

Wayland Input Methods

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Wayland?

wayland.freedesktop.org



Input methods?

~~Input methods?~~

(first time presenting in front of target audience!)

Input methods → text input

traditional use-cases
from desktop
(mouse + hwkb)

mobile & embedded
use-cases
(touch display)

Input methods → text input

MALIIT

maliit.org



MeeGo Harmattan
Development starts

Nokia N9 ships



Code made available on gitorious

Maliit 0.80

Dedicated infrastructure



Maliit 0.90
(unstable)

Maliit added to
OpenEmbedded's
meta layer

Jolla demos
SailfishOS,
uses Maliit

Canonical contributes
250+ patches to
Maliit Keyboard

Mar. 2012 May 2012

Aug. 2012

Nov. 2012

Mar. 2013



Apr. 2012

Jul. 2012

Oct. 2012

Feb. 2013

Apr. 2013

OLPC chooses
Maliit

Wayland input
methods work starts,
based on Maliit API

Canonical uses Maliit
for its MWC demos

“Road to 1.0”:
Maliit to target
Qt5/QtQuick2

Maliit 0.99
(unstable)



GNOME joins the Wayland party!

(Still) focused on desktop → good environment
to test completeness

live.gnome.org/Wayland/Gaps



Wayland 1.0: No input methods

(planned for inclusion in Wayland 1.2)

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

API (generated from XML):

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

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GNOME[™].ASIA
Summit

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

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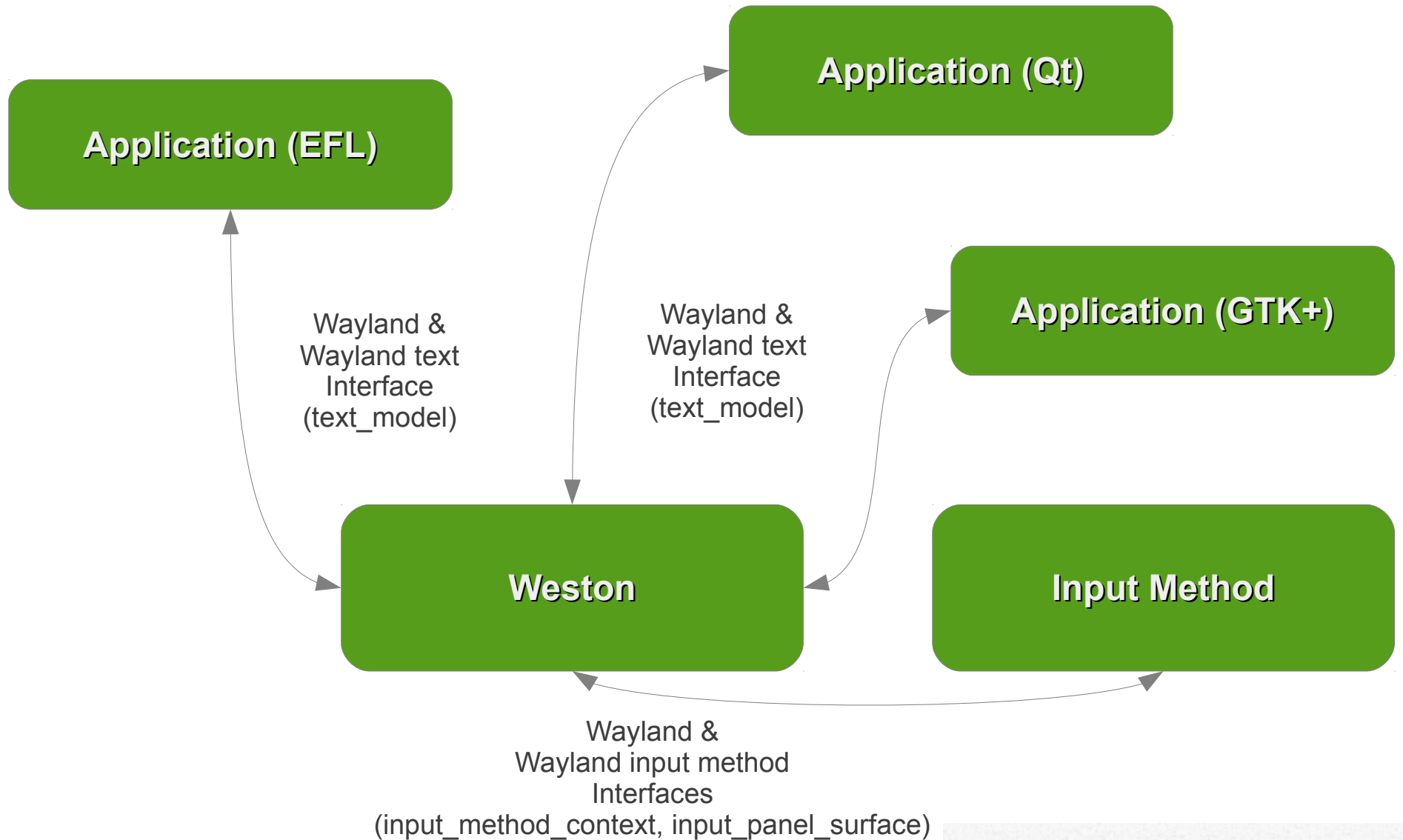
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GNOME[™] ASIA
Summit

