The Plasma Handbook

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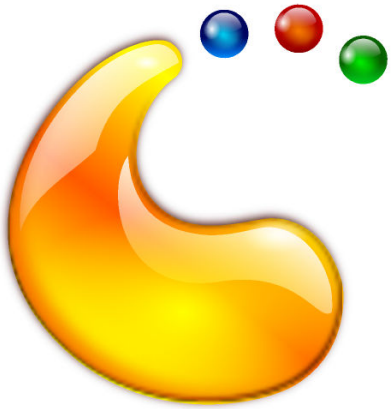

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Abstract

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.

Chapter 2

Using Plasma

2.1 Plasma Components

2.1.1 Plasma Widgets and Containments

The essence of Plasma revolves around two basic concepts:

Plasma Widgets
: Applets, or small applications that live on the desktop.

Containments
: Applets that act as the container for the Plasma widgets

On a default desktop, there are two main elements: the Panel and the Desktop itself. Both are containments in the Plasma sense.

2.1.2 Default Plasma Desktop

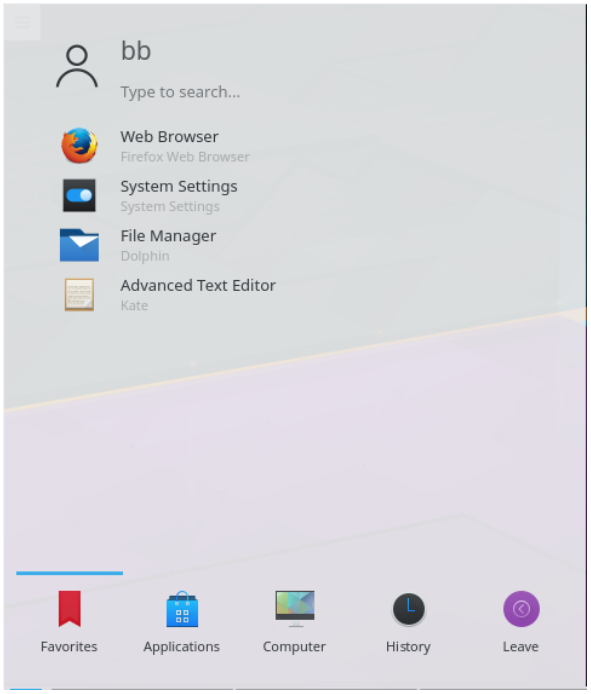
> NOTE
> The Plasma Desktop can be configured in countless ways. The screenshot seen below shows a fairly standard desktop. Some distributions apply extensive customizations, so your desktop may look different.
> Similarly, the graphical appearance of the interface elements can be styled. These screenshots uses the Plasma default style, Breeze.

1. The program starter. Usually this will be Application Launcher.
2. A couple of icons giving easy access to often used applications
3. The Task Manager, which shows the titles of windows belonging to the applications currently running. No application had opened a window, when the screenshot was taken
4. The System Tray
5. The Digital Clock widget
6. The Panel Toolbox
7. The Desktop Toolbox
8. A Folder View widget, showing the content of the Desktop folder

2.2 The Panel

The default panel holds a few Plasma widgets: starting from the left, there is the application launcher.

