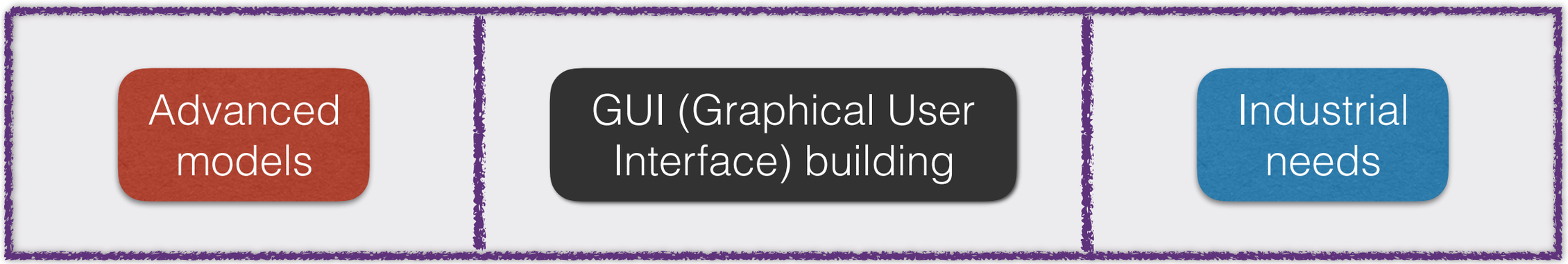
Channeling innovation from research to design

Why OpenTEA ?

