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# Virtual Developer Day: Oracle Fusion Development

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## **Application Lifecycle Management for ADF**

Lynn Munsinger, Oracle JDeveloper and ADF

# Safe Harbor Statement

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# Program Agenda

- Application Lifecycle Management
- Continuous Integration and Hudson
- Team Productivity Center

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# What is ALM?

Application lifecycle management (ALM) is defined to be: “The process of delivering software as a continuously repeating cycle of inter-related steps”.

Requirements  
Management

Performance  
Monitoring

Project Planning

Defect  
Management

Release  
Management

Change  
Management

Source  
Management

Deployment

Build  
Management

Test Management

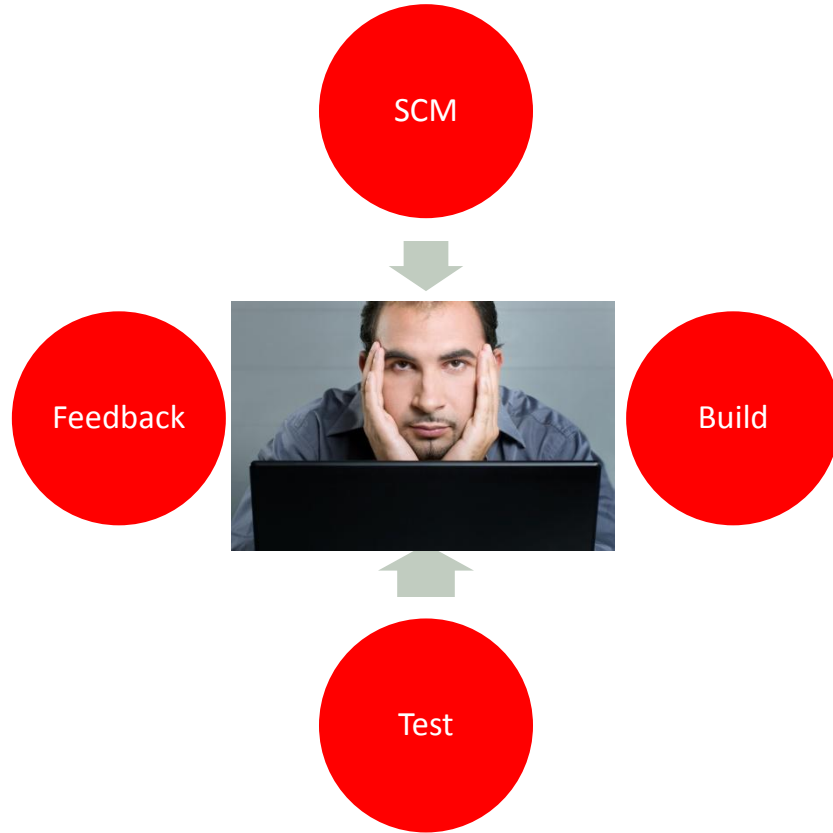


# What are we really looking for?

- Improving our development process
  - Better builds, faster
  - Better testing
  - Better visibility
  - Better feedback
  - Better metrics

Just better!

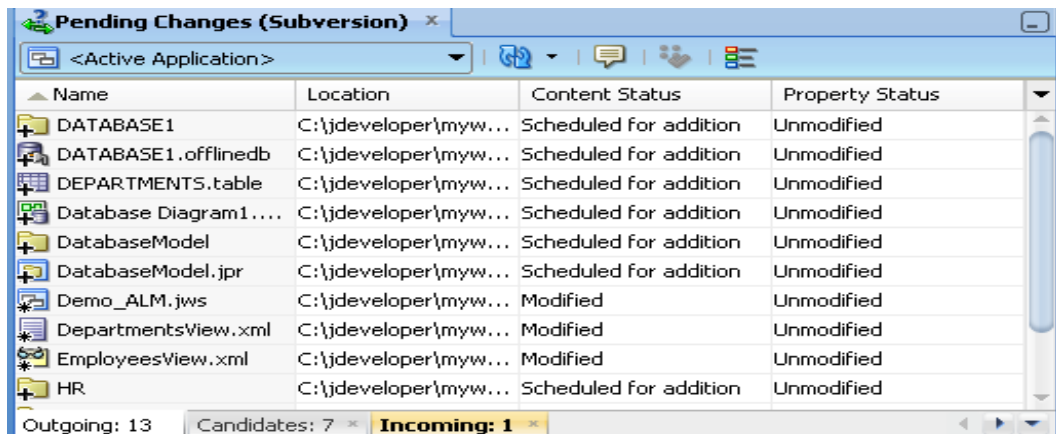
# If A Picture Paints 1000 Words



Just Better!

