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ACTIVEVOS 7.0

The BPMS development teams love

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CTO, Active Endpoints
September 3, 2009



Outline

- Why use a BPMS in a service-oriented architecture?
- What should a lean standards-based BPMS look like?
- Demonstration of ActiveVOS 7.0
 - Including side-by-side comparison to the open-source Riftsaw BPEL project

Building business services

Middleware stack approach

- IBM WebSphere
- Oracle 11G
- Red Hat

Issues

- Price/value
- Complex heavyweight platforms burdened by legacy
- Lack of focus on end-to-end user experience
- Difficult to integrate – not suited to multi-vendor environments

Business user approach

- Pegasystems
- Lombardi

Issues

- Price/value
- Not suitable for more complex/SOA based scenarios
- Poor support for standards

The Alternative: a lean standards-based BPMS

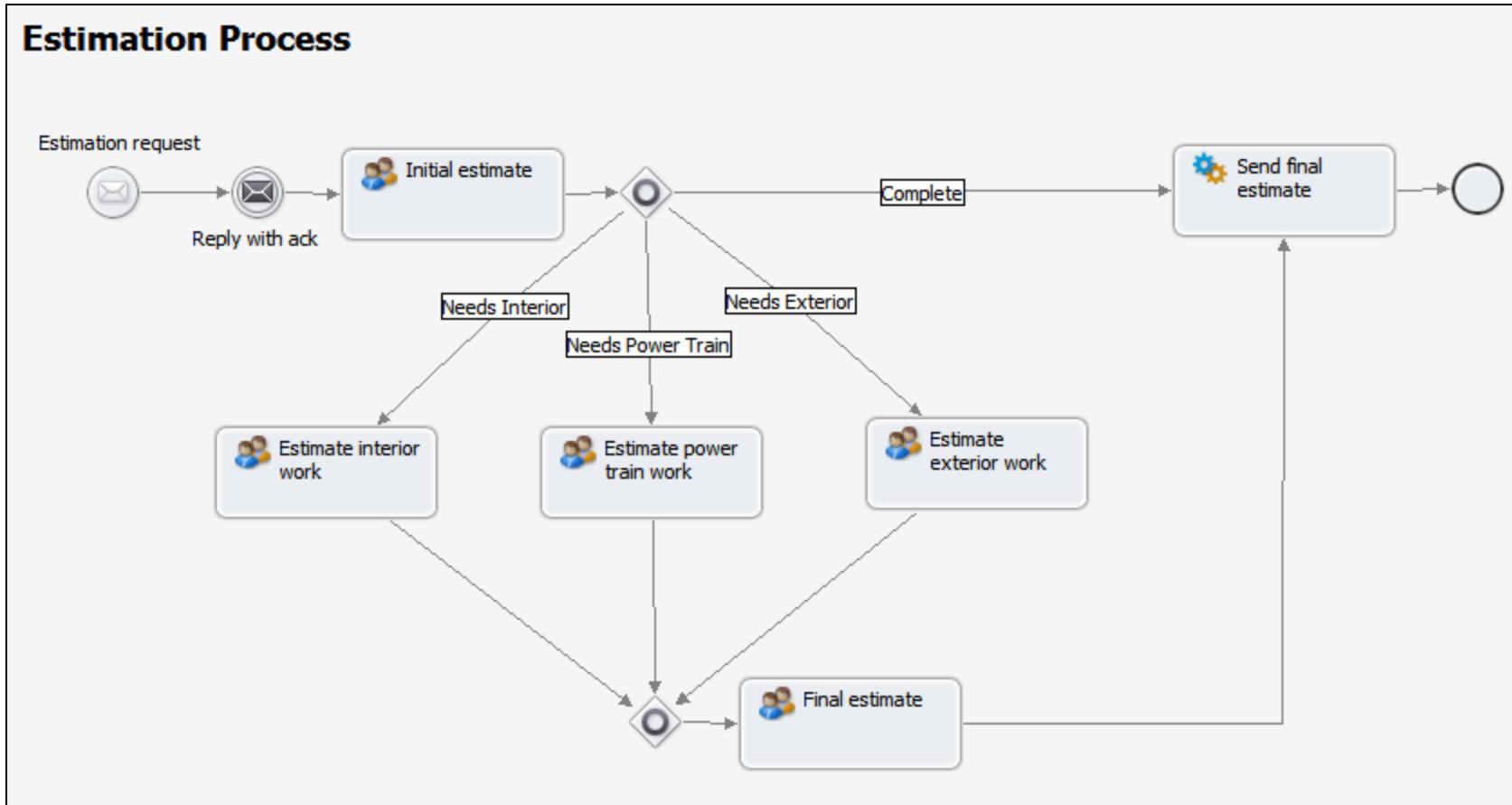
- **Standards** for service and task orchestration
- Tooling that **lowers the pre-requisites** for designing and implementing end to end business processes
- **Full app lifecycle support** - modeling, test, and debug capabilities to get the data manipulation, all the exception paths, and deployment right
- **No infrastructure dependencies** – run anywhere