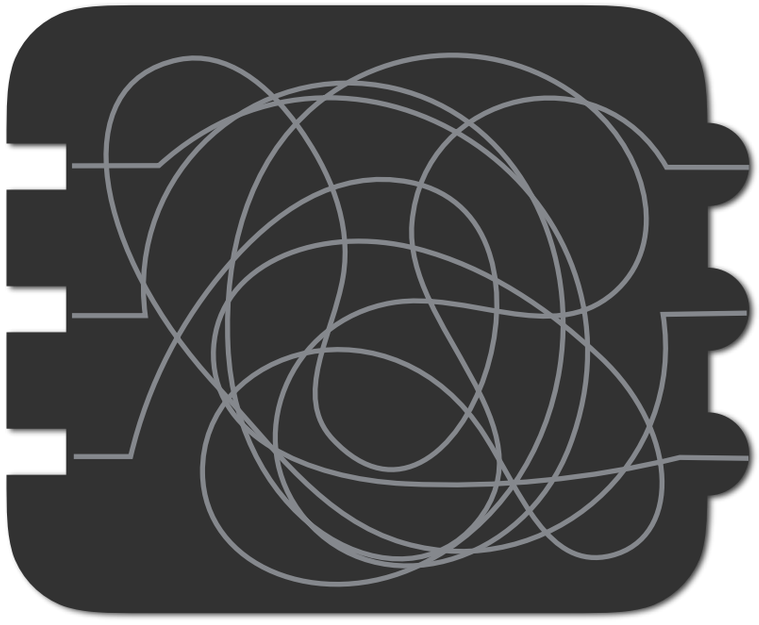
Research codes

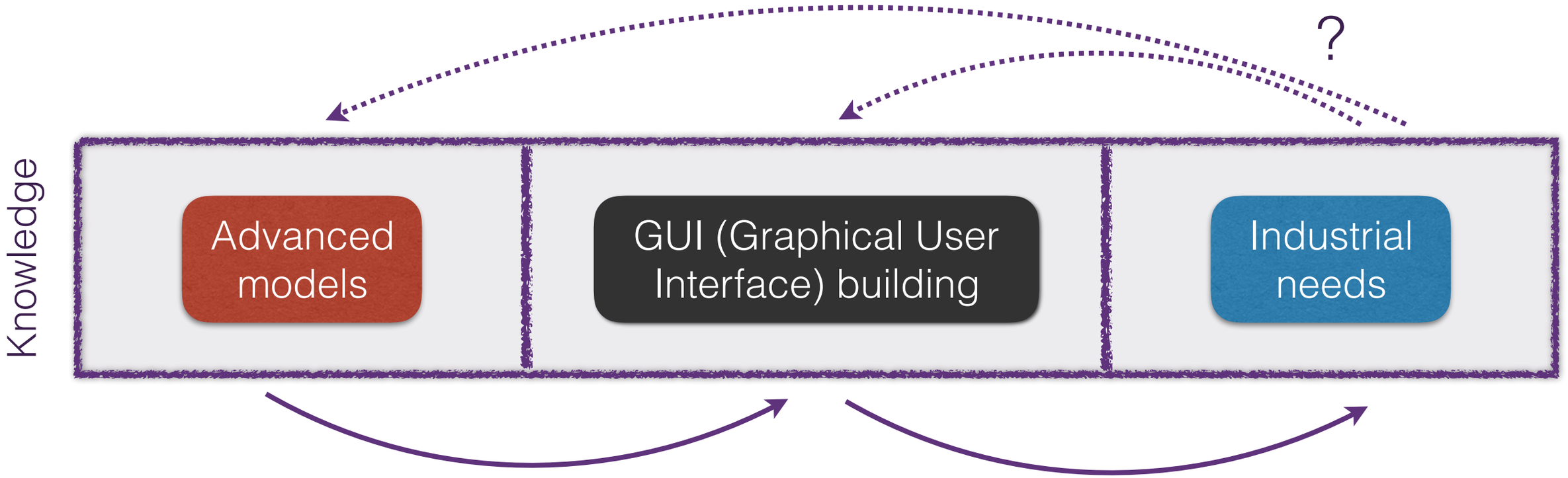
Industry

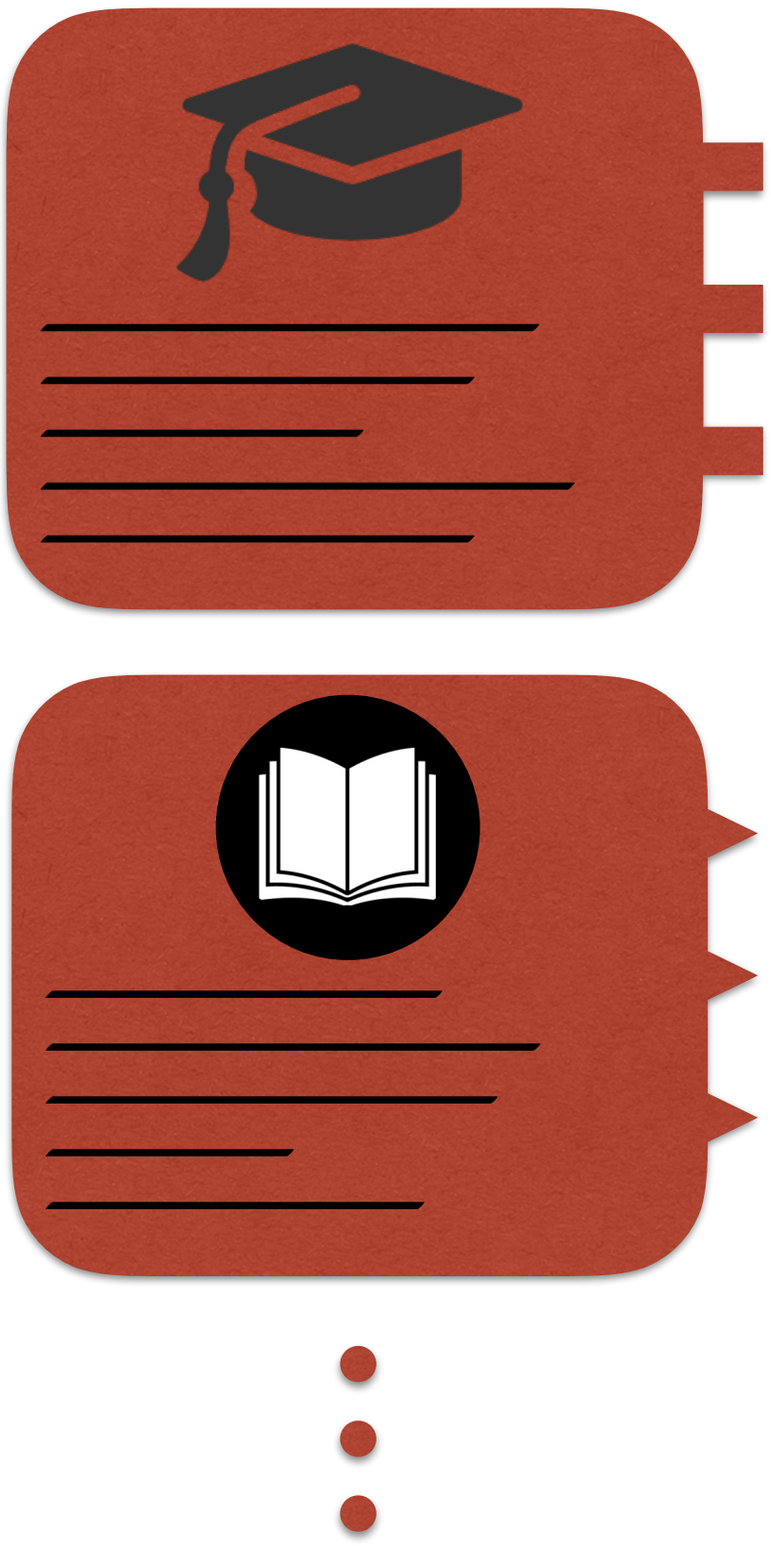
Knowledge

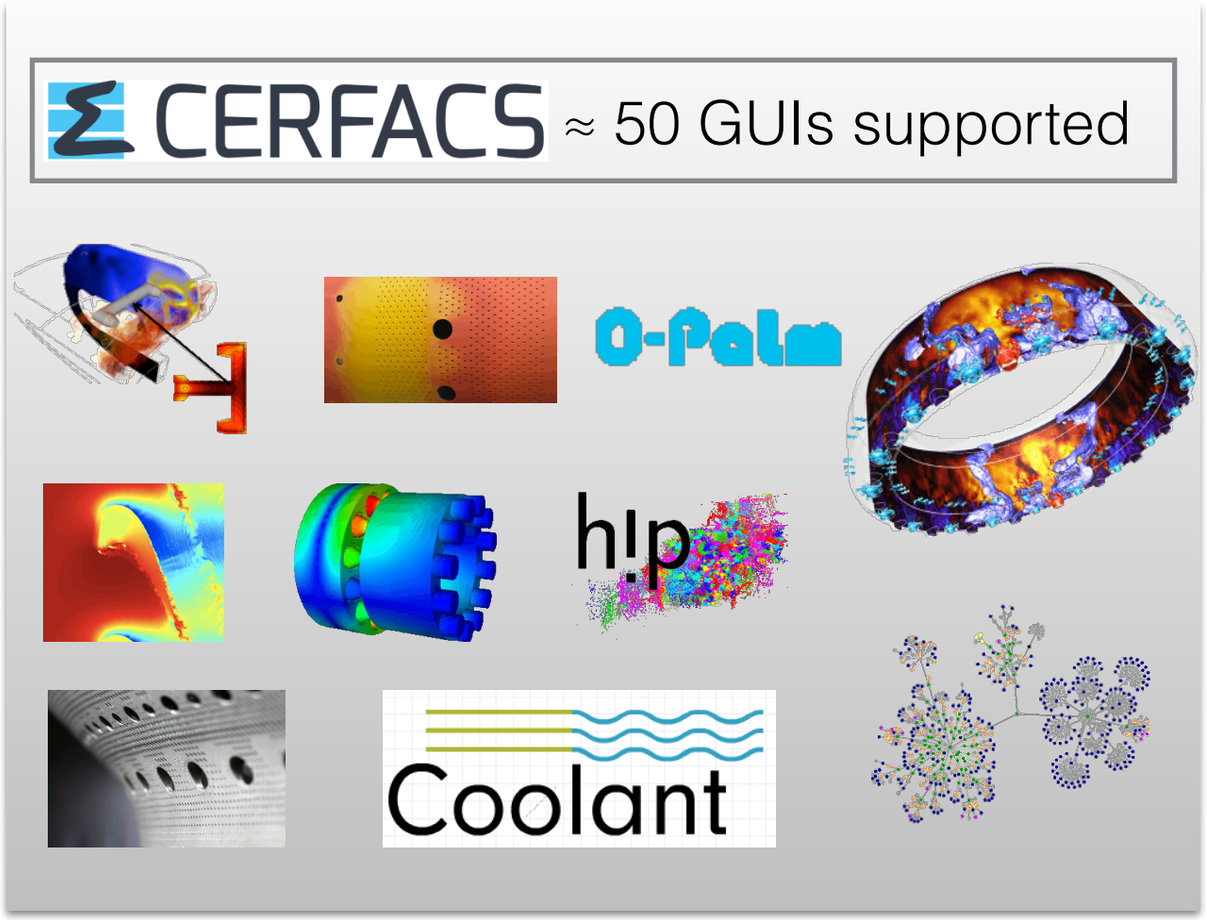


Why OpenTEA ?

