


What's New in Oracle BPM Suite 12c

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Table of Contents	
Introduction	1
Product Strategy	1
Simplify	1
Accelerate time to value with intelligent process solutions	1
Complete Unified Platform	1
Business Architecture	1
Enterprise Map	2
Strategy Model	4
Key Performance Indicators	4
Richer Process Reports	5
Narrative View	6
Spaces in Process Composer	7
Process Asset Manager	8
Business Friendly Rule Authoring	8
Verbal Rules	8
MS Excel Integration	9
Usability enhancement	9
New Business Activity Monitoring	10
Business Friendly Dashboard Design:	10
Business Views & Alerts	11
Rich Analytics on Event Streams	11
Enterprise Grade Infrastructure	11
Richer Process Analytics	12



BPM Mobile	13
BPM Oracle BPM 12c Developer Features:	14
BPM Quick start Install:	14
Integrated Debugger	15
Visual Diff Merge inside BPM Studio:	16
Migration Tool	16
Adaptive Case Management	17
Adaptive Case Management features in Oracle BPM 12c provide support for the following:	17

Introduction

Oracle Business Process Management Suite 12c, is the next significant release of one of the most feature-rich BPM suite offerings. This white paper describes the key features of this release that make it one of the most complete BPM suites in the market. This white paper assumes familiarity with Oracle Business Process Management Suite 12c.

Product Strategy

There are three key objectives of the 12c release of the BPM Suite

Simplify

- » Make it really simple for business users by providing a business-friendly web-based composer that allows business users to model, simulate, optimize deploy and execute business processes
- » Provide business-friendly mobile and web applications
- » Provide out-of-the-box process and case analytics
- » Manage by exception

Accelerate time to value with intelligent process solutions

- » Allow modeling of structured as well as unstructured processes
- » Provide integrated decision management

Complete Unified Platform

- » Provide a complete unified platform spanning systems, decisions, documents and events
- » A common platform for executing and managing structured as well as unstructured processes

The following sections describe in detail the features that support this strategy.

Business Architecture

In Oracle BPM 12c, Oracle has introduced a light-weight Business Architecture modeling tool in the Business Process Composer. This provides a blueprint of the enterprise and gives a common understanding of the organization. With business architecture modeling support, business analysts can

- » Align an organization's goals and objectives and strategies with the actual projects that are being undertaken
- » Categorize, analyze, and document vast collection of processes, understanding their mutual dependencies, strategic importance and business alignment.
- » Capture the macro view in a standard way so that a formal link between business goals and BPM Projects is established.



Figure 1: Enterprise strategic alignment

There are three main models introduced via a Business Architecture project.

Enterprise Map

One of the key use cases Business Architecture supports is Process Decomposition which supports to break down ("decompose") process complexity into manageable parts and is depicted by a hierarchy. The Enterprise Process Map is the entry point for process decomposition and is used for defining high level business functions.