...and collaboration with business users

Key reasons to use a BPMS for services

- Visibility – know what is happening in the business
- Coordination with Business Users
- Fix problems at runtime
- Easily adjust and improve post-deployment
- Coordinate employee's tasks
 - with each-other and with automated services

Graphical representation of control flow



Key standards for a lean standards-based BPM

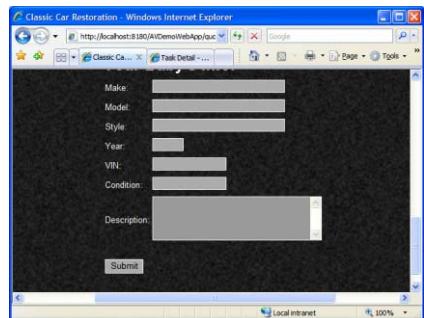
- BPMN for modeling notation
- BPEL (& BPEL4People) for executing processes
- WS-HumanTask for worklist management
- SCA for service composition
- XML and XSD for data
- WS-* or REST for interoperability

WS-BPEL: The service orchestration standard

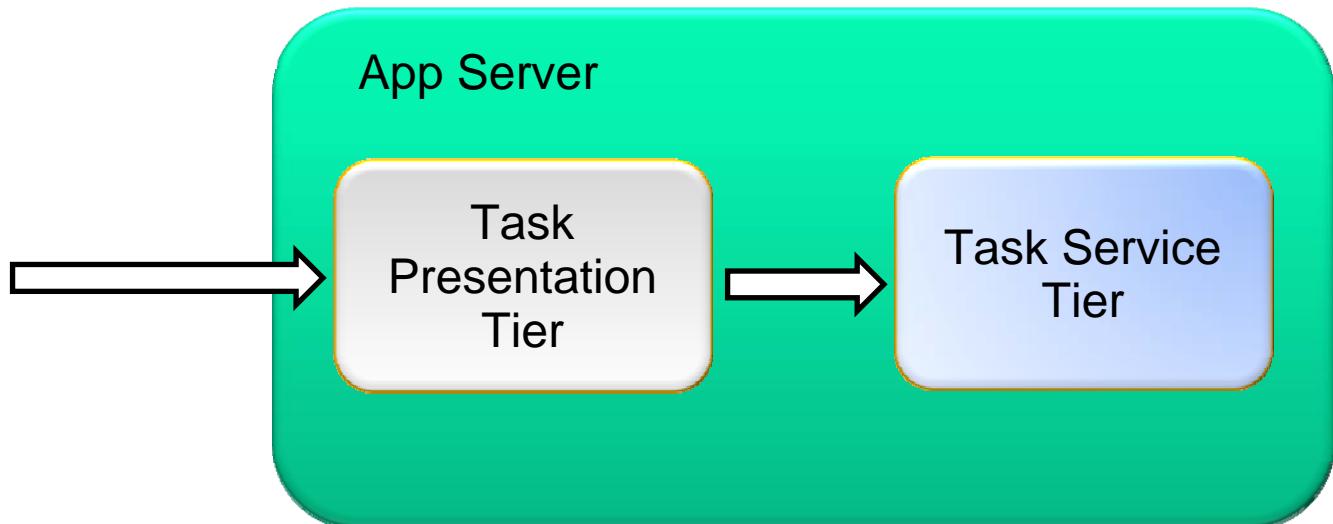
- WS-Business Process Execution Language (WS-BPEL 2.0)
 - Adopted as OASIS Standard, April 2007
- Built for web services
 - Variables and parameters typed by XML Schema
 - Operation signatures specified by WSDL
 - Expressions and conditionals specified using XPath
 - An XML syntax for the language itself
- Oriented toward asynchrony and long-running transactions
 - Bi-directional conversations between two participants
 - Flexible message correlation support
 - Event handlers as part of the language

