Linux on a digital camera

Short presentation for
CELF Japan Technical Jamboree 2

2004/12/17

http://www.ricoh.co.jp/src/lab/lab_nw_nw4.html
RDC-i700

- 3.3M pixels
- Good extensibility (USB/PCMCIA/CF slot)
- ROM 8 Mbytes
- RAM 16Mbytes
- CPU SH7709A (Big-endian)

*(originally) works on VxWorks* (launched end of 2000)
Imaging Business Platform

Digital Camera which fits well with the business process of customers

On embedded OS, detailed knowledge of camera is needed

Platform (i.e. Linux based RDC-i700)
A lot of existing software
Big community
(A lot of developers and users) = “Bazar” model

`Chicken and Egg' ??
Digital Camera which fits well with the business process of customers

*On embedded OS, detailed knowledge of camera is needed*

**Alliance Activity**

- Seeking Killer Application
- First step of making communities
- Need technical feedback

**With**

- Universities
- Internship Students
- Internal Evaluation Release
Software

- IPL  SH-IPL
- Image Loader  SH-LILO(CF boot)
- Linux kernel  2.4.26
- GUI  Microwindows/FLNX (FTLK)
- Userland  Busybox
- Imaging  Home-made libraries
Current Activities

• Trying to make our code opened
• Power Management
• "imaging" hardware support
• CELF specification verification
• Move to 2.6 based?
• Others collaboration?
Mimic of “Accident report system” in Insurance company

Camera with “Pretty” filters

Secure Communication
SCP

Input notes
Buttons
Virtual keyboard

OpenH323 / NanoX

libi700

"Netmeeting" on Digital Camera