

KDE Developer Documentation Update

Project Report

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Introduction

The KDE community has always been known for its rich variety of software projects, starting with the desktop and eventually branching to software for building software, for mobile, for astronomy, and even for deep sea diving. As with any fast-growing open source community, the documentation that was produced as part of that evolution didn't grow as fast nor did it get the much-needed attention it deserved. Not only did outdated information make it hard for even seasoned community members to find the things they needed, it also made it more difficult to onboard newcomers and attract developers and users of our software, particularly the frameworks and libraries we offer.

Last year, the KDE e.V. decided to look for a technical documentation specialist to take a long, hard look at the current state of documentation targeted at developers. It's perhaps common knowledge that our docs are outdated but the first step in updating them is finding out exactly which ones are outdated and which ones need urgent attention. Based on that data as well as input from developers both current and future, a strategy for updating the documentation in the coming months was also drawn up. Keeping that documentation up-to-date long after this initial phase is over is just as critical and suggestions for that have also been formulated.

This document presents all of the material gathered and generated during the three-month period allotted to the project. It details the specific areas that need improvement as well as the concerns of developers about KDE's developer documentation. It then proposes several steps to take to update the documentation, which ones to focus on first, as well as how to hopefully keep those documents up-to-date for years to come. Finally, it lists the specific steps that need to be taken next and those that have already been performed in the duration of the project.

Documentation, both for developers and users, not only helps reduce the friction for newcomers but also offers a record of the software's and a community's history. As such, it doesn't exist in a vacuum and affects and informs every part of the project. Like everything in KDE, it's a community effort and it will need the help of the community to keep things from becoming stale again.

Part 1. Survey and Analysis

There are many ways to get started contributing to KDE or using KDE's software and libraries, from the different KDE projects available, to searching on the Web and being directed to our many online resources. The diversity and variety can be a strength but it can also be overwhelming to newcomers, most of whom just have one question: "How do I get started?". That question is deceptively simple and the answers can be terribly complex. It is the job of developer documentation to provide those answers in easily discoverable ways or at least point people in the right direction.

As far as documentation goes, KDE has four main "entry" points for developers. The primary one that comes to mind will most likely be the API documentation, particularly for KDE Frameworks 5. When it comes to tutorials and guides, the TechBase and the Community wikis are the main repositories of information. And then there are what could be considered as "landing pages" or portals for developers, including the kde.org page and project-specific websites, if they exist. The work of updating KDE's developer documentation focused on these four key areas.

A. KDE API Documentation

The KDE API Documentation or Apidocs is often used as a quick reference to learn about the capabilities of classes as well as how functions work. As such, the documentation needs to be complete and precise without being too verbose. There is, of course, also a need for longer overviews and explanations, especially when introducing frameworks, classes, and non-trivial methods.

1. Content

KDE has a written policy on writing documentation for KDE Frameworks, which may also be adopted by other KDE projects that have public library code of their own. For the most part, the current set of Frameworks do comply with the minimum requirements of the policy but there is definitely room for improvement. Here are just a few areas where the apidocs could use some updating or filling up:

- A few frameworks lack an introduction that gives an overview of what functionality it offers.
- Some class descriptions are not particularly helpful (A is a class for A) while some lack a longer description aside from the required first sentence.
- Some frameworks and many classes lack code snippets to demonstrate how to properly use them. While it may not be necessary to have all classes and methods include code examples, a few critical ones could help developers come to a better understanding of how to use the code.
- None of the frameworks include example applications. It isn't a strict requirement but even just a link to KDE applications that make use of the Framework could also help give an idea on how they are used in in the wild.

2. QML

One area of concern with KDE apidocs is support for the growing number Qt Quick API references in our libraries. The apidocs use Doxygen, which doesn't have built-in support for the young QML language. In 2013, [Aurelein Gateau developed the doxyqml](#) input filter for Doxygen. In a nutshell, it allows comments to be processed by Doxygen into the appropriate outputs. This has served us well for years but it also comes with some problems that heavy QML users like Plasma and Kirigami have been running into.

Doxygen practically treats QML just like normal C++ code and at times exposes and formats information that may not be of help or interest to QML users. This particularly affects developers making use of Qt Quick and Javascript API without any need to know about C++ internals. They may also start depending on registered QML names that often get changed or break. With the increased use of Qt Quick, KDE needs a solution that will produce better QML API documentation on par with Qt's own.

3. Style

Aside from these points related to content, there are also some stylistic issues with the Apidocs website. The two biggest ones are:

- Pages for class and namespaces don't show the class name or namespace name at the top of the page (https://bugs.kde.org/show_bug.cgi?id=406588)

- The column for parameter and return names are too narrow, causing their descriptions to be too close and look like they are run-in sentences (https://bugs.kde.org/show_bug.cgi?id=407420)

These may be minor issues compared to content but they also reduce the readability and usability of the documentation. Fortunately, of the four areas mentioned above, the apidocs is the most programmatic and most automated form of documentation. In theory, it could be easier to check the documentation if it is outdated or out of sync with the API itself. Of course, it would require content to exist in the first place.

B. KDE Wikis

The KDE Community operates three wikis, two of which cater to two different kinds of developers. It was decided during the 2016 KDE CERN Sprint to keep the two wikis separate and delineate their specific purpose and target audience. The work to move content between the wikis to their proper location was started but has not yet finished.

1. General Concerns

One of the biggest difficulties with the wikis is discovery. For those outside the community and wanting to get in, it isn't immediately evident where they should go. The goals and audiences for the wikis are stated on the front page but not completely clear. Other documentation and websites would link to different wikis, sometimes for the same purpose. Particularly on TechBase, there was no clear starting point for external developers.

In general, key pieces of information are in great need of updating. This is especially true for tutorials on TechBase but even migrated content in the Community Wiki have to be reviewed and updated as necessary. There are also pages that are no longer relevant or compatible with current versions of KDE software but are not clearly marked as such.

2. TechBase

Originally the developer wiki (as opposed to UserBase for end users), TechBase has been revamped to be the hub for external developers, that is developers and projects not part of the KDE umbrella but who are interested in using KDE Frameworks and other application libraries. It also targets developers and designers who want to create add-ons for KDE software like the Plasma workspaces or Education and Games applications. As such, it is one of the key areas where the community can put its best foot forward to people outside of KDE.

Unfortunately, the wiki has suffered from overgrowth and neglect. TechBase contains a rich diversity and amount of information that, unfortunately, has not been updated to current version of libraries and applications. It no longer reflects the current state of software nor the decision to split internal and external developer documentation.

3. Community Wiki

In contrast, the Community Wiki is unsurprisingly very active and thriving. Instead, organization and information density are its biggest pain points. There are cases when different pages for the same thing exist or are not easily found without using MediaWiki's sometimes not so helpful search. There are also cases where information is also outdated, most likely overlooked and buried under other more recent pages. Fortunately, the wiki has very active contributors that are keeping some critical pages, like Guidelines and HOWTOs, up-to-date.

C. Onboarding and General Documentation

1. Gettings Started

When welcoming interested new developers, the most frequently asked question: "How do I get started?" The Onboarding initiative has made great progress in setting up sites and chat rooms to help ease contributors into the community. One important part of that onboarding process is having clear documentation that can help developers get started

quickly with as little friction as possible. It also makes it easier for community members to point to existing documentation to avoid having to repeat the same thing over and over again.