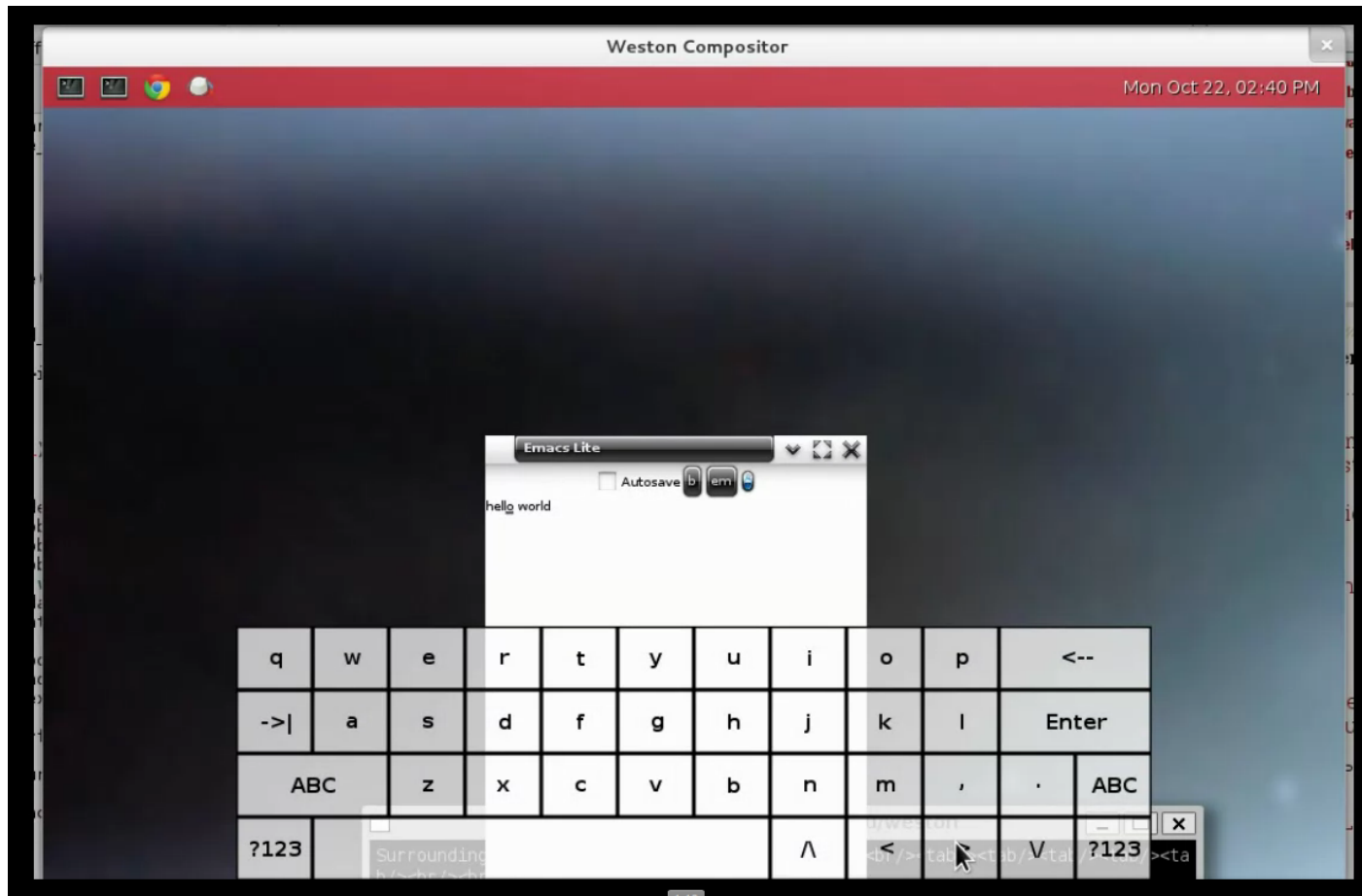
Architecture Overview



