

# COMMUNITY REPORT

1ST/2ND QUARTER 2014 | ISSUE 28



## WELCOME MESSAGE

The beginning of the year always comes with new resolutions, do some more exercise, stop smoking, be a nicer person. In the case of the KDE community we had a clear goal for this year: Start releasing our software based on Qt5.

Qt5 represents a path forward both in features and maturity of the Qt project. As one of the major stakeholders in the Qt community, KDE committed to move to Qt5 since its introduction. Thanks to the more open process for contributions Qt5 includes various improvements authored by KDE contributors.

The community has been hard at work writing Qt5-based versions of KDE software and released KDE Frameworks 5 on July 7th and Plasma 5 on July 17th. Although neither of the releases has the same level of features as their mature 4.x

counterparts, they both offer a high degree of quality and stability that has been praised globally.

The foundations (KDE Frameworks) and the workspace (Plasma) are two of the three big sets of software most commonly associated with KDE. The other big group is KDE Applications - the end-user applications you love and rely on, including Dolphin, Gwenview and many others.

We are also committed to move KDE Applications to Qt5, but we will do it more gradually. We will be releasing KDE Applications 4.14 in August - still Qt4 based. The next release (in December) will be a mix of applications based in KDE Frameworks 5 and KDE Platform 4. This will reduce pressure on application developers, allowing them to ship a Qt5 version when are satisfied about its quality.

We're starting into the next quarter with some of our big new year resolutions already completed. It's a good moment to celebrate and use the morale boost of the recent releases to push forward on porting our software to KDE Frameworks 5 and secure a stable upgrade path for our software.

**Albert Astals Cid**  
for the KDE e.V. Board of Directors

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# PLASMA 5

By Eike Hein

In the middle of July, KDE released Plasma 5.0, the first version of Plasma built with the new KDE Frameworks 5 and Qt 5. In the following we would like to highlight some of the major themes of this release and give you a better idea of what you can expect from both the 5.0 release and future iterations of this new generation of Plasma.

### What's in the box

Plasma is the continuation of the KDE community's original mission to provide a useful, enjoyable workspace on your computer - the interface that first greets you when you switch it on, that lets you manage your system from there on out, and that houses and orchestrates your various applications. Plasma is both a framework that enables the creation of workspace interfaces for different types of computers, and the effort to create them.

The Plasma 5.0 release comprises the next generation of the framework and a new version of the Plasma Desktop workspace. Let's talk about both, starting with the framework.

### Progress on convergence

One of the original ambitions to shape the design of Plasma was to create a flexible framework that could be reused to power user interfaces across a range of devices with different form factors and different ways to interact with them. This was ultimately realized with the addition of Plasma Netbook and Plasma Active to KDE's stable of workspace offerings, sharing common libraries (and components built using those libraries) with Plasma Desktop. The goal of a high degree of code reuse across different form factors, with UI nonetheless individually tailored to each form factor, had thus been achieved.

Plasma 5 retains those strengths, but improves the workspace architecture to take things one important step further. Whereas Plasma Desktop, Plasma Netbook and Plasma Active originally were distinct executables tapping into the same libraries, Plasma 5 introduces a unified shell application that loads a specific workspace shell package at startup - and can swap it out for a different package at a later time, without needing to be restarted.

Imagine hooking up your tablet to desktop peripherals - a monitor, a keyboard and a mouse replacing your tablet's touchscreen - and Plasma adapting to the change in form factor and input devices at runtime, without losing state and without interruption to your workflow. That's the new goal - and just like the libraries that debuted with KDE 4.0 served as the foundation for the various workspaces created later, Plasma 5.0 brings with it the structure and the functionality needed to get us there.

### Size matters

Human vision is one of the primary senses that software built using Plasma strives to engage. Much of Plasma's systems are concerned with showing things to users in an efficient, pleasant and customizable manner.

When it comes down to it, that means putting pixels on screens - and screens have been changing lately. The range of pixel density from low to high in the displays Plasma is asked to drive has widened considerably since its debut.

To properly support this changing hardware landscape, Plasma 5 adds support for density-aware scaling to both the theming system and the interface components library. Interfaces built using Plasma will now scale to ergonomic proportions no matter whether the display is of low or high density, while maintaining a high-fidelity, crisp rendition quality.

