

# How to make your database, code and life more efficient

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# Why this talk or who am I ?

- 20 years in IT
- Different roles: OS Admin, DBA, developer, Architect





# Database

```
SQL> select file#, name from v$datafile where name like '%/t1%' order by file#;
```

```
FILE# NAME
```

```
-----  
2 /mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf  
7 /mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf  
8 /mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf
```

```
2 /mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf  
7 /mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf  
8 /mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf
```

```
SQL> select file#, name, length(name) from v$datafile
      where name like '%/t1%' order by file#;
```

FILE#	NAME	LENGTH (NAME)
2	/mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf	50
7	/mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf	51
8	/mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf	52

# LENGTH (NAME)

-----

50

51

52

```
SQL> select file#, name, length(trim(name)) from v$datafile where name like '/t1%' order by file#;
```

FILE#	NAME	LENGTH (TRIM (NAME) )
2	/mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf	50
7	/mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf	50
8	/mnt/provision/testdx/datafile/u02/oracle/t1_1.dbf	52

**LENGTH (TRIM (NAME) )**

-----

50

50

52

```
SQL> select file#, dump(name) d from v$datafile where name like '%/t1%' order by file#;
```

```
FILE# D
```

```
-----  
2 Typ=1 Len=50: 47,109,110,116,47,112,114,111,118,105,115,105,111,110,47,116,101,115  
  ,116,100,120,47,100,97,116,97,102,105,108,101,47,117,48,50,47,111,114,97,99,108,10  
  1,47,116,49,95,49,46,100,98,102
```

```
7 Typ=1 Len=51: 47,109,110,116,47,112,114,111,118,105,115,105,111,110,47,116,101,115  
  ,116,100,120,47,100,97,116,97,102,105,108,101,47,117,48,50,47,111,114,97,99,108,10  
  1,47,116,49,95,49,46,100,98,102,32
```

```
8 Typ=1 Len=52: 47,109,110,116,47,112,114,111,118,105,115,105,111,110,47,116,101,115  
  ,116,100,120,47,100,97,116,97,102,105,108,101,47,117,48,50,47,111,114,97,99,108,10  
  1,47,116,49,95,50,8,49,46,100,98,102
```

```
_, 1, ., d, b, f  
95,49,46,100,98,102
```

```
95,49,46,100,98,102,32
```

```
95,50,8,49,46,100,98,102
```







Automation can help you with work quality

Automation can actually replace some of daily work

Automation allow you to build / use same configuration in different stages ( dev / test / integration / production )

You can keep your documentation in the code – kind off

You can avoid creating a technical debt



ANSIBLE





# Code



[https://www.trabantteam-freital.de/extra/trabiprospekte/html/1978v2\\_601er/index.html](https://www.trabantteam-freital.de/extra/trabiprospekte/html/1978v2_601er/index.html)

