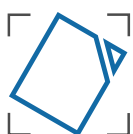


# The Document Foundation

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## 2016 Annual Report

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Document  
**Liberation**  
Own your content



**LibreOffice**  
The Document Foundation



# Welcome



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This annual report is the sixth chapter in the story of a long journey, started by a group of people that were sharing the common goal of create something new – finally made by the community, for the community.

Today, public administrations, enterprises and individual users worldwide can reap the benefits of the hard work made by a constantly growing community of volunteers and supporters.

The report is a showcase of the activities of the foundation. Looking back, we have accomplished a large number of objectives in 2016 and we are on track for 2017. We have funded improvements to the organization and the product, and supported local activities carried out by native language projects.

Behind the scenes, the foundation is growing thanks to the commitment of an amazing group of people, with dozens of volunteers in every geography, and a few paid staff - led by Florian Effenberger - who take care of daily activities related to documentation, localization, marketing, design, development, QA,

websites and system administration.

The management of a foundation is sometimes complicated; often you are called to take important decisions achieved only after longer debates. Thanks to the diverse approaches and aptitudes the Directors are also focusing on new goals for keeping TDF in the right direction.

I would personally thank Thorsten Behrens, Osvaldo Gervasi, Jan Holesovsky, Andreas Mantke, Michael Meeks, Björn Michaelsen, Simon Phipps, Eike Rathke and Norbert Thiebaud for their big commitment to guide the foundation where is it today.

Not to forget the work of the Membership Committee, led by Cor Nouws as Chairman with the help of Katarina Behrens, Stephan Bergmann, Antonio Faccioli, Gustavo Buzzatti Pacheco, Gabriele Ponzo, Charles Schulz, Miklos Vajna and Klaus-Jürgen Weghorn.

Of course, all this has been possible also thanks to the combined efforts of all donors and all members of TDF's Advisory Board, who have supported our work, focused on the growth of our ecosystem, thanks to their economic contributions.

The increasing number of migrations from proprietary solutions, in enterprises and public administrations worldwide, and the growing visibility of LibreOffice amongst office suites, are two clear signs that 2017 will be another great year for LibreOffice and the Document Liberation Project.

**Sincerely,  
Marina Latini  
Chairwoman of the Board**



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# TDF in 2016

2016 was the year that fully established LibreOffice as the reference for free office suites, and another busy year for The Document Foundation, with four new Advisory Board members and a growing team.

According to Google Trends, LibreOffice surpassed all other free office suites in early 2016 in terms of user interest, winning a race that started in early 2011. At the end of the year, Datamation confirmed the leading position, with the first article about alternatives to LibreOffice.

## Foundation Bodies

On 17 February 2016, the new Board of Directors started two years of tenure, with Marina Latini as Chairwoman, Michael Meeks as Deputy Chair, Thorsten Behrens, Osvaldo Gervasi, Jan Holesovsky, Simon Phipps and Eike Rathke as members, and Andreas Mantke, Björn Michaelsen and Norbert Thiebaud as deputies.

In September, TDF members voted to elect the new Membership Committee, which started duty at the end of 2016, with five members – Cor Nouws (chair), Katarína Behrens, Gustavo Buzzatti Pacheco, Gabriele Ponzo and Miklos Vajna – and four deputies: Stephan Bergmann, Klaus-Jürgen Weghorn, Charles-H. Schulz and Antonio Faccioli.

## New AB Members

In mid-June, the GNOME Foundation and KDE e.V. joined TDF's Advisory Board, and at the same time TDF joined GNOME's and KDE's Advisory Boards, to tighten the relationships with other large global free software projects. Both GNOME and KDE are key components of the FLOSS desktop initiative.

At the end of July, Canonical – the company behind the Ubuntu GNU/Linux operating system – also joined TDF's Advisory Board. Since its first release in early 2011, LibreOffice has been the default office suite of the

Ubuntu OS and – with the announcement of LibreOffice 5.2 in August 2016 – was one of the first applications to be available as a snap package.

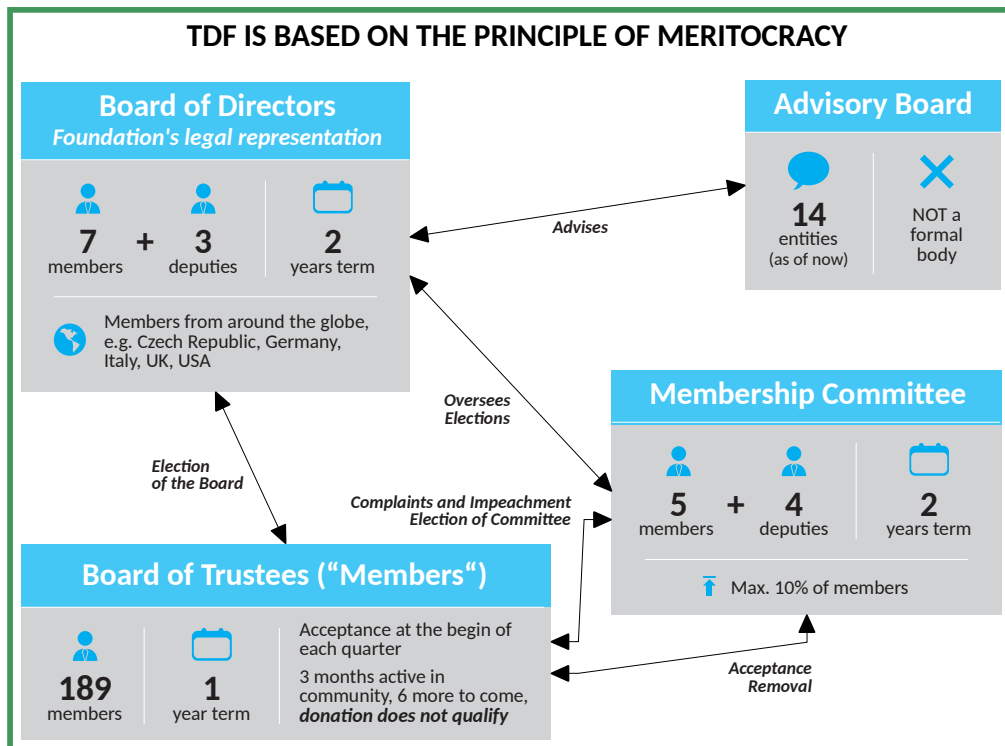
In mid-August, the Free Software Foundation Europe (FSFE) joined TDF's Advisory Board, and at the same time The Document Foundation entered the group of FSFE associated organisations. These are entities that support the Free Software Foundation by encouraging people to use and develop free software, helping organisations understand how free software contributes to freedom, transparency and self-determination, and removing barriers to free software adoption.

## Team Members

Mike Saunders joined the TDF team in February, to help with marketing activities based on his editorial background – including native English language skills – and his experience with videos and social media. Mike contributed to product announcements, the Annual Report, the months of LibreOffice, "New Features" video playlists, and other projects (including blogs).

In March, Olivier Hallot was contracted to work on documentation, a key feature for an end-user productivity application like LibreOffice. Olivier's experience in the area of large enterprise deployments is extremely important for improving help content by using state-of-the-art technology, to coordinate the literature produced by LibreOffice volunteers and maintain a set of updated books ready to be translated into as many languages as possible, and implement a set of tools to improve the work of documenting LibreOffice's new features.





template as the LibreOffice website. Content was reorganized to simplify navigation, by grouping pages under Foundation (Statutes, Financials and Affiliations), Governance (Foundation Bodies and History), Community, Certification, Get Help (Professional Support) and Contacts.

In August, TDF opened a bookshop on Lulu, where people can buy a printed copy of the TDF Annual Report.

In early September, TDF organised the LibreOffice Conference in Brno, a large city in the Czech Republic. Supported by Canonical, CIB, Collabora,

Red Hat and Google, with the partnership of the Faculty of Information Technology of Brno University of Technology, the conference brought together developers, community members and users.

The conference was also an opportunity for a meeting of the Board of Directors, a meeting of the TDF team, and several face-to-face meetings of volunteers active in localization and marketing.

In November, The Document Foundation announced the new Extensions & Templates website, which offers an improved user experience to both developers and end users. The site is now based on the latest version of the Plone open source content management system, and has been coordinated and developed by Andreas Mantke, a deputy member of the board at TDF.

## Document Liberation Project

While LibreOffice is the flagship project of TDF, it's not the only one, and the Documentation Liberation Project celebrated its second birthday in April 2016. DLP aims to consolidate the work done in LibreOffice by making conversion libraries, for a large number of open and proprietary file formats, available to other software projects. For more information, see the DLP section.

So in all, 2016 was a year packed with achievements and positive news for The Document Foundation. More developers and companies are joining our efforts, the conference was a great success, and LibreOffice is going from strength to strength.

In May, Heiko Tietze was contracted as consultant to drive LibreOffice's UX (user experience) one step further. Heiko has been one of the most active UX volunteers for several years, and has been instrumental in a number of UX improvements. In addition, he has coordinated UX-focused research, which has led to the development of the human interface guidelines (HIG), and to incremental UI changes to menus and toolbars.

In September, Xisco Fauli joined the team as QA (quality assurance) Engineer, to help monitor and report about the state of LibreOffice QA. In his role he helps to: maintain, update and create feature patches for TDF's Bugzilla instance; organize and coordinate Bug Hunting Sessions; test LibreOffice development builds daily on multiple platforms; run master builds to find regressions early in release cycles; run release tests on alphas, betas and release candidates to identify blockers; and triage unconfirmed bugs on master.

The last person to join the team in 2016 was Guilhem Moulin, a French citizen living in Sweden, to take care of TDF infrastructure. Aside from maintenance tasks, which are probably not seen by most members and contributors, Guilhem's goal are to implement Single Sign On to avoid having a different set of credentials per service, and to implement communication services such as Jitsi to support project activities.

## LibreOffice

At the time of the announcement of LibreOffice 5.1, TDF updated the appearance of the foundation website – online since the launch of the project – by using the same



# Financials and Budget

TDF thrives thanks to our strong, vivid and worldwide community of end-users, contributors and enterprises, supporting our efforts with contributions of time and money.

## Thank You So Much

During the last few years, TDF has grown a lot, with many exciting new projects, activities and events put forward thanks to volunteers around the world. Our Board of Trustees has grown to 189 contributors, and our Advisory Board nowadays has 14 supporters.

Thanks to your generous donations of time, money and resources, we are able to work together on the idea of the best independent free office suite.

All of what has been accomplished is only made possible due to the strong support seen around the globe. So thanks everyone – you have made our dream of a strong and independent foundation come true!

## Transparency is Key

One of TDF's main characteristics is transparency – to our donors, to our contributors, and to our users. Ever since the beginning, every board meeting, discussion and decision has been held in public and is available in public archives, with minutes and decisions published online.

In 2015, we started a wider outreach by publishing an English annual report, enriched with charts, images and graphics, to show the world what has been happening over the last 12 months.

We have also taken another step towards being open, starting to publish our accounting ledgers to the general public at <http://www.documentfoundation.org/foundation/financials/>.

Accounting is done by a professional accountant, and the translation of the documents is done using free software. Documents are published mostly in their original form, with just a few items being obfuscated for privacy (most notably, salaries and compensations).

In these ledgers, all of our income and our spendings are listed, including a breakdown into various projects, so donors immediately see what their money is used for.

## Your Feedback is Welcome

Also, in 2015 we have launched a grant request process, which enables community members to request funds for individual projects.

Everyone can propose items to fund by filling in a form at <http://www.documentfoundation.org/foundation/grant-request/>. Funded items are participations in trade shows and events.

We'd be delighted to hear your proposals and ideas - after all, TDF is about the community, and we're excited to hear how we can help you to support the software and the community!

## Improvements in 2016

In 2016, we did even more outreach, and asked all projects – be it native-language, development, marketing, infrastructure or documentation – about important items they want to fund, to factor them into TDF's budget early in the year.

We received enthusiastic feedback, with several requests in line with the objectives of the project which have been funded based on TDF policies (we should always remember that we are spending donation money, and therefore we cannot fund any project, but only those in line with our ethical principles and budget limitations).

We funded travel to several FOSS conferences in Europe: FOSDEM in Brussels (Belgium), Open Source Day in Warsaw (Poland), OSCAL in Tirana (Albania), FrOSCon in Sankt Augustin (Germany), and FLOSSK in Pristina (Kosovo), South America: FISL in Porto Alegre (Brasil), and

Closing Ledgers 2016	
Total income	€ 805.694,26
Total expenses (with depreciation)	€ 724.852,95
Total expenses for hardware assets	€ 47.938,83
Available cash (incl. capital stock and reserves)	€ 1.198.660,97
Assets (with depreciation)	€ 56.221,00
Free reserves	€ 290.980,11
Business entity profits	€ 17.406,97
Analysis of Individual Items 2016	
Costs for employees and freelancers	€ 410.431,15
LibreOffice Conference travel (paid via TDF Berlin)	€ 14.704,37
Marketing expenses (anything related to outside advertising)	€ 28.965,06
Community expenses (anything related to community building)	€ 10.020,34
Code improvements via tenders	€ 60.359,20
Infrastructure costs (without hardware assets)	€ 52.106,40

Asia: LibreOffice Kaigi in Tokyo (Japan).

We covered the expenses for booths at large exhibitions such as CeBIT in Hannover (the largest IT show in Europe) and DIDACTA in Stuttgart (focused on schools), where local volunteers have promoted LibreOffice.