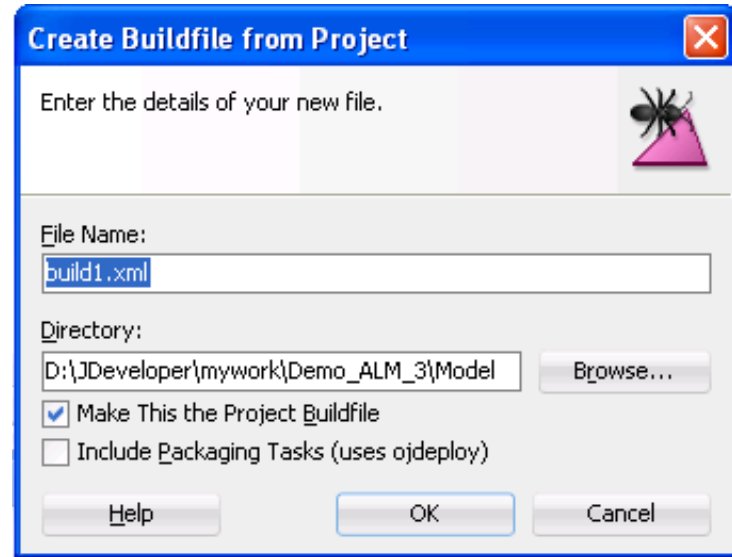
# Version Management

- Integration with SCM tools
  - Subversion
  - CVS
  - Clearcase
  - Perforce .....
  - Extension API
- Compare/History Viewer
- Pending Changes



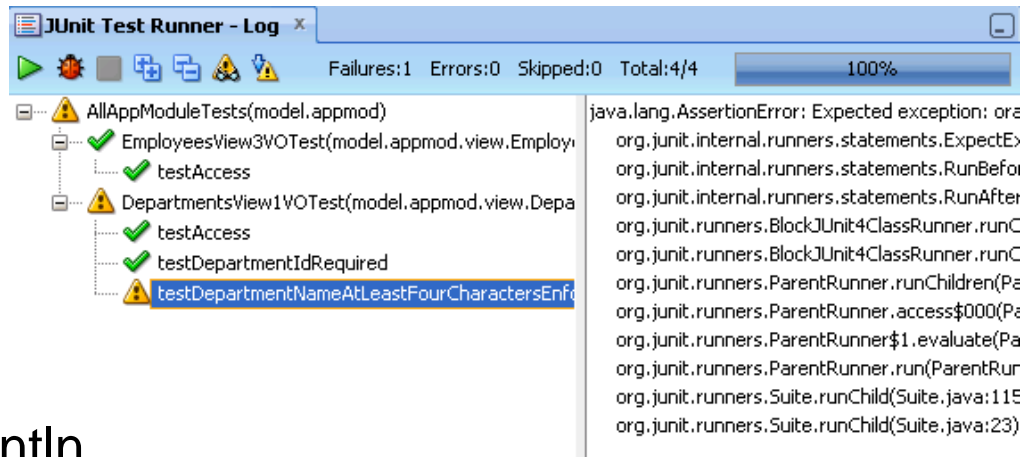
# Build

- Build
  - Ant
  - ojdeploy
    - Does the building work
    - Takes the App.jws file and deploy profile as arguments
    - Ant wrapper

