



Toad University

NoCOUG Fall Conference 2014

New Automation & Collaboration Features of Toad

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Agenda

1. What's new in Toad for Oracle 12.6
2. Conducting code reviews as you go using **Code Analysis**
3. Collaborative development using **Team Coding**
4. **Automating** tedious or complex workflows
5. Team **collaboration** in the future...

New Web-based Training



- Self-paced, hands-on, free!
- Four courses available:
 - Toad Fundamentals
 - DBA: Database Maintenance
 - DBA: Performance Management
 - DBA: Change Management
- Advanced Development courses coming *soon*!
- Register during installation or on Toad World
- Includes a course completion certificate



New in Toad for Oracle 12.6

Toad provides the most complete solution supporting the entire database lifecycle.

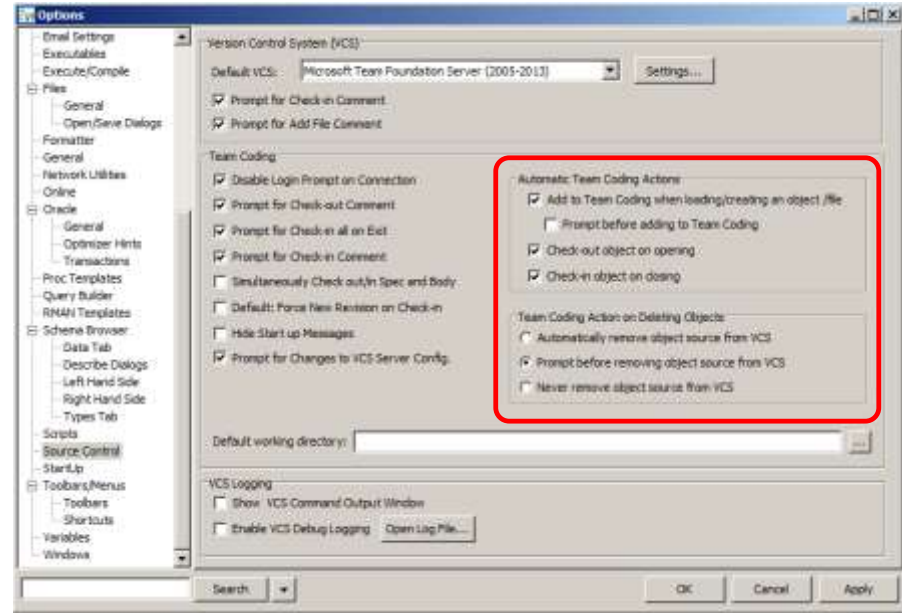


What's new:

- **Additional Free web-based training courses** – now includes three DBA-focused course options: Change management, Database Management, Performance Management
- **Team coding enhancements** – adds simplified Code Collection setup and Schema Browser integration, which will improve workflow and boost productivity
- **Query Builder enhancements** – makes it simpler to work with large entities
- **Debugger improvements** – more support for Oracle RAC environments (SCAN listeners)
- **ASH and ASM** – adds an Active Session History (ASH) browser and updates were made to the Automatic Storage Management (ASM) window

