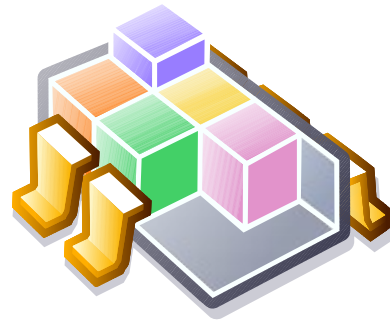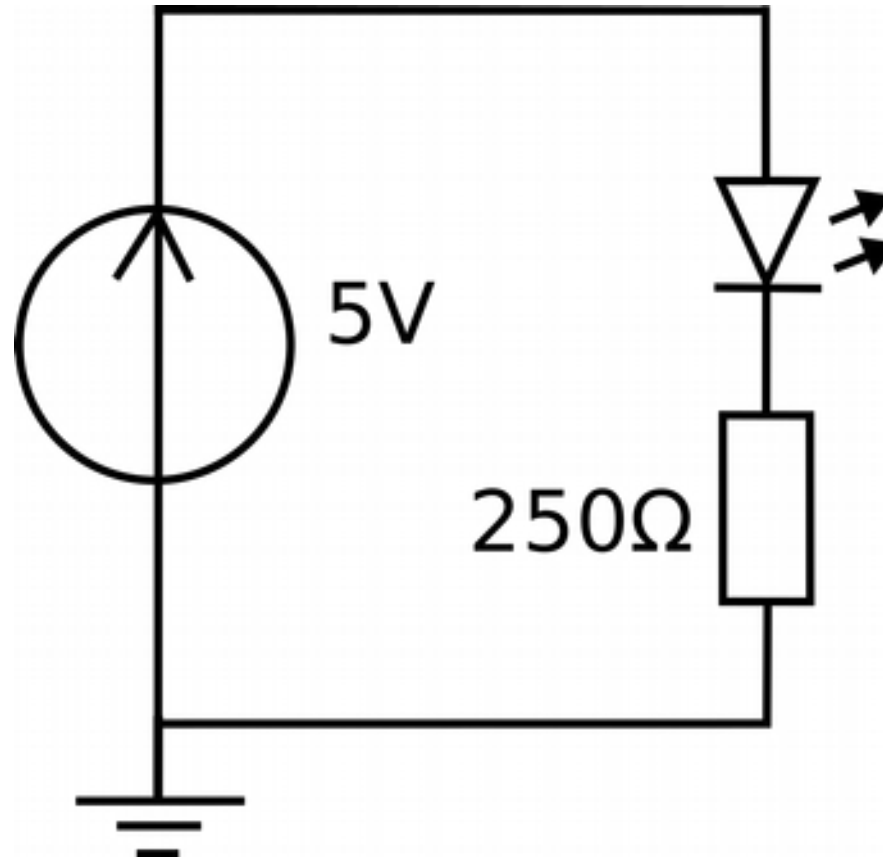# KTechLab – history and status
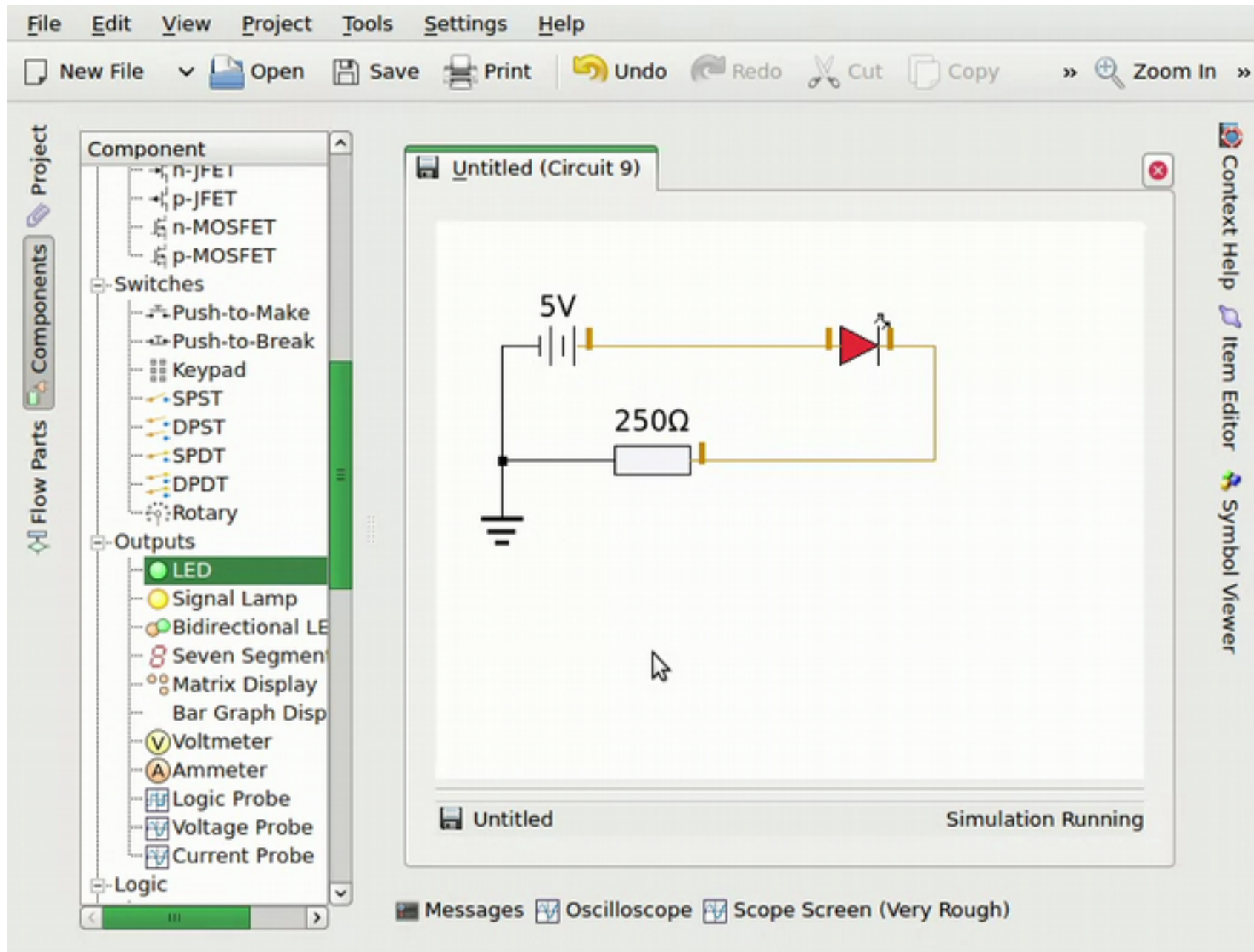
Zoltan Padrah
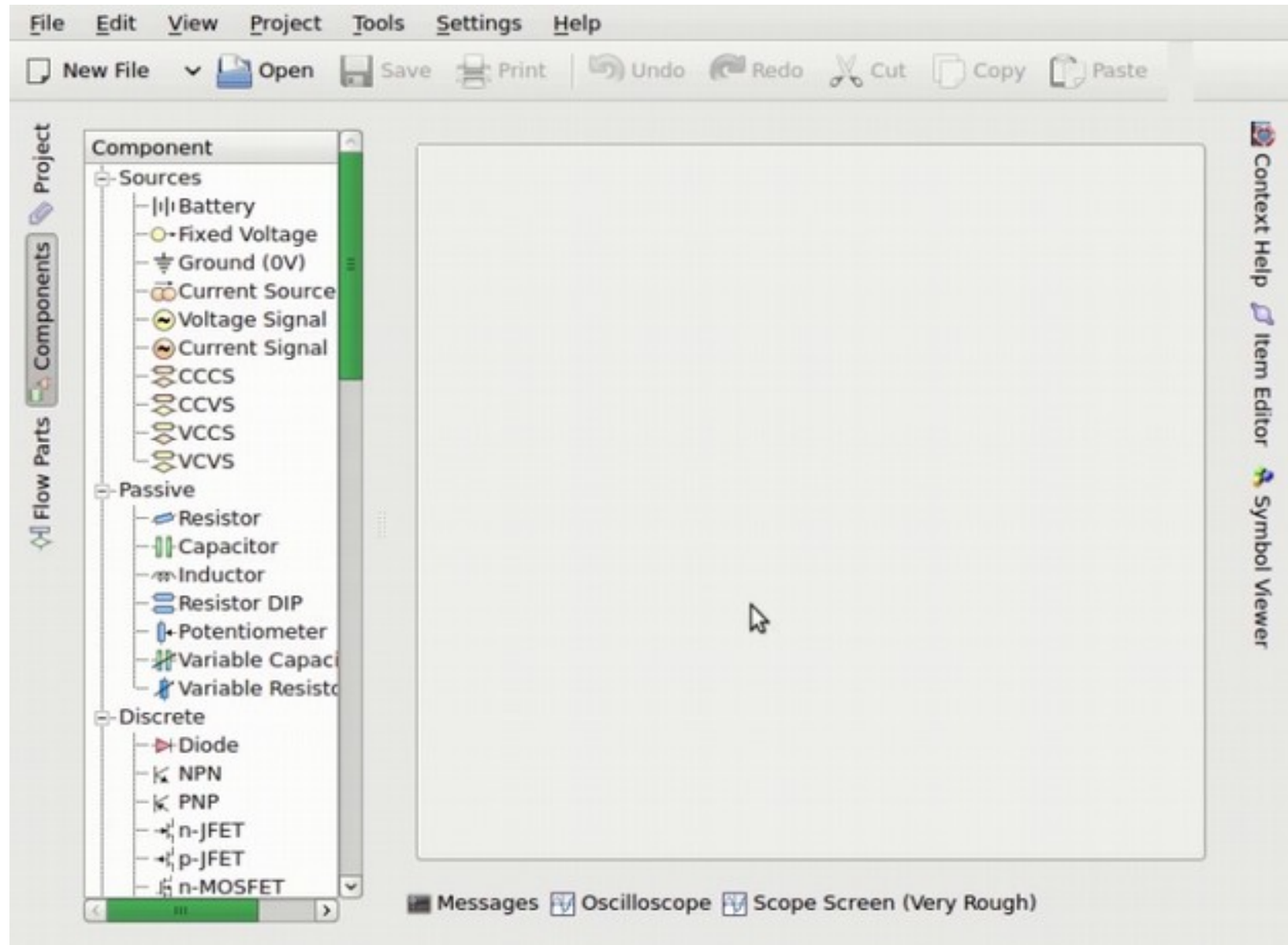
Studying electronics on Linux (1)