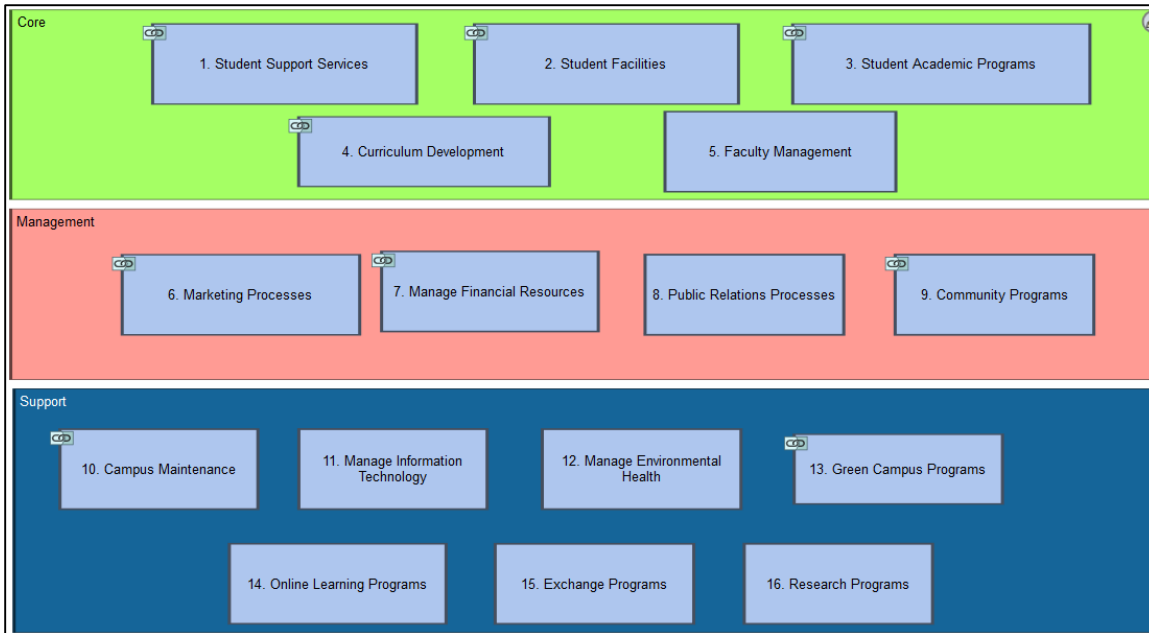


Figure 2: Example of a decomposed process model

Value Chain Model

Each top level business function of an Enterprise Map further drills down to the next level which is a Value chain. A Value Chain step can further drill down into child value chain models or to a BPMN process.

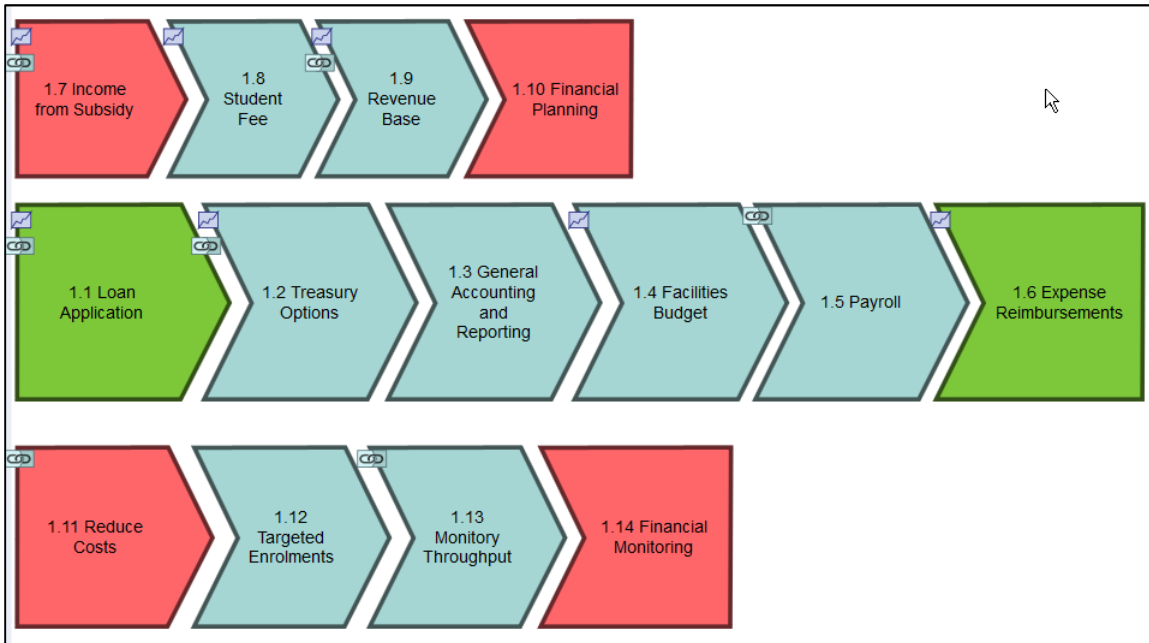


Figure 3: Value Chain Model

Strategy Model

Another way of representing the relationship between Business Architecture artifacts is via a Strategy model which encapsulates an organization's business goals, objectives and metrics. The metrics define the success factors for achieving the goals and objectives.