In addition to search engines and chat (IRC and Matrix), new developers might start their discovery from KDE's main website, particularly its Develop section. This page could serve as a hub and starting point for developers of all kinds, pointing them to other developer documentation and channels. The wikis also need to have a clear path for visitors to follow, something that the Community Wiki has already been developing.

One particular type of developer documentation that might need re-evaluation is KDE's books, namely the KDE Developer Guide and the KDE Frameworks Cookbook. Both books have not been updated in years, with the Developer Guide even predating KF5. The Frameworks Cookbook is at least more current, though it also needs both updating and more content. The more pressing question is whether these are still worth updating or if they should be integrated into the rest of the documentation with an option for a printout.

2. Project-specific concerns

Beyond documentation for KDE in general, several projects also have their own needs as far as documentation is concerned. Both Plasma and Kirigami share the same concern over support for QML and Javascript API documentation. The Kirigami team has expressed the need for high-level, high-quality developer documentation outside of the Wikis, as the limitations and workflow of wikis don't meet their needs. The HIG team is also looking for more code examples and screenshots to add to the KDE Human Interface Guidelines.

Part 2. Proposals

Identifying areas that need improvement in our developer documentation is just a small part of what needs to get done and some might already be well aware of those pain points. More important, of course, is devising a strategy to address those problems. Beyond just updating the documentation, however, it is equally important to make sure we have systems in place to make sure they don't descend to a state of decay and neglect yet again. Here are some of the possible solutions that the community could take up in the coming months to bring our developer documentation up to snuff.

A. Updating

1. API Documentation

There is no getting around the fact that we do have to go through the Frameworks one by one to ensure they have enough content to be helpful to both new and old developers alike. Given the amount of content to be covered, one has to be a bit strategic in that process and prioritize frameworks that have the heaviest use or may be of most interest to developers, especially external ones that may not have that much interest in integrating with Plasma workspaces. The list in the Appendix is one such proposal based on those criteria.

In addition to checking the frameworks' compliance with the documentation policy, bulk of the work will involve expanding the text of the documentation and adding code examples where appropriate. Fixing the apidocs presentation issues could be done in parallel and might be relatively easy for those familiar with KApidox, Doxygen, and the Bootstrap framework.

Work on the Frameworks apidocs could perhaps be publicized as part of the Framework's fifth anniversary this year. It could help raise awareness of the Frameworks as something that can be used and useful for non-KDE Qt developers as much as it is for KDE developers. Each framework whose documentation gets updated could get highlighted, demonstrating the framework's capabilities and how to use them

in applications. The content for these, of course, could be taken from the apidocs or added to them.

2. TechBase Wiki

The TechBase Wiki should be more than just a dumping ground for tutorials, many of which are outdated anyway. Along with the KDE.org Develop page, it should be a welcoming hub for external developers to find the information they need about Frameworks, libraries, extensions, and more. These developers might also be interested in developing open source Linux applications without applying to be part of the KDE community and the wiki should also offer information on tools to get them on their way.

There is also a possibility that TechBase will be some developers' first chance to get to know some KDE projects beyond what they're interested in. It could, then, be an opportunity to present them with some of KDE's popular and interesting products and projects. These include Plasma and Plasma Mobile, Kirigami, KDE Connect, KDE PIM, and others.

In addition to updating existing content, there is also a need to create new content, like a Getting Started and Development landing pages that serve as entry points for developers. Without going deep into KDE architecture topics, developers could perhaps benefit from information about Phonon for multimedia projects, Akonadi for integrating with the PIM suite, and the new notification system for better integration with the Plasma workspace.

Finally, TechBase needs to be pruned. Content for the Community Wiki should be transferred and obsolete information should at least be marked as such. Unused or unnecessary pages should be marked for deletion as well. Given how many of the pages in TechBase seem to have translation units associated with them, communication with translators is also needed. The Appendix includes a list of such pages and proposed actions to take for them.

3. Community Wiki

The bulk of the work for the Community Wiki is mostly organization, putting pages under topical "sub-pages" and teams/projects. Sorting out the clutter will help in keeping pages up-to-date by providing a clear structure that writers and developers can go through. It also helps distinguish pages that need to be regularly checked for information, like schedules and tutorials, versus those that can simply be left alone as historical information, like team meetings and past events.

While regularly updated, the development section for Guidelines and HOWTOs should also be checked to ensure that content is also complete and coherent. Next to the apidocs, these tutorials should be treated as THE documentation for developers and care must be taken that they reflect current best practices and information. Fortunately, the wiki system makes it extremely easy to update the content. A list of pages with proposed actions can also be found in the Appendix.

As with TechBase, the Community Wiki could use some new content or updated versions of old documentation. The old Pillars of KDE, for example, could be replaced with a version that reflects the situation with KF5 and Plasma 5. It is also useful to document upcoming new workflows, like the current migration to GitLab (Invent).

4. Onboarding, General Development, and Teams

The current KDE Develop landing page is already good in that it links to other pages or sites of interest to developers. It just needs a few pieces, like links to both TechBase and Community wikis (particularly Get Involved), with clear explanations of what each site is for. It would also be beneficial if the landing page offered an onboarding process similar to what Plasma Mobile has.

Some focus needs to be given to the Plasma and KWin tutorials and documentation on the wiki, as these are some of the ways both developers and theme makers start getting involved with the larger community. The Kirigami and HIG teams are also looking for technical writers to help fill the respective projects' documentation.

B. Maintaining

Updating KDE's developer documentation is already quite a task the first time around but without a sustainable maintenance strategy, the community could find itself in the same position again after a few years. There is sadly no magic script or program that will fully automate the process. There are, however, a few things that can be done to at least ease the burden of checking the documentation.

Given how the apidocs are part of the source themselves, it might be easier to keep tabs on them compared to other written documentation. The regular release cycle of the KDE Frameworks also makes it easier to schedule checks for documentation, possibly on a bi-monthly cycle. There is also an attempt to use the abi-compliance-checker tool (<https://phabricator.kde.org/T3689>) which could potentially be used to automate checks for changes in API.

Admittedly, maintaining the Wikis can be a laborious task, especially considering the highly dynamic nature of the software. It isn't one that easily lends itself to automation. There are a few things that could at least help make maintenance less grueling:

- Have a checklist of "hot spot" pages to always check. These would include highly important pages as well as those whose content might change regularly, like tutorials.
- Timestamps and Recent Changes are good indicators of a page's health. MediaWiki's SpecialPages could also help narrow down the pages that need to be monitored or cleaned up.
- Keep wiki pages organized to help reduce the places to check
- Schedule a regular period for checking and updating docs, to coordinate and create a synergy around documentation efforts

Ideally, certain parts of documentation maintenance should be automated, generating content from files or code hosted in our servers or Git repos. This could help reduce the number of places to check and update and, if it's source code, could be run against linters and tested for compilation errors. This could be a matter for further investigation and research in the months ahead.

Part 3. Actions Taken

Once the analysis and planning stages were done, it was time to take the first steps towards implementing those plans. Here are just some of the things that were already accomplished (a "live" version is available [on the Community Wiki](#)).

