



Estendendo Aplicações Qt com KDE Frameworks 5

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Olá!

Filipe Saraiva

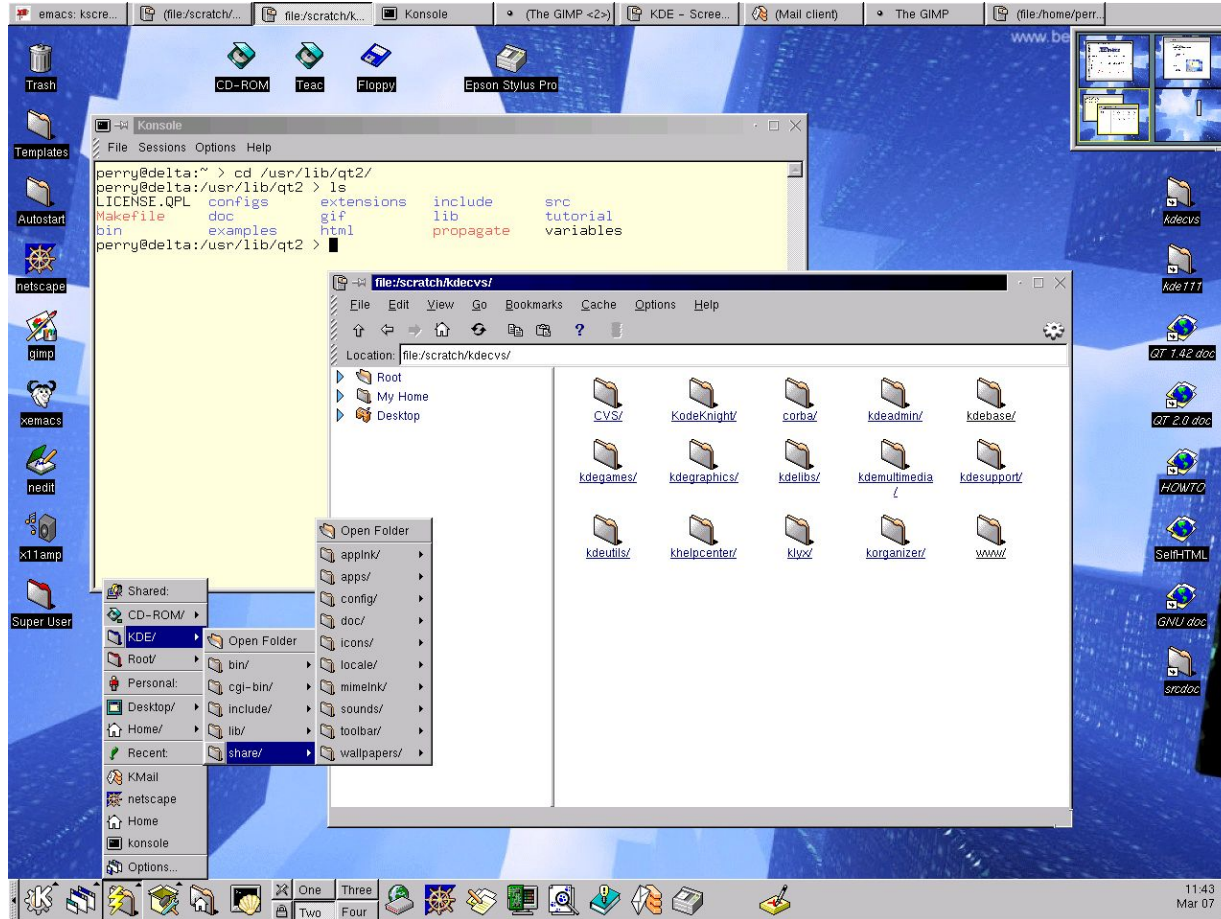
Professor na UFPA

Desenvolvedor/Mantenedor no KDE



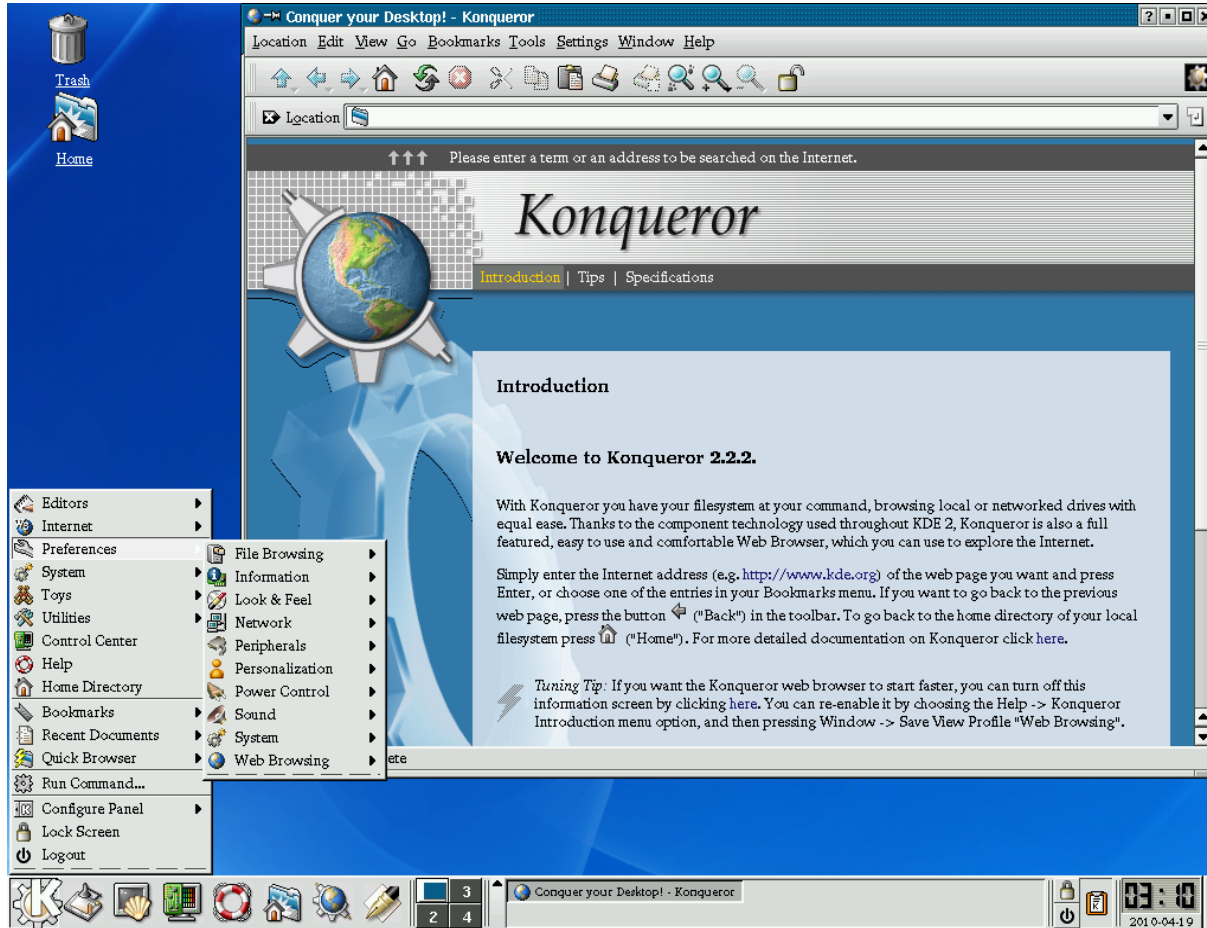
História das libs no KDE

KDE 1 (1998 - 1999)



Qt

KDE 2 (2000 - 2001)



KDE 2 (2000 - 2001)

Primeiros esforços para compartilhar código comum (bibliotecas):

- ▶ DCOP - Comunicação entre processos;
- ▶ KIO - Acesso a arquivos locais e pela rede;
- ▶ Kparts - Componentes reusáveis para aplicações;
- ▶ KHTML - Renderizador HTML;
- ▶ ...