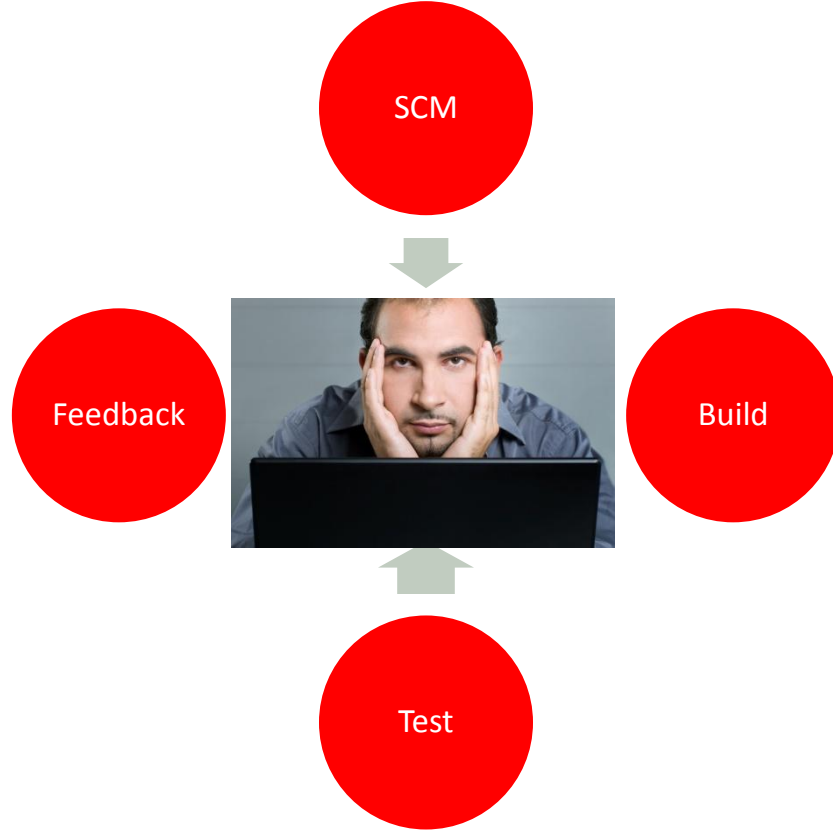


# Test

- Unit Testing with JUnit
- Debugger
- Auditing
  - Rules and metrics
  - Profiles
- ADF Logger
  - Don't use `system.out.println`
- Profile Monitors
  - CPU, memory

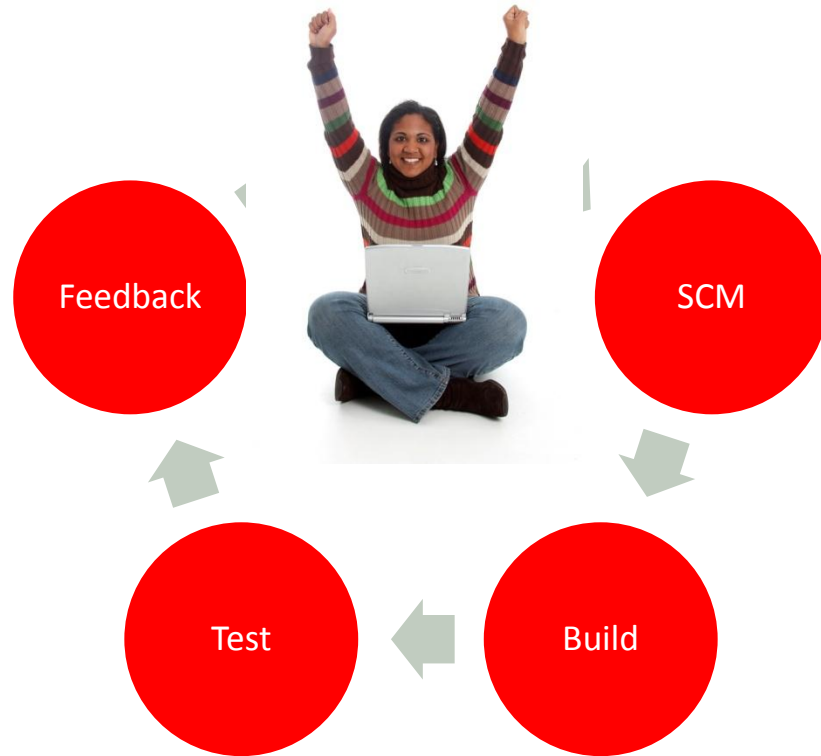


# If A Picture Paints 1000 Words



Just Better!

# It's About Finding the Right Picture

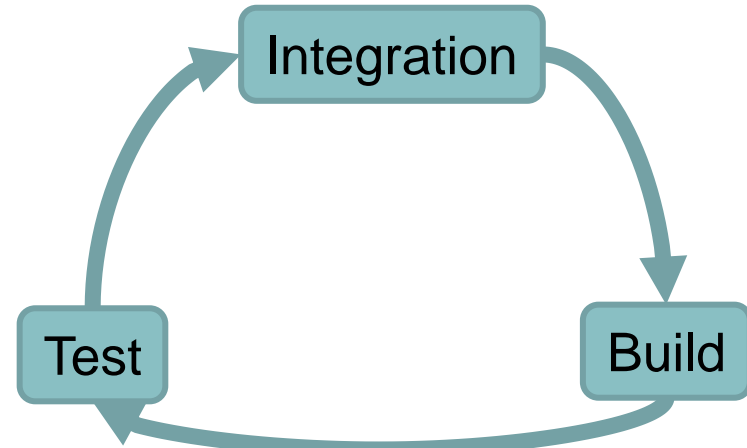


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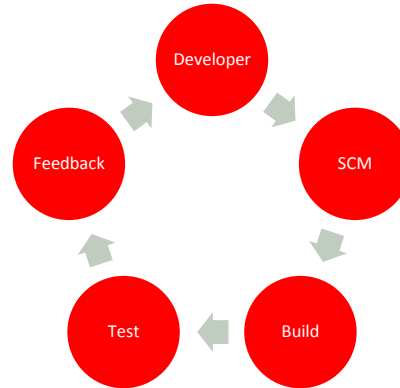
# Introduction - Continuous Integration

