

Creating a modern mobile email client with gnome technologies

Creating a modern mobile email client with gnome technologies

jdapena AT igalia DOT com

svillar AT igalia DOT com



Brief history

- Started in 2006
- 2007 Targeted for Maemo Chinook
- December 2007 first beta release
- 2008 Maemo Diablo
- 2009 Development becomes public.
Repository moved to git

How big is it?

- Modest

Total Physical Source Lines of Code
(SLOC) = 104,675

- Tinymail

Total Physical Source Lines of Code
(SLOC) = 179,363

Goals

Easy to use



I LOVE
MOMMY

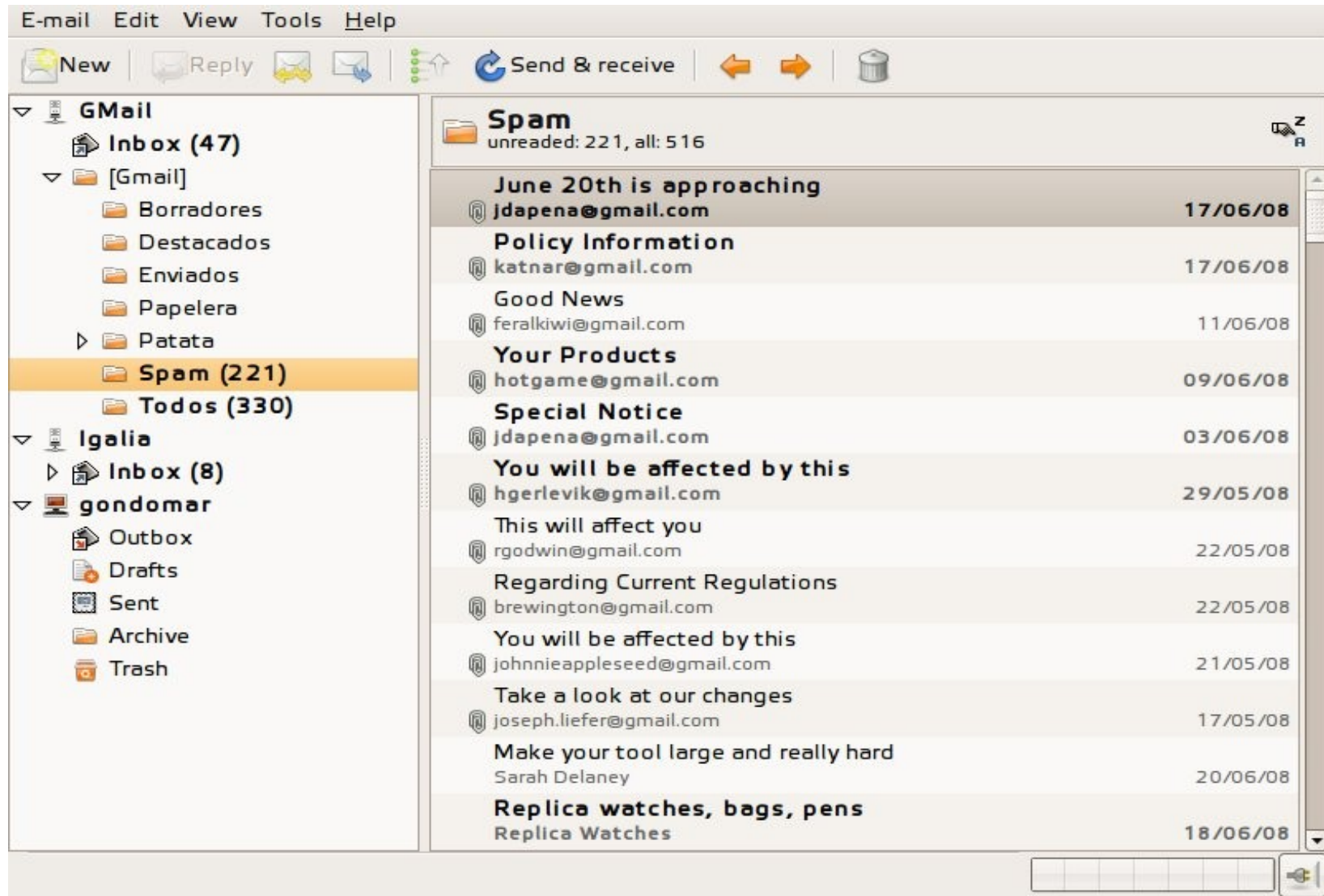
Embedded devices

- Small resources
- Small screen
- Small storage

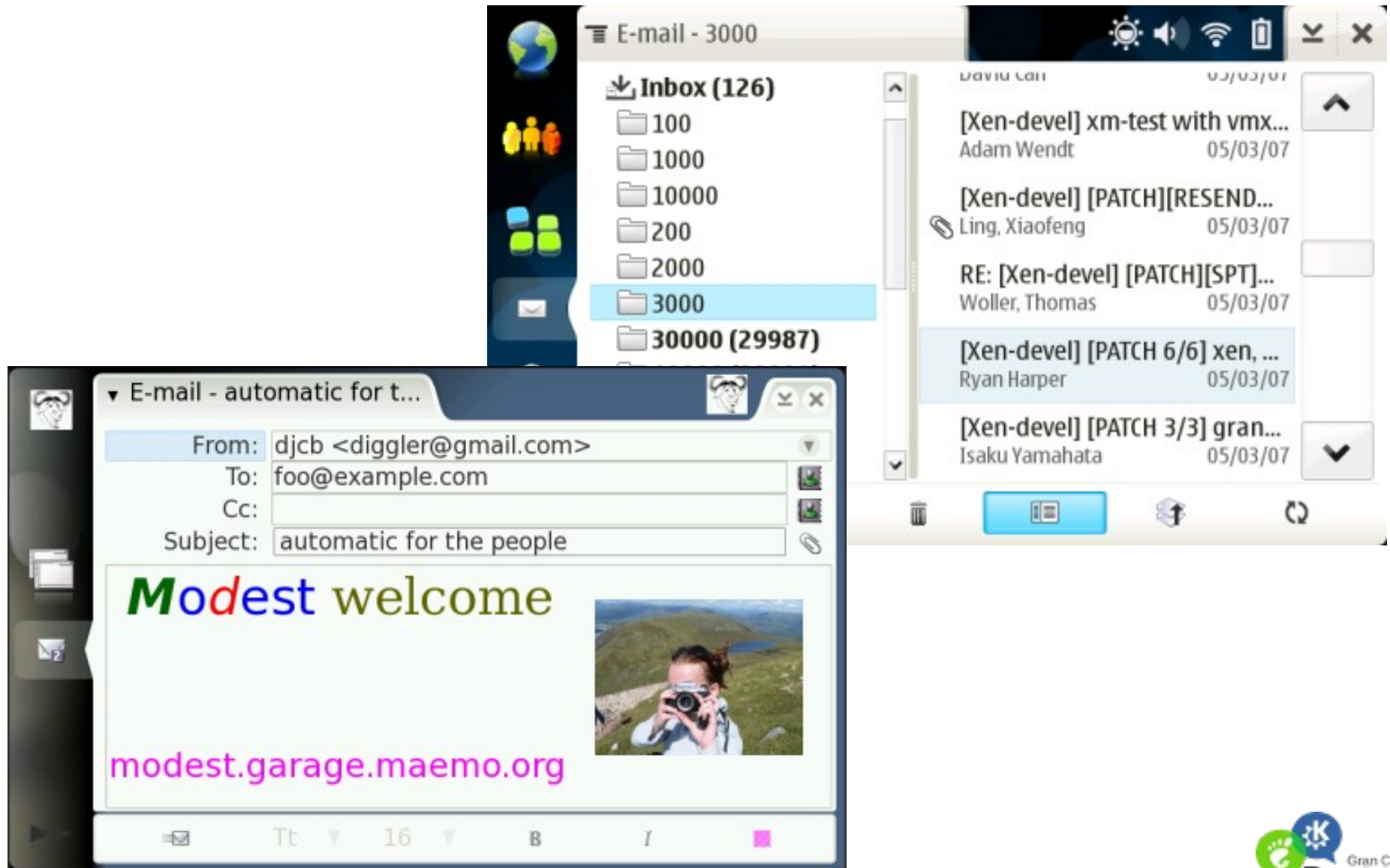


Multiple UI. Common logic

Gnome UI



Maemo 4/Diablo UI



Maemo 5/Fremantle UI

Coming soon...