A. API Documentation

- Bugs were filed against KAPidox to track the two presentation issues mentioned above:
 - Class apidocs don't show class name in page header - https://bugs.kde.org/show_bug.cgi?id=406588
 - Parameter name and description are too close to each other. - https://bugs.kde.org/show_bug.cgi?id=407420

B. TechBase Wiki

- The landing page has been filled with more content, reorganized, and cleaned up - https://techbase.kde.org/Welcome_to_KDE_TechBase
- KDE Frameworks 5 page now has more content - <https://techbase.kde.org/KF5>
- Created a landing page for Getting Started - https://techbase.kde.org/Getting_Started
- Created a new tutorial for setting up development - https://techbase.kde.org/Development/Tutorials/Setting_Up
- Cleaned up the list of Tutorials and moved deprecated topics down the page - <https://techbase.kde.org/Development/Tutorials>
- Cleaned up the Development Tools page - <https://techbase.kde.org/Development/Tutorials>
- Some pages have been marked for archiving, deleting, or updating

C. Community Wiki

- Started migrating pages from TechBase (Special:Export and Special:Import)
- Some pages have been marked for archiving, deleting, or updating

D. Others

- Filled in content for the Kirigami wiki pages (<https://techbase.kde.org/Kirigami> and <https://community.kde.org/Kirigami>)

Part 4. Next Steps

The previous section was, of course, just the gentle push to get the ball rolling. The bulk of the work to update the developer documentation lies in the months ahead. This part lists some of the concrete steps that need to be taken to bring all of those plans to fruition. These can be done sequentially or in parallel, depending on the manpower available. It also has a list of things that would, perhaps, be nice to have as far as developer documentation is concerned.

A. API Documentation

- Going through the Frameworks one by one. The Appendix contains a proposed list for the order Frameworks to review and update based on frequency of use, popularity, or interest
- Inquire about the possibility of either improving QML support with the current Doxygen-based tooling or, if really necessary, look into other solutions
- Fix bugs related to the presentation of docs
- Promote the use of KDE Frameworks 5 starting July to mark its fifth anniversary

B. TechBase Wiki

- Continue the migration of pages to the Community Wiki and cleanup of obsolete pages (See Appendix)
- Update marked tutorials and archive those that are no longer relevant (See Appendix)
- Create new content like the KDE Software Architecture or newer, more relevant tutorials

C. Community Wiki

- Organize pages and place them under appropriate sub-pages (See Appendix)
- Create a common template for Projects and Teams that contain important information such as web pages, communication channels, and maintainers
- Improve Guidelines and HOWTOs
- Clean up and organize the front page to reduce information density and make it more visually interesting

D. Onboarding and General Documentation

- Improve the KDE.org Develop page by adding more information, links, and a possible onboarding process
 - Update TechBase tutorials for Plasma and KWin
- * Create new documentation for Kirigami
- * Add screenshots and code examples to the HIG

E. Wishlist

- Investigate methods to automate checking changes in API for updating the documentation
- Investigate ways to have code examples hosted on KDE servers/Git and embedded and shared where needed (Wiki, etc.)
- Organize a more formal Documentation Team for both developer as well as user documentation
- Have a regular schedule for checking and updating developer documentation as well as making "releases"

Afterword

Three months is naturally not enough to update KDE's developer documentation, especially given how much of it exist and how much have become stale. It is also not a task that a single person can accomplish within a short time. Updating KDE's developer documentation is, of course, a quest for the entire KDE community.

Ideally, developers will also be the ones to shepherd their code's documentation. Ideal but not always possible or even advisable given constraints on time and human resources. More than just a task for the community, updating and maintaining KDE's documentation, both for developers and for users, presents an opportunity to attract and invite new contributors, particularly technical writers, to get involved with the community without necessarily writing code themselves.

Appendix A - KDE Frameworks 5 Apidocs

This section presents a proposed order for reviewing and updating the KDE Frameworks Apidocs. They are mostly based on two criteria. For one, the framework has seen massive use in KDE projects, like KNotifications or KIO. For another, the frameworks may be of interest and use to external developers, even outside of a KDE workspace or even Linux context. These include direct extensions of Qt like KCoreAddons and KItemViews.

The ordering is highly subjective and non-authoritative. Some Frameworks are marked as "Low" priority because they may not be used in the conventional sense of API, like icons, or are tools that are not directly used inside other programs, like ECM and KApidox. Work on the frameworks can also be done in sequence by tier or in parallel, depending on the amount of manpower available.

It will be observed that Plasma (Framework) and Kirigami are not included in the list as they may deserve special attention and processing due to their heavy use of the Qt Quick framework. Phonon is also included in the Tier 1 group due to its use and importance, despite technically not being a part of KF5.

A. Tier 1

1. Critical Priority

- KCoreAddons
- KGuiAddons
- KItemModels
- KItemViews
- KWidgetsAddons
- Phonon

2. High Priority

- KArchive
- KConfig
- KI18n
- KSyntaxHighlighting
- KWindowSystem
- Sonnet
- ThreadWeaver

3. Medium Priority

- Attica
- KCodecs
- KDBusAddons
- KIdleTime
- KWayland
- Solid

4. Low Priority

- BluezQt
- KDnssd
- KHolidays
- KPlotting
- ModemManagerQt
- NetworkManagerQt
- ECM
- KApiDox
- Prison
- BreezeIcons
- Oxygen-Icons
- Qqc2-desktop-style

B. Tier 2

1. Critical Priority

- KNotifications

2. High Priority

- KAuth
- KCompletion
- KPackage

3. Medium Priority

- KActivities
- KFileMetaData
- KJobWidgets
- KPty

4. Low Priority

- KCrash
- KDocTools
- KImageFormats
- KUnitConversion
- Syndication

C. Tier 3

1. Critical Priority

- KDeclarative
- KIO
- KParts
- KXmlGui

2. High Priority

- KCMUtils
- KNewStuff
- KService
- KTextEditor
- KTextWidgets

3. Medium Priority

- Baloo
- KBookmarks
- KConfigWidgets
- KNotifyConfig
- KRunner
- Purpose

4. Low Priority

- KDED
- KGlobalAccel
- KPeople
- KWallet
- KActivitiesStats

- KDesignerPlugin
- KDESu
- KDEWebKit
- KEmoticons
- KIconThemes
- KInit
- KXmlRpcClient

D. Tier 4 and Porting Aids (Low Priority)

- FrameworkIntegration
- KDELibs4Support
- KHtml
- KJS
- KJsEmbed
- KMediaPlayer
- Kross

Appendix B - TechBase Wiki Pages

As KDE's initial wiki for all developers, the TechBase wiki has accumulated a wealth of information, many of which have been left unattended in the wake of the Community Wiki. Some are not even relevant anymore for the current version of KDE software. This section lists some, but definitely not all, of the pages in TechBase and the proposed actions to be taken for them.

These actions are just proposals and the final decision will be up to the documentation writers and wiki caretakers. Pages proposed for deletion can be kept intact but should be marked appropriately. Great care must also be taken for pages that have translation units attached to them as actions may negatively affect the hard work put in by our translators.

A. Completed

These pages have already been updated or reviewed during the three-month scope of the documentation updating project. Of course, they can and should be updated as needed.