- Continuous Integration (CI)
  - Software development process
    - Keep your work in a repository
    - Integrate your work frequently
    - Each integration is automatically built
    - Test integrated with build
- Discovers errors more quickly thereby reducing fix time
- Makes the project available to everyone to install
- Everyone is involved and therefore takes a stake in maintenance



# What is Required of Good CI?

- Run automatically
  - SCM operation triggered
  - Build and deploy
  - Integrated tests
- Feedback
  - Email, IM, RSS feeds, etc...
- Analysis
  - reporting, graphs . . .



# Introduction to Hudson CI

- Eclipse Foundation Top Level Project
  - Includes Oracle Team
    - Engineers
    - QA
    - PM
- Easy installation and configuration
- Web-based interface
- Extendable through plug-ins

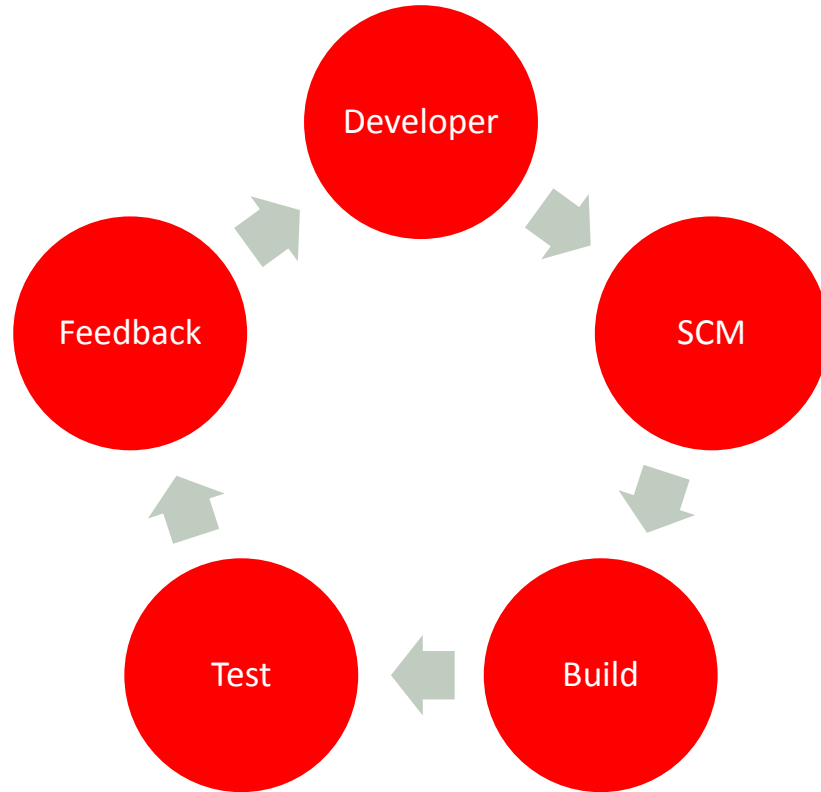


# Hudson CI

- Runs automatically
  - SCM: SVN, Git, CVS, Perforce ...
  - Builds: Ant, Maven, scripts ...
  - Integrate tests: JUnit, Selenium, Abbott...
- Feedback via
  - Email, IM, RSS feeds ...
- Analysis
  - reporting, graphs: Clover, Sonar, PMD ...

