# PlantsByWebsphere Application Walkthrough

# with SVN as Version Control

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## Overview

This demo uses the PlantsbyWebsphere application, which is stored in the SVN repository. This application is hosted on the IBM Websphere Application Server, of which there are two, WAL-VM-TEST for the test environment, and WAL-VM-PROD for the Production environment. The development is performed within Eclipse. This demo environment basically involves the following;

* Change some text on the web page
* Rebuild the application using ANT to produce a new single EAR file
* Deploy and install the EAR file on the Test Websphere Application Server
* Rebuild the application, deploy and install onto the Production Websphere Application Server

The Subversion repository is on WAL-VM-DBSVR. The LMe Repository is installed on ALDMO1. The LMe client is installed on the Development machine, which is WAL-VM-DEV2. The Eclipse IDE is also installed on the WAL-VM-DEV2 machine.

## Benefits for the customer

The benefits that this configuration will demonstrate to the customer are;

* Developers can stay with Subversion and with Eclipse. No changes for them in their process whatsoever.
* Web based facility which allows customers to log issues into a central system.
* Automated workflow to assign request to the correct teams.
* Built in approval processes for authorized users.
* Secure central repository for application code management.
* Business process management aligned with software development lifecycle.
* Automated deployment and installation to an IBM Websphere Application Server (WAS).
* No manual intervention required for Build process, deployment or installation to the WAS.
* Easy rollback functionality of an application hosted on a WAS
* Satisfies auditors requirements – logs from build server, applications servers, test systems etc all stored in a central single location.
* End to end change management.

## Workflow

Development Servers:

* Chris and Andy use WAL-VM-DEV1 for their development server.
* Anita and Joe use WAL-VM-DEV2 for their development server.

This is the general workflow of this demo;

* Raise an issue in CM, by logging on as a customer as ‘andy’
* This issue gets assigned to a Manager
* Sign into CM as yourself, and you should see the issue assigned to a ‘Manager’
* Approve the issue
* This assigns the issue to a developer called ‘Jon’
* Go into the issue, and link the request to LM, by creating a task with the same name as the issue in **Retail/eCommerce/Plantsbyweb(1.00)**
* Do the development – go into Eclipse and make changes to the promo.html web page file and commit back to the Subversion repository
* This automatically checks out the file from the LMe repository, replaces it with the subversion version just committed and promotes to QA.
* Promote to QA automatically builds the application by running scripts on wal-vm-build, imports the new EAR file into LMe, deploys and installs it to the WAS on WAL-VM-TEST.
* An email is sent back into CM, which changes the status of the issue to PASSED QA, which then starts an approval process, and changes the status to READY FOR PRODUCTION.
* Upon approval (either from email or CM), this will initiate the Promote action, which builds the application, imports the EAR file into LMe, deploys and install it to the WAS on WAL-VM-PROD.
* Once installed, an email is sent back into CM to change the status to COMPLETED.

### Pre-Demo Setup

* Check Build server ‘Jenkins’ - [http://wal-vm-build:8080/view/PlantsSVN/](http://psg-build:8080/view/PlantsSVN/)
* If you cannot access this page, log onto the wal-vm-build server, and restart the ‘hudson’ service.
* Check WAL-VM-DEV2: this is the development location
* Check WAL-VM-TEST: this is where the test web application resides
* Check WAL-VM-PROD: this is where the live web application resides.
* Startup Eclipse Helios.
  + Open workspace C:\JoeB\Eclipse
  + Navigate down to /PlantsbyWeb/PlantsByWebSphereSample/src/PlantsByWebSphereWEB/WebContent/promo.html
* Open the following tabs in Firefox (in this order)
  + Test PlantsByWebsphere [http://WAL-VM-TEST:9080/PlantsByWebSphere/](http://psg-test:9080/PlantsByWebSphere/)
  + Live PlantsByWebsphere [http://WAL-VM-PROD:9080/PlantsByWebSphere/](http://psg-appsvr:9080/PlantsByWebSphere/)
  + Jenkins build server, subset to PlantsSVN
  + LMe web portal
  + Exchange Outlook web portal for emails
  + Open LMe to the Locations tab.
  + Navigate down to /PlantsbyWeb/PlantsByWebSphereSample/src/PlantsByWebSphereWEB/WebContent/
  + If you have it, apply a filtered view that only shows those items currently present in QA. It will be empty at this point, but will show up nicely later.

