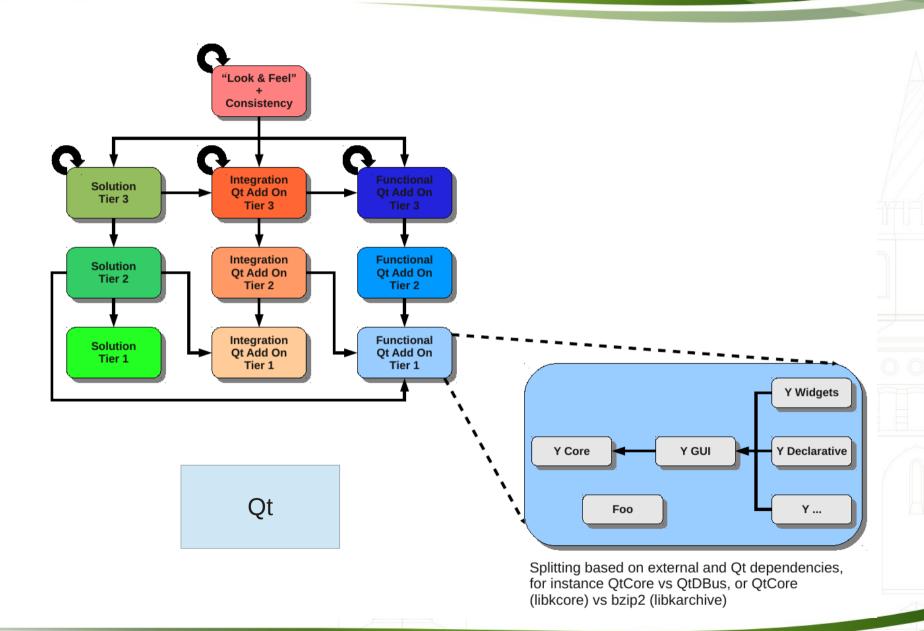# Qt addons for everyone

KDE Frameworks 5

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- Too many inter-dependencies in the API

  i18n → config → standarddirs → mainComponent → i18n

  KGlobal, central node for everything

- Too many dependencies on runtime bits

  desktop file → ksycoca → kbuildsycoca+kded → kdeinit

- No re-usability outside of KDE applications

"Look & Feel"
+
Consistency

Solution Tier 3

Integration Qt Add On Tier 3

Functional Qt Add On Tier 3

Solution Tier 2

Integration Qt Add On Tier 2

Functional Qt Add On Tier 2

Solution Tier 1

Integration Qt Add On Tier 1

Functional Qt Add On Tier 1

Qt

Y Widgets

Y Core

Y GUI

Y Declarative

Foo

Y ...

Splitting based on external and Qt dependencies, for instance QtCore vs QtDBus, or QtCore (libkcore) vs bzip2 (libkarchive)

- Functional: no runtime dependencies

- Integration: optional runtime dependencies

    (for integration with OS/platform)

- Solutions: mandatory runtime dependencies

- Often requested in Qt: ZIP support

- Provided by KArchive

- ZIP, TAR, 7Zip archives

- Compression QIODevice – gzip, bzip2, xz

- Tier1, QtCore-only functional framework

- Complete spell-checking framework

- Core classes

  - Speller, Background checker

- Widgets

  - Spellcheck dialog, Config dialog, Highlighter...

- Plugins: aspell, hspell, hunspell, enchant

- Tier1, Integration framework (plugins)

- Hardware detection
    - Storage drives and volumes
    - Processor, Battery, Physical buttons, …
    - Power management
    - Networking (status, interfaces)
    - In progress: bluetooth library (bluedevil)
- Tier1, Integration framework
- Runtime deps: soliduiserver (encrypted partitions), daemons for power and networking.

- Job-based thread pool

- Features job dependencies, unlike QThreadPool

- done() signal (per-job), jobsDone() signal (global)

- Support for aborting, suspending...