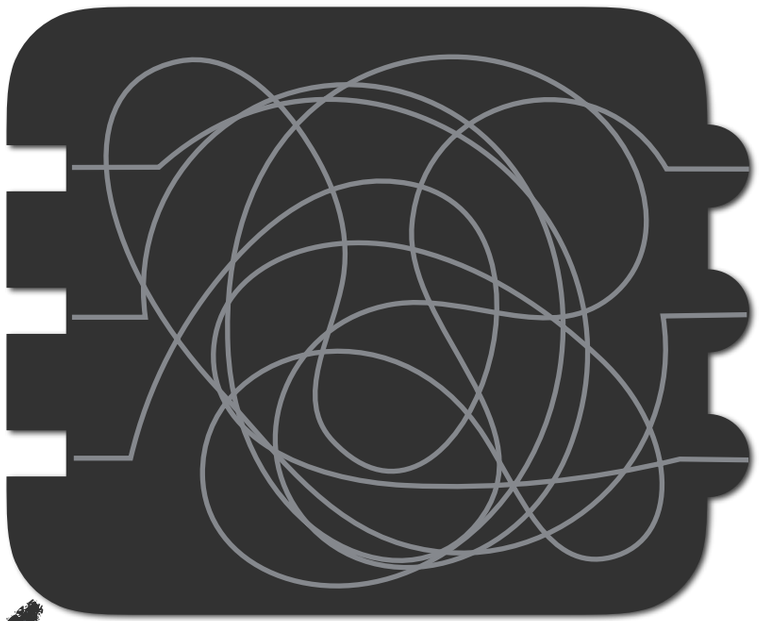



?
Knowledge
Advanced models
GUI (Graphical User Interface) building
Industrial needs




CERFACS
≈ 50 GUIs supported
O-Palm
hip
Coolant

Why OpenTEA ?



Custom interface :

Qt wxWidgets HTML5

Tkinter Java …

manage clusters

manage memory

Need: focus on **tools/codes (not appearance, wiring…)**

—

But adding an intermediary is inefficient

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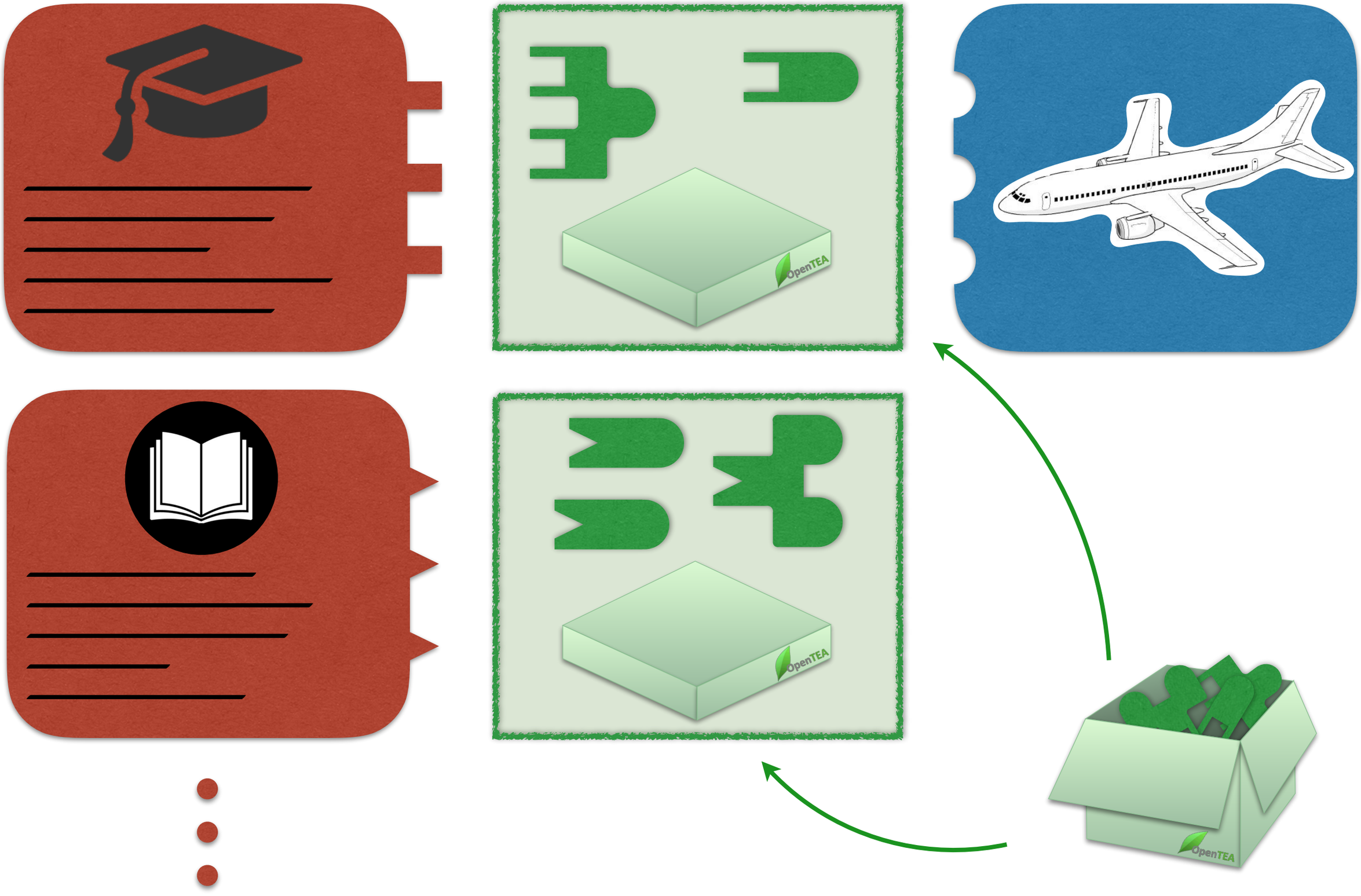
A more « hands on » strategy is needed

Why OpenTEA ?

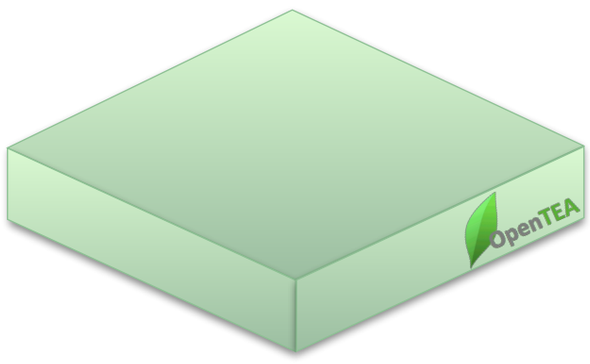
OpenTEA = Platform + Tool box

Why OpenTEA ?