Support for most common email protocols

- IMAP
- POP
- SMTP

Push email

IMAP IDLE

Extensibility

New plugin architecture



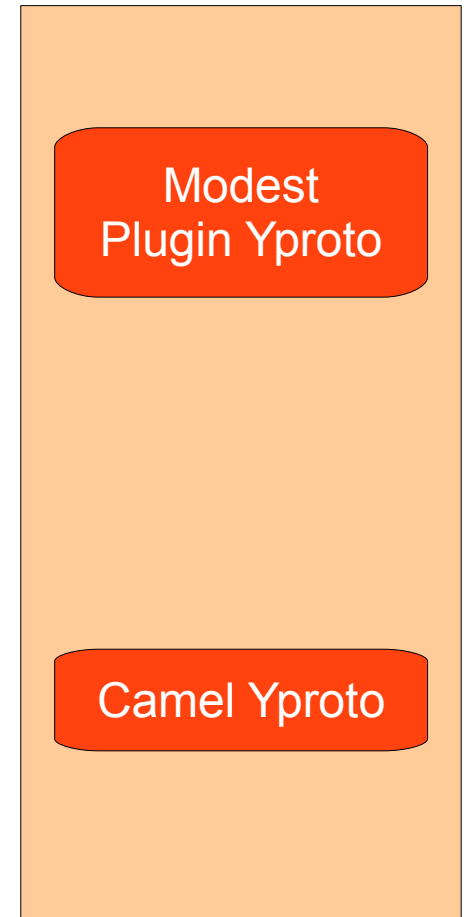
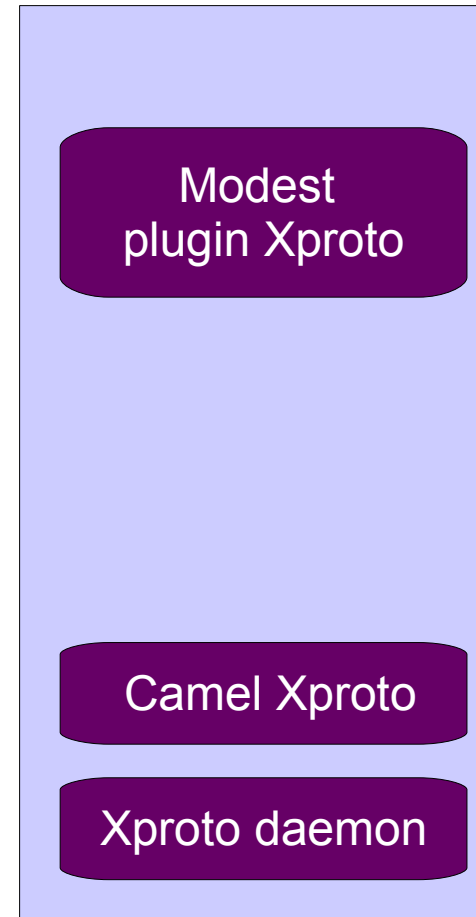
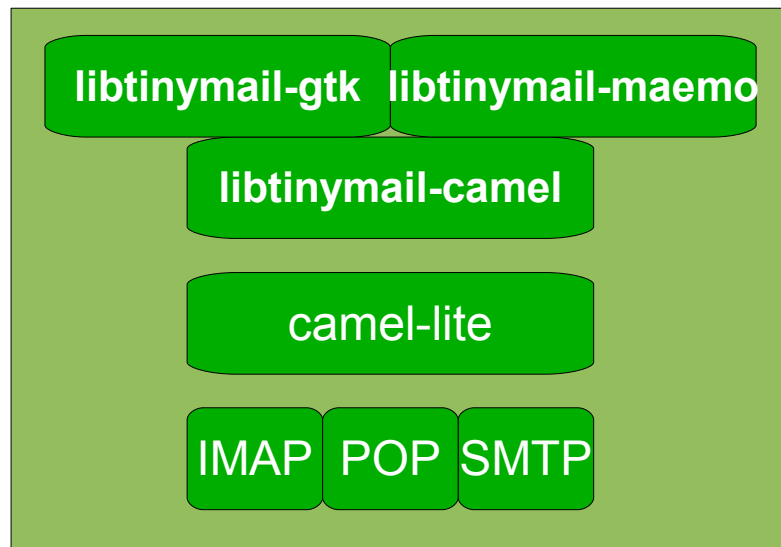
Architecture

Architecture

Modest



Tinymail



Camel-lite

mmap-ed summaries

- Very reduced memory usage
- Very compact representation on disk
- Efficient use of memory (thx kernel)

IMAP IDLE support

Camel features out-of-the-box

- Great support for MIME
- Stream based API
- Modular extensible

Tinymail

- Multiple platforms
- Simplifies Camel API's
- Integrated Glib mainloop
- Gtk+ widgets
- Asynchronous API. Responsive UI
- Modular design

Modest

- Message view based on gtkhtml
- Rich message editor based on wpeditor
- Offline read of messages and folders
- Integration with network status libraries

Migration to Hildon 2.2

Hildon 2.2/Fremantle philosophy

- Proper experience with finger in small screens. No stylus.
- No focus in views.
- Actions are not repeated through UI.
- No hierarchy in menus.
- No scrollbars -> Pannables.
- No tabs.
- Stackable windows

What to change in modest?

