ALM ToDo Agile UCM and Buildforge demo
April 15, 2008

Stu Poulin stuart.poulin@us.ibm.com **206-686-9824**

Rational. software

Disclaimer and Non-Disclosure

- IBM Rational Plans are subject to change

- Nothing in this document is intended to create any representations or warranties

- IBM Rational warranties are contained in the applicable license agreements

Demo to Present

▶ ALM "ToDo" agile project.

▶ Baseline and Build tools

▶ ALMBaseline and BTBuild (Build) records

▶ Describe tie into ALMActivities

▶ In-the-box UCM integration as it works with ALM

▶ Demo an example of how BuildForge can be used to drive and populate ALM baseline and build data

Other Demos (TBD)

- Setting the default ALMProject AND ALMTask for UCM

- Using ALM Baseline and Build in a strict process

- Composite Baselines with ALM

- NonUCM usage

- Mixed UCM and NonUCM usage

- Using Build Forge with ALM

Audience

- Release Engineers

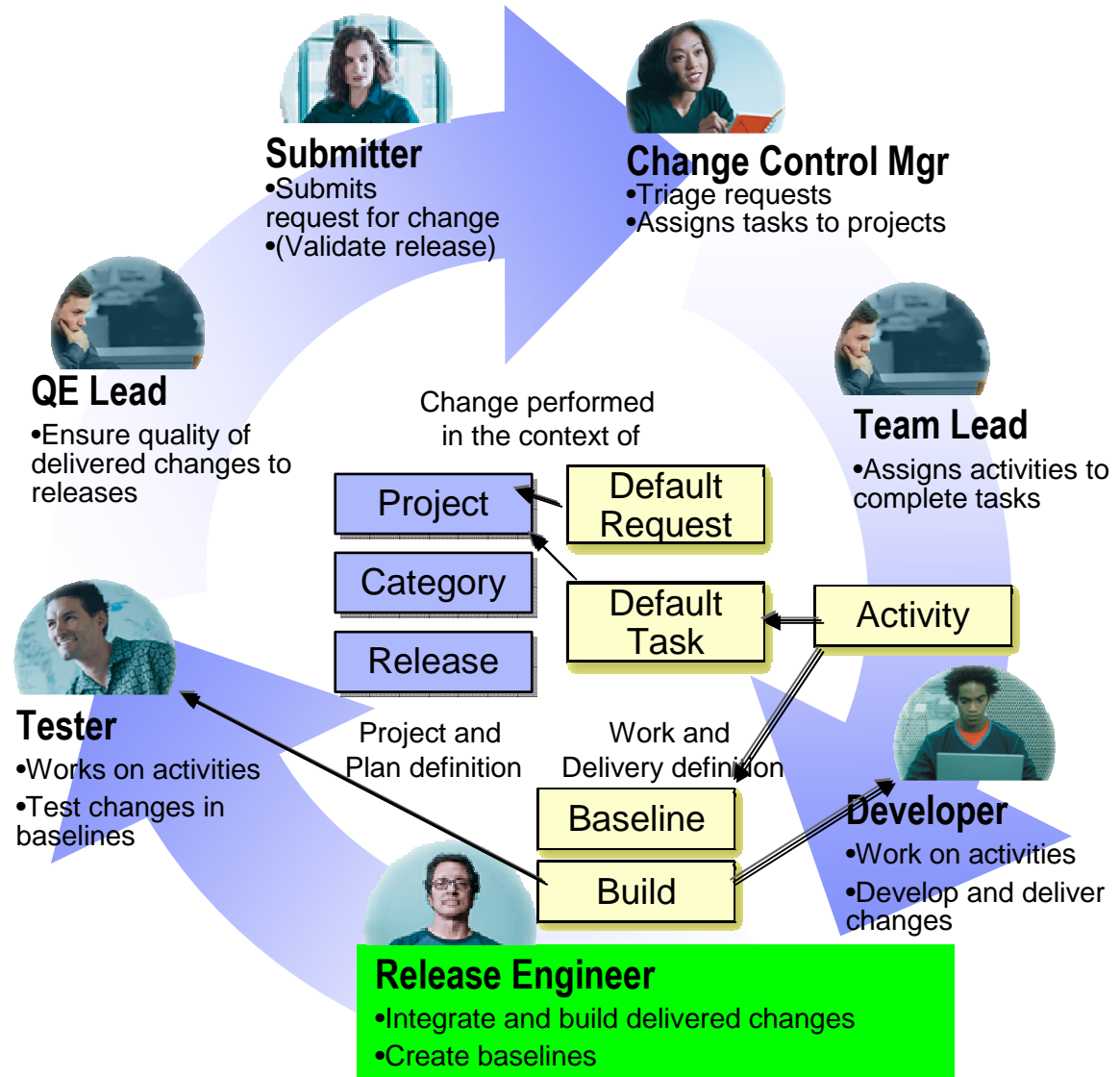- Program Managers

- Developers and Managers

- Quality Engineers

Prerequisites

- View a CQ ALM demo explaining the overall high level ALM work flow and features.
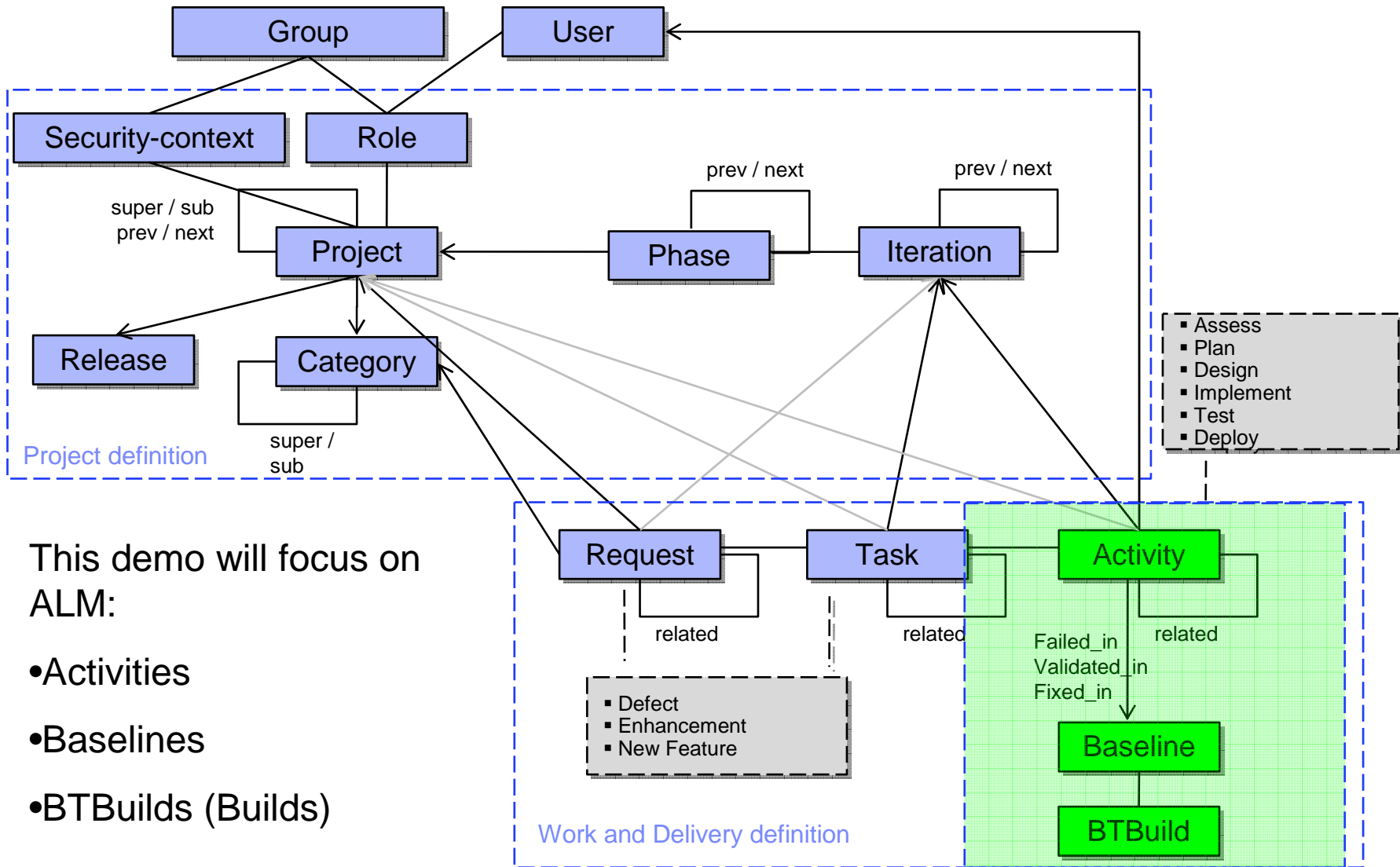
ToDo Agile Project

- Out-of-box ALM Solution for ClearQuest

- ALMProject assigns a Default ALMRequest and Default ALMTask

- Developers create ALMActivities against the default ALMTask

- Baseline and Build records track progress of activities

- Developers and Testers can Verify ALMActivities in Builds

Submitter
- Submits request for change
- (Validate release)

