Emacs Features

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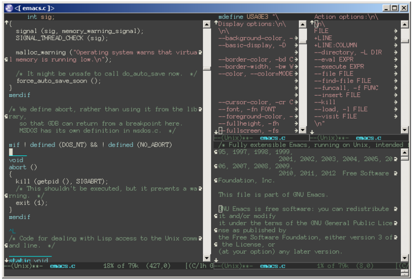
Features already in Emacs

- Presentation of several features which are not always present in other text editor or IDE

Split Screen

- split current frame as often as you want with horizontaly "`Ctrl+x 2`", verticaly "`Ctrl+x 3`", undo all split "`Ctrl+x 1`"
- increase/decrease size of frame (window for Emacs) with "`Alt+x enlarge-window`, `enlarge-window-horizontally`, `shrink-window` or `shrink-window-horizontally`"



```
    int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtua
l memory is running low.\n");

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the lib
rary,
   so that GDB can return from a breakpoint here.
   MSDOS has its own definition in msdos.c.  */

#if ! defined (DOS_NT) && ! defined (NO_ABORT)

void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a wa
rning.  */
  exit (1);
}
#endif

^L
/* Code for dealing with Lisp access to the Unix comm
and line.  */

static void
--(Unix)**-  emacs.c       18% of 79k  (427,0)    [(C/lh G
```

```
#define USAGE3 "\
Display options:\n\
\n\
--background-color, -
--basic-display, -D

--border-color, -bd C
--border-width, -bw W
--color, --color=MODE



--cursor-color, -cr C
--font, -fn FONT
--foreground-color, -
--fullheight, -fh
--fullscreen, -fs
--(Unix)**-  emacs.c
```

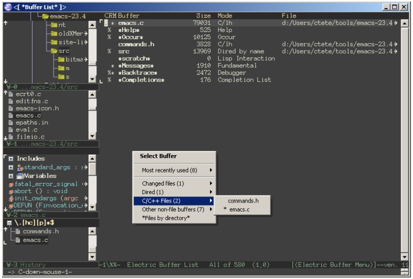
```
Action options:\n\
\n\
FILE
+LINE
+LINE:COLUMN
--directory, -L DIR
--eval EXPR
--execute EXPR
--file FILE
--find-file FILE
--funcall, -f FUNC
--insert FILE
--kill
--load, -l FILE
--visit FILE
\n"
--(Unix)**-  emacs.c
```

```
 /* Fully extensible Emacs, running on Unix, intended
95, 1997, 1998, 1999,
                 2001, 2002, 2003, 2004, 2005, 20
06, 2007, 2008, 2009,
                 2010, 2011, 2012  Free Software
Foundation, Inc.

 This file is part of GNU Emacs.

 GNU Emacs is free software: you can redistribute
it and/or modify
 it under the terms of the GNU General Public Lice
nse as published by
 the Free Software Foundation, either version 3 of
 the License, or
 (at your option) any later version.
--(Unix)**-  emacs.c       1% of 79k  (8,0)     [(C/
```

Figure: Split in four windows

No Tab

- Emacs do not use tab but history of opened files (buffers for Emacs)
- "`Ctrl+x`" "`Ctrl+b`" (for electric-buffer-list) or ECB history or "`Ctrl+Left Click`" to open context menu



```
CRM Buffer              Size  Mode                File
 . * emacs.c           79031  C/lh                d:/Users/ctete/tools/emacs-23.4→
 %   *Help*              525  Help
 %   *Occur*           10125  Occur
     commands.h         3828  C/lh                d:/Users/ctete/tools/emacs-23.4→
 %   src               13969  Dired by name       d:/Users/ctete/tools/emacs-23.4→
     *scratch*             0  Lisp Interaction
  *  *Messages*         1910  Fundamental
 %*  *Backtrace*        2472  Debugger
 %   *Completions*       176  Completion List
```

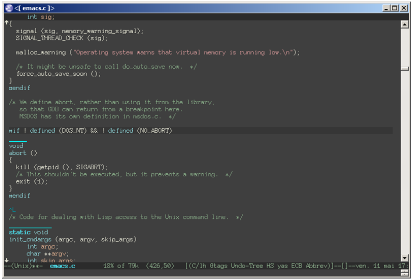
```
W-3 History          -1\%%-  Electric Buffer List   All of 580  (1,0)     [(Electric Buffer Menu)]--ven. 11
 -> C-down-mouse-1-
```