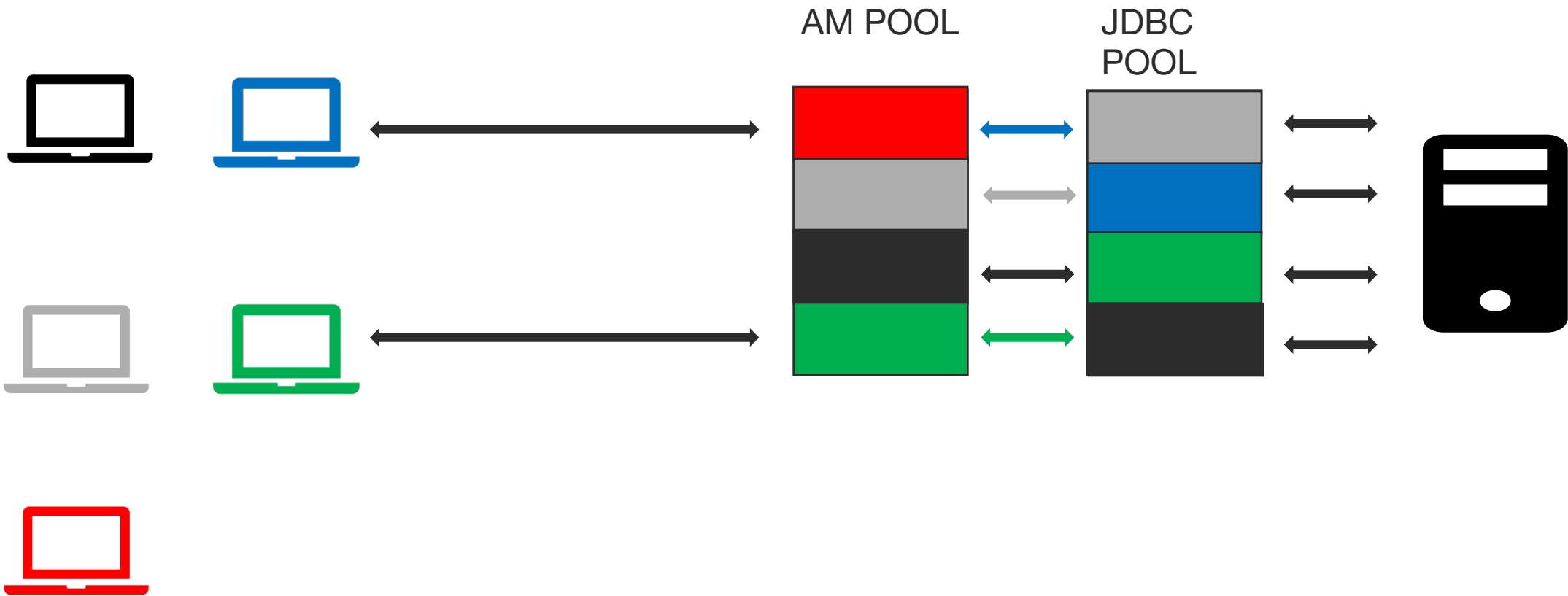


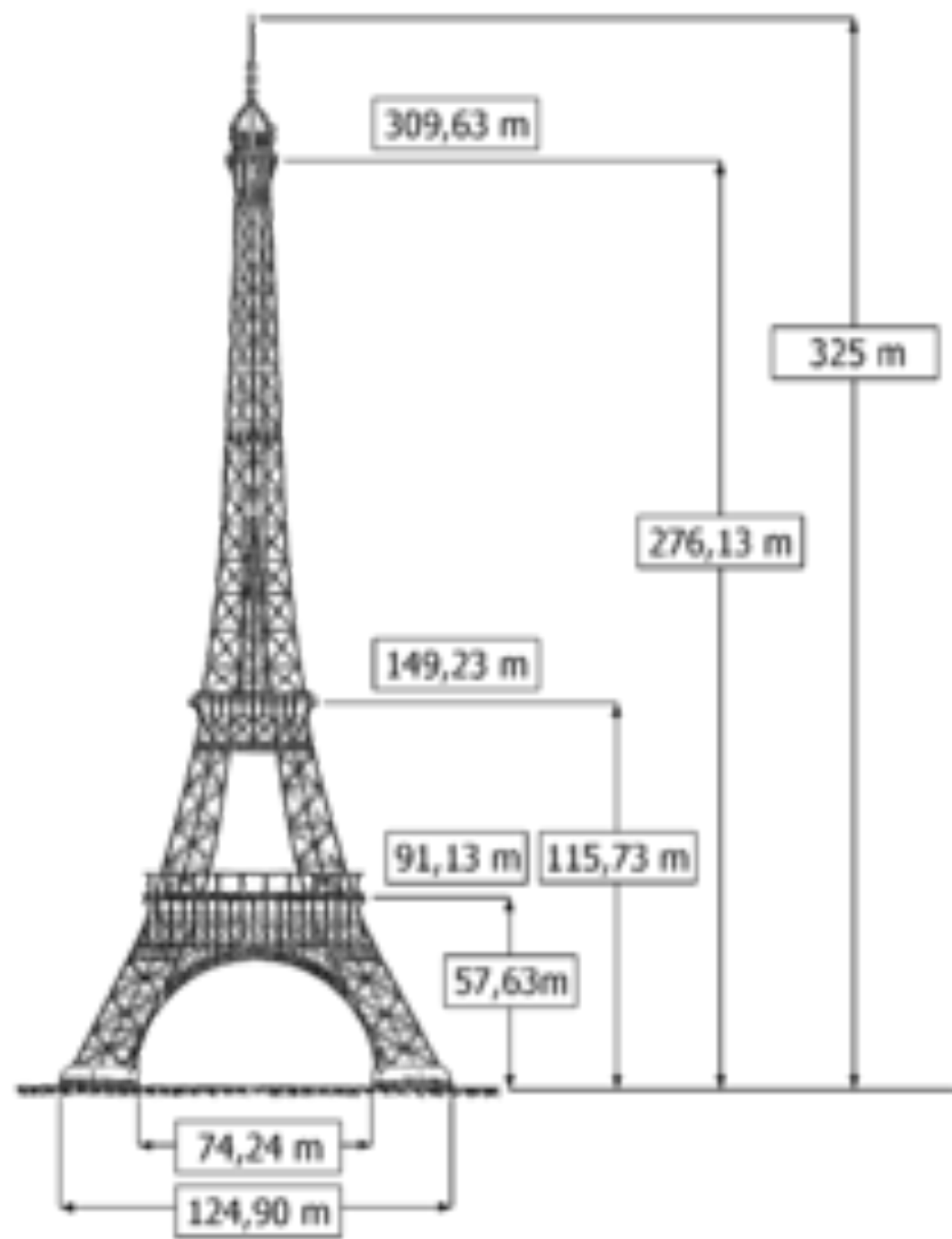
<https://www.mercedesamgf1.com/en/mercedes-amg-f1/amg-f1-news/amg-f1-article/insight-steering-a-formula-one-car/>

STATEFUL != STATELESS

Oracle Forms != Oracle ADF











SMART DB

500 000 x SMART DB

SMARTER DB





Known your platform

Use realistic use cases and data sets

or you will do rework

# Remember about physics and availability

Microservices will add a latency (Always !)

Network can be down

Technical debt ? Try to avoid shortcuts

```
oss_delphix/dxtoolkit/bin$ git diff ea04cad11590d0eafef0fd97f6619143b9a9d1fb dx_ctl_js_container.pl
```

```
diff --git a/bin/dx_ctl_js_container.pl b/bin/dx_ctl_js_container.pl
```

```
index 73368a1..9a6dff1 100755
```

```
--- a/bin/dx_ctl_js_container.pl
```

```
+++ b/bin/dx_ctl_js_container.pl
```

```
@@ -83,8 +83,9 @@ if (defined($all) && defined($dx_host)) {
```

```
if (!defined($action) || ( ! ( (lc $action eq 'reset' ) || (lc $action eq 'refresh' ) || (lc $action eq 'restore' )
```

```
- || (lc $action eq 'create' ) || (lc $action eq 'delete' ) ) ) ) {
```

```
- print "Action parameter not specified or has a wrong value - $action \n";
```

```