We organized HackFests in Gran Canaria (Spain), Ankara (Turkey), Madrid (Spain) and Turin (Italy), to grow the community of developers in areas where the project has traditionally faced more difficulties in attracting contributors to the source code.

We funded native language projects to organize events in Essen (Germany), New Delhi (India) and Turin (Italy), to support the growth of LibreOffice in specific geographies.

In 2017, we have furthered the concept, creating buckets of available money for marketing and community.

## Tenders in 2016

In addition to budgets for marketing and community, in 2016 TDF Board of Directors has invested a sizeable portion of donation money to improve LibreOffice in specific areas, based on a number of development related tenders:

1. Tender to develop and incorporate usability metrics collection for LibreOffice.
2. Tender for design and implementation of crash reporter functionality in LibreOffice.
3. Tender for Automated a11y (accessibility) based UI testing.

4. Tender for cross-platform font/shaping stubs for layout tests.

5. Tender for Automated Help/Documentation screenshot creation.

6. Tender to implement improved format validity checks.

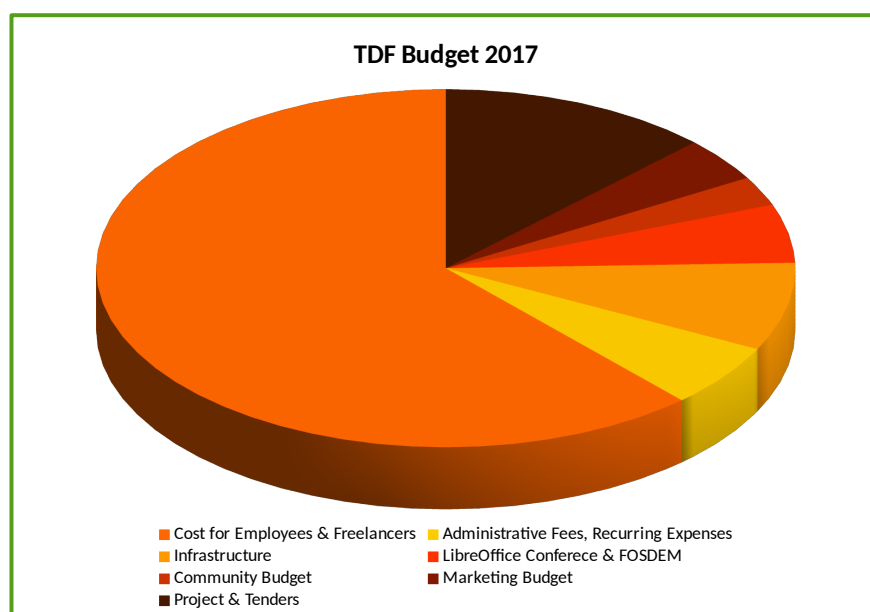
7. Tender to design and implement a profile safe mode for LibreOffice.

Examples of outcomes are represented by the Dashboard, providing updated information about the project: <https://dashboard.documentfoundation.org>, and the Crash Report, helping both developers and QA to spot critical issues: <https://crashreport.libreoffice.org>.

Tenders have the objective of facilitating activities of community volunteers rather than spending money to do the job on their behalf, and as such are in line with TDF statutes and mission.

## Thanks

TDF is only possible due to the generous support from all around the world. The board and the whole community would like to thank everyone who has contributed to the success of The Document Foundation, LibreOffice and the Document Liberation Project, by contributing time, money or resources. It's amazing to see the strong, worldwide support everyday. You all have contributed to a dream come true. All TDF is about, and all TDF is today, is thanks just to you. Thank you very much!



# LibreOffice in 2016

LibreOffice became six years old in 2016: two new major versions of the suite brought a variety of new features, while minor releases also helped to improve stability.

In 2016, The Document Foundation announced two major releases of LibreOffice: version 5.1 on February 10, and version 5.2 on August 3.

## Regular improvements

12 minor releases were made available as well:

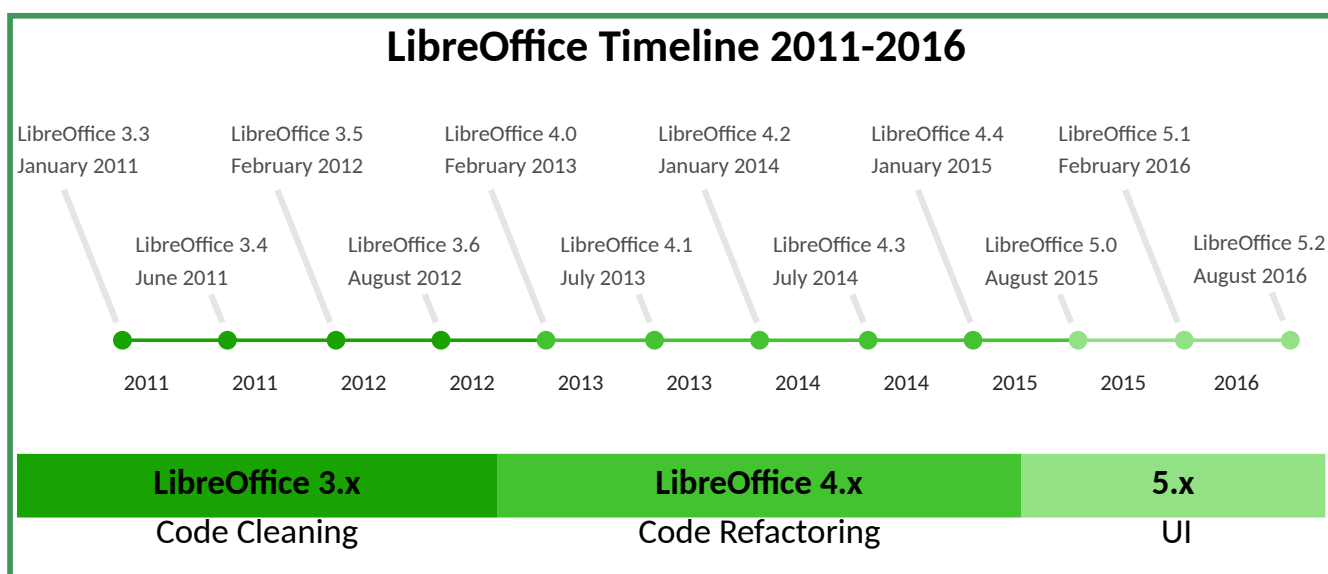
RELEASE	DATE
LibreOffice 5.0.5	February 15
LibreOffice 5.1.1	March 10
LibreOffice 5.1.2	April 7
LibreOffice 5.0.6	May 5
LibreOffice 5.1.3	May 12
LibreOffice 5.1.4	June 23
LibreOffice 5.1.5	August 3
LibreOffice 5.2.1	September 7
LibreOffice 5.2.2	September 29
LibreOffice 5.1.6	October 27
LibreOffice 5.2.3	November 3
LibreOffice 5.2.4	December 22

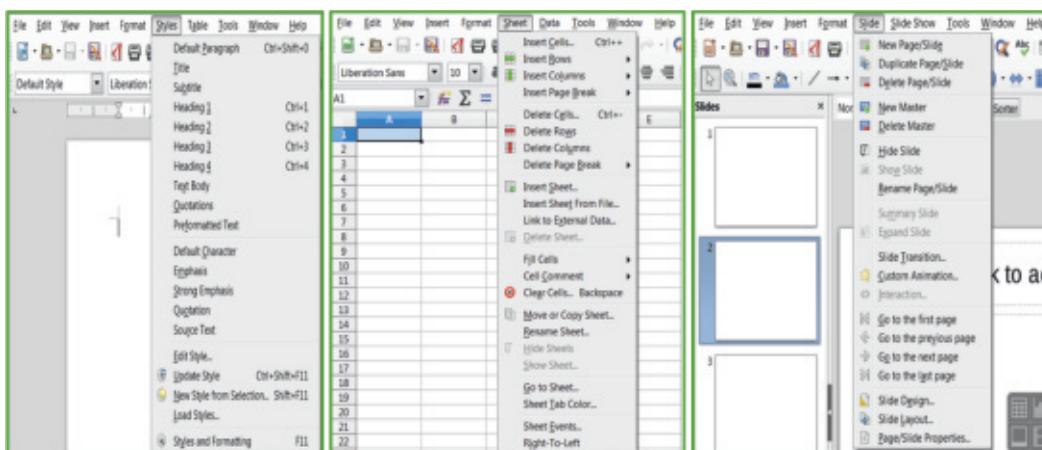
Throughout the year, several Bug Hunting Sessions were held in preparation for the new major releases. These typically took place on a single day between set times, so that experienced developers and QA engineers could help new volunteers to file and triage bugs via the IRC channels and mailing lists. The Bug Hunting Sessions for LibreOffice 5.2 were held on April 22 and June 24, while those for LibreOffice 5.3 took place on October 21 and November 25.

## LibreOffice 5.1

On February 10, LibreOffice 5.1 was officially released after six months of development. One of the biggest highlights in this version was a substantially revamped user interface: each component of the suite had new menus, including "Style" (in Writer), "Sheet" (in Calc) and "Slide" (in Impress). Updates to the Sidebar were included as well, and file access on remote servers was made simpler by being accessible via the File menu, rather than a separate dialog box.

Meanwhile, compatibility with proprietary document formats was improved, and filters were added for Apple





according to the TSCP standard. Support for multiple signature descriptions was added, along with import and export of signatures from OOOXML files. Wildcard support in formula expressions for compatibility with XLS/XLSX and ODF 1.2 was also included.

Keynote 6, Microsoft Write and Gnumeric files. Calc's formula engine gained new features to address restrictions in table structured references and sticky column/row anchors, while interoperability with OOOXML spreadsheets and compatibility with ODF 1.2 was improved as well. In Impress, new features were added for equalising the widths and heights of jointly-selected shapes.

A series of "New Features" videos (<http://tdf.io/51vids>) was produced to explain and demonstrate many of the new features in LibreOffice 5.1. These were linked to in the announcement and embedded into various web news stories covering the release.

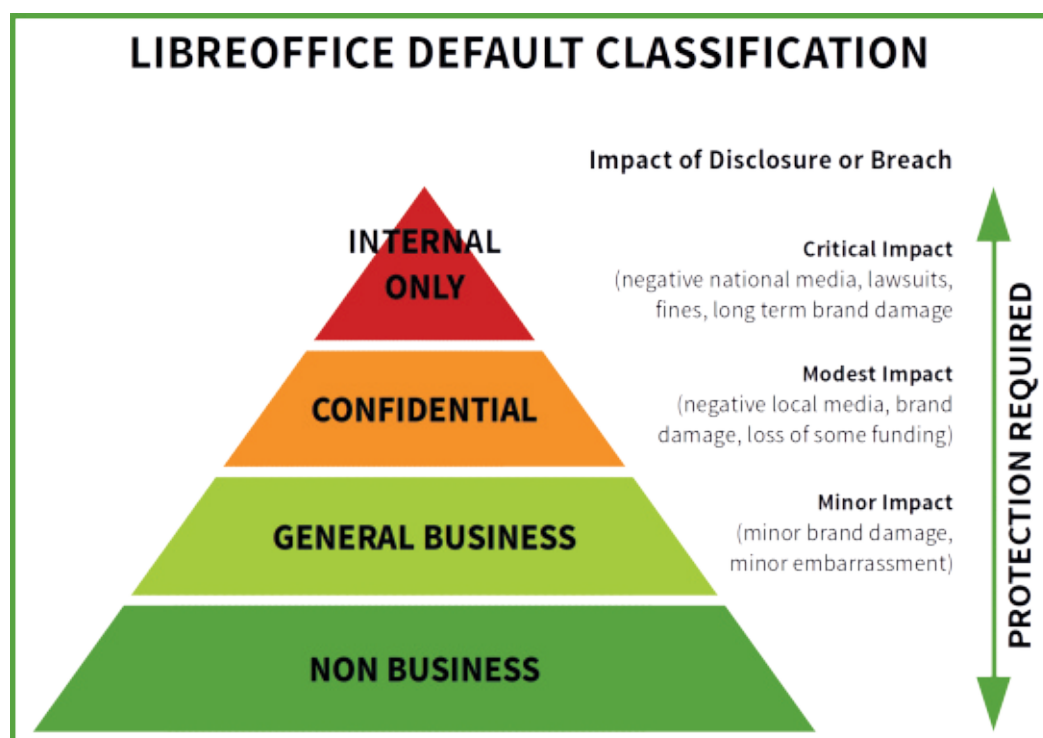
## LibreOffice 5.2

Later in the year, on August 3, LibreOffice 5.2 was made available. This release included new features geared towards enterprises and government bodies, such as document classification

On the user interface side, Writer and Calc gained single toolbar modes, while function tooltips were added to Calc so that users can see what a function does as it is being typed. Calc also sported a new drop-down list attached to the currency button, to switch between currencies quickly.

In Writer, two-factor authentication for Google Drive storage was implemented, while in Impress, the list of effects in the sidebar was updated to include a description of the effect, along with the element name.

Under the hood, there were a large number of OpenGL and OpenCL improvements, while LibreOfficeKit (the foundation of LibreOffice Online and the Android app) was enhanced as well. As with the previous release, a playlist of videos was created (<http://tdf.io/52vids>) to demonstrate the features.



# LibreOffice Online

LibreOffice Online is an open source cloud solution for personal productivity, with collaborative editing features, especially targeted at private clouds.