The Strategy Model is used for creating, editing, and linking the Business Architecture assets. Business analyst captures business intent and strategic alignment of processes via a strategy model, using a mind map like editing view.

How the model captures the goals of an organization, how the goals and objectives are linked and how they are fulfilled by the enterprise's strategies is exposed in an Impact Analysis report.

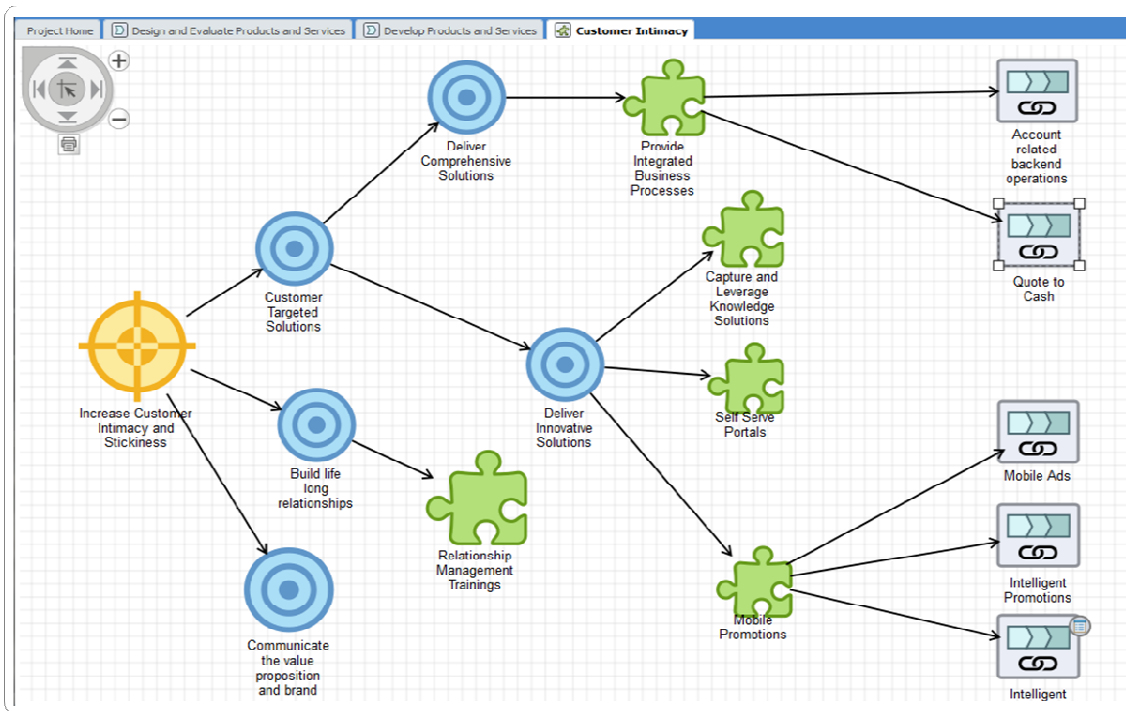


Figure 4: Strategy Model

Key Performance Indicators

Within a Business Architecture project, key success metrics can be defined via KPIs (Key Performance Indicators). The business user will be able to measure Goals, Objectives, Strategies, Value Chains, and Business Process Flows by well defined KPIs. KPIs can roll up from the BPM execution platform to Value Chains. Whether KPIs are being met or not is exposed in a colored heat map within a Process Criticality report.