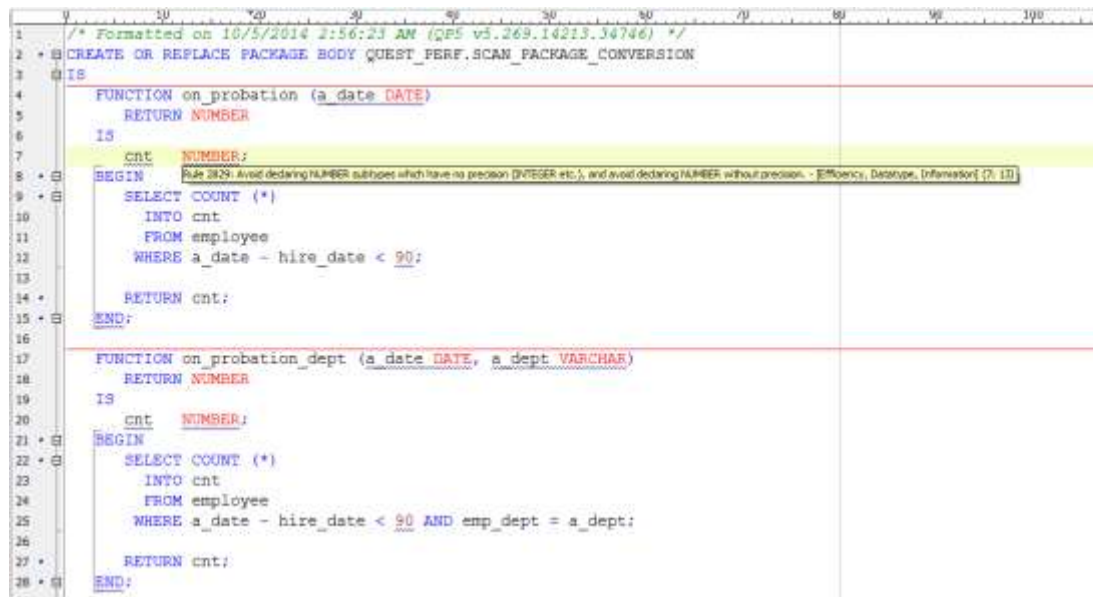
What's New: Team Coding

- **Upgraded Team Coding** seamlessly integrates with multiple VCS to help ensure code integrity for development projects
- Support for additional VCS providers
 - Team Foundation Server 2012/13, Git
- Enhanced VCS integration
 - Create VCS projects & sub-projects
 - Automatically **add** to VCS
 - Automatically **delete** from VCS
- Simplified Code Collection setup
- Additional object types supported
- Compare & Sync between DB & VCS



What's New: Inline Code Analysis

- Nearly 200 rules
- Check code as you type
- Enforce standards & improve code quality without changing how you work
- Configure to work with any set of rules
- Full description available – learn best practices



The screenshot displays a SQL Developer editor window with a PL/SQL package body. The code is as follows:

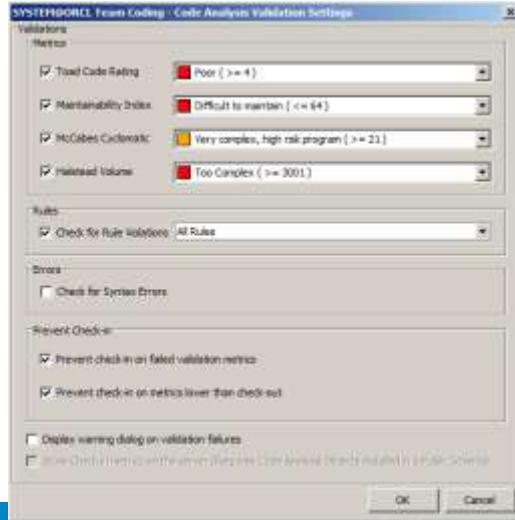
```
1  /* Formatted on 10/5/2014 2:56:23 AM (QPS v5.269.14213.34746) */
2  CREATE OR REPLACE PACKAGE BODY QUEST_PERF.SCAN_PACKAGE_CONVERSION
3  IS
4      FUNCTION on_probation (a_date DATE)
5          RETURN NUMBER
6      IS
7          cnt NUMBER;
8      BEGIN
9          SELECT COUNT (*)
10             INTO cnt
11             FROM employee
12             WHERE a_date - hire_date < 90;
13
14          RETURN cnt;
15      END;
16
17      FUNCTION on_probation_dept (a_date DATE, a_dept VARCHAR)
18          RETURN NUMBER
19      IS
20          cnt NUMBER;
21      BEGIN
22          SELECT COUNT (*)
23             INTO cnt
24             FROM employee
25             WHERE a_date - hire_date < 90 AND emp_dept = a_dept;
26
27          RETURN cnt;
28      END;
```

Annotations in the image include:

- A yellow highlight on line 7, identifying the variable `cnt` as a `NUMBER`.
- A tooltip on line 8 stating: "Rule 2829: Avoid declaring NUMBER subtypes which have no precision (INTEGER etc.), and avoid declaring NUMBER without precision. - Efficiency, Datatype, Information [7, 11]".
- Red horizontal lines separating the two functions.

