



# Made in Australia

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IBM Australia & New Zealand

IBM Software

# Innovate2011

The Premier Event for Software and Systems Innovation



**19-July** Sydney, Australia  
**21-July** Melbourne, Australia



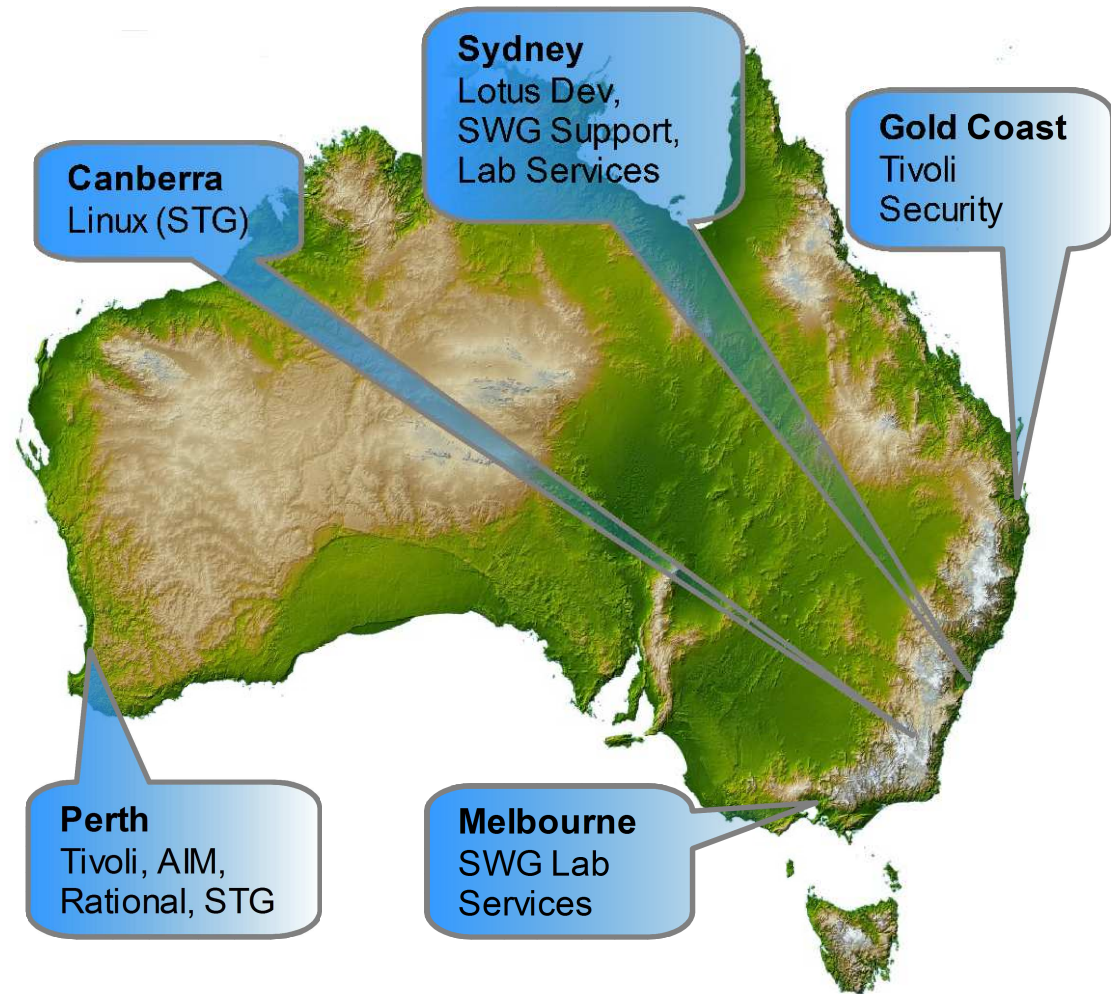
## Agenda

- Introduction
- Software development in IBM Australia: ADL
- Which products?
- Tools and Processes
- Rational tooling adoption
- Case studies: Lotus WCM and Tivoli SAPM teams
- Success through Rational and global integration
- Question time



