



KDE Frameworks in action: usage in commercial applications

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KDE Frameworks 5

- 65 libraries on top of Qt
- documented dependencies
- released every month
- 15 years of maturity (former kdelibs)
- KApplication is gone: all Qt applications are born equal

In use outside the KDE community ?





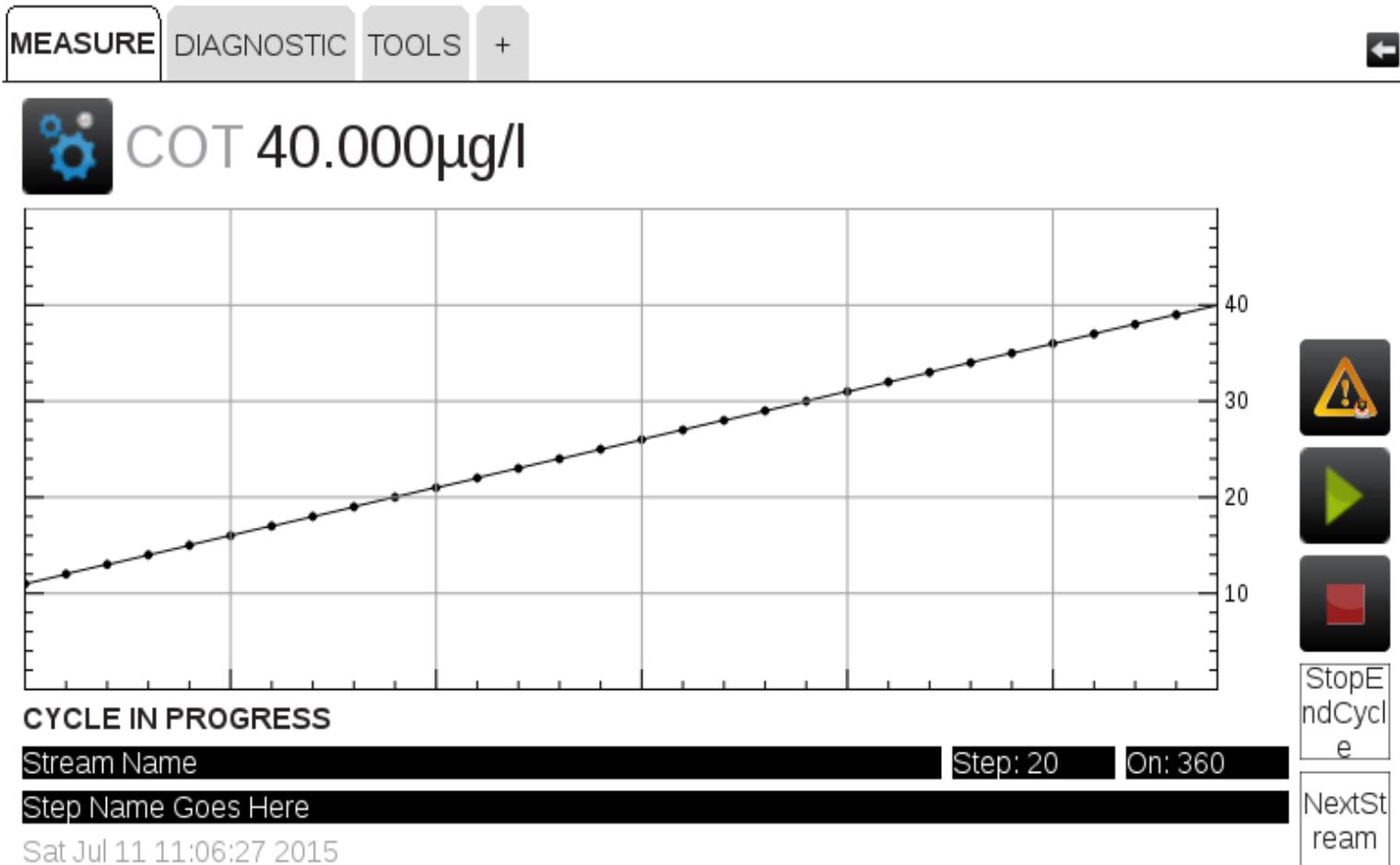
Water analyzer needs plotting

- French company making water / air analyzers
- Embedded device with touch screen
- Running Linux
- Qt 5
- Shows many measurements
- Needs to plot measure over time
- Simple line plot, last 30 measures, scrolling