Figure: ECB History (bottom-left), Buffer List (top-right) and Context Menu

Move by paragraph/word/expression

- move from word to word with “`Ctrl+LEFT/RIGHT`”
- move from empty line to empty line (between paragraph/block) with “`Ctrl+UP/DOWN`”
- move from function begining to ending with “`Ctrl+Shift+HOME/END`”
- move to preprocessing begining with “`Ctrl+c Ctrl+u`”
- switch to *move from word to word* to *move from subword to subword* (place at CapitalLetterInThisWord) with “`Clrl+c Ctrl+w`”
- and more about parentheses/bracket or source code block or sentence

Highlight current line

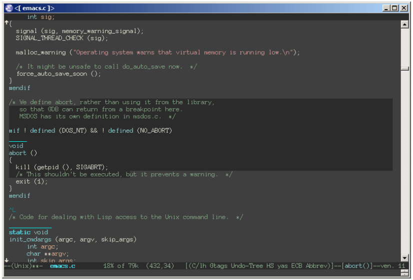


```
     int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n");

  /* It might be unsafe to call do_auto_save now.  */
  force_auto_save_soon ();
}
#endif

/* We define abort, rather than using it from the library,
   so that GDB can return from a breakpoint here.
   MSDOS has its own definition in msdos.c.  */

#if ! defined (DOS_NT) && ! defined (NO_ABORT)

void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a warning.  */
  exit (1);
}
#endif

^L
/* Code for dealing with Lisp access to the Unix command line.  */

static void
init_cmdargs (argc, argv, skip_args)
     int argc;
     char **argv;
     int skip_args;
--(Unix)**-  emacs.c      18% of 79k  (426,50)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[]--ven. 11 mai 17:
```

Figure: The highlight current line in center

Selection with or without Shift

- put a mark "`Ctrl+SPACE`" (do not hold it) and move to select something
- select the whole current block with "`Alt+h`"
- select the whole function with "`Ctrl+Alt+h`"
- use keep "`Shift`" press and move (or with mouse)



```
      int sig;
{
  signal (sig, memory_warning_signal);
  SIGNAL_THREAD_CHECK (sig);

  malloc_warning ("Operating system warns that virtual memory is running low.\n");

  /* It might be unsafe to call do_auto_save now.  */
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   so that GDB can return from a breakpoint here.
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#if ! defined (DOS_NT) && ! defined (NO_ABORT)

void
abort ()
{
  kill (getpid (), SIGABRT);
  /* This shouldn't be executed, but it prevents a warning.  */
  exit (1);
}
#endif

^L
/* Code for dealing with Lisp access to the Unix command line.  */

static void
init_cmdargs (argc, argv, skip_args)
      int argc;
      char **argv;
      int skip_args;
--(Unix)**-  emacs.c       18% of 79k  (432,34)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[abort()]--ven. 11
```

Figure: A region is selected

Delete by word/block

- remove all empty line except one “`Ctrl+x Ctrl+o`”
- remove all space except one “`Alt+SPACE`”
- delete word left “`Alt+BACKSPACE`” or “`Ctrl+BACKSPACE`”
- delete word right “`Alt+d`”

Add/Remove parentheses

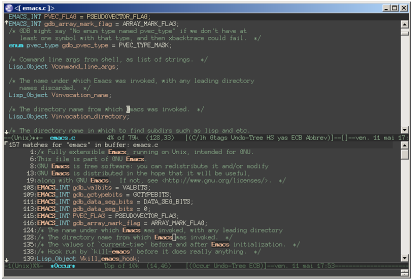
- around a selection with parentheses with “`Alt+(`”
- remove a pair of parentheses with “`Alt+x delete-pair ENTER`”

Incremental Search

- start an forward incremental search with “`Ctrl+s`”, regex with “`Ctrl+Alt+s`”
- backward incremental search with “`Ctrl+r`”, regex with “`Ctrl+Alt+r`”
- last searched in forward with “`Ctrl+s Ctrl+s`” same for backward “`Ctrl+r Ctrl+r`”, search in history “`Ctrl+s ENTER Alt+r`”, etc
- during incremental search, select to the end of the word with “`Ctrl+w`”, paste with “`Alt+y`”, case sensitive with “`Alt+c`”, start query replace with “`Alt+%`”
- the incremental search highlight all matches in the buffer
- any keys to move will close incremental search
- incremental search can be very useful to move in a buffer, even during selection