Lose the Presentation Tier

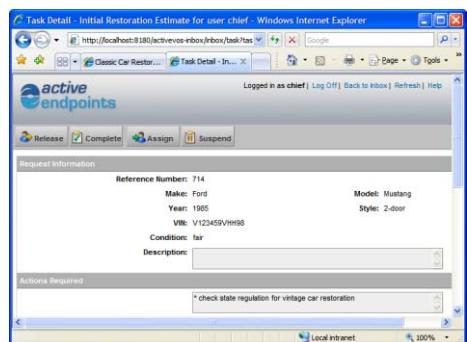
Old Way



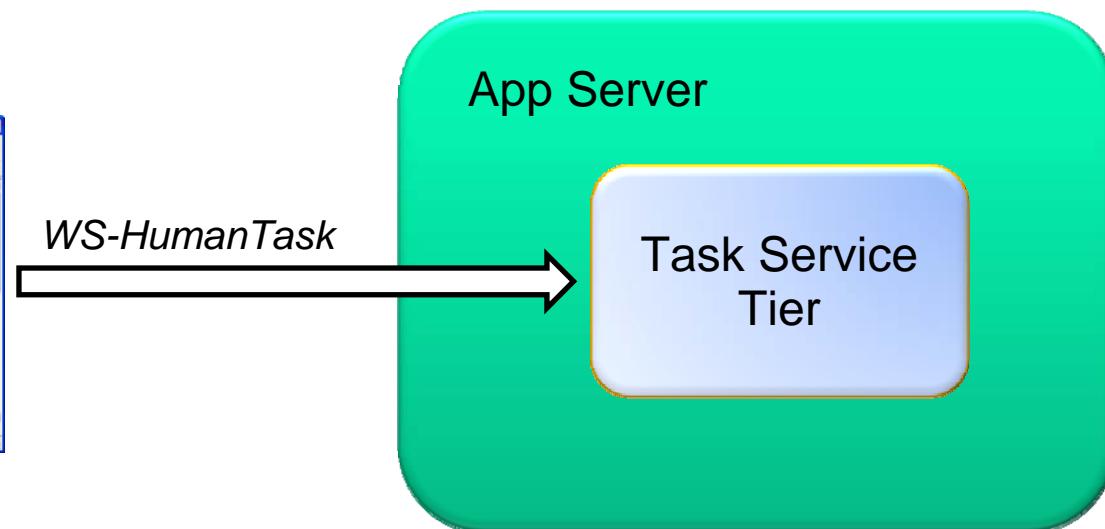
Dumb Web Client



New Way



AJAX Client



BPEL4People and WS-HumanTask

- Being Standardized by OASIS
- BPEL4People
 - Standard extension to BPEL for “people activities”
 - New ad-hoc attachments, which are available to all people activities
 - Dependency on WS-HumanTask
- WS-HumanTask
 - Services implemented by a person doing a task in a worklist system
 - Coordination protocol for lifecycle events
 - Generic Roles
 - Potential Owner, Actual Owner, Stakeholder, Business Administrator, etc.
 - Design time: “Logical people group”
 - Runtime or deployment-time mapping to users or groups

Let me show you

Get started with ActiveVOS 7.0

- Download a free, supported, 30-day trial:
<http://www.activevos.com/trial>
- Take advantage of the free technical learning materials available in our In-depth Center:
<http://www.activevos.com/indepth.php>
- Visit our blog and subscribe to our podcast feed:
<http://www.vosibilities.com>

My contact info:

michael.rowley@activevos.com

781 547 2900 x325

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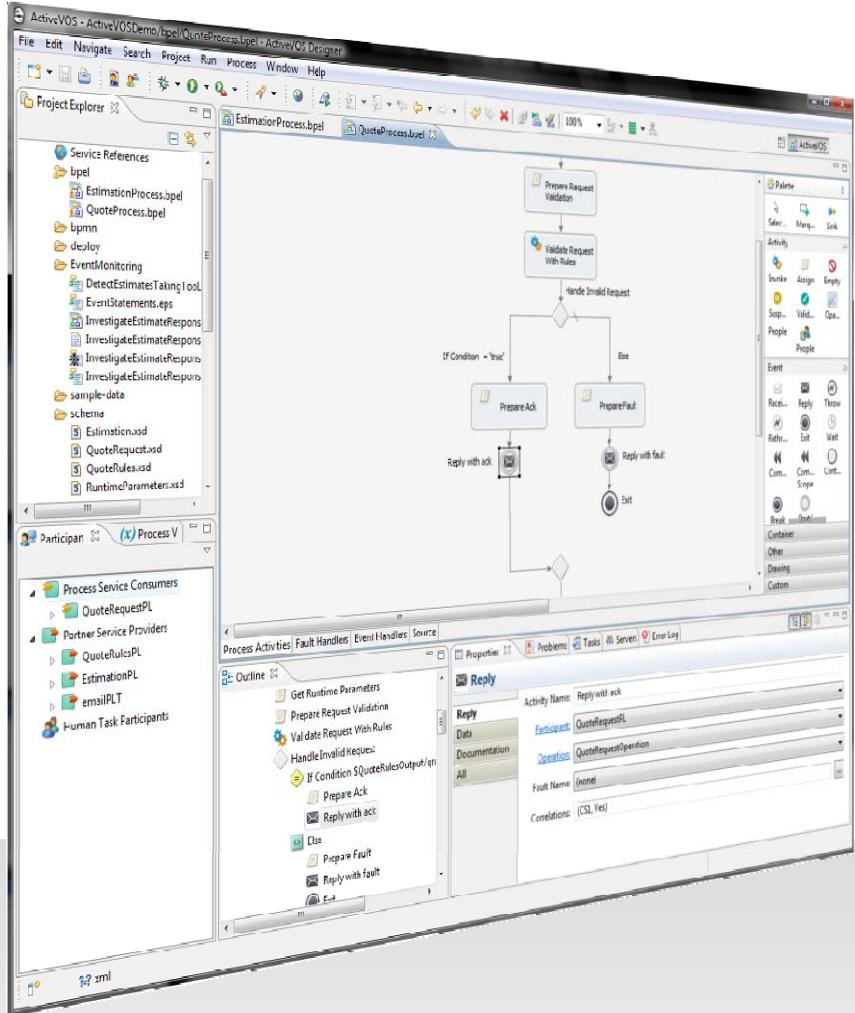


QUESTIONS?

