# OraBench - Release Notes

`build` `passing`  `release` `v1.0.0`  `release date` `june`  `github` `repo or version not found`

## Version 1.1.0

Release Date: 11.10.2021

### New Features

- Oracle Database 21c
- Programming language `Julia` and database driver `JDBC.jl`
- Programming language `Julia` and database driver `Oracle.jl`

### Applied Software

| Software | Type | Version | Remark |
|---|---|---|---|
| C++ (gcc) | Language | 10.3.0 | upgrade |
| cx_Oracle | Driver | 8.2.1 | |
| Elixir | Language | 1.12.3-otp-24 | upgrade |
| Erlang | Language | 24.1.2 | upgrade |
| Go | Language | 1.17.2 | upgrade |
| godror | Driver | v0.27.1 | upgrade |
| JDBC.jl | Driver | v0.5.0 | new |
| Java | Language | openjdk-17 | upgrade |
| Julia | Language | v1.6.3 | new |
| Kotlin | Language | 1.5.31 | upgrade |
| Oracle Instant Client | Driver | 21.3.0.0.0 | upgrade |
| Oracle JDBC | Driver | 21.3.0.0 | upgrade |
| Oracle ODPI-C | Driver | 4.2.1 | |
| Oracle.jl | Driver | v0.3.1 | new |
| oranif | Driver | 0.2.3 | |
| Python 3 | Language | 3.10.0 | upgrade |

### Open issues

- C & ODPI-C: (see here)

- Elixir & oranif: (see here)
- Erlang & oranif: (see here)
- Julia & JDBC.jl: (see here)
- Julia & Oracle.jl: (see here)

# Detailed Open Issues

## C & ODPI-C

### Issue: Ubuntu 20.04: compile errors

```
    rm -rf ./*.obj
    rm -rf ./OraBench
    gcc -o OraBench -Ilang/c -I"lang/c/odpi/include" -O2 -ggdb -Wall -fPIC -
std=gnu11 -DEMBED lang/c/odpis.c lang/c/config.c lang/c/OraBench.c -lpthread -ldl
    In file included from lang/c/odpi/include/../embed/dpi.c:27,
                     from lang/c/odpis.c:7:
    lang/c/odpi/include/../embed/../src/dpiError.c: In function
'dpiError__setFromOS':
    lang/c/odpi/include/../embed/../src/dpiError.c:264:13: warning: assignment to
'char *' from 'int' makes pointer from integer without a cast [-Wint-conversion]
      264 |     message = strerror_r(err, buffer, sizeof(buffer));
          |             ^
    In file included from lang/c/odpi/include/../embed/dpi.c:38,
                     from lang/c/odpis.c:7:
    lang/c/odpi/include/../embed/../src/dpiOci.c: In function
'dpiOci__loadLibInModuleDir':
    lang/c/odpi/include/../embed/../src/dpiOci.c:1856:5: error: unknown type name
'Dl_info'
      1856 |     Dl_info info;
           |     ^~~~~~~
    lang/c/odpi/include/../embed/../src/dpiOci.c:1858:9: warning: implicit
declaration of function 'dladdr' [-Wimplicit-function-declaration]
      1858 |     if (dladdr(dpiContext_createWithParams, &info) != 0) {
           |         ^~~~~~
    lang/c/odpi/include/../embed/../src/dpiOci.c:1860:56: error: request for
member 'dli_fname' in something not a structure or union
      1860 |             dpiDebug__print("module name is %s\n", info.dli_fname);
           |                                                        ^
    lang/c/odpi/include/../embed/../src/dpiOci.c:1861:31: error: request for
member 'dli_fname' in something not a structure or union
      1861 |         dirName = strrchr(info.dli_fname, '/');
           |                               ^
    lang/c/odpi/include/../embed/../src/dpiOci.c:1863:59: error: request for
member 'dli_fname' in something not a structure or union
      1863 |             return dpiOci__loadLibWithDir(loadParams, info.dli_fname,
           |                                                           ^
    lang/c/odpi/include/../embed/../src/dpiOci.c:1864:45: error: request for
member 'dli_fname' in something not a structure or union
      1864 |                 (size_t) (dirName - info.dli_fname), 0, error);
```

```
        |                                                    ^
    make: *** [lang/c/Makefile:30: OraBench] Error 1
```