Studying electronics on Linux (2)

Studying electronics on Linux (3)

Studying electronics on Linux (4)

Studying electronics on Linux (5)

First patch accepted

Added BOOML documentation/model to t Zoltan Padrah <zoltan_padrah@users.sf.n 2008-09-15 21:15:40
revert 2 things from r113. This commit c Julian Bäume <julian@svg4all.de> 2008-09-11 23:16:36
Added {Junction|Pin}Node, FlowICNDDoc Zoltan Padrah <zoltan_padrah@users.sf.n 2008-09-11 19:16:31
add CircuitICNDocument to repository (sv Zoltan Padrah <zoltan_padrah@users.sf.n 2008-09-11 18:50:10
Merged Node refactoring patch 1 and 2   Zoltan Padrah <zoltan_padrah@users.sf.n 2008-09-11 18:28:20
lots of random ill-advised changes... (wer Alan Grimes <AlonzoTG@users.sf.net> 2008-09-01 21:58:51
removed redundant size field. spending t Alan Grimes <AlonzoTG@users.sf.net> 2008-09-01 06:11:30
lots of random formatting changes, but r Alan Grimes <AlonzoTG@users.sf.net> 2008-08-31 19:45:18
merging in some stuff from my old devel Alan Grimes <AlonzoTG@users.sf.net> 2008-08-31 01:46:51

... ...

