



Hildon 2.2: the Hildon toolkit for Fremantle

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Introduction

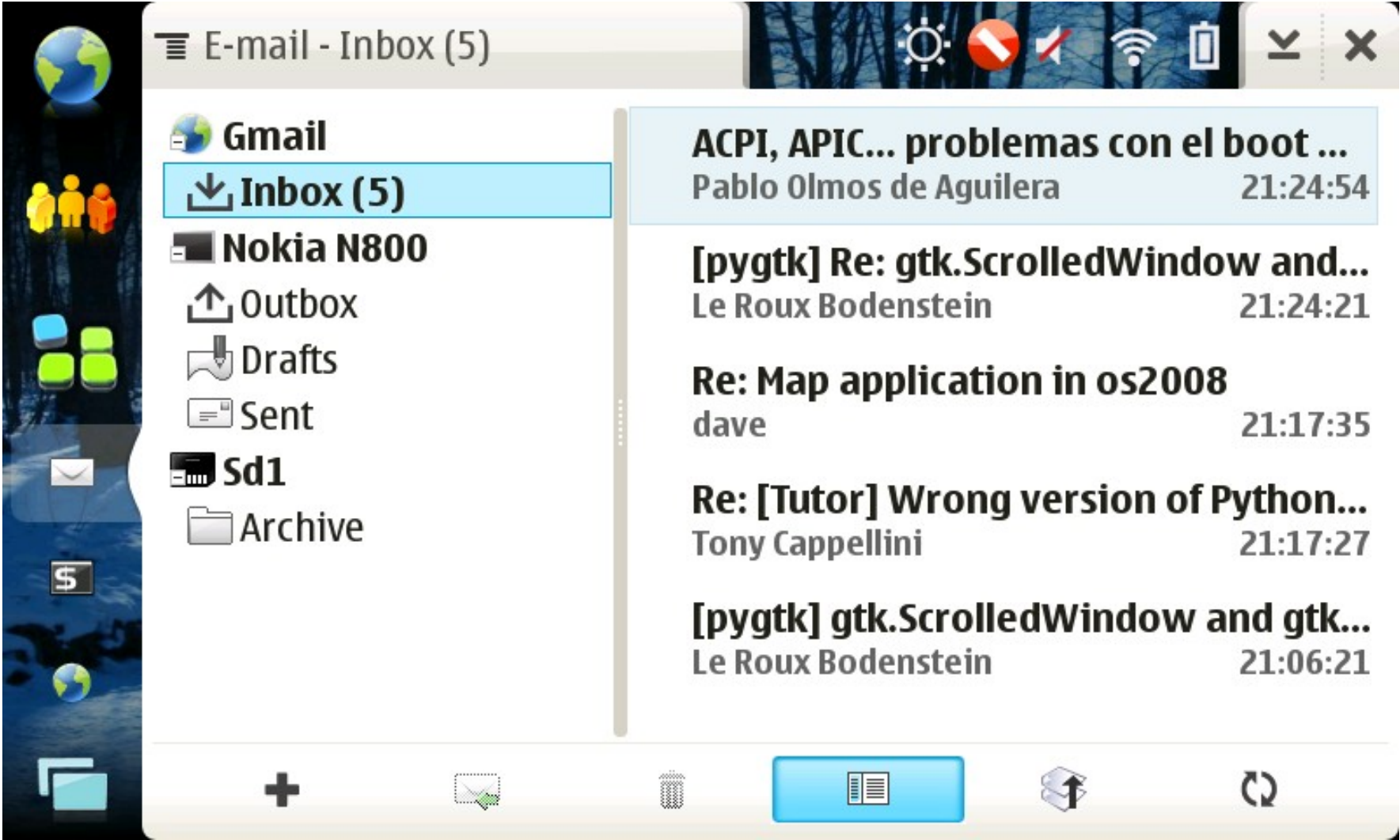
Hildon widgets library

- Set of widgets built on top of GTK+
- Created for Nokia devices based on the Maemo platform:
 - Nokia 770
 - Nokia N800
 - Nokia N810
 - **Nokia N900**
- Released under the GNU LGPL
- Used also in other projects (e.g Ubuntu Mobile)