KPlotting in water analyzers





Video device needs network file transfer

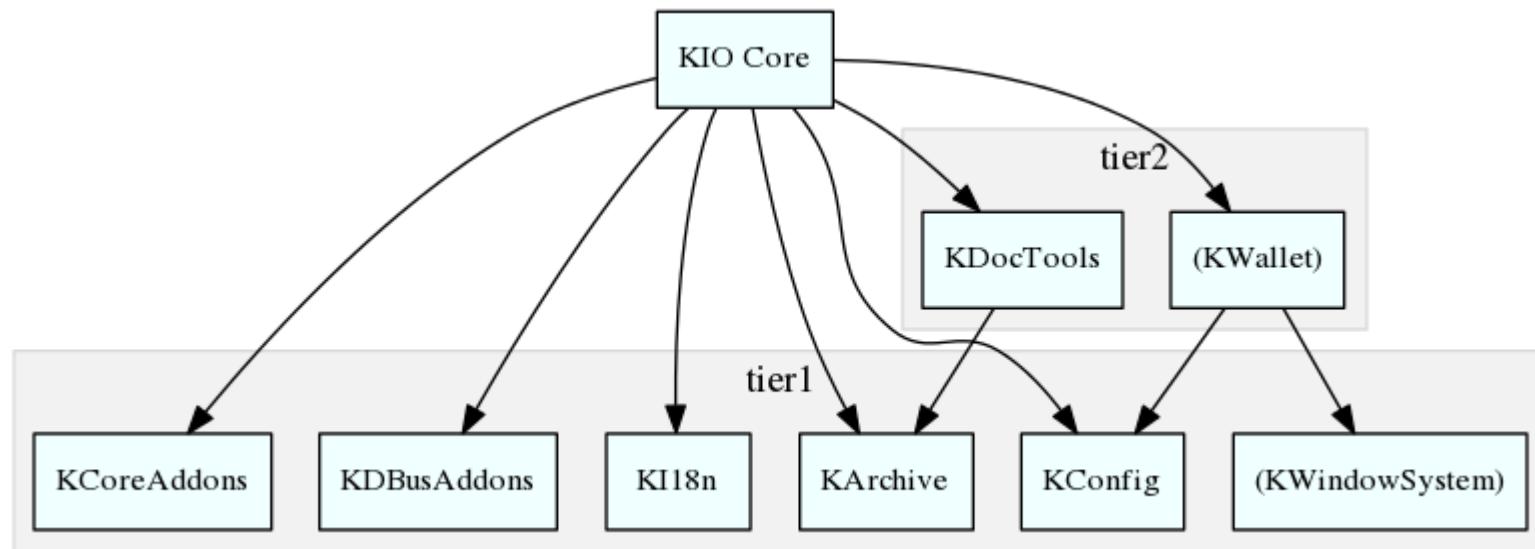
- Swiss company makes video recording device
- Example: inspection of planes with an endoscope
- Video transfer to Samba or Webdav shares
- Browse share, transfer files
- Custom GUI





KIO for video file transfer

- Core/GUI separation in KIO 5 has proven useful
- Local hack to remove some deps: KService, KDoctools, Solid, unwanted kioslaves.





KArchive extensions

- Company in the USA needed support for archives with:
 - 7z (with LZMA)
 - bzip2
 - ZipX (LZMA, legacy Enhanced Deflate)
 - UNRAR
- Cross platform (Linux/Windows/OSX), and using Qt 5
- KArchive (chosen by customer) supports the first two
- KDAB would have developed the other two (using libunrar) and upstreamed it. Didn't happen though :(