## IBM Australia Development Laboratory (ADL)

- IBM ANZ Business Unit Formed July, 2006
- Integrated existing SWG/STG Development, SWG Support, and Lab Services teams
- Heritage primarily via acquisitions (Micromuse, Apatrix, DASCOS, etc.)
- 100's staff with deep technical skills
- Establishes tangible IBM technical credentials in Australian IT market
- ANZ, GMU and WW client impact
- Catalyst for innovation and solid contributor to IBM patent portfolio
- Interaction with universities and strong relationship with IBM Research
- Part of globally integrated SWG/STG development organisation



## ADL Develops products as part of IBM Software Group

### ■ Tivoli

- Security: ISS appliance and Server Protection, Access Manager (TAMeb, TFIM), Integration Factory (TIM/TAM), GSKit, zSecure, Key Lifecycle Manager,
- Composite Application Management (Transactions, CAMfSOA/BPM, Response Time)
- Network: (Netcool OMNibus, Precision, heritage Service Monitors)
- Asset Management: Asset Discovery (TADz), Decision Support (TDSz)

### ■ Lotus

- Web Content Manager / Portal

### ■ Rational

- RTC 3.0, BuildForge
- Rational Development for z/OS, SCLM Developer Toolkit, VAGen

### ■ Application and Integration Middleware

- PD Tools (Fault Analyzer, File Manager) for z/OS
- High Level Assembler (HLASM)
- ISPF
- MQ Advanced Message Security for z/OS

### ■ Information Management

- IMS Packaging

### ■ Systems and Technology group

- Linux on Power, Baremetal bring-ups, KVM, SoNAS
- RACF for VM, System SSL for z/OS

IBM. **Lotus.** software

IBM. **Tivoli.** software

IBM. **WebSphere.** software

IBM. **Rational.** software

IBM. **DB2.** Information Management Software



## Processes and Tooling

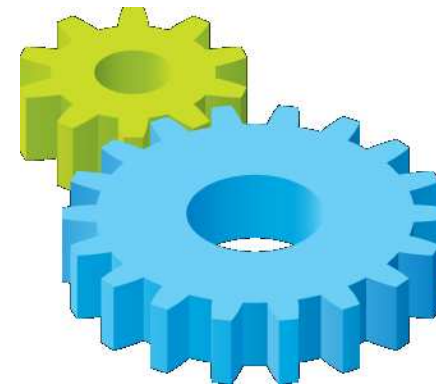
- ADL has been at the forefront as early adopters who have driven a tremendous amount of value out of Agile and an adjacent best practice :
  - Formal code and design inspection
  - Test and build automation with good employment of Continuous Integration practice
  - Global Agile development at scale
  - Test driven development
  - Common tooling and centralised services
- The Rational development ecosystem is the **foundational layer** which underpins the establishment and growth of best practice
  - Demonstrable improvements in efficiency and quality
- Development practices within SWG continue to undergo a significant transformation to a truly “disciplined Agile” approach
  - Appreciate the scale and heritage of IBM's software operations



## So, exactly how do ADL teams use Rational products?

Although brands/teams often use tooling in different ways, patterns are easily identified and not unexpected:

- Test and UI Automation (RFT, RQM)
- Static code analysis (Purify, Quantify)
- Development environment (RAD, Eclipse)
- Continuous Integration / Build (BuildForge)
- Defect Tracking (ClearQuest, CMVC → RTC)
- Agile planning, execution and reporting (RTC/Jazz)
- Source code control (SCLM, ClearCase, CMVC → RTC)