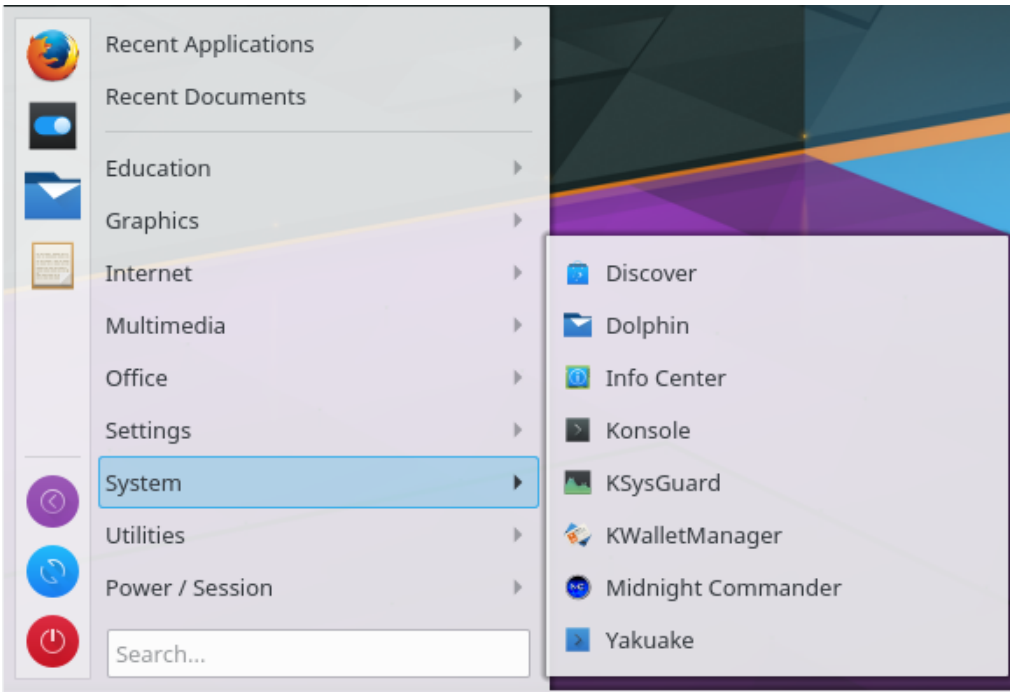
2.2.1 Application Launcher



You can use it to start applications, open recently opened files and the usual logout/shutdown options. There is also a structure that allows you to browse through your applications. The layout has been optimized for the use case that is most common: starting an application. The default tab is the **Favorites** tab that holds the most-used entries. In the beginning, you'll probably find yourself using the **Applications** tab more often. Once you have found out what your most frequently started applications are, right click on the items and select the **Add to Favorites** to add them to your **Favorites** (or directly into the panel or on the desktop. Note that you need to 'unlock' Plasma by means of right clicking on the desktop for any kind of modification).

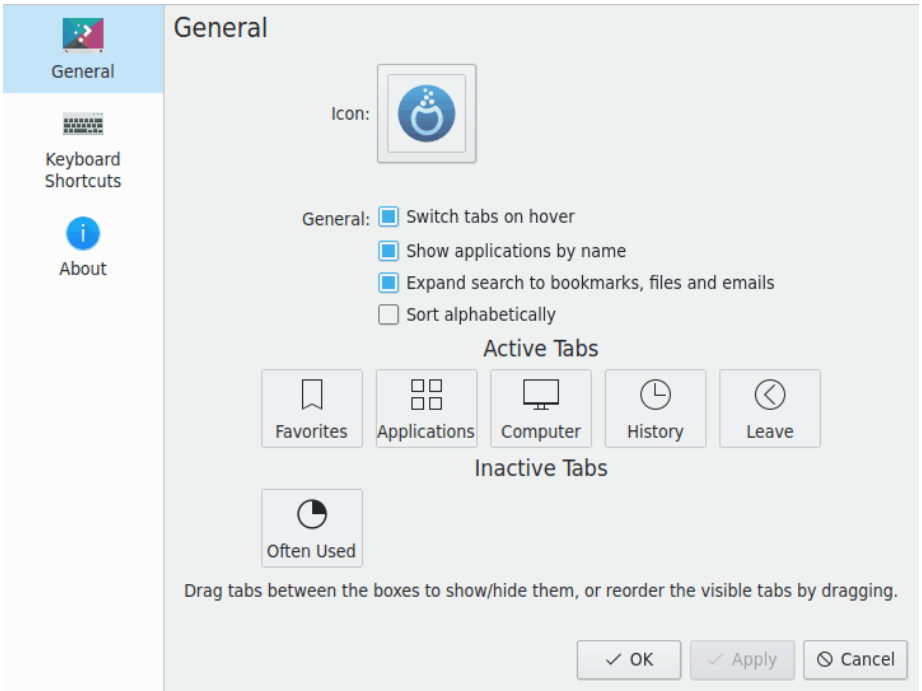
2.2.2 Application Menu

If you prefer the traditional menu-style application launcher, change it by right clicking on the menu button and selecting **Alternatives**.