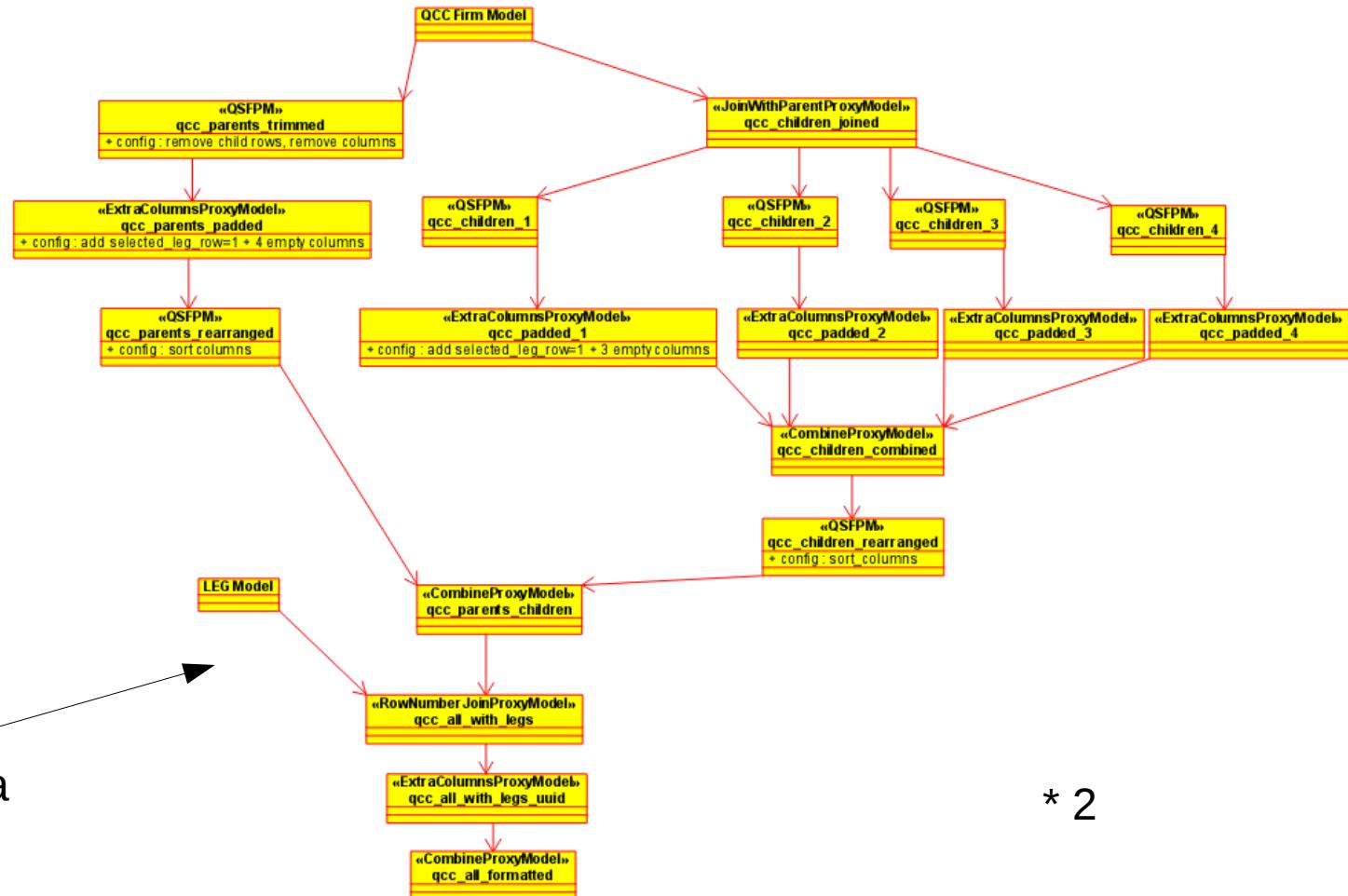
Inventory app needs barcode reading

- Barcode readers easy to integrate in Linux
- Many possible encodings
- Customer had started custom implementation of some
- I showed him **prison**, he was happy
- Just missing support for code128 encoding





Stock market app needs proxymodels



dfaure abusing
KDE's Umbrello as a
diagram editor

* 2



New proxy model: extra column(s)

H1	H2	H3
A1	A2	A3
B1	B2	B3
C1	C2	C3



H1	H2	H3	H4
A1	A2	A3	1
B1	B2	B3	1
C1	C2	C3	1

A constant value?
Isn't that useless?
And why always on the right side?





New proxy model: concatenate rows

H1	H2	H3	H4
A1	A2	A3	1
B1	B2	B3	1



H1	H2	H3	H4
A1	A2	A3	1
B1	B2	B3	1

H1	H2	H3	H4
C1	C2	C3	2
D1	D2	D3	2

H1	H2	H3	H4
A1	A2	A3	1
B1	B2	B3	1



H1	H2	H3	H4
C1	C2	C3	2
D1	D2	D3	2





New proxy model: reorder columns



H1	H2	H3		H3	H1	H2
A1	A2	A3		A3	A1	A2
B1	B2	B3	→	B3	B1	B2
C1	C2	C3		C3	C1	C2

Submitted recently to KItemModels:

- K RearrangeColumnsProxyModel
- K ExtraColumnsProxyModel (improved)



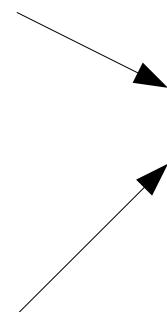


New proxy model: row number join

Much like SQL JOIN but with proxymodels :-)

A	B	2	C
D	E	0	F
G	H	2	I
(row 0)		m	n
(row 1)		o	p
(row 2)		q	r

master column: 2



A	B	2	C	q	r
D	E	0	F	m	n
G	H	2	I	q	r





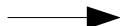
New proxy model: join with parent

Extract children only

Add extra columns with selected info from parent

parent columns: 2, 0, 3

A	B	C	D
- m	n		
- o	p		
E	F	G	H
- x	y		



m	n	C	A	D
o	p	C	A	D
x	y	G	E	H





Benefits for KDE

- KPlotting: 3 fixes
 - code simplification
 - missing tickmarks when scrolling to the right
 - API change to fix memory leak issue
- KIO: “core only” build, dependency reductions, future plans for more modularity
- KItemModels: 2 new proxies, more if anyone is interested.





Issues

- Licensing
 - requires people to be happy with LGPL, commercial Qt users might not all be
 - contributing a class to KF5 kills any hope to move that code to Qt, unless nobody touches it





Conclusion

- KDE Frameworks useful outside KDE community
- Some people find about them, others need to be told
- Contributions come back
 - at least from KDE developers :-)
- Further work needed:
 - more dependency reduction
 - more flexibility for custom GUIs