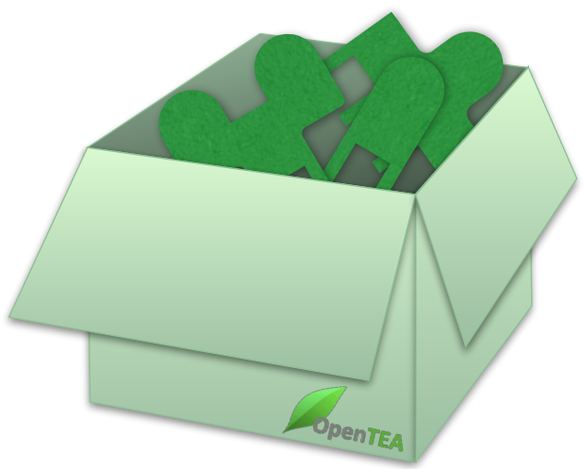


OpenTEA

Open source: free, extensible, transparent GUI framework



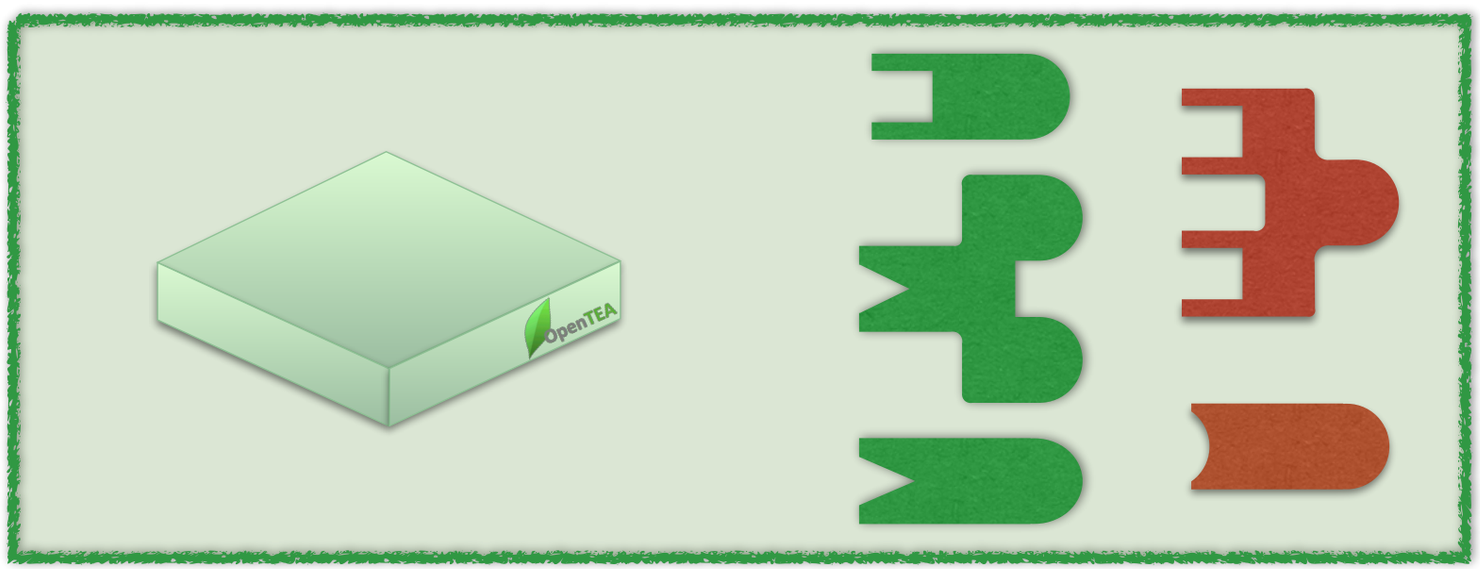
A common platform sets a framework. Harmonized code is easier to write, read and maintain



Many tools can be reused or adapted between applications. The toolbox streamlines most common tasks

Targets many architectures: **low dependency count**. Runs everywhere!