Updated ktechlab.desktop - French descr Jason Lucas <jason_lucas@users.sf.net> 2007-04-23 15:47:05
Updated fr.po, ktechlab.desktop Jason Lucas <jason_lucas@users.sf.net> 2007-04-22 23:57:21
Rebuilt Makefile to remove dependancy o Jason Lucas <jason_lucas@users.sf.net> 2007-04-18 19:36:46
FIX mosfet.h line 76 Removed 'MOSFET::' Jason Lucas <jason_lucas@users.sf.net> 2007-04-18 19:21:31
Updated trunk to latest svn snapshot Jason Lucas <jason_lucas@users.sf.net> 2007-04-18 01:02:13
initial import Jason Lucas <jason_lucas@users.sf.net> 2007-04-13 21:15:15
initial import Jason Lucas <jason_lucas@users.sf.net> 2007-04-13 21:08:30
initial import Jason Lucas <jason_lucas@users.sf.net> 2007-04-13 00:53:33

?

KTechLab 0.3.7

First attempt at Qt4 port

Second attempt at Qt4 port
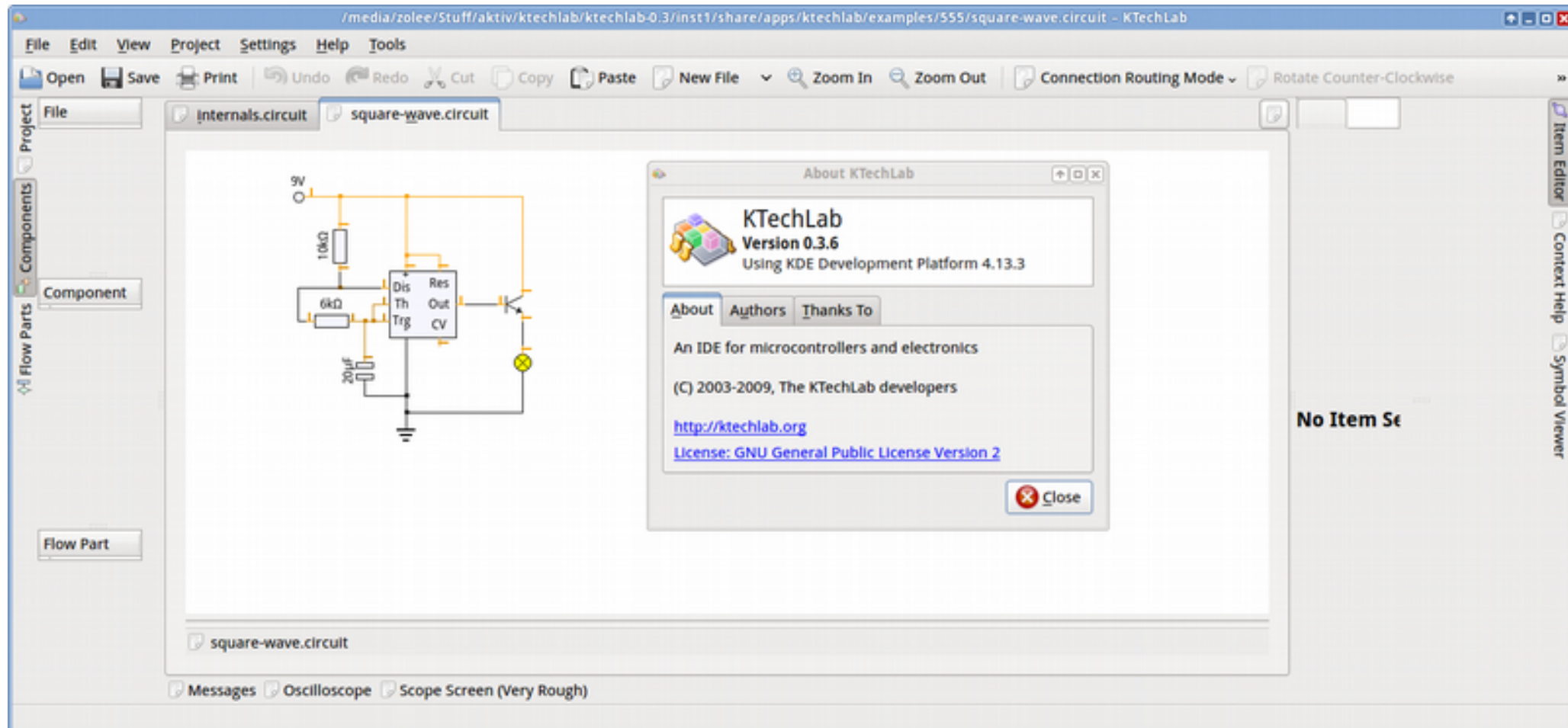
KTechLab joined KDE in 2017
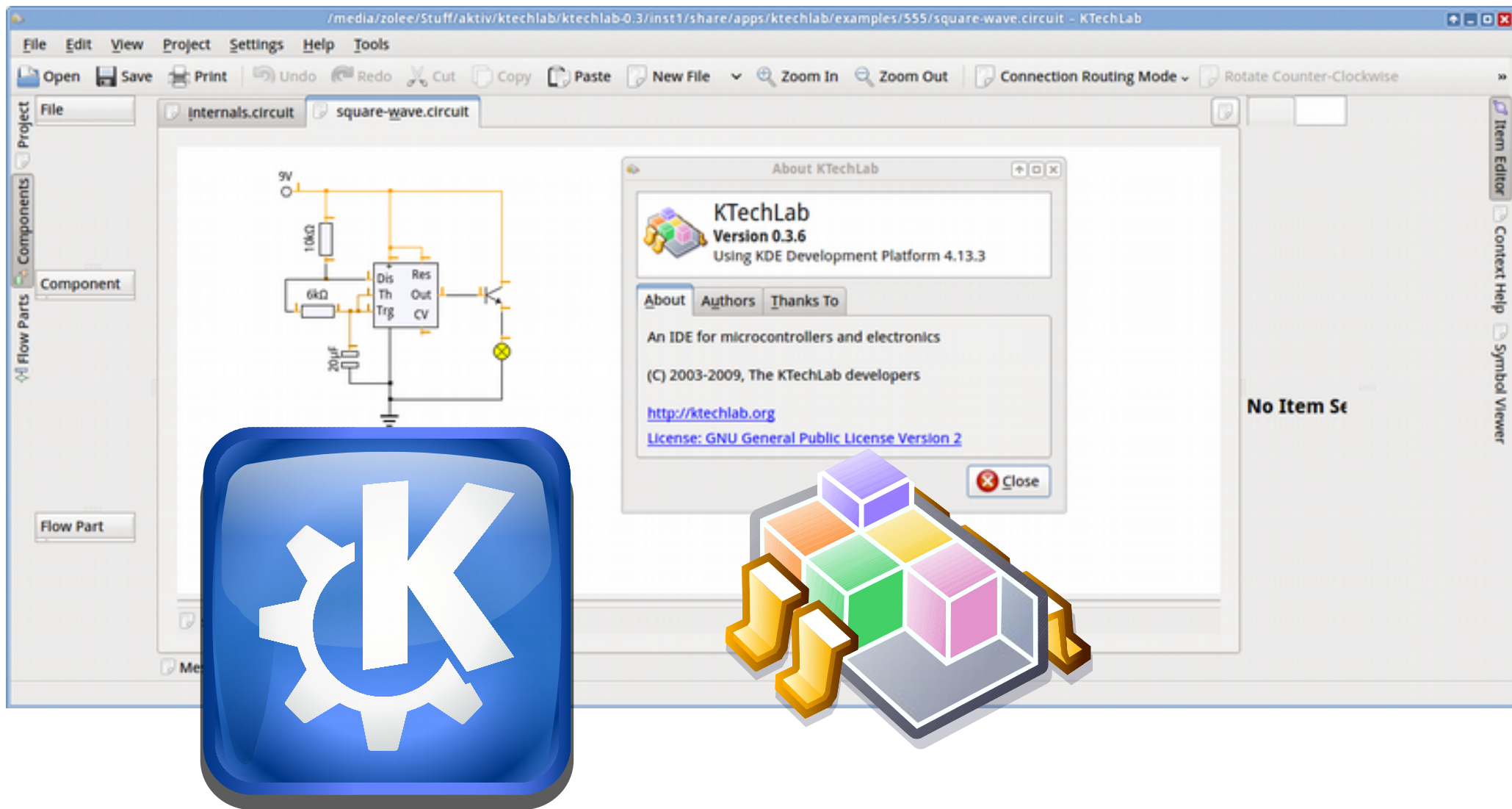
First Qt4 based release: 0.40.0
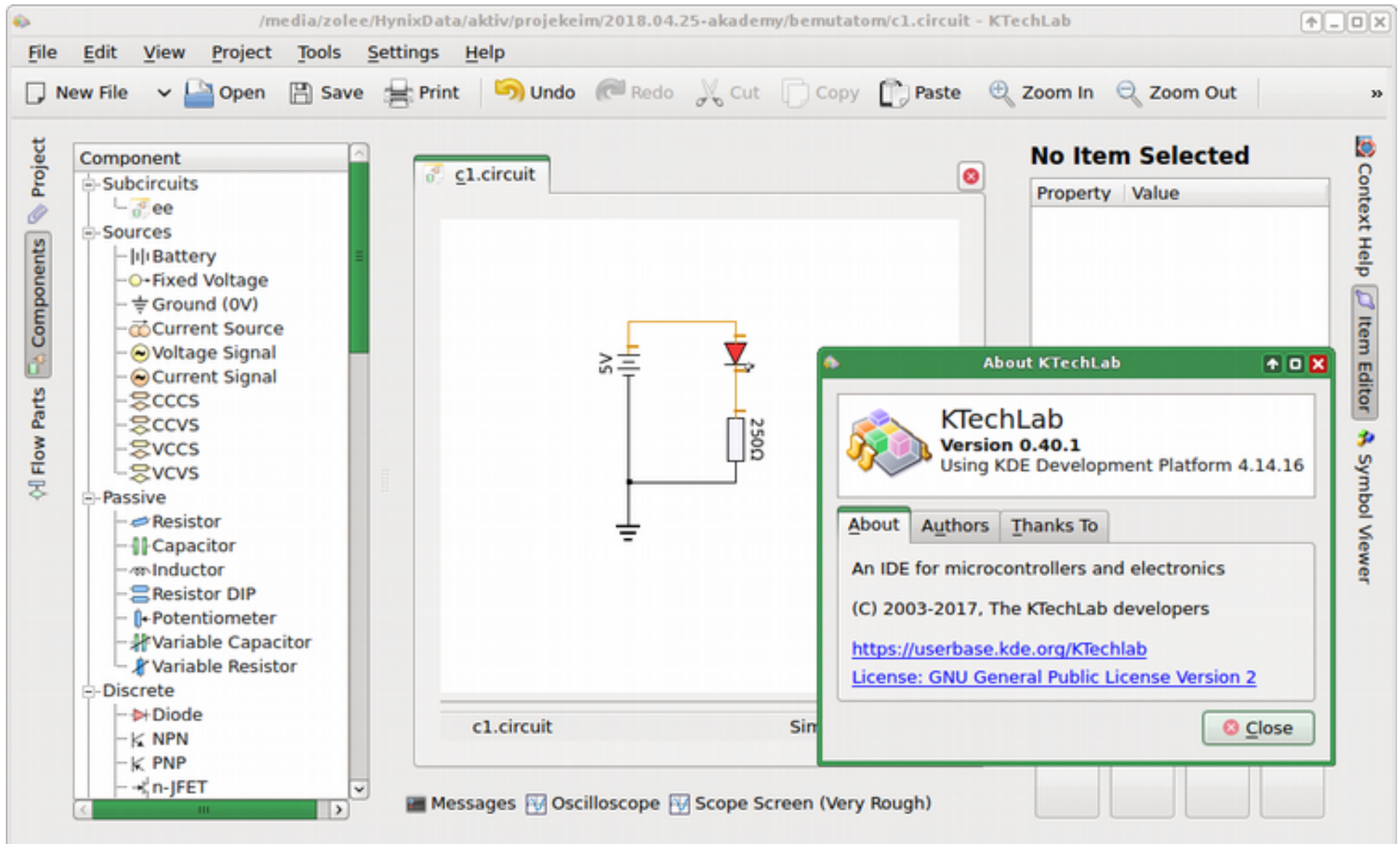
Future plans (1)