## Case study: Lotus WCM/Portal

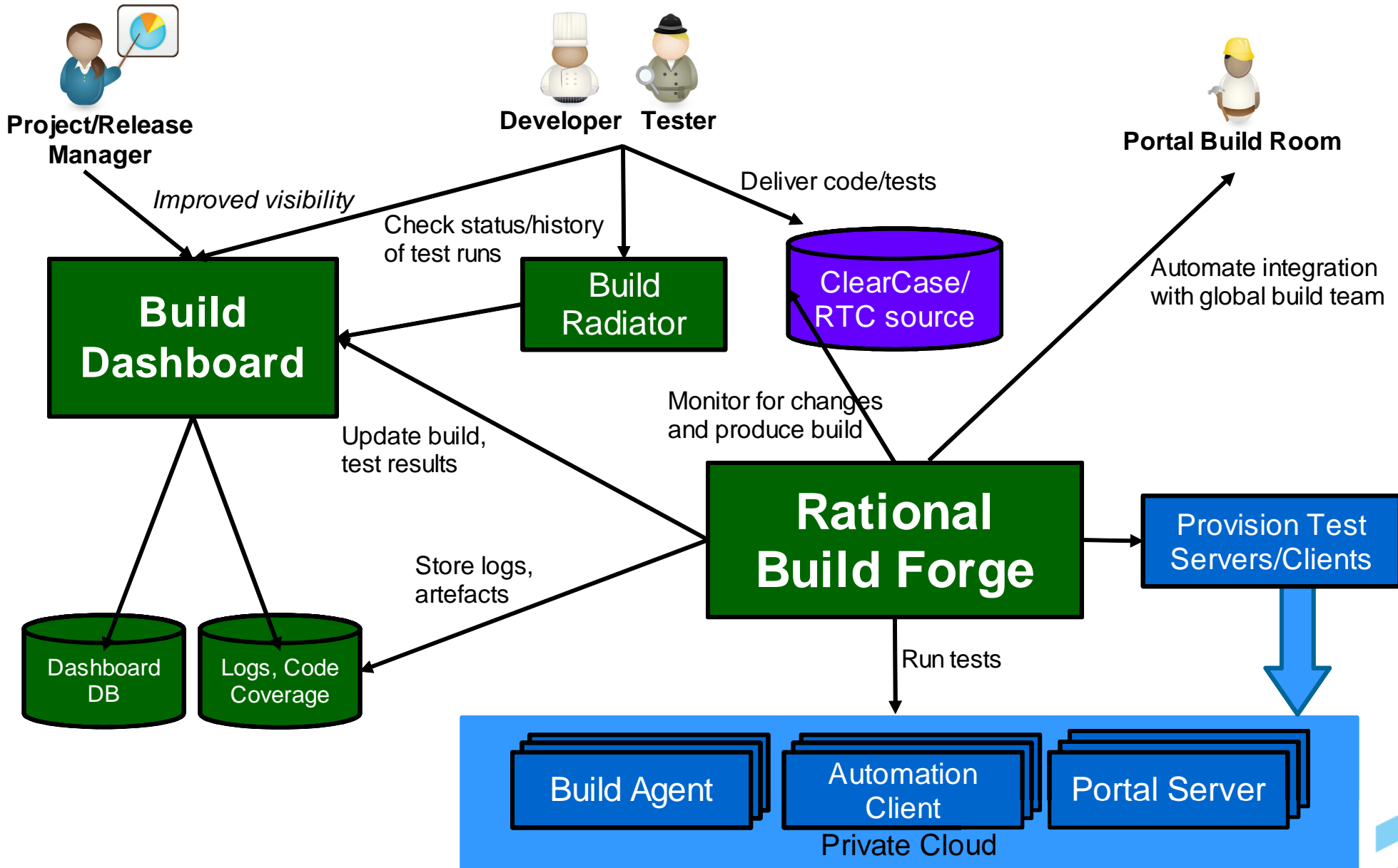


Most development activity within SWG is globally distributed. In this instance the local team owns the core WCM code and has pioneered techniques which are adopted as global best practice