Development of LibreOffice Online started back in 2011, with the availability of a proof of concept of the client front-end, based on HTML5 technology.

In 2015, this proof of concept was further developed into an initial Online Development Edition by Collabora, allowing advanced users to check out LibreOffice in the Cloud for the very first time.

In 2016, the first source code release of LibreOffice Online, a cloud office suite which provides basic collaborative editing of documents in a browser by re-using LibreOffice desktop's "core engine", was added to the master branch for the announcement of LibreOffice 5.3.

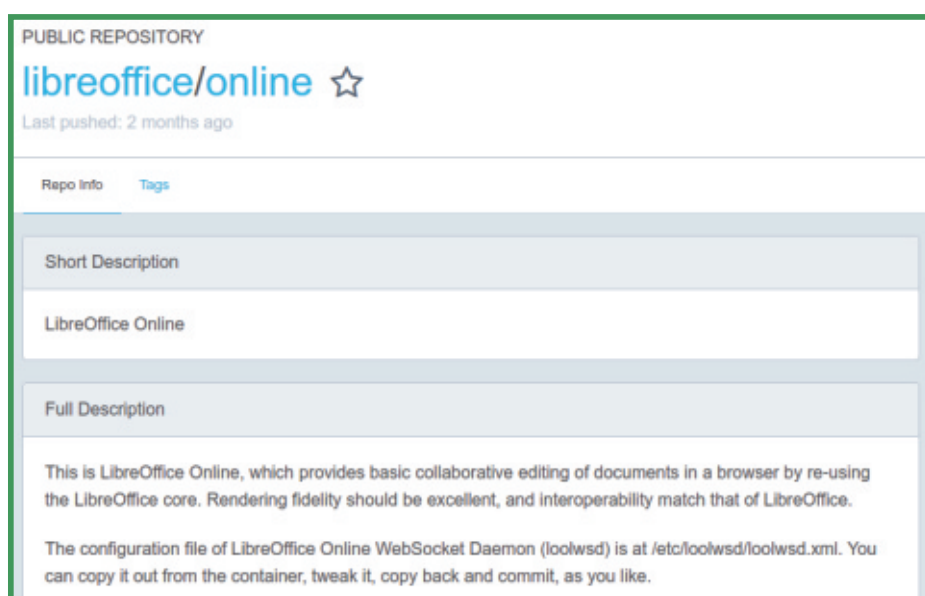
This last development has brought collaborative editing to LibreOffice Online, a feature which transforms the application into a state of the art cloud office suite – the first to natively support the ISO/IEC standard Open Document Format (ODF) with collaborative editing features.

The rendering fidelity of LibreOffice Online equals that of the desktop software, and interoperability also matches that of LibreOffice thanks to the support of standard and proprietary document formats. LibreOffice Online has been developed mainly by Collabora, a leading contributor to the LibreOffice codebase and community.

LibreOffice Online is server software which – to be fully functional – must be integrated with file access and authentication provision services. As such, it can be considered an enabling technology for the public cloud of ISPs, or the private cloud of enterprises and large organizations, when it is integrated – for example – with enterprise file sync and sharing software, or a groupware solution.

The Document Foundation is not going to deploy LibreOffice Online as a public service, providing a cloud solution similar to existing office suites from Google and Microsoft, because this would not be in line with the original mission of the project. The task is therefore open to ISPs and providers of open source cloud solutions, with options already available on the market.

Given the mission critical nature of LibreOffice Online, The Document Foundation will not be maintaining binaries for enterprises, because this would create expectations which could not be fulfilled by volunteer-based support. However, builds of the latest code, suitable for home users and those who wish to contribute to development – which is encouraged – are available as Docker images: <https://hub.docker.com/r/libreoffice/online/>.



# LibreOffice UX Concept

LibreOffice's UX Concept is code named MUFFIN, an acronym for My User Friendly & Flexible INterface, and provides the user several UX options to fit its needs.

LibreOffice's user interface (UI) concept was born with the first generation of Windows-based office suites, in the early 1990s. Although it was improved and updated over the years, the concept was not changed until 2012, when a code refactoring effort introduced the Sidebar.

The success of the Sidebar, which was introduced as an optional feature, has increased interest around the user interface, and also increased the number of people volunteering to contribute.

Improvements started to build up for LibreOffice 4.4, but only with the introduction of the LibreOffice 5.0 family did the UI become the main focus of the development cycle.

The Design Team has drafted guidelines for the new UI – "simple for beginners and powerful for experts" – based on four key principles: (1)

Novices can start to work with LibreOffice without reading a manual, (2) In every situation the user is confronted with only a few options, but can get access to all options on demand, (3) Full access puts usability first, but might require some training, and (4) Experts will have access to all functionality.

LibreOffice 5.0, 5.1 and 5.2 introduced several incremental changes to menus and toolbars, including the availability of a single toolbar mode.

Today, PC users span several generations, each one with a different relationship with technology. This means that a single UI capable of satisfying all users cannot be developed.

In addition, desktops and laptops offer a variety of screen sizes which are difficult to leverage with a single UI. In fact, between an old 4:3 CRT and a new 16:9 LCD there is a huge difference in screen real estate: while users of the first ratio are happy with a vertically developed UI (toolbars on top, without the Sidebar), users of 16:9 prefer a horizontally developed UI (so, toolbars reduced to a minimum, plus Sidebar).

The same applies to computer skills. According to data collected between 2011 and 2015 from a sample of 215,942 individuals in 33 countries and published in 2016 by the OECD, computer skills are far worse than expected in most countries.

Based on a survey of LibreOffice users, and the data provided by third parties, the Design Team decided to

enhance the UI by adding another option – the NotebookBar – to create a flexible UI capable of adapting to different user needs.

The MUFFIN represents a new approach to UI design, based on the respect of user needs rather than on the imposition of a single UI on all users, independent of their generation, PC hardware and computer skills.



# LibreOffice Conference

The LibreOffice Conference is the annual gathering of the community, our end-users and everyone interested in free office software. Every year, it takes place in a different country.

For 2016, the conference was held from 7th – 9th of September in Brno, the second largest city in the Czech Republic. Most of the event took place at the attractive Faculty of Information Technology building, a former Cartesian monastery, in Brno University of Technology. Over 100 people from across the globe attended the conference, including LibreOffice developers, community volunteers and Google Summer of Code students. For many attendees, it was their first LibreOffice Conference – and therefore the first time they had met other community members face-to-face.

Supported by Canonical, CIB, Collabora, Red Hat and Google, with the partnership of the Faculty of Information

Technology of Brno University of Technology and the local OpenAlt not for profit association, the conference brought together developers, community members and users.

On the 6th of September, one day before the conference opened, a community workshop was held to discuss new ways to attract and mentor potential contributors. On the same day, a hacking session took place as well. Then the conference started officially on the 7th, beginning with a "State of the Project" presentation – this outlined some key statistics from the past 12 months, including TDF members, donations and LibreOffice downloads. In addition, new features in recent releases and activities of TDF team were summarised as well.





From there onwards, many talks, presentations and technical demos were given – over 80 in total. These covered all aspects of LibreOffice, from technical topics

such as OpenCL and text layout engines to broader subjects such as building communities and making the LibreOffice project more inclusive. Attendees involved in migrations to LibreOffice, such as in Taiwan, France, and Italy, also gave talks and shared their experiences. Finally, the conference wrapped up on the 9th of September with a closing presentation, where attendees could put questions to the TDF's Board of Directors.

Outside of the conference itself, many events took place: a welcome party on the 6th of September provided an opportunity for attendees to meet one another and catch up, while the main conference party was held on the 8th in Brno's medieval old town. There was also a HackNight at Red Hat's offices on the 7th, along with a guided tour of the city centre on the 9th.

The full programme for the 2016 LibreOffice Conference is available at <https://conference.libreoffice.org/2016/>, while 57 video presentations are also available in a playlist at <http://tinyurl.com/hon3f8l>. The Document Foundation and the LibreOffice community are now looking forward to 2017's conference, which is due to take place in Rome, Italy.



# Native Language Projects

By helping to translate and market LibreOffice around the globe, native language projects bring enthusiasm and passion to the global community. Here's an ideal world tour about what happened in 2016, east to west.

## Japan: Events and Marketing

Daily activities of the Japanese community include translating articles and announcements from TDF, and distributing news about LibreOffice through social media channels. But the community organised and attended many events as well, such as a LibreOffice mini conference in Osaka in January. 48 people attended the event, while the keynote speech was given by Kohei Yoshida, who is known for his work on Calc. Following this, there were roundtable discussions on various topics of importance to the community, along with lightning talks and short presentations. The following day, a hackfest took place as well.

Later in the year, in December, the LibreOffice Kaigi 2016 event was held in Tokyo – this is the annual gathering for the Japanese team and community. 30 people attended,

and there were presentations, lightning talks and panel discussions. Takeshi Abe gave a presentation about MathML in the Open Document Format, while Ogasawara Norihiko outlined the state of translations across various branches of LibreOffice. Franklin Weng from the Taiwanese community was also invited; he talked about migrations to LibreOffice and ODF in Taiwan, along with the challenges involved.

Throughout 2016, the Japanese community organised other smaller events across the country, including meetups, study parties and hackfests in the regions Kansai, Tokushima, Kyushu and others. In addition, community members attended other events such as the Open Source Conference.

## Taiwan: QA Sprint

The first LibreOffice quality assurance (QA) sprint in

Taiwan was held in Tainan City on December 17. In this four-hour sprint, the attendees discovered and reported many issues on The Document Foundation's bug tracking system. The event was organised by the Software Liberty Association of Taiwan, and was supported by two





professors from National Cheng-Kung University's Department of Computer Science and Engineering.

Attendees included students, teachers, employees (from enterprises and government bodies) and LibreOffice developers – and all four Taiwanese members of The Document Foundation were also present as well. At 15:00, the sprint took a break for a special activity: a live video link-up with Italo Vignoli, spokesperson for TDF. For most of the attendees in this sprint, this was their first experience of directly communicating with international community members.

At 16:30, Yun-Han Lu, a student at the university, summarised all of the issues and bugs that had been found by the attendees. After the summary, Franklin Weng explained how to report bugs on Bugzilla. In addition, Cheng-Chia Tseng introduced the Pootle translation platform for LibreOffice and gave some tips on how to translate LibreOffice.

After the event, Franklin Weng wrote up a report and concluded it like so: "In Taiwan more and more government departments and enterprises are adopting LibreOffice and the Open Document Format. We wish to help LibreOffice become, step by step, more friendly and suitable for Taiwan and CJK (Chinese, Japanese, Korean) users through QA events like these."

## India

In 2016, the LibreOffice Indian community met twice in the country's capital city Delhi supported by the FUEL Project, one of the largest localization communities worldwide (India alone has a large number of native languages, and localization is one of the first issues to tackle for any free software community).

The development of the LibreOffice

Indian community is an important objective for the entire project, as the Republic of India is the second largest country in the world by population, with over 1.2 billion inhabitants. In addition to the official Hindi language, there are 21 officially recognised regional languages: Assamese, Bengali, Bodo, Dogri, Gujarati, Kannada, Kashmiri, Konkani, Maithili, Malayalam, Manipuri, Marathi, Nepali, Odia, Punjabi, Sanskrit, Santali, Sindhi, Tamil, Telugu and Urdu.

## Albania: Events and Translations

The Albanian community was very active in 2016, attending the Software Freedom Kosova Conference in nearby Kosovo from 21 – 23 October. Anxhelo Lushka attended the event and estimated that there were around 180 participants. Together with Marinela Gogo, he gave a speech about LibreOffice and maintained a booth with various LibreOffice-related merchandise such as stickers, T-shirts and leaflets.

On Friday, Anxhelo ran a workshop – it was an interactive showcase of The Document Foundation's translation tools, and was attended by 15 people. Most of them were IT students. Additionally, TDF's Italo Vignoli was present at the event, and talked about migration to LibreOffice in public administrations.

Meanwhile, the community worked on translating the LibreOffice user interface into the Albanian language; this was estimated to be around 85% complete in November 2016. To help with promotion and marketing of LibreOffice in the region, the community also provided Albanian subtitles for the LibreOffice 5.2 New Features videos that were spread around the internet at the time of release.

Finally, in December a special Albanian-language Month of



LibreOffice campaign took place – this include localisation sprints and workshops on design, marketing and community. The events took place at the Open Labs Hackerspace in Tirana.

## Germany

From February 16 – 20, LibreOffice was represented at Didacta, a large trade fair in Cologne that focuses on education and training. Walter and Ellen Pape, along with Thomas Krumbein and Andreas Mantke, attended a booth with LibreOffice promotional materials and leaflets – and they answered questions from new and long-time users of the software as well. Many of the questions they received were related to document compatibility, but there were lots of positive messages of support as well.

In March, TDF – supported by members of the German community – attended CeBIT in Hannover, the world's largest computer expo. A booth was set up with LibreOffice merchandise and flyers, and it also provided an opportunity for CeBIT attendees to learn more about the software and ask questions.



From 15 – 17 of April, a meeting of the German community took place at the Linuxhotel in Essen. Attendees split themselves into two groups, identifying the needs of the project and areas which could be improved. The first group focused on marketing, outreach and translations of documentation, while the second examined potential improvements to the website, especially with regards to LibreOffice training and extensions.

## Italy: Schools, Events and Conference

In 2016, Associazione LibrelItalia focused on several activities:

1. Fighting digital divides based on the use of technology, which is now considered the new form of social and professional exclusion. LibrelItalia has tried to develop digital culture and skills, through free information and training events, to provide all citizens equal access to



technology and opportunities in the knowledge society.