+ || (lc $action eq 'create' ) || (lc $action eq 'delete' ) || (lc $action eq 'enable' ) || (lc $action eq 'disable' )
```

```
+ || (lc $action eq 'addowner' ) || (lc $action eq 'deleteowner' ) ) ) ) {
```

```
+ print "Action parameter not specified or has a wrong value\n";
```

```
pod2usage(-verbose => 1, -input=>\*DATA);
```

```
exit (1);
```

```
}
```

```
@@ -124,8 +125,11 @@ for my $engine ( sort (@{$engine_list}) ) {
```

```
my $jobno;
```

```
my $jscontainers = new JS_container_obj ( $engine_obj, $template_ref, $debug);
```

```
+ # actions for existing container
```

```
if ((lc $action eq 'reset' ) || (lc $action eq 'refresh' ) || (lc $action eq 'restore' )
```

```
- || (lc $action eq 'delete' )) {
```

```
+ || (lc $action eq 'delete' ) || (lc $action eq 'enable' ) || (lc $action eq 'disable' )
```

```
+ || (lc $action eq 'addowner' ) || (lc $action eq 'deleteowner' ) ) ) {
```

```
my $jscontainer_ref = $jscontainers->getJSContainerByName($container_name);
```

```
if (! defined($jscontainer_ref)) {
```

```
print "Can't find container name $container_name\n";
```

```
@@ -158,10 +162,58 @@ for my $engine ( sort (@{$engine_list}) ) {
```

```
exit (1);
```

```
}
```

```
$jobno = $jscontainers->deleteContainer($jscontainer_ref, $dropvdb);
```