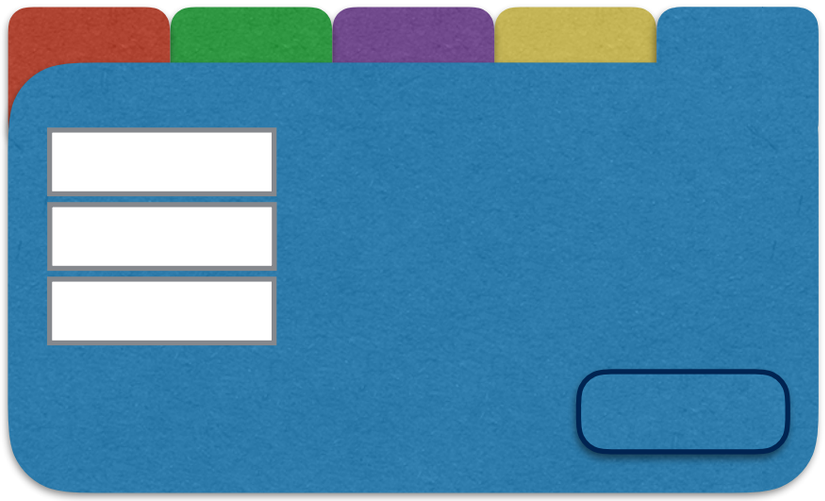
Interface



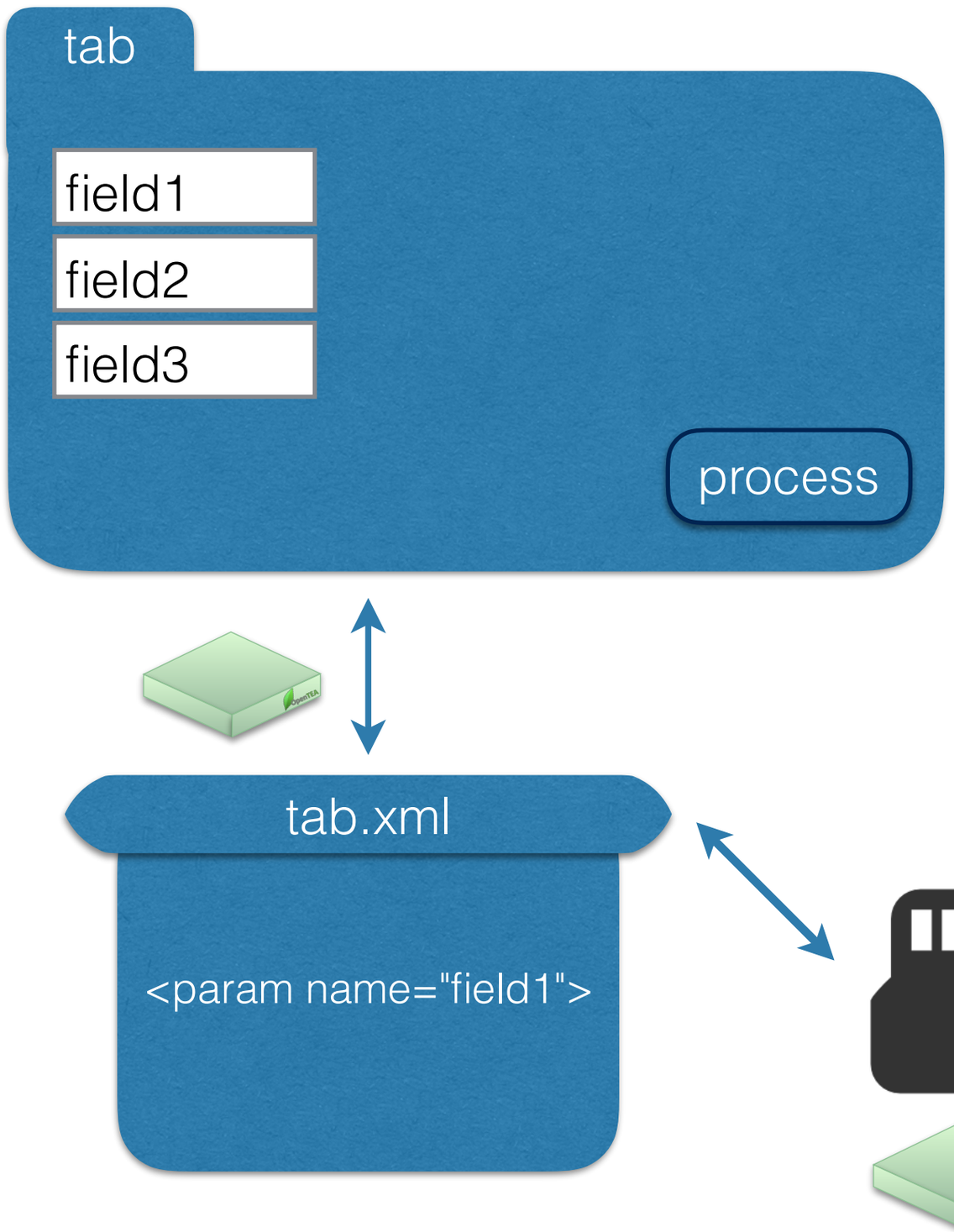
Common platform
easy recognition

Harmonized
assembly of tools

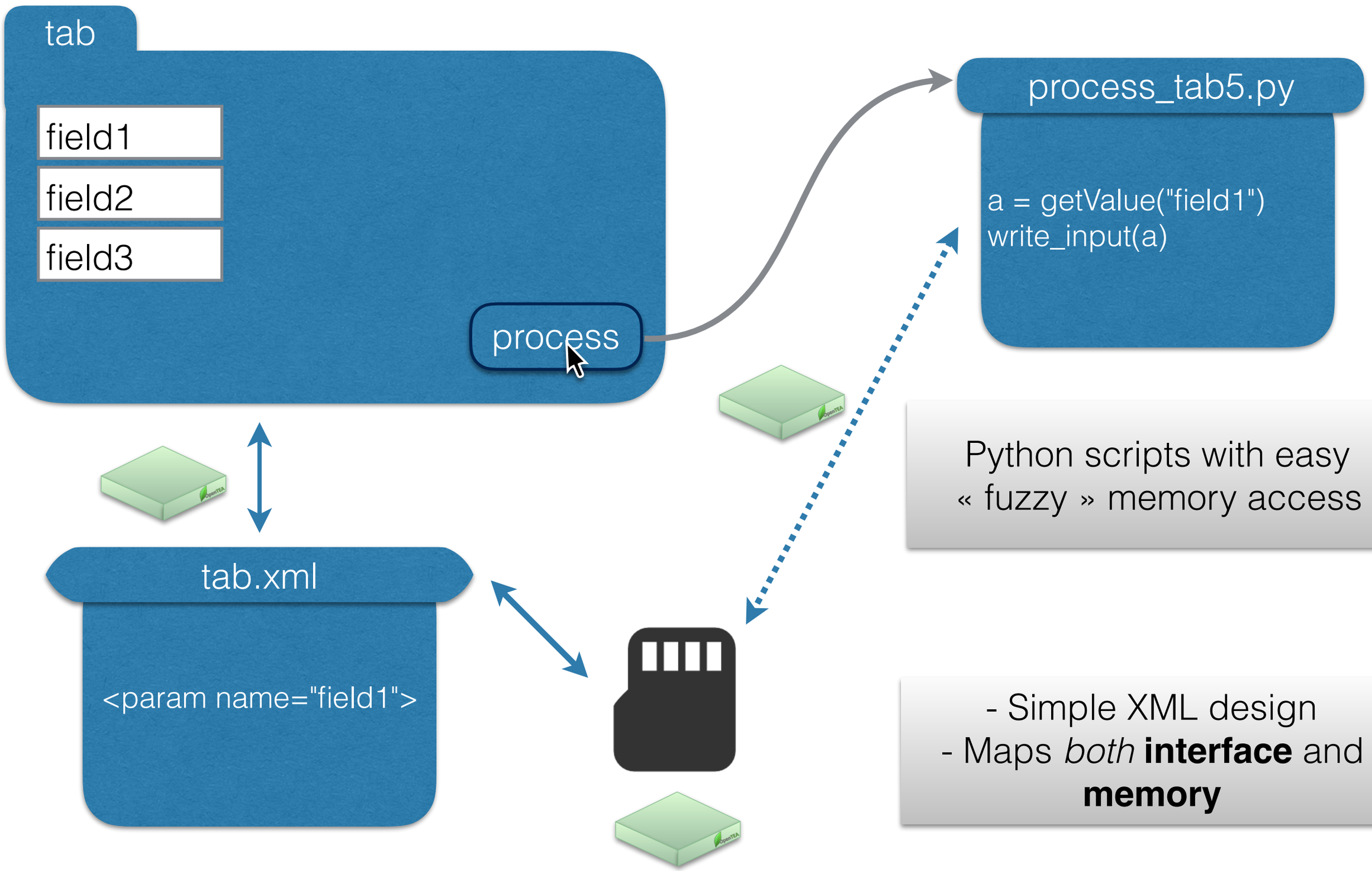
Debugging, replicating, extending…
is expected and facilitated