2. Promoting free software and LibreOffice, with communication activities targeted at dissemination of shared knowledge on these topics, and on open document standards. The objective was to break barriers between information technology and the most vulnerable groups of the population.

3. Promoting the use and publication of open data, through events and information activities, and dissemination of open data to promote access to culture, and public information resources.

4. Supporting new business initiatives, especially by young people, in the areas of free software adoption, development, support and training.

The association achieved the following in 2016: it signed 13 memoranda of understanding with schools across the country; two very important agreements aimed at supporting the migration to free software of the Italian Ministry of Defense and the State Institute for Deaf in Rome; and two protocols focused on support for continuing professional education with the Regional Order of Journalists of Umbria, along with the National Order of Journalists. In addition, the association participated in technical meetings of the Open Government Partnership in the presence of the Minister of Public Administration.

Last, but not least, LibrelItalia published the book “Growing up on bread and free software”, about the experience of free training in schools. Finally, at the end of October members met in Turin for the third LibrelItalia Conference.

## France: Videos and Translations

Throughout 2016, the French community was especially active on TDF's YouTube channel. Pierre-Yves Samyn created 30 videos for LibreOffice, covering a wide range of topics: using data sources in Writer, managing page breaks in Calc, and modifying shapes in Draw – just to name a few. Additionally, he worked on French versions of the LibreOffice 5.1 New Features videos. In total, the French playlist on the YouTube channel grew to over 100 videos – a milestone achievement.

Regarding translations, the French community worked on translating the book "Designing with LibreOffice", while also translating press releases and subtitles for English-language videos. In terms of localisation, the user interface and online help for LibreOffice were updated, along with LibreOffice Online and the French website.

## Brazil: Events and Translations

FISL (Fórum Internacional Software Livre) is the largest open source event in Brazil, and is often described as South America's equivalent of FOSDEM. In 2016, it took place from 13 – 16 July in Porto Alegre. FISL is an opportunity for the free and open source software community to inform about developments, introduce new ideas and trends, and disseminate FOSS technologies to attendees.



TDF was represented by Olivier Hallot, Gustavo Pacheco and Vitorio Furusho. Olivier Hallot presented a lecture about recent developments in LibreOffice Online, the cloud-based version of the suite which lets organisations deploy collaborative editing in the browser on their own infrastructure. In addition, a meetup place for the LibreOffice community was organised by Vitorio Furusho.

Meanwhile, regarding translations, a team lead by Chrystina Pelizer started the translation of the Getting Started 5.0 Guide using OmegaT, with support from Milos Sramek and Olivier Hallot. The translation ended in June and after extensive revision, the guide was released in November. The team is composed of Chrystina Pelizer, Tulio Macedo, Douglas Vigliuzzi, Clarice Vigliuzzi, Raul Pacheco and Vera Cavalcante.

The same team translated the Help Contents for LibreOffice 5.3 in a record sprint to meet the deadlines. The team meet weekly through a Google Hangout session to discuss further works in documentation and translation. Finally, Eliane Domingos and Vera Cavalcante maintained their commitment to publish the LibreOffice Magazine, with six editions over the course of the year.

## Paraguay: LibreOffice in Guaraní

LibreOffice is the first office suite translated to Guaraní, a native language from South America spoken by more than 6 million people. Language is a fundamental tool though which we not only structure, process and understand the world around us, but also communicate and pass information from one generation to the next.

Access to technological tools is a significant step forward for the development of people. Being able to access and manage information in a mother tongue has a great impact on the population, because it eases the understanding of the native culture, and opens the way to better knowledge. There is no language unable to grow along with its speakers, to express the constantly changing world and the progress of science and technology.

In Paraguay there is a vast majority of Guaraní speakers, and therefore the translation of LibreOffice to Guaraní represents a turning point. Firstly, because it shatters the myth that Native American languages cannot be adopted for technology and the internet. Secondly, because it contributes to Guaraní reassessment, to raise the self-esteem of populations that have been limited in their capacity to self-develop for decades, as a consequence of deficient education which forced them to use a language that was not their native one.

## Spanish speaking community

Spanish – also known as Castilian – is the second language in the world by the number of people who speak it as a mother tongue, which is close to 500 million. It is the official language in Spain, Equatorial Guinea, and nineteen countries in the Americas. LibreOffice's Spanish community is therefore spread over three continents and many different countries, each with specific issues based on their history and economy.

Because of this situation, the Spanish community has always been a challenge for FOSS projects. Starting from 2016, though, LibreOffice's Spanish community has started to gather around a blog (<https://es.blog.documentfoundation.org/>) maintained by Daniel Rodriguez (Argentina), Adolfo Jaime Barrientos (Mexico), Carlos Parra Zaldivar (Cuba) and Ricardo Gabriel Berlasso (Argentina, living in Italy), which is an important point of contact for all Spanish-speaking users.

Both in Spain and South America there are municipalities, regions and even countries which have migrated to LibreOffice, or have just started the process. It is important to provide all these organizations a central resource containing all the information in their native language.



# Engineering Steering Committee

The Engineering Steering Committee, or ESC as it is typically known, is trusted with technical guidance and strategic planning of the LibreOffice code development.

The ESC has many responsibilities. Examples include: creating and maintaining the release schedule; monitoring participation in projects like Google Summer of Code and the hackfests (finding mentors, making sure the project is signed up, picking suitable tasks to implement); determining the system requirements for both building as well as running the software; deciding if a feature implementation is ready for inclusion if there are different opinions; the certification of developers; and much more.

The ESC meets weekly on Thursday at 4PM CET, in the form of a telephone conference that lasts between 30 and 60 minutes, according to the agenda at hand. Recurring agenda items contain status updates on previous action items and reports as well as updates from the various representatives such as release engineering, quality assurance and user experience.

Besides posting the meeting minutes to the mailing lists, the calls have been open to the public from the second half of 2014, bridging public and private conference rooms with video conferencing.

The ESC consists of individuals from the various affected parties – with a bias on developers – with representatives from quality assurance, release engineering, internationalization, user experience and other areas of the project.

## These are the members of the current ESC, with their affiliation:

**Katarina Behrens** (IRC: bubli) - CIB

**Thorsten Behrens** (IRC: thorsten) - CIB

**Stephan Bergmann** (IRC: sberg) - Red Hat

**Rene Engelhard** (IRC: \_rene\_) - Individual

**Sophie Gautier** (IRC: sophi) - TDF

**Jan-Marek Glogowski** (IRC: jmux) - Munich

**Noel Grandin** (IRC: noelgrandin) - Peralex

**Olivier Hallot** (IRC: ohallot) - TDF

**Jan Holesovsky** (IRC: kendy) - Collabora

**Jan Iversen** (IRC: JanI) - Individual

**Armin Le-Grand** (IRC: alg) - CIB

**Christian Lohmaier** (IRC: cloph) - TDF

**Lionel Elie Mamane** (IRC: schoinobates) - Individual

**Caolan McNamara** (IRC: caolan) - Red Hat

**Michael Meeks** (IRC: mmeeks) - Collabora

**Bjoern Michaelson** (IRC: Sweetshark) - Individual

**Eike Rathke** (IRC: erAck) - Red Hat

**David Tardon** (IRC: dtardon) - Red Hat

**Norbert Thiebaud** (IRC: shm\_get) - Individual

**Andras Timar** (IRC: atimar) - Collabora

**Robinson Tryon** (IRC: colonelqubit) - Individual

**Miklos Vajna** (IRC: vmiklos) - Collabora

# Development

Development of LibreOffice maintained the pace of the previous year, with close to 300 committers active during the year 2016, and an average of almost 80 active on a monthly basis.

## Road to LibreOffice 5.2

Developers worked day and night to add new features, improve existing ones, solve bugs and regressions, and generally make LibreOffice even better. Here is a list of some of the most significant development activities during the first half of 2016:

**Developer Central** (<http://devcentral.libreoffice.org/>) - Norbert Thiebaud collected together most infrastructure services and developer entry points available at TDF, and built an attractive list to help those new to the project find and use our tools and services.

**Hardware acceleration improvements** - (1) OpenGL got a simplified rendering model, which – combined with some dynamic adjustment of rendering priorities – gives smooth re-painting and sizing without visible re-drawing. (2) OpenGL and OpenCL crash protection was added, based on a guard-zone entered before doing any GL or CL call. (3) OpenCL and OpenGL sanity check before real-use was also added, to avoid later functionality problems, particularly mis-calculation in spreadsheets. (4) OpenGL and OpenCL black-listing of unreliable Intel GL drivers on Windows 7 was implemented. (5) Another improvement was a complex shader that handles lots of cases more quickly than several simple shaders one per case. (6) Finally, there was queueing and batching work to aggregate many drawing operations into a single GL/program invocation.

**Windows crash reporting** - Developed by Markus Mohrhard to help find the most frequent crashes on Windows, this implementation create minidumps which are analyzed on the server side and charted at <http://crashreport.libreoffice.org/stats/>.

**Unit testing** - Developers continued to build and execute more critical unit tests to stop some types of regressions from ever returning. The objective is that every bug that is fixed gets a unit test to stop it from recurring.

**LibreOfficeKit improvements** - The LibreOfficeKit API is the foundation for the Android app, GNOME Documents and LibreOffice Online, and has changed a lot in 2016 with

the addition of several methods and callbacks, its two main building blocks.

**Jenkins/CI** - Norbert Thiebaud implemented a Jenkins/CI (continuous integration) infrastructure, with Gerrit integration. This results in an enlarged and more reliable hardware build farm that encourages people to use Jenkins to check their work before pushing, in turn increasing the quality and reliability of the master branch.

In addition to those already mentioned, thanks to Aleksas Pantechovskis, Andrea Gelmini, Andrzej Hunt (Collabora), Ashod Nakashian (Collabora), Caolán McNamara (RedHat), Chris Sherlock, David Tardon (RedHat), Eike Rathke (RedHat), Henry Castro (Collabora), Jan Holesovsky (Collabora), Julien Nabet, Justin Luth, Katarina Behrens (CIB), Łukasz Hryniuk, Marco Cecchetti (Collabora), Mark Hung, Michael Stahl (RedHat), Mihai Varga (Collabora), Mike Kaganski (Collabora), Miklos Vajna (Collabora), Noel Grandin (Peralex/Collabora), Oliver Specht (CIB), Pranav Kant (Collabora), Stephan Bergmann (RedHat), Takeshi Abe, Tomaž Vajngerl (Collabora), Tor Lillqvist (Collabora), Varun, Xisco Fauli, Zdeněk Crhonek, and others.

## Road to LibreOffice 5.3

To complete the development picture during 2016, this is a list of some of the most significant development activities during the second half of 2016.

**Crash reporting** - Thanks to Markus Mohrhard's crash reporter, developers have been able to produce over 30 crash reporter-related fixes in LibreOffice 5.3, targeting some specific issues and reducing daily crashes by 20% in comparison with 5.2.

**Ongoing code quality work** - LibreOffice Coverity Scan numbers are consistently outstanding, thanks to the hard work of several developers who have provided fixes in various areas. In addition, there has been some cleanup work related to cppcheck and enumerations, plus other fixes related to legacy source code. Work on Clang plugins has resulted in nearly 800 commits fixing several auto-detected issues.

**Crash testing** - The suite of documents used for crash testing has grown to around 100,000, which are used to check LibreOffice behaviour. Developers have been able to keep crash numbers consistently at or near zero.

**Unit testing** - Tests are run by the Jenkins CI infrastructure on commits before they are merged on the master branch, to avoid regressions. In this area, developer activity is very important, as writing a test always takes a lot of time, and there is always the temptation to skip this task – but it is fundamental to the quality of LibreOffice.

**UI testing** - LibreOffice 5.3 has a new UI testing framework, thanks to Markus Mohrhard and our donors. There are even tutorials to help people add new tests. The new framework provides a way for people comfortable with Python to make a really important contribution.

**Online** - There have been a lot of changes in the LibreOfficeKit APIs and in the online code to interface with them, which have been written mostly by Michael Meeks around the time of the feature freeze. They are key to the availability of the LibreOffice Online source code.

**Hardware acceleration** - A number of performance improvements and fixes made their way into LibreOffice 5.3 (many of which back-ported to 5.2 as well). Developers have used guards – created and destroyed in pairs around any OpenGL block – to catch buggy and crashing drivers inside execution blocks, to disable OpenGL. In 5.3 these were adapted to OpenCL as well. The VCL/OpenGL backend also got a very large number of improvements, including batch rendering of pixels, lines, rectangles and polylines and deferred texture rendering.

**Automatic screenshot taking tool** - Thanks to donors and developers at CIB, there is now a tool to take UI screenshots and keep them up-to-date for all languages. This will ease the task of creating and maintaining LibreOffice documentation.

**Pootle** - Pootle was upgraded to bring a wealth of improvements for our localization teams, entirely based on volunteer work and scattered around the globe. Improvements included small things like allowing special characters in usernames, to major performance gain like extracting translations into builds much more quickly.

**Updated bundled libraries** - LibreOffice depends on many third-party libraries. To stay up-to-date, they have to be updated from time to time, their patches re-evaluated (ideally up-stream merged them) and re-tested. For 5.3, the following were updated: boost, libxslt, libzmf, libxmlsec, libstaroffice, firebird, harfbuzz, libmwaw, mdds, nss, curl, poppler, cairo, pixman, openldap, redland, orcus, liblangtag, libwps, icu and libmwaw.