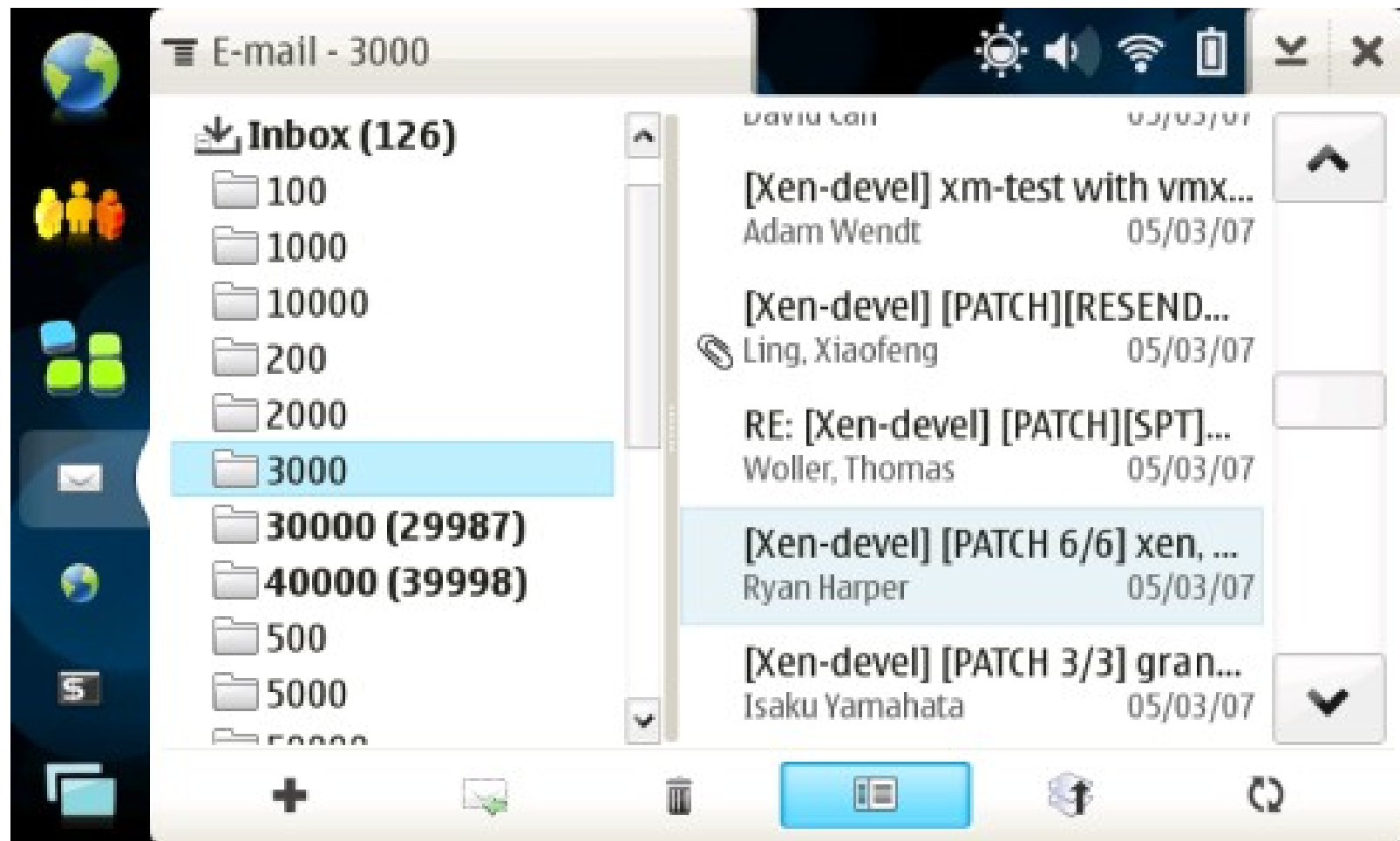
Goal

Mail simple for everyone!

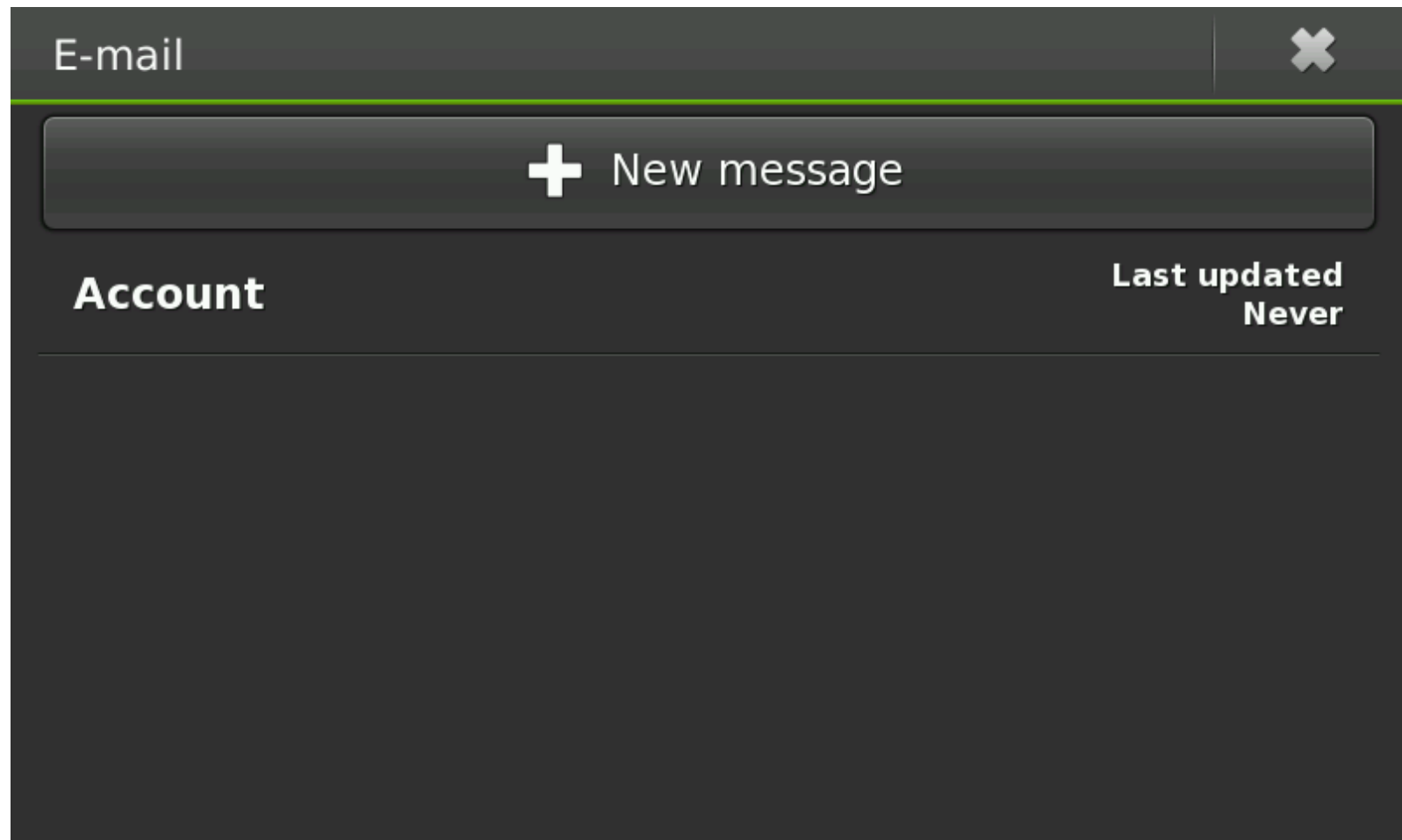
Main window replacements

- Main window. Very complex.
- Required stylus. Fingers usage is broken.
- Move from old main window to "one window per object handled". Stackables. New window management