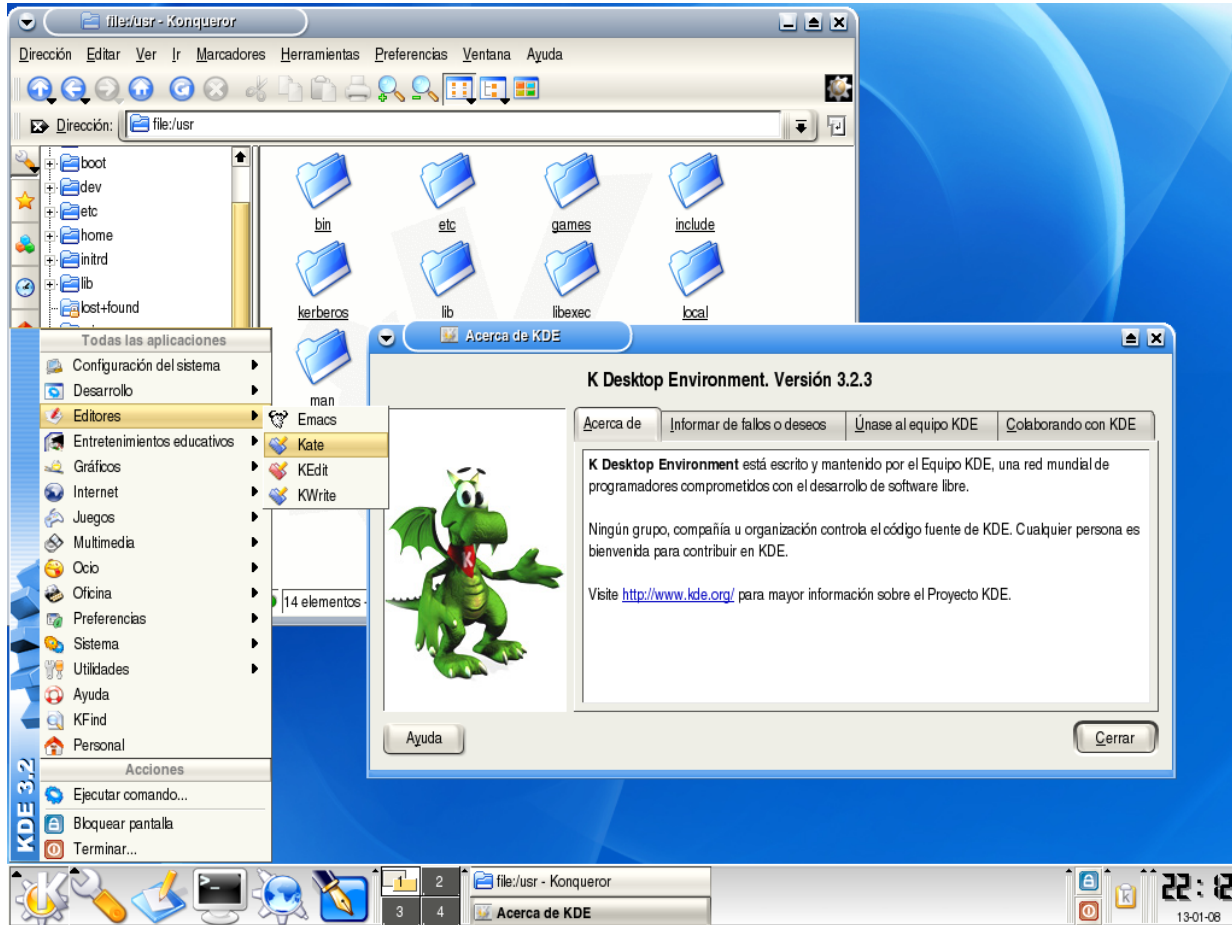
KDE 2.0 API Reference

KDE 2.0 API Reference

This section contains the KDE 2.0 online class reference. You can also [download \(2.4MB\)](#) the complete API documentation. Additionally, you can subscribe or read the mailing lists for any additions and/or modifications to the API.

- [kdecore](#)
Core KDE classes that are not related to the user interface.
- [kdeui](#)
KDE User interface classes such as widgets.
- [khtml](#)
The KDE HTML component.
- [kjs](#)
Javascript (aka. ECMAScript and JScript) support.
- [kfile](#)
High level access to the KDE network aware file abstraction.
- [kio](#)
Low level access to network files. Also provides access to facilities such as KDirWatcher which monitors directories for changes.
- [kparts](#)
Support for re-usable, embeddable, extendable applications.
- [dcop](#)
The DCOP communications library.
- [kspell](#)
Easy access to the spell checker.
- [kmid](#)
MIDI library.
- [interfaces](#)
Defines interfaces for common components so that new implementations can be dropped in.
- [kab](#)
Access to the KDE address book.
- [Search](#)
Search this site, or use a predefined search to search for KDE information on other sites.

KDE 3 (2003 - 2008)



Qt

KDE 3 (2003 - 2008)

Agora chamada kdelibs, aumenta o número de bibliotecas disponibilizadas

- ▶ kdeui - Widgets do KDE;
- ▶ kdeprint - Gerenciamento de impressoras;
- ▶ kabc - Acesso a agenda de endereços do KDE;
- ▶ kutils - Ferramentas usadas no KDE;
- ▶ ...