In addition to those already mentioned, thanks to Aleksandar Stefanovic, Armin Le Grand (CIB), Arnold Dumas, Christian Lohmaier (TDF), David Tardon,

Giuseppe Castagno, Jochen Nitschke, Justin Luth (SIL), Kohei Yoshida (Collabora), Laurent Balland-Poirier, Marian Scerbak, Mert Tumer, Mirek Mazel, Muhammet Kara (Pardus), Otto Kekäläinen, Stuart Swales, Takeshi Abe, Thorsten Behrens (CIB), Winfried Donkers, Zdeněk Crhonek, Zolnai Tamás (Collabora), and many others.

## Google Summer of Code

LibreOffice has been approved as an organization for Google Summer of Code every year since 2011. GSoC helps students worldwide to dive into OSS, by providing economic resources to focus on the development of a feature with the assistance of a TDF mentor.

In 2016, these were the approved projects: (1) Finish Firebird driver integration, (2) Implement Zoner Draw import filter, (3) Implement legacy SAX parser Interface with FastParser, (4) Improve user experience with Table Styles, (5) Infrastructure for defining toolbars via UI (Glade) files, (6) Redesign the Template Manager, (7) Review of Sidebar functionalities, (7) Review of the Area Fill dialog, (8) Saving ODF XML Change-Tracking as a Sequence of Pre-Defined Changes, (9) Support ODF styles in Calc using Orcus, and (10) Unify low-level text layout using HarfBuzz.

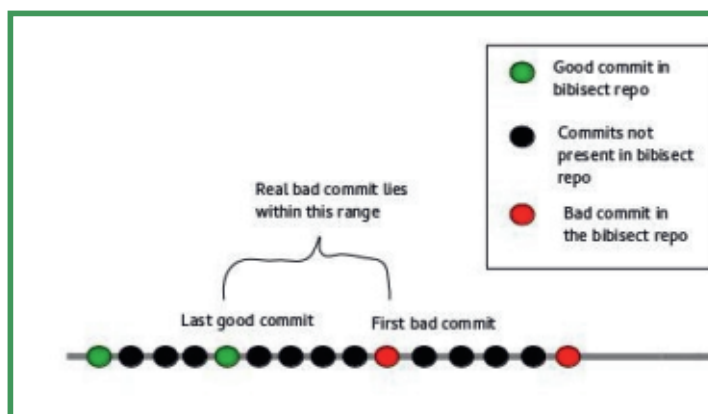
## EasyHacks

The LibreOffice project continues to provide EasyHacks – bite-sized entry-level tasks for new developers that are unfamiliar with the codebase. This is something that has also found its way into non-coding parts of the project.

## Buildbot and Bibisecting

The set of Bibisect repositories for testers, to pinpoint regressions to a small set of changes (ideally to a single commit, based on the granularity of the Bibisect repository) has been extended thanks to dedicated hardware for buildbots.

Bibisect stands for "binary bisect", and means using already-built application binaries instead of the sources that have to be compiled first. The repositories contains hundreds of builds in a highly compressed form.



# Hackfests

With many LibreOffice developers working physically distant from one another, hackfests provide the unique opportunity for programmers to spend some time working literally shoulder-to-shoulder with their peers.

**In 2016, four hackfests took place. Developers worked on adding new features, fixing bugs, and improving file format compatibility.**

## Brussels, January 28-29

The first hackfest of the year was supported by Betacoworking, and ran for two days just before the popular FOSDEM conference in Brussels, Belgium. It brought together 20 participants from across the LibreOffice community, with hacking work starting at 09:30 each day. Many improvements to LibreOffice were made during the event, especially regarding format compatibility: a DOCX import regression pertaining to text boxes was corrected, while custom property handling in RTF export was fixed as well. For DrawingML export, support for flipped and rotated custom shapes was implemented. Finally, Hungarian LibreOffice users got to benefit from better autocompletion and improved AutoText patterns.

## Ankara, April 30 – May 1

LibreOffice has a flourishing community in Turkey, and this hackfest provided the opportunity for 20 participants to meet up in the country's capital. The event started with a day of training for all attendees, followed by smaller training sessions covering debugging, Vim, C++ references and other topics. After this, developers worked on fixing bugs and getting started with Easy Hacks.

## Brno, September 7

As part of the LibreOffice Conference in Brno, Czech Republic, this "hacknight" was held at the offices of Red Hat and

ran from 19:00 – 23:00. Because the conference brought together a large number of community members from around the globe, this was for many participants the first opportunity to meet face-to-face and discuss their coding work. In addition, a "face to face QA meeting" was held at the hacknight, where developers could meet in person with members of the QA team, make suggestions, and talk about bugs of particular importance to them.

## Turin, November 5

The final hackfest of the year was a short event held in Turin, Italy, from 14:00 – 17:30 on November 5. As this was the second Italian hackfest, the focus was on "LibreOffice for beginner developers", and The Document Foundation's Development Mentor travelled to the event. He explained the basics of the LibreOffice build system to the 12 participants, before encouraging them to tackle some EasyHacks. In addition, there were explanations of various tools used in LibreOffice development such as Git, Gerrit and OpenGrok.

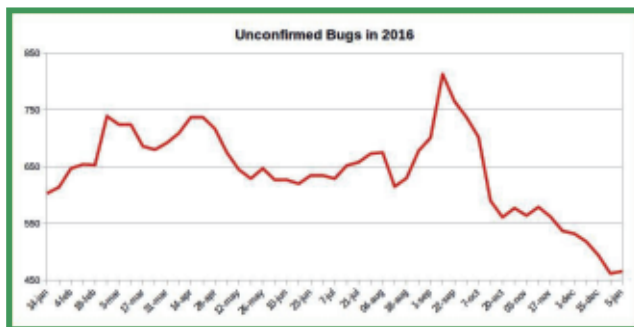


# Quality Assurance

Quality Assurance is a cornerstone of the LibreOffice project, thanks to the activity of a large number of volunteers and the feedback of many users who help in reporting bugs and regressions.

In 2016, the QA team triaged thousands of bugs, dissected hundreds of regressions, and answered questions from countless bug reporters. As one of the most visible groups directly responding to end users, the QA team must be nimble and able to adapt to changes. In addition, it must deal with specific requests for help from other teams.

The QA team meets regularly on IRC on the #libreoffice-qa channel, which is the best medium for discussing bugs and regressions. The IRC channel provides an excellent opportunity to remain in close contact with team members, and to tutor new members in the art and skill of LibreOffice QA. As a result of these efforts, in 2016 there has been a significant reduction of unconfirmed bugs.



Starting from October, the TDF QA Engineer has been publishing a weekly report about QA ([https://wiki.documentfoundation.org/QA/Bugzilla/Statistics#Weekly\\_Report](https://wiki.documentfoundation.org/QA/Bugzilla/Statistics#Weekly_Report)) with updated statistics about contributors and versions ([https://wiki.documentfoundation.org/QA/Bugzilla/Statistics#by\\_time](https://wiki.documentfoundation.org/QA/Bugzilla/Statistics#by_time)).

There are some interesting numbers: 43% of bugs are resolved and 37% not resolved, which is a very encouraging statistic, and only 5.5% of bugs are not triaged by QA. Reported bugs are split as follows: 30% for

Writer, 17.5% for Calc, 14.25% for the whole office suite, 8.65% for Impress and 6.2% for the user interface.

## Bug Hunting, Bibisecting and Crash Reports

In 2016, the QA team organized six Bug Hunting Sessions: one for LibreOffice 5.1.0 RC2 in January, before the announcement in early February; two for LibreOffice 5.2.0 Alpha and 5.2.0 RC1 in June and July, before the announcement in early August; and three for LibreOffice 5.3.0 Alpha, 5.3.0 Beta1 and 5.3.0 Beta2 in November and December, in preparation for the announcement in 2017. Also, during 2016, the QA team performed 471 bibisects.

Beginning with LibreOffice 5.2, the project has also started to use an automated crash reporting tool developed by volunteers, with server side analysis of reports, which helps to chase crashes and evaluate their impact on end users – especially on Windows. This has already lead to several vital fixes of the top crash-causing bugs that have been seen in the wild, using good data to nail the worst quality issues.

## Media Support Tests

Work has also continued on the comprehensive Media Support wiki pages, a collection of tests designed to verify the level of support for various image, audio and video file formats across all platforms. Keeping these pages up-to-date ensures that they continue to be a valuable resource for QA bug triaging as well as for volunteers helping to answer questions on the Ask LibreOffice site.

# Design

Design has been the main focus of the LibreOffice 5.x family, and has produced a large number of incremental updates to the user interface, including menus, toolbars, the SideBar, and the new (but experimental) NotebookBar.

Based on LibreOffice's Human Interface Guidelines (HIG), which provide the core framework, several changes have been made to LibreOffice's UI during 2016.

## New UI for Template Manager

The Template Manager has undergone a major rework. The user interface has been entirely redesigned to offer a better user experience (UX), so that it feels less like a file manager. Context menus have been added, instead of toolbox controls, for entries that do not need browsing templates (Edit, Set As Default, Delete etc.) along with Fuzzy Search and Filter controls for easier accessibility. Tabs have been removed.

In the case of Impress, the Template Manager is now opened by default when the user wants to create a new presentation from scratch, instead of the Presentation Wizard (but this feature can easily be disabled, to open the default template).

## Menus

To follow the HIG, in particular regarding the number of items per menu, the grouping and sorting of items has been updated, to reduce tedious searches through the menus for a particular function – and also to harmonize the menu bars over the different modules.

Items have been grouped logically as much as possible. Therefore, some items were moved around according to the task or to the frequency of usage, changing their level if necessary (as in the case of Insert > Image/Chart in Writer). In other cases, menus are now integrated with the SideBar, as in the case of Format > Styles and Formatting, which now opens the SideBar's Styles and Formatting tab. The function Format > Change Case can now be found below the new Format > Text submenu. Those rather small-scale changes were applied to many menu items in order to improve the menu structure.

The goal has been to improve accessibility in terms of (a) the number of items per menu, (b) grouping of functions that belong together, (c) sorting items so that the most

often used are found at the top, and (d) to harmonize the menu structure over the different LibreOffice modules.

## Toolbars and Sidebar

A single toolbar mode has been added to all modules, to reduce the space occupied vertically, and which can be combined with the SideBar. This mode has been added to the Default Mode (with two toolbars) and integrated – since LibreOffice 5.3 – with the experimental NotebookBar.

Users can now choose their preferred UI layout based on several factors: the size of their screen, which may offer more vertical or horizontal space according to the size and resolution; their working habits, which may be influenced by the UI of other software packages; and their personal taste.

## NotebookBar

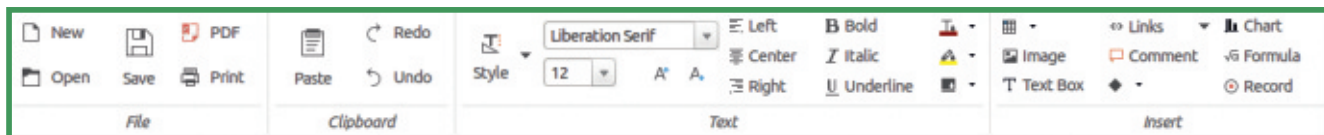
The NotebookBar is a different kind of toolbar, which can be seen as a blank canvas where designers have all the freedom to do whatever they want with the space. They can place any UI widget on it, including the usual buttons with or without a label, or a section label to identify the group of controls, or more advanced widgets like tabs. They also have the ability to define any dimension for buttons, so they serve as a visual attractor, and altogether have a larger catalogue of controls to choose from that couldn't be found in classic toolbars.

The NotebookBar is supplied with these pre-defined layouts:

A contextual groups mode, where it is split into labeled sections (more prominent than classic separators), ie file operations, clipboard interactions, text formatting functions, a context dependent section, and a small section for configuration of the toolbar itself at the right.

A contextual single line variant of the contextual groups mode.

A tabbed mode, where the layout occupies a similar space



to the main menu (which is hidden with this layout) and classic toolbars, and organizes menu functions across the tabs. An implementation similar to the single line toolbar is also possible, which can be contextual and horizontally centered.

## Cell and Table Styles

Cell styles have been revised in Calc. You now can select from the topics Heading, Accent, Status and Text with various subordinate styles. For example, the status "bad" makes the cell background light red with dark red text, while "good" has a green equivalent. Of course, it's still possible to add your own styles.

Similar effort was made to improve tables in Writer. While in the past each table was formatted independently from other tables in the same document, in a rather unintuitive way, we introduced table styles where changes to the style are applied to all tables in the document.

## Redesign of the Area Fill tab

The Area Fill tab has been redesigned, as an evolution to the existing window, without the loss of any features. To harmonize the layout and the workflow, the dialog is now organized according to a three-column layout, where on the left are presets, in the center the different options of each preset, and on the right a WYSIWYG preview of the changes to the preset.

The advantage of this three-column solution is that some types of area fill have only a few options, so the space is used more effectively. And since the preview has a separate column, it's more visible. Available Area Fill options are Solid Color, Gradient, Hatching, Pattern and Bitmap.

Color Palettes for Solid Colors have also been updated, with an improvement to the Recent Colors Palette – which is now working perfectly-- and the introduction of a Custom Palette, which lets users add colors directly in the Area Style dialog, and lets users manage customized collections.

Furthermore, the set of available palettes has been reduced by getting rid of non-standard and arbitrary collections with inappropriate names.