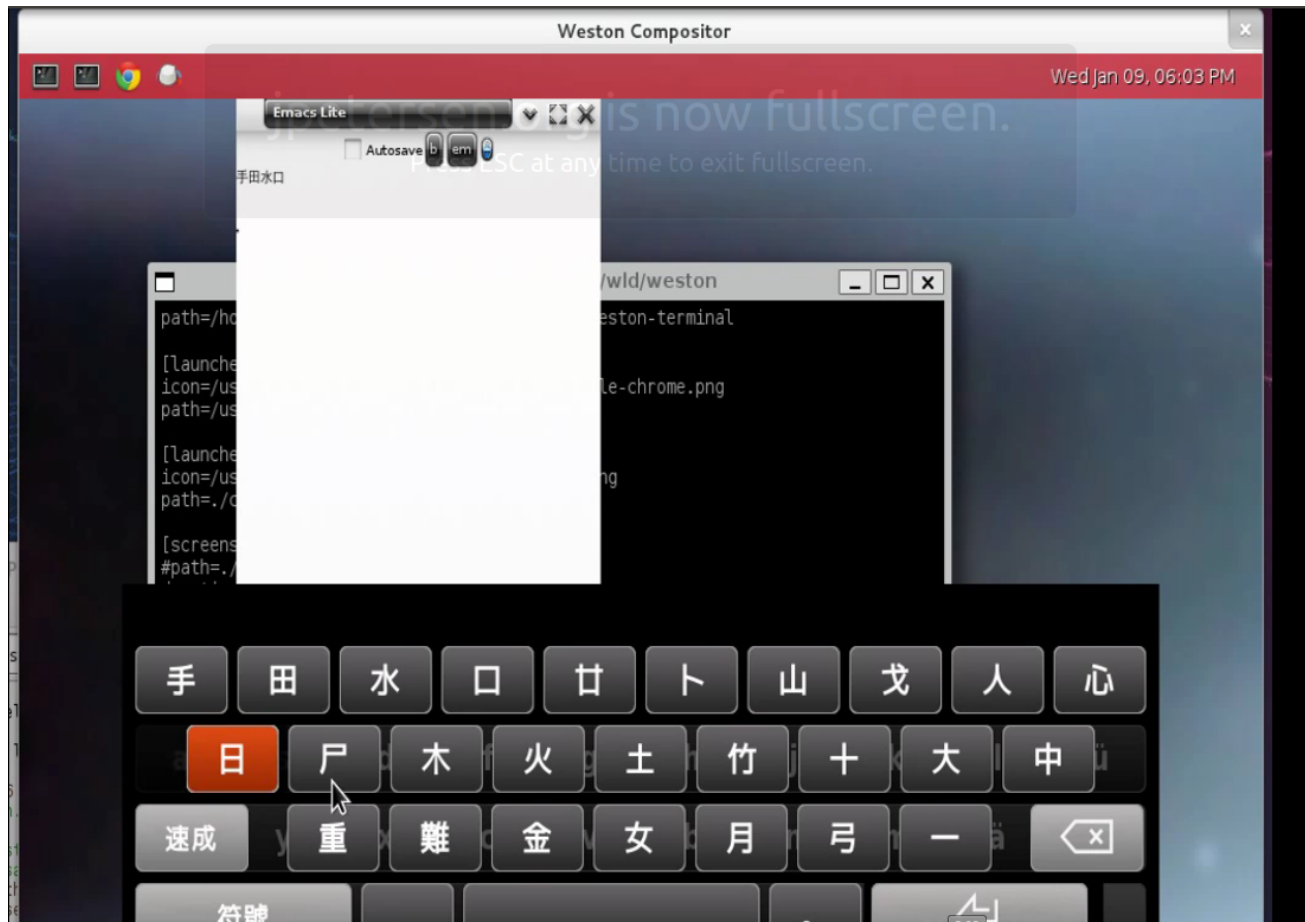
wiki.maliit.org/Wayland_Input_Method_System_Proposal



