

News From the OTP TEAM

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Outline



- -Community Interaction
- -Planned Releases
- -Details of 18.3
- -Details of 19.0
- –Longer term





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> Working together with IEUG

- -Issue tracker
- -Include PM in OTP
- -Open backlog

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> bugs.erlang.org

- -live since October 2015
- Replaces the erlang-bugs mailing list
- Comments from other users appreciated



Community

- PM included and integrated makes it easier to reuse Erlang packages
- > Rebar3 is a good solution
- Coop with the Rebar3 maintainers to develop it further
- > Find and get packages from Hex (Elixir)
- Step 1:Move Rebar3 to Erlang on Github
- Step 2: Integrate Rebar3 and OTP further.
- Step 3 (OTP 20) building OTP applications with Rebar3
- More about Rebar3 at 14.10 today.

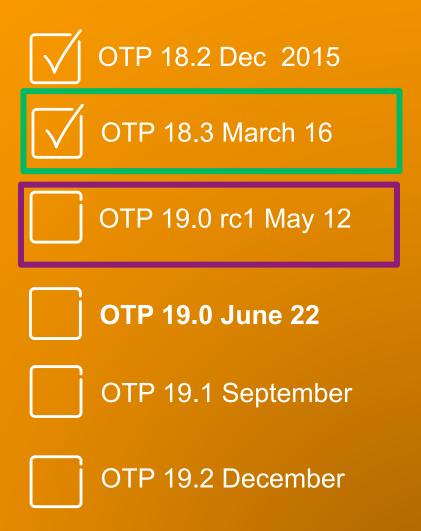




Planned Releases

- 1 major release per year(18.0, 19.0, ...)
- 3 planned "correction packages" like 18.1, 18.2, 18.3
- > Emergency packages as needed (18.2.3)
- Maint branch = 18.X
- Master branch = next major =19





Maint Track

- new statistics about runnable and active processes & ports
- > Time warp improvements
 - -dbg:p/2 and erlang:trace/3
 with monotonic_timestamp |
 strict monotonic...
- > Validation callback for heart
- > module overload deprecated
- > ~90 contributions since 18.2



- OTP 18.0 June 24, 2015
- OTP 18.1 Sept XX 2015
- OTP 18.2 Dec 14, 2015
- OTP 18.3 March 16, 2016

Master potential incompatibilities

- > Test_server removed
- > code path cache removed
- Record fields with type declaration but without initializer 'undefined' is not automatically inserted
 - -record(rec, {f1 :: float(),...
 - -record(rec, {f1 :: float() |
 'undefined'
- SSL: DES cipher suites not on by default
- random module deprecated.Use rand.



June 22, 2016



OTP 19.0-rc1 May 12, 2016

Master some highlights 1

- Preprocessor macros ? FUNCTION_NAME and ? FUNCTION_ARITY.
- gen_statem a new state machine behavior.
- > mnesia_ext, plug in of external storage solutions
- > Crypto: Faster
 - uses the EVP interface in OpenSSL. HW acceleration
 - –192-bit keys for the aes_cbcand aes_ecb ciphers.



June 22, 2016



OTP 19.0-rc1 May 12, 2016

Master some highlights 2

- > erlang:open_port(spawn
 , ...) 3-5 times faster
- Tracing (scalability, speed, "match specs" on messages)
- "Dirty Schedulers" robust and less "experimental"
- Config message_queue handling per process
- Fast loading of multiple modules, 4 new functions in code



June 22, 2016



Master some highlights 3

- > Ssh: optimizations
- > binary:split optimized
- > Sharing preserving copying
- > os:perf_counter/1
- parbage_collection_info
 from process info



Longer term

- JIT (based on LLVM)
- > Distribution
 - -(100 nodes)
 - Heterogenous
 - Distributed Hash Table (as alternative to Global)
- > Split OTP
- > DTLS (TLS over UDP and SCTP)
- > Build support
- > Documentation
- > Virtualization







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