The Standard Palette has been refreshed. The Breeze Palette – which comprises all values known from the KDE Human Interface Guidelines – has been added, as well as the Tonal Palette, which provides a set of colors with the same luminance in relation to color contrast.

In addition, to integrate LibreOffice into professional graphics and layout workflows, the palette FreeColour-HLC

– based on the CIELAB color model – has been added, to provide a cross-media safe set of colors targeting expert publishers. The palette contains a range of muted RGB colors that can be replicated in CMYK and is perfectly suited for those who need maximum color correctness across different media and platforms.

## Additions to the Sidebar

**Writer** – Page Deck, providing four different panels - Page Format, Page Style, Page Header and Page Footer - to tweak the most commonly used page properties.

**Impress and Draw** – Properties Panels, to replace the Slide Content Panel for Impress and the Page Content Panel for Draw, to enable quick access to the slide and the page size, and to the background properties. Both panels offer the same features, and only differ in labels depending on the application context.

## Survey about LibreOffice Draw

In February 2016, the Design team run a survey about the use of LibreOffice Draw, with more than 2,000 participants answering the questionnaire and almost 1,000 of them making detailed statements in an accompanying text box.

The most important features are simple ones such as shapes and lines: they are used frequently, followed by connectors and symbol shapes. Import and export of files in both vector and raster formats are important too. Below-average features are layers, multiple pages, and freeform curves. The least used features are the gallery and 3D objects.

Most users use LibreOffice Draw for schemas or diagrams, followed by BPMN (Business Process Model and Notation) processes, mind-maps and genograms, and then for technical documentation as well as education and teaching.

The most impressive result is how flexibly LibreOffice Draw is utilized not only for drawing simple shapes or flowcharts, but also for high-end vector graphics in the field of architecture, electrical circuit drafts, and UI mockup sketches. Also, Draw has the capability to edit PDF files, which is highly acknowledged as a key feature along with the option to arrange text and pictures in order to create, for instance, large posters.

The survey provided a number of interesting ideas for the evolution of Draw in the future, based on the addition of specific features or the improvement of existing ones.

# Documentation

**A large application like LibreOffice demands appropriate documentation for end users. The documentation team worked to bring updated information on LibreOffice modules in the form of guides and built-in help.**

Information about using LibreOffice consists of a mixture of online guides, ad-hoc web searches, blog posts, forum/ mailing list discussions, Q&A pages, books and guides, multimedia lessons and LibreOffice's built-in help tool. However, the gap between information about new software improvements and the companion documentation (such as guidebooks) was widening, and brought concerns. We observed that the situation could not stand and worked to fill the gaps.

## Help files

Regarding the internal help content, which is the information that users see when they click a help button in a dialog or hit the F1 key, we found a very old XML tool designed in 2005 and never updated. The only concern in the project had been to update the contents, once in a while, when developer time was available. Even today, help pages are displayed in Writer Web with very old web standards, missing a modern 2016 web user experience.

A second side effect of this old XML technology was the steep learning curve for potential content contributors, which was discouraging new volunteers and making collaboration difficult, time consuming and error-prone.

It is imperative to phase out the old XML technology and provide help content with a modern web-based technology which can take advantage of multimedia, modern browsers, graphics, images and other features. Our aim is to migrate all content – including translations – into a new help application, displayed in a modern browser, either locally or online. At the same time, it will allow volunteers to easily add content, without the need of a full LibreOffice compilation to test out new additions to the text. We designed some prototypes using XML style transformations and JavaScript as proof of concept – and further developments will continue in 2017.

## Website and User Guides

We also addressed the aging guides written by the ODF Authors team. Two issues were found: the lack of content updates for a long time, and the visibility of the guides on

our web pages. We updated the Getting Started guide to LibreOffice 5.1, adding some features not yet described, as an introductory textbook. We also designed a brand new website dedicated to making the download of the guides easier, with very short text and descriptions and large buttons pointing to the desired guide.

To improve the visibility of our bookshelf, in late 2016 the documentation team added two new entries in the Help menu of all modules of LibreOffice: a link to the documentation website, and another link to the question and answer website (Askbot), which were ready for the LibreOffice 5.3 release in early 2017. The integration of the software and its companion documentation collateral is now addressed, which brought web services closer to software users.

Although efforts were able to improve technology and contents of the documentation, we still face a shortage of volunteers for writing content for books and the built-in help application. Our efforts will concentrate on increasing documentation collaboration by volunteers: something that many users can contribute to the project.

## Designing with LibreOffice

"Designing with LibreOffice", a book written by Bruce Byfield for The Friends of Open Document, was published in March 2016 as a single book. Later in the year, the first extract – "Choosing Fonts" – was been released, and will be followed by other sections for those who only want part of the information. The French translation is being done, and plans for German and Spanish translations are also being made.

## Video Channel

TDF's YouTube channel offers a large variety of videos – such as conference talks, tutorials, presentations, introductions to new features, and interviews – in various languages. As such, it is an interesting complement to the documentation.

# Infrastructure

In 2016, several new services were added to TDF's infrastructure, while server operating systems were updated to the latest stable versions.

The IT infrastructure is one of the most important assets of The Document Foundation. It is created, managed, maintained and expanded thanks to the resources provided by our generous donors. Without their contributions, we would have not been able to build an independent infrastructure.

The current state of the infrastructure consists of four rented hypervisors, each with four CPUs, 256 GB RAM, nine HDDs (and partially SSDs), plus one backup server. These machines are all hosted by manitu in St. Wendel, Germany. Nine housed servers with SSDs and powerful dual CPUs are only reachable from within the intranet, with access to them being controlled by a high-performance cloud core router from MikroTik at the center of the infrastructure. The cloud core router also serves as a VPN provider during conferences and events for TDF team and members in areas with restricted internet access.

The virtualization stack is built and deployed using custom QEMU and libvirt Debian packages, with native GlusterFS support. Regarding the hypervisors, there are 51 VMs, providing services such as AskBot, WordPress, Gerrit, Bugzilla, Etherpad, Redmine, Piwik, Jenkins, TestLink and much more.

During 2016, based on requests from the team and the community, the following services were added: Nextcloud, to load and share documents, calendars and addressbooks; LimeSurvey, to help the Design and Marketing teams run their surveys; Jitsi Meet, to support videoconferences; and Moodle, for online and distance learning.

Hetzner hosts the last four servers, which are going to be replaced by VMs in 2017: one for the TDF wiki, MirrorBrain and public mailing lists, one for internal services, and two backup hosts with large disks. In addition, TDF owns two Windows and two Linux buildbots from Thomas Krenn with dual CPUs and high speed SSDs. All TDF-owned hardware is connected by a VPN, forming a world-wide intranet.

The monitoring platform is based on TKmon, running on a

high-availability virtual machine isolated from the rest of the infrastructure. TKmon integrates with hardware vendors' support and notifies them of failures automatically.

Monthly infra team calls are hosted on the third Tuesday of each month at 18:30 Berlin time. Minutes and details are available at <https://pad.documentfoundation.org/p/infra>.

## Operating systems

The operating systems running on our servers and virtual machines have been migrated or upgraded to Debian 8 (Jessie) – and specifically to the latest 8.7 point release. This work was initially carried out on one virtualization host during the weekly maintenance window, to check for any problems that could occur during the operation, and then the update was deployed on the entire infrastructure.



# Website

**Our website is the main entry point to the world of LibreOffice, used by millions of visitors around the globe. In 2016, we focused on bringing in new community members**

The main goals of the LibreOffice website are to provide information about the software, and encourage visitors to download it. With this in mind, we made various improvements across the site, such as a new "Who uses LibreOffice" item in the Discover menu. This links to a page that highlights various migrations to LibreOffice around the world. In addition, we added a "What is OpenDocument" page – this provides information to users of other office software, who have received a .odt or .ods file, and aren't sure what to do.

We made many other small improvements to the site as well, updating text, adding new screenshots and integrating videos, but we also focused on attracting new community members. The "Get Involved" page, under the Community menu, was substantially redesigned to streamline the onboarding process. The website should provide potential new contributors with quick ways to get involved – so instead of having to read long wiki pages, they can interact with other community members much more quickly.

To attain this, the "Get Involved" page immediately presents visitors with a set of buttons covering various sub-projects: development, documentation, infrastructure, design, translation, QA and marketing. Visitors can simply click the button that interests them, and they are taken to a short section of the page with simple steps to get involved. These steps may involve: joining an IRC channel,

signing up to a mailing list, or registering for a service (eg Bugzilla).

Finally, to spread the word about the new "Get Involved" page, we created a short URL: <http://tdf.io/joinus>. This can easily be added to flyers, stickers, business cards and other marketing materials – and we are using it in many of our online resources such as our Twitter account (@libreoffice).

The top five countries in terms of visits were USA (2,577,325), Germany (1,035,120), France (957,200), United Kingdom (868,828) and Italy (652,380). For web browsers, the most popular was Chrome (40%) followed by Firefox (28%) and Microsoft Edge (12%). And regarding search engine referrals to the site, 91% were from Google, 4% from Bing, and 1.5% from Yahoo!.

## STATISTICS

These are for the main LibreOffice website, [www.libreoffice.org](http://www.libreoffice.org), in 2016

Visits	13,139,103
Search engine referrals	3,774,064
Page views	27,025,296
Unique page views	21,250,939
Average visit duration	1 min 48s
Bounce rate	30%

# Blogs & Social Media

We are growing our blog, social media channels and communication tools infrastructure, to reach end users where they are, in their own languages.

## Blogs

The Document Foundation blog (<https://blog.documentfoundation.org>) has been active since late 2010, and reflects the history of the project. Since 2015, it has a new layout based on a more modern theme, and offers the possibility to subscribe to updates via email. The blog is the voice of the project as it features release announcements, job searches, project updates, contributor interviews, statistics and reports from events.

Based on the same blogging platform, there are blogs focused on native language communities in Brazilian Portuguese (<https://pt-br.blog.documentfoundation.org>) and Spanish (<https://es.blog.documentfoundation.org>), with several contributors from South America and Europe. The objective is to foster the growth of these communities by providing regular updates on the project in their native languages, instead of English.

The other active blog is maintained by the design team (<https://design.blog.documentfoundation.org>), and provides an overview of the evolution of LibreOffice's user interface – along with a glimpse at the future of user experience. Although it's focused on technical contents, it is a very important read for those interested in the evolution of LibreOffice.

Together, TDF blogs have around 2,000 readers and 20,000 page views per day.

## Social Media

The Document Foundation has been present on social media since the early days of the project, but has significantly increased this activity during 2016 thanks to an improved focus by Mike Saunders, who has brought his experience – and native English-speaker skills – to the team.

The Document Foundation has a Facebook page (<https://www.facebook.com/documentfoundation/>) with over 5,000 followers, a Twitter account (<https://twitter.com/tdforg>) with close to 14,000 followers, and a LinkedIn group (<https://www.linkedin.com/groups/3469260>) with over 700 members.

Meanwhile, LibreOffice has a Facebook page (<https://www.facebook.com/libreoffice.org/>) with over 46,000 likes, a Twitter account (<https://twitter.com/libreoffice>) with over 14,000 followers, and a LinkedIn group (<https://www.linkedin.com/groups/4935274/>) with over 400 members. There are also several Facebook pages in native languages, created by local communities.

## Chat Groups

In late 2016, The Document Foundation created a LibreOffice chat group on Telegram (<https://t.me/libreoffice>), following the success of the experiment at the LibreOffice Conference in Brno. It quickly reached 200 members, and is still growing. In addition, there are groups in Indonesian, Italian, Portuguese, Spanish and Turkish, plus a TDF broadcast channel for announcements in English: <https://t.me/tdforg>.

# Marketing

**Marketing LibreOffice is key to the success of the project. Our marketeers spread the word about our software and our community, and talk about our achievements.**

Marketing at The Document Foundation is growing with the project. In fact, since early 2016, Italo Vignoli – focusing on media relations and the community – has been helped by Mike Saunders, a former journalist, who has coordinated "Month of LibreOffice" campaigns, produced "new features" videos, conducted interviews with developers, and brushed up most of the English text written by non-native speakers in the community.

In 2016, marketing at The Document Foundation and LibreOffice was a team effort, with professionals paid for their coordination activity – thanks to the money made available by our generous donors – and volunteers carrying out actions at global and local levels to increase visibility and brand awareness.

Marketing activities also involved native language projects, with events and conferences in several geographies. Additional information on these events may be found in their respective sections.



In 2016, activities started at FOSDEM – the largest open source event in Europe and possibly worldwide – in late January, with developers speaking about LibreOffice in the Open Document Editors DevRoom, and volunteers attending the booth in the exhibition area. For the first time since the birth of the project, we were positioned in the main lobby of Building K, and this has resulted in a larger number of visitors in comparison with previous years.

In early February, TDF announced LibreOffice 5.1, with large success in terms of media coverage. The announcement was supported by a number of media briefings, which resulted in several positive in-depth

articles. The TDF website was also completely renewed for the launch, based on the same layout of LibreOffice website.

In March, TDF was present at CeBIT in Hannover, the largest IT exhibition in Europe – and a good opportunity to meet users, listen to their suggestions, and talk about the future of the project. The stand in hall 3 was staffed by the TDF team along with several members of the German LibreOffice community. We had many inquiries about large-scale migrations to LibreOffice and what can be done to make them as smooth as possible. We were also able to meet many individual LibreOffice users, who wanted to express their gratitude for the office suite.