- https://techbase.kde.org/Welcome_to_KDE_TechBase - Updated
- <https://techbase.kde.org/KF5> - Updated
- <https://techbase.kde.org/Development/Tutorials> - Updated (Just the list, not tutorials themselves)
- <https://techbase.kde.org/Kirigami> - New
- <https://techbase.kde.org/Development/Guidelines/HCI/Checklists> - Migrated to Community Wiki
- <https://techbase.kde.org/Projects/Games> - Migrated to Community Wiki
- https://techbase.kde.org/Development/Tutorials/Using_Qt_Designer - Migrated to Community Wiki
- https://techbase.kde.org/Development/Tutorials/Writing_Qt_Designer_Plugins - Migrated to Community Wiki
- <https://techbase.kde.org/Development/Tutorials/Accessibility> - Migrated to Community Wiki
- <https://techbase.kde.org/Projects/Decibel> - Migrated to Community Wiki

- https://techbase.kde.org/Development/FAQs/General_FAQ - Migrated to Community Wiki
- https://techbase.kde.org/Development/FAQs/Technical_FAQ - Migrated to Community Wiki

B. Proposed for Deletion

These pages contain information that may no longer be needed even for historical purposes. They may be marked for deletion to be actually deleted at a later time unless the community decides to keep them around. In that case, it should be clear that the information in the page is no longer relevant or useful in any way. Pages marked for deletion should be listed at https://techbase.kde.org/Category:Proposed_deletion by using the https://techbase.kde.org/Template:Proposed_deletion template.

- <https://techbase.kde.org/Projects/Promo>
- https://techbase.kde.org/Contribute/KDE_Community_HOWTO
- https://techbase.kde.org/Distributions_with_KDE
- <https://techbase.kde.org/Development/Tutorials/Kate/KatePluginTutorial>

C. Proposed for Archiving

These pages may no longer apply to current KDE software and activities but might still be interesting for historical purposes. If they are not moved to the Community Wiki or deleted, they should be clearly marked as outdated and archived only for their historical value. Pages marked for archiving should be listed in <https://techbase.kde.org/Category:Archives> by using the <https://techbase.kde.org/Template:Archived> template.

- <https://techbase.kde.org/index.php?title=Special%3AAllPages&from=ISV%2F&to=&namespace=0>
- <https://techbase.kde.org/Development/Tutorials/Decibel/GettingStarted>
- https://techbase.kde.org/Development/Tutorials/Decibel/Handling_TextChannels

- https://techbase.kde.org/Development/Tutorials/Deploying_Qt_Ruby_Applications_as_a_Debian_packages_for_Kubuntu
- https://techbase.kde.org/Development/Tutorials/Developing_Qt4_Applications_using_Qt_Designer_and_Ruby_on_Kubuntu
- https://techbase.kde.org/Development/Tutorials/Qt4_Ruby_Tutorial
- <https://techbase.kde.org/Development/Tutorials/Plasma4/RubyApplet>
- https://techbase.kde.org/Languages/Ruby/Ruby-Qt/KDE_Book
- <https://techbase.kde.org/Development/Tutorials/Games/KStandardGameAction>
- <https://techbase.kde.org/Development/Tutorials/Games/Highscores>
- https://techbase.kde.org/Development/Tutorials/Games/Palapeli_Slicers
- <https://techbase.kde.org/Development/Tutorials/Games/KALEngine>
- <https://techbase.kde.org/Development/Tutorials/Games/KGLEngine2d>
- <https://techbase.kde.org/Development/Tutorials/KDE2>
- <https://techbase.kde.org/Development/Tutorials/KDE3>
- https://techbase.kde.org/Development/Tutorials/Programming_Tutorial_KDE_4
- <https://techbase.kde.org/Development/Tutorials/Metadata/Nepomuk>
- <https://techbase.kde.org/Development/Tutorials/PolicyKit/Introduction>
- https://techbase.kde.org/Development/Tutorials/PolicyKit/Helper_HowTo
- https://techbase.kde.org/Development/Tutorials/Printing_Hello_World
- https://techbase.kde.org/Development/Tutorials/Printing_Print_Dialog
- [Development/Tutorials/Plasma4]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Development%2FTutorials%2FPlasma4&namespace=0&hideredirects=1>
- https://techbase.kde.org/Development/Tutorials/Introduction_to_Goya_usage
- <https://techbase.kde.org/Development/Tutorials/SuperKaramba>
- https://techbase.kde.org/Development/Tutorials/Writing_file_analyzers

D. Proposed for Migrating to Community Wiki

These pages contain information used by KDE projects and teams too coordinate development and other activities. They may not be of direct interest to external developers and are a better fit for the Community Wiki than in TechBase. Migrated pages then have to be either Updated or Archived as needed. Pages proposed to be migrated to the Community Wiki should be listed in

https://techbase.kde.org/Category:Proposed_move_to_community by using the [https://techbase.kde.org/Template:Proposed_move_to_community template](https://techbase.kde.org/Template:Proposed_move_to_community_template).

- <https://techbase.kde.org/ECM5/IncompatibleChangesKDELibs4ToECM>
- <https://techbase.kde.org/index.php?title=Special%3AAllPages&from=KF5%2F&to=&namespace=0>
- <https://techbase.kde.org/Projects>
- <https://techbase.kde.org/Projects/Usability>
- https://techbase.kde.org/Projects/English_Breakfast_Network [Update]
- <https://techbase.kde.org/Projects/Oxygen> [Archive]
- <https://techbase.kde.org/Projects/KGLEngine2D> [Archive]
- <https://techbase.kde.org/Projects/KioFuse> [Archive]
- <https://techbase.kde.org/Projects/Nepomuk> [Archive]
- <https://techbase.kde.org/Projects/Silk/> [Archive]
- <https://techbase.kde.org/Projects/kdesu> [Update]
- <https://techbase.kde.org/Projects/WebKit> [Ask]
- <https://techbase.kde.org/Projects/SuperKaramba> [Archive]
- [Edu]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Projects%2FEdu&namespace=0&hideredirects=1> [Update]
- <https://techbase.kde.org/Projects/KdeFinance> [Ask]
- <https://techbase.kde.org/Projects/AboutData>
- <https://techbase.kde.org/Projects/AboutData/DOAP>
- <https://techbase.kde.org/Projects/Acid3>
- https://techbase.kde.org/Projects/Contributor_Paths
- <https://techbase.kde.org/Projects/DataEngines> [Move under Plasma]
- <https://techbase.kde.org/Projects/Documentation/>*
- <https://techbase.kde.org/Projects/KAppTemplate/TODO>
- <https://techbase.kde.org/Projects/KAuth/>*
- https://techbase.kde.org/Projects/KDE_on_Solaris/*
- <https://techbase.kde.org/Projects/KHTML>
- <https://techbase.kde.org/Projects/KMyMoney>
- <https://techbase.kde.org/Projects/KNS2/>*
- <https://techbase.kde.org/Projects/KTimeTracker>
- <https://techbase.kde.org/Projects/Kexi/Build>
- <https://techbase.kde.org/Projects/Kooka>
- <https://techbase.kde.org/Projects/Mobile/>*
- <https://techbase.kde.org/Projects/MoveToGit/>*
- <https://techbase.kde.org/Projects/Okteta>