API Reference

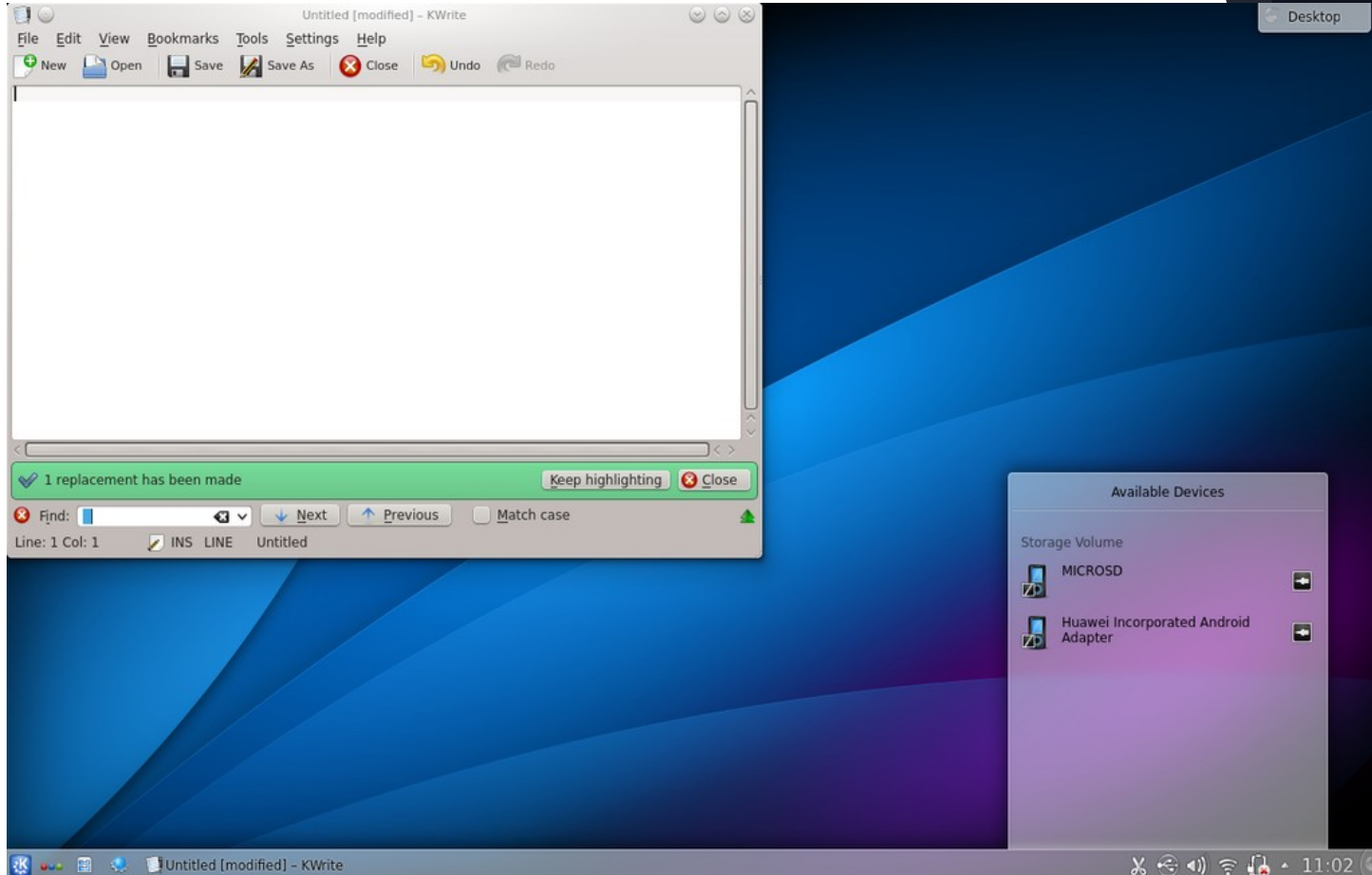
[dcop](#)
[DNSSD](#)
[interfaces](#)
[Kate](#)
[kconf_update](#)
[KDECore](#)
[KDED](#)
[kdefx](#)
[KDEsu](#)
[kdeui](#)
[KDocTools](#)
[KHTML](#)
[KImageIO](#)
[KInit](#)
[kio](#)
[kioslave](#)
[KJS](#)
[KNewStuff](#)
[KParts](#)
[KUtils](#)

The KDE API Reference

This section contains the KDE online class reference for the current development version of KDE. You can also download the complete API documentation from api.kde.org. Additionally, you can subscribe or read the mailing lists for any additions and/or modifications to the API.

- **kdecore** (classes)
Core KDE classes that are not related to the user interface.
- **kdeui** (classes)
KDE User interface classes such as widgets.
- **khtml** (classes)
The KDE HTML component.
- **kjs** (classes)
Javascript (aka. ECMAScript and JScript) support.
- **kio** (classes)
Low level access to network files. Also provides access to facilities such as KDirWatcher which monitors directories for changes.
- **kparts** (classes)
Support for re-usable, embeddable, extendable applications.
- **dcop** (classes)
The DCOP communications library.
- **kdefx** (classes)
A library with pixmap effects.
- **kmdi** (classes)
MultiDocument Interface library.
- **libkmid** (classes)
Midi library.
- **kdeprint** (classes)
High level printer control functionality.
- **interfaces** (classes)
Defines interfaces for common components so that new implementations can be dropped in.
- **kabc** (classes)
Access to the KDE address book.
- **kresources** (classes)
The KDE resources system.
- **kutils** (classes)
High-level utils, like search/replace support.
- **arts** (classes)
KDE bindings for arts including knotify.
- **knewstuff** (classes)
Upload and download of application data.
- **dnssd** (classes)
Network services publishing and discovery.
- **kunittest** (classes)
Unit testing framework in KDE.