# Demo Walkthru

## Development:

* Create issue as end user
  + From the Customer CM portal create an Issue in CM (\_DEVELOPMENT MANAGEMENT Project)
  + Title: I need an update to the online order entry web system
  + Type: Enhancement
  + Product: PlantsByWebsphere
  + Version: 1.5
  + Urgency: Not Urgent
  + LMe release is **Retail/eCommerce/Plantsbyweb(1.00)**
  + LMi release is **Retail/Store/Base**
* Approve the request from Agent
  + Switch to your agent CM tab
  + See task in the “DevRequest” status.
  + Edit the issue, and Link the issue to LM by creating a task of the same name as the issue.
  + Approve the issue. This will change the status to ‘DEVELOPMENT’ and the assignee to ‘Jon’
* Do the development work in Eclipse
  + Open up PROMO.HTML, and edit the following lines of code – basically, just change the ‘Prepare your pond for Spring’ to ‘Prepare your pond for Summer’ (or the opposite)
  + Explain that the ControlFile is an example of a file or control or config parms that can be used later on in the build and deployment process.
  + Open the CONTROLFILE.TXT and change the top 2 lines to be the name of the issue/task, ISSUE 123
  + RC on the project, Team, Commit.
  + Add some comments:
    - :ISSUEnnn will associate these items with an existing task
    - +ISSUEnnn will create a new task in LMe and associate the items committed.
  + You should get a confirmation message that the commit was processed successfully.
* This will check the files into LMe **Retail/eCommerce/Plantsbyweb(1.00)** into the QA environment.
* This will automatically trigger the deployment of the source to WAL-VM-BUILD

## Promote to QUA

* SHOW:
  + WebPortal taking the source files over to WAL-VM-BUILD
  + Jenkins on WAL-VM-BUILD running the build job in the Test PlantsByWebsphere
  + WebPortal taking the EAR file from Jenkins and deploying it to WAL-VM-TEST
  + test instance of PlantsByWebsphere web site with the new season shown.
* Under the covers:
  + The promote in LMe to QUA had an auto-deployment.
  + deploy the files to the WAL-VM-BUILD server
  + run a post-exec command which then runs a batch file on WAL-VM-BUILD (C:\BUILD\PlantsSVN\QUA\SCRIPTS\IEQABUILD.bat)
  + This batch job will:
    - Run the Jenkins PlantsSVNTestBuild build routine which runs C:\BUILD\PlantsSVN\QUA\SCRIPTS\PlantsBuildQUA.bat
    - builds the application EAR file via ANT
    - imports the EAR file back into LMe **Retail/eCommerce/BuildQUA(1.00)**
    - The Import environment is associated with an auto-deploy to the WAL-VM-TEST server.
    - This runs a post-install batch on WAL-VM-TEST (C:\ProgramFiles\Aldon\PlantsbyWebsphere\QUA\Scripts\PlantsInstallQUA.bat) that runs a Python script containing the WAS server commands to install the new EAR and refresh the server.

## Promote to Production

* From the agent CM, show that the ticket is in PRODUCTION READY, waiting for signoff.
* Approve the ticket by replying to the request for approval email.
* This will:
  + send out emails to all.
  + it will initiate the ‘PromoteCollectionAssembly’ command for the Task, and start the promotion of the HTML and TXT files to Production.
* This basically repeats the same workflow above, only now targeting production.
* SHOW:
  + WebPortal taking the source files over to WAL-VM-BUILD
  + Jenkins on WAL-VM-BUILD running the build job in the Live PlantsByWebsphere
  + WebPortal taking the EAR file from Jenkins and deploying it to WAL-VM-PROD
  + Live instance of PlantsByWebsphere