- release for Qt4, without Qt3Support
- release for Qt5 / KDE Frameworks 5
- website improvements
  - adding content
  - possibly reuse content from GitHub wiki
- package in distributions
- KDE CI

Future plans (2)

- Patches are welcome
- Many ideas for improvement have been documented
  - TODO file
  - Feature requests page on GitHub wiki
  - Mechanics
- Getting into classrooms as teaching aid
  - Supporting Windows, too?

Thank you!

Questions?

https://userbase.kde.org/KTechlab
ktechlab-devel@kde.org
#ktechlab @ Freenode IRC

KTechLab – history and status
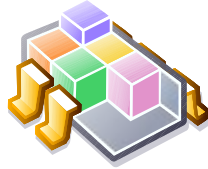
Zoltan Padrah

Hello everyone,
my name is Zoltan Padrah, I'm one of the developers of KTechLab.

In this presentation I would like to briefly present KTechLab's history, status and current plans for the future.

Studying electronics on Linux (1)
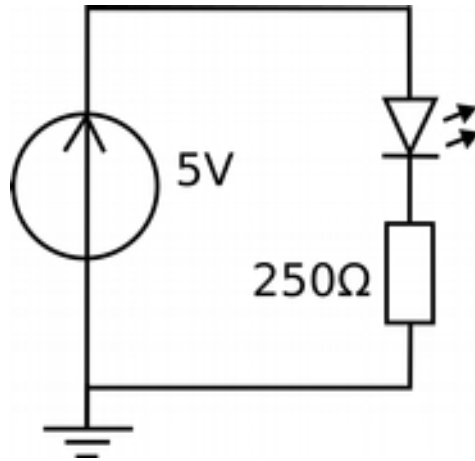
For me it all started when I have been studying at the university, where I had courses in electronics.

At the time it was already the year of Linux desktop for me, so I had started to look for a simulator for electronic circuits, which should help me better understand electronics.

Studying electronics on Linux (2)
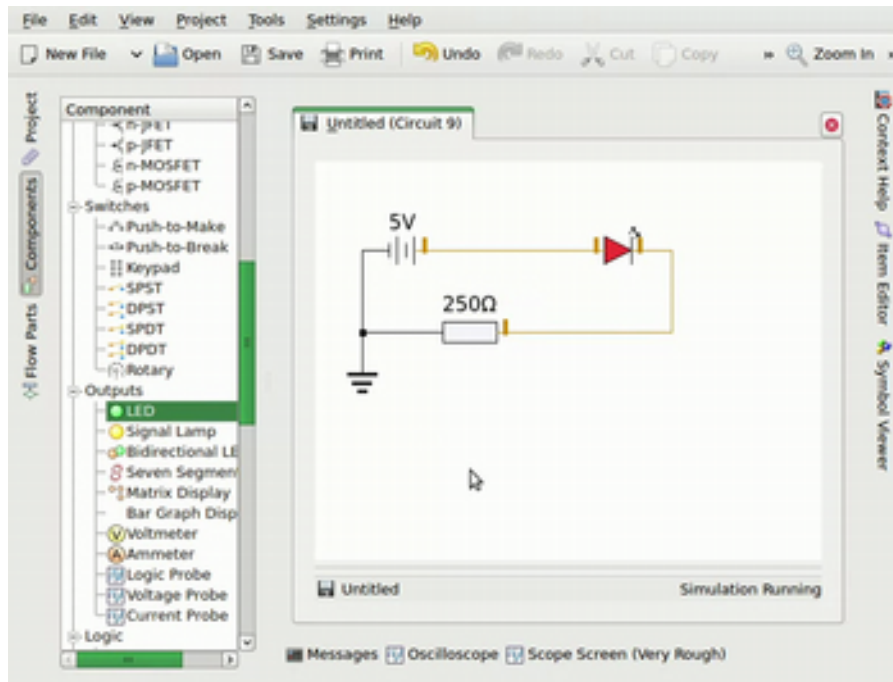
I have found KTechLab and it was really nice and
easy to use.

