static void _f_do_barnacle_install_properties(GObjectClass *gobject_class)
{
    GParamSpec *pspec;
    /* Party code attribute */
    pspec = g_param_spec_uint64(F_DO_BARNACLE_CODE,
        "Barnacle code.",
        "Barnacle code",
        0,
        G_MAXUINT64,
        G_MAXUINT64 /* default value */,
        G_PARAM_READABLE | G_PARAM_WRITABLE |
        G_PARAM_PRIVATE);
    g_object_class_install_property (gobject_class,
        F_DO_BARNACLE_PROP_CODE,
        Modest
Creating a modern mobile email client with gnome technologies

José Dapena Paz
jdapena AT igalia DOT com

Sergio Villar Senín
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
Embedded devices

- Small resources
- Small screen
- Small storage
Multiple UI.
Common logic
Gnome UI

E-mail  Edit  View  Tools  Help

New  Reply  Send & receive

GMail
- Inbox (47)
  - [Gmail]
    - Borraores
    - Destacados
    - Enviados
    - Papelera
  - Patata
- Spam (221)
  - Todos (330)

Igalia
- Inbox (8)
- gondomar
  - Outbox
  - Drafts
  - Sent
  - Archive
  - Trash

Spam
unread: 221, all: 516

June 20th is approaching
jdapena@gmail.com  17/06/08
Policy Information
katmar@gmail.com  17/06/08
Good News
feralkwi@gmail.com  11/06/08
Your Products
hotgame@gmail.com  09/06/08
Special Notice
jdapena@gmail.com  03/06/08
You will be affected by this
hgerlevik@gmail.com  29/05/08
This will affect you
rgodwin@gmail.com  22/05/08
Regarding Current Regulations
brewington@gmail.com  22/05/08
You will be affected by this
johnnieappleseed@gmail.com  21/05/08
Take a look at our changes
joseph.liefer@gmail.com  17/05/08
Make your tool large and really hard
Sarah Delaney  20/06/08
Replica watches, bags, pens
Replica Watches
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
- Gtk+
- Hildon 2
- GLib
- Pango
- GConf
- GtkHTML
- Alarm
- MCE
- Abook

Tiny mail
- libtinymail-gtk
- libtinymail-maemo
- libtinymail-camel
- camel-lite
- IMAP
- POP
- SMTP

Modest plugin Xproto
- Camel Xproto
- Xproto daemon

Modest Plugin Yproto
- Camel Yproto
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

Account

+ New message

Inbox 1 new message

Drafts

Outbox

Sent

100
Main window replacements

Re: [Mono-dev] mono-xsp problem: page(s) does not particip...  
Marek Habersack  
10:30 am

[Mono-dev] mono-xsp problem: page(s) does not participat...  
manfred.braun  
10:21 am

Re: [Mono-dev] System.Configuration patches  
Chris Toshok  
11:50 am

Re: domain related mail  
David L. Potter  
7:40 am

Re: Where to find Zmailer-FAQ ?  
Andrzej Stella-Sawicki  
7:40 am
Show relevant information

Small space for important information.
Show relevant information

From: NICOLE VUCETICH <luzalicia@speedy.com.pe>
To: R. Villarreal <rtyrtycxde@gmail.com>
Subject: Imprescindible dominar el ingles, Apr?ndelo con...
Date: 27/06/09       Time: 12:25:22 pm
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

- Find on page
- Move message
- Forward
- Mark as unread
- New message
- Add to Contacts...
- Message details
No focus
<table>
<thead>
<tr>
<th>Message</th>
<th>Subject</th>
<th>From</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re: Mono-dev] mono-xsp problem:page(s) does not partic...</td>
<td>Marek Habersack</td>
<td>10:30 am</td>
<td></td>
</tr>
<tr>
<td>[Mono-dev] mono-xsp problem:page(s) does not participat...</td>
<td>manfred.braun</td>
<td>10:21 am</td>
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<td>7:40 am</td>
<td></td>
</tr>
</tbody>
</table>
Choose messages to 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

- Account title: gmail imap
- Retrieve: Headers only
- Retrieval limit: No limit

[Image of email account settings]
Migrate to finger widgets
Migrate to finger widgets
What we did? More things

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