Various development functions executed WW

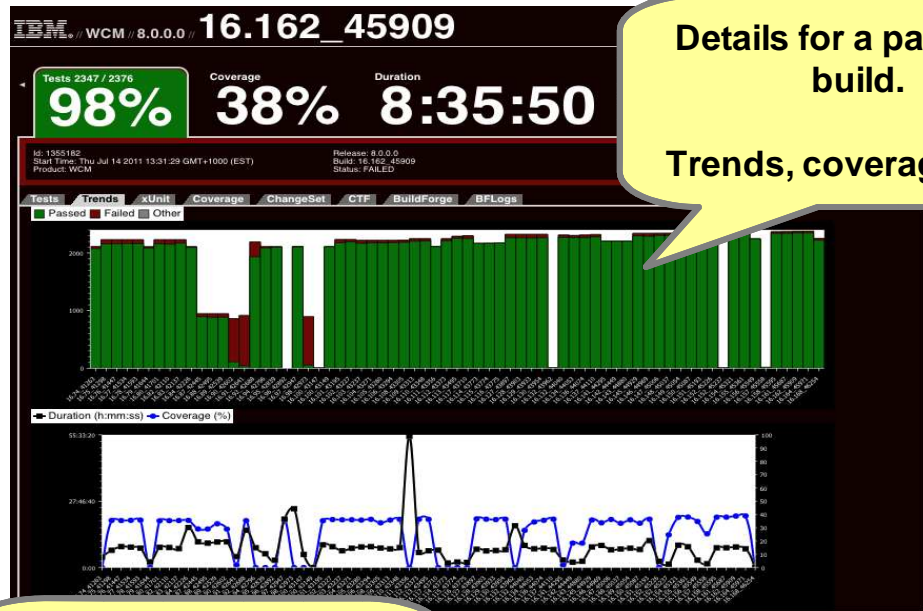


# WCM Continuous Integration Example

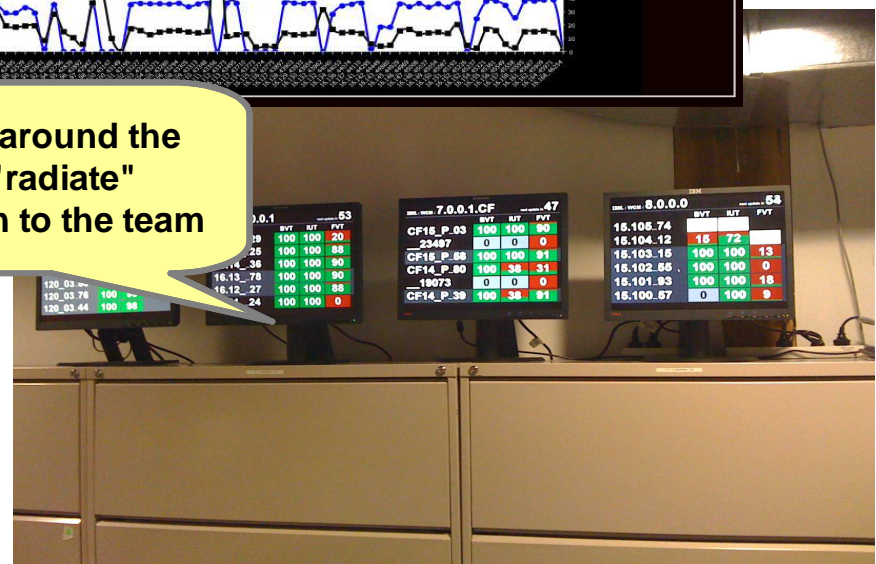




# WCM/Portal Build Dashboard Example



Monitors around the office "radiate" information to the team



Latest builds for each release

Quick results for test suites.  
Green bar represents success rate for each test suite.



# Case Study: Tivoli SAPM uses RTC

## Sprint Planning

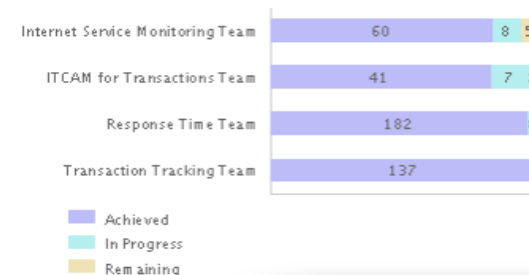
- Throughout the release cycle for:
  - Backlog prioritization
  - Sprint planning and reviews
- Including planning for Agile content
  - Automated up to date status reporting using customised RTC Dashboards

