

ORACLE®

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- Developer in Doc Engineering @oracle
- Been at Oracle since 1996
- Apex Developer since 2006
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Oracle Speakers @ ApexWorld 2019



Joel Kallman

Oracle APEX: The Prognostication

Monday, 09:15 - Theatre



Koen Lostrie

The “Create App Wizard”: Here is the magic

Monday, 11:40 - Odyssee Room



Chris Saxon

18(ish) Things Developers Will Love about Oracle Database 18c

Monday, 13:30 - La Fontaine Room



Jason Straub

APEX and Multitenant: What you need to know

Tuesday, 09:15 - Theatre



Connor McDonald

Pattern Matching - the most powerful SQL functions you've ever seen

Tuesday, 10:40 - Theatre



Colm Divilly

The Next Ten Years of the Web

Tuesday, 13:30 - Grand Ballroom



Hilary Farrell

Extend your APEX Application with Oracle JET

Tuesday, 14:30 - Theatre



Shakeeb Rahman

Mastering Mobile UI with Universal Theme

Tuesday, 16:00 - Theatre

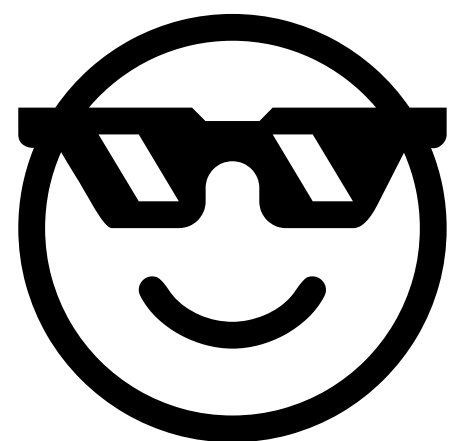
Program Agenda

- OLL overview/architecture
- Environments
- Dev Process
- Patch Process

Why this presentation

Previous talks by Alan Arentsen en Rob Van Wijck

No walk in the park ?



Well...

oracle.com/oll - Oracle Learning Library

- Library
- Learning Paths
- Events
- Since 2010
- Activity in 2 weeks: 4mln page events, 3000 users

Team

- Geografically spread
- 3 Sustaining Engineering, 3/4 Developers (varies over time)
- Not only apex and pl/sql (node, java, digital assistant,...)
- Part of larger group - 45 developers

External Apps

- OLL
- Quiz Manager
- Content Hub

Internal and Supporting Apps

- OLL Admin
- Event Admin
- Ad Hoc Query (3 x)
- Job Manager
- Report Scheduler
- Mail Manager
- Logger Reporting
- Security Management (users/roles/responsibilities/params)
- Restful Services feeding to multiple internal systems

Development Environments

- Dev
- Dev2
- Build
- Stage

Hosted Environments

- Pre-prod
- Prod

Development Cycle

- Monthly sprints
- Agile
- Jira/Confluence
- Daily Scrum
- Poker Planning
- Git (alm)

Patch naming

- Yearly number (now is 9)
- Monthly patch is point release (9.1)
- Emergency (not in sprint) patch is 9.1.1

Patch Process - developer

- Create patch scripts
 - dml/ddl
 - Apex app or page
- Patch header
- (re)Check in

Patch Process - header

```
rem $Header: $
rem dbdrv: sql ~PROD ~PATH ~FILE none none none ov_sec &phase=upg+4
rem dbdrv: checkfile:~PROD:~PATH:~FILE
rem
rem =====
rem - "
```


Patch Process - file order

1	first	First phase, runs before all others
2	con	Disable constraints, foreign keys
3	seq	Create Sequences
4	tab	Create Tables and Indexes
5	tbm	Alter table in ways not supported by ODF
6	os	Odd Synonyms
7	pls	Create Package Specifications
8	invoker	Invoker's Rights Processing
9	vw	Create Views
10	compile	Compile code objects
11	plb	Create Package Bodies
...		
19	en	Enable constraints, create triggers
20	last	Last phase, runs after all others

Patch Process - default scripts

- `validate_patch_user.sql` (phase=first)
- `set_patch_version.sql` (phase=last+98)
- `compile_invalid_objects.sql` (phase=last+99)

Patch Process - jenkins

- Polling jobs to flashback to prevent flashback too old
- Plugins: git, log parser, mailer
- One project per patch/environment

Patch Process - build

- Check out git code (manual or polling)
- One patch process per schema
- Consolidate all files
- Generate zip file
- Flashback to restore point
- Apply Patch w sqlplus
- Email if failed



Patch Process - build

- Failed ?
- Fix code.
- Build again.

Patch Process - stage

- Testers give feedback.
- Minor errors are fixed in next release
- Major errors are fixed in current release

Patch Process - prod

- App written by apex dev team
- Zip file: max 2 files
- First pre-prod then prod
- No flashback on pre-prod (2nd patch if needed)
- If fails, then fix w followup patch

Patch Process - post patch

- Disable jenkins processes
- New restore point on stage/build
- Create patch report
- Delete old zip files

Questions ?