2.2.3 Application Launcher Settings

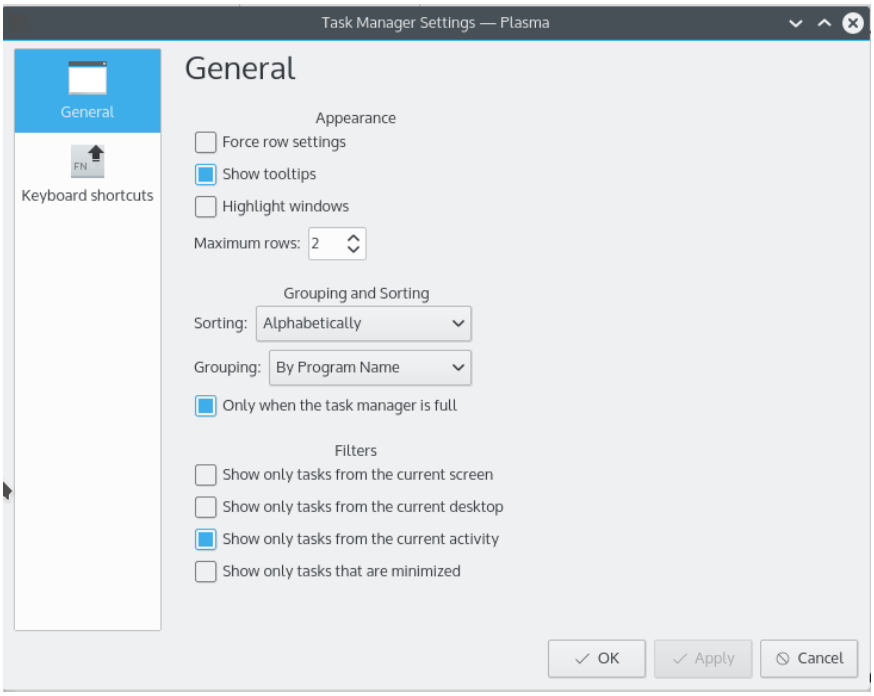
If you want to configure the application launcher, change it by right clicking on the menu button and selecting **Configure Application Launcher**.



2.2.4 Taskbar

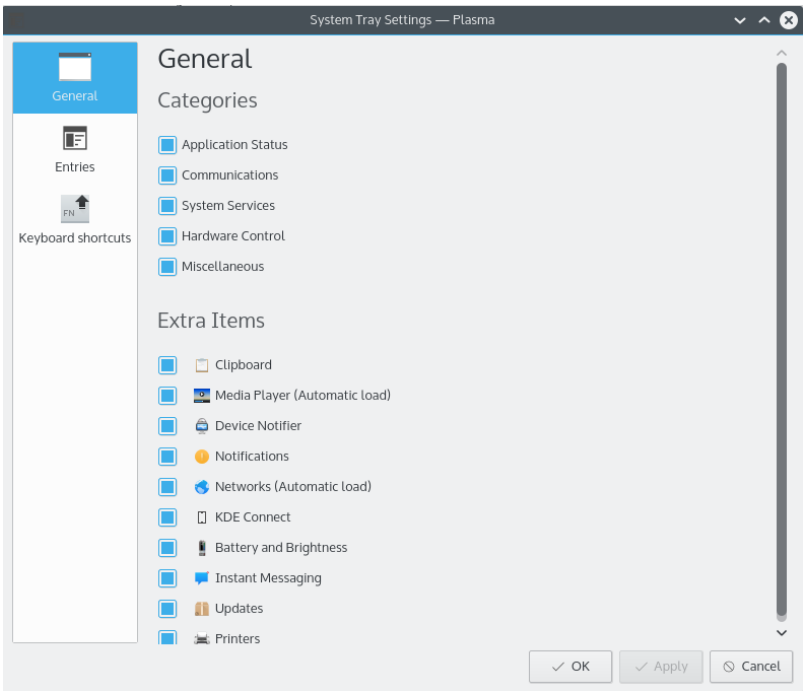
The taskbar is another widget on the panel. It shows an area for all open windows on all desktops by default. You can make it show all open windows on the current desktop only by checking