## Project Timelines

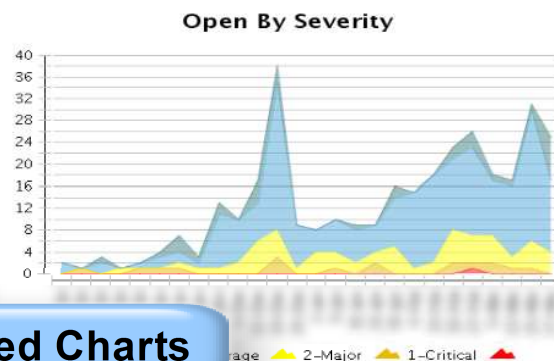


# Tivoli SAPM team RTC reporting

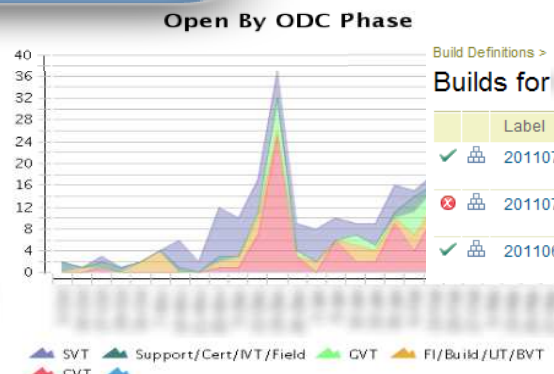
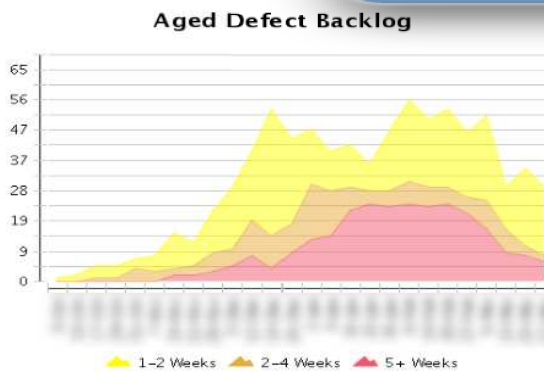
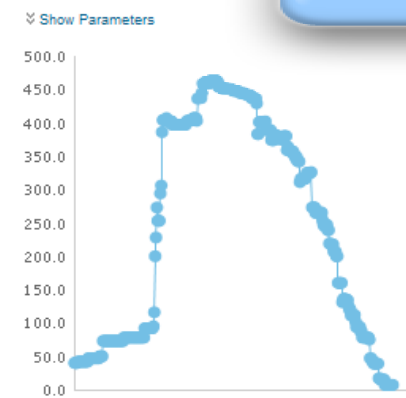
- Point and defect burn down charts
- Automated weekly charts
- Build status, etc.



**Burn Down**



**Automated Charts**



**Automated Builds**

Build Definitions >  
Builds for Production Builds

	Label	Progress	Tags	Start Time	Duration
✓	201107071422	Completed		Jul 8, 2011 3:23:29 a.m.	6 hours, 11 minutes, 31 seconds
✗	201107071021	Completed		Jul 7, 2011 11:21:57 p.m.	3 hours, 46 minutes, 39 seconds
✓	201106101015	Completed		Jun 10, 2011 11:16:25 p.m.	6 hours, 8 minutes, 32 seconds



# Automated Status Reporting with RTC Dashboards

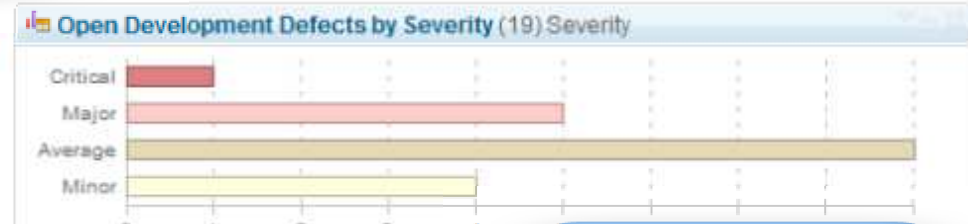
**Iteration Status**

	25-Oct-10	08-Nov-10	22-Nov-10	06-Dec-10	20-Dec-10	03-Jan-11	17-Jan-11
	i18	i9	i10	i11	i12	i13	i14
	07-Feb-11	21-Feb-11	07-Mar-11	21-Mar-11	04-Apr-11	18-Apr-11	02-May-11
	i16	i17	i18	i19	i20	Stabilization	Regression
							Media Check