Occurrences

- search each occurences of a regex with “`Alt+s o`”
- you can navigate to the next or previous match with “`Alt+g Alt+n`” and “`Alt+g Alt+p`” (if you want use them I recommend to rebind them like “`F3`” “`Shift+F3`”)
- to refresh with “g” when in * Occur* buffer

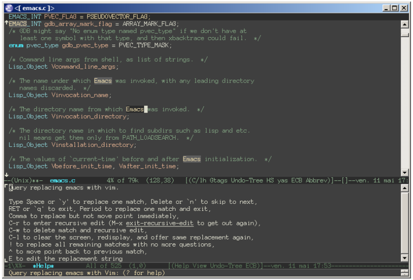


```
 EMACS_INT PVEC_FLAG = PSEUDOVECTOR_FLAG;
 EMACS_INT gdb_array_mark_flag = ARRAY_MARK_FLAG;
 /* GDB might say "No enum type named pvec_type" if we don't have at
    least one symbol with that type, and then xbacktrace could fail.  */
 enum pvec_type gdb_pvec_type = PVEC_TYPE_MASK;

 /* Command line args from shell, as list of strings.  */
 Lisp_Object Vcommand_line_args;

 /* The name under which Emacs was invoked, with any leading directory
    names discarded.  */
 Lisp_Object Vinvocation_name;

 /* The directory name from which Emacs was invoked.  */
 Lisp_Object Vinvocation_directory;

 /* The directory name in which to find subdirs such as lisp and etc.
--(Unix)**-  emacs.c        4% of 79k  (128,33)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[]--ven. 11 mai 17:
157 matches for "emacs" in buffer: emacs.c
      1:/* Fully extensible Emacs, running on Unix, intended for GNU.
      6:This file is part of GNU Emacs.
      8:GNU Emacs is free software: you can redistribute it and/or modify
     13:GNU Emacs is distributed in the hope that it will be useful,
     19:along with GNU Emacs.  If not, see <http://www.gnu.org/licenses/>.  */
    108:EMACS_INT gdb_valbits = VALBITS;
    109:EMACS_INT gdb_gctypebits = GCTYPEBITS;
    111:EMACS_INT gdb_data_seg_bits = DATA_SEG_BITS;
    113:EMACS_INT gdb_data_seg_bits = 0;
    115:EMACS_INT PVEC_FLAG = PSEUDOVECTOR_FLAG;
    116:EMACS_INT gdb_array_mark_flag = ARRAY_MARK_FLAG;
    124:/* The name under which Emacs was invoked, with any leading directory
    128:/* The directory name from which Emacs was invoked.  */
    135:/* The values of `current-time' before and after Emacs initialization.  */
    138:/* Hook run by `kill-emacs' before it does really anything.  */
    139:Lisp_Object Vkill_emacs_hook;
-1(Unix)%%-  *Occur*        Top of 10k  (14,46)    [(Occur Undo-Tree ECB)]--ven. 11 mai 17:53----------------
```

Figure: Search occurences of "emacs"

Replace query

- query replace without regex with “`Alt+%`”
- query replace with regex with “`Ctrl+Alt+%`”



```
EMACS_INT PVEC_FLAG = PSEUDOVECTOR_FLAG;
EMACS_INT gdb_array_mark_flag = ARRAY_MARK_FLAG;
/* GDB might say "No enum type named pvec_type" if we don't have at
   least one symbol with that type, and then xbacktrace could fail.  */
enum pvec_type gdb_pvec_type = PVEC_TYPE_MASK;

/* Command line args from shell, as list of strings.  */
Lisp_Object Vcommand_line_args;

/* The name under which Emacs was invoked, with any leading directory
   names discarded.  */
Lisp_Object Vinvocation_name;

/* The directory name from which Emacs was invoked.  */
Lisp_Object Vinvocation_directory;

/* The directory name in which to find subdirs such as lisp and etc.
   nil means get them only from PATH_LOADSEARCH.  */
Lisp_Object Vinstallation_directory;

/* The values of `current-time' before and after Emacs initialization.  */
Lisp_Object Vbefore_init_time, Vafter_init_time;

--(Unix)**-  emacs.c      4% of 79k  (128,38)   [(C/lh Gtags Undo-Tree HS yas ECB Abbrev)]--[]--ven. 11 mai 17:
Query replacing emacs with vim.

Type Space or `y' to replace one match, Delete or `n' to skip to next,
RET or `q' to exit, Period to replace one match and exit,
Comma to replace but not move point immediately,
C-r to enter recursive edit (M-x exit-recursive-edit to get out again),
C-w to delete match and recursive edit,
C-l to clear the screen, redisplay, and offer same replacement again,
! to replace all remaining matches with no more questions,
^ to move point back to previous match,
E to edit the replacement string
-1\%%-  *Help*       All of 525  (1,0)       [(Help View Undo-Tree ECB)]--ven. 11 mai 17:53-------------------
Query replacing emacs with Vim: (? for help)
```

