

Wayland Input Methods

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Input methods?

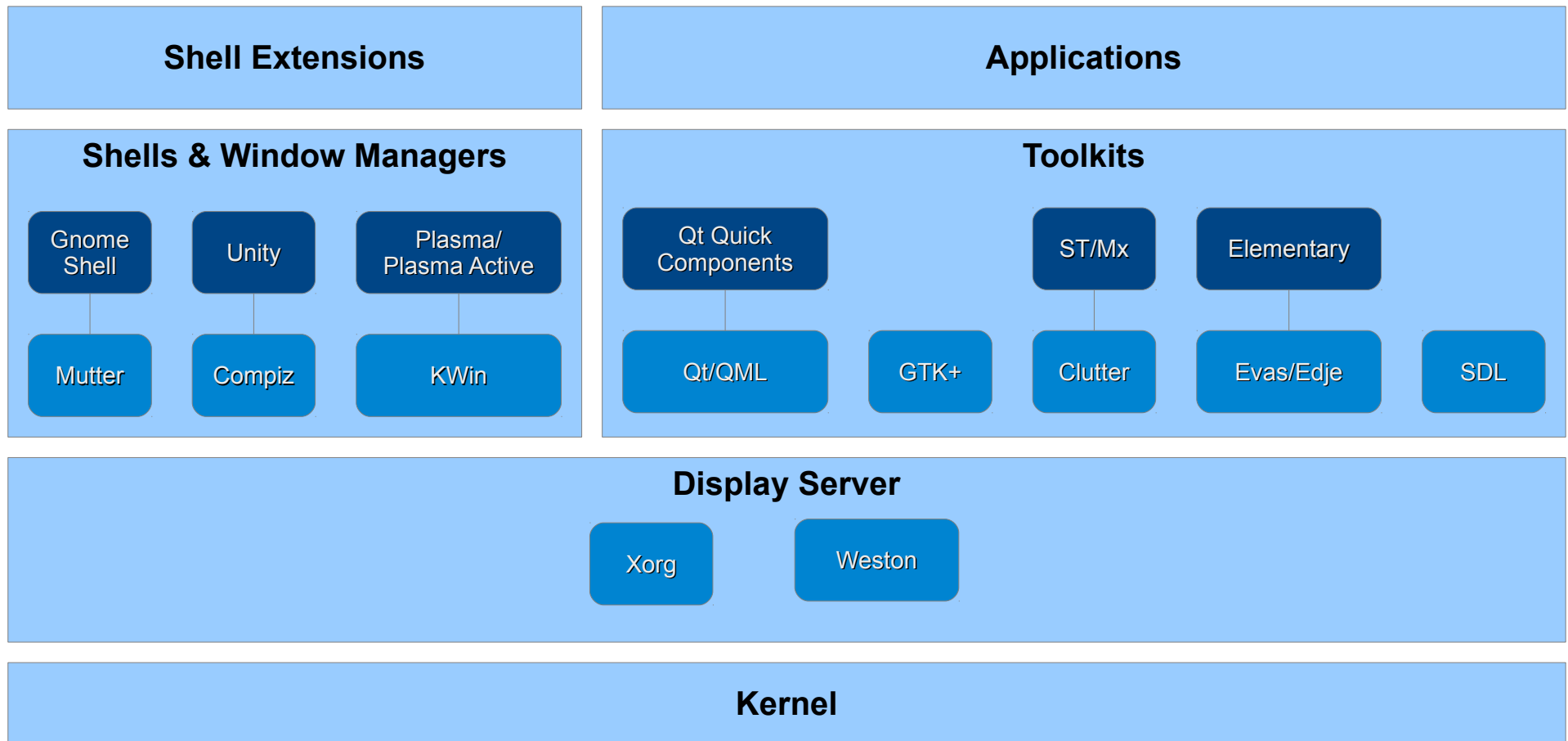
Input method developers want a unified architecture!

(And UI toolkits don't want to bother too much ...)

No protocol evolution in XIM

<https://mail.gnome.org/archives/wm-spec-list/2007-August/msg00025.html>

One display server, many platforms



Much better, more detailed:

<http://blog.mecheye.net/2012/06/the-linux-graphics-stack/>

(Jasper „magcius“ St. Pierre)

Wayland 1.0: No input methods

(but lots of crazy talk @ FOSDEM 2012)

One protocol, three interfaces

Input methods

protocol/input_method.xml

interfaces:

input_method_context,
input_method, input_panel,
input_panel_surface

requests:

commit_string,
preedit_string,
preedit_styling, keysym ...

events:

surrounding_text, reset,
content_type,
invoke_action, commit, ...