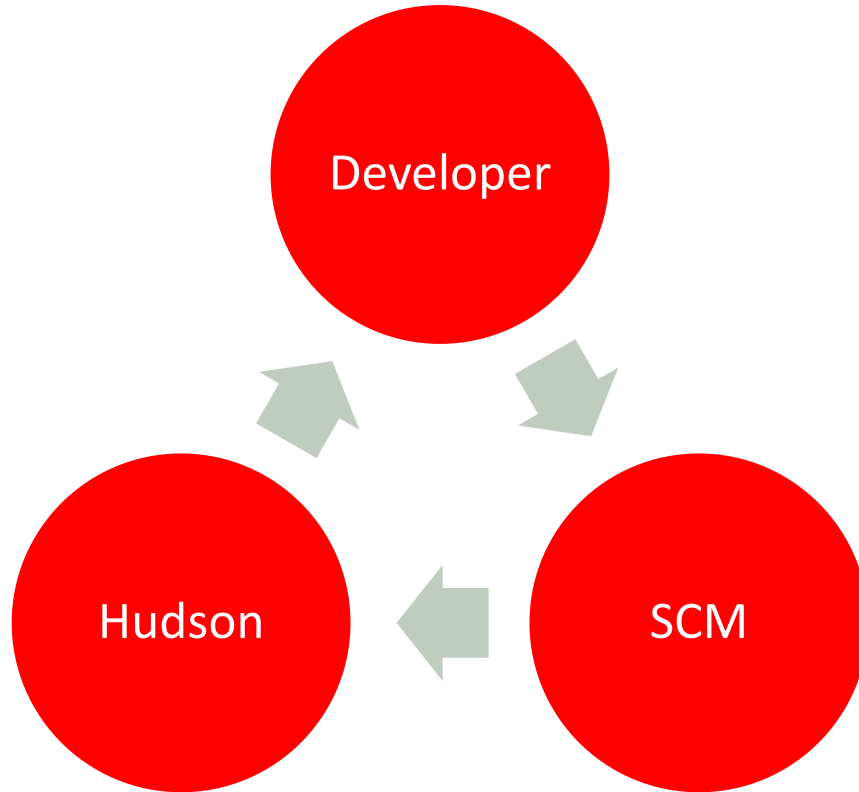


# It's About Finding the Right Picture



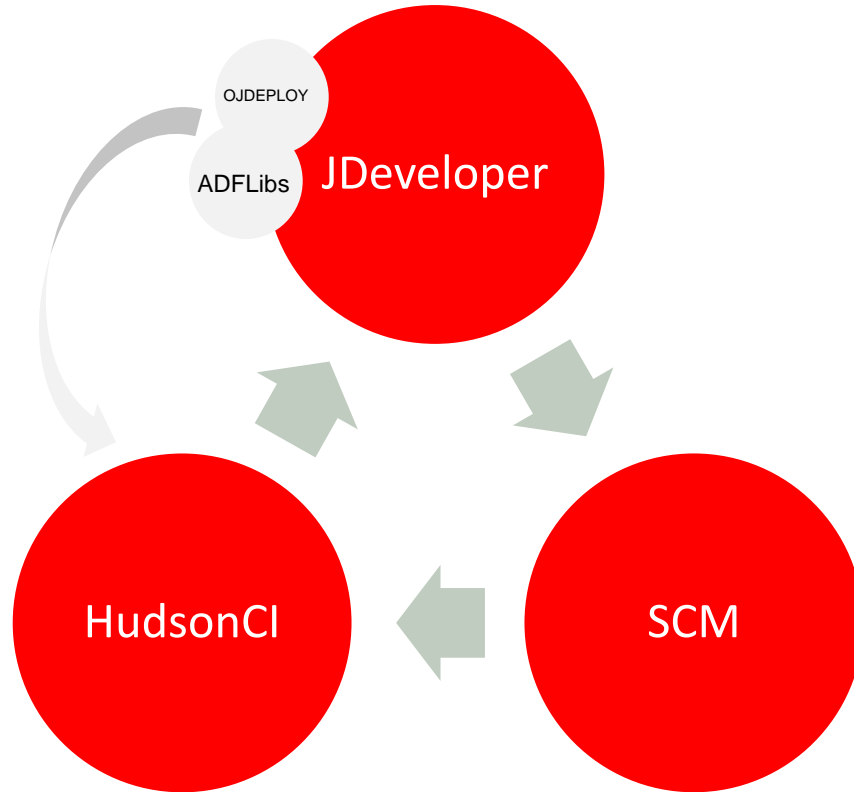
Just Better!