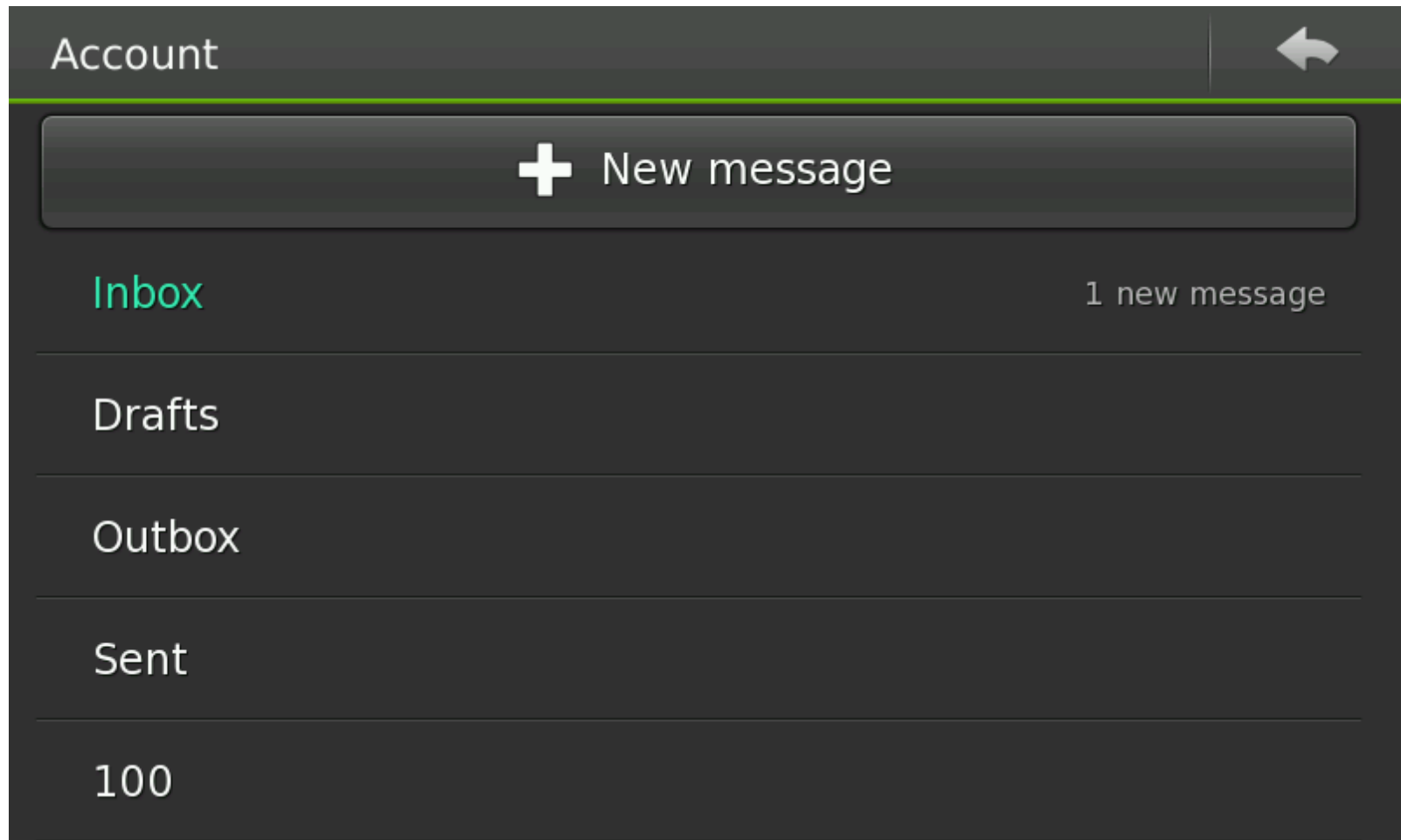
Main window replacements



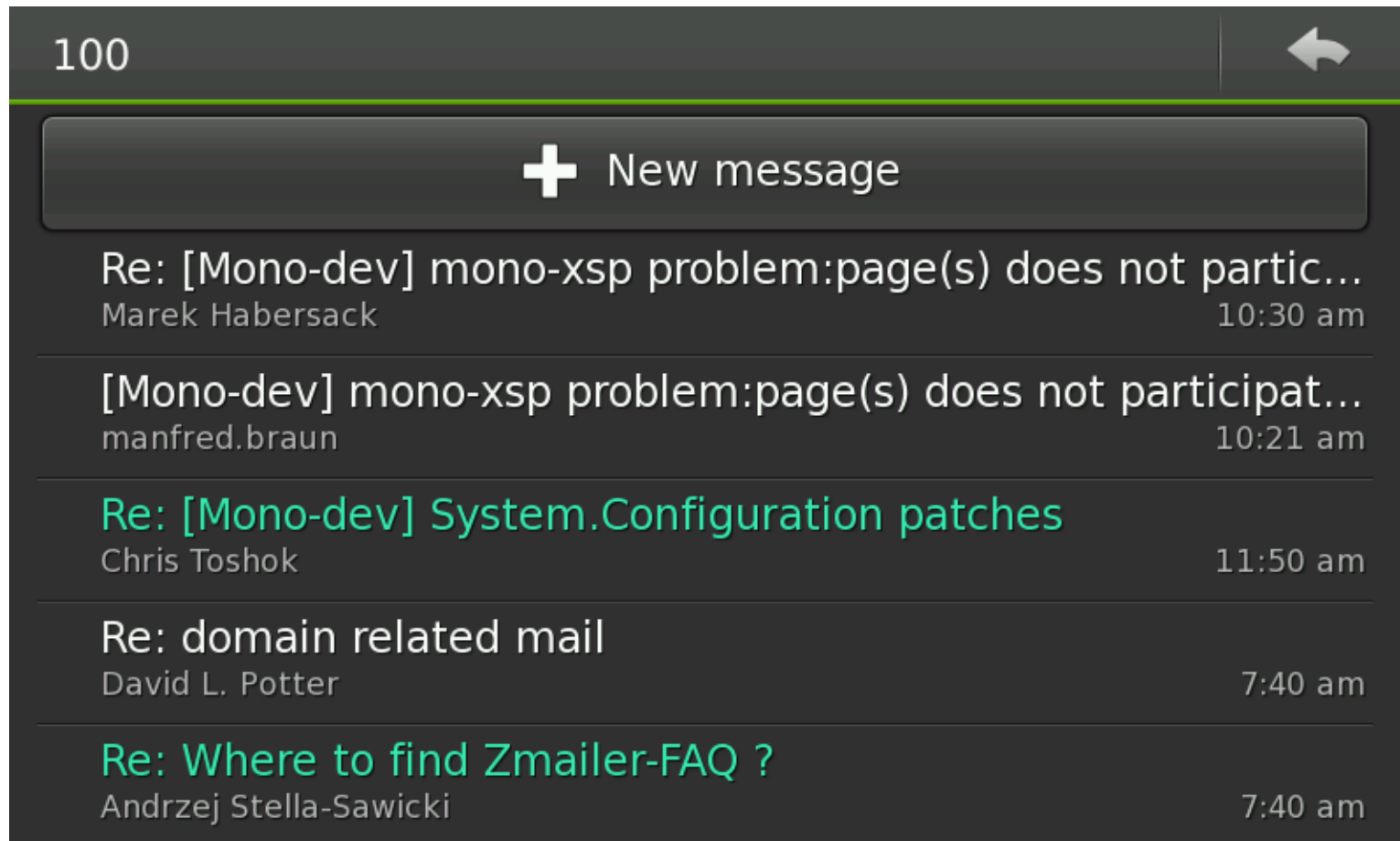
Main window replacements



Main window replacements



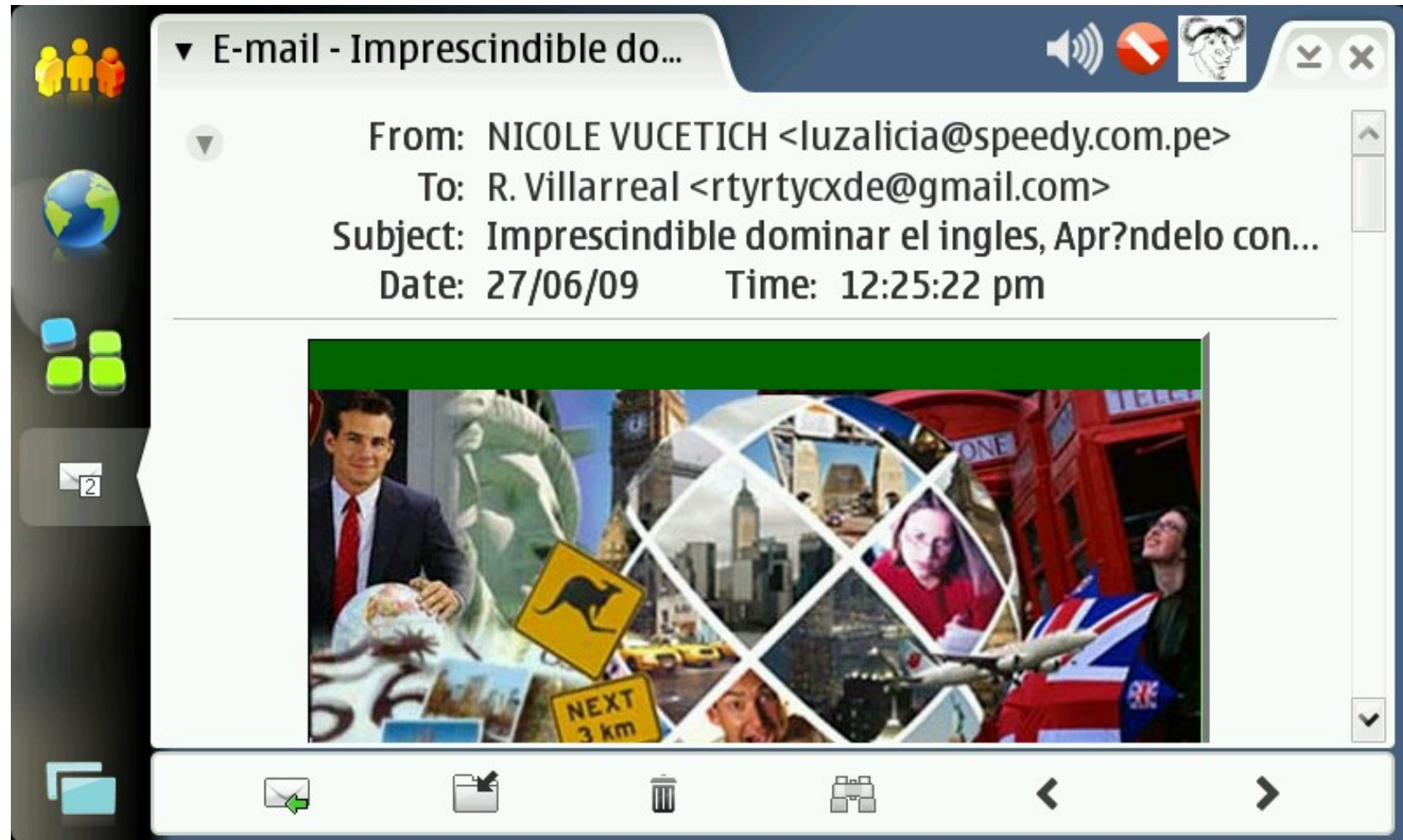
Main window replacements



Show relevant information

Small space for **important** information.


Show relevant information



Show relevant information