One protocol, three interfaces

Weston

examples:

clients/keyboard.c
clients/editor.c
clients/weston-simple-im.c

generated headers:

input-method-client-protocol.h
input-method-server-protocol.h
text-client-protocol.h
text-server-protocol.h

Input methods

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surrounding_text, reset,
content_type,
invoke_action, commit, ...

One protocol, three interfaces

UI toolkits

protocol/text.xml

interfaces:

text_model,
text_model_factory

requests:

set_surrounding_text,
activate, deactivate,
set_content_type, ...

events:

commit_string,
preedit_string,
preedit_styling, keysm, ...

Weston

examples:

clients/keyboard.c
clients/editor.c
clients/weston-simple-im.c

API (generated from XML):

input-method-client-
protocol.h
input-method-server-
protocol.h
text-client-protocol.h
text-server-protocol.h

Input methods

protocol/input_method.xml

interfaces:

input_method_context,
input_method, input_panel,
input_panel_surface

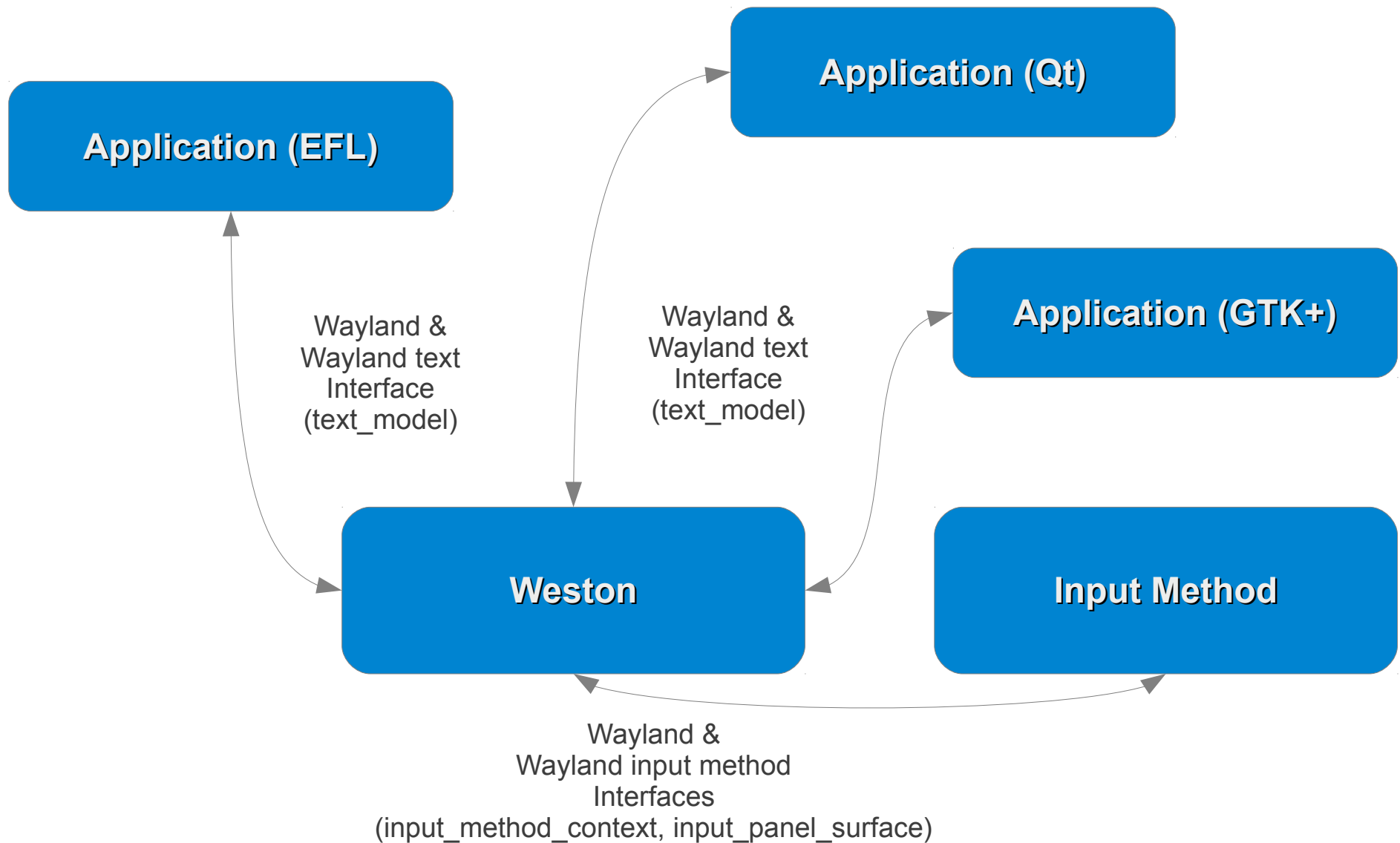
requests:

commit_string,
preedit_string,
preedit_styling, keysym, ...

events:

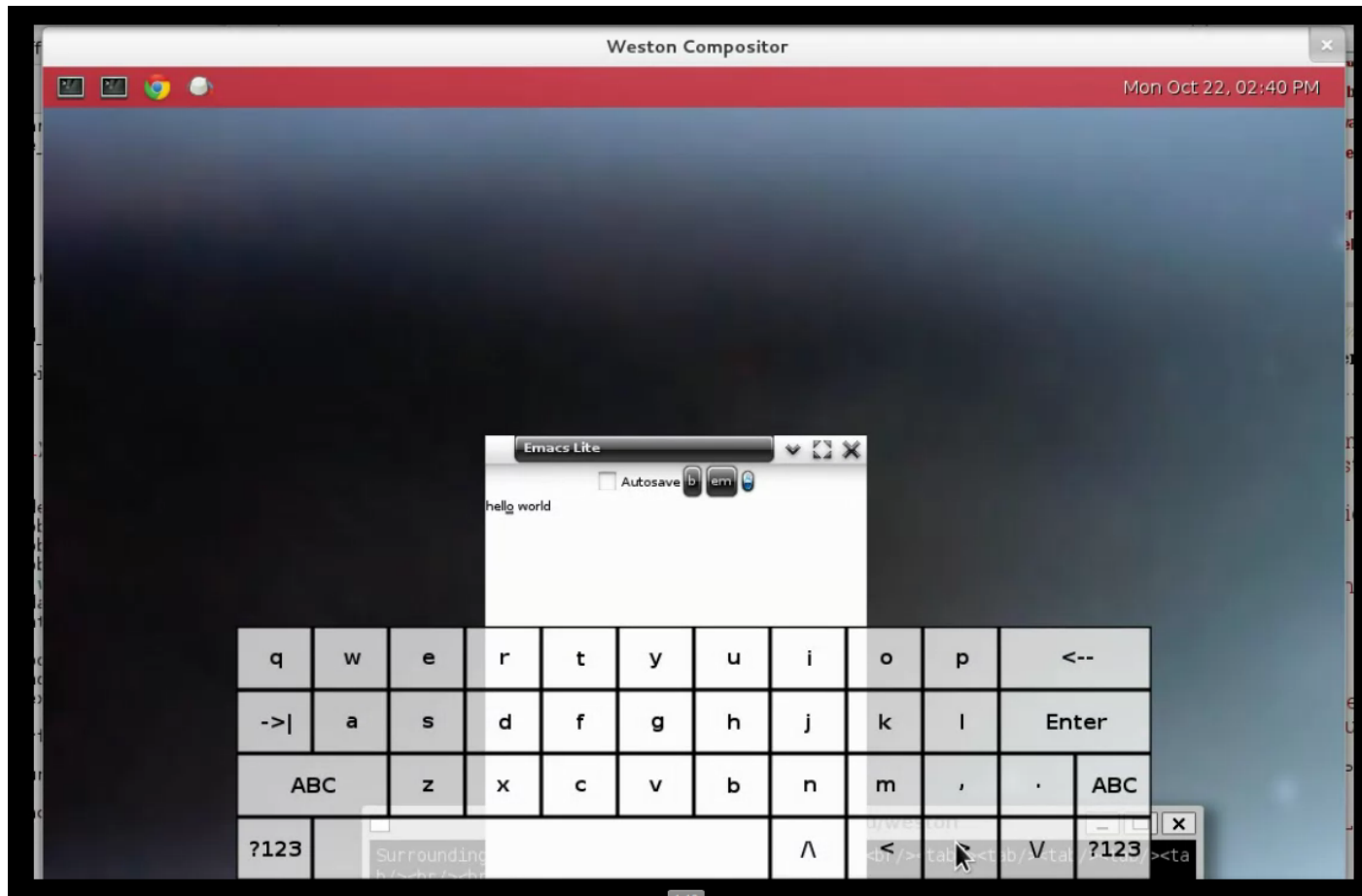
surrounding_text, reset,
content_type,
invoke_action, commit, ...