- <https://techbase.kde.org/Projects/Snozenotify>
- <https://techbase.kde.org/Projects/Social-Desktop>
- <https://techbase.kde.org/Projects/Solid/>*
- https://techbase.kde.org/Projects/Summer_of_Code/*
- <https://techbase.kde.org/Projects/Tellico/Compiling>
- <https://techbase.kde.org/Projects/Utils/kwallet/Benchmark>
- https://techbase.kde.org/Projects/kde.org/Application_of_the_month
- <https://techbase.kde.org/Projects/kde.org/Meetings/>*
- <https://techbase.kde.org/Projects/kde.org/Planning>
- [Projects/Plasma]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Projects%2FPlasma&namespace=0&hideredirects=1> [Update]
- [Development/Architecture]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Development%2FArchitecture%2F&namespace=0&hideredirects=1>
[Archive]
- [Getting Started]
<https://techbase.kde.org/index.php?title=Special%3AAllPages&from=Getting+Started&to=&namespace=0&hideredirects=1>
- <https://techbase.kde.org/Contribute/Konqueror-FileManagement> [Archive]
- https://techbase.kde.org/Contribute/List_of_KDE_Modules [Update]
- https://techbase.kde.org/Contribute/Quality_Team [Archive]
- https://techbase.kde.org/Contribute/Quality_Team/Essay [Archive]/
- [Events]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Events&namespace=0&hideredirects=1>
- [Localization]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Localization&namespace=0&hideredirects=1>
- [Git]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Development%2FTutorials%2FGit&namespace=0&hideredirects=1>

E. Needs Update

This list represents the tip of the iceberg of pages that need to be updated or even created. These are usually involve tutorials or information that may be useful or interesting even to external developers. These also includes pages that need to be reviewed if they're still worth keeping around, in which case they also need to be updated. The https://techbase.kde.org/Category:Needs_Attention and <https://techbase.kde.org/Category:Improve> categories lies some of these pages using the <https://techbase.kde.org/Template:Review> and <https://techbase.kde.org/Template:Improve> templates, respectively.

- <https://techbase.kde.org/ECM5> (or ECM)
- https://techbase.kde.org/KDE_PIM
- <https://techbase.kde.org/Projects/KWin> [Split between internal and external]
- <https://techbase.kde.org/Projects/TechBase>
- [Development/Tutorials/Akonadi]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Development%2FTutorials%2FAkonadi%2F&namespace=0&hideredirects=1>
- [Development/Tutorials/D-Bus]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Development%2FTutorials%2FD-Bus&namespace=0&hideredirects=1>
- https://techbase.kde.org/Development/Tutorials/KAuth/KAuth_Basics
- https://techbase.kde.org/Development/Tutorials/KAuth/KAuth_Actions
- https://techbase.kde.org/Development/Tutorials/KAuth/Helper_HowTo
- https://techbase.kde.org/Development/Tutorials/KAuth/KCM_HowTo
- https://techbase.kde.org/Development/Tutorials/Updating_KConfig_Files
- https://techbase.kde.org/Development/Tutorials/KDevelop/Creating_a_class_template
- https://techbase.kde.org/Development/Tutorials/KDevelop/Creating_a_project_template
- https://techbase.kde.org/Development/Tutorials/KIO_Slaves/Hello_World
- https://techbase.kde.org/Development/Tutorials/KIO_Slaves/Using_KIO_Slaves_in_your_Program
- https://techbase.kde.org/Development/Tutorials/KWin/Effects/JS_API
- <https://techbase.kde.org/Development/Tutorials/KWin/Scripting>

- <https://techbase.kde.org/Development/Tutorials/KWin/Scripting/API>
- https://techbase.kde.org/Development/Tutorials/KWin/Scripting/API_4.9
- <https://techbase.kde.org/Development/Tutorials/KWin/WindowSwitcher>
- https://techbase.kde.org/Development/Tutorials/Kate/KTextEditor_Plugins
- https://techbase.kde.org/Development/Tutorials/Kate/KTextEditor_Plugins_Advanced
- https://techbase.kde.org/Development/Tutorials/Kate/KTextEditor_Example
- <https://techbase.kde.org/Phonon>
- <https://techbase.kde.org/Development/Tutorials/Phonon/Backends>
- https://techbase.kde.org/Development/Tutorials/Phonon/Simple_Media_Player
- <https://techbase.kde.org/Development/Tutorials/Services/Introduction>
- <https://techbase.kde.org/Development/Tutorials/Services/Traders>
- <https://techbase.kde.org/Development/Tutorials/Services/Plugins>
- <https://techbase.kde.org/Development/Tutorials/Solid/Introduction>
- https://techbase.kde.org/Development/Tutorials/Solid/Device_Discovery
- https://techbase.kde.org/Development/Tutorials/Solid/Network_Management
- https://techbase.kde.org/Development/Tutorials/Solid/Device_Actions
- [Development/Tutorials/Plasma]
<https://techbase.kde.org/index.php?title=Special%3APrefixIndex&prefix=Development%2FTutorials%2FPlasma&namespace=0&hideredirects=1>
- https://techbase.kde.org/Development/Tutorials/KCM_HowTo
- <https://techbase.kde.org/Development/Tutorials/Sonnet/SonnetTutorial>
- <https://techbase.kde.org/Development/Tutorials/SystemActivity/Scripting>
- https://techbase.kde.org/Development/Tutorials/Using_KParts

These pages are for review by respective developers/projects/teams:

- <https://techbase.kde.org/ECM5>
- https://techbase.kde.org/Development/Tutorials/Calligra_Overview
- https://techbase.kde.org/Development/Tutorials/Write_a_Flake_Plugin
- https://techbase.kde.org/Development/Tutorials/Generic_Calligra_Plugin_Creation
- https://techbase.kde.org/Development/Tutorials/KSpread_Scripting
- https://techbase.kde.org/Development/Tutorials/KWord_Scripting
- <https://techbase.kde.org/Development/Tutorials/Kexi>
- <https://techbase.kde.org/KDevelop5> (or KDevelop)

- <https://techbase.kde.org/Marble>
- https://techbase.kde.org/Development/Tutorials/Debugging_Linker_Errors
- <https://techbase.kde.org/Development/Tutorials#Kross>
- <https://techbase.kde.org/Development/Tutorials/KPixmapCache>
- <https://techbase.kde.org/Development/Tutorials/KPlotWidget>
- https://techbase.kde.org/Development/Tutorials/Physical_Simulation
- <https://techbase.kde.org/Development/Tutorials/KWallet>
- <https://techbase.kde.org/Development/Tutorials/Graphics/Performance>
- https://techbase.kde.org/Development/Tutorials/QtDOM_Tutorial
- <https://techbase.kde.org/Development/Tutorials/Sensors>
- https://techbase.kde.org/Development/Tutorials/Writing_kontakt_plugins
- <https://techbase.kde.org/Development/Tutorials#Localization> [Update links on <https://l10n.kde.org/>]
- <https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Localization/>
- https://techbase.kde.org/Development/KDevelop-PG-Qt_Introduction

Appendix C - Community Wiki Pages

In contrast to TechBase, the KDE Community Wiki regularly receives new updates as developers add or remove information. The main concern here is one of organization to help better maintain the information in the future and to make it easier grasp the knowledgebase at a glance. This section lists the actions that need to be taken on some pages and, in some cases, the order they need to be reviewed.