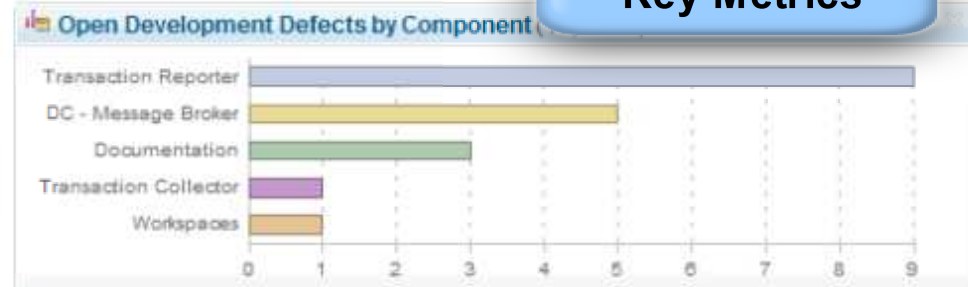
**Sprint Status**

**Overall Status**

Last Week This Week



**Key Metrics**



**Risk, Impediments and Mitigations**

**SDK Build Level**

RT SDK	201103201830
KT1 SDK	d1074a
ARM SDK	3932

- Dev Tasks - Previous Sprints Unclosed (2)**
- 7433: MB DC Convergence:
  - 7411: MB DC Convergence: Migration

**Outstanding Tasks**

- Dev Tasks - Current Sprint**
- 6820: Agentless UI: Update CLD (filtering, link context, etc)
  - 7657: TT: Reporter work for supporting multiple WRT instances
  - 5214: PII Drop 5 - TT

- Other updates**
- Green overall (from Yellow last week)
    - Message Broker tasks still open
    - Defect fix rate was fair.
  - i19:
    - Only outstanding tasks are workspace updates