KDE SC 4 (2008 - 2014)



KDE SC 4 (2003 - 2008)

Chamada KDE Platform 4, tentou ser um conjunto de libs mais propícia para softwares não-KDE.

- ▶ Plasma - Desktop do KDE;
- ▶ Sonnet - Correção ortográfica;
- ▶ Solid - Camada de abstração de hardware;
- ▶ KNewStuff - Material adicional para aplicações;
- ▶ ThreadWeaver - Programação multithread;
- ▶ ...





Navigation

[Main Page](#)
[KDE4 Versions](#)

Related

[API Doc Tutorial](#)
[KDE TechBase](#)
[KDE CMake Modules](#)
[Extra CMake Modules](#)

Search

API Reference Index

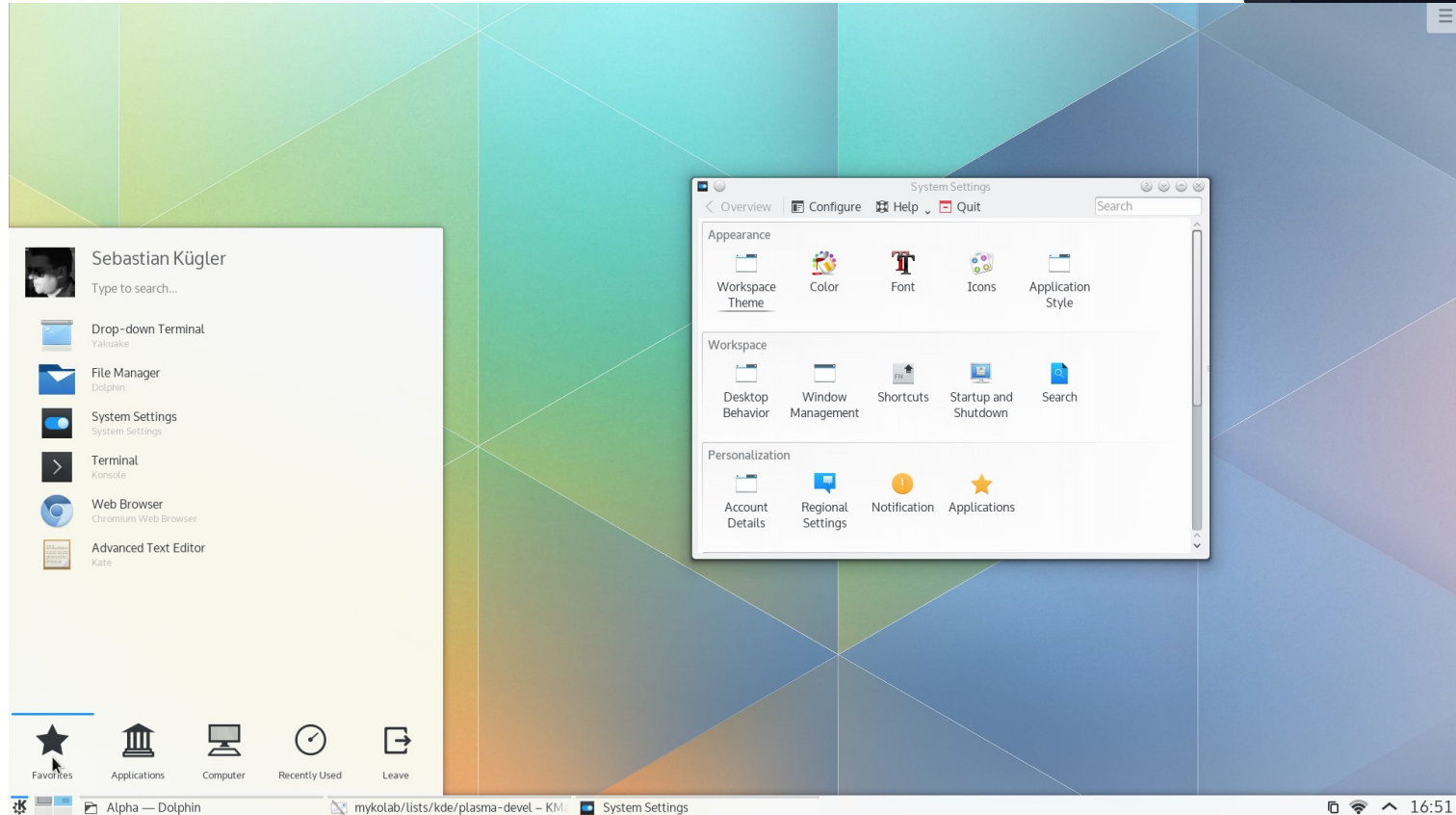
Reference guides for KDE 4 releases

KDE 4.x	KDE 4.14	KDE 4.12
kdelibs [qch][man]	kdelibs [qch][man]	kdelibs [qch][man]
kdepimlibs [qch][man]	kdepimlibs [qch][man]	kdepimlibs [qch][man]
kdeaccessibility	kdeaccessibility	kdeaccessibility
kde-baseapps	kde-baseapps	kde-baseapps
kde-runtime	kde-runtime	kde-runtime
kde-workspace	kdeedu	kdeedu
kdeedu	kdegames	kdegames
kdegames	kdegraphics	kdegraphics
kdegraphics	kdemultimedia	kdemultimedia
kdemultimedia	kdenetwork	kdenetwork
kdenetwork	kdepim	kdepim
kdepim	kdeplasma-addons	kdeplasma-addons
kdepim-runtime	kdesdk	kdesdk
kdeplasma-addons	kdeutils	kdeutils
kdesdk	kdewebdev	kdewebdev
kdeutils	PyKDE	PyKDE
kdewebdev	Qyoto	Qyoto
plasma-qml		
PyKDE		
Qyoto		

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Plasma 5/KDE Frameworks 5 (2014 - Atual)



Plasma 5/KDE Frameworks 5 (2014 - Atual)

Com o KDE Frameworks 5 houve um maior esforço para a compartimentação das libs além de torná-las multiplataforma (incluindo mobile).

- ▶ KArchive - Compressão de arquivos;
- ▶ KCoreAddons - Adições para QtCore;
- ▶ Kirigami - Plugins para QtQuick baseados na KDE UX;
- ▶ KUnitConversion - Conversão de unidades;
- ▶ ...





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Filters

- Filter by platform**
- Show maintainers**

About

Providing everything from simple utility classes to integrated solutions for common requirements of desktop applications

Maintainer

[David Faure](#)

Supported platforms

