

## *Some about Open Source*

*Why should you consider using open source software in your IP-product?*

*IP-Dagarna 2000*

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# *What is Open Source?*

- × *Many definitions*
  - × *There are many definitions on what OSS (or Free Software, as FSF calls it) are. Many engaged people and organizations.*
- × *Common points*
  - × *You are allowed to use the software for any purpose.*
  - × *You are allowed to redistribute the software without obligations to the authors.*
  - × *You are allowed to modify the software and distribute your changes*

## *Why Open Source?*

- x Your investment is safe*
  - x You do not depend on a vendor. If the company that sell you the software stops existing, or stops supporting the product, you can still use the software.*
- x You are not alone but still independent*
  - x You can modify the functionality of the product or fix it yourself if it's broken.*
- x No licenses to keep track of and pay for*
  - x Not really true, there are many licenses!*

## *Why not Open Source?*

- x No one to sue if things goes wrong*
  - x You are not backed up by the makers of the software*
  - x The licenses of commercial software often makes it impossible to sue anyone anyway*
- x Open Source needs some knowledge*
  - x There are many different licenses*
  - x Free software are not always good software*
  - x You can always present your problem to an open source company and buy your solution and still have the benefits of free software*

# *GPL, Open Source or Free Software???*

- × *This is a problem, too many similar words*
- × *Free Software, Open Source*
  - × *With the most free software you can do what you want. But remember that there are many different licenses*
- × *GNU GPL (General Public License)*
  - × *Free Software, copyleft*
  - × *Takes rights from the authors and gives it to the product.*
- × *What is free in free software?*
  - × *Free as in freedom of speech not free Pizza*
  - × *Free Software may be commercial as well as non-commercial software may be proprietary.*

# *Why Linux in your IP-product?*

- × *It's build on Unix philosophies*
  - × *Unix is not just an operating system. It's a way of thinking and program.*
- × *Easy to port*
  - × *Linux are already ported to at least 12 platforms. More are on the way*
- × *It's very scalable*
  - × *Runs in large servers as well as very small devices*
- × *It's modular*
  - × *You can change it while it runs*
- × *It's GPL (General Public License)*
- × *It has network functionalities built in*
  - × *Includes firewall and routing capabilities*

## *Why \*BSD in your IP-product?*

- × It's Unix*
- × Easy to port*
  - × NetBSD available for about 30 platforms*
- × It's scalable*
  - × Runs in large servers as well as handheld devices*
- × It's not GPL (General Public License)*
  - × It's under BSD-License that are even more free*
- × It has network functionalities built in*
  - × The FreeBSD IP stack are what many considers the reference implementation of the IP-stack*
  - × Firewall functionality built in*

## *Real world examples (1/4)*

- x *IBM Linux Watch (Source IBM)*
  - x *A wrist watch running Linux 2.2 and X11R6*
  - x *Built to show the viability of Linux across all platforms*
  - x *Powerful; 8MB of RAM, 8MB of flash storage*
  - x *Connectable; IrDA*
  - x *Light; Weight 44g*
  - x *Small;*
    - x *The whole watch is 56x48x12.25 mm*
    - x *The motherboard is 27.5x35.3 mm*
- x *More information and photos*
  - x *<http://www.research.ibm.com/WearableComputing/>*



## *Real world examples (2/4)*

- x Wearables Lab's Matchbox Web server*
  - x Not a commercial product*
  - x Runs RedHat Linux and Apache Web server*
  - x Size; 71x45x5mm. Weight; 20g*
- x Wearables Lab's Matchbox PC*
  - x Not a commercial product*
  - x Extends the Web server with, among other things, disk and graphics. This makes it a fully functional PC that can run several operating systems.*
  - x Size; 71x45x24mm. Weight; 90g*
- x More information and photos*
  - x <http://wearables.stanford.edu>*

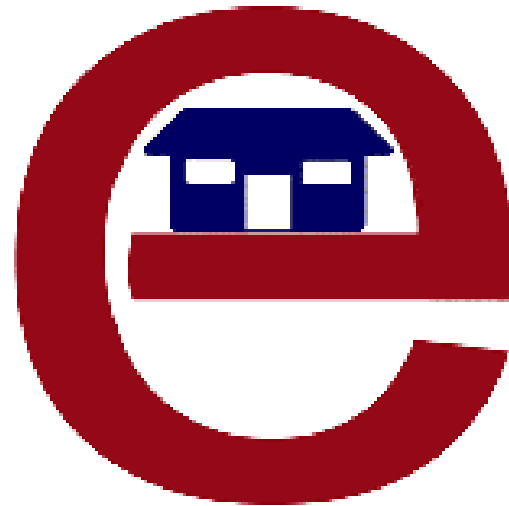
## *Real world examples (3/4)*

- × *Agenda Computing's Agenda VR*
  - × *A PDA running Linux*
  - × *Runs Linux 2.4 and X11R6*
  - × *Easy to build/port software to it*
    - × *You can use familiar libs like glibc*
    - × *FLTK are included for easy development of GUIs*
  - × *Communicates though RS232 and IrDA*
  
- × *More information and photos*
  - × *<http://www.agendacomputing.com>*

## *Real world examples (4/4)*

- × *Ericsson's e-box*
  - × *A commercial product*
  - × *Used as a residential gateway in smart homes*
  - × *Runs a Linux 2.2 operating system*
  - × *Has firewall functionality built in*
  
- × *More information*
  - × *<http://www.ericsson.se/ebox>*

# ***IT made invisible***



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