What's New: Code Analysis + Team Coding

- Enforce best practices
- Ensure consistent quality
- Prevent code quality regression



```
1  /* Formatted on 10/5/2014 2:
2  * CREATE OR REPLACE PACKAGE BO
3  * IS
4  *     FUNCTION on_probation (a
5  *     RETURN NUMBER
6  * IS
7  *     cnt NUMBER;
8  * BEGIN
9  *     SELECT COUNT (*)
10 *     INTO cnt
11 *     FROM employee
12 *     WHERE a_date - hire_d
13 *
14 *     RETURN cnt;
15 * END;
16
17 * FUNCTION on_probation_dept (a date DATE, a dept VARCHAR)
18 * RETURN NUMBER
19 * IS
20 *     cnt NUMBER;
21 * BEGIN
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24 *     FROM employee
25 *     WHERE a_date - hire_date < 90 AND emp_dept = a_dept;
26 *
27 *     RETURN cnt;
28 * END;
```

The dialog box displays a table of validation metrics and their status. The table has columns for Metric, Pass Condition, Server Copy, Local Copy, and Status. The metrics listed are Total Code Rating (TCR), Halstead Volume, Cyclomatic Complexity (McCabe), Maintainability Index, and Rule Violations. The Rule Violations row shows a 'Fail' status. Below the table, a 'Validation Error' section shows 'Rule violation Count = 4'. At the bottom, there are 'Check-in' and 'Close' buttons. A note at the bottom states: 'Prevent check-in for Code Analysis validation failures is enabled in configuration settings.'

Metric	Pass Condition	Server Copy	Local Copy	Status
Total Code Rating (TCR)	< 4	1	1	Pass
Halstead Volume	< 3001	1.00	1.00	Pass
Cyclomatic Complexity (McCabe)	< 21	1	1	Pass
Maintainability Index	> 64	100.00	100.00	Pass
Rule Violations	No Rule Violations	4	4	Fail

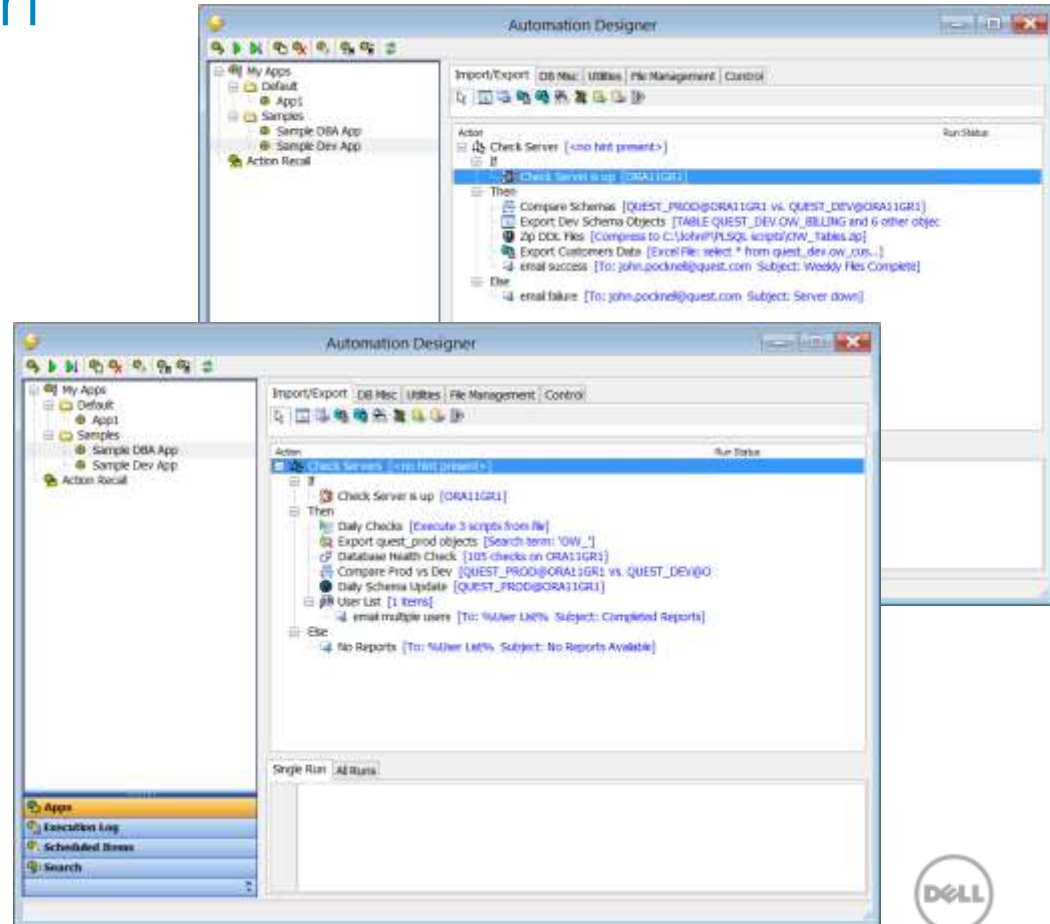
Validation Error
Rule violation Count = 4

Check-in Close

Prevent check-in for Code Analysis validation failures is enabled in configuration settings.