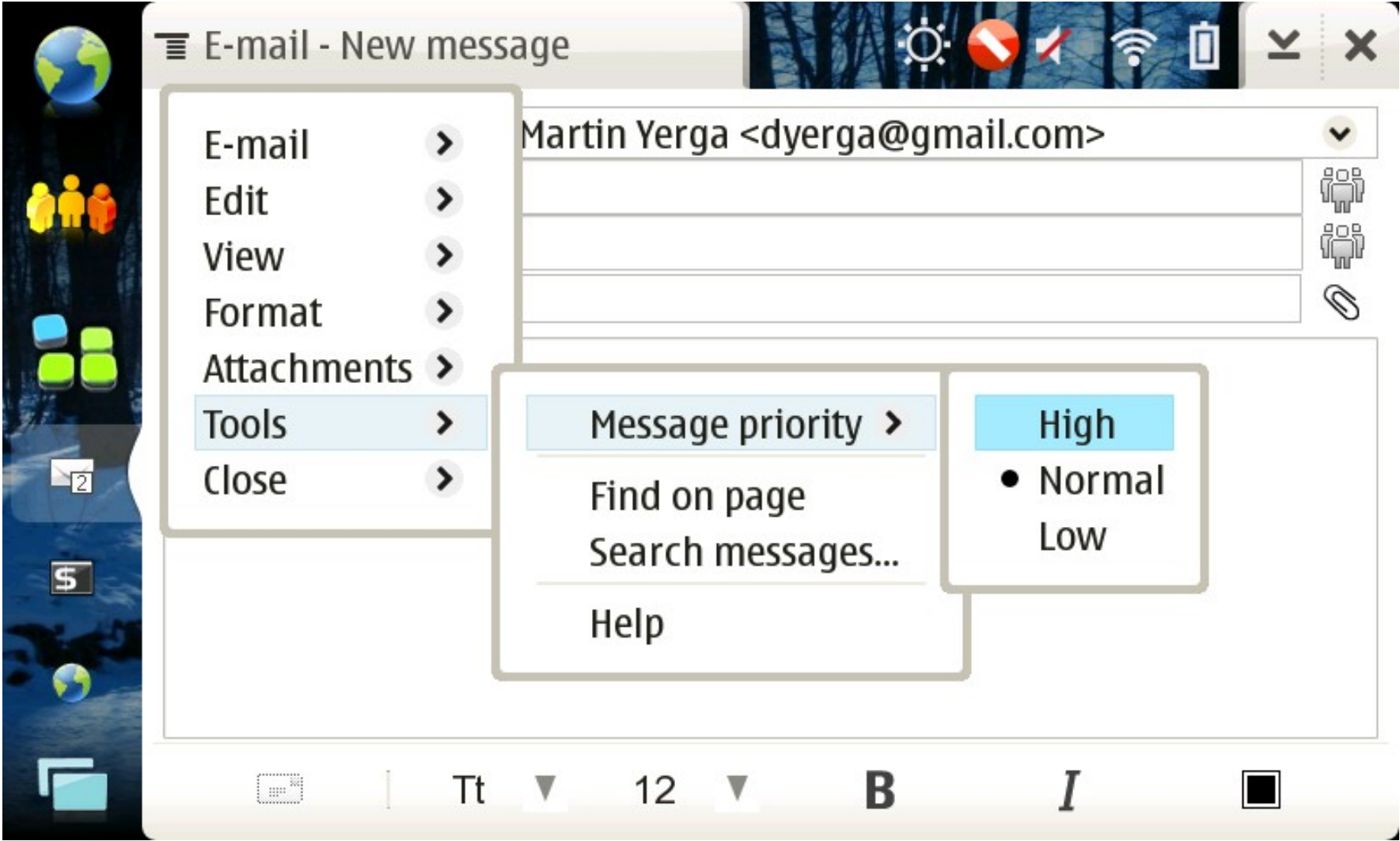
Maemo 5 - Fremantle

- Maemo release for the Nokia N900
- Modern, usable and finger-friendly UI
- Completely revamped user interface, very different from all previous versions
- **Hildon 2.2.0 released on 24 September 2009**