A. Move to Sections (Sub-pages)

Some pages have been crated at the very top level of the wiki but better belong under some other page. Keeping the information in the wiki organized can aid in maintaining the wiki later on as it will be easier to see which ones are out of place or in need of regular updates. These pages are listed below along with their proposed new locations.

- https://community.kde.org/20110213_GitWorkflowAgenda - Sysadmin or Infra
- https://community.kde.org/20110213_GitWorkflowAgenda/StevesIdea - Sysadmin or Infra
- https://community.kde.org/20110213_GitWorkflowLog - Sysadmin or Infra
- https://community.kde.org/20th_birthday - Promo
- <https://community.kde.org/AdaLovelaceDay> - Events
- <https://community.kde.org/AdaLovelaceDay/2012> - Events
- https://community.kde.org/AdaLovelaceDay/2012/LaTeX_with_Kile - Events
- https://community.kde.org/Akademy_Tools - Academy/Tools
- https://community.kde.org/BoF_2012 - Events
- https://community.kde.org/Bugsquad/Quick_Introduction_to_Bugzilla - Bug Tracking/Triaging
- <https://community.kde.org/Braindump> - Calligra (No longer developed, update with old info)
- https://community.kde.org/Calendar_API_QM - Plasma
- https://community.kde.org/Calligra_Active - Calligra
- <https://community.kde.org/ChapterOrdering> - Amarok
- <https://community.kde.org/Events/Akademy/> Academy
- <https://community.kde.org/GCi> - GoogleCodeIn
- https://community.kde.org/Hosting_a_KDE_event - Promo or Archive

- <https://community.kde.org/Introduction> - Amarok
- <https://community.kde.org/KDE-WWW/WebWorld2011> - KDE.org
- <https://community.kde.org/KDE-WWW/WebWorld2011/log> - KDE.org
- https://community.kde.org/KDE/Junior_Jobs - Getting_Involved
- [https://community.kde.org/KDE_Project_History/KDE_One_\(Developer_Meeting\)](https://community.kde.org/KDE_Project_History/KDE_One_(Developer_Meeting))
- KDE (Under History)
- [https://community.kde.org/KDE_Project_History/KDE_Three_\(Developer_Meeting\)](https://community.kde.org/KDE_Project_History/KDE_Three_(Developer_Meeting))
- KDE (Under History)
- https://community.kde.org/KDE_Windows/Meetings/- Windows
- https://community.kde.org/KDE_at_QCS/QCS_2011 - Events/QCS
- https://community.kde.org/KDE_at_QCS/QCS_2012 - Events/QCS
- https://community.kde.org/KDE_for_sysadmins/Kiosk/DS2011_Meeting_Notes - Sysadmin
- <https://community.kde.org/Konqi> - KDE or Promo
- <https://community.kde.org/Leadership> - KDE
- https://community.kde.org/Legal/Using_External_Trademarks - KDE
- <https://community.kde.org/MakingTarballs> - Krita (if not outdated)
- https://community.kde.org/Meetings/February_2010_Krita_meeting - Krita
- https://community.kde.org/Meetings/Mid_2009_meeting/Krita_Notes - Krita
- <https://community.kde.org/Nepomuk/GSoC/2011/> - GSoC
- <https://community.kde.org/OutreachProgramForWomen> - KDE_Women
- https://community.kde.org/Projects/KDE_on_Windows/Getting_a_Backtrace_with_DrKonqi - Windows
- https://community.kde.org/Projects/KDE_on_Windows/Tools - Windows
- <https://community.kde.org/Projects/KDevelop5/ReleaseTodo> - KDevelop
- <https://community.kde.org/Projects/Liberty> - Top-level Liberty
- <https://community.kde.org/Projects/Maemo/> - KDE_Mobile
- <https://community.kde.org/Projects/Mobile/MaemoVM> - KDE_Mobile
- https://community.kde.org/QML_issues - Plasma
- <https://community.kde.org/Pulseaudio> - RU, rename
- <https://community.kde.org/SoCiS/> - SoCiS
- https://community.kde.org/Sound_effects_and_sound_visualization_in_Artikulate
- KDEEdu/Artikulate
- https://community.kde.org/Website_Maintenance/Updates - Krita

B. Proposed for deletion

There are some pages that may have no relevance to the KDE community, even for historical purposes. There are also pages that have been created temporarily but undeleted. These pages are listed below but more might be listed in https://community.kde.org/Category:Proposed_deletion using the https://community.kde.org/Template:Proposed_deletion template.

- https://community.kde.org/Adaptivity_and_Layout - Empty page with a dead link and no context
- https://community.kde.org/Back_to_basics - "This page is not a project so much as a list of bugs compiled by a single user."
- <https://community.kde.org/Bodega> - "The user who created this page, no longer seems to be active and hence no one maintains this page"
- <https://community.kde.org/Confidence> - "The project no longer exists"
- <https://community.kde.org/Confidence/Design/Navigation> - "The project no longer exists"
- https://community.kde.org/Current_Iconlist - "this page is no longer required"
- <https://community.kde.org/EURO2012> - Totally unrelated to KDE
- <https://community.kde.org/ElisaReleaseSchedule> - blank page, duplicate of <https://community.kde.org/Elisa/ElisaReleaseSchedule>
- https://community.kde.org/How_to_create_Look_and_Feel_Package - Moved To https://userbase.kde.org/Plasma/Create_a_Look_and_Feel_Package
- https://community.kde.org/Internet_Relay_chat - Empty page, duplicate of https://community.kde.org/Internet_Relay_Chat
- <https://community.kde.org/KDE-WWW> - Irrelevant (Superseded by <https://community.kde.org/KDE.org>)
- <https://community.kde.org/KDE-WWW/kde.org-menu> - Empty page
- https://community.kde.org/KDE_Applications - Unused page
- https://community.kde.org/KDE_Project_History - Blank Page
- <https://community.kde.org/KSecretService> - "Page not maintained"
- <https://community.kde.org/LibSolid> - Empty page
- https://community.kde.org/Mail_API_QML - Outdated and unused
- https://community.kde.org/Move_usee - Empty page
- <https://community.kde.org/Navigation> - Unused content
- https://community.kde.org/PR_for_Projects_workshop - Empty page

- https://community.kde.org/QT_Creator_Integration_ondiscussionpage:Talk:Necessitas - Old and misplaced
- https://community.kde.org/Rust_Qt_Binding_Generator - Just a link to Phab/Git repo
- <https://community.kde.org/Sprints/Howto> - "This howto has been superceded by the KDE Sprint Policy"
- https://community.kde.org/Test_link - Unused page
- <https://community.kde.org/ThorstenStaerk> - Unused page
- https://community.kde.org/User_talk.D_ed/Testing - Unused page
- <https://community.kde.org/Userbase.kde.org> - Moved to <https://userbase.kde.org/KAlgebra/Homework>
- <https://community.kde.org/Konversation/InputFilter2> - No longer relevant
- https://community.kde.org/31_mouse_buttons_via_kde%27s_%27qt-copy%27 - "No longer required"

C. For Review

These pages may still be relevant or useful for informational purposes. They may have to be reviewed and updated, moved, or archived as necessary.