Only show tasks from the current desktop when you right click on the task manager, between two windows. The size of the text on the taskbar items can be set in System Settings under the **Appearance** → **Fonts**. Right-clicking on the taskbar brings the Settings dialog where you can choose several options to customize your taskbar.



2.2.5 System Tray

Another default panel item is the System Tray, which is used by traditional applications and widgets as a dock. Right clicking on the System Tray allows you to open the settings dialog, where you can set entries to display and their visibility.



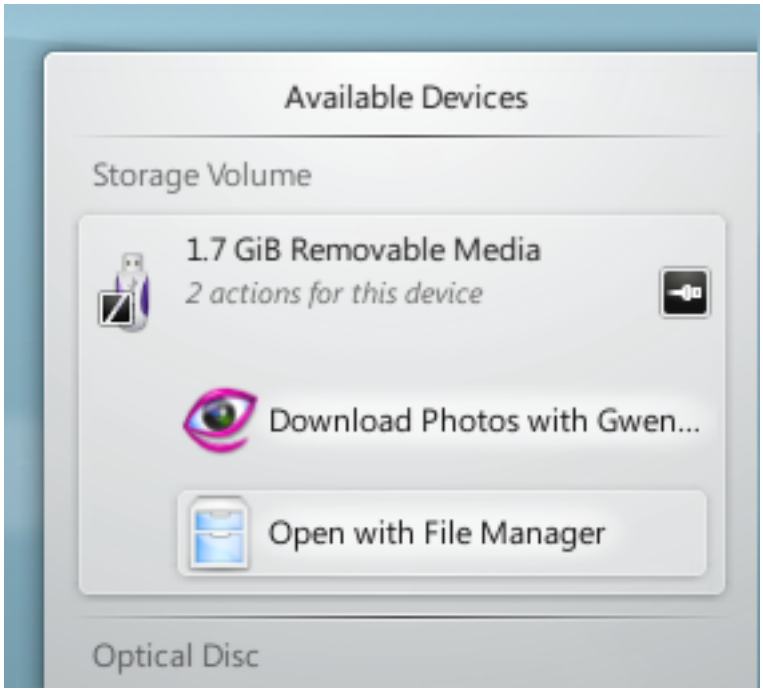
2.2.6 Device Notifier

An icon located usually in the system tray is the 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.

The Device Notifier is used for handling pluggable devices such as USB pendrives (also called flash drives or thumb drives), digital cameras, external USB hard drives, etc. It also comes into play when a medium such as a CD or DVD is loaded into an optical drive.

When you plug in an external device, or load a new medium into a drive, the **Notifier** window pops up (you can also open it explicitly by clicking on its Panel icon.) It stays open while the cursor is over it, otherwise it hides itself after a few seconds.

The **Notifier** window shows a list of all the devices it currently knows about. Moving the mouse cursor over a device will highlight how many possible actions are associated with that device.



Clicking anywhere in the shaded box around the device name (but not on the eject/unmount icon if present) expands the entry to show the list of possible actions for that device. The set of actions depends on the device; it is configurable from the Device Notifier's context menu or from

the System Settings modules Device Actions and Removable Devices. Simply select one with the mouse or keyboard to launch that action.