**Issue: Windows 10: no reaction**

```
    Start OraBench.c
    argv[1]=priv\properties\ora_bench_c.properties
```

## Elixir & oranif

**Issue: Parameter `benchmark.core.multiplier` not properly supported:**

`benchmark.core.multiplier=0`

```
16:44:55.685 module=OraBench line=954  [info] Start ==========> trial no. 1
16:44:55.809 module=OraBench line=670  [info] Start insert partition_key=1
16:44:55.937 module=OraBench line=735  [info] End   insert partition_key=1
16:44:55.937 module=OraBench line=670  [info] Start insert partition_key=2
16:44:56.051 module=OraBench line=735  [info] End   insert partition_key=2
16:44:56.051 module=OraBench line=670  [info] Start insert partition_key=3
16:44:56.182 module=OraBench line=735  [info] End   insert partition_key=3
16:44:56.182 module=OraBench line=670  [info] Start insert partition_key=4
16:44:56.311 module=OraBench line=735  [info] End   insert partition_key=4
16:44:56.311 module=OraBench line=670  [info] Start insert partition_key=5
16:44:56.445 module=OraBench line=735  [info] End   insert partition_key=5
16:44:56.445 module=OraBench line=670  [info] Start insert partition_key=6
16:44:56.576 module=OraBench line=735  [info] End   insert partition_key=6
16:44:56.576 module=OraBench line=670  [info] Start insert partition_key=7
16:44:56.712 module=OraBench line=735  [info] End   insert partition_key=7
16:44:56.712 module=OraBench line=670  [info] Start insert partition_key=8
16:44:56.853 module=OraBench line=735  [info] End   insert partition_key=8
16:44:56.853 module=OraBench line=670  [info] Start insert partition_key=9
16:44:56.990 module=OraBench line=735  [info] End   insert partition_key=9
16:44:56.990 module=OraBench line=670  [info] Start insert partition_key=10
16:44:57.124 module=OraBench line=735  [info] End   insert partition_key=10
```

`benchmark.core.multiplier=1`

```
16:47:57.949 module=OraBench line=954  [info] Start ==========> trial no. 1
16:47:58.474 module=OraBench line=670  [info] Start insert partition_key=1
16:47:58.580 module=OraBench line=735  [info] End   insert partition_key=1
16:47:58.580 module=OraBench line=670  [info] Start insert partition_key=2
16:47:58.686 module=OraBench line=735  [info] End   insert partition_key=2
16:47:58.686 module=OraBench line=670  [info] Start insert partition_key=3
```

```
16:47:58.817 module=OraBench line=735  [info] End   insert partition_key=3
16:47:58.818 module=OraBench line=670  [info] Start insert partition_key=4
16:47:58.946 module=OraBench line=735  [info] End   insert partition_key=4
16:47:58.946 module=OraBench line=670  [info] Start insert partition_key=5
16:47:59.067 module=OraBench line=735  [info] End   insert partition_key=5
16:47:59.067 module=OraBench line=670  [info] Start insert partition_key=6
16:47:59.192 module=OraBench line=735  [info] End   insert partition_key=6
16:47:59.192 module=OraBench line=670  [info] Start insert partition_key=7
16:47:59.316 module=OraBench line=735  [info] End   insert partition_key=7
16:47:59.316 module=OraBench line=670  [info] Start insert partition_key=8
16:47:59.446 module=OraBench line=735  [info] End   insert partition_key=8
16:47:59.446 module=OraBench line=670  [info] Start insert partition_key=9
16:47:59.574 module=OraBench line=735  [info] End   insert partition_key=9
16:47:59.574 module=OraBench line=670  [info] Start insert partition_key=10
16:47:59.705 module=OraBench line=735  [info] End   insert partition_key=10
```

## Erlang & oranif

**Issue: Parameter `benchmark.core.multiplier` not properly supported:**

`benchmark.core.multiplier=0`

```
[orabench:run_trials:294] Start trial no 1
Start insert partition_key=2
Start insert partition_key=5
Start insert partition_key=4
Start insert partition_key=6
Start insert partition_key=8
Start insert partition_key=9
Start insert partition_key=11
Start insert partition_key=10
Start insert partition_key=12
Start insert partition_key=14
Start insert partition_key=16
Start insert partition_key=15
Start insert partition_key=17
Start insert partition_key=18
Start insert partition_key=20
Start insert partition_key=22
Start insert partition_key=23
Start insert partition_key=21
Start insert partition_key=25
Start insert partition_key=24
```