TELL US WHAT YOU THINK:
REDHAT.COM/JBOSSWORLD-SURVEY

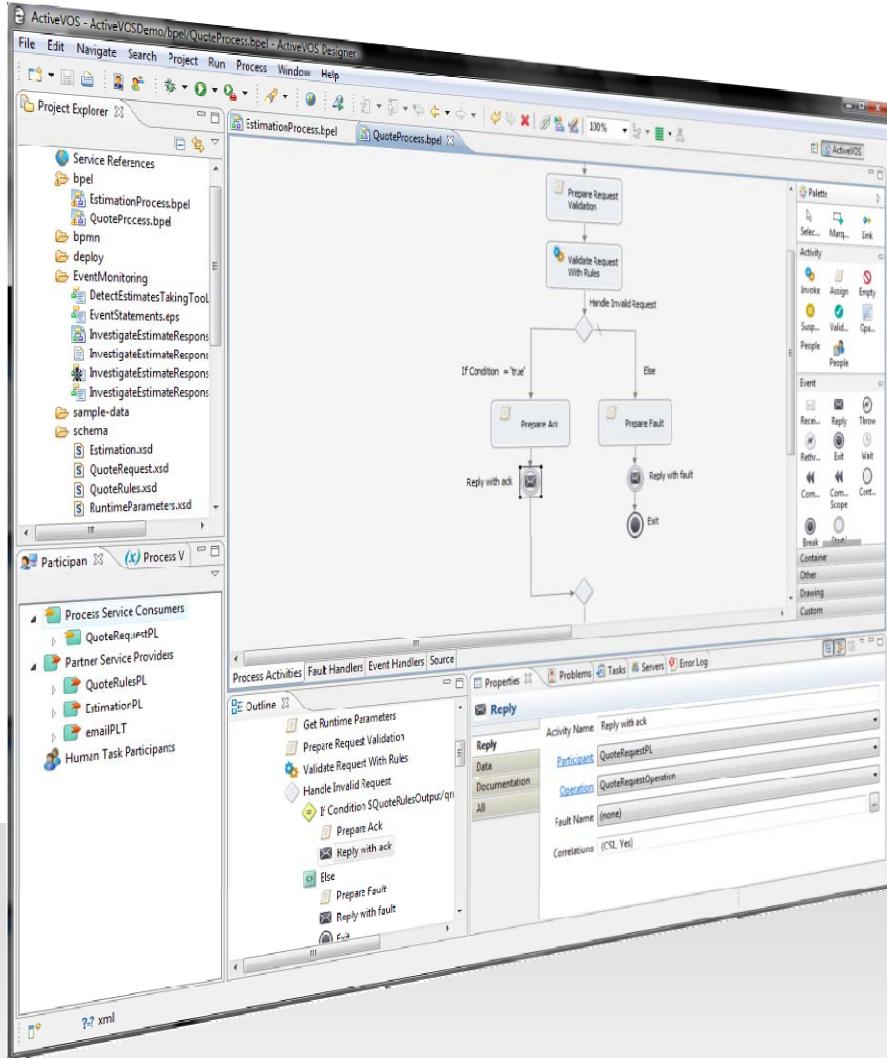
Additional Slides

What makes ActiveVOS different



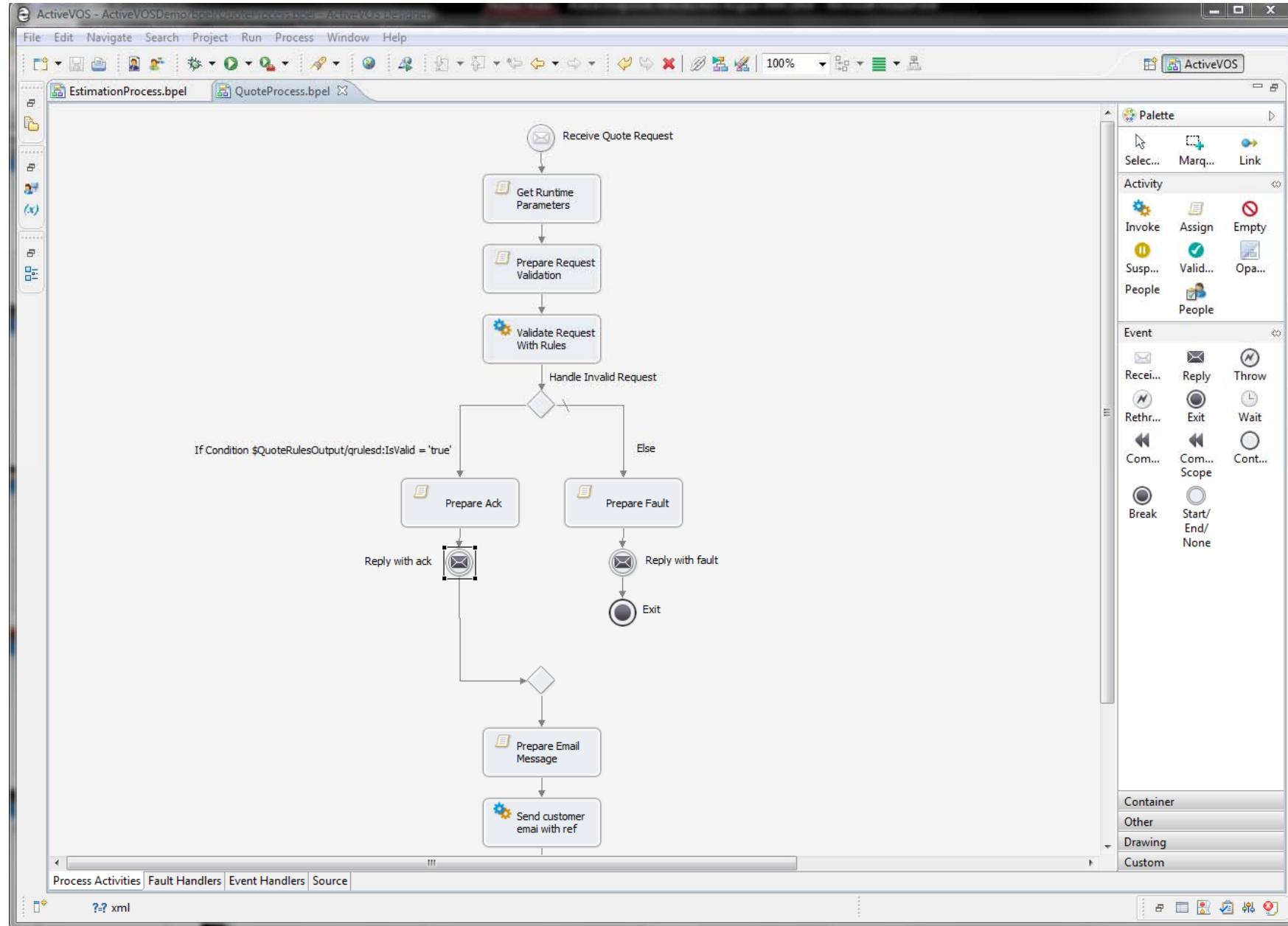
- ActiveVOS BPMS is both **platform independent** and **lightweight**
- **Development teams** love ActiveVOS
- ActiveVOS **implements standards** that *really* deliver investment protection
- Proofs-of-concept can be done on **your schedule**, making teams self-reliant
- ActiveVOS lets development teams deliver processes **on time**...and **kiss their consultants goodbye**

ActiveVOS delivers



- The first orchestration server
- Single, integrated product
- Completely standards-based
- **One-tenth the cost**
- **One-fifth the time to develop a new application**