Change Control Mgr
- Triage requests
- Assigns tasks to projects

QE Lead
- Ensure quality of delivered changes to releases

Team Lead
- Assigns activities to complete tasks

Change performed in the context of

Project

Category

Release

Default Request

Default Task

Activity

Tester
- Works on activities
- Test changes in baselines

Project and Plan definition

Work and Delivery definition

Baseline

Build

Developer
- Work on activities
- Develop and deliver changes

Release Engineer
- Integrate and build delivered changes
- Create baselines

Putting it all together

Group

User

Security-context

Role

super / sub
prev / next

Project

Phase

prev / next

Iteration

prev / next

Release

Category

super /
sub

- Assess
- Plan
- Design
- Implement
- Test
- Deploy

Project definition

This demo will focus on ALM:

- Activities

- Baselines

- BTBuilds (Builds)

Request

Task

Activity

related

related

related

- Defect
- Enhancement
- New Feature

Failed_in
Validated_in
Fixed_in

Baseline

BTBuild

Work and Delivery definition

ALMActivities are UCM enabled

Contributors

Standard in-the-box CC/CQ integration is enabled on the ALMActivity record
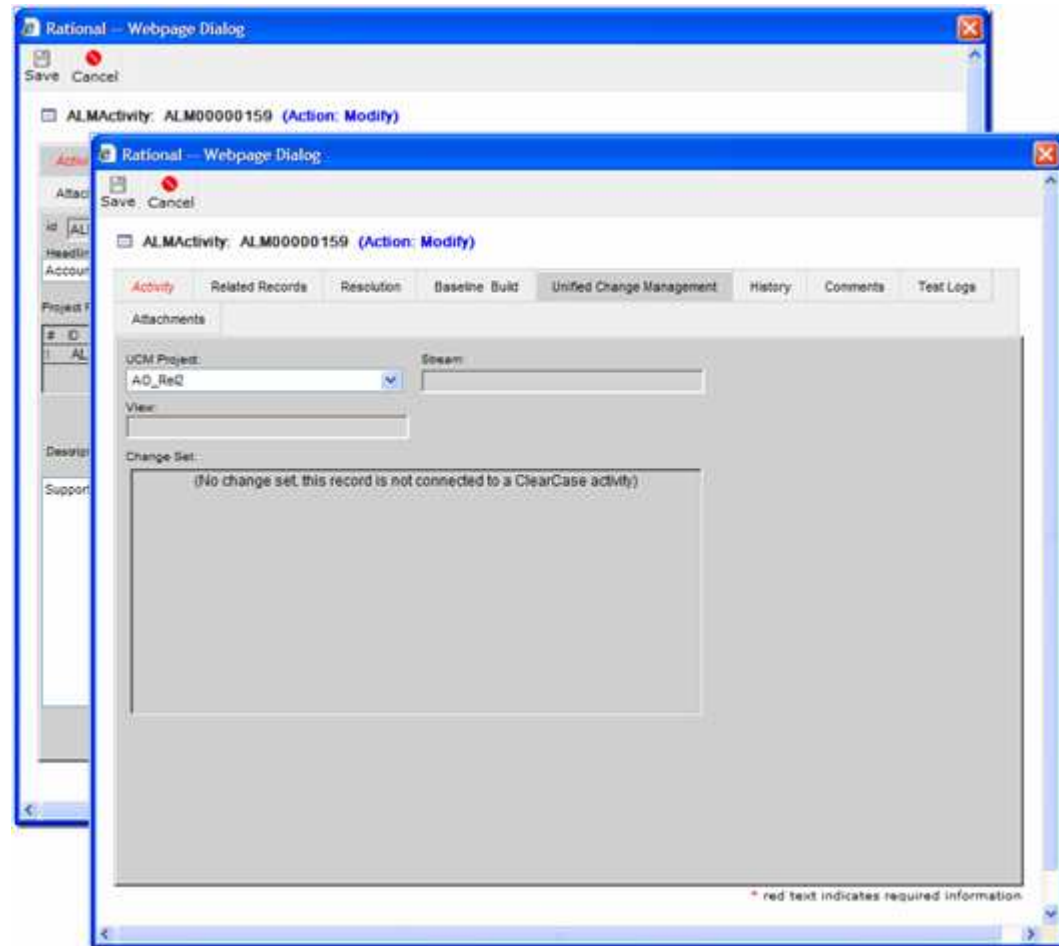
ALMBaseline

Create (ALMBaseline)

Baseline | Activities | History

Baseline Information

☐ Obsolete

Project: Add   Remove   Roles:

id	Category	Release	Is Obsolete?
ALM00000407	Category_RWM	ReleaseLab...	No

Project	RoleLabel	Primary
ALM00000407	Release...	ReleaseE...