In May, the marketing team organized the first "Month of LibreOffice" campaign, which gave contributors the opportunity to thank members of the community for their work by awarding them barnstars and badges.

In early August, TDF announced LibreOffice 5.2, another successful major release. The announcement was distributed to over 10,000 journalists all over the world, in several languages, and generated huge coverage.

In September, the marketing team attended the LibreOffice Conference in Brno. Mike Saunders recorded several video interviews of contributors from every corner of the globe, which have then been published on the TDF blog.

At the conference, we started using Telegram for quick communications with participants. Based on the success of this experiment we then opened official Telegram groups and channels, also in native languages.

In November, the marketing team organized another "Month of LibreOffice" campaign, based on the success of the previous project.

In December, we announced the LibreOffice UX Concept, codenamed MUFFIN (for My User Friendly Flexible Interface), to prepare for LibreOffice 5.3, providing the experimental NotebookBar design requested by many users. The launch was successful, and the concept was widely picked up by media around the world.



# Certification

Developer Certification is now an established project, with over 50 hackers being recognized for their advanced knowledge of the LibreOffice source code, for developing new features, and for solving bugs and regressions.

Migration and Training Certification, on the other hand, has not taken off outside of Italy and Brazil. For locations where it has seen success – like in Italy – it has triggered a substantial number of migrations to LibreOffice. Some of these migrations have leveraged the experience of certified professionals.

In 2016, the Certification Committee hosted only one Certification Session at FOSDEM in Brussels, for Migration Professionals and Professional Trainers, and appointed the following individuals: Paolo Dongilli, Antonio Faccioli, Diego Maniaco, Pasqual Milvaques, and Franklin Weng.

In 2016, the Engineering Steering Committee confirmed or certified the following developers: Jacobo Aragunde, Katarina Behrens, Thorsten Behrens, Stephan Bergmann, Giuseppe Castagno, Henry Castro, Marco Cecchetti, Rene Engelhard, Jürgen Funk, Jan Holešovský, Mark Hung, Pranav Kant, Armin Le Grand, Tor Lillqvist, Christian Lohmaier, Lionel Elie Mamane, Michael Meeks, Markus Mohrhard, Caolán McNamara, Björn Michaelsen, Ashod Nakashian, László Németh, David Ostrovsky, Eike Rathke, Michael Stahl, Fridrich Štrba, David Tardon, András Timár, and Kohei Yoshida.

The Certification Committee met at the LibreOffice Conference in Brno, to decide about renewals of the first group of certified professionals – which was approved by the TDF Board of Directors – based on participation in certification activities during the last two years.

Lothar Becker, Eliane Domingos de Sousa, Sophie Gautier, Olivier Hallot, Thomas Krumbein, Marina Latini, Gustavo Pacheco and Italo Vignoli were renewed for another two years, both as certified professionals and as members of the Certification Committee, while Leif Lodahl and Cor Nouws have been renewed for another two years as certified professionals.

Franklin Weng was elected to the Certification Committee, with the objective of helping to increase the number of LibreOffice certified professionals in Asia.

Starting from January 1st, 2017, LibreOffice Certification

for Migrations and Trainings will be possible for all volunteers active at global and local levels, to members of not-for-profit bodies sitting in the Advisory Board (namely, FSF, FSFE, Gnome Foundation and KDE), and for individuals whose competence and commitment is demonstrated by their actions (success of migrations and trainings).

In addition, Members of the Certification Committee can invite people to apply for certification – even if they do not belong to the approved categories – based on their professional relationship, and on the competence and commitment of such individuals.

In any case, every individual who applies will have to go through the same certification process, based on a first analysis of pre-requisites and documents, a second optional written questionnaire, and a third face-to-face discussion with the Certification Committee. The second optional written questionnaire is at the sole discretion of the Certification Committee.

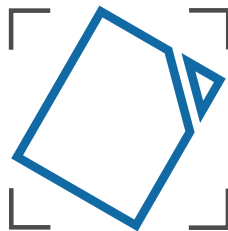
As far as renewals are concerned, if the candidate is known for his activity by at least one member of the Certification Committee, he will be asked by email if he is still interested, and will be automatically renewed upon receipt of a positive answer; if he is not known for his activity by at least one member of the Certification Committee but is known at the local community level, he will be asked by email if he is still interested, and will be automatically renewed upon receipt of a positive answer; or if he is not known for his activity at any level, he will be asked by email if he is still interested, and upon receipt of a positive answer he will go through a new certification review.

The Certification Committee will also attribute the "Recognized by the Certification Committee for his Advocacy of LibreOffice" formal statement, for community members active at local level but not doing any professional activity (which can qualify them for the status of Certified Migrator or Trainer).

# Document Liberation Project

The Document Liberation Project (DLP) was announced as a sister project to LibreOffice on April 2nd 2014, and turned two years old in 2016.

As part of an overall drive towards truly open standards and freedom from vendor lock-in, the Document Liberation Project (DLP) was born in 2014. Its goal is to develop libraries and file format filters to unlock content created by proprietary software – and many free and open source applications use DLP libraries, such as Inkscape, Scribus, and of course LibreOffice.



**Document Liberation**  
Own your content

Following this, two other DLP libraries were updated in March: libpagemaker 0.0.3 (for parsing Adobe PageMaker documents) can now read big-endian (Mac) files, while writerperfect 0.9.5 (for conversion of various document formats to ODF, EPUB and AbiWord) includes a number

of build fixes. In addition, it can also convert old StarOffice files.

2016 got off to a good start with the release of libetonyek 0.1.6 in January. This is a library that helps applications to parse documents produced by Apple's office software: Keynote, Pages and Numbers. With version 0.1.6, libetonyek can now properly parse links, lists and text languages from Keynote 6 files. Resizing of tables is handled properly, while text containing non-ASCII characters (ie, the majority of non-English languages) is now managed much better as well. Although the library is still in the early stages of development, it is already helping many people to read documents created by proprietary applications, who would otherwise not be able to do so.

Following that, version 1.5.1 of desktop publishing tool Scribus was released in February 2016; this was part of the development process towards a final and stable 1.6 release. (At the time of writing, Scribus 1.6 is due to be released in summer 2017, although the date may change.) Together with several new features and updates, Scribus 1.5.1 makes use of the libfreehand 0.1.1 library (also from the Document Liberation Project), which allows it to read documents created by Adobe FreeHand. Although this feature is still marked as experimental and needs more testing, it is already working quite well.

Apart from the new software releases, there were also updates to the DLP website at <http://www.documentliberation.org> as well. Previously, the site was mostly a large wall of text – the content was useful, but the presentation was hard on the eyes, and didn't help to maintain the attention of readers. So this text was simplified, broken up, and logos for projects that use DLP libraries were incorporated into the page as well.

Finally, to improve the visibility of the project, a video was created (<https://youtu.be/JSqU2Wp-neQ>) which explains the problems with closed document formats, why DLP exists, and what it does to mitigate those problems. While the video's audio is in the English language, community members contributed translations in 10 languages – these are available on YouTube as subtitles. Additionally, the video was embedded into the DLP front page in free software-friendly WebM format.



# Volunteers

The Document Foundation would not be possible without the daily activity of hundreds of volunteers, who donate their time to grow the project.

Members of the Board of Directors meet twice a year for a full day, and twice a month for a couple of hours, to manage the foundation, and administer the budget (which is mostly based on donations). Unseen work between those meetings includes managing trademark registrations and usage requests, evaluating submissions for tenders to improve LibreOffice, responding to community requests for funding, making decisions around legal matters, liaising with other organisations and many other unglamorous but essential tasks that keep The Document Foundation effective. Every year, they each donate 15 to 20 days of activity to TDF for Board duties in addition to other volunteering, depending on the portfolios they are managing.

Members of the Membership Committee meet twice a year with the BoD, and at the end of every quarter to approve membership requests, based on their previous evaluation activity of volunteer work. Every year, they donate between 10 and 15 days of activity to TDF.

Volunteer developers work on the source code according to their skills and their availability in term of time, to create and maintain development related services,

develop new features, solve bug and regressions, and mentor new developers. Every year, each one of them donates a substantial amount of their time – from a few days to a few weeks – to TDF.

Members of native language communities are active in every area, from the localization of the software to the translation of the documentation, from all the different QA activities – triaging, bisecting, reproducing and solving bugs and regressions – to supporting end users on mailing lists and other channels, from organizing events such as QA sprints to speaking at the same events about LibreOffice. Every year, they also donate a large amount of their free time – from a few days to a few weeks – to TDF.

Several members of TDF team are active in their native language community, where they help other volunteers in different areas. In some cases, they support other native language communities, as they are more familiar than others with some tools and activities. Every year, they donate several days to TDF, on top of the daily activities they are paid for (thanks to donations).



# Top Contributors

CODE CONTRIBUTORS	BUG SUBMITTERS	BUG SQUASHERS	WIKI CONTRIBUTORS
Caolán McNamara	Yousuf Philips	Xisco Faulí	Dennis Roczek
Stephan Bergmann	Telesto	Buovjaga	K-J Weghorn
Noel Grandin	Raal	Caolán McNamara	Lera Goncharuk
Miklos Vajna	Cor Nouws	V Stuart Foote	Pierre Yves Samin
Eike Rathke	Heiko Tietze	Aron Budea	Uroveits
Markus Mohrhard	Aron Budea	Beluga	Robinson Tryon
Michael Stahl	Volga	Adolfo Jaime Barrientos	Sophie Gautier
Tor Lillqvist	V Stuart Foote	Eike Rathke	Christian Kühn
Zdeněk Crhonek	Gabor Kelemen	Cor Nouws	Laurent Balland Poirier
Jochen Nitschke	Stéphane Aulery	Heiko Tietze	Jean Weber
Gabor Kelemen	Dennis Roczek	Yousuf Philips	Rainer Bielefeld
Khaled Hosny	Kompilainenn	Raal	Harald Berger
David Tardon	Alex Thurgood	Maxim Monastirsky	Florian Effenberger
Takeshi Abe	Timur Gadzo	Julien Nabet	João Mac Cormick
Maxim Monastirsky	Monterro	Alex Thurgood	Björn Michaelsen
Samuel Mehrbrodt	Julien P.C.	Miguel Angel Rios V	Marc Pare
Julien Nabet	L. Benes	Michael Meeks	Adailton
Kohei Yoshida	Aleksander Machniak	Samuel Mehrbrodt	Mirek
Chris Sherlock	Mike Kaganski	Markus Mohrhard	G. Buzzatti Pacheco
Justin Luth	Robert Grosskopf	Jan Iversen	Uwe Haas
Tomaž Vajngerl	Óvári	Regina Henschel	Filmsi
Christian Lohmaier	Buovjaga	Joel Madero	Gerry T
Szymon Kłos	Kevin Suo	David Tardon	Nino Novak
Tamás Zolnai	Nicolas Mailhot	Bartosz Kosiorek	Kompilainenn
Pranav Kant	Žazmēndjē Aruēfēē	Timur Gadzo	Tom Davies
Yousuf Philips	Steve	Jean Baptiste Faure	David Ostrovsky
Björn Michaelsen	Sergio Callegari	Michael Stahl	Naruhiko Ogasawara
Katharina Behrens	Luke Kendall	Miklos Vajna	Philippe Clement
Andrea Gelmini	Terrence Enger	Justin L.	Michael Meeks
Mike Kaganski	Ulrich Windl	Winfried Donkers	Adolfo Jaime Barrientos
Jan Iversen	Yan Pashkovsky	Laurent B.P.	Cor Nouws
Laurent Ballard Poirier	AM Dixer	Telesto	Olivier Hallot
Jan Marek Glogowski	Miguel Angel Rios V	Fridrich Strba	Shinji Enoki

# TDF Team

To enable our hundreds of volunteers, to ensure the daily administrative operation of the foundation and to make strategical decisions, there's a team of pro bono contributors, contractors and employees working jointly together. The current composition is the following:



## KATARINA BEHRENS

### Membership Committee, Developer

Katarina Behrens (aka Bubli) is a professional bug squasher who works for CIB Labs in Hamburg, Germany. She has been involved with LibreOffice since 2010 as a part of SUSE Linux team and later continued contributing as a volunteer. Since 2015, hacking LibreOffice is her day job again. Her passion is writing the code, in particular UI code and given that, she enjoys building a bridge between hackers and UX/design community. She also finds seeing new LibreOffice hackers succeed to be very rewarding experience and therefore engages in mentoring.



## STEPHAN BERGMANN

### Membership Committee, Developer

Stephan Bergmann is a long-time contributor to the LibreOffice — and before that StarOffice/OOo — source code. He is employed by Red Hat, Inc., and lives in Hamburg, Germany. He is also a member of TDF Developer Certification Committee.



## THORSTEN BEHRENS

### Board of Directors, TDF Founder and LibreOffice lead at CIB GmbH

Thorsten was part of the OpenOffice.org project almost from the start, when he joined the then-Sun Microsystems development team back in early 2001. He's a computer scientist by education, a Free Software enthusiast by heart, a geek from early childhood – and someone who was lucky enough to turn a hobby into an occupation. During his now fourteen years of tenure in the project, he's spent most of his time hacking the code in areas ranging from build system, platform abstraction libraries, Impress and Writer. Thorsten is happily employed at Germany's CIB GmbH, both providing support for customers and integrating LibreOffice into new products.



## FLORIAN EFFENBERGER

### Team, Executive Director

Florian has been working as the Executive Director of The Document Foundation since March 2014. Besides handling the financials, taxes and legal aspects of TDF, he is responsible for coordinating projects and employees, and is one of the foundation's spokespersons.