# It's About Finding the Right Picture



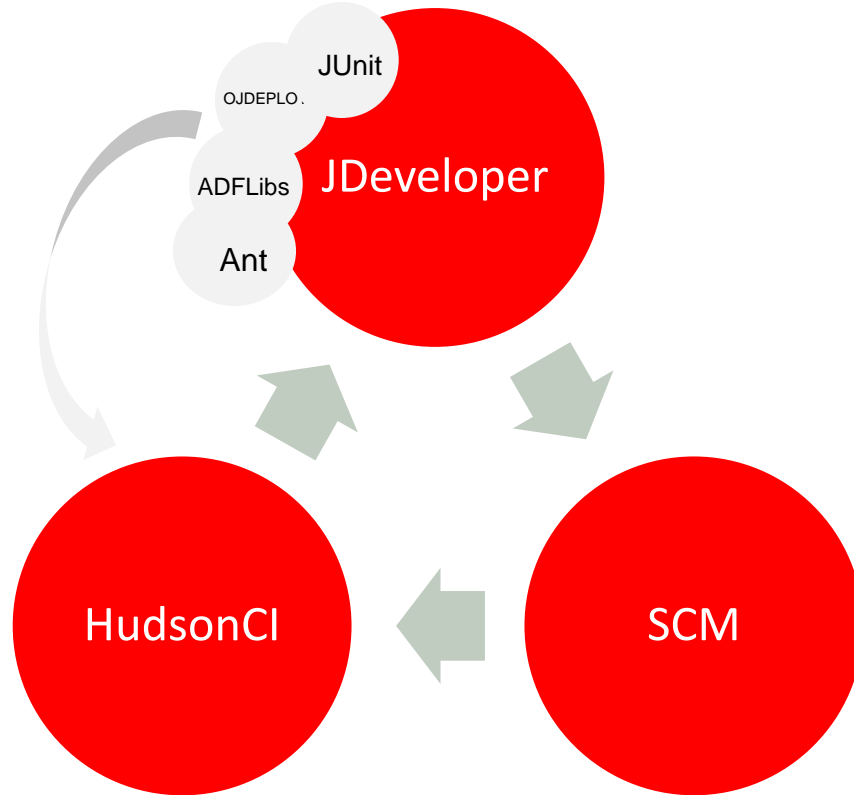
Just Better!

# It's About Finding the Right Picture



Just Better!

# It's About Finding the Right Picture



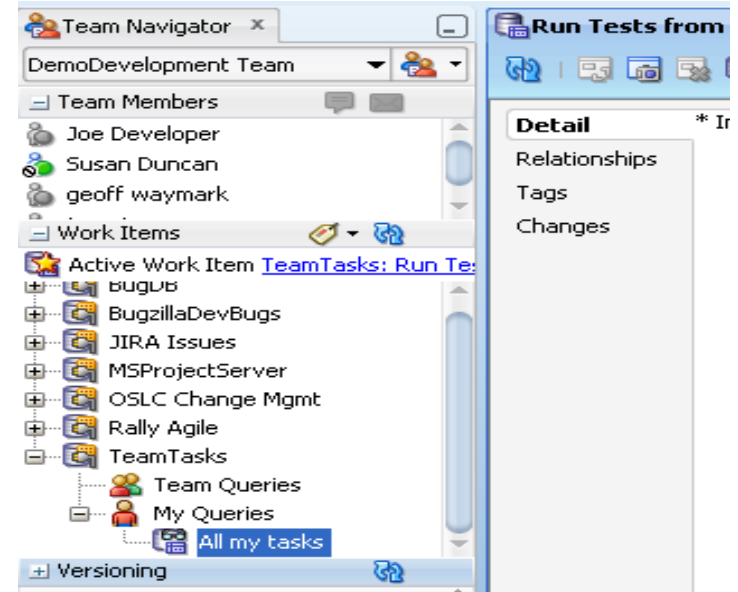
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- Team Productivity Center

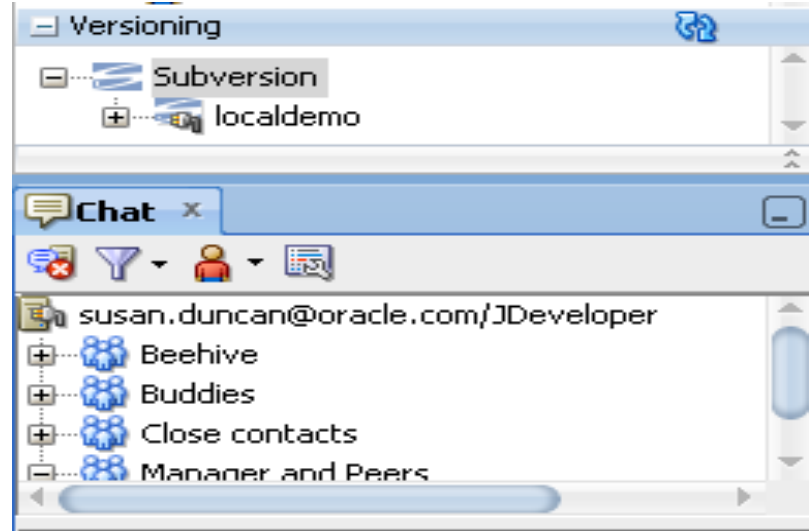
# Oracle Team Productivity Center

- Surface and interrogate ALM repositories in JDeveloper
  - JIRA, Bugzilla
  - Rally, MS Project Server
  - Rational Team Concert (OSLC)
  - Tasks (built-in)
  - Connector Development Kit
    - add your own repos