Re: [lemonade]About "Avoiding Duplicates"

From: Randall Gellens

Wednesday  4:07 am
30. August 2006

At 5:56 PM -0700 8/29/06, Mark Crispin wrote:

> On Tue, 29 Aug 2006, Randall Gellens wrote:




>>

Probably most clients today are designed to be used off-line.
So

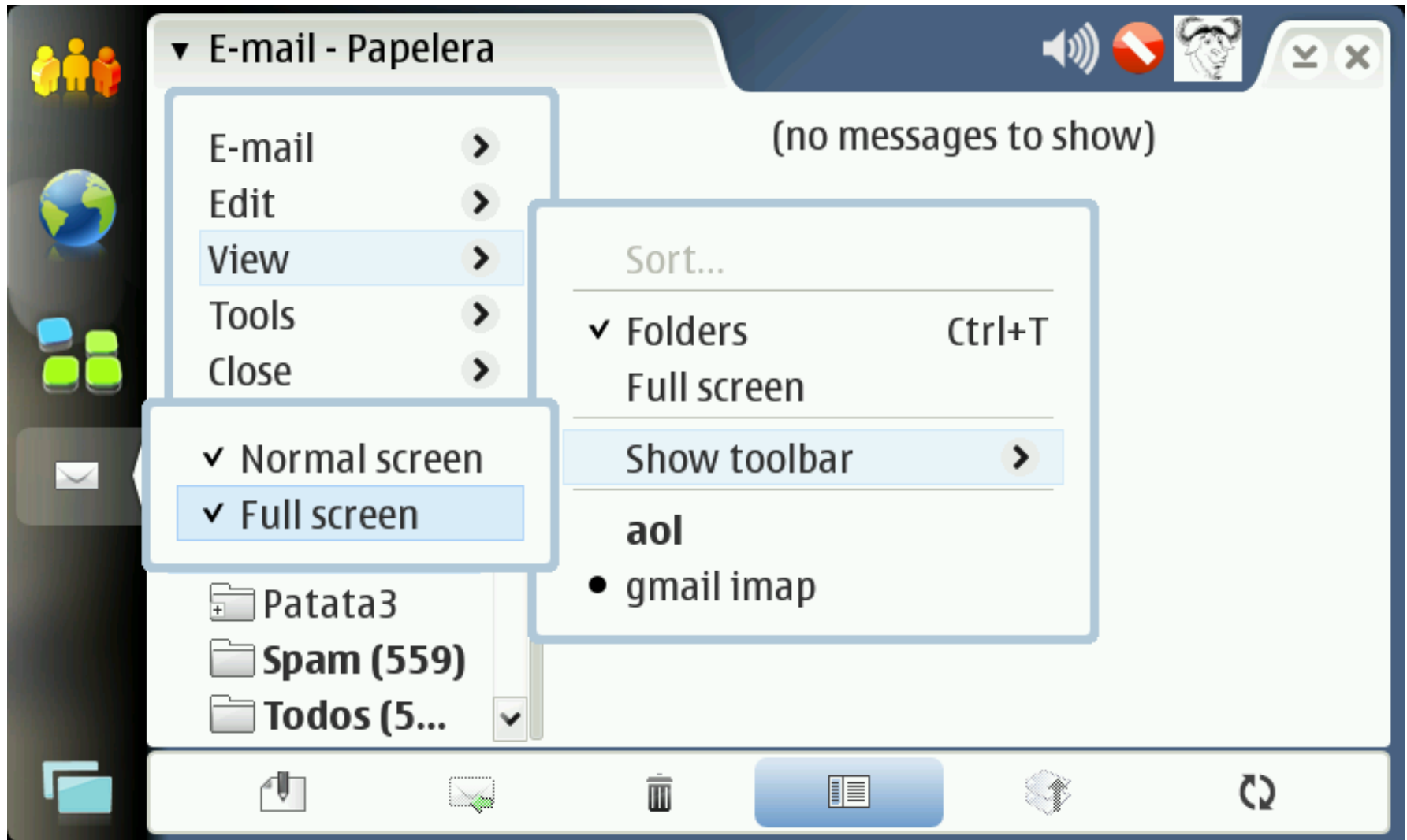
>> the client maintains a cache of messages in mailboxes.