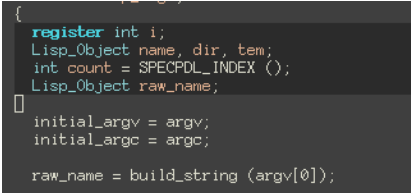
Figure: Query replacing "emacs" with "vim"

Replace on a selected region

- replace without regex with “`Alt+x replace-string ENTER`”
- replace with regex with “`Alt+x replace-regexp ENTER`”
- it replace only in the selected region and do not interact with rest of the buffer

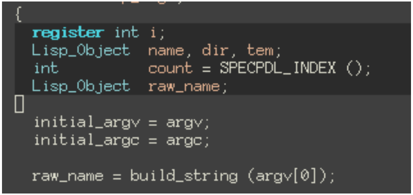
Alignment

- align declaration, parameters of functions with “`Alt+x align ENTER`” (following the current languages)
- align anything with regex with “`Alt+x align-regexp ENTER`”



```
{
  register int i;
  Lisp_Object name, dir, tem;
  int count = SPECPDL_INDEX ();
  Lisp_Object raw_name;

  initial_argv = argv;
  initial_argc = argc;

  raw_name = build_string (argv[0]);
```

Figure: Before

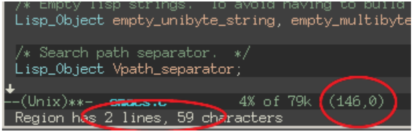


```
{
  register int i;
  Lisp_Object  name, dir, tem;
  int          count = SPECPDL_INDEX ();
  Lisp_Object  raw_name;

  initial_argv = argv;
  initial_argc = argc;

  raw_name = build_string (argv[0]);
```

Figure: After align declarations

Information

- Count number of character and line in a selected region with "Alt+ ="
- Information about a character with "Ctrl+x ="
- line and column number in status bar of current buffer (modeline in Emacs)



```
/* Empty lisp strings.  To avoid having to build
Lisp_Object empty_unibyte_string, empty_multibyte

/* Search path separator.  */
Lisp_Object Vpath_separator;

--(Unix)**-  emacs.c        4% of 79k  (146,0)
Region has 2 lines, 59 characters
```

Figure: Information about a selected region and line and column number of cursor

undo

advanced clipboard (kill ring)

- “`Ctrl+k`” to cut rest of line

rectangle

cua selection

macro

minor column mode

buffer point register

integrated explorer

bookmarks

command completion/search. . . (minibuffer)

highlight

indent (line/region following languages and settings)

folding (hide/show block)

version control integration (csv/svn by default)

calculator (on region/rectangle, hextodec. . .)

help (not welcoming)

help about a unknown shortcut/function. . .

compile

shortcuts with Windows and Menu keys

full customization (font/decoration/color/new function/shortcuts)

settings and customization in simple text file (lisp code)

completion (dumb)

calendar

transparency

parentheses match

mouse avoidance

word wrap (truncate line to show all line but on multiple line)

backup file

dictionnary

up/down case word/region

see only one selected region without interact with rest (narrow)

acceleration mouse scroll

remove all useless space (trailing space)

history in command (like shell)

fill (justify plain text)

find file (recursively with regex)

Mode

cedet/semantic/completion (smart for oriented object)/ede (manage project)

ecb (quake like window but bottom for compile/grep/custom. . .) source list/ directory list/ method list (with filter and group)

gtags (search file in project)

which function

dired+ / dired sort (sort like in MS Windows Explorer + open with associated application)

packages repository

home end

syntax coloration for every languages (just search on internet)

highlight current symbol

google calendar

column indicator

produce document, wiki, pdf, presentation... (muse mode)

show undo like a tree (undo tree mode)

org mode

parentheses match not visible

color theme

Function

memory ring for tags with semantic

check missing mode

incremental search at point

My Function

manage setting profile (my configuration)

select word at point

occur at point

toggle width of ecb window

search tab

graphical clearcase integration

new theme color

better integration in MS Windows

Customize

ignore insert key

never dialog box

never tooltips

add filesize, date and time (modeline)

french calendar

filter/group ecb windows (source/directory/method. . .)