### More hardware musings

Not just output hardware has changed since Plasma first arrived on the scene, general system architecture has evolved as well. In addition to the traditional main processor cores, the computers Plasma 5 runs on today pervasively feature powerful and flexible graphics processing hardware to help get things done.

Thanks to substantial progress on making this hardware available to free software through driver and tooling development, using it to achieve gains in performance and energy efficiency has finally become too attractive and important to pass up.

Plasma 5 therefore adopts OpenGL hardware acceleration in a major way, consolidating all interface rendering to work through Qt 5's new Qt

**Quick 2** technology and its OpenGL scenegraph underpinnings. The resulting user interfaces are generally more fluid, with animations less likely to be impacted by other activity in the system, and better at conserving power by using the right processor for the job.

## Eye on the desktop

Building on all of those under-the-hood improvements, the Plasma Desktop workspace - that is, the components that make up that particular interface, aimed at traditional desktop computers - was very nearly reimplemented from scratch in Qt Quick, save for a number of complex components that were strategically chosen to start this process already in the KDE 4 development cycle.

The result preserves much of the familiar Plasma Desktop interface with no sweeping changes, but uses new library APIs to deliver the promise of features like density-aware scaling into the hands of end-users.

Specific areas of the Plasma Desktop interface did see greater attention and overhaul. A new notification system strives to make managing notifications less taxing, and the new unified popup dialog of the redesigned system tray provides a one-stop shop to quickly manage various aspects of and ongoings in the system. Auxiliary interfaces like the widget and activity explorers and the window switching popup now employ a consistent sidebar design.

## Looking good

Plasma 5 also introduces a new visual identity to replace Oxygen, named Breeze. Hundreds of new assets have already been created for Breeze and included in this release, among them a workspace theme, a window decoration and many icons.