**Urh Srečnik**

usrechnik

Overview

Repositories 1

Stars 3

Followers

### Popular repositories

[ddlfs](#)

Filesystem which represents Oracle Database objects as their DDL stored in .sql files

● C ★ 5

118 contributions in the last year

LIQUI  BASE



# Titan

YOUR CODE. YOUR ENVIRONMENT. YOUR DATA.

GET STARTED

DOWNLOAD

titan-data.io

titan run -- -d --name testora -p 12345:1521 database:18.4.0-xe  
Creating repository testora  
Creating docker volume testora/v0 with path /opt/oracle/oradata  
Running controlled container testora

titan commit testora  
Commit ddeedd0e-eb6e-47f9-8df3-9638a762c485

titan checkout --commit 5cae4372-b888-4c3d-9134-2e8b17f6d36d testora  
Stopping container testora  
Checkout 5cae4372-b888-4c3d-9134-2e8b17f6d36d  
Starting container testora  
5cae4372-b888-4c3d-9134-2e8b17f6d36d checked out

titan clone ssh://user@172.16.180.138:/tmp/repo/ testora  
Creating repository testora

...

Syncing /opt/oracle/oradata  
3.49GB (33.23MB/s)526B sent 661.0MB received (6.09MB/sec)  
PULL 0590b075-407a-470f-8085-6ed5a5591612 from origin COMPLETE  
Stopping container testora  
Checkout 0590b075-407a-470f-8085-6ed5a5591612  
Starting container testora  
0590b075-407a-470f-8085-6ed5a5591612 checked out






Security

## No REST for the wicked: Ruby gem hacked to siphon passwords, secrets from web devs

Developer account cracked due to credential reuse, source tampered with and released to hundreds of programmers

By [Thomas Claburn](#) in [San Francisco](#) 20 Aug 2019 at 21:21 13  [SHARE](#) ▼



An old version of a Ruby software package called `rest-client` that was modified and released about a week ago has been removed from the Ruby Gems repository – because it was found to be deliberately leaking victims' credentials to a remote server.

[https://www.theregister.co.uk/2019/08/20/ruby\\_gem\\_hacked/](https://www.theregister.co.uk/2019/08/20/ruby_gem_hacked/)



Life


THINKING,  
FAST AND SLOW



DANIEL


KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

- 
1. Describe an issue
  2. Prepare a test case and split it into small tasks
  3. Gather data
  4. Analyse a data and assign execution time to tasks
  5. Find out why each tasks is taking particular amount of time and assign an impact of this task
  6. Propose a solution of the task with most important impact assigned
  7. Implement and confirm it