There is also a small icon to the right of each entry showing whether that device is currently accessible (or *mounted*) or not. Only when a device is not mounted is it safe to physically disconnect it from the computer. Clicking on the icon causes the device to be unmounted and/or the medium to be ejected if it is currently mounted, and will mount it if it is not. Note that unmounting/ejecting might fail if the device still has open files on it, e.g. if a large file copy hasn't finished. In most cases you can just wait a while and try again. When an unmounting has succeeded, a success icon will be shown on the Device Notifier's icon.

2.2.7 Hidden Items

The System Tray normally holds some more entries like Klipper, KMix etc.

Some of the default entries in the System Tray are hidden to save space in the bar. To display these entries click on the small white triangle , then use the left mouse button to launch a widget or the right mouse button to open its settings dialog.

2.2.8 Digital Clock

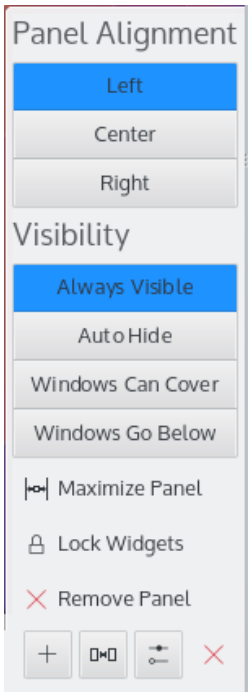
The right-most Plasma widget in the default panel holds the Digital Clock. This clock can display the time in different timezones as well as have its size changed. The clock will adjust its font size to the area it is given by the surrounding containment (that is the panel in this case). If you choose to display the date, this date will be rendered using the **Small font** option from the System Settings **Font** dialog. The time will take the rest of the space. So in the end, you'll choose yourself the amount of information displayed, and if that fits. If you want to display more information, make the panel larger or put the clock on the desktop where it can grow freely.

2.2.9 Pager

An optional item on your panel is the Pager. It allows you to switch between your virtual desktops. If you change the layout of the Pager through the **Number of rows** option, which will also affect the layout and animations that are shown in KWin's **Desktop Grid** effect. For larger pagers, selecting **Display windows icons** typically makes sense.

2.3 The Panel Toolbox

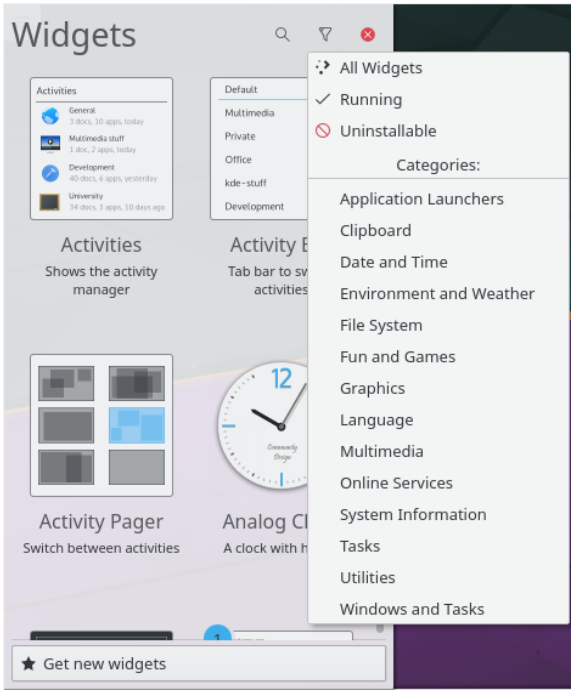
If your desktop is unlocked (you can do that by right clicking on the desktop, or when no application has the focus, with **Alt**+**D**, **L**), a small Plasma logo will appear in the bottom right corner in the panel. Click on this toolbox, and the panel controller opens.



The panel controller allows you to reposition, resize and realign the panel. The Plasma widgets living in this panel will adjust their size automatically. Plasma widgets have basic knowledge about sizing, provided by the containment. They are programmed to take advantage of that size, and inform the applet about how much space they possibly need. In the end, the containment gives a possible size to the applets, the applets obey.

2.4 Adding Applets

Unlock the desktop and you'll be able to add and remove Plasma widgets from panel or desktop. You add Plasma widgets by simply dragging them where you want them. Right click on an widget to remove it.