I has showed the state of a circuit in real-time, just as
having the real components on my desk.

Studying electronics on Linux (3)
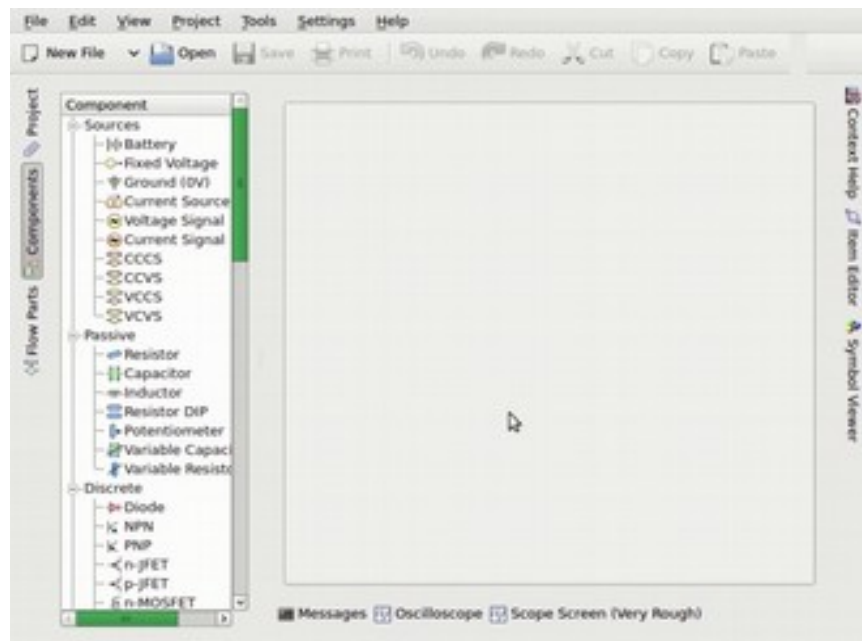
This animation presents how KTechLab shows the status of the electronic circuit in real-time.

Studying electronics on Linux (4)
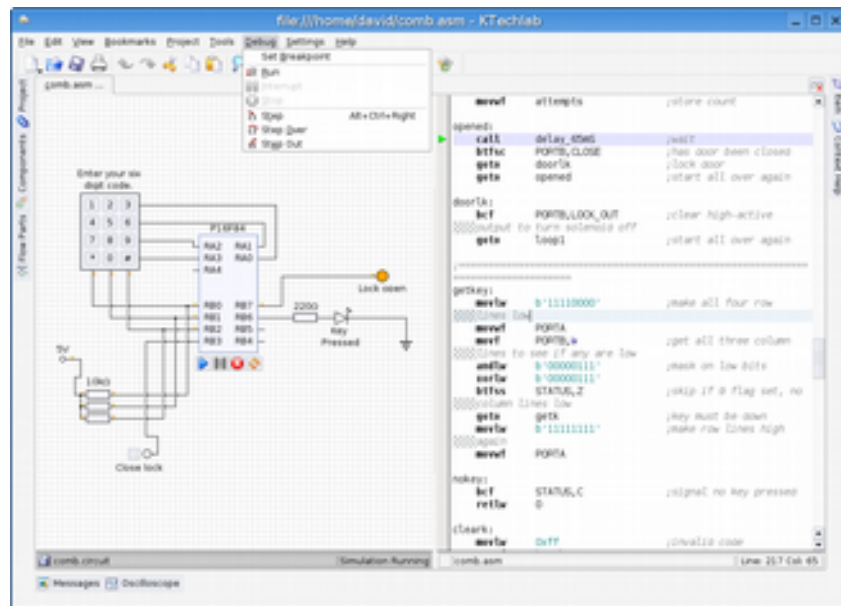
It could design programs for microcontrollers and those programs could be simulated alongside with the electronic circuit incorporating the microcontroller.

Currently only PIC microcontrollers are supported, from Microchip.

Studying electronics on Linux (5)
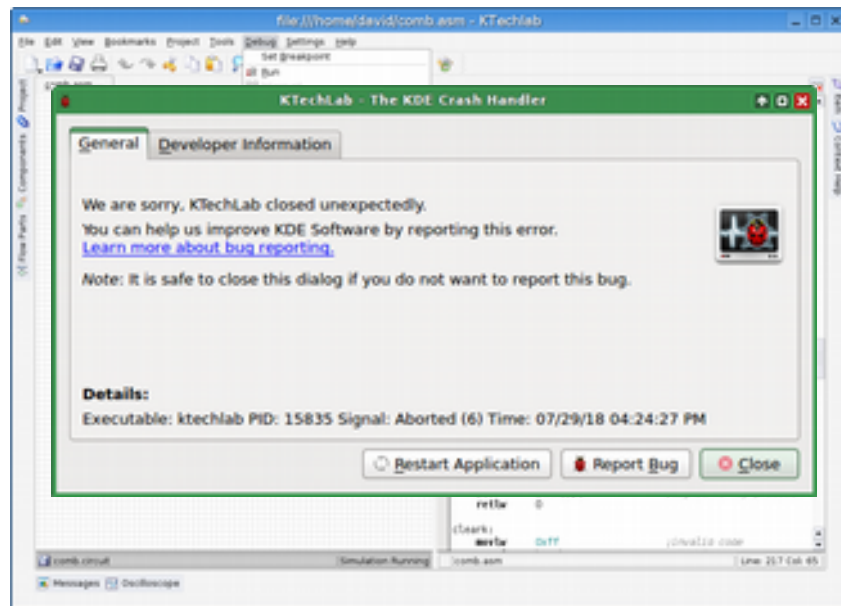
However, it had some bugs and it has been quite unstable.