- https://community.kde.org/Commit_Digest/*
- https://community.kde.org/Common_Task_Videos
- https://community.kde.org/Easy_Encryption
- <https://community.kde.org/GSoD>
- <https://community.kde.org/Juk>
- <https://community.kde.org/KDE/Partners>
- https://community.kde.org/KDE_Applications/Cross_Platform_Issues
- https://community.kde.org/KDE_Core/*
- https://community.kde.org/KDE_Women
- <https://community.kde.org/KRunner/Problems>
- <https://community.kde.org/LibKVkontakte/>*
- <https://community.kde.org/MPRIS>
- <https://community.kde.org/Necessitas/>*
- <https://community.kde.org/Ocs-server/>*
- <https://community.kde.org/Playground>
- <https://community.kde.org/Playground/MediaPlayer>
- https://community.kde.org/Project_Activity_Reports

- <https://community.kde.org/Rekonq/>*
- <https://community.kde.org/Startkde>
- https://community.kde.org/Breeze_GTK_theme
- <https://community.kde.org/Dictionary>
- <https://community.kde.org/Distributions>
- https://community.kde.org/Get_KDE_Software_on_Your_Linux_Distro
- https://community.kde.org/IM_Survey_Results
- <https://community.kde.org/KDEReview>
- <https://community.kde.org/Matrix>
- <https://community.kde.org/Mentoring>
- <https://community.kde.org/Talks>
- <https://community.kde.org/Telegram>
- https://community.kde.org/Microsoft_Licensing

D. For Archiving

These pages are no longer applicable for current KDE software and projects but may still be important as historical records for the community's growth. They should be properly marked with the <https://community.kde.org/Template:Archived> template to have them listed under the <https://community.kde.org/Template:Archived> category.

- <https://community.kde.org/CommunicationCycle>
- <https://community.kde.org/Gluon/>*
- https://community.kde.org/IUP_ISI
- <https://community.kde.org/KDE/Generation5>
- <https://community.kde.org/KDE/KDE4>
- <https://community.kde.org/KDE/KDE4/Goals>
- https://community.kde.org/KDE_SC/4.11_Release_Notes
- <https://community.kde.org/KFrab>
- https://community.kde.org/KFrab_Authentication
- <https://community.kde.org/Ktimetracker>
- <https://community.kde.org/Macaw-Movies/>*
- <https://community.kde.org/Muon/2.1>
- <https://community.kde.org/NetworkManagement>
- https://community.kde.org/Open_Academy
- https://community.kde.org/Previous_versions
- https://community.kde.org/Project_Elegance/*

- <https://community.kde.org/Projects/Nepomuk>
- https://community.kde.org/Projects/Usability/KDE_Notification_User_Experience_Study
- <https://community.kde.org/QmlWeb>
- <https://community.kde.org/Qt5/Documentation/>*
- <https://community.kde.org/Research/>*
- <https://community.kde.org/Solaris/>*
- <https://community.kde.org/UCOSP/2010/Ideas>
- https://community.kde.org/Usability_Survey_Framework
- <https://community.kde.org/Xcb>

E. For Updating

These are the Community wiki pages that may need updating or at least a brief check to see if they are up-to-date. These are the pages that contributors both new and old may constantly refer to and, as such, should always be checked for "maintenance"

1. High Priority

- https://community.kde.org/Get_Involved/*
- https://community.kde.org/Guidelines_and_HOWTOs/*
- <https://community.kde.org/Infrastructure/>*
- <https://community.kde.org/Frameworks/>*
- <https://community.kde.org/Policies/>*
- <https://community.kde.org/Incubator/>*
- <https://community.kde.org/Plasma/>*
- <https://community.kde.org/KWin/>*

2. Medium Priority

- <https://community.kde.org/Phonon/>*
- <https://community.kde.org/PowerDevil/>*
- <https://community.kde.org/Solid/>*
- <https://community.kde.org/KDE> -
<https://community.kde.org/index.php?title=Special%3APrefixIndex&prefix=KDE%2F&namespace=0&hideredirects=1>

- <https://community.kde.org/KDE/Mission/>
- <https://community.kde.org/KDE/Vision/>
- <https://community.kde.org/KDE/FAQs/>
- <https://community.kde.org/Goals>
- <https://community.kde.org/Gardening/>
 - https://community.kde.org/KDE/Finding_The_Unloved
 - https://community.kde.org/KDE/Missing_Applications
- <https://community.kde.org/Android/>
- https://community.kde.org/KDE_Mobile/ - Plasma Mobile?
- <https://community.kde.org/KDEConnect/>
- https://community.kde.org/KDE_PIM/
 - <https://community.kde.org/PIM/> - Merge with KDE_PIM

3. Low Priority

- <https://community.kde.org/Events/>
- <https://community.kde.org/Sonnet>
- <https://community.kde.org/KDevelop/>
- <https://community.kde.org/Craft/>
- <https://community.kde.org/Windows/>
- <https://community.kde.org/Baloo/>

Appendix D - TechBase Development Tutorial Notes

In addition to the pages listed in Appendix B (TechBase Wiki), this section goes deeper into each of the tutorials listed on <https://techbase.kde.org/Development/Tutorials> and proposes actions that may be taken to update them, if necessary.

A. To be reviewed or updated

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/First_program

- Up-to-date
- Still correct way to do things? (KLocalizedString, KAboutData, CMake)?
- increase minimum versions required?
- What are ECM best practices

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Using_KXmlGuiWindow

- Up-to-date
- Stop using and referring to line numbers (may change in the future)

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Using_Actions

- Up-to-date
- Links to localization tutorial -> check if still relevant/updated
<https://techbase.kde.org/Development/Tutorials/Localization/i18n>
- Can we run without installing?
- Refers to XMLGUI -> needs to be update
https://techbase.kde.org/Development/Architecture/KDE4/XMLGUI_Technology
- Mention menu accelerator (&)
- Needs to discuss action collections
- Have a link to new Setting Up page

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Saving_and_loading

- For review
- Maybe use a better example of saving/loading?

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/CommandLineArguments>

- Up-to-date

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Common_Programming_Mistakes

- For review

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Session_Management

- Needs massive update to KF5 and Qt5 concepts
- Fix references to KApplication
- Double check example
- make a complete example
- Use of "KDE"

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorial/Icons>

- Update screenshot
- Move away from KIcon (kdelibs4support)
- Port to KF5
- Use of "KDE"

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Desktop_File

- Update screenshot
- Double check qmake and cmake commands
- Port to KF5
- "KDE" terms

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KConfig>

- Move away from KStandardDirs, KComponentData, KGlobal (kdelibs4support)

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Using_KConfig_XI

- Update screenshots
- Port to KF5

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Updating_KConfig_Files

- Port to KF5

- "kdelibs" -> "Frameworks"

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Services/Introduction>

- Move away from kdelibs4support
- KUrl -> QUrl
- Directly link to https://userbase.kde.org/KDE_System_Administration/KDE_FileSystem_Hierarchy

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Services/Traders>

- Up-to-date but double check it works
- Add better example

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Services/Plugins>

- Port to KF5

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Localization>

- See Appendix B

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Accessibility>

- Moved to Community Wiki

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Accessibility/Checklist>

- Moved to Community Wiki

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Accessibility/Screen_Reader_Setup