Android (partial), FreeBSD (partial), Linux, MacOSX (partial), Windows (partial)

Community

IRC channel: [#kde-devel](#) on

The KDE Frameworks



The KDE Frameworks build on the [Qt framework](#), providing everything from simple utility classes (such as those in KCoreAddons) to integrated solutions for common requirements of desktop applications (such as KNewStuff, for fetching downloadable add-on content in an application, or the powerful KIO multi-protocol file access framework).


The KDE Frameworks can be used in CMake-based and QMake-based projects, and most of them are portable to at least Windows, Mac and Linux. The documentation of each framework has code snippets that show how to include the framework in a QMake or CMake project.

The frameworks are divided into four tiers, based on the kind of dependencies that they have. For instance, Tier 1 frameworks depend on Qt and possibly some third-party libraries, but not on other frameworks. This makes them easy to integrate into existing applications.

List of the libraries

Tier 1

Tier 1 frameworks depend only on Qt (and possibly a small number of other third-party libraries), so can easily be used by any Qt-based project.

Framework	Type
Attica Open Collaboration Services API <small>Android FreeBSD Linux MacOSX Windows all</small>	functional
BluezQt Qt wrapper for BlueZ 5 DBus API <small>Android FreeBSD Linux  MacOSX Windows all</small>	integration
BreezeIcons <small>Android FreeBSD Linux MacOSX Windows all</small>	

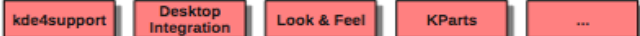


KDE Frameworks 5 Metainfos

KDE Frameworks 5 – Metainfos

- ▶ Atualmente conta com 76 módulos;
- ▶ Releases mensais;
- ▶ Sem quebra de compatibilidade binária;
- ▶ Suporte a QMake e CMake;
- ▶ Multiplataforma (incluindo mobile);
- ▶ Desenvolvimento aberto;
- ▶ Licença LGPL;
- ▶ Módulos tratados em camadas (*tiers*);
- ▶ Ampla e acessível documentação na web.

"Look & Feel" + Consistency



Color indicates which Tier and Framework type the library belongs to.

Shape indicates the type of content (core, gui, widget based).