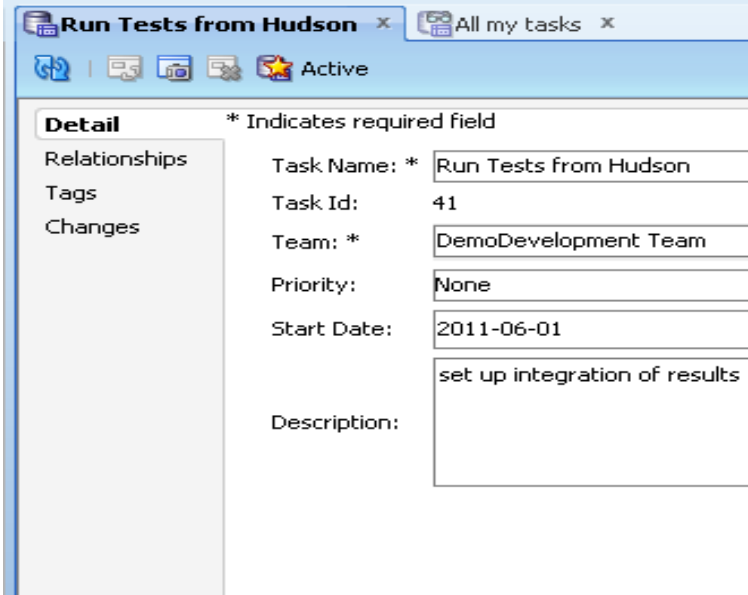
# Oracle Team Productivity Center

- Manage Collaboration
  - Define teams and users
  - Collaborate with chat
  - SCM integration



# Oracle Team Productivity Center

- Work items
  - Artifacts from ALM repositories
  - Link using relationships and tags
  - Attach files
  - Link SCM checkins



The screenshot displays a web application window titled "Run Tests from Hudson" with a sub-tab "All my tasks". The interface includes a navigation bar with icons for home, messages, calendar, and an "Active" status indicator. Below the navigation bar is a "Detail" section with a sidebar menu containing "Relationships", "Tags", and "Changes". The main content area shows a form for task details, with a legend indicating that an asterisk (\*) denotes a required field. The form fields are as follows:

Field	Value
Task Name: *	Run Tests from Hudson
Task Id:	41
Team: *	DemoDevelopment Team
Priority:	None
Start Date:	2011-06-01
Description:	set up integration of results

# Oracle Team Productivity Center

- Build Dashboard
  - CI build/tests result integration (Hudson/CC)
  - Review failures and assign to users
  - Dynamic notification of new builds
  - Work items associated with SCM files and builds

**Build Dashboard**

Build	Start	End	Tests Run	Failures	Success Rate
build.20	Thu Jun 0...		2	4	0
build.21	Thu Jun 0...		1	4	0
build.22	Thu Jun 0...		1	4	0