I had been learning C++, too, at the university, so I contacted the developers and I wanted to help improving the program.

First patch accepted

After discussions on mailing lists and after sending some patches, I have become a developer, back in 2008.

Later I have have found out that the original authors had not been active in the project anymore.

I do not know the history of KTechLab before the start of the SourceForge project.

KTechLab 0.3.7

The first release I have been involved with has been KTechLab 0.3.7 in 2009.

After this release we started an effort for porting KTechLab to Qt4 and KDE4Libs.

First attempt at Qt4 port
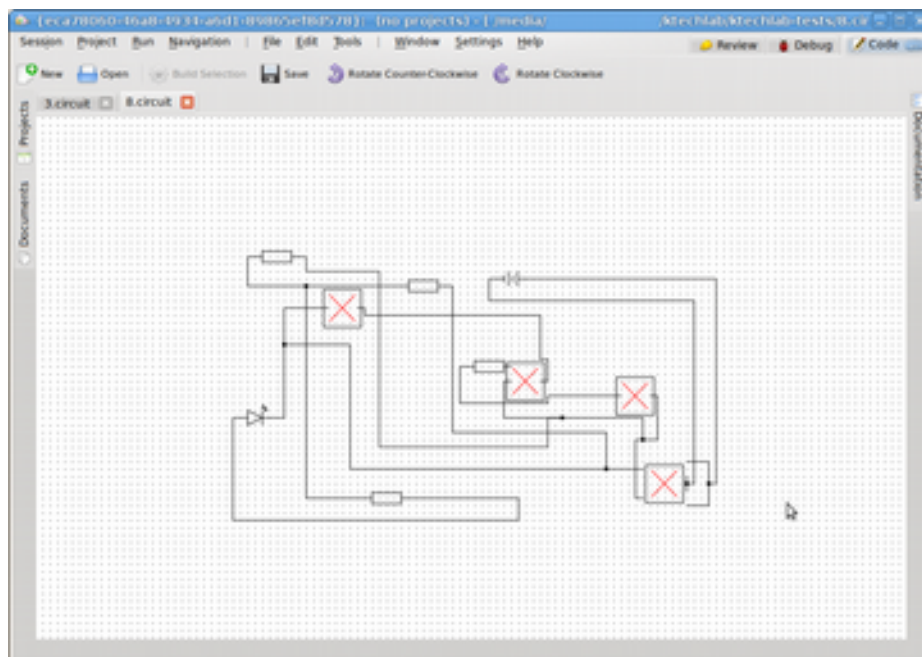
The initial attempt has been a port based on KdevPlatform, its state can be seen on the screen-shot.
If you see similarities with KDevelop, it is not a coincidence, KDevPlatform is a framework used by KDevelop.

The code still exists in KTechLab's repository, under the branch master-0.4.
It is not functional, and because of the very intense effort required for developing it, it is in abandoned state.

One of my conclusions from this effort is that 'Do not rewrite software from scratch, because it will take more effort than you would expect'.

Second attempt at Qt4 port
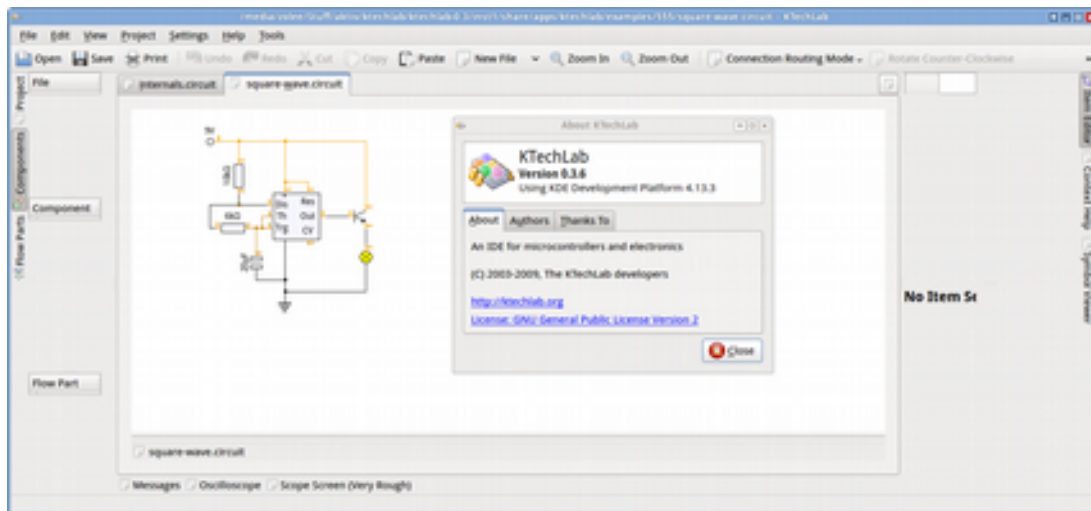
In 2015 we started a new porting effort, based on the latest Qt3 code.

This time the target has been to just port the code towards new version of libraries, without porting to any new framework.

There are minimal functional changes in the program; the only notable one is that the DCOP interface has been removed.