## ANTONIO FACCIOLI

### Membership Committee

Antonio is an enthusiast free software activist for twenty years, a Libreltalia member since 2014 and TDF member since 2015. He's taking care of "Growing up on bread and free software", the association's project for Italian schools, and he attended LibreDifesa, the migration to ODF and LibreOffice of Italy's Ministry of Defense. He has been a user of LibreOffice since its origin and since two years ago volunteered in the Italian translation group. From January 2016 he's a LibreOffice Certified Professional Trainer and Migrator. He's currently working at Studio Storti in the LibreOffice Division and contributes to the channel "Open4Business" of Techeconomy.



## XISCO FAULI

### Team, QA Engineer

Xisco got a bachelor's degree in data processing at the Polytechnic University of València in 2011. Since then, he has worked as a QA Engineer. In September 2016 he was contracted by TDF to work on LibreOffice QA, maintaining both Bugzilla and Bibisect, organize and coordinate Bug Hunting Sessions.



## SOPHIE GAUTIER

### Team, Administrative Assistant, Release Coordinator

Sophie was contracted in December 2013. She organizes various internal and external meetings, handles organization of the LibreOffice Conference, is doing the coordination amongst the QA, L10N and NLC teams and manages all sorts of administrative tasks.



## OSVALDO GERVASI

### Board of Directors, Professor and Co-Founder of Libreltalia

Osvaldo has been the President of the Open Source Competence Center of Regione Umbria, and in that capacity he has inspired the LibreUmbria project and co-founded Associazione Libreltalia. He has been involved in the migration projects of Regione Umbria and the Italian Army, and is an active member of the Italian Localization Team. He is also an Aggregate Professor at the Department of Mathematics and Computer Science of the University of Perugia.



## OLIVIER HALLOT

### Team, Documentation Mentor

Olivier is a French national living in Brazil, and is freelancing as leader of LibreOffice's documentation team. He is working to update the team's tooling and processes, and also to coordinate literature produced by volunteers in the community. In addition, he is ensuring that the reference books are kept up to date.



## JAN HOLESOVSKY

### Board of Directors, LibreOffice hacker, PM at Collabora, and UX enthusiast

Jan has been involved with LibreOffice since the very beginning, and OpenOffice.org before that for more than 11 years. He is primarily a developer, but reaches out to other groups within the LibreOffice community as well: he has been translating the software into the Czech language, and works with designers and the marketing team. In addition he is a regular Google Summer of Code mentor.



## MARINA LATINI

### Chairwoman of the Board of Directors, and LibreOffice Division lead at Studio Storti

Marina Latini studied Computer Science at the University of Perugia, and is a Free Software advocate since 2007, promoting Free Software and open standards. In 2010 she became one of the first Italian members of the LibreOffice community. She has also been an active member of the Fedora Project from 2009 to 2013, and she is an openSUSE advocate since October 2011. Marina co-founded Associazione LibrelItalia, and has been involved in several events, migrations and trainings related to LibreOffice. She is currently working at Studio Storti, leading the LibreOffice Division.



## CHRISTIAN LOHMAIER

### Team, Release Engineer

Christian has been employed by The Document Foundation since June 2013. He is handling pre-releases and releases, takes care of mirroring and distribution of builds, keeps track of blockers, administers buildbots, and is also involved with the infrastructure and website teams.



## ANDREAS MANTKE

### Board of Directors, Maintainer of the LibreOffice Extension and Template Site infrastructure

Andreas had his first experience with Free Software at the end of the 1990s, and joined the OpenOffice.org project in 2002 as contact person for documentation and as maintainer of the portable version. He supported the way to an independent foundation from the announcement of LibreOffice in September 2010, and started working on different areas of LibreOffice during his spare time. He worked for the infrastructure team and attends many events on behalf of the community.



## MICHAEL MEEKS

### Deputy Chairman of the Board of Directors, and VP of Productivity, Collabora

Michael is a Christian and enthusiastic believer in Free software. His long involvement with the LibreOffice codebase started before it was open sourced, working with Sun to see how best to integrate it into the Linux Desktop. OOo replaced his previous passion: the Gnumeric spreadsheet and its interoperability. Michael has lead, and helped to grow investment here through Ximian, Novell and SUSE. He has contributed code to many of the components of the suite, and is excited about the future of the code. He now leads Collabora's Productivity division - which sells enterprise supported versions of LibreOffice as Collabora CloudSuite. In other roles, he has contributed to MeeGo, GNOME, CORBA, Nautilus, Evolution and accessibility, amongst many other interesting things.



## BJÖRN

## MICHAELSEN

### Board of Directors, Developer

Björn has helped Canonical Ltd. to package LibreOffice on Ubuntu. He joined the LibreOffice development project in February 2011, coming from Oracle (and before that Sun) where he was working on the very same codebase in the Writer/Framework area. Since long before that he is an open source enthusiast and started involvement in open source with minor contributions to a range of projects.



## GUILHEM MOULIN

### Team, Infrastructure Engineer

Guilhem is a French national living in Sweden, and is responsible for the growing TDF infrastructure. He has a PhD in theoretical Computer Science from Chalmers University of Technology, and is a member of the Debian project.



## COR NOUWS

**Chairman of the Membership Committee, and QA, Trainer, Migrations Manager**

Cor Nouws is one of the founding members of The Document Foundation. Before starting with LibreOffice, Cor Nouws has contributed for years to OOo, among others as community representative in the Community Council. For LibreOffice he continues supporting marketing, QA and other areas, as he did before the free-making of OOo. His involvement in the free office community is a natural combination with his position as founder of the Dutch consulting firm Nou&Off, leading in training and migrations for OpenOffice and LibreOffice.



## GUSTAVO BUZZATTI PACHECO

**Membership Committee**

Gustavo worked as consultant for OOo, BrOffice (Brazilian version of OOo) and LibreOffice for 12 years. As consultant, he has been involved in over 200 migration projects in Brazil. He has contributed as a volunteer in many areas of the project (documentation, marketing, digital inclusion,...). At present, he is working as systems analyst at the IT Foundation of the Municipality of Canoas and his collaborative work is related with some extensions that he has developed. He is also the hand behind of two instances of ODF Validators and the @opendocument account on Twitter.



## SIMON PHIPPS

**Board of Directors, Director of Open Rights Group and Campaigner for Digital Liberties**

Simon watched OOo go open source at OSCON in 2000, and has been associated with the project in several roles ever since, most notably as Chief Open Source Officer at Sun Microsystems until 2010. An electronic engineer and programmer by training, he is now the principal of Meshed Insights Ltd, offering management consulting on open source and digital rights issues. He also serves on the board of UK's Open Rights Group and was President of the Open Source Initiative from 2012-15. In addition to his role at Sun, in a long technology industry career he has worked on open standards, video conferencing, the introduction of Java and XML at IBM, office productivity workstations at Burroughs and Unisys in the 80s and identity management at ForgeRock. He lives in Southampton in the UK.



## GABRIELE PONZO

**Membership Committee**

An early adopter from the StarOffice days, he joined PLIO during the 2009 Conference in Orvieto, and has been part of the OOo community until LibreOffice was born. Training and support are his most common activities, and he's been working on LibreUmbria and LibreDifesa projects as a teacher. He is a founder of LibrelItalia, where he's also been in the Board of Directors. His contributions are mostly speaking at conferences, some translations, and user support on the Italian and international mailing lists, and the Italian G+ community. Certified Trainer and Migration Professional from February 2015.



## EIKE RATHKE

**Board of Directors,  
Senior Software Engineer  
at Red Hat, and  
Developer, Hacker and  
Transpositionizer**

Eike has been a StarOffice/OOo/LibreOffice hacker since the early days at Star Division, and nowadays works for Red Hat, Inc. He was also a member of the OASIS technical committee for the Open Document Format for Office Applications (ODF) and an editor of the OpenFormula part (aka ODFF) of the ODF standard. His main areas of expertise are the Calc spreadsheet core, formula compiler and interpreter, number formatter/scanner, the i18n framework and locale data. Eike is an ardent supporter of Free Software.



## HEIKO TIETZE

**Team, User Experience  
Consultant**

Effective from May 2016, Heiko Tietze has started freelancing as a consultant to drive LibreOffice UX one step further. Heiko has been one of the most active UX volunteers during the last few years, and has been instrumental in a rather large number of the user interface improvements since LibreOffice 4.4. In addition, he has coordinated UX focused research, which has – amongst other results – led to the development of the human interface guidelines (HIG), and to incremental UI changes to menus and toolbars.



## MIKE SAUNDERS

**Team, Marketing & PR**

A long-time Free Software journalist, developer and advocate, Mike joined The Document Foundation in February 2016. He is working to spread awareness about LibreOffice, creating videos, flyers and other marketing materials. In addition, he is working with the website and design teams and engaging with the wider Free Software community.



## MIKLOS VAJNA

**Membership Committee**

Miklos got involved with OpenOffice.org development in 2010 when he completed two Google Summer of Code projects to improve the RTF import/export filter of Writer. Later he became a full-time LibreOffice Writer hacker for SUSE, and is now a contractor at Collabora.



## CHARLES-H SCHULZ

**Membership Committee**

Charles-H Schulz is one of the co-founders of the LibreOffice project and used to be a contributor of the OpenOffice.org project. These days he is involved in communications and marketing for the community.



## ITALO VIGNOLI

**Team, Marketing & PR**

Italo is contracted for marketing and PR to handle media relations and coordinate several marketing activities. He is also active in community development at global level, supporting native language projects and migration projects worldwide, and in the Certification Project. He is a spokesperson for The Document Foundation.

## NORBERT THIEBAUD

**Board of Directors, Volunteer working  
on Build System and Statutes**

Norbert joined the project with his first code contribution literally one day after LibreOffice was announced on September 28 2010, and has since been working as a volunteer on things as diverse as the build system, code cleanups, Git, Gerrit, foundation statutes and membership management software.



## KLAUS-JÜRGEN WEGHORN

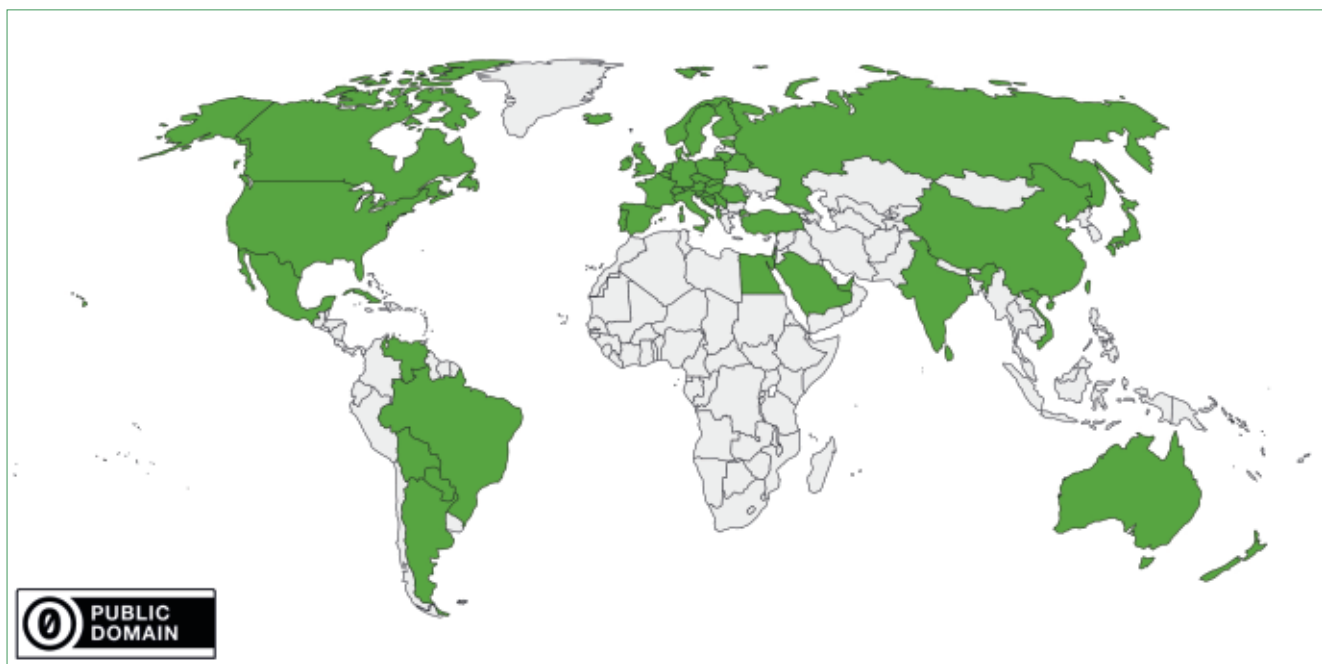
**Membership Committee**

Starting with the comment "There is a mistake on webpage" on the German mailing list, Klaus-Jürgen got gradually involved as a normal user in OpenOffice.org and LibreOffice; first in localized and later in international work on the wiki, website, design, documentation and marketing.

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Members who joined The Document Foundation during the year 2016 are marked in **Orange**



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# Advisory Board

The Document Foundation would like to thank the members of its Advisory Board for their ongoing support and advice, and for helping us to fulfill our mission.

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worldwide community of end-users, contributors  
and enterprises, supporting our efforts with  
contributions of time and money. Thank you very  
much for your ongoing support!**