Architecture Overview

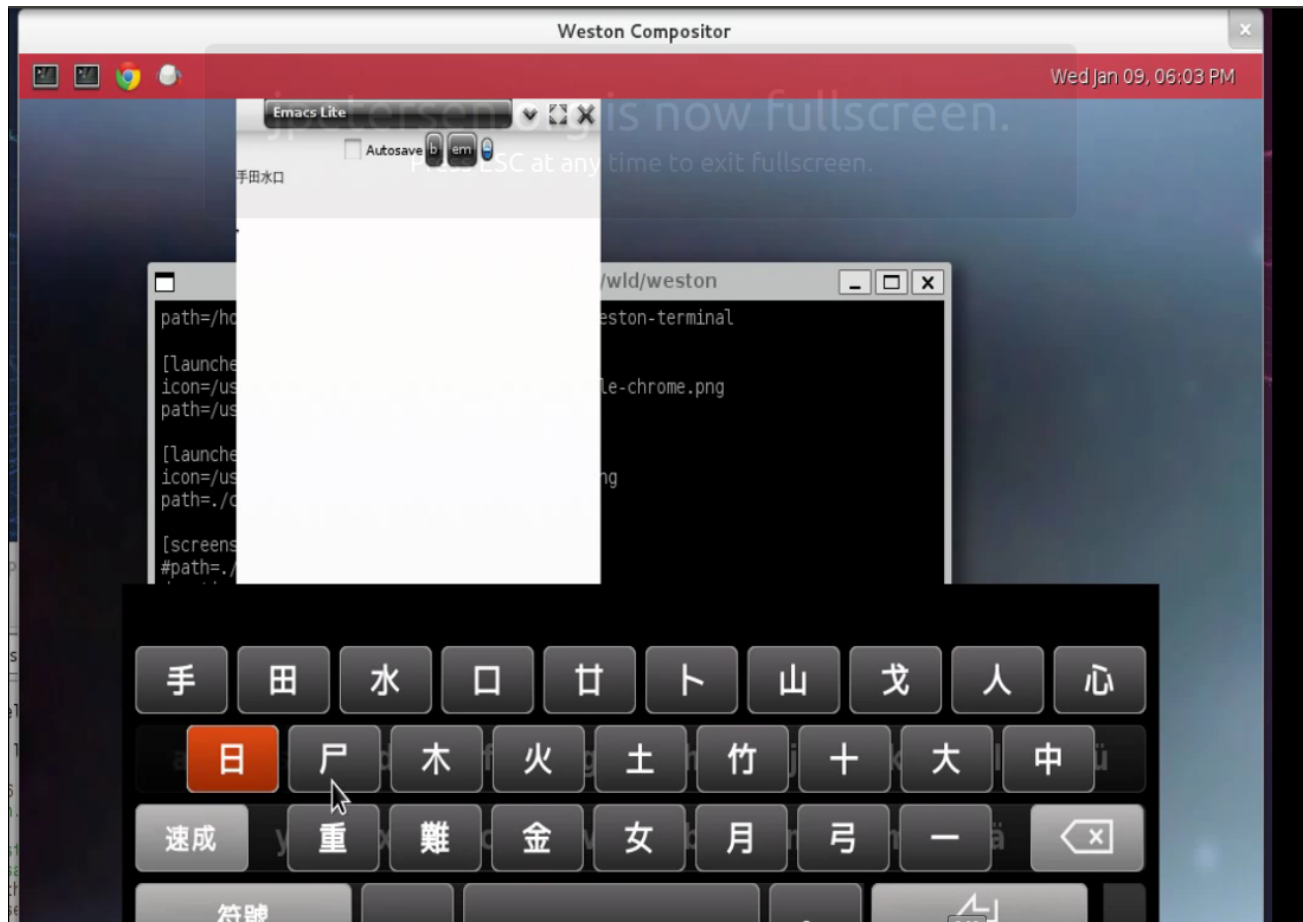


https://wiki.maliit.org/Wayland_Input_Method_System_Proposal

Weston Keyboard & EFL



Maliit Keyboard & EFL



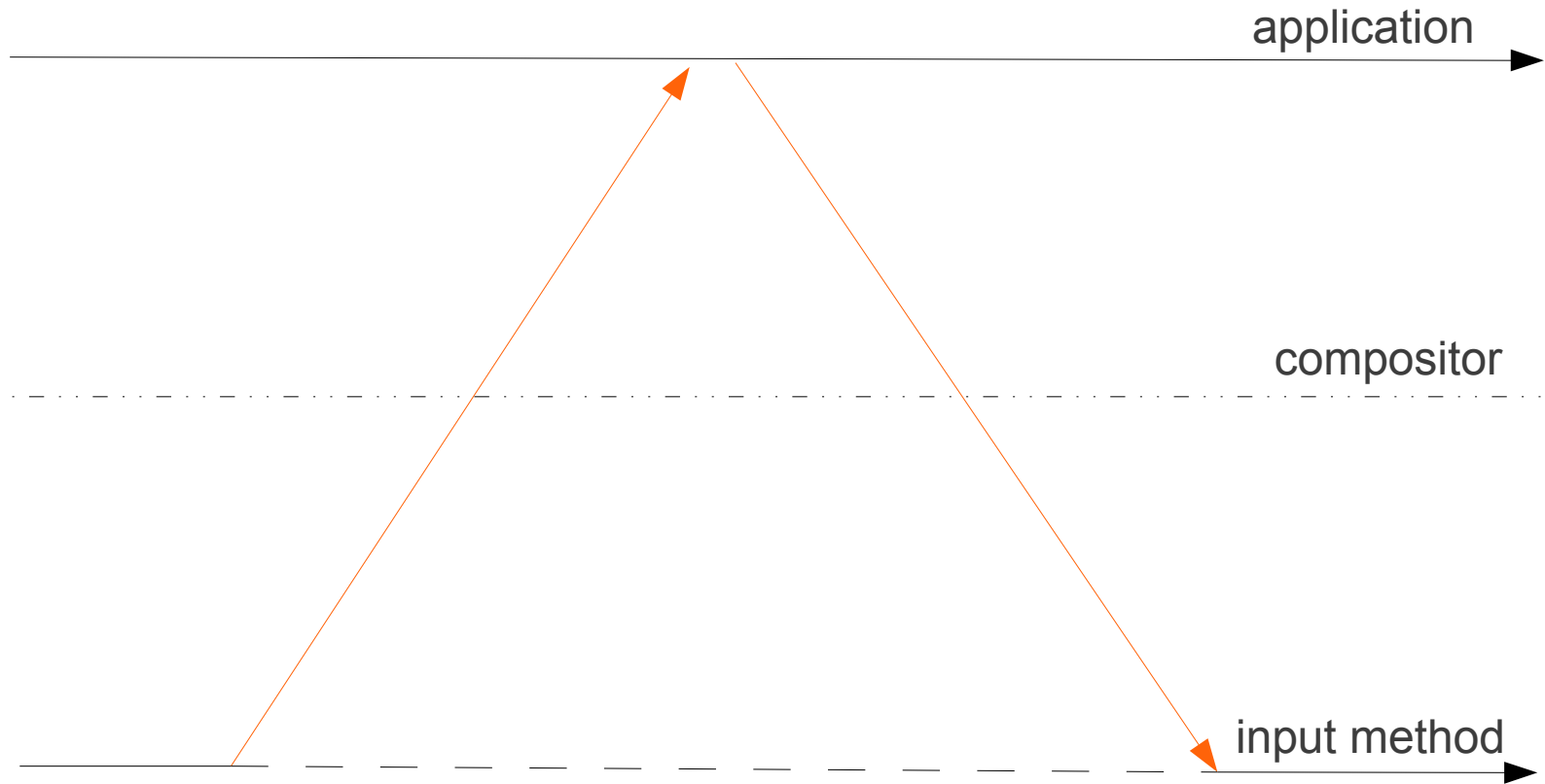
Sub-surfaces

(in X11: transient hints)

Sub-surfaces & input methods



IPC with sync calls



IPC + sequence numbers

application requests:

`activate(n)`

`set_surrounding_text(n)`

`set_cursor_position(n)`

`commit(n)`

`reset(n+1)`

input method requests:

`(idle)`

`preedit_string(n)`

`commit_string(n)`

`reset(n+1)`

`commit_string(n+1)`

Videos & more details @
blog.jpetersen.org

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