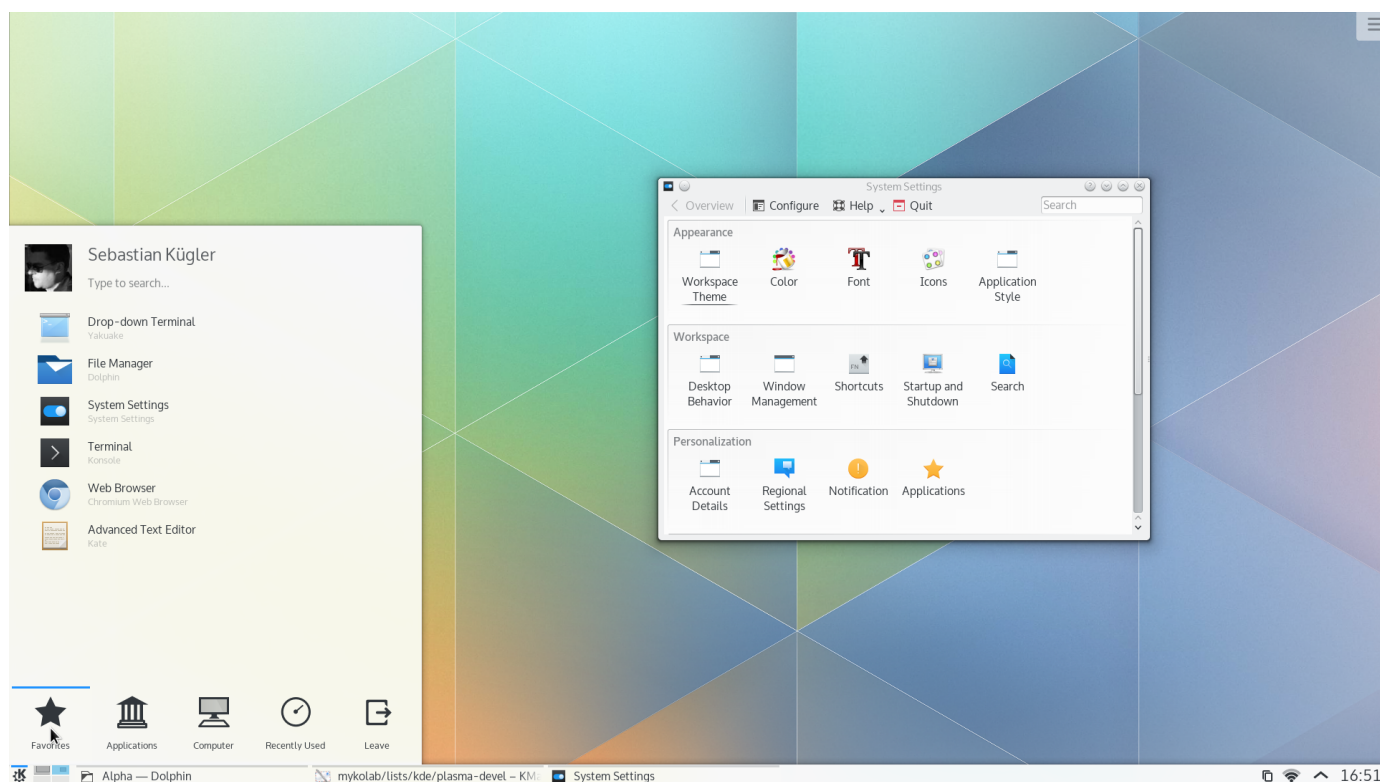
## What's next

Future releases of Plasma 5 will occur in three-months intervals, with Plasma 5.1 currently on track for a mid-October release. Plasma 5.1 will deliver additional performance improvements in the Plasma framework and interface enhancements to Plasma Desktop, and an expanded Breeze.

Looking further ahead, additional Plasma workspaces are currently in the process of being ported to Plasma 5, particularly Plasma Active and Plasma Media Center. The availability of additional workspace shells will allow dynamic switching between them to come into clearer focus.

## Closing note

For much more information on the Plasma 5.0 release, have a look at the [announcement!](#)



# SUPPORTED MEMBER ACTIVITIES

## Developer Sprints

PLASMA SPRINT

BARCELONA, SPAIN

10-16 January 2014



The year started with Plasma hackers joining forces to collaborate on the next generation of the Plasma products after finishing their first technology preview for Plasma 2.

Here is a brief overview of the discussion in the Sprint and the changes inculcated:

### Naming and repository structure

The naming of KDE's workspace products is finalised as 'Plasma' occasionally referred to as 'Plasma by KDE'.

The plasma-frameworks (containing library pieces to run and build Plasma environment and applications), plasma-generic and plasma desktop are all one needs to install now for the desktop interface; with added repositories such as mediacenter or tablet user experience for other devices. The kde-workspace repository is split into a generic repository containing device independent components.

### Supporting Plasma

Structuring of components in Bugzilla for easy distinction amidst bug priorities and official/community support status was proposed..

### Logging in

The theming of LightDM and

SDDM will be updated for the login procedure but copyright assignment requirements for LightDM and unfinished features in SDDM lead to certain issues in the process.

### Activity Switching

Ivan Čukić's redesign of Plasma Desktop's activity switcher with a vertical layout and a more visual way to manage activities and windows was received positively.

### Notification Area

Enabling of Plasma widget in the system tray with control of its visibility and the 'one popup dialog for all notifications' feature were discussed and approved.

KWin maintainer Martin Gräßlin covered the status and future plans of KWin and Wayland support in the window manager and compositor which is progressing steadily but is still at a novice stage.

KRunner, Plasma's mini-commandline, will see improvements in the desktop search area with work progressing on its replacement which is in an early developmental stage.

The availability of a default application launcher; (Kickoff) with added options for customisation (traditional menu, Lancelot) is maintained but with an enhanced visual look and interactivity improvements.

Formation of a stronger visual and Interaction Design team for Plasma and the creation of visual guidelines has been focused on.

Amidst such rigorous discussions and endless hackings on the features stated above and many more, the entire team owing to the support from KDE e.V. and Blue Systems were excited enough to put these words into implementation.

## KATE AND KDEVELOP SPRINT

BARCELONA, SPAIN

18-25 January 2014

Kate, KDevelop and Skanlite developers worked towards KDE Frameworks 5 migration in the lovely city of Barcelona in January all thanks to Blue Systems.

Some of the highlights were:

### KDevelop

The KDevelop Clang plugin will improve support for standard C++



and C, eventually replacing current C++ plugin reducing maintenance burden as well as the length of code (1/14th the size of old parser). Objective-C plugin will be built atop Clang eventually. The roadmap for implementation focused on polishing the infrastructure inside KDevelop for smooth integration of Clang's diagnostics and fixits module was created. A GSoC 2014 project ensures work on making the Clang plugin releasable.

