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IDEAS IN MOTION

GNOME Embedded Initiative first meeting
Report for CELF

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Introduction

This document is a brief report of the first GNOME Mobile and Embedded (GMAE) Forum meeting for the CELF members. The

meeting was held during Guadec conference on June 26th where many companies and communities working on embedded field with GNOME software participated. In the following slides you will find

the list of participants, summarize the goals and plans of the GMAE Forum, the major non-technical and technical concerns discussed in the meeting as well as the next steps planned.

Event was attended by

- **Nokia** As a manufacturer of a mobile GNOME based device.
- **PalmSource** As representative of OSDL MLI
- **Garmin** As company working on embedded Gnome components
- **Movial** As company providing services on all works of embedded Linux and the one that played a major role on Nokia 770 development.
- **Kernel Concepts** As a LiPS representative. Small company providing embedded Linux consulting and development works.
- **X-Tend** Open Source consulting company.
- **Opened Hand** Open Source consulting and development company, focusing on X windows based solutions.

Industry Groups Presented

- **CELF**, represented by Movial
- **LIPS**, represented by Kernel Concepts
- **OSDL MLI**, represented by Palm Source

Most Interesting Community Projects Represented

- **GTK+**, UI toolkit allowing a lot of control over look and feel
- **GPE**, Desktop and a set of applications for PDA styled devices
- **GStreamer**, An opensource multimedia framework
- **Cairo**, 2D vector graphics library
- **GTK-mm**, C++ wrappings for GTK+
- **OLPL**, One laptop per child. An effort to create an embedded Linux "laptop" for less than one hundred euros.

What is GMAE forum about

- GMAE is promoting the embedded usage of Gnome software for device manufacturers as well as encouraging current companies using GNOME related technologies to share the experience.
- GMAE avoids to overlap with the existing industry groups working on embedded Linux field.

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The Biggest Technical Challenges

- Performance and memory consumption. Especially Cairo performance.
- Lack of Modularity in GTK+
- Dependencies to heavy software packages like Bonobo, etc.

Most of the technical issues on the way of embedded GNOME has been already solved by Nokia on Maemo project, but there is still work to be done on mainstream development.

Biggest Non-technical Challenges

- Gnome, GTK+ and GStreamer are not well known on embedded field. There is a lot of marketing to do.
- Embedded Linux Segment is fragmented at the moment.
    - Many industry groups
    - Companies are fighting with the same problems

It was discussed that more information and best practices should be shared among companies working on GNOME software. A website for GNOME embedded was planned with content coverint the used software components, its versions, problems faced and possible solutions.

Next Steps Planned

- gnome.org should contain more success stories on embedded field
- Promote the sharing of experience
- Meet again, probably at Boston Summit in September

Nothing too concrete was agreed yet.

Executive Summary

- There is a lot of interest towards embedded gnome stuff following the Nokia example.
- Currently it is doable to device optimize the gnome components, but there is still a lot to do.
- GMAE tries to become a forum for sharing the lessons learned and unifying the participants' efforts on embedded GNOME field.

References

- Unfortunately there is no official GMAE site yet. Once established, it will collect all the publicly available information related to embedding GNOME software.
- Gnome web site *http://www.gnome.org*
- GTK+ web site *http://www.gtk.org*
- gstreamer *http://gstreamer.freedesktop.org/*

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