, with options to monitor their output and kill processes.

2.8 Activities and Virtual Desktops

2.8.1 Virtual Desktops

Each virtual desktop contains its own windows.

Virtual Desktops are disabled by default. To change this, go to **System Settings** → **Desktop Behavior** → **Virtual Desktops** and increase the number of desktops.

2.8.2 Activities

Each Activity has its own widgets and windows.

The desktop toolbox, accessed via the upper left corner has a button for displaying your activities, of which Plasma allows you to have more than one. Basically, that is multiple desktop containments hosting multiple sets of Plasma widgets. Display the **Activities** bar, select one of the predefined activities or choose **Create Activity** to create a new containment, select your new containment and customize suiting your taste. Plasma's activities and KWin's desktop grid are similar in that respect, but there is a fundamental difference. While virtual desktop are used to group and organize windows, Plasma's activities are used to group and organize Plasma widgets. This way, you can switch between activities and have relevant Plasma widgets supporting

the task you are currently trying to accomplish. You can create a **Free time** activity, with comic strips, a puzzle and other Plasma widgets, and a **Work** activity, with relevant RSS feeds, calculator and calendar, for example.

To delete an activity, press the **Stop Activity** button on **Activities** bar (press **Alt-D** then **Alt-A** to open this bar) then click the red 'X' (or press **Alt-D** then **Alt-R**) and confirm the deletion.

2.9 Shortcuts

Most of Plasma's functionality is also accessible through keyboard shortcuts. The various combinations should be pressed in sequence, that is for example **Alt**+**D**, **A** means: Press **Alt** and **D**, release and press **A**.

Currently, the following default shortcuts can be used:

Alt+D, A
　　　Add Widgets

Alt+D, R
　　　Remove Widget

Alt+D, L
　　　Lock/Unlock Widgets

Meta+=
　　　Zoom out

Meta+-
　　　Zoom in

Alt+D, N
　　　Next Widget

Alt+D, P
　　　Previous Widget

Alt+D, S
　　　Widget settings

Alt+D, Alt+A
　　　Activities

Alt+D, Alt+R
　　　Remove this Activity

Alt+D, Alt+S
　　　Desktop Settings

Meta+Tab
　　　Next Activity

Meta+Shift+Tab
　　　Previous Activity

Ctrl+F12
　　　Show Desktop

Alt+D, T
　　　Run the Associated Application

Meta+Tab
　　　Open the Activities panel

Chapter 3

Credits and License

Plasma

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