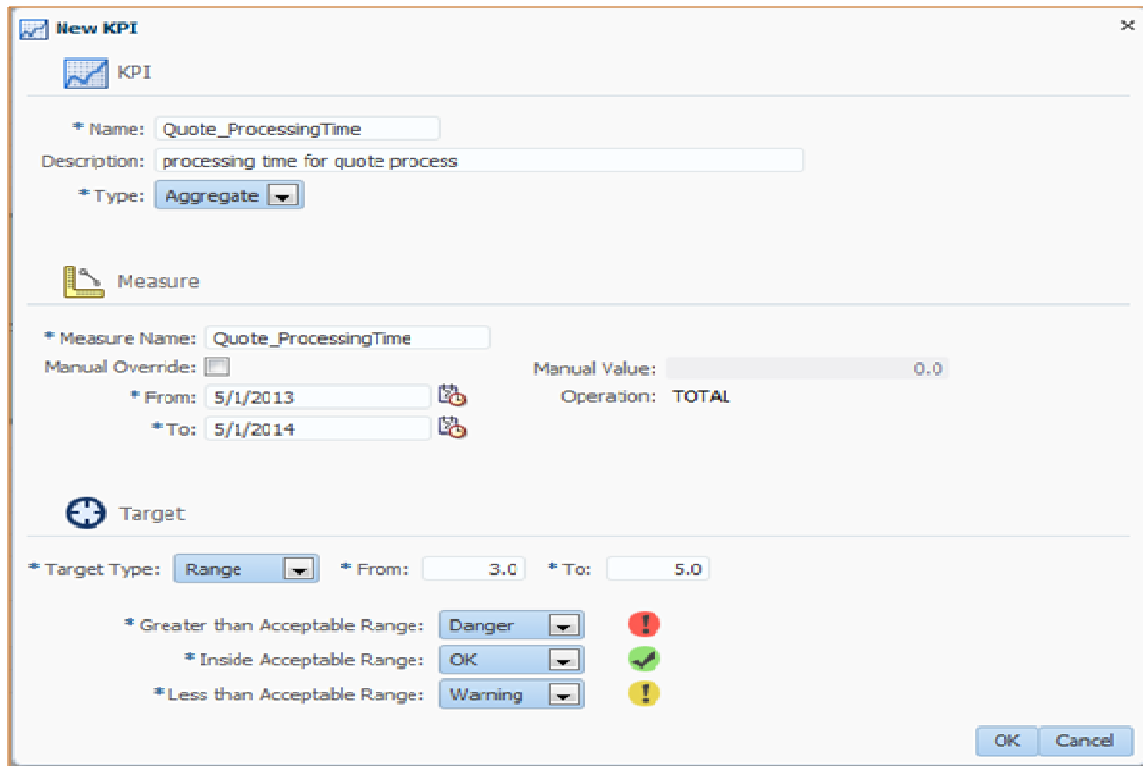


Figure 5: KPI Report Setup

Richer Process Reports

In Oracle BPM 12c, Process Composer enables the business user to define business context for processes via Business Properties at the activity and the process level. These are used for documentation and analysis, and can be available in comprehensive reports for Detailed Business Process, Requirements, Issues and Comments, RACI – Responsible, Accountable, Consulted and Informed amongst others

