

## Latest News from the Erlang/OTP team at Ericsson

ACM Erlang Workshop Edinburgh September 5 2009

Kenneth Lundin Manager of the Erlang/OTP team at Ericsson



# Coming Open Source releases

OTP R13B02 September 23

OTP R13B03 November 25 OTP R13B04 Jan-Feb 2010 OTP R13B05 ??? OTP R14B May-June 2010 OTP R14B01 OTP R14B02

. . .

# Preliminary contents in R13B02 (23 Sept)

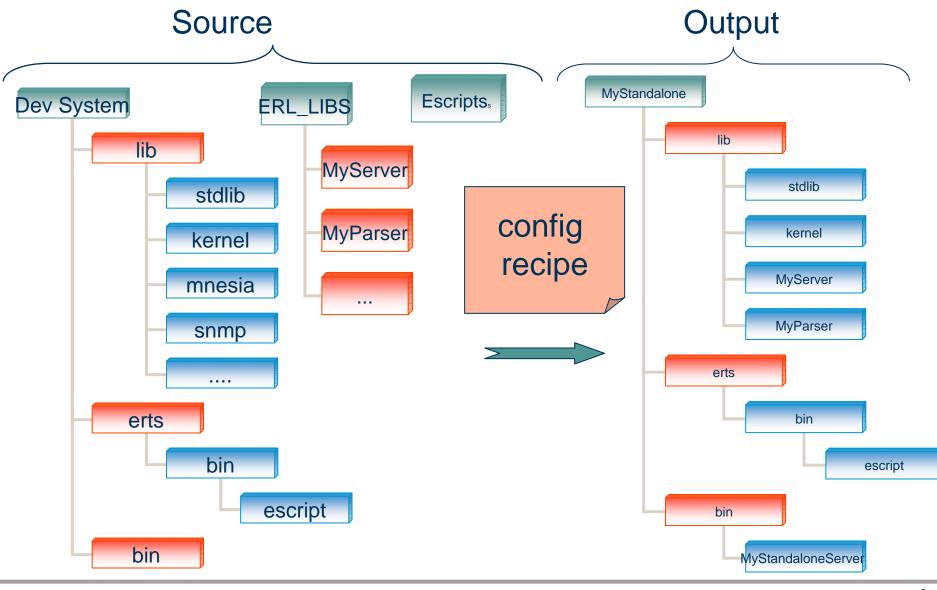
- Multicore performance improvements
  - Just minor improvements.
- DNS client supported
  - inet\_res module, support for EDNS, etc.
- Optimization of erlang:demonitor(Mon,[flush])
  - makes gen\_server:call faster by avoiding a full search of the message queue
  - Together with an optimization introduced in R13B01 we have reduced the number of full search in the message queue from 3 to 1 (so far).

#### RelTool

- generate target systems
- just drop the files into the filesystem (no need for installation)
- start Escripts with a binary named by you.
- file:get\_line
  - which can be used in raw mode and is very efficient

#### © Ericsson AB 2009

## **Reltool Example**



© Ericsson AB 2009

Latest News from the Erlang/OTP team at Ericsson 2009-09-02 ERICSSON \$

## Reltool Example (continued)

```
reltool:create target([
 {config,
     {sys,[{erl_libs, ["/x/lib", "/y/lib"]},
            {escripts,["/x/bin/myescript",
                       "/x/bin/myescript2"]},
     {incl_files, ["^bin.*"]},
     {excl_files, ["^bin/.*debug.*"]},
     {incl_app_files, ["^ebin.*", "^include.*"]},
     {app, myapp, [{incl_cond, include},
     {excl_app_files, ["^include.*"]}]},
     {app, megaco, [{incl_cond, include},
     {incl_app_files, ["^ebin.*", "^priv.*"]}]}}
]).
```

## Plans for later releases

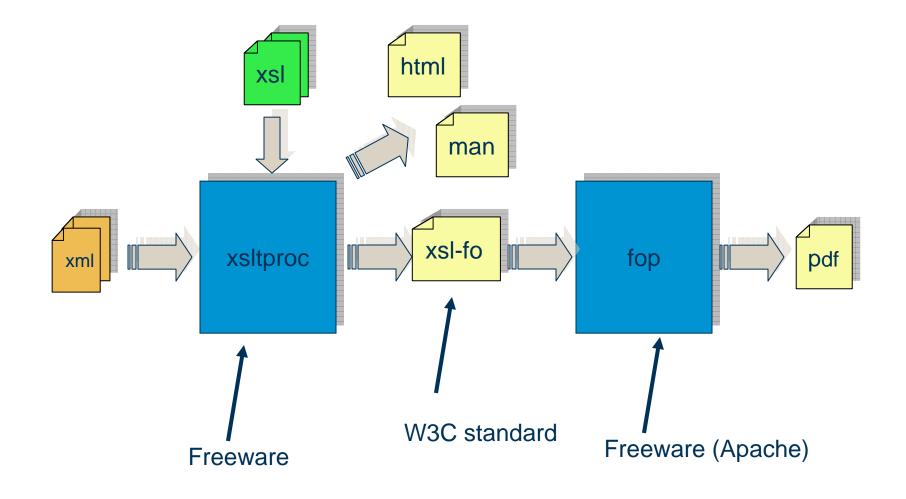
#### Multicore performance improvements

- Delayed deallocation, let the right scheduler do it (R13B03)
- Improved handling of process table
- Separate allocators per scheduler
- Use NUMA info for grouping of schedulers
- Separate poll sets per scheduler (IO)
- Support Scheduler bindings, cpu\_topology on Windows as well.
- Optimize Erlang applications in Erlang/OTP
- Fine grained parallelism, language and library functions.
- Better and more benchmarks

#### New way to build the documentation

- Using XSLTPROC to produce html, man and XSL-FO
- Using Apache FOP to produce PDF
- Easier to interface C libraries and to make your own "BIFs"
  - Dynamically linked in BIF's (for C-code, easier to write and more efficient than drivers)
- Support for validation in xmerl\_sax\_parser
- BIFs for search in binaries (EEP-?)

### New way to build the documentation



# **ERICSSON**