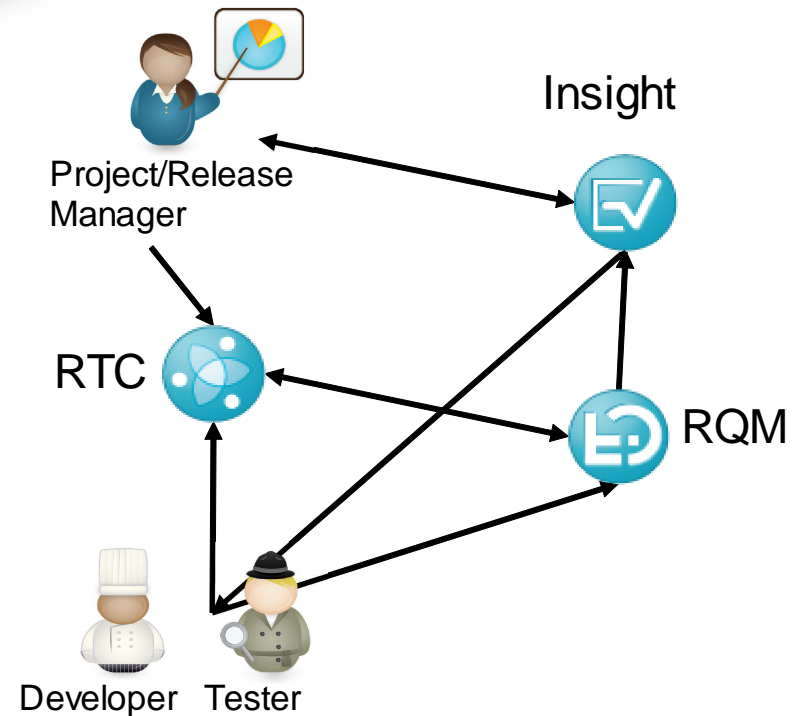
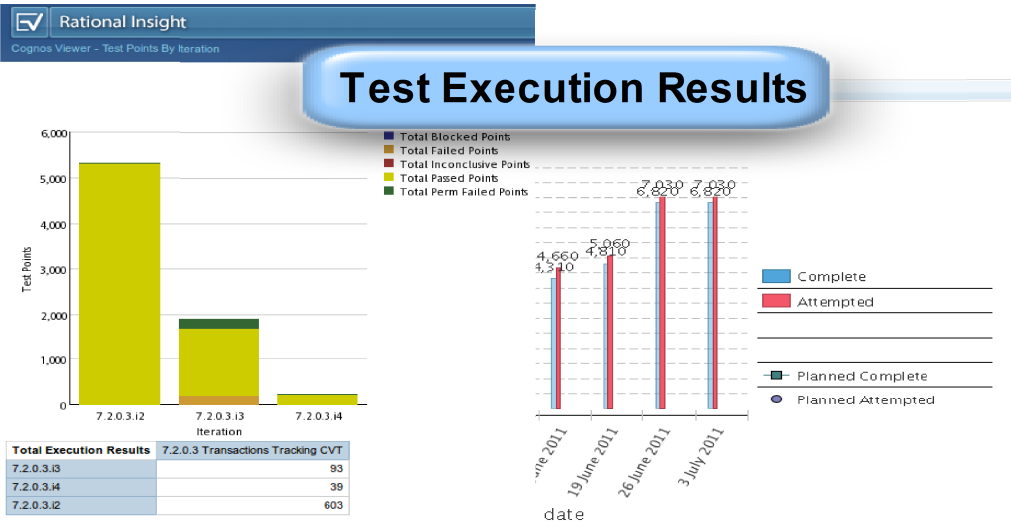
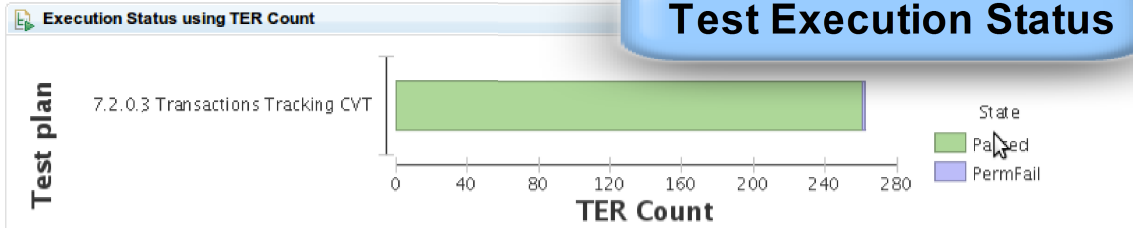