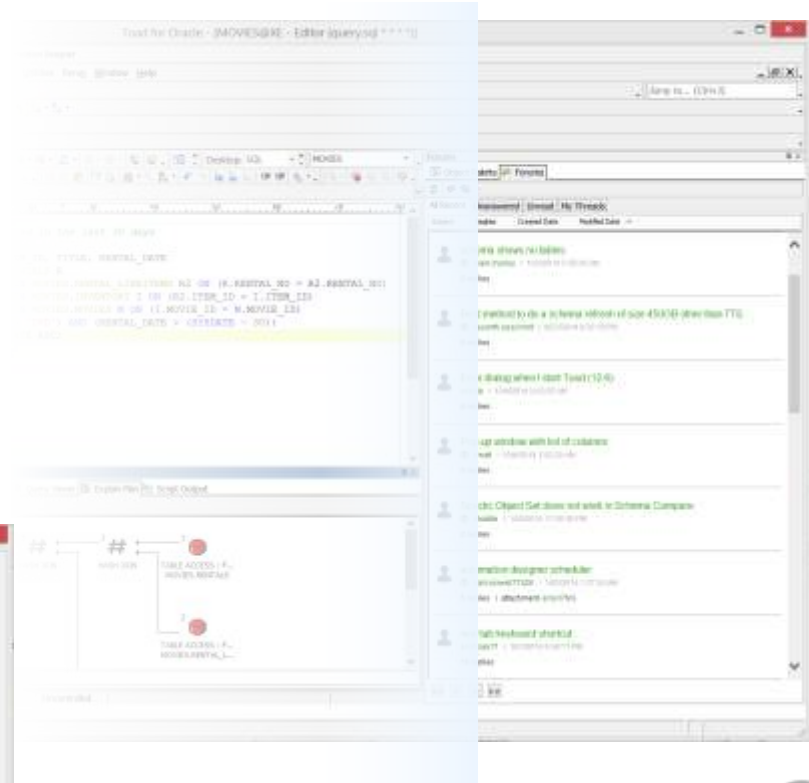
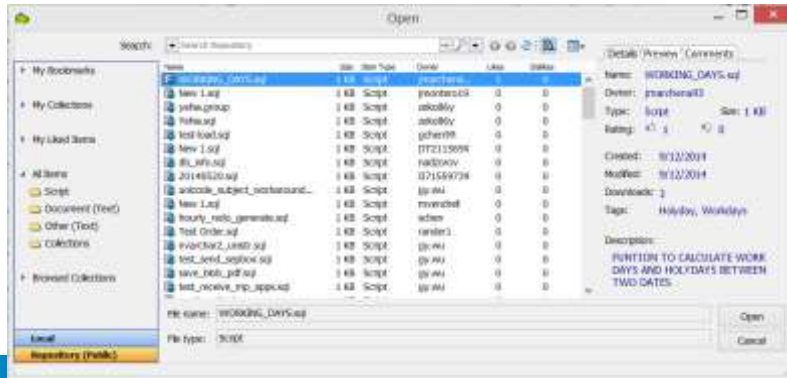
What's New: Automation

- Automate routine tasks to save time
- Automate complex, tedious workflows to ensure consistency
- Schedule workflows to run at off hours
- Run from the command line
- Mobile support...



What's New: Collaboration Features

- **Community window** in Toad allows users to interact with Toad World through questions/ answers and forum posts
- **Private script repository** allows teams to collaborate through script and file sharing via *secure* private repository, directly within Toad



Use Toad World – realize the power of connected intelligence

Login to the Toad World community

ToadWorld.com

- Connect with peers and world-renowned subject-matter experts
- Share knowledge and become one of the experts
- Get help and access resources from inside Toad for Oracle



Encouraging greater collaboration

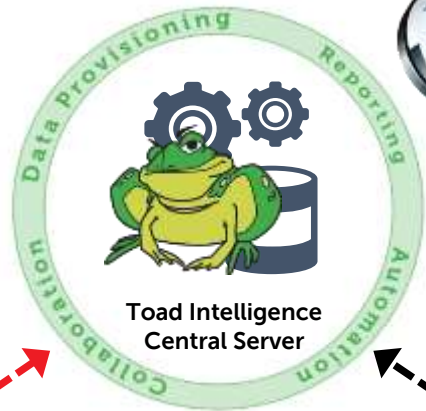


Future*

- ✓ Project Collaboration
- ✓ Data Provisioning
- ✓ Share Datasets, Queries, Toad Files
- ✓ 24x7 Workflow Automation



