

Using Edition-Based Redefinition with PL/SQL

How to deploy database code changes with *zero downtime*

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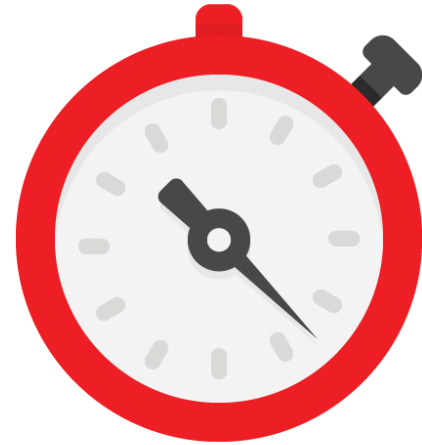
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The PL/SQL Deployment Challenge!

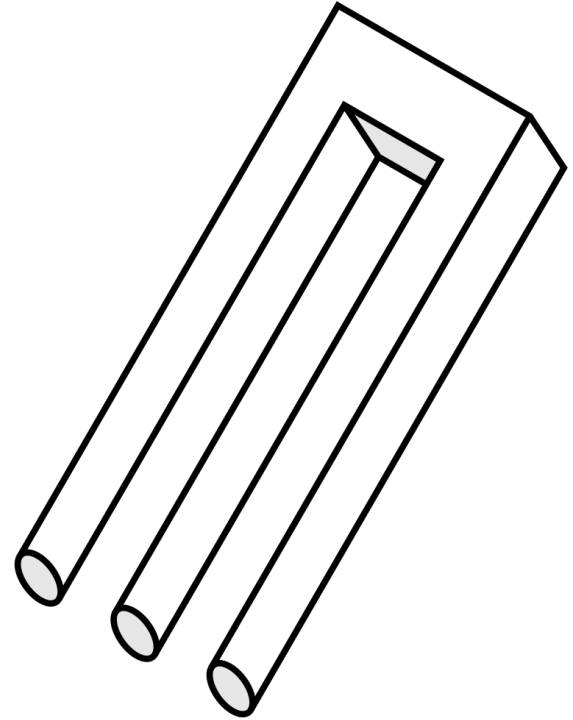
How do we get PL/SQL into production with *no outage*?