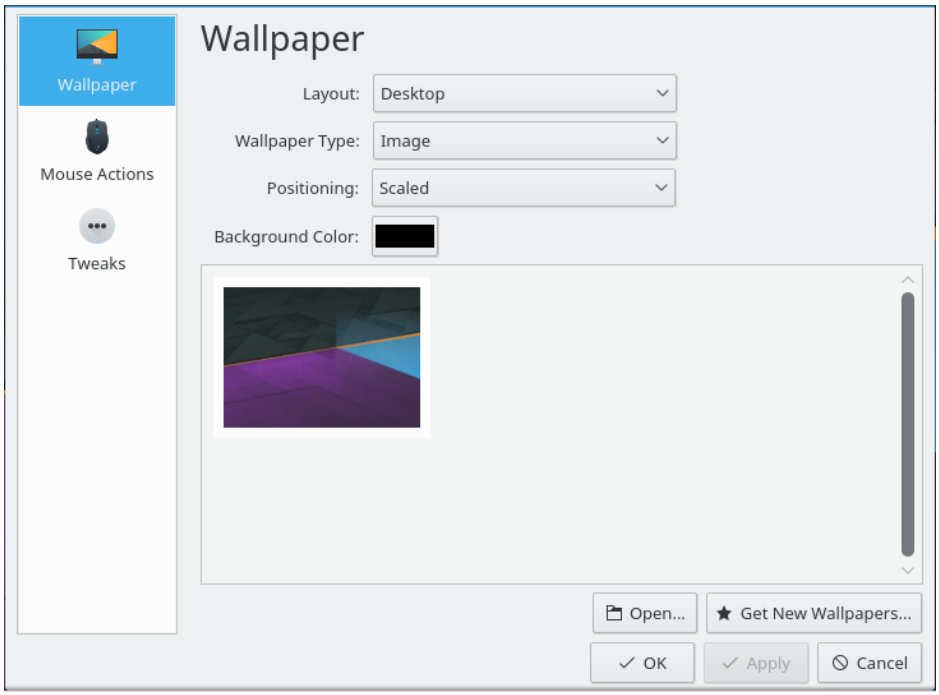
The **Get New Widgets** button allows you to add widgets you've previously downloaded and download new Plasma widgets. Currently it supports native Plasmagik packages and some Mac® OS X dashboard widgets. Widgets you install this way can then be accessed just like regular, preinstalled widgets.

2.5 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 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.

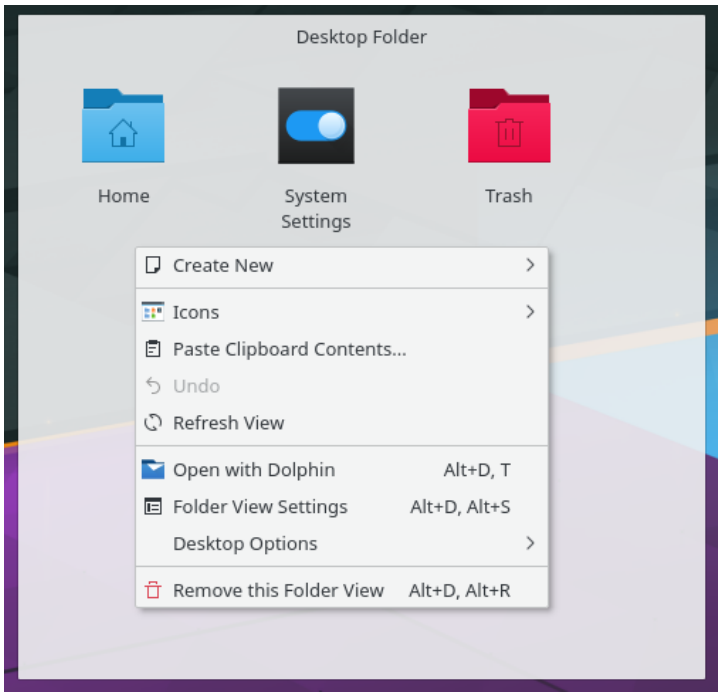
With open applications, it quickly gets hard to see the Plasma widgets on your desktop. The **Dashboard** gets those Plasma widgets in front of you, much like the **Peek at Desktop** functionality you are used to from traditional desktops.