>

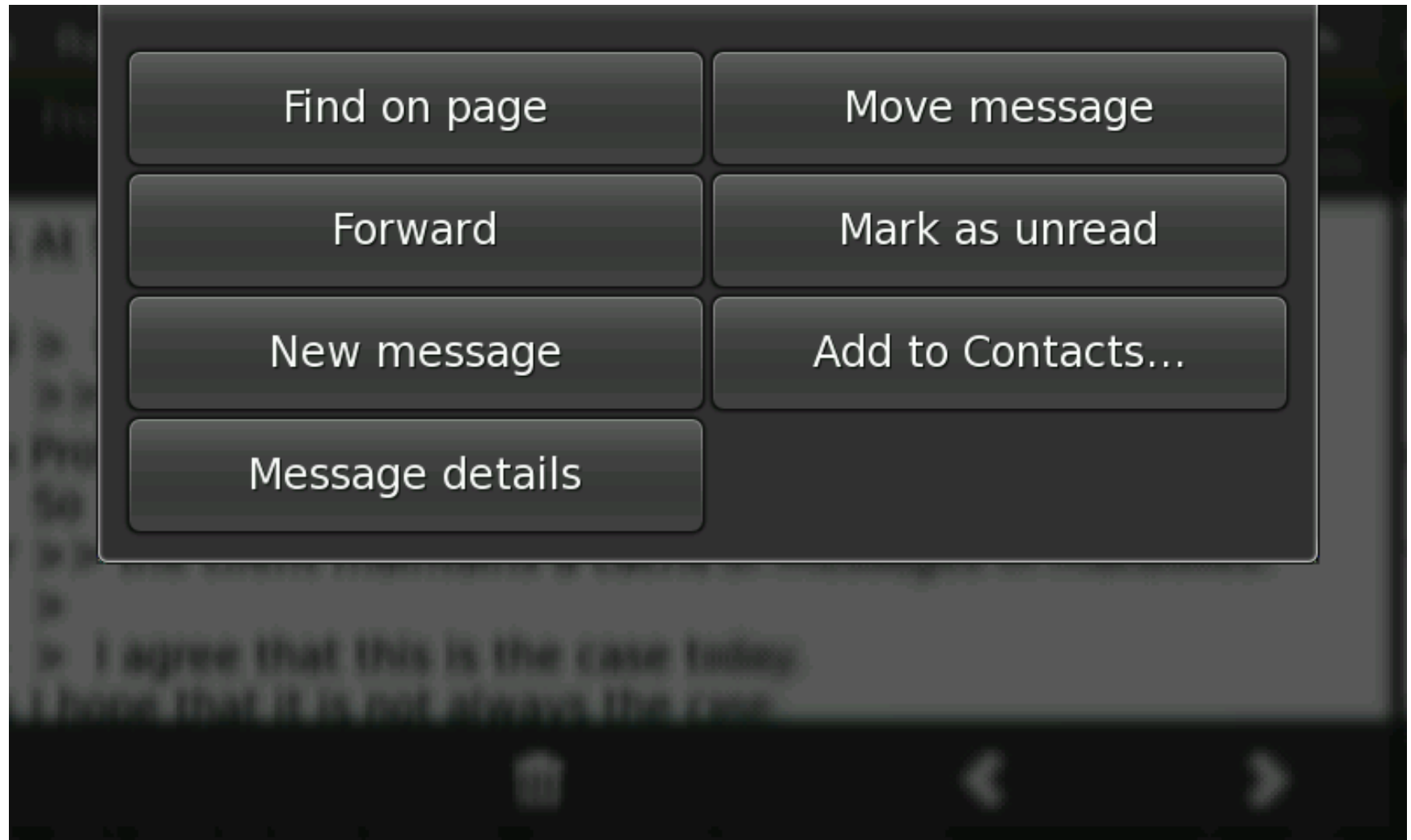
> I agree that this is the case today.
I hope that it is not always the case.