Diving deeper: How interfaces are designed in OpenTEA

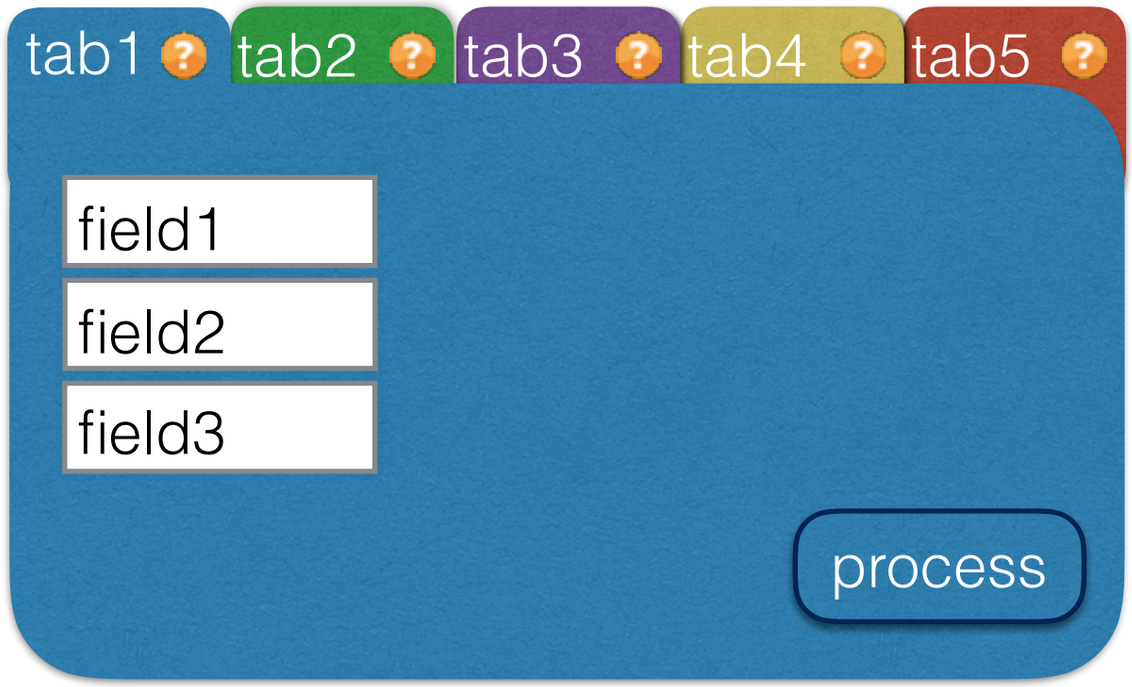


- Simple XML design
- Maps *both* **interface** and **memory**



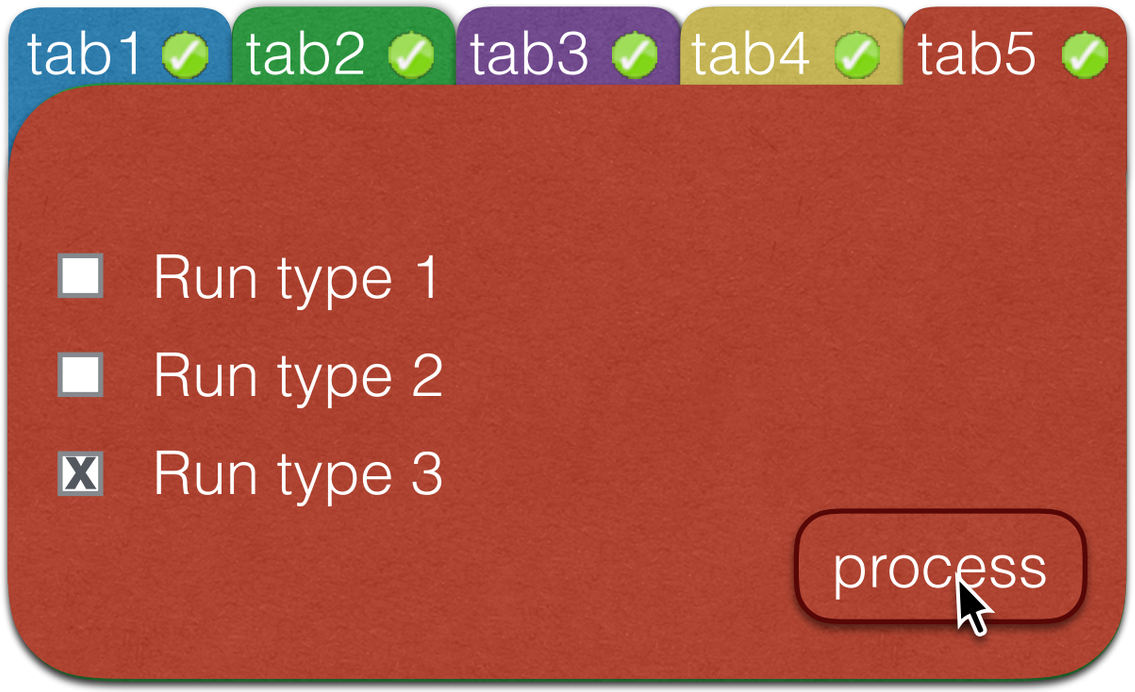
Python scripts with easy
« fuzzy » memory access

- Simple XML design
- Maps *both* **interface** and **memory**



« Linear » progression :

- all tabs must be validated
- every app behaves this way

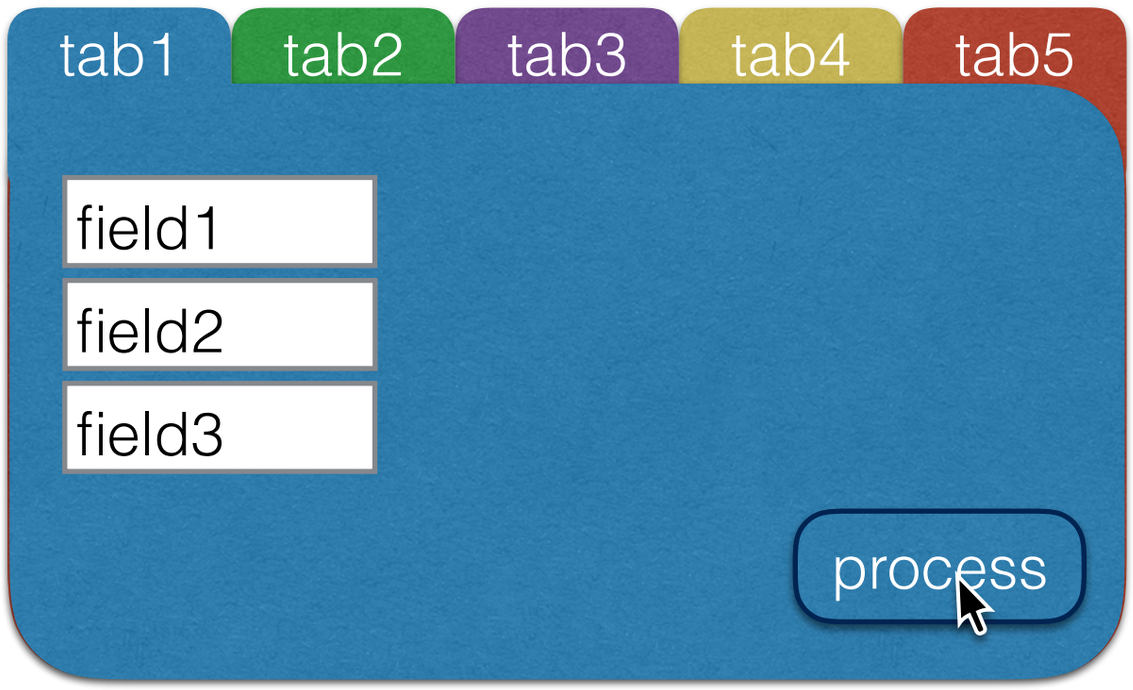


« Linear » progression :
- all tabs must be validated
- every app behaves this way

This is a ***strong*** choice:

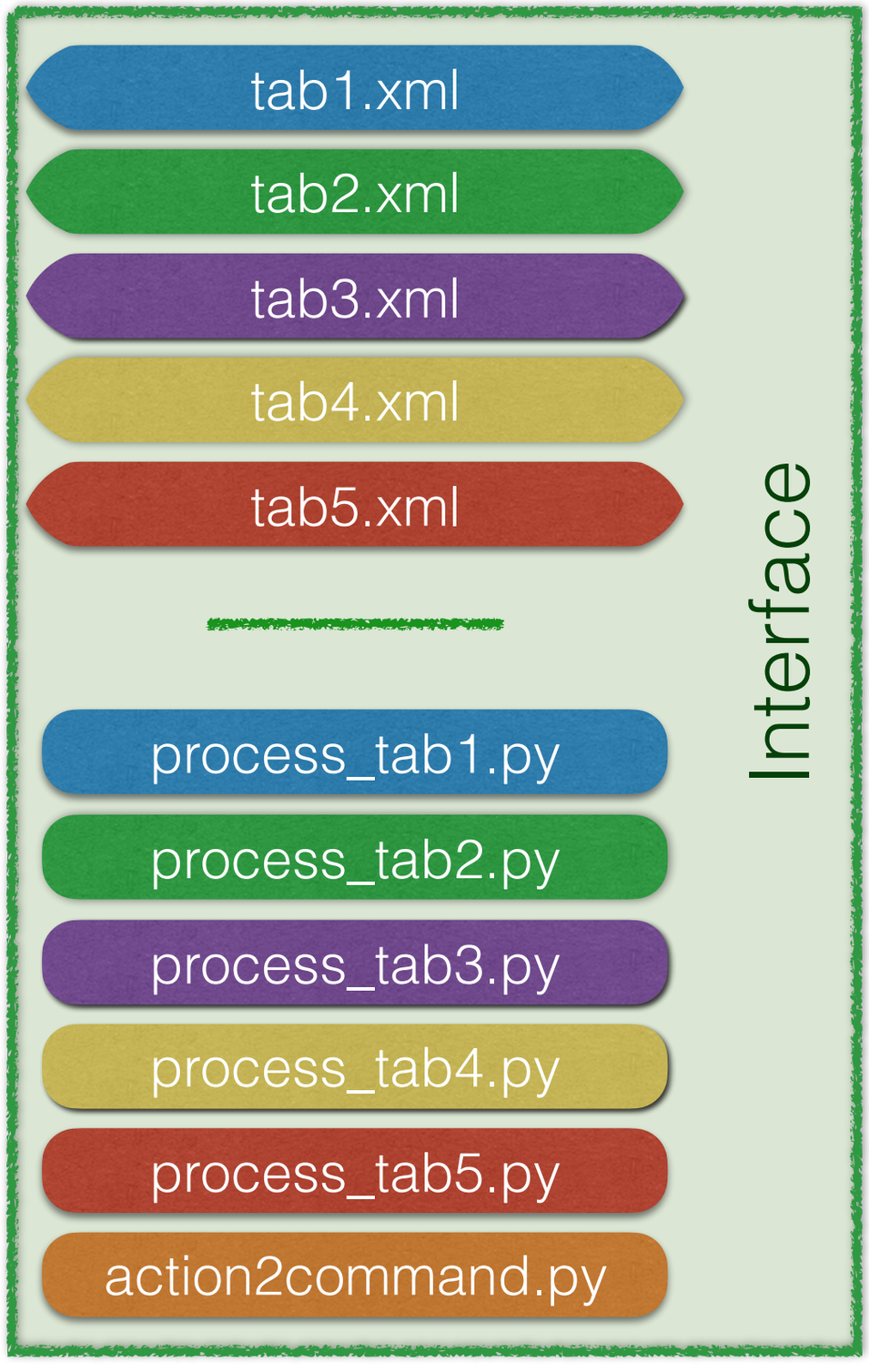
Pros:
- harmonized interfaces
- user feels at home and guided, even in a new app
- current users are used to this behavior

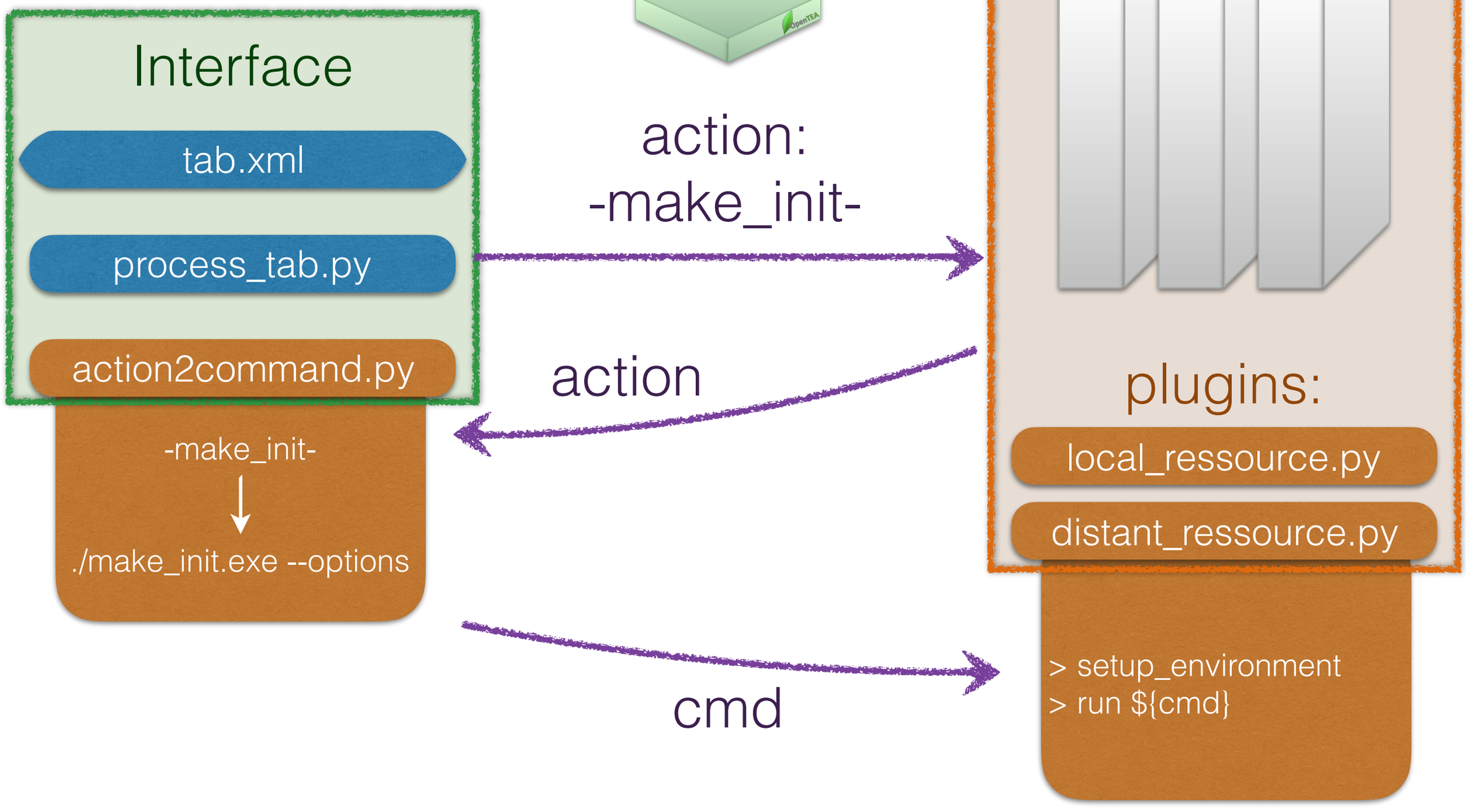
Cons:
- dialogs can feel repetitive
- design process has to fit in this framework