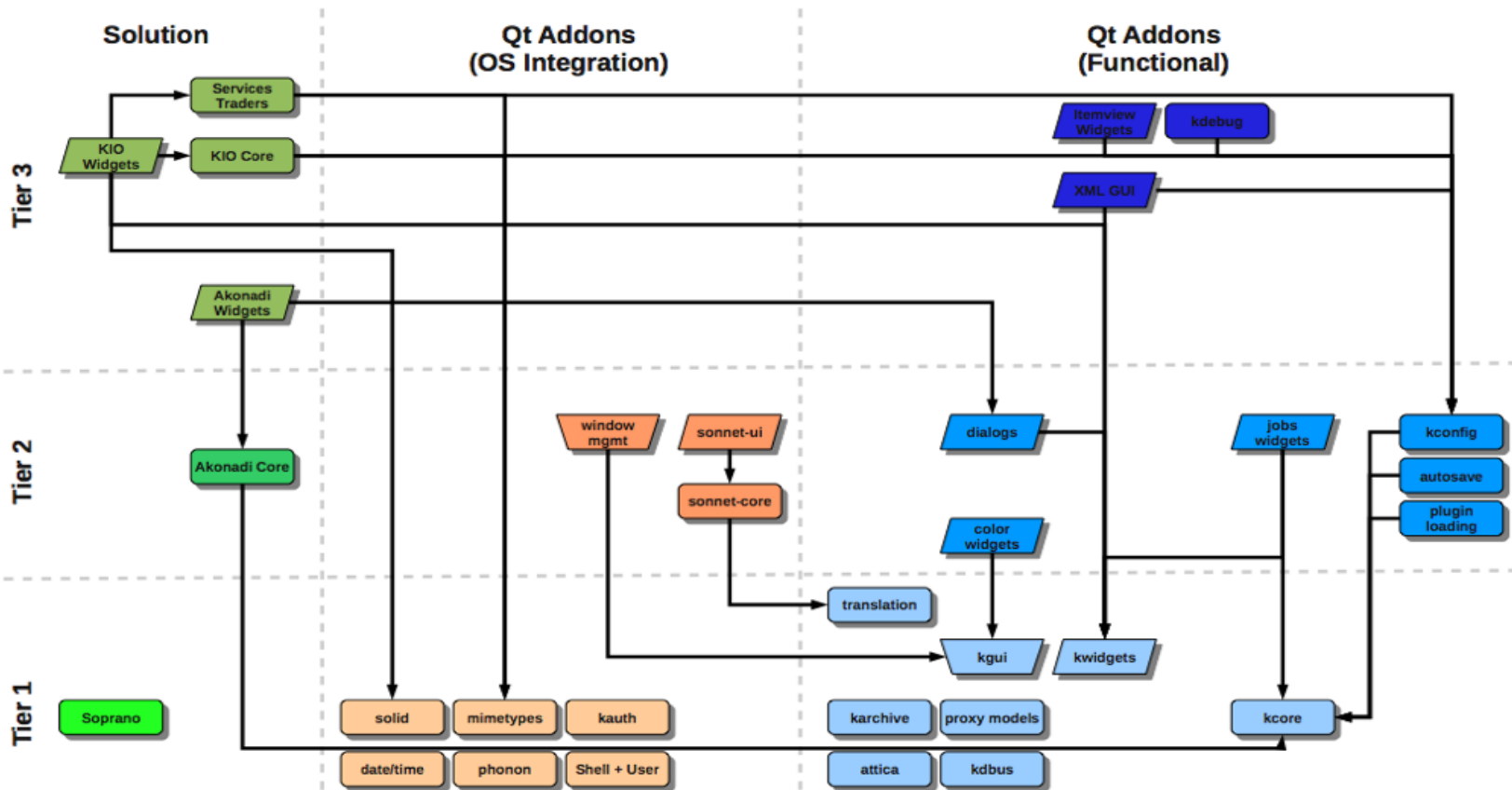




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Search for...



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Main Page
Alphabetical List
Class List
Class Hierarchy
File List
Dependencies
Related Pages

Open Collaboration Services API

Maintainer

[The KDE Community](#)

Supported platforms

Android, FreeBSD, Linux, MacOSX,
Windows

Community

IRC: [#kde-devel](#) on Freenode

Mailing list: [kde-frameworks-devel](#)

Use with CMake

```
find_package(KF5Attica)
target_link_libraries(y
```

Use with QMake

```
QT += Attica
```

Clone

```
git clone git://anongit
```

Browse source



Open Collaboration Service client library

Introduction

Attica is a Qt library that implements the Open Collaboration Services API version 1.6. The REST API is defined here:

<http://freedesktop.org/wiki/Specifications/open-collaboration-services/>

It grants easy access to the services such as querying information about persons and contents. The library is used in KNewStuff3 as content provider. In order to integrate with KDE's Plasma Desktop, a platform plugin exists in kdebase.

This file is part of the KDE documentation.

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Generated on Sun Aug 20 2017 03:07:54 by [doxygen](#) 1.8.11 written by [Dimitri van Heesch](#), © 1997-2006

KDE's [Doxygen guidelines](#) are available online.