# ...and RTC integrated with RQM and Insight

**Execution by Test Schedule**

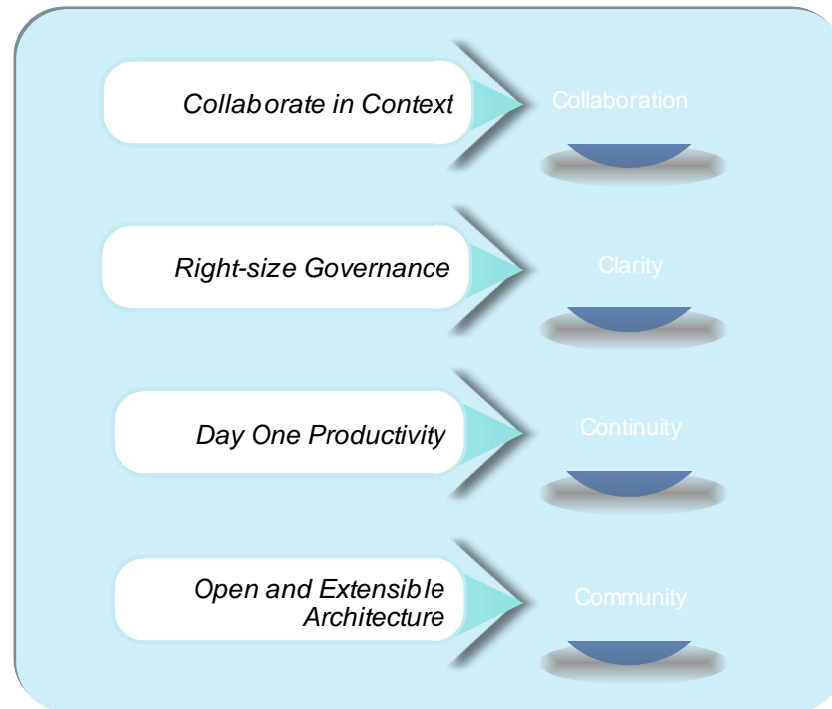
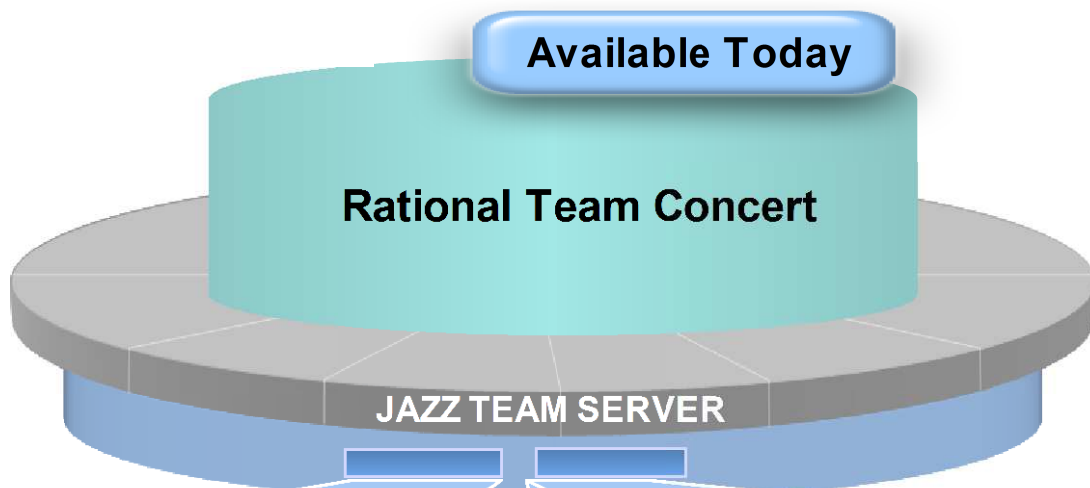
**Sprint Tracking**

Test Iteration	Points passed	Points blocked	Points inconclusive	Points attempted
7.2.0.3.i2	5320	10	0	5330
7.2.0.3.i3	1500	200	0	1700
7.2.0.3.i4	310	0	0	310
<b>Totals</b>	<b>7130</b>	<b>210</b>	<b>0</b>	<b>7340</b>



# Rational Team Concert supports Mainframe development

*Rational Team Concert brings together diverse teams allowing them to work together to build solutions*



## Client Integrations

- Eclipse and Eclipse-based products
- Web 2.0
- Visual Studio

## Extensions for System z

- Native z/OS build support
- Integration with Rational Developer for System z
- Integrated SCM solution for z/OS and distributed assets
- Flexible Deployment Platforms - z/OS, Linux on System z, or distributed
- ISPF Client for SCM operations

## Globally integrated development with Rational

- Agile works well at scale if you have the right level of discipline and the right foundational tooling
  - Rational exemplary, inclusive of mainframe
  - SME is equally well catered
- Common tooling approach gives flexibility in resource assignments
  - Minimize re-training and startup costs
  - Collaboration and development of community best practice
- ADL, and SWG WW has leveraged a tremendous amount of value over time, and indeed continues to provide feedback on enhancements and potential improvements in the Rational portfolio via the internal development community

