Emacs as a Python IDE

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PyCon India 2011 - Symbiosys, Pune

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 - Customisability is a feature (not an add on).
 - Hence lots of "applications" in Emacs.
- Widely ported.
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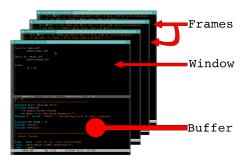
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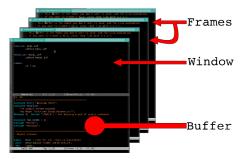
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Common terms have different meanings.



- ► Major modes are "environments".
- ▶ Minor modes are "utilities".

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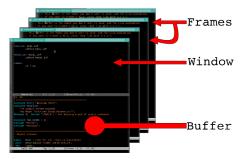
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- ▶ Major modes are "environments".
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General

- The kill ring
 - Each copy or kill (cut) is saved in a ring.
 - After doing a yank (paste), you can cycle through the ring.
- Keyboard Macros
 - Save a long sequence of keystrokes.
 - Replay them (sometimes with minor changes).
- Expansion

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 - Expand abbreviations intelligently.

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- ► There are 2 major modes for Python.
- python.el developed by the Emacs community
- python-mode.el developed by the Python community.
- ▶ Both provide
 - ► Navigation.
 - Semantic selection
 - Inferior interpreter process
 - Intelligent indentation.
 - ▶ PDBTrack support.

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- ► Has an accompanying doctest-mode
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Following code as it is stepped through the debugger.

- ► Useful for the import pdb; pdb.set_trace() trick.
- ► When the interpreter enters the debugger, Emacs will track the active file.
- Works out of the box for both modes.

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- ▶ This can integrate with pyflakes or pylint
- Highlights possible errors in your code as you type.

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import logging
   ( = subprocess.Poen()
               Error (E. foo): Module 'subprocess' has no 'Poen' member
                        (Python AC Flymake:1/2)--[]--[89.6%]------
Warning (W): Unused import logging
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- Example with pylint.

- Not virtualenv aware.

Utilites

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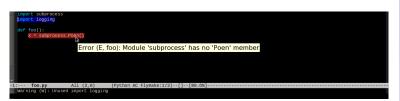
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- Rope is a Python refactoring library.
- You need PyMacs.
- Makes refactoring tools available.
 - ► Boilerplate for classes, functions etc.
 - Extraction, inlining
 - Completion and assistance.
 - Finding occurrences.
- ▶ Undo is *outside* the regular emacs flow.
- ▶ I don't like things that generate code.

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Heavy duty IDE. Part of Emacs now.

- Project support
- Speedbar (file/class/function tree)

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- ▶ Rule #6: Always mention org-mode in an Emacs talk.
- Org mode is an outline mode that can also be used
- Very powerful and worth exploring.
- Hard to describe without a demo

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Create tasks.

- Set schedules and deadlines.
- ► Clock time spent.
- Create agendas.
- ► And finish them off.

Task tracking

Create agendas. And finish them off.

Clock time spent.

Set schedules and deadlines.

Create tasks.

Basics

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```
* DOME Implement feature X
SCHEDULED: <2011-09-17 Sat> DEADLINE: <2011-09-20 Tue> CLOSED: [2011-09-15 Thu 18:06]

* TODO Prepare presentation
SCHEDULED: <2011-09-18 Sun> DEADLINE: <2011-09-20 Tue>
CLOCK: [2011-09-14 Wed 10:05]--[2011-09-14 Wed 14:05] => 4:00
CLOCK: [2011-09-12 Mon 18:05]--[2011-09-12 Mon 21:05] => 3:00
```

```
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```
Week-agenda (W37):
  Monday
             12 September 2011 W37
  Tuesday
             13 September 2011
  Wednesday 14 September 2011
  Thursday
             15 September 2011
                     5 d.: TODO Prepare presentation
  Friday
             16 September 2011
  Saturday
             17 September 2011
                Scheduled: DONE Implement feature X
    work:
  Sunday
             18 September 2011
    work:
                Scheduled: TODO Prepare presentation
-1:%*-
       *Org Agenda*
                      All (5,0)
                                      (Org-Agenda Week Ddl Grid Habit)--[86.9%]-
```

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- ▶ #TBD while coding.
- ▶ Via. Email ("Can you do this?").
- ▶ Via. Chat message ("Can you do this?").
- ► Via browser ("Nice article. I need to read this.")
- ▶ Via. real life ("Need to buy textbooks.").
- ► Repetitive tasks ("Need to pay rents").

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- Captures current "context" as an org-mode task.
- Works with email, code, chat buffers.
- ► Hipster PDA to capture real life tasks
- Org can natively handle repetitive tasks.
- Once in org, you can schedule etc. it

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