Linux Board

Peter Babič

Introductio

Single Read

Computers

Pioneers

Projects

Embedded

CL Inst

Opereating

OnenW/P7

The Future

Epilogue

Linux boards and their use

Peter Babič

Technical University of Košice, Slovakia Computer Modelling, Masters

26.11.2015

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What is a Linux board? Where did it come from?



I don't have time for this!

Single Board Computer

Linux Boards

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Computers

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Common B

Operestin

system

OpenWR*

The Futur



A "single board" computer

SBC Pioneers

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GL-Inet

svstem

Linux

The Futur



Why are SBC useful?

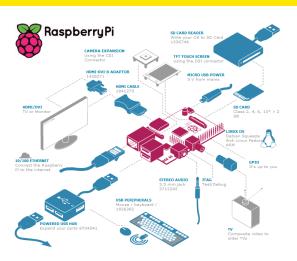
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Raspberry Pi with a range of available peripherals

Done by others

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GL-IIIet

system Linux

OpenWRT

The Futur

- CNC and 3D printer controllers
- Clusters, parallel computers
- Handheld game devices
- Computer console emulators (MAME)
- Vending machine controllers
- Various robots
- Bitcoin miners
- Educational tools

Embedded Computing

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Apollo Guidance Computer and Numeric Display with a Keyboard

Cheap and Common Embedded Boards

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The Futu









GL-Inet Smart Router

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The personal pavorite number 1

TP-Link WR703n

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GL-Inet



The predecessor of a GL.Inet

Why Linux?

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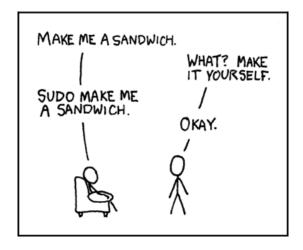
Common

GL-IIIet

system

OnenWR*

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Randall Munroe knew it before

The Linux Ecosystem

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Linux



Marketing says: IT'S ALL FREE!

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Question

What can you do with a full blown Linux, given only 16MB, 8MB or even 4MB RAM or Flash is available?



BusyBox (+ uClibc)

Where is it all going?

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Internet of Things

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Definition

A network of physical objects or "things" embedded with electronics, software, sensors and connectivity to enable it to achieve greater value and service by **exchanging data with the manufacturer**, operator and/or other connected devices.

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Thank you

Peter Babič