KDevelop's code assistant popup has had a revamp, providing a flexible, better integrated UI. The "blame" feature, showing who touched each line in the file now has the commit identifier replaced with the committer's name and works well with dark colour schemes. KDevelop's interface now includes detachable toolviews.

The codebase was also cleaned up with added optimizations for large projects.

Internal cleanup and bug fixing for Python and Ruby Plugins and support for Python 3 was worked upon.

Syntax support for the new features in PHP 5.4 - notably trait syntax and improvement in support for older features e.g. namespace syntax was done.

## Kate

Focusing on the Frameworks 5 port, following features were worked on by the Kate team:

The KTextEditor interfaces responsible for interaction between the editor component Kate Part and the host application (eg. KDevelop, Kate) were cleaned up

and optimized for speed and better colour schema integration was added.

In the KTextEditor framework, Kate Part will ship a default status bar - which previously the host application had to provide - showing the cursor position, the edit mode, the highlighting, and much more.

## KTextEditor Plugin Architecture

Plugins written for the KTextEditor framework will be available in all applications embedding Kate Part; thus enabling collaborative editing, search and replace in multiple files and so on.

Kate Application Interfaces are dropped and most of the Kate plugins are turned into KTextEditor plugins e.g. Documents sidebar, the Filesystem Browser, etc.

Kate has a new built-in tab bar displaying the most recent files for quick file navigation along with the Documents sidebar. The tab bar also allows splitting of view vertically/horizontally; to show the quick-open view, and to maximize the currently active view by hiding

all other view spaces.

Kate's vi input mode was also improved and polished.

## KDE PIM SPRINT

### BARCELONA, SPAIN

28-31 March 2014

The fourth time around as well; the PIM sprint was held in a place named with first letter 'B' with the company hosting them, BlueSystems, adhering to the tradition as well and the highlights of the event are as follows:

## KOrganizer love

Christian Mollekopf, working for Kolab Systems which handles bug fixes, stabilization improvements and optimizations for KOrganizer and the entire KDE PIM application; talked about their upcoming plans for deployment of KDE PIM in Munich. All the changes worked upon by them, Kolab Systems, will be sent back for the KDE community to enjoy. They'll be available in the KDE 4.14 Applications Release for the user.



## Frameworks

Work on porting of PIM applications to Qt 5 has ensured running of KMail on top of Plasma 5. Applications without a maintainer including KNode and KAddressbook won't be ported. Although; KAddressbook is currently being rewritten in a GSoC project.

Quite a few bugs were also resolved and performance has been improved throughout the PIM applications. These changes are seen in KDE Applications 4.13.

## KDE TELEPATHY SPRINT

### BARCELONA, SPAIN

10-15 April 2014

The new features discussed in the KDE Telepathy Sprint are:

#### Group chats

Significant improvements were made to the group chatting experience after long productive discussions and the usability expert, Thomas Pfeiffer provided valuable input thus ensuring the inclusion of the user's view point.

## SMS'ing via KDE Telepathy

Albert Vaca and Alexandr Akulich worked on making a backend for Telepathy to talk to KDE Connect allowing the user to receive SMS messages from your phone and reply through your desktop.

The bug count was also reduced from 62 to under 50, with under 50 further wishlist items.

#### Building for the future

Thomas defined a vision for the team. The target user base focus shifted to better integration with Plasma and providing the best experience for Plasma users. Also; the decision to provide better user experience through continuation of work along the lines of Open Protocol was agreed upon.

The vision draft will be published soon - after consent from the whole KDE Telepathy community.

#### Frameworks

After porting KDE Telepathy libraries to work on top of KDE Frameworks, the contact list and chat plasma widgets were fully working on Plasma Next by the end of the sprint.

## API Breaks in the larger Telepathy stack

Work for keeping code ported and ready - to deal with the upcoming change in the interfaces for the Telepathy backend that talk to various protocols such as jabber so as to release at the same time as upstream switches - was done. Most of these updates are inside TelepathyQt and work is being done on the elements lower in the stack that will benefit Ubuntu and Jolla as well.

The Blue Systems Barcelona office's support was crucial to the event and a thank you is in order.

## OKULAR SPRINT

### BARCELONA, SPAIN

8-11 May 2014

Albert Astals Cid, Luigi Toscano and Fabio D'Urso met for four days in the Blue Systems Office to work on bettering Okular; with the support of Blue Systems.

The team triaged a lot of bugs; hence reducing the unconfirmed stats.