No time to *test*



Application may be

IN*con*sistent**T**



Can't get *DDL lock*

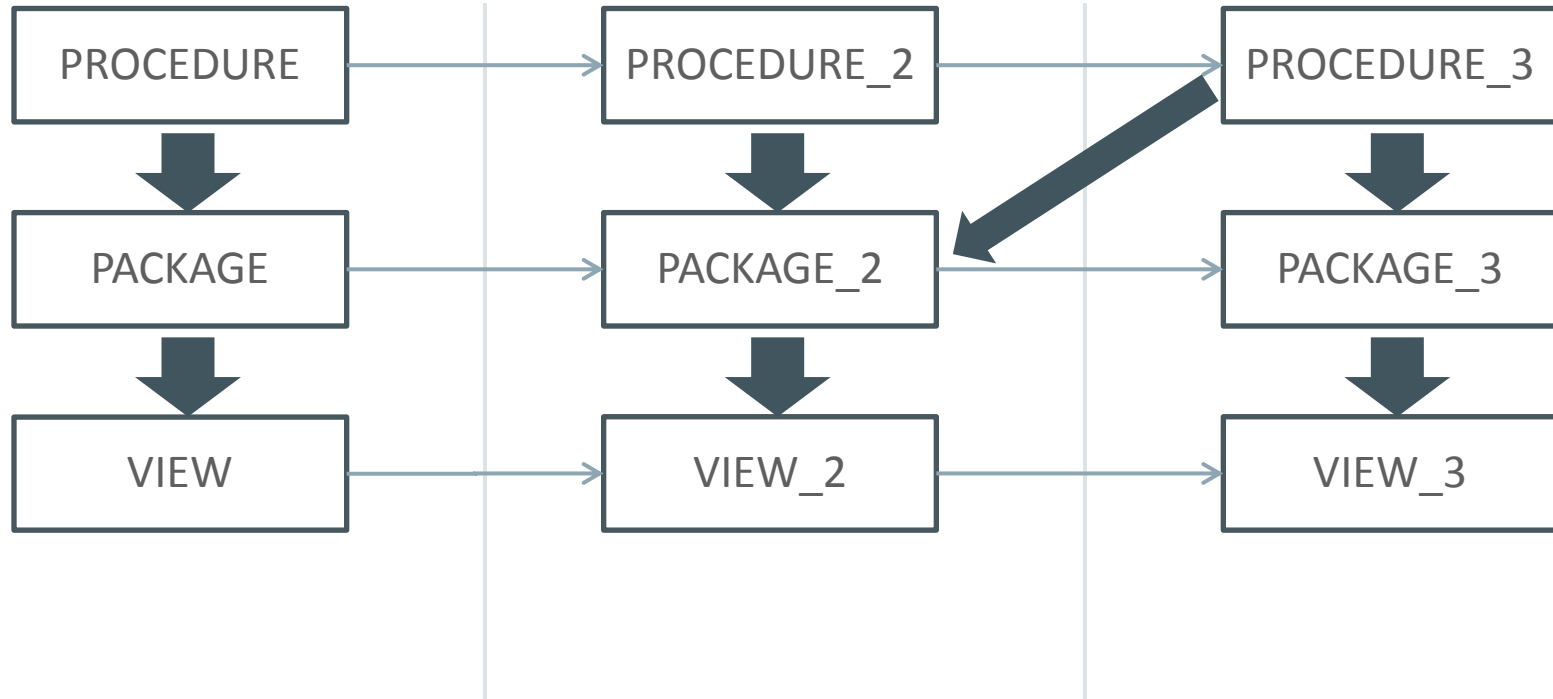


Emergency Rollback?