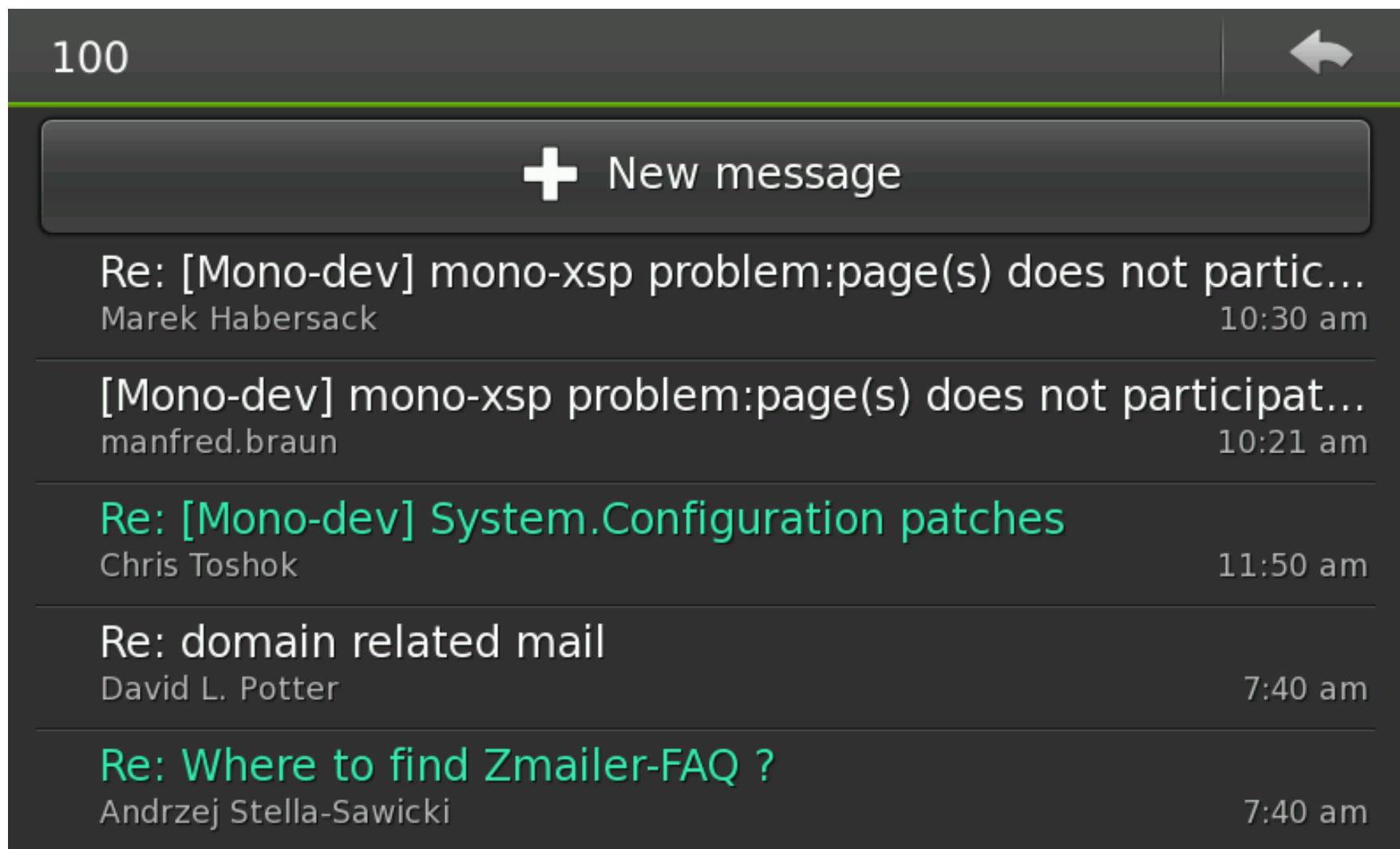
Hildon 2.0: Modest



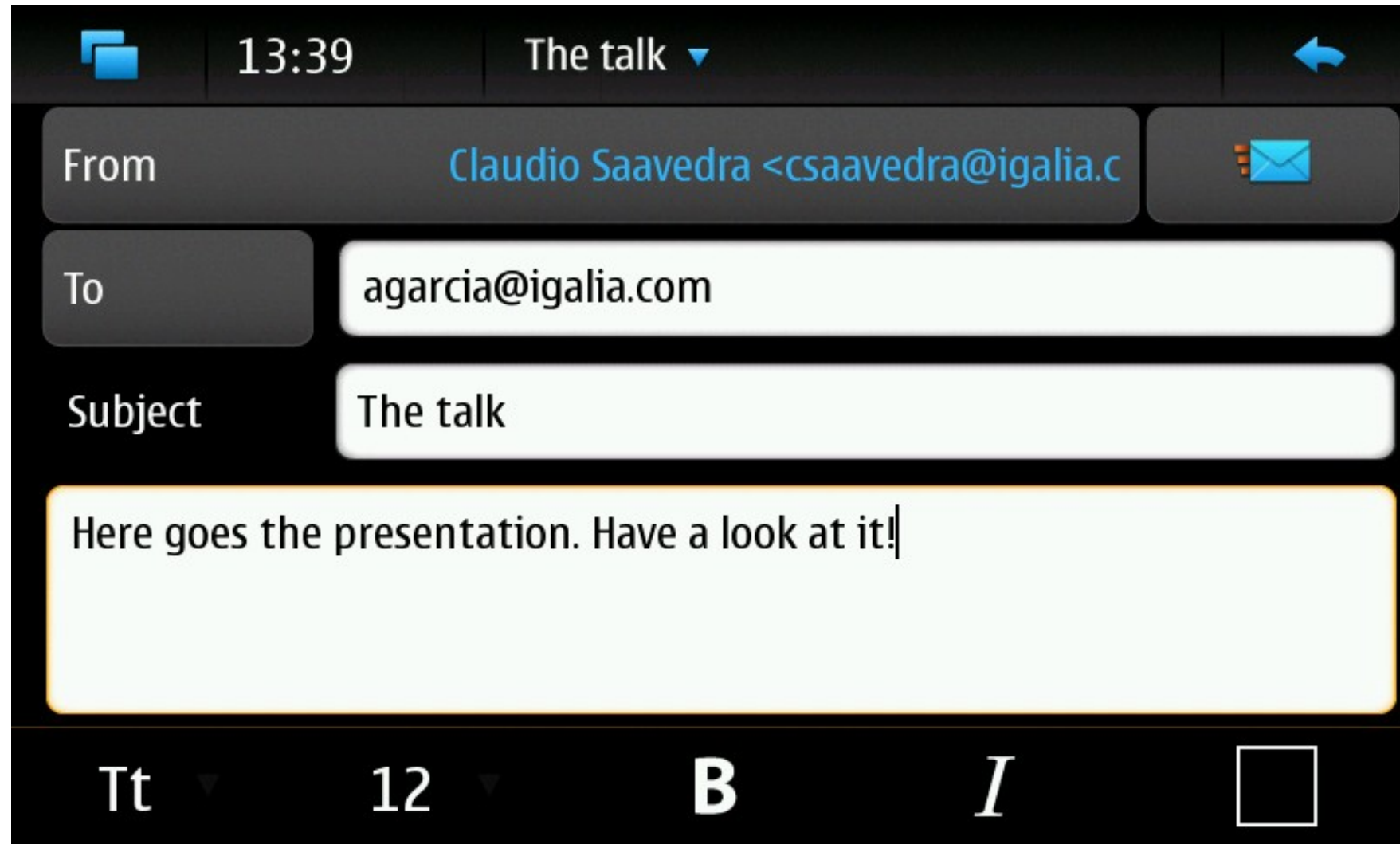
Hildon 2.0: Modest



Hildon 2.2: Modest



Hildon 2.2: Modest



Hildon source lines of code

- Hildon 1.0 (16 Apr 2007): 23,026
- Hildon 2.0 (10 Oct 2007): 23,690
- **Hildon 2.2.0 (24 Sep 2009): 36,291**