**Related Transactions**

Changeset	Owner	Repository	Type	Key
35	Susan Duncan	TeamTasks	Task	41

**Build View**

Branch: Demo\_A1M  
Build: build.15  
Date: Wed Jun 01 23:52:59 BST 2011

Errors: 0  
Failures: 1  
Total Failures: 1

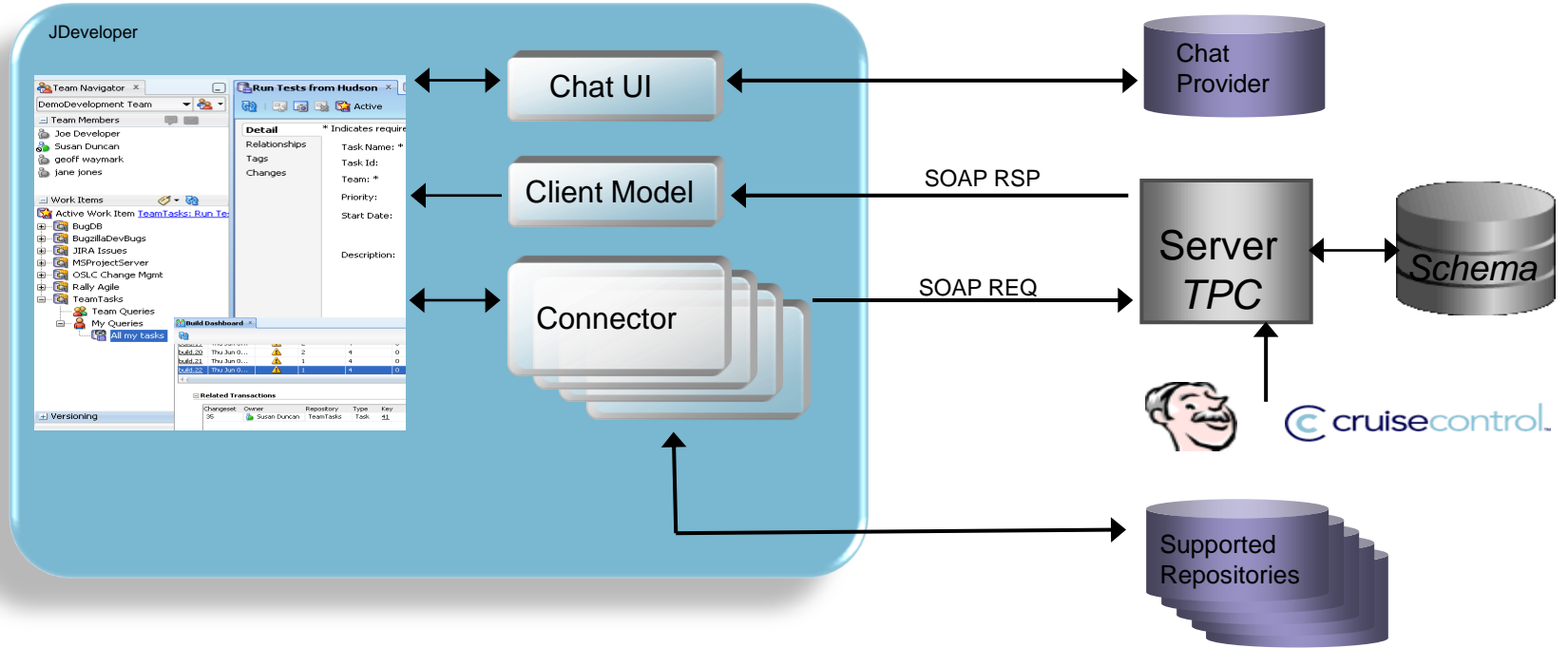
Total Transactions: 1  
Success Rate: 75.0%  
Tests Run: 4

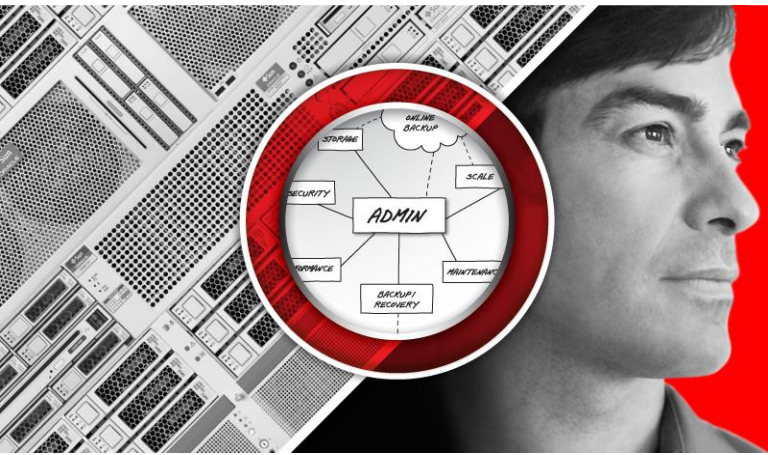
Show: All Tests | Unassigned Only | Qwif Module

Test	Tests Run	Failures	% Passed	Status	Results	Owner	Work It...
model.appmod.AllAppModuleTests	4	1	75.0%	⚠			
model.appmod.view.DepartmentsView1VO.DepartmentsView1VOTest.testDepar	1	1	0.0%	✖	Janik, fr...		
model.appmod.view.EmployeesView3VO.EmployeesView3VOTest.testAccess	1	0	100.0%	✓			
model.appmod.view.DepartmentsView1VO.DepartmentsView1VOTest.testDepar	1	0	100.0%	✓			
model.appmod.view.DepartmentsView1VO.DepartmentsView1VOTest.testAcces	1	0	100.0%	✓			

# Oracle TPC Architecture

## Open & Extendable





# Demo



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