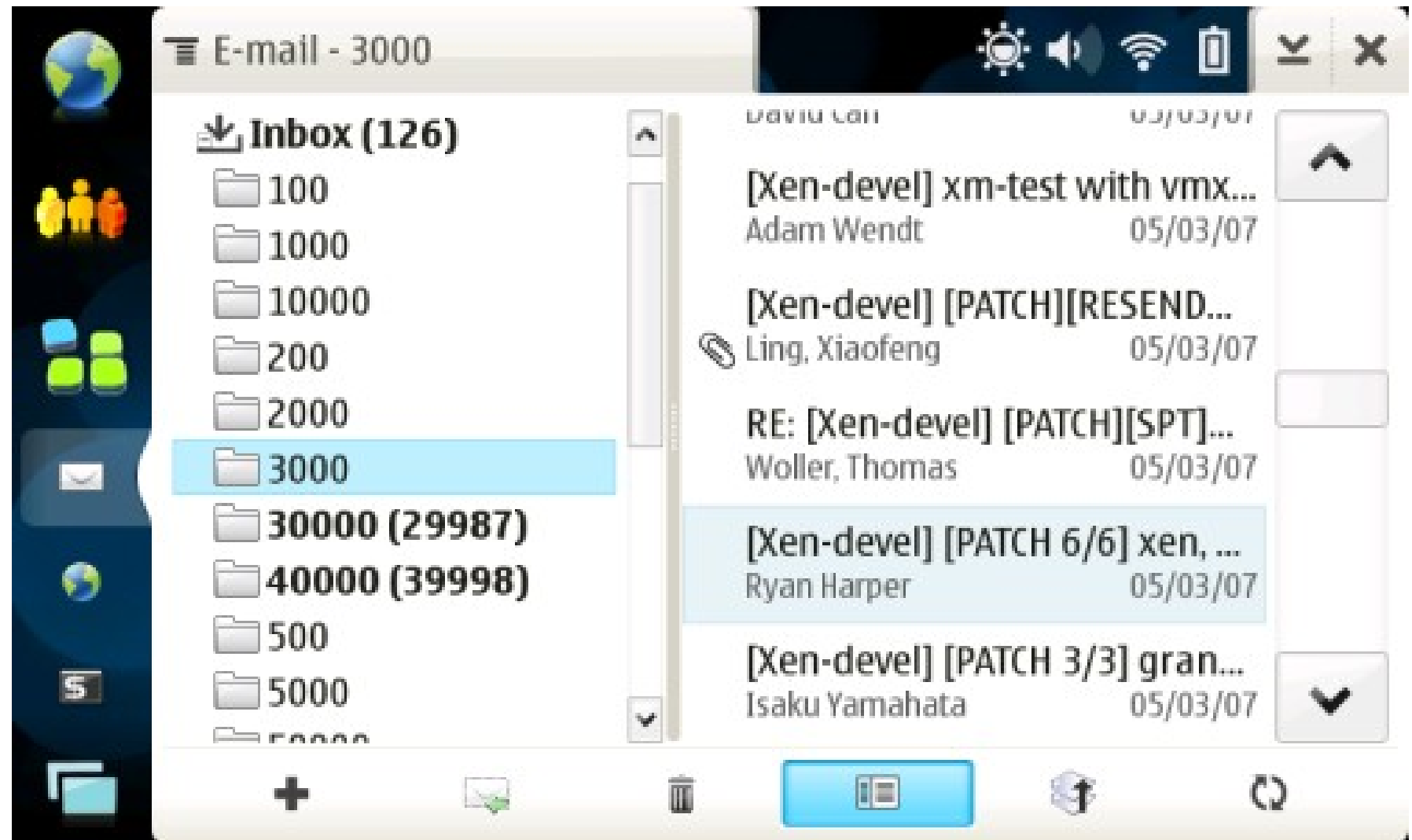
Very complex menus



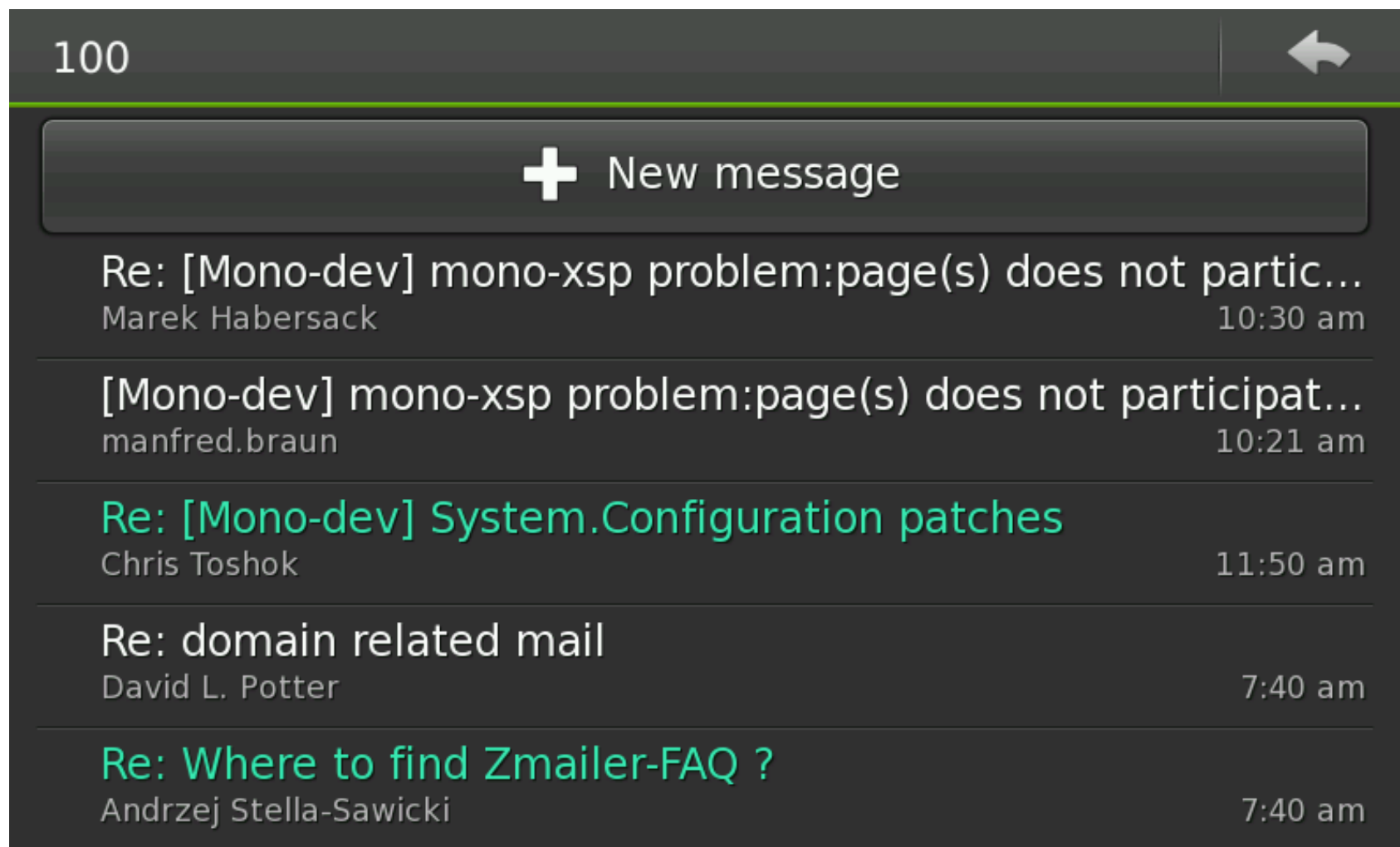
Very complex menus



No focus



No focus



No focus

Choose messages to move

Move

Re: [Mono-dev] mono-xsp problem:page(s) does not p...

Marek Habersack

10:30 am

[Mono-dev] mono-xsp problem:page(s) does not parti...

manfred.braun

10:21 am

Re: [Mono-dev] System.Configuration patches

Chris Toshok

11:50 am

✓

Re: [lemonade]About "Avoiding Duplicates"

Randall Gellens

7:40 am

Re: SMTP policy doesn't work or ...

