



Latest news

from

the ERLANG Group at Ericsson



Highlights in R14B02

- › R14B02 released March 16:th
- › Mainly error corrections and smaller user contributions
- › But also some things worth highlighting like:

“Halfword” 64 bit Erlang VM (for Linux)

Edoc using `-type` and `-spec`

All test suites are now run with `CommonTest`

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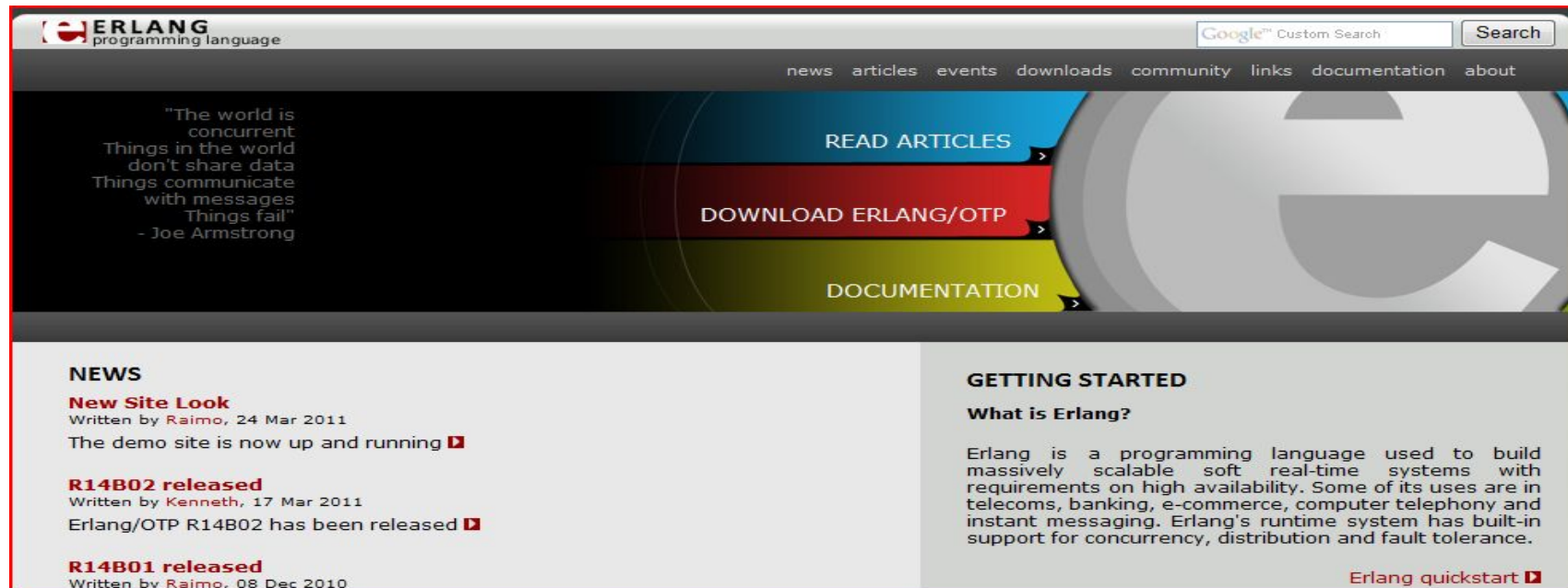
“Halfword” 64 bit Erlang VM

- › Reduces memory footprint by using “half words” (32 bits) inside process heaps.
- › Max 4 Gbyte for all code+ processes heap and stack.
- › Can use all available memory for ets-tables and shared binaries.
- › Max 4 Gbyte for one entry in an ets-table
- › *Only tested and supported on Linux x86 64 and with `disable_hipe`*

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Changing erlang.org

- › Erlang.org has a new look since yesterday
- › Minor problems to be expected during the first period
- › Some of the content is still in the old format and will be updated.



Coming Releases

- › Preliminary plans
- › R14B03 in May
- › R15B, Nov/Dec
 - A feature that I have really waited for!

Line number info in crash-reports

Will make it much easier to find out what and where something went wrong.

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Line Number Info

- › Generated as default by compiler
- › Loader puts info in internal tables used when an exception or call to `erlang:get_stacktrace` occurs
- › Size of `.beam` file increases with ~ 5 %

- › Size of loaded code increases with 10% in a 32 bit VM (less percentage in a 64 bit VM)
- › No extra cost in runtime.
- › New EEP describes in detail how it works.
- › EEP and code will be available on github soon.

Line Number Info continued

Introducing a small "harmless" incompatibility

A stack trace will change from the format:

```
[ {Module, Function, Arity}, ... ]
```

To the new format:

```
[ {Module, Function, Arity, LocationInfo}, ... ]
```

Where `LocationInfo` is a property list :

```
[ {file, FilenameString}, {line, LineNumber} ]
```

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Line Number Info, Demo

example.erl

```
-module(example).  
  -export([m/1]).  
  -include("header.hrl").  
  
m(L) ->  
  {ok,lists:map(fun f/1, L)}. %Line 6
```

header.hrl

```
f(X) ->  
  abs(X) + 1. %Line 2
```

```
Eshell V5.8.4 (abort with ^G)  
1> c(example).  
{ok,example}  
2> example:m([a]).  
** exception error: bad argument  
   in function abs/1  
   called as abs(a)  
   in call from example:f/1 (header.hrl, line 2)  
   in call from lists:map/2 (lists.erl, line 948)  
   in call from example:m/1 (example.erl, line 6)  
3>
```


Line Number Info, Demo

```
Eshell V5.8.4 (abort with ^G)
2> process_info(Pid,current_location).
{current_location,{gen_server,loop,6,
                    [{file,"gen_server.erl"},{line,331}]}}

3> process_info(Pid,current_stacktrace).
{current_stacktrace,[{gen_server,loop,6,
                      [{file,"gen_server.erl"},{line,331}]},
                     {proc_lib,init_p_do_apply,3,
                      [{file,"proc_lib.erl"},{line,184}]}]}

4>
```



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