KDiff3 - Diff-icult?

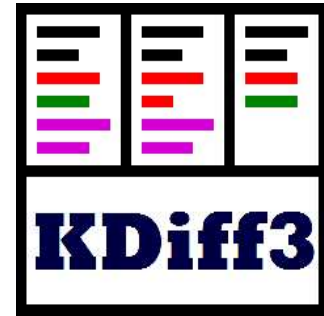# Benefits of KDiff3 usage for programmers and "civilians"

KDiff3 is a tool for comparison, synchronisation and merge of files and directories

By Joachim Eibl
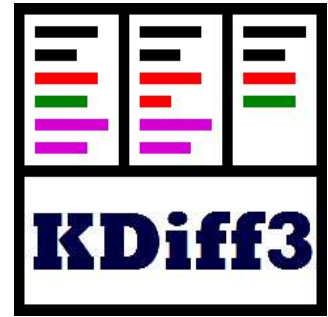KDE Community World Summit 2004

Other Free Diff, Merge And Synchronisation Tools

- GNU-Diffutils (diff, diff3)

- Meld (written in Python for Gnome, 3-way)

- Xxdiff (3-way)

- Kompare (in kdesdk)

- Unison (rsync-transfer)

- Tkdiff

- Dirdiff

- Gtkdiff

- KFS (KFileSynchroniser)

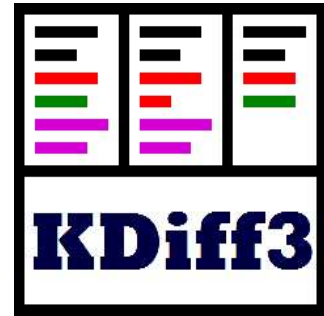- Winmerge

Getting started

- Command line:

  ```
  kdiff3 file1 file2 [file3] [-o outputfile]
  ```

- Open dialog (history-comboboxes)

- Drag and drop,

- Copy and paste into diff input window

Basic Features

- Diff-highlighting (character by character)
- Unchanged lines are horizontally aligned
- Whitespace (spaces, tabs, line-endings)
- Special treatment of C/C++-comments
- Overview-columns
- Merge (2-way)
- Search-function
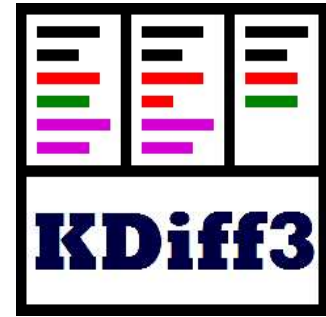- Copy and paste
- Word wrap

3-Way Merge

- One common base

- Two branches (created by possibly different developers)

- Automatic selection of lines that were changed in only one file

- "Conflicts" when the same lines were changed

- Special color scheme

- Integrated merge output editor

- Saving not possible while conflicts remain
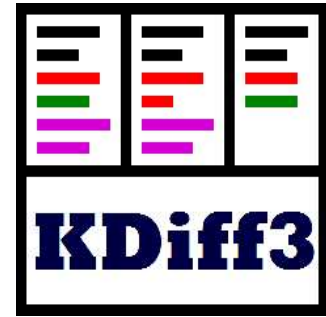
Preprocessors, `sed`

- Normal preprocessor: changes what you really see and get

- Line-Matching Preprocessor: only affects the line-matching phase of the comparison. Use this to suppress unwanted differences.

- `sed` is often the perfect tool for preprocessing

`sed`-Examples:

- `sed s/Regexp/Replacement/g`

- `sed 's/#/\/\//'`

- `sed 's/\$\(Revision\|Author\|Log\|Header\|Date\).*\$/\$\1\$/'`
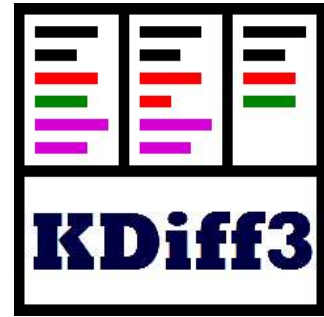
Directory Comparison, Synchronisation and Merge

- 2 and 3-way (automated) merge

- Recursive operation

- Color scheme

- Double-click opens a file

- Modify the proposed operation by clicking it

- Run operation for current or all items

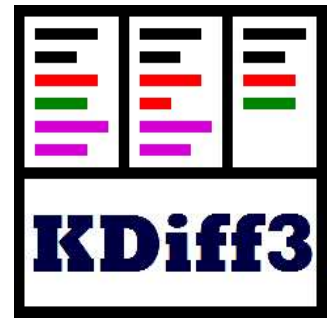- Special Options (Full Analysis, ...)

- KIO-support

Special Usecases

- Huge FTP-downloads (via KIO)

- Comparison with tar-archives (via KIO)

- Creating a pseudo-patch

Other Features

- can be used as diff-viewer within KDevelop (libkdiff3part)

- can also be compiled without KDE (Windows-binary available)

- tested on 64-bit system

- documentation available
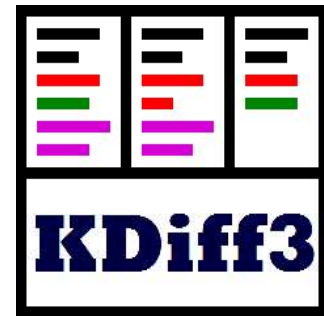
The Future Is Wide Open

Possible features:

- Unicode-support

- Binary comparison mode (Hex-view)

- Printing

- Other filetypes (hard)

The End

- Thank you for listening!

- Do you want to participate?

- Homepage: http://kdiff3.sourceforge.net

- CVS: kdeextragear-1/kdiff3

Time For Questions