`benchmark.core.multiplier=1`

```
[orabench:run_trials:294] Start trial no 1
Start insert partition_key=2
Start insert partition_key=3
Start insert partition_key=5
Start insert partition_key=6
Start insert partition_key=7
Start insert partition_key=9
Start insert partition_key=10
Start insert partition_key=11
Start insert partition_key=15
Start insert partition_key=14
Start insert partition_key=16
Start insert partition_key=12
Start insert partition_key=17
Start insert partition_key=19
Start insert partition_key=22
Start insert partition_key=20
Start insert partition_key=18
Start insert partition_key=24
Start insert partition_key=25
Start insert partition_key=23
```

## Julia & JDBC.jl

**Issue: Batch operations not supported: addBatch & executeBatch**

**Issue: Windows 10 not supported:**

```
2021-10-11 17:14:43,808 [OraBench.java] INFO  Start OraBench.java
2021-10-11 17:14:43,809 [OraBench.java] INFO  main() - number arguments=1
2021-10-11 17:14:43,810 [OraBench.java] INFO  main() - 1st argument=setup_toml
2021-10-11 17:14:43,884 [Config.java] INFO  benchmarkBatchSize      =0
2021-10-11 17:14:43,885 [Config.java] INFO  benchmarkCoreMultiplier =0
2021-10-11 17:14:43,885 [Config.java] INFO  benchmarkTransactionSize=0
2021-10-11 17:14:43,886 [OraBench.java] INFO  Start Setup TOML OraBench Run
2021-10-11 17:14:43,888 [OraBench.java] INFO  End   Setup TOML OraBench Run
2021-10-11 17:14:43,888 [OraBench.java] INFO  End   OraBench.java
Updating registry at `C:\Users\walte\.julia\registries\General`
Updating git-repo `https://github.com/JuliaRegistries/General.git`
--------------------------------------------------------------------------------
The current time is: 17:14:52.55
Enter the new time:
--------------------------------------------------------------------------------
End   lang\julia\scripts\run_bench_jdbc
```