# System 1 Intuition



# System 2

## Systematic analyse

Take a break



# Visualize a problem



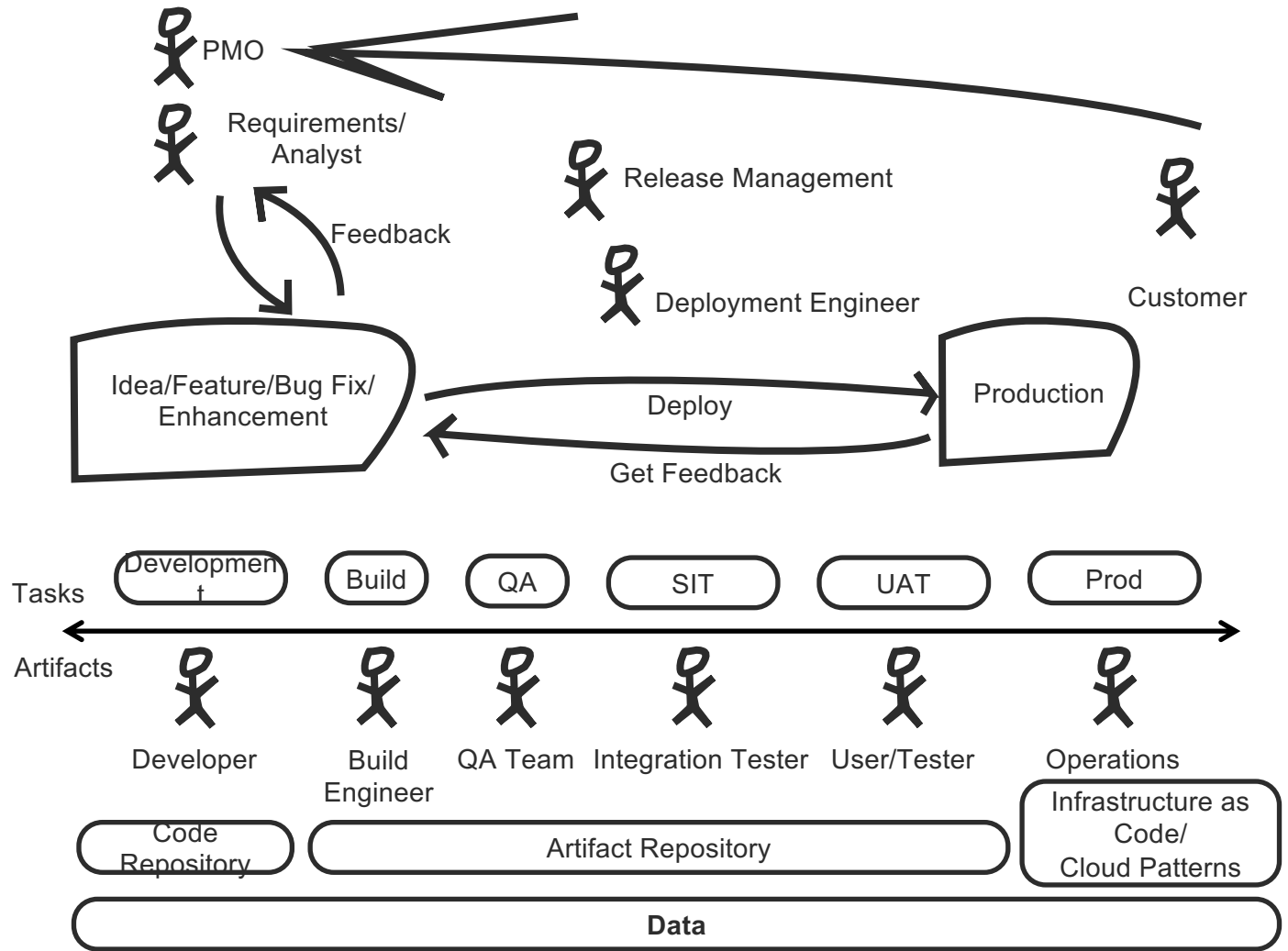


Explain problem to someone



# VALUE STREAM MAPPING

Wait  
Waist  
Rework



TIME

LEAD

QUEUE



PROCESS

SERVICE

QUEUING THEORY ?

## HOW TO REPLACE A BULB – Technical dept



D E L P H I X

# Q & A