Project Phase: Model



CLOSE

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Project Phase: Analyze

ActiveVOS - ActiveVOSDemo/bpel/EstimationProcess.bpel - ActiveVOS Designer

CLOSE

Receive Estimation Request

Reply With Acknowledgement

Prepare Task

Preliminary Investigation

Assign Task Result

Estimate Exterior Work

Estimate Power Train Work

Assign Result

Create Final

Resource Utilization

Approver: 96.50%

Assessor: 99.26%

Supervisor: 98.52%

Activity Waiting Queue

Average Waiting Tasks

Maximum Waiting Tasks

Tasks in Queue

Approve: 20

Assess: 200

Report General Resource Process Activity KPI Time

Properties <Activity> Estimators

Resource Pool: Estimators

Resources: Estimators supervisor

Duration Distribution

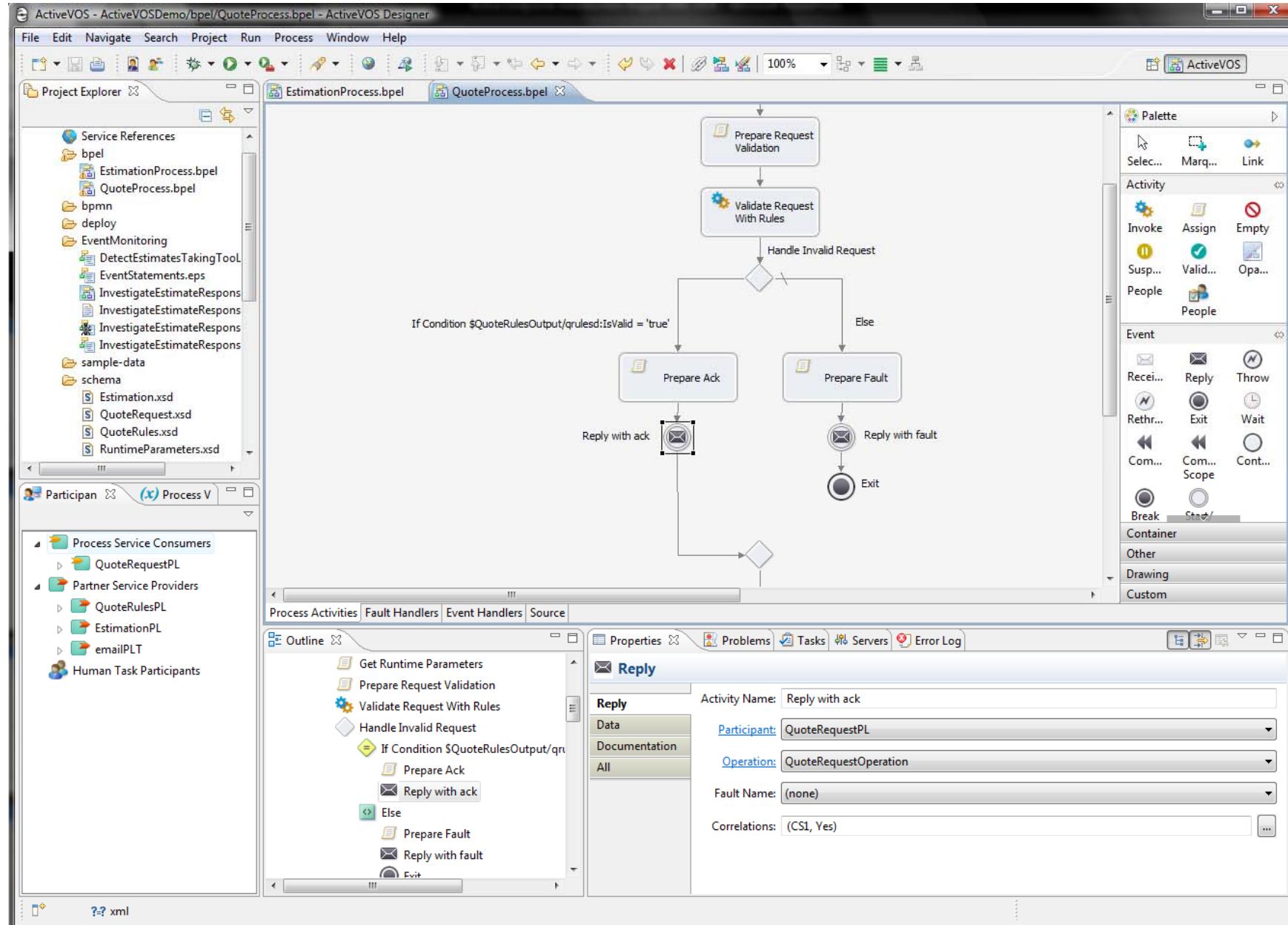
Time Unit:

Mean Value:

Standard Deviation

xml

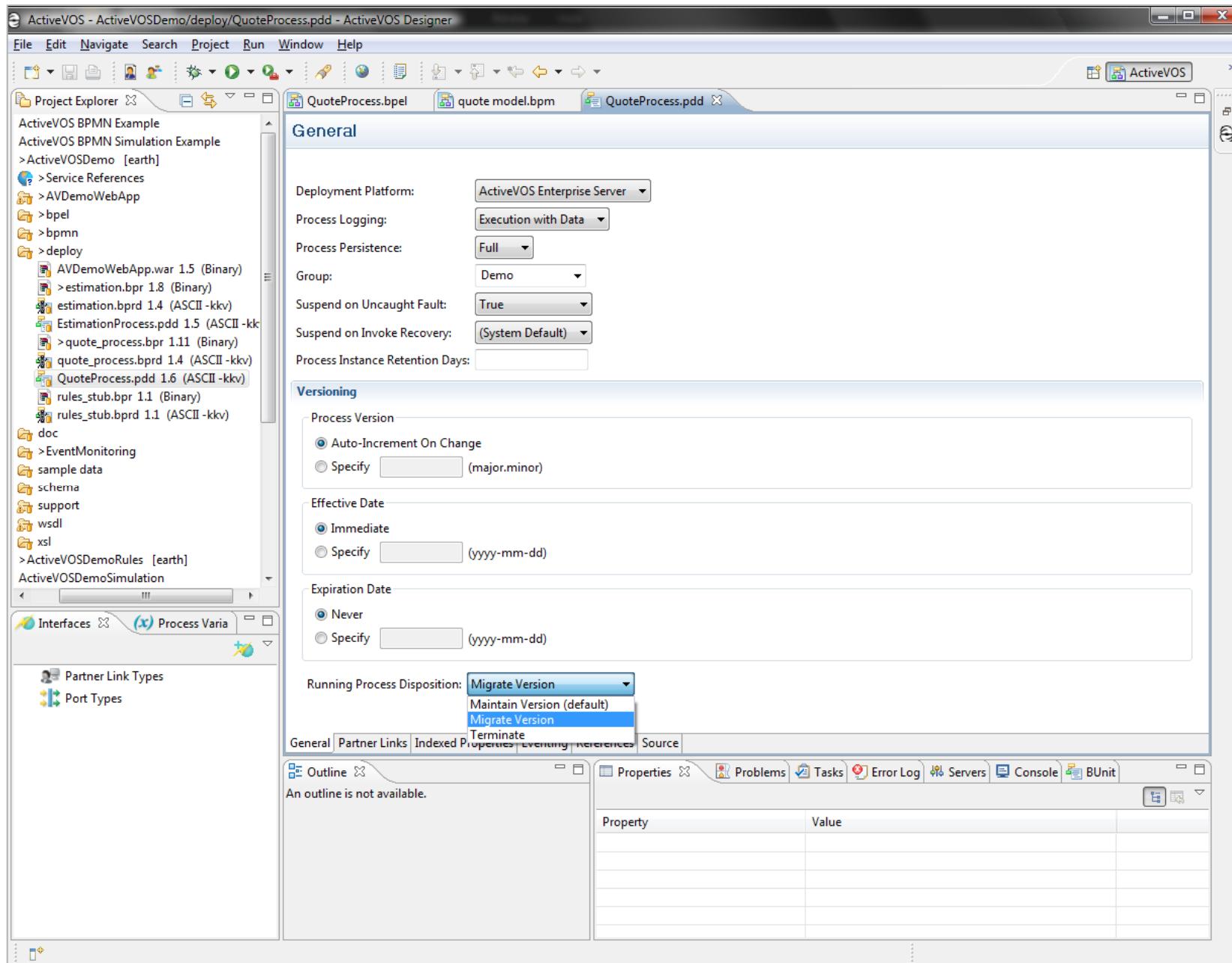
Project Phase: Implement



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Project Phase: Deploy



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Project Phase: Execute

activeVOS central

Logged in as chief
[Log Off](#) | [Help](#)

[Home](#) [Taskname](#) [Reportname](#)

Tasks

Role: User

- Notifications
- Open tasks**
- Closed tasks
- My tasks
- Bookmarked Tasks

Show: All [Open](#) [Release](#) [Complete](#) [Skip](#) [Assign](#) [Suspend](#) [RSS](#) [search](#)

	Name	Subject	Owner	Created	<input type="checkbox"/>
1	Task1a	Task subject long description	John Doe	5/19/09 08:14 am	<input checked="" type="checkbox"/>
1	Travel Req...	Travel Request to Toronto - Customer Visit	Jim	5/19/09 09:17 am	<input type="checkbox"/>
2	Task3a	Task subject long description	Loan Approver Group	5/20/09 02:11 pm	<input checked="" type="checkbox"/>
2	Task1b	Task subject long description	Jenny Jones	5/21/09 10:25 am	<input type="checkbox"/>
1	Task2b	Task subject long description	unassigned	5/22/09 11:47 am	<input type="checkbox"/>
1	Task1c	Task subject long description	unassigned	5/22/09 03:38 pm	<input type="checkbox"/>
1	Task2c	Task subject long description	unassigned	5/23/09 07:11 am	<input type="checkbox"/>