## Julia & Oracle.jl

**Issue: Oracle.close: signal (11): Segmentation fault - _see here_**

```
signal (11): Segmentation fault
in expression starting at
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:605
dpiConn__close at
/home/walter/.julia/packages/Oracle/HDiQ4/deps/usr/lib/libdpi.so.4.1.0 (unknown
line)
dpiConn_close at
/home/walter/.julia/packages/Oracle/HDiQ4/deps/usr/lib/libdpi.so.4.1.0 (unknown
line)
#dpiConn_close#5 at /home/walter/.julia/packages/Oracle/HDiQ4/src/odpi.jl:134
[inlined]
dpiConn_close##kw at /home/walter/.julia/packages/Oracle/HDiQ4/src/odpi.jl:133
[inlined]
#close#11 at /home/walter/.julia/packages/Oracle/HDiQ4/src/connection.jl:191
close at /home/walter/.julia/packages/Oracle/HDiQ4/src/connection.jl:191
_jl_invoke at /buildworker/worker/package_linux64/build/src/gf.c:2237 [inlined]
jl_apply_generic at /buildworker/worker/package_linux64/build/src/gf.c:2419
run_benchmark at /home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:501
main at /home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:456
unknown function (ip: 0x7f1a555fba7c)
_jl_invoke at /buildworker/worker/package_linux64/build/src/gf.c:2237 [inlined]
jl_apply_generic at /buildworker/worker/package_linux64/build/src/gf.c:2419
jl_apply at /buildworker/worker/package_linux64/build/src/julia.h:1703 [inlined]
do_call at /buildworker/worker/package_linux64/build/src/interpreter.c:115
eval_value at /buildworker/worker/package_linux64/build/src/interpreter.c:204
eval_stmt_value at /buildworker/worker/package_linux64/build/src/interpreter.c:155
[inlined]
eval_body at /buildworker/worker/package_linux64/build/src/interpreter.c:562
jl_interpret_toplevel_thunk at
/buildworker/worker/package_linux64/build/src/interpreter.c:670
jl_toplevel_eval_flex at
/buildworker/worker/package_linux64/build/src/toplevel.c:877
jl_eval_module_expr at
/buildworker/worker/package_linux64/build/src/toplevel.c:195 [inlined]
jl_toplevel_eval_flex at
/buildworker/worker/package_linux64/build/src/toplevel.c:668
jl_toplevel_eval_flex at
/buildworker/worker/package_linux64/build/src/toplevel.c:825
jl_toplevel_eval_in at
/buildworker/worker/package_linux64/build/src/toplevel.c:929
eval at ./boot.jl:360 [inlined]
include_string at ./loading.jl:1116
_jl_invoke at /buildworker/worker/package_linux64/build/src/gf.c:2237 [inlined]
jl_apply_generic at /buildworker/worker/package_linux64/build/src/gf.c:2419
_include at ./loading.jl:1170
include at ./Base.jl:386
_jl_invoke at /buildworker/worker/package_linux64/build/src/gf.c:2237 [inlined]
jl_apply_generic at /buildworker/worker/package_linux64/build/src/gf.c:2419
```

```
exec_options at ./client.jl:285
_start at ./client.jl:485
jfptr__start_34281 at /home/walter/.asdf/installs/julia/1.6.2/lib/julia/sys.so
(unknown line)
_jl_invoke at /buildworker/worker/package_linux64/build/src/gf.c:2237 [inlined]
jl_apply_generic at /buildworker/worker/package_linux64/build/src/gf.c:2419
jl_apply at /buildworker/worker/package_linux64/build/src/julia.h:1703 [inlined]
true_main at /buildworker/worker/package_linux64/build/src/jlapi.c:560
repl_entrypoint at /buildworker/worker/package_linux64/build/src/jlapi.c:702
main at /buildworker/worker/package_linux64/build/cli/loader_exe.c:51
__libc_start_main at /lib/x86_64-linux-gnu/libc.so.6 (unknown line)
_start at /home/walter/.asdf/installs/julia/1.6.2/bin/julia (unknown line)
Allocations: 70437479 (Pool: 70399537; Big: 37942); GC: 68
./lang/julia/scripts/run_bench_oracle_jl.sh: line 59: 16299 Segmentation fault
(core dumped) julia lang/julia/OraBenchOracle.jl
priv/properties/ora_bench_toml.properties
```

**Issue: @sync & @spawn or @threads: signal (11): Segmentation fault**

```
┌ Info: Start trial no. 1
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:848
┌ Info: Start insert partition_key=8
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=1
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=2
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=4
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=6
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=5
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=7
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: Start insert partition_key=3
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:602
┌ Info: End   insert partition_key=8
└ @ Main.OraBenchOracle
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:686
```

```
signal (11): Segmentation fault
in expression starting at
/home/walter/Projects/ora_bench/lang/julia/OraBenchOracle.jl:942
./lang/julia/scripts/run_bench_oracle.sh: line 59: 20219 Segmentation fault
(core dumped) julia --threads 8 lang/julia/OraBenchOracle.jl
priv/properties/ora_bench_toml.properties
```

**Issue: Windows 10 not supported:**

```
2021-10-11 17:19:15,188 [OraBench.java] INFO  Start OraBench.java
2021-10-11 17:19:15,189 [OraBench.java] INFO  main() - number arguments=1
2021-10-11 17:19:15,189 [OraBench.java] INFO  main() - 1st argument=setup_toml
2021-10-11 17:19:15,257 [Config.java] INFO  benchmarkBatchSize      =0
2021-10-11 17:19:15,258 [Config.java] INFO  benchmarkCoreMultiplier =0
2021-10-11 17:19:15,258 [Config.java] INFO  benchmarkTransactionSize=0
2021-10-11 17:19:15,258 [OraBench.java] INFO  Start Setup TOML OraBench Run
2021-10-11 17:19:15,260 [OraBench.java] INFO  End   Setup TOML OraBench Run
2021-10-11 17:19:15,260 [OraBench.java] INFO  End   OraBench.java
Updating registry at `C:\Users\walte\.julia\registries\General`
Updating git-repo `https://github.com/JuliaRegistries/General.git`
------------------------------------------------------------------------------
The current time is: 17:19:22.57
Enter the new time:
------------------------------------------------------------------------------
End   lang\julia\scripts\run_bench_oracle
```