

Linux on a digital camera

Short presentation for
CELF Japan Technical Jamboree 2

2004/12/17

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' ??

Imaging Business Platform



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Alliance Activity

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

With

- Universities
- Internship Students
- Internal Evaluation Release

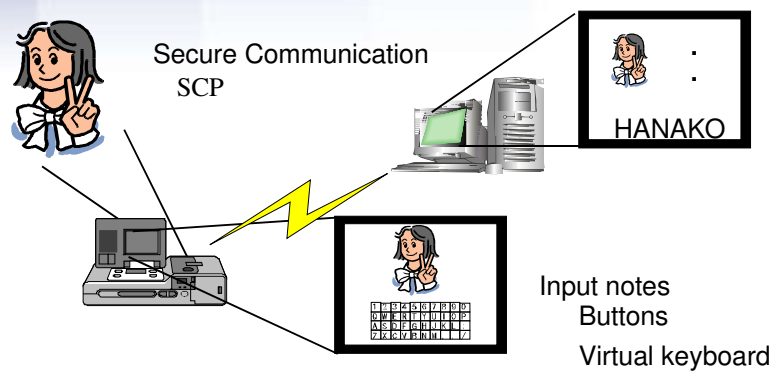
Software

- **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



Input Image

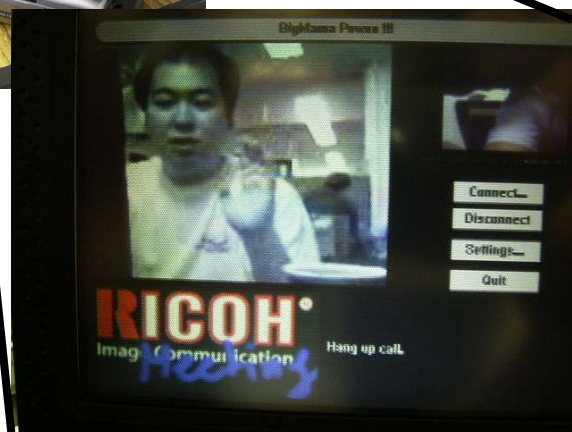


Edge detection



OpenH323 / NanoX

libi700



"Netmeeting" on Digital Camera