- ✓ Management Reporting
- ✓ Standards Enforcement
- ✓ Auto-provisioning
- ✓ Mobile Access



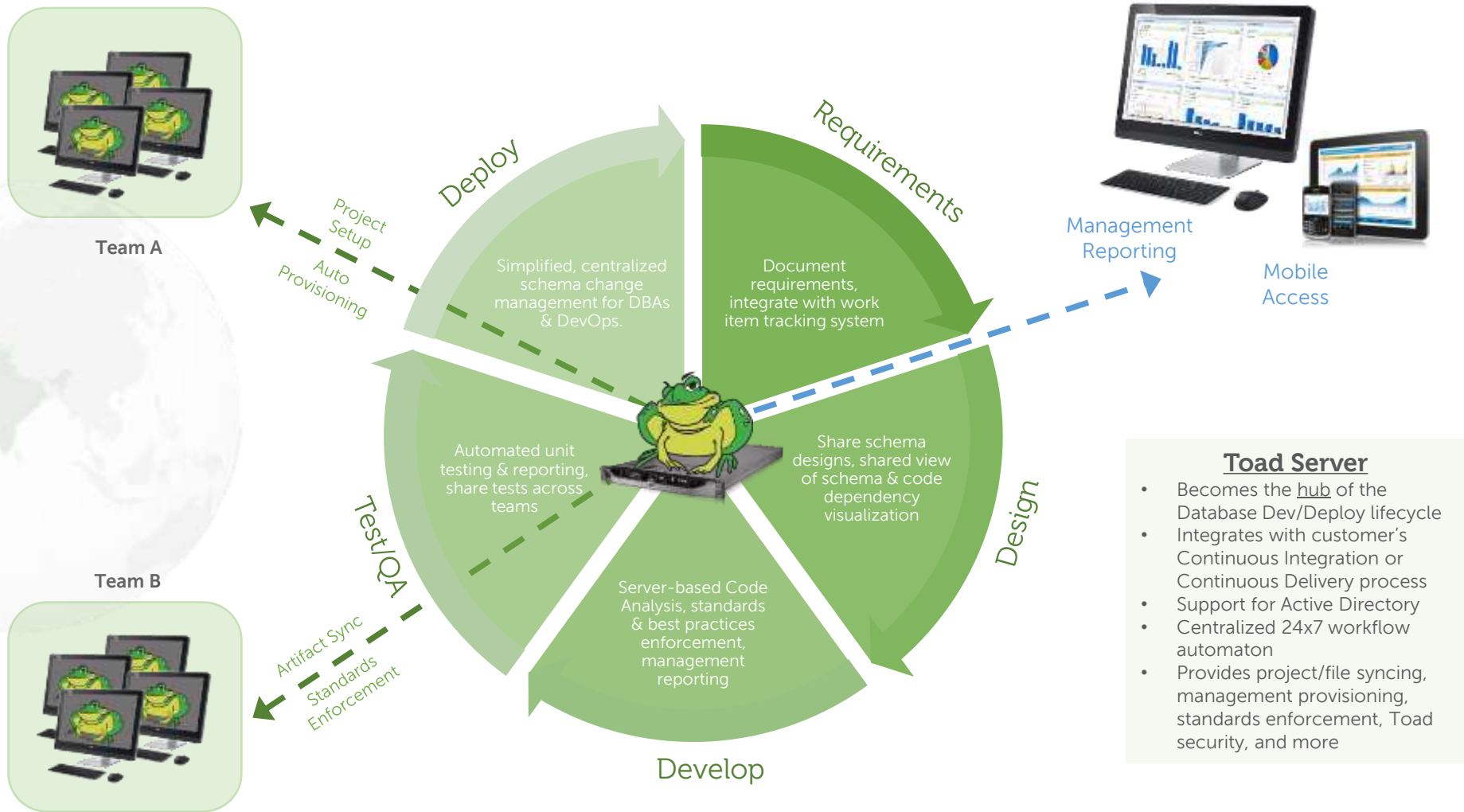
- ✓ Best Practices
- ✓ Project Collaboration
- ✓ Automated Testing
- ✓ Server-based Code Analysis



- ✓ Agile Deployment
- ✓ Simplified Change Management
- ✓ Workflow Automation
- ✓ Increased Security



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The power to do more