KTechLab joined KDE in 2017
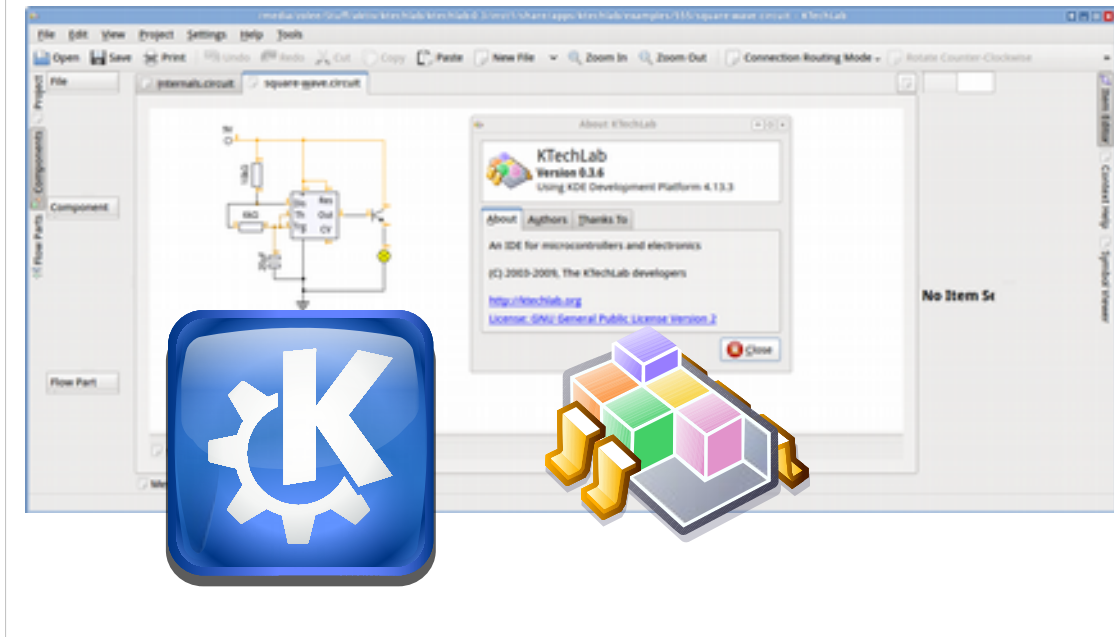
In 2017 KTechLab has joined KDE.

The project's assets have been migrated to KDE
  infrastructure; the old SourceForge and GitHub
  projects still exist.

First Qt4 based release: 0.40.0

In 2017 we released the first version based Qt4, version 0.40.0.

It depends on Qt3Support and Kde3Support.

This will change in the future releases.

Future plans (1)

- release for Qt4, without Qt3Support
- release for Qt5 / KDE Frameworks 5
- website improvements
    - adding content
    - possibly reuse content from GitHub wiki
- package in distributions
- KDE CI

First thing on my todo list is port towards up-to-date libraries, this meaning Qt5 and KDE Frameworks 5.

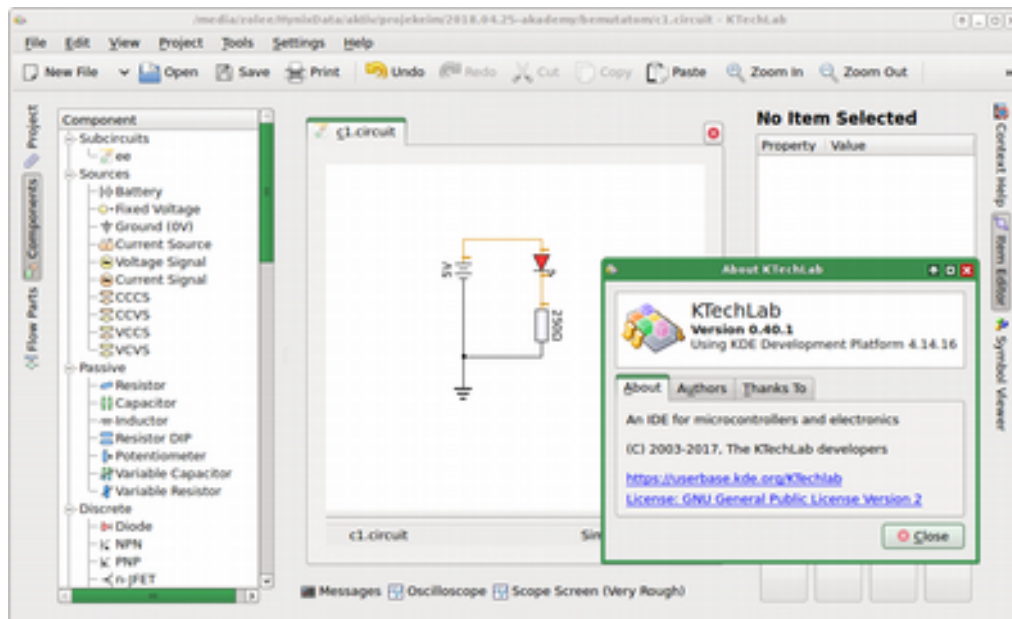Also currently KTechLab's website has a lot of room for improvements. Before migrating to KDE infrastructure, there has been a wiki at GitHub, serving as website for KTechLab. Currently KTechLab's official website is a wiki page at KDE.

In the long term I would like to have KTechLab included in Linux distributions and possibly other operating system distributions.

Having only Qt5 and KDE Frameworks 5 as dependencies should allow building KTechLab on the KDE's Continuous Integration server.

Future plans (2)

- Patches are welcome
- Many ideas for improvement have been documented
    - TODO file
    - Feature requests page on GitHub wiki
    - Mechanics
- Getting into classrooms as teaching aid
    - Supporting Windows, too?

Anybody who feels like contributing to the project is welcome.

There have been always ideas for new features for KTechLab; many of these are written in the TODO file and in the Feature Requests page in the old GitHub wiki.
One notable item is support for mechanics, in order to allow simulating automation systems including mechanics, electronics and possibly software.

It would be nice if students could use KTechLab in electronics classes for better understanding electronics; probably a Windows port would make it a lot easier to achieve this

Thank you!

Questions?

https://userbase.kde.org/KTechlab
ktechlab-devel@kde.org
#ktechlab @ Freenode IRC