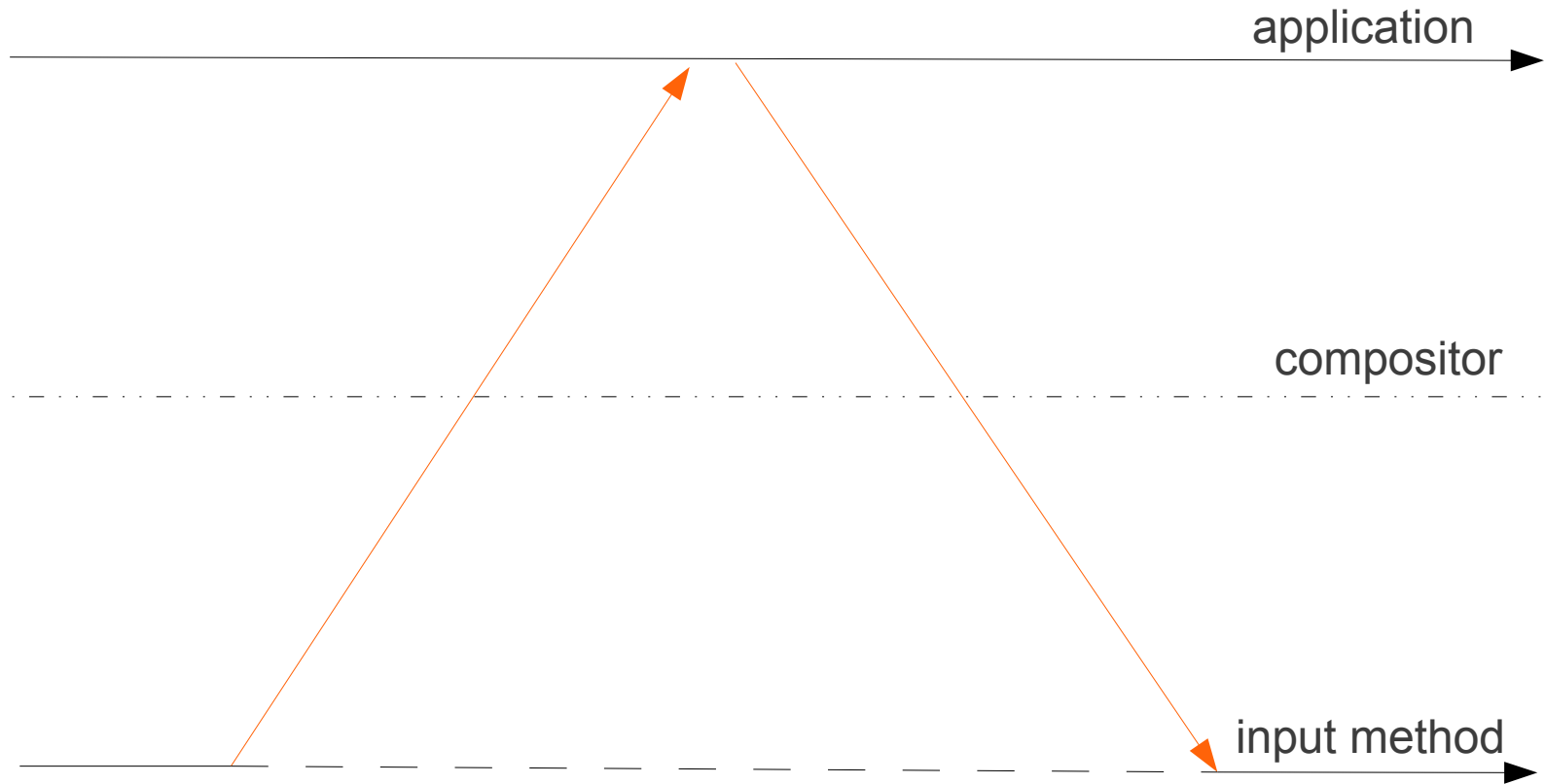
Weston Keyboard & EFL



Maliit Keyboard & EFL



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

(unmerged) code @
github.com/openismus



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