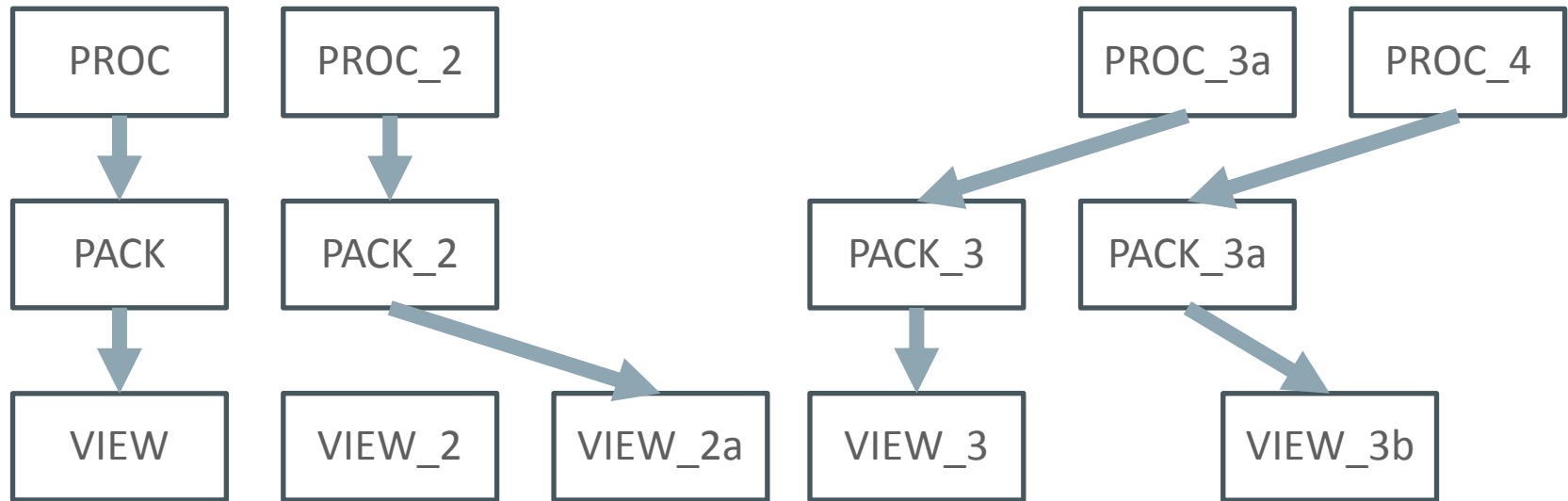


Solutions *pre 11gR2*

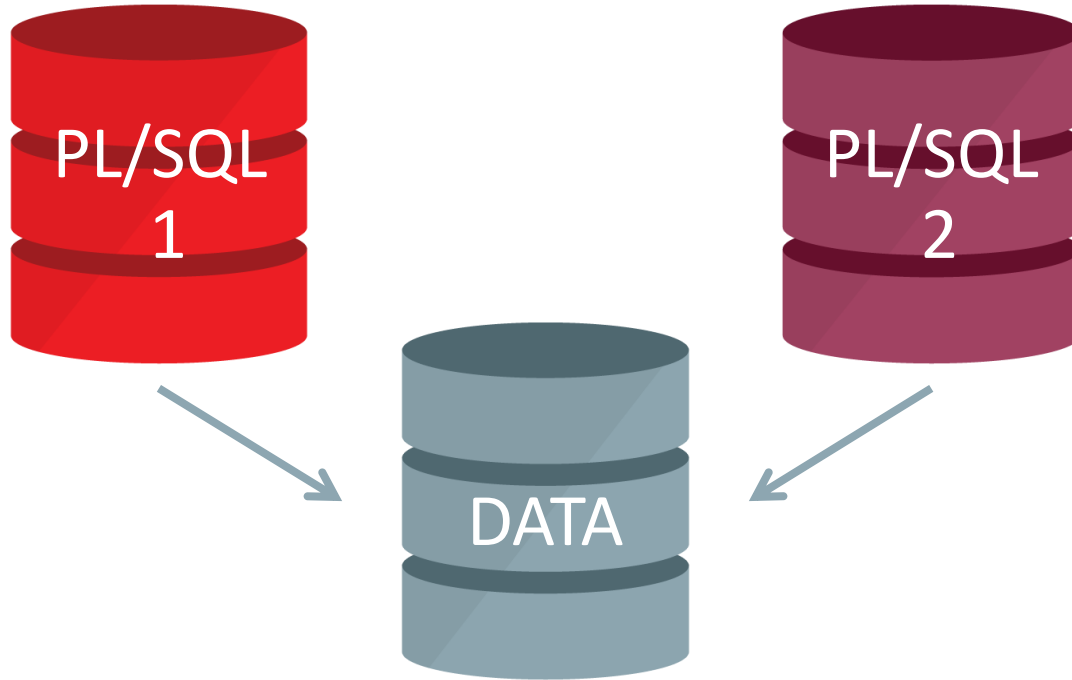
Rename Your Objects!