2.6 Folder View

The **Folder View** widget is used to display entries like folders or files from a folder, by default from `$HOME /Desktop`.

You can choose to view either all files, or filter either by specific regular expressions (e.g., all files with a certain extension) or by file type (e.g. just images).

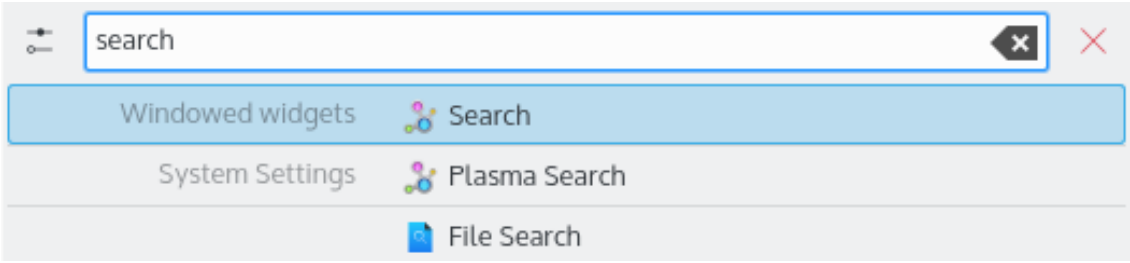
This widget also supports basic file management properties (moving, copying, cutting and pasting for example), and you can have as many as you want on your desktop.



If you select the layout **Folder View** in the **Desktop Settings** you can use one Folder View as the whole desktop, effectively replicating the "old style" desktop paradigm.

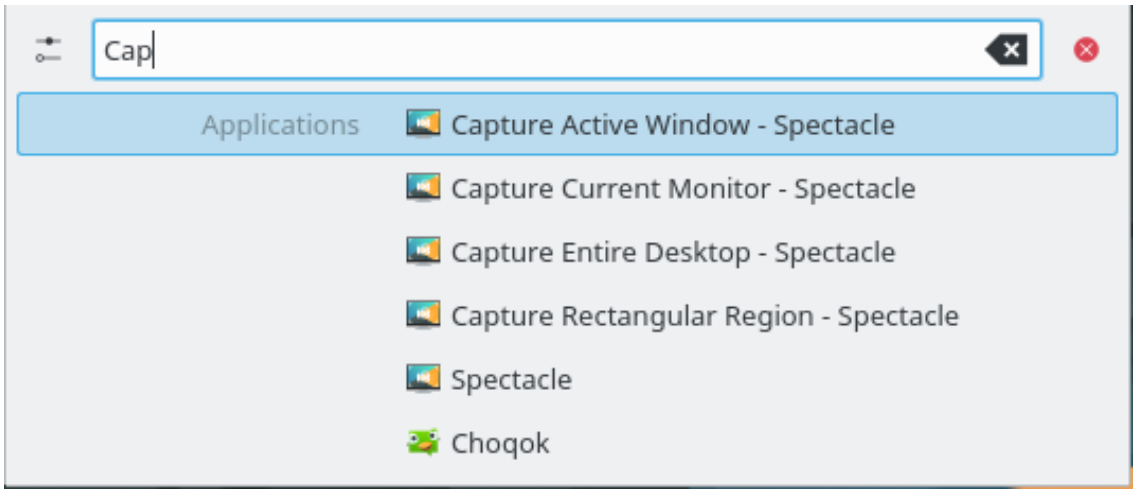
2.7 KRunner

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 **KRunner** 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 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 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

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
: Peek at Desktop

Alt+D, T
: Run the Associated Application

Meta+Tab
: Open the Activities panel

Chapter 3

Credits and License

Plasma

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