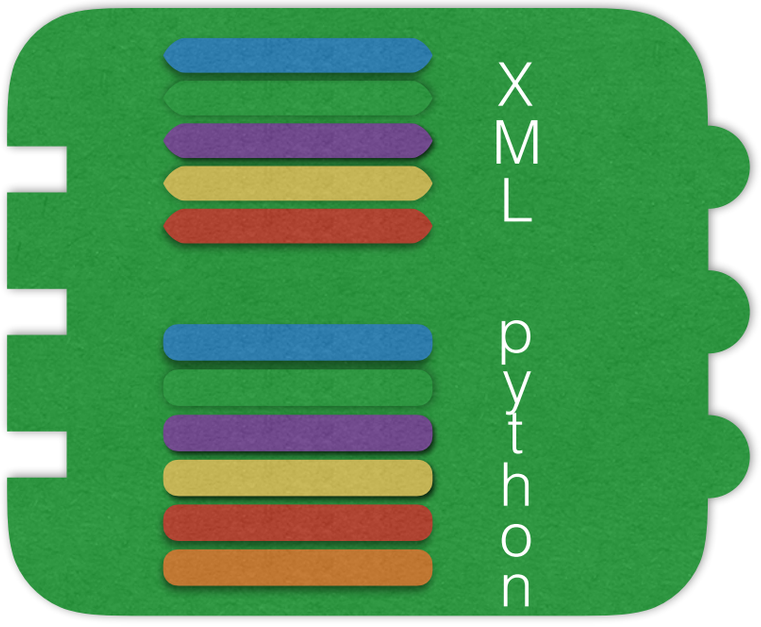


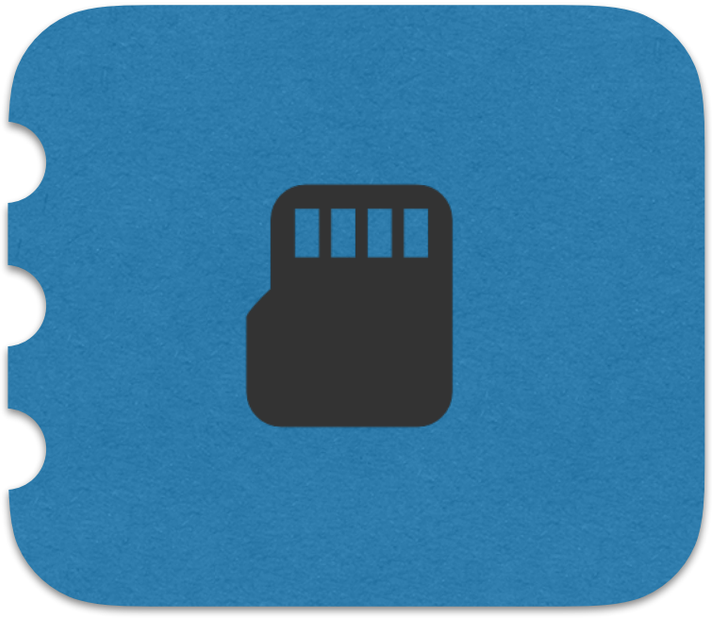
An interface is:

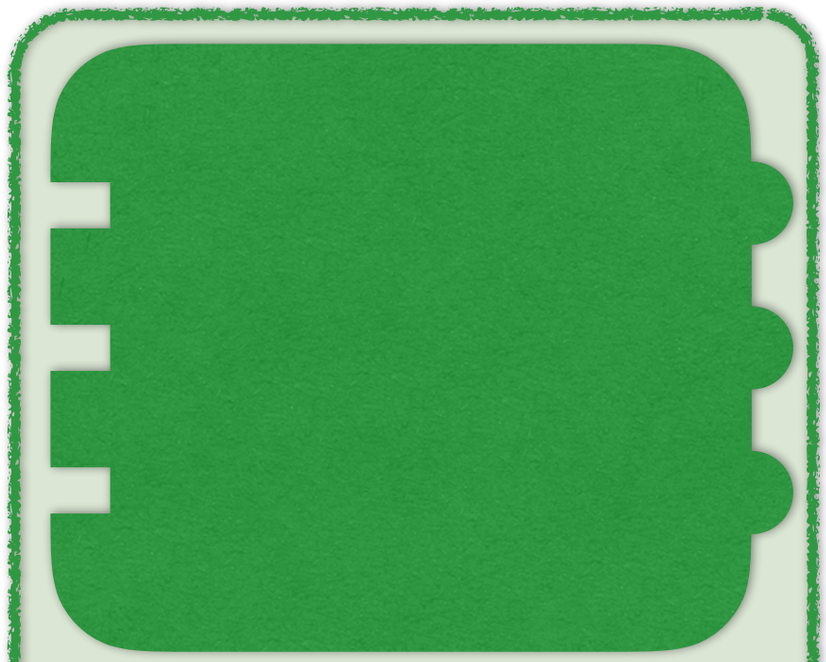
- a list of xml files defining the tabs + the memory
- 1 python script per tab
- an action -> cmd dictionary

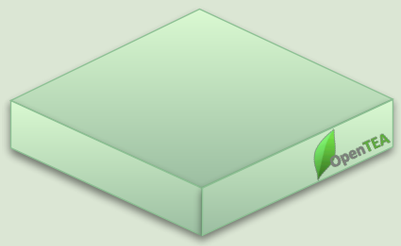


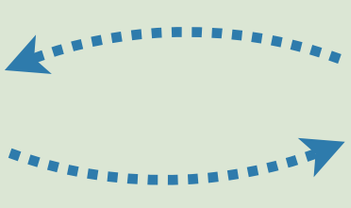

Interface
tab.xml
process_tab.py
action2command.py
-make_init-
./make_init.exe --options
action:
-make_init-
action
cmd
Ressource
plugins:
local_ressource.py
distant_ressource.py
> setup_environment
> run ${cmd}

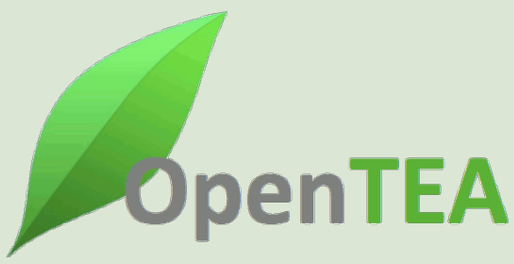

XML
python

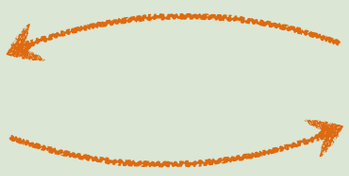













OpenTEA