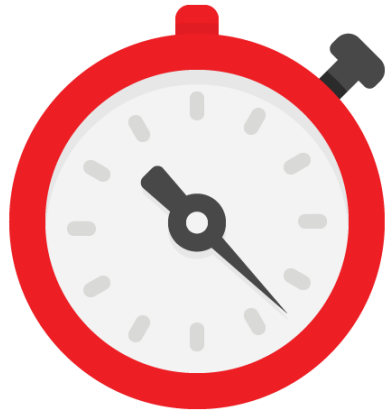
Dependency Hell



Multiple PL/SQL Schemas



Replicate Your Database



&



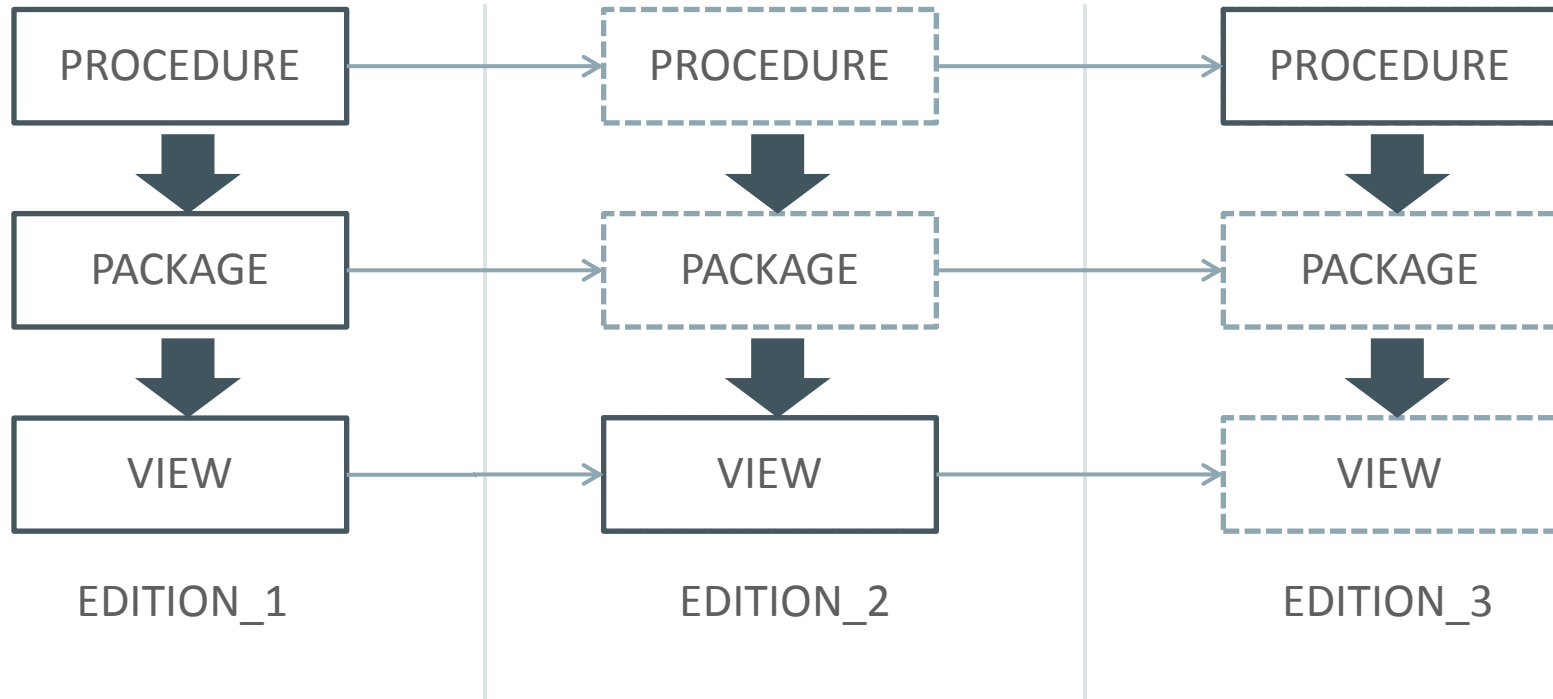


No Database
Compiled
PL/SQL!!

EBR to the *Rescue!*



EBR to the Rescue!





How do I
use **EBR**?

DEMO

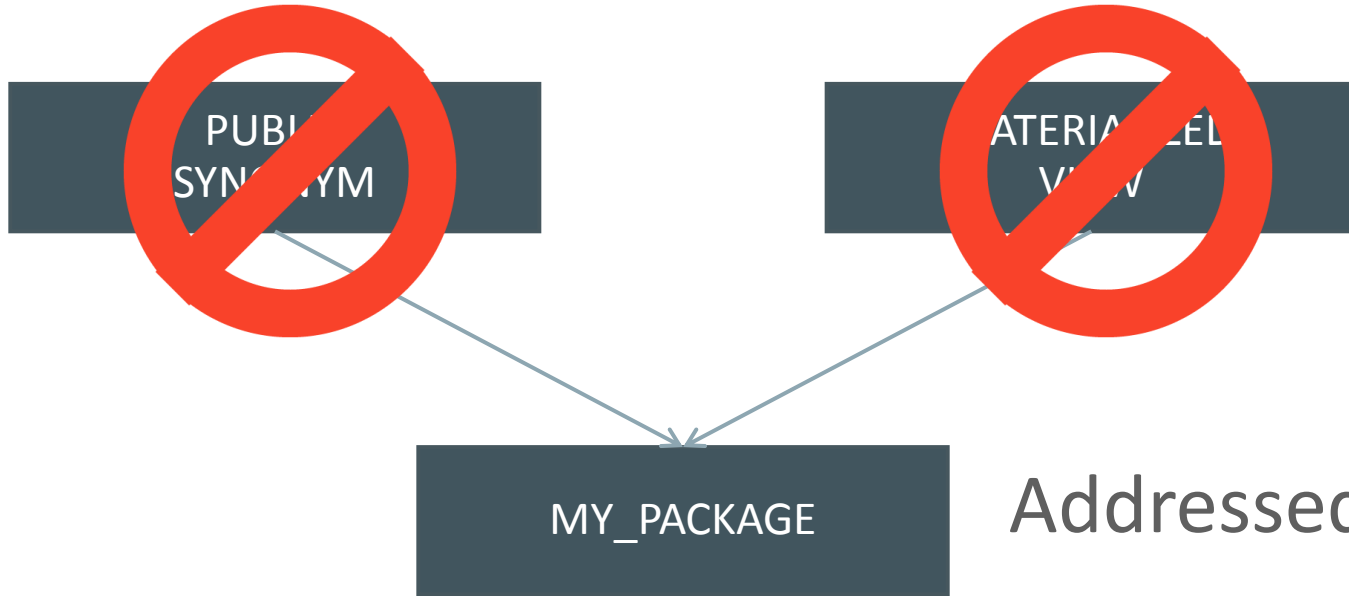
That was too *easy*!