TRAVEL REQUEST

► Request

▼ Approval

Business purpose: Customer visit to Toronto Request date: 6/23/2009

Traveler information

Name: Tom Jones Department: Sales Email: tom.jones@mycompany.com

Manager Approval

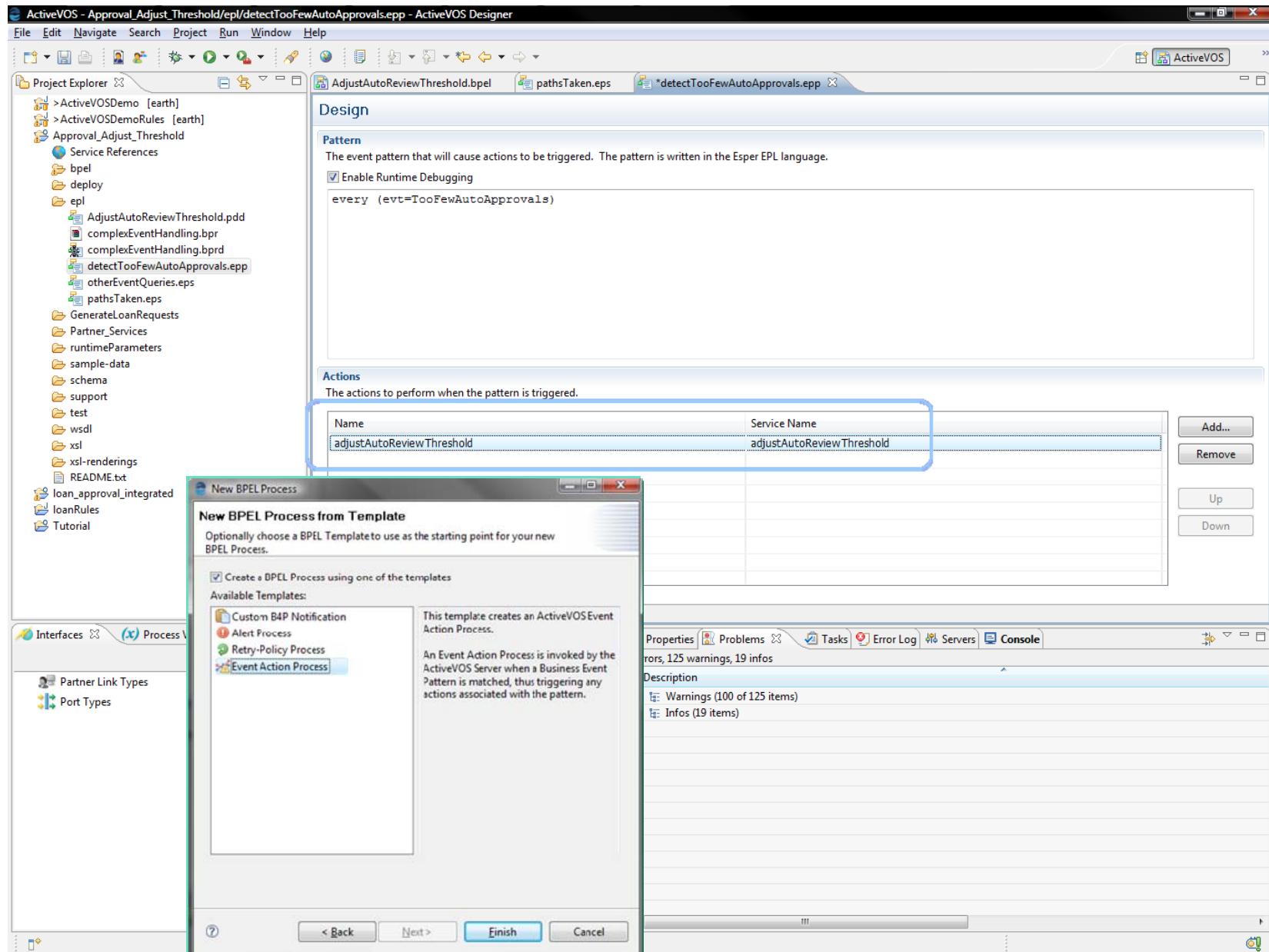
Approved Not Approved

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Project Phase: Execute



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Project Phase: Monitor

active endpoints

HOME MONITOR REPORT CATALOG ADMIN

Search for Process ID: Help

CLOSE

Dashboard

Top Five Running Processes

Process	Count
loanProcessHumanCompleted	65
QuoteProcess	35
EstimationProcess	35
AdjustAutoReviewThreshold	5

More...

Top Five Processes - Last 24 Hours

Process	Count
riskAssessment	12
QuoteRules	10
loanProcessHumanCompleted	30
loanCRM	20
EstimationProcess	10

More...

Top Five Tasks - Last 24 Hours

Task	Count
reviewTask	22
ReminderToReps	20
NotifyReassignToManager	10
Init_Estimation_Human_Task	10
conveyDecisionToApplicantNotification	5

More...

Receive Queues

Queue	Count
QuoteRequestPL	21
EstimationPL	19

More...

Faulted Processes

ID	Name	Date
1112	EstimationProcess	08/08/10 14:50
1107	EstimationProcess	08/08/10 14:50
1063	EstimationProcess	08/08/10 14:50
1058	EstimationProcess	08/08/10 14:50
1053	EstimationProcess	08/08/10 14:50
1048	EstimationProcess	08/08/10 14:50
1043	EstimationProcess	08/08/10 14:50
1038	EstimationProcess	08/08/10 14:50
1033	EstimationProcess	08/08/10 14:50
1028	EstimationProcess	08/08/10 15:00
1023	EstimationProcess	08/08/10 15:00
973	EstimationProcess	08/08/10 13:10
971	QuoteProcess	08/08/10 13:10
954	QuoteProcess	08/08/10 13:10
943	EstimationProcess	08/08/10 12:30
941	QuoteProcess	08/08/10 13:10