Name: 609Baseline

ucm_stream: 609ucm_stream

PVOB or Loc: 609PVOBorLOC   Owner: ReleaseEngineer_RWM

Promotion Level:

Composed Of Baselines:

BaselinesInComposites

PVOB_OrLocation	Name

Create (ALMBaseline)

Baseline | Activities | History

Add   Remove   New

Activities:

Type	State	Owner	ResolutionCode	id
Dev	Completed	Dev_RWM	Fixed	ALM00000500

① Choose Project

② Identify UCM stream

③ Identify PVOB or Location

④ List completed activities (Diff Baselines)

Automate the creation of the Baseline and Build records as part of your build process

ALM Baselines provide instant knowledge of Status, Disposition, and location of Activity artifacts in UCM and non-UCM baselines and builds.

ALMActivities tracked in Baselines

Contributors

- UCM: a modified ClearTool diffbl finds and adds activities to the Baseline record.

- Optional, Queries in ALM can find Completed activities since the last ALMBaseline

BTBuilds are created off Baselines

1 **Choose Project**

2 **Set Build Type and Build Status**

3 **Choose Baseline**

Automate the creation of the Baseline and Build records as part of your build process

Baseline/Build scripts provided with ALM

- Designed to interface UCM and NonUCM Change Management (CM) systems to ALM

- Written in RATLPerl. Released as source to allow you to extend for your own process if needed

- Fully in ALM documentation

- Commandline –help for addition information

Baseline/Build scripts provided with ALM

- # Create_baseline_record.pl

  ▸ Creates an ALMBaseline record from the commandline

- # Create_build_record.pl

  ▸ Given an ALMBaseline record creates a BTBuild record off it

- # Update_baseline_record.pl

  ▸ Updates an existing ALMBaseline record from UCM or supplied commandline

- # Update_build_record.pl

  ▸ Update an existing BTBuild record from the commandline

- # Runbasicquery.pl

  ▸ Runs a CQ stored query given commandline params for filters and saves the output to a file in a format compatible with above scripts

ALM_Project_ToDo

- Demo Agile development using ALM and UCM

- Options to create and assign ALMActivities to a developer.

  ▸ Activities can be created and assigned first in ALM
    - Will show up in ClearCase UCM drop down choice
  ▸ Activities can be created by the Dev as needed
    - Setting a default project will set the default Task and Request
    - Or, another Task created or selected as needed
  ▸ Project setting of Default task allows for quick and unimpeded checkouts.
    - As needed, Activity can be reassigned to a more appropriate task at a later time
    - Checkouts are unimpeded

Demo

- Working Actitivities

- Automated Builds

- Validate Activities in Builds

Project_ToDo

DEMO Steps

- Checkout in ClearCase UCM as "Dev_ToDo" ID in ALM

- Standard, "in-the-box" UCM integration is used to tie ClearCase UCM to the ALMActivity

- Prompting for "Activity"

  New -> ALMActivity – create an activity as needed.

- Modify File

- Checkin – Use same Activity

- Deliver to Default integration stream

- "Complete" on delivery will display ALMActivity and Prompt for Resolution
  - Standard UCM policy

- Imagine scenario is repeated by many developers during the day

- Checkout/in on Integration Stream
  - Manually complete the activity

Build Forge Project

■ O1_ALM_Project_ToDo

▶ Start the Build

▶ Setting up Build Forge for ALM covered in another demo

▶ Review Build steps

- UCM mkbl – Standard UCM Baseline is made

- Create_Baseline_Record

  – Runs a diffbl between this new baseline and the last ALMBaseline record stored in ALM.

  – Minimal extra information need be supplied as script can gather information from both ALM and ClearCase UCM

- Mock source build – builds a web page example

- Create_Build_Record

  – Given the above Baseline, one or more builds may be created

  – ALM reuses BTBuild record

- Review in ALM the new Baseline, Activities in the Baseline, BTBuild

Build Forge 01_ALM_Project_ToDo Build run

01_ALM_Project_ToDo

ALMBaseline Record created by Build Forge

Activities placed on ALMBaseline from Diffbl

BTBuild Record Created off ALMBaseline Record

ALMActivities contain their validation status

- ## Queries report ALMActivities that need to be Validated in BTBuilds

  ▸ Positive confirmation that Activity has been looked at in a build and determined to work.

- ## Not all UCM Baselines need an ALMBaseline records

  ▸ Only Baselines you wish to "Validate" or "Fail" the ALMActivity for a build

  ▸ ALMBaseline records for a UCM baseline can be created at a later time

  - For example if you decide yesterday's build should be tracked

ALMActivites marked as Validated or Failed in Builds by Developer or Tester