KDE Frameworks 5 Alguns Módulos

KCoreAddons (Tier 1)

- ▶ Grande conjunto de classes que adicionam funcionalidades ao módulo QtCore;
- ▶ KAboutData/KAboutLicense/KAboutPerson;
- ▶ KAutoSaveFile;
- ▶ KDirWatch;
- ▶ KPluginFactory/KPluginLoader/;
- ▶ KPluginMetadata;
- ▶ KProcess;
- ▶ ...



KArchive (Tier 1)

- ▶ Biblioteca para (de)compressão de arquivos;
- ▶ KFilterBase/KZip/KTar/KAr;
- ▶ ...



KSyntaxHighlighting (Tier 1)

- ▶ Biblioteca para utilização do destaque de sintaxe usado no Kate;
- ▶ Mais de 250 destaques de sintaxe já disponíveis.



Sonnet (Tier 1)

- ▶ Biblioteca para correção ortográfica baseada em diferentes projetos para esse fim;
- ▶ AspellDict;
- ▶ HspellDict;
- ▶ Highlighter;
- ▶ ...



Solid (Tier 1)

- ▶ Biblioteca de abstração para camada de hardware;
- ▶ Baterias;
- ▶ Drivers;
- ▶ Câmeras;
- ▶ ...



Oxygen-icons/Breezelcons (Tier 1)

- ▶ Temas de ícones com uma grande coleção de imagens baseadas no Plasma 4 (Oxygen) e Plasma 5 (Breeze).



KAuth (Tier 2)

- ▶ Camada de segurança para realizar ações como usuários com privilégios mais altos (root).



KCompletion (Tier 2)

- ▶ Biblioteca para complementação de texto em diversos widgets do Qt.



KNotification (Tier 2)

- ▶ Biblioteca de notificações cobrindo diversos casos de uso como feedbacks e eventos persistentes.



KFileMetadata (Tier 2)

- ▶ Biblioteca para extração de metadados de arquivos, utilizada principalmente por indexadores.



KIO (Tier 3)

- ▶ Biblioteca para abstração de camada de rede, permitindo acesso transparente a arquivos usando diferentes protocolos de rede;
- ▶ Alguns protocolos suportados: HTTP, FTP, SSH, SMB, ...



KNewStuff (Tier 3)

- ▶ Biblioteca para compartilhamento e download de material adicional para aplicações.



KParts (Tier 3)

- ▶ Adicione partes de um software em outro software :)





**Mais libs em
include.org**

Inlude.org

- ▶ Compêndio e repositório de bibliotecas Qt;
- ▶ Há bibliotecas dos mais diferentes tipos e para os mais variados fins;
- ▶ Mantido pelo KDE;
- ▶ Há um script para instalar bibliotecas (em testes);
- ▶ Atualmente conta com 208 módulos.

The Qt logo, consisting of the letters 'Qt' in white on a green square background.

Includ provides a comprehensive listing of all existing libraries for developers of applications using the [Qt toolkit](#). Includ is run by the community and open for contributions.

- o [About](#)
- o [How to get libraries](#)
- o [How to contribute](#)





















Latest releases

KDE Frameworks	(2017-07-08)
Poppler	(2017-06-21)
Log4Qt	(2017-06-17)
injeqt	(2017-04-22)
CuteReport	(2017-03-18)

Topics

All	(208)
API	(13)
Artwork	(4)
Bindings	(20)
Communication	(29)
Data	(32)
Desktop	(20)

Stable libraries

Attica	Open Collaboration Services API		API	GPLv2.1+
Avahi	Qt4 Bindings for avahi, the D-BUS Service for Zeroconf and Bonjour		Bindings, Communication	GPLv2.1+
Baloo	Baloo is a file indexing and searching framework		Development	GPLv2.1+
BluezQt	Qt wrapper for BlueZ 5 Dbus API		Communication	GPLv2.1+
Breeze Icons	Breeze icon theme		Artwork	GPLv2.1+
Cutelyst	A Web Framework, using the simple approach of Catalyst (Perl) framework.	  	Web	GPLv2
CuteReport	Report solution	  	Printing	GPLv3+, Commercial
google-diff-match-patch	Diff, Match and Patch libraries for Plain Text		Text	Apache2.0
Echo Nest Client	Qt library for communicating with The Echo Nest		Multimedia, API	GPL
Enginio	Enginio client library for Qt platform. Provides both Qt C++ and QML APIs to client applications.	 	Data, API, QML	GPLv3, LGPLv2.1
eXaro	Report engine	 	Printing	GPLv3, LGPLv3
Extra CMake Modules	Extensions for software using the CMake build system	  	Development	BSD-3-Clause



Obrigado!

Perguntas?

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