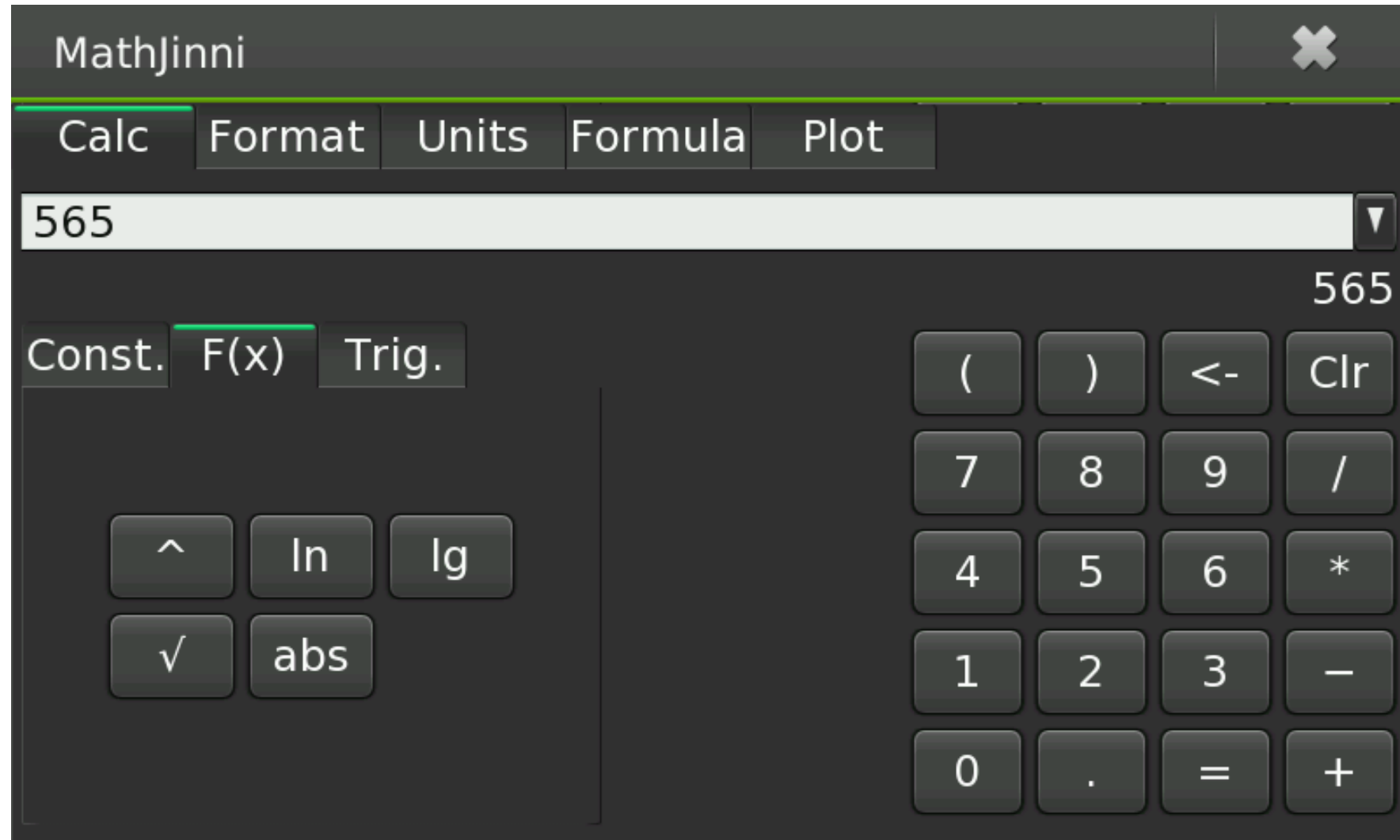
Hildon 2.2: the Fremantle release

- Applications as window stacked views
- Buttons as central UI part
- Scrollable widgets are touchable-friendly
- Kinetic scrolling (HildonPannableArea)