More...

Suspended Processes

ID	Name	Date
1967	EstimationProcess	08/08/11 14:27
1944	loanProcessHumanCompleted	08/08/11 14:15

More...

Project Phase: Optimize

ActiveVOS - ActiveVOSDemo/bpel/EstimationProcess.bpel - ActiveVOS Designer

CLOSE

Receive Estimation Request

Reply With Acknowledgement

Prepare Task

Preliminary Investigation

Assign Task Result

Estimate Exterior Work

Estimate Power Train Work

Assign Result

Create Final

Process Activities | Fault Handlers | Event Handlers | Source

Properties

Activity Estimators

Resource Pool: Estimators

Resources: supervisor

Duration Distribution

Time Unit: Mean Value: Standard Deviation

Simulation

New_configuration

xml

ActiveVOS BPMN Simulation Example

Author: mmmoniz Created at: Monday, August 10, 2009 Report Revision: 1.0.0 Last Modified at: Monday, August 10, 2009

Simulation Time Unit: Minute Distinguishable Simulation Timespan: 0.00001 Simulation Start Reference Time: 2009-08-10T17:22:55.859-0400 Simulation Time: 540 Simulation Stop Reference Time: 2009-08-11T02:25:55.859-0400

Total Process Instances Started: 541 Total Resource Base Cost: \$974.32

Total Process Instances Complete: 327 Total Resource Utilization Cost: \$973.65

Total Cost: \$1793.97

Description:

Resource Utilization

approver: 96.50%

assessor: 99.26%

supervisor: 98.52%

Utilization: 95.00% 95.50% 96.00% 96.50% 97.00% 97.50% 98.00% 98.50% 99.00% 99.50%

Activity Waiting Queue

Tasks in Queue: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200

Approve: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200

Assess: 20, 40, 60, 80, 100, 120, 140, 160, 180, 200

Average Waiting Tasks

Maximum Waiting Tasks