- Moved to Community Wiki

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Text-To-Speech>

- Moved to Community Wiki

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/D-Bus/Introduction>

- Port to Qt5/KF5
- Update code samples
- Remove strigi reference

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/D-Bus/Accessing_Interfaces

- Port to Qt5/KF5
- Fix links to Qt docs
- Fix CMakeLists.txt example
- Move to main page

https://techbase.kde.org/Development/Tutorials/D-Bus/Accessing_Interfaces/PkgConfigGetVar.cmake

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/D-Bus/Intermediate_D-Bus

- Port to Qt5/KF5
- Fix links to Qt docs

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/D-Bus/Creating_Interfaces

- Port to Qt5/KF5
- Fix links to Qt docs

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/D-Bus/CustomTypes>

- Port to Qt5/KF5
- Fix links to Qt docs
- Port to CMake
- Check if still needed

<https://techbase.kde.org/Development/Tutorials/D-Bus/Cpp2XmlPlugins>

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/D-Bus/Autostart_Services

- Port to Qt5/KF5
- Fix links to Qt docs

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Creating_Konqueror_Service_Menus

- Update to KF5
- Either Move to Userbase or keep here

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/Introduction>

- Port to KF5 if still in use
- Only one backend now?
- Link to KJSEmbed apidocs (or port <https://xmelegance.org/kjseembed/>)

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/Hello_World

- Port to KF5 if still in use

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/Call_Functions_in_Kross

- Port to KF5 if still in use

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/Connecting_Signals_and_slots_in_Kross

- Port to KF5 if still in use

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/Scripts-as-Plugins>

- Port to KF5 if still in use

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/Script-Actions>

- Port to KF5 if still in use

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kross/ActionCollections>

- Port to KF5 if still in use

https://techbase.kde.org/Development/Tutorials/Calligra_Overview

https://techbase.kde.org/Development/Tutorials/Write_a_Flake_Plugin

https://techbase.kde.org/Development/Tutorials/Generic_Calligra_Plugin_Creation

https://techbase.kde.org/Development/Tutorials/KWord_Scripting

https://techbase.kde.org/Development/Tutorials/KSpread_Scripting

- See Appendix B

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/SystemActivity/Scripting>

- Needs actual content
- Update Screenshot

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KWin/Scripting>

- Update

https://techbase.kde.org/Development/Tutorials/KWin/Scripting/API_4.9

- Double check API
- <https://cgit.kde.org/kwin.git/tree/scripting/documentation-global.xml>

<https://techbase.kde.org/Development/Tutorials/KWin/WindowSwitcher>

- Update if it still works

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Using_KParts

- Port to KF5

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Writing_kontakt_plugins

- Port to KF5 if still needed
- Need to fill content
- Update screenshot

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Writing_Qt_Designer_Plugins

- Moved to Community Wiki

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KCM_HowTo

- Port to KF5

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Solid/Introduction>

- Add more info, port from <https://techbase.kde.org/Development/Architecture/KDE4/Solid> (Update if necessary)
- Improve text

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Solid/Device_Discovery

- Port to KF5
- Create more complete example
- Remove KDE4 Category

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Solid/Network_Management

- Port to KF5
- Create more complete example
- Add more content
- Remove KDE4 Category

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Solid/Device_Actions

- Port to KF5
- Create more complete example
- Add more content
- Remove KDE4 Category

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KAuth/KAuth_Basics

- Up-to-date but double check it's still OK

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KAuth/KAuth_Actions

- Port parts to KF5

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KAuth/Helper_HowTo

- Port to KF5

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KAuth/KCM_HowTo

- Port to KF5
- Create more complete example

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Phonon/Introduction>

- Redirects to <https://techbase.kde.org/Phonon>
- Port to KF5
- Improve content
- Remove Python example

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Phonon/Backends>

- Port to KF5
- Create more complete example

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Akonadi/Applications>

- Mostly up-to-date, being updated by Ognarb (Carl Schwan)
- Still needs updating (New screenshots)

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Akonadi/Resources>

- Port to KF5
- Update screenshots

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Akonadi/SerializerPlugin>

- Port to KF5
- Update screenshots

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kate/KTextEditorPlugins>

- Port to KF5 if still needed

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kate/KTextEditorPlugins_Advanced

- Port to KF5 if still needed

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Kate/KTextEditorExample>

- Port to KF5 if still needed
- Update Screenshot

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KDevelop/Creating_a_class_template

- Port to KF5 and KDev5 if still needed

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KDevelop/Creating_a_project_template

- Port to KF5 and KDev5 if still needed

https://techbase.kde.org/Development/KDevelop-PG-Qt_Introduction

- See Appendix B

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KIO_Slaves/Using_KIO_Slaves_in_your_Program

- Port to KF5
- Improve text

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KIO_Slaves/Hello_World

- Port to KF5
- Double check instructions

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Collaboration/Attica/Introduction>

- Port to KF5
- Expand content

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Collaboration/HotNewStuff/Introduction>

- Up-to-date but improve content

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Collaboration/HotNewStuff/Updates>

- Port to KF5

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Collaboration/HotNewStuff/Upload>

- Up-to-date but improve content

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Shell_Scripting_with_KDE_Dialogs

- For review

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Graphics/Performance>

- See Appendix B

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Games/KStandardGameAction>

- Port to KF5 if still relevant
- Improve content

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Games/Highscore_S

- Port to KF5 if still relevant
- Update screenshot

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Games/Theme_Selector

- Needs to be written if still needed

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Games/Palapeli_Patterns

- Port to KF5 if still needed

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KPlotWidget>

- Port to KF5
- Update screenshots

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Physical_Simulation

- Port to KF5, KDevelop5
- Update screenshots

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Sonnet/SonnetTutorial>

- Needs content

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KWallet>

- Port to KF5
- Improve content

B. To be Archived

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Porting_to_D-Bus
https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/K_Hot_New_Stuff_2

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Introduction_to_Get_Hot_New_Stuff

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KNewStuffSecure>
https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Introduction_to_Goya_usage

https://techbase.kde.org/Languages/Python/Using_PyKDE_4

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Part2

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Part3

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Part4

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Part5

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Part6

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Part7

https://techbase.kde.org/Special:MyLanguage/Languages/Python/PyKDE_WebKit_Tutorial/Conclusion

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Python_introduction_to_signals_and_slots

https://techbase.kde.org/Special:MyLanguage/Development/Languages/Python/PyKDE_DBus_Tutorial

https://techbase.kde.org/Special:MyLanguage/Development/Languages/Python/PyKDE_Knotify_Tutorial

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Qt4_Ruby_Tutorial

<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Plasma/RubyApplet>

https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Developing_Qt4_Applications_using_Qt_Designer_and_Ruby_on_Kubuntu
https://techbase.kde.org/Languages/Ruby/Ruby-Qt/KDE_Book
<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Libmediawiki>
<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KDE3>
<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KDE2>
<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/KPixmapCache>
<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/PortToKStatusNotifierItem>
https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/Printing_Hello_World
https://techbase.kde.org/Development/Tutorials/Printing_Print_Dialog
<https://techbase.kde.org/Special:MyLanguage/Development/Tutorials/PIM/ical>