Other goals

- New and old-style applications can coexist
- Maintain backward compatibility
 - No API breakage
 - UI style preserved (where possible)

MathJinni in Fremantle



New UI concepts

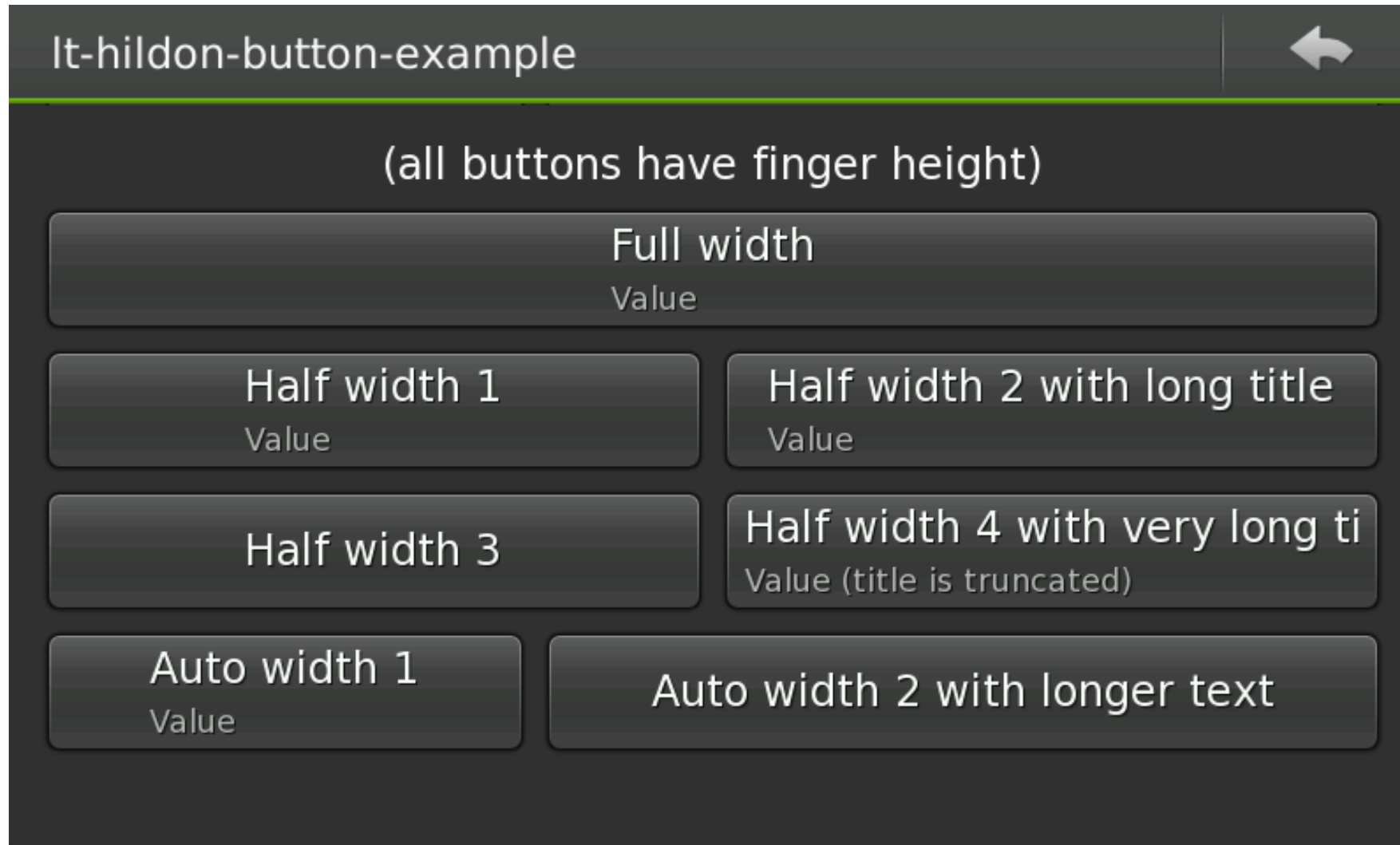
Window stacks

- Hierarchical organization of windows
- Applications have a main view from which different subviews can be opened
- Views: implemented with `HildonStackableWindow`
- Stacks: implemented with `HildonWindowStack`



Demo

HildonButton: title/value button



HildonPannableArea

- Pannable scrollable window
- Configurable kinetic scrolling
- Gesture detection support
- Easy to port from GtkScrolledWindow
- Based on the OpenMoko finger-scroll widget



Demo

HildonTouchSelector and HildonPickerDialog

- Finger-friendly, pannable, multicolumn selector
- Allows single or multiple selections
- Uses GtkTreeView internally
- Exposes GtkTreeModel and GtkCellLayout for ease of use
- HildonTouchSelectorEntry: enter non predefined items

HildonPickerButton

- Standard picker button based on HildonTouchSelector
- Inspired by GtkFontButton, GtkFileChooserButton, ...
- Finger-friendly replacement for GtkComboBox and GtkComboBoxEntry

HildonDateButton and HildonTimeButton

- Buttons for time and date selection
- Derived from HildonPickerButton
- Specialized HildonTouchSelector (HildonDateSelector and HildonTimeSelector)



Demo

HildonAppMenu

- Simple and finger-friendly menu for applications
- Replacement for the unsuitable Diablo menu
- Standard UI for data filtering/organization through "filters"



Demo

Other important improvements

- HildonBanner and HildonNote theming improved
- New progress indicator as window manager decoration
- Text entries with hints
- Action area in GtkTreeView

Development

Massive clean up and deprecation