The discussions about ideas and implementations, included:

- Mimetype backend priority since now there is a txt backend that can open almost any file
- Investigation about a printing lapse related to hardware margins in newer versions of CUPS
- Removal of widget code from backend
- Creation of a command line okular2text application to test libokularcore which can be used in



a GUI-less environment.

- Porting to KF5 with libokularcore being dependent on QtGui not on QtWidget.

- Removing autosave feature from Okular so that it acts more like an editor.

All in all, ensuring a better Okular experience for the users was well catered to in the sprint.

## KRITA 2014 SPRINT

### DEVENTER, NETHERLANDS

16-18 May 2014

Three artists and six developers worked on the following features with the support of KDE e.V to ensure the maintenance of Krita's credibility.

For the Krita 2.9 Fund Raiser; the promo video by Björn Sonnenschein was worked upon and the Kickstarter campaign was created.

Since Krita 2.9 was the last release based on Qt4 and KDE4, the fund raiser was to include 24 ambitious development goals one amongst which is the resource bundle manager which makes it possible to have more than one image open in a window. The porting to Qt5 and KDE Frameworks 5 and usage of tiers was also discussed.

Efforts are being made all around the world – especially Russia to ensure the maintenance of standards for translation.

The Krita Foundation was created to support the development of Krita by paying for development and thanks to the sponsors work is going on in a full-fledged manner.

Through the support of sponsors; Krita is participating in SIGGRAPH 2014, the foremost conference and trade show for graphics and will have a stand there.

A lot of user testing sessions by artists – extensively videotaped with a note of all the comments and suggestions were carried out.

The manual on user base is being worked on and there are talks for the organization of a book sprint for Krita.

Amidst sketching, painting, hacking, discussing and planning; the sprint turned out to be a fruitful experience for all the attendees.

## CALLIGRA SPRINT

### DEVENTER, NETHERLANDS

4-6 July 2014

Here is a brief overview of all the plans discussed for Calligra in the sprint; to be implemented in the near future.

For Calligra; the next release: Calligra 2.9 is planned for December and will be the last release based on Qt4. The process of porting to Qt5 and KDE Frameworks 5 is going at a slower pace but in early January after the

porting scripts run; the proper porting of Calligra shall be started. Calligra 3.0 shall be released by the end of March, 2015, sticking to the three month release cycle.

Parts of Calligra like Karbon or Plan have been unmaintained for over a year and volunteers are warmly welcomed for the task. In case of lack of new volunteers; these applications shall be disabled from the Calligra 3.0 build.

To ensure wider exposure for the Calligra libraries; since they are tangled together, work is being done to split them up again.

During the port to Qt5, the vector image library shall be worked on.

With the Russian translation in focus; a version of the undo library is created that forces developers to provide the proper context. Long-term plans to make it easy to see the strings needing translation in the context of the GUI; as well as trying to create tools that make it easier to add new tooltips and other helpful strings was discussed.

The sprint ensured a good plan for 2014 and 2015 and helped motivate the developers as well.



## Sysadmin Report

Created 75 contributor accounts  
Disabled 12 contributor accounts

Created 2 kdemail.net aliases  
Created 11 kde.org aliases  
Modified 16 kde.org aliases  
Disabled 3 kde.org aliases

Created 6 kde.org mailing-lists:

kdeconnect  
wikifm  
kde-i18n-eu  
kxstitch  
symboleditor  
kde-l10n-en\_gb

## Finances for January-April 2014

### INCOME (€):

Corporate Supporters:	24,269
Donations:	5,738
Individual Supportive Membership Program:	2,450
Others:	2,465
<b>Total:</b>	<b>34,922</b>

### EXPENSES (€):

Sprints:	17,804
Personnel:	11,439
Office:	3,331
Legal Fees:	656
Monetary Costs:	219
Others:	681
<b>Total:</b>	<b>34,130</b>

## New Members

KDE e.V. is happy to welcome  
the following new members:

- Kenny Coyle
- Lamarque Vieira Souza
- Claudia Rauch
- Filipe de Oliveira Saraiva

## Financial Support

If as a company or individual you are interested in providing financial support to the KDE community on a continuing basis, please visit the Supporting Members page on the KDE e.V. website,  
<http://ev.kde.org/getinvolved/supporting-members.php>

## KDE E.V. BOARD

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and supporters who contributed to  
this report.

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