Surely there must be a **catch**?

You can't
disable editions



Not Everything is *Editable*



Addressed in **12c!**

Many editions

>

risk of *missteaks*

Minimize Live Editions

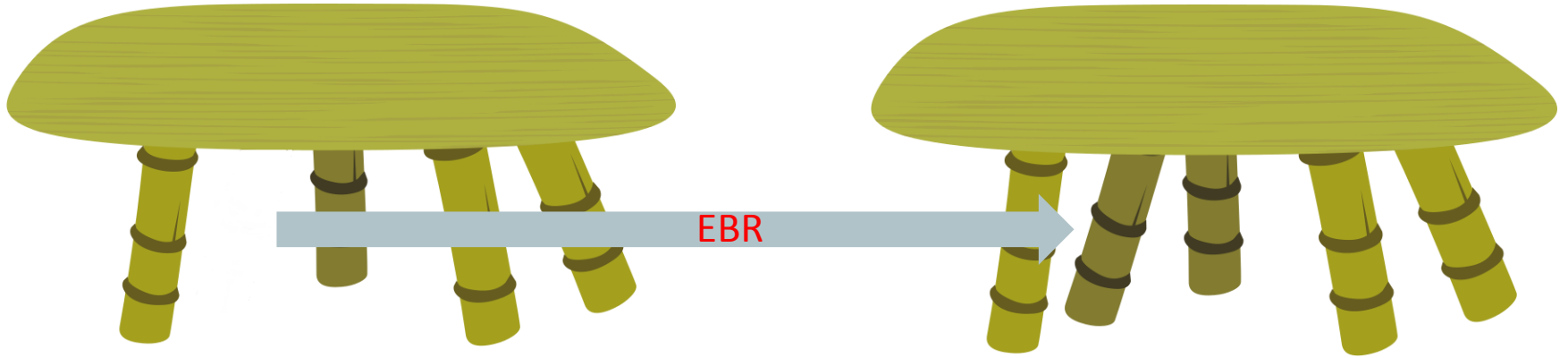
Remove access to old editions

Explicitly specify edition

Good governance!



Wait, There's **More!**



Summary

- Use **EBR** to deploy PL/SQL with **zero downtime**
- **Easier** than replication
- **More practical** than package renaming
- Requires **11g Release 2 +**

Further Reading

- 11gR2 Documentation: http://docs.oracle.com/cd/E11882_01/appdev.112/e41502/adfns_editions.htm#ADFNS020
- 12cR1 Documentation: http://docs.oracle.com/database/121/ADFNS/adfns_editions.htm
- Oracle-BASE article: <http://oracle-base.com/articles/11g/edition-based-redefinition-11gr2.php>
- Tom Kyte's Oracle Magazine article, Edition-Based Redefinition, Part 1: <http://www.oracle.com/technetwork/issue-archive/2010/10-jan/o10asktom-172777.html>
- Edition-based redefinition whitepaper, Bryn Llewellyn July 2009: <http://www.oracle.com/technetwork/database/features/availability/edition-based-redefinition-1-133045.pdf>

Questions?

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