- There were many (highly) specialized widgets from Chinook and before
- Decided to deprecate them
- Examples:
 - Code dialog
 - Password dialogs
 - Login dialog
 - HildonVolumebar deprecated in favor of GtkScale

Problems using standard GTK+ widgets

- Theming limitations (e.g. HildonCheckButton)
- Hard to make changes work with legacy applications:
 - Maemo 4 and earlier: designed for stylus
 - Fremantle: designed for fingers, that is, bigger widgets
 - If we supersize all old widgets we can break legacy applications layout
- New API and helper functions to provide Fremantle style widgets

Maemo GTK+

- Maemo GTK+ is a branch with changes specific to the platform
- We try to keep Maemo GTK+ maintainable and close to upstream, having only stuff that
 - It's on its way to be accepted upstream
 - It can only be achieved by modifying GTK+ widgets internally
- Other widget changes are implemented by subclassing GTK+ widgets in Hildon

Developing for Fremantle

- Fremantle apps: *quite* different from traditional GNOME apps
- Compiling a GNOME app for Fremantle and getting a Fremantle style is just impossible
- Extra effort and knowledge is necessary to achieve the Fremantle style (but it's worth it)

Things to do

- Make the toolkit more independent from hildon-desktop/maemo
- Analyze which features could be moved/adapted to GTK+
- Provide frequent releases for the community
- Work in new and interesting widgets together with the maemo developers community (hint: BOF later today!)
- Color picker? Font picker? Circular touch selector? (hint: BOF later today!)

Contributing

Mailing list:

<https://garage.maemo.org/mailman/listinfo/hildon-devel>

Code:

Very soon in <http://maemo.gitorious.org>!

Bugzilla:

<http://bugs.maemo.org>

Questions?

Thank You