- Tier1, QtCore-only functional framework

- Detecting when the user isn't using the computer

- Cross-platform

- Example use case: time tracking software

- Tier1, Functional framework

- Currently depends on QtCore+QtWidgets

- Wrapper for DNS service discovery

  Zeroconf, Bonjour, Avahi

- Discover available services

- Announce availability of own service

- Tier1, QtCore+QtNetwork, functional framework

- Configuration framework

- INI format

- QSettings is suboptimal and deprecated

- XDG-compliant cascading directories

- Group-oriented API

- XML-based class generation

- Tier1, QtCore functional framework
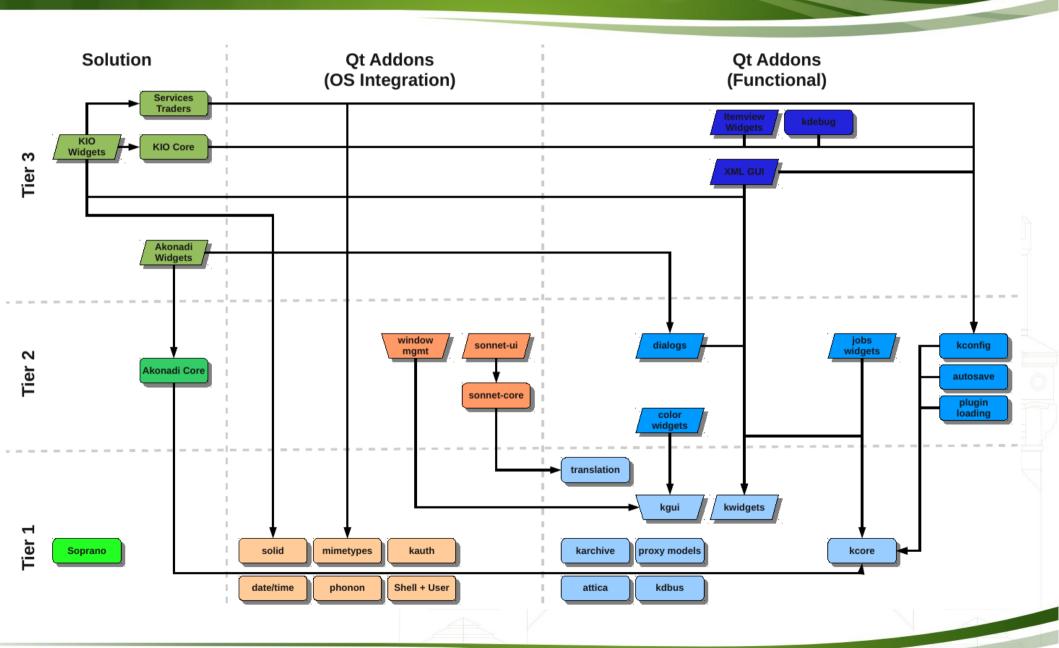
  (needs QLockFile, planned for Qt-5.1)

- Network-transparent Virtual File System

- Let the user browse and edit files the same way, locally and remotely

- Asynchronous jobs, separate processes

- Many many protocols supported

- Tier 2 or 3, solution framework

- KCoreAddons (KJob...)

- XMLGUI

- Attica

- Phonon

- Soprano

- Nepomuk

- KCodecs (Encoding prober)

- KPlotting

- Notifications

- Bookmarks

- Item models

- KService

- KParts

- KDE i18n

- Plasma

- KDE Desktop Integration classes

- KDBusAddons (unique app...)

- KGuiAddons (Icon loading, color utils...)

- KAuth (mac/linux)

- Get Hot New Stuff

- Akonadi (PIM)

- New: QStandardPaths   (replaces KStandardDirs)

- New: QTemporaryDir   (replaces KTempDir)

- New: QMimeType   (replaces KMimeType)

- New: QEventLoopLocker (replaces KGlobal::ref/deref)

- New: QApplication::setApplicationDisplayName()

- Improved: QTemporaryFile   (replaces KTemporaryFile)

- Improved: QMimeData   (replaces KUrl mimedata)

- Improved: qDebug   (output, first steps for categories)

- Finally working: QUrl   (replaces KUrl)

QtCore

- Command-line arguments

- Global statics

- Safe file saving

- File locking

- URL path manipulation

- Locale and date/time (calendar support)

QtWidgets

- QLineEdit: clear button, text squeezing, URL drops

- QTextEdit: placeholder text

- QMenu: titles, keyboard navigation

- QLabel: text squeezing

- QPushButton: delayed menu

- ...

- No technical distinction between a "pure Qt" application and a KDE application

- All apps are Qt apps, possibly using some frameworks on top

- Central repository for all Qt-based frameworks

<p style="text-align:center">http://inqlude.org/</p>

- Qt application developers use available frameworks rather than reinvent the wheel.

- Questions? (Other than a release date)