mea@nic.funet.fi

7:40 am

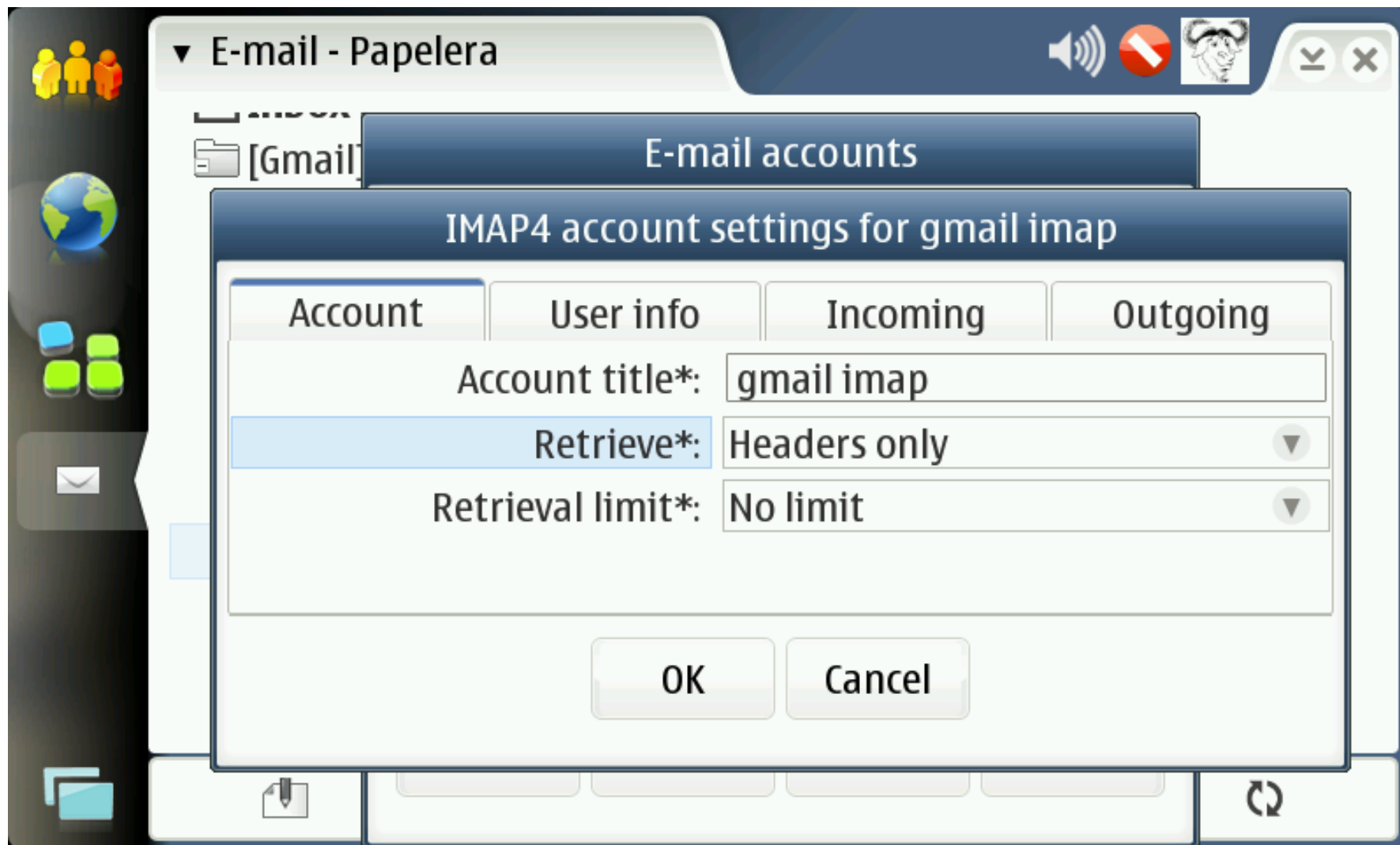
✓

Re: fqdnaliases

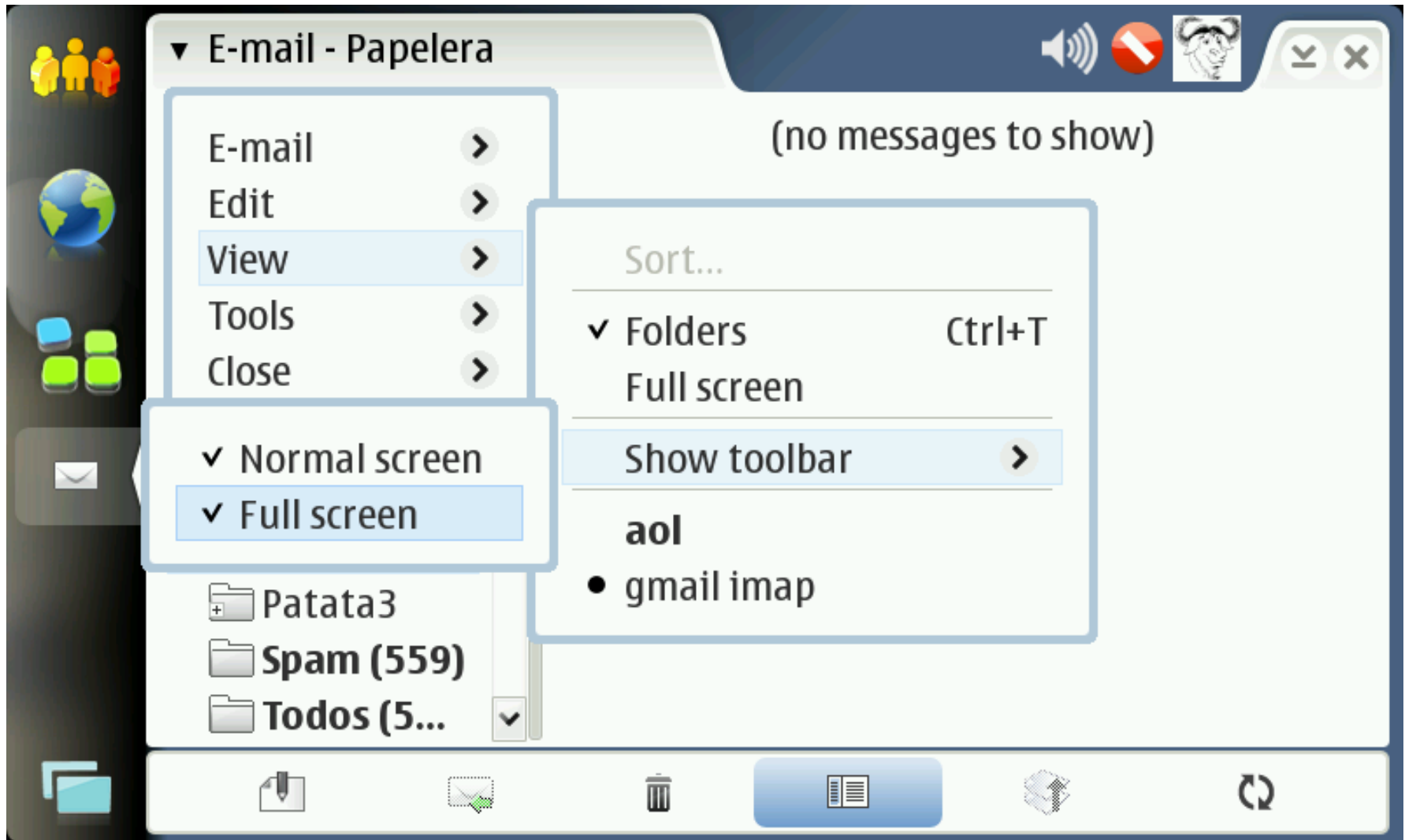
mea@nic.funet.fi

7:40 am


Migrate to finger widgets




Migrate to finger widgets




Migrate to finger widgets

New message 

From: Tinymail <tnytest@tinymail.org> 

To:

Subject:

Tt ▼ 12 ▼ B I 

What we did? More things

- Reused widgets for Diablo, reorganised in new windows.
- Stacking views. One window at a time
- Pannables everywhere.

DEMO

Challenges

Challenges

- Massive email accounts (Gmail like)
- High volume of information in small screens.
- Performance requirements
- Slow network connection.
- Plugin API.

Challenge 1: massive email accounts

- Improved speed handling massive folders.
- Faster response loading folder window.
- Show fast last received messages. Those user wants.

Challenge 2: high volumes of information in small screens

- Lots of bugfixing.
- Stabilization with big folders. More reliable now.
- Camel-lite summary helps on disk storage.
- Also more reliable with slow or flaky networks.

Challenge 3: performance

- Priority to perceived speed.
- Show immediately information user needs.
- Better handling of big messages.

Challenge 4: better MIME support

- Fixed support for reading **signed** messages.
- Reply adds References: field.
- **Multibody supported** now (yes! maemo-developers digests!)
- Reply to HTML-only messages properly quotes.

Challenge 5: plugin architecture

Support for adding other protocols as plugins.

- Storage and transport in a camel backend.
- Modest plugin for settings UI
- Other protocols? NNTP? RSS? Mobile messages? You're invited!



Conclusions

Work done in 2009

- Finger enabled UI
- More reliable
- Plugins support
- **Easier** for user
- **Faster**, better user experience
- **Better** support of mail standards

Future

- Pluggable storage support.
- Daemonize.
- Take more advantage of plugins architecture.
- Sorting? No please, live search

Get involved

- <https://git.maemo.org/projects/modest>
- <http://modest.garage.maemo.org>
- #modest @ Freenode
- modest-devel@garage.maemo.org
- modest-users@garage.maemo.org

Questions?

Thanks!