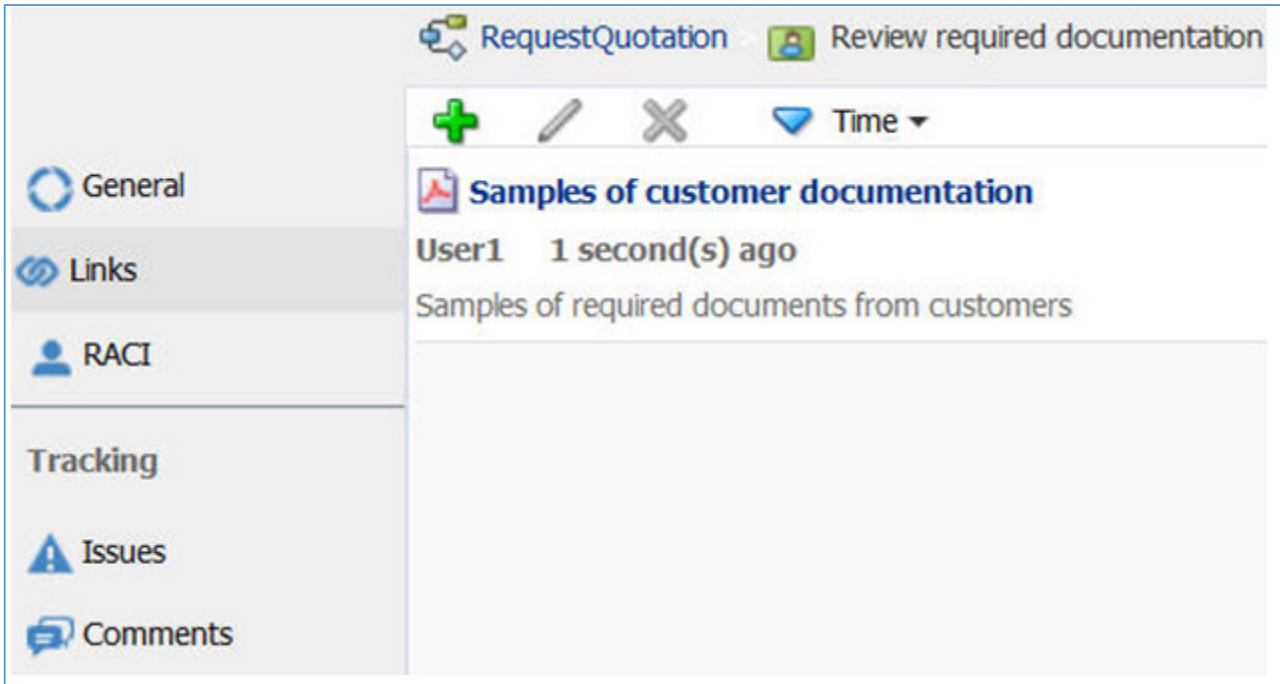


Figure 6: Process report setup

Narrative View

The Narrative view provides an alternate view of your process within Process Composer. It provides an efficient way to provide in-line documentation for activities and processes. Furthermore, it is yet another way of creating business processes by entering text rather than dragging graphical icons from a palette. This is very useful for process designers who are not very familiar with BPMN constructs. When you add an item to your process textually, Oracle Business Process Composer automatically converts it to the correct underlying BPMN format. Both the Narrative and Graphical views contain the same information, meaning that you can edit the same process in both views if necessary. When editing a process in one view, it automatically updates it in the other in real-time.

LoanProcess

Description

Loan Process

Documentation

Page 1 of 2 (1-10 of 13 items) |< < > >|

LoanOfficer

Role Description

1. Start

Description

Loan Approval process is launched by filling the Loan Form

2. Capture Loan Request

Description

The Loan Officer captures loan details by filling out a loan form

LoanProcessor

Role Description

Loan Processor

3. Review Loan Application

4. Review Outcome

- If Need More Details go to step # 2 Capture Loan Request
- Otherwise go to step # 5 Credit Check Send Request

Figure 7: Narrative view

Spaces in Process Composer

New in Oracle BPM 12c is the concept of Spaces in the Process Composer. Spaces enable a greater collaboration across process and BA projects/models. Spaces not only allow to group and co-relate Business Architecture and BPM projects, but also allow administration of ownership, editing and viewing privileges that are applicable to all projects at the space level.

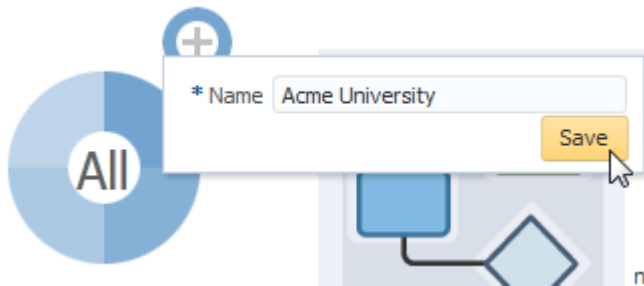


Figure 8: Creating a new Space

Process Asset Manager

The Process Asset Manager (PAM) is BPM's business process repository used to provide seamless collaboration across BPM Process Composer and BPM Studio clients. Both these clients publish projects to PAM which interfaces with source control for versioning and management of BPM assets. Key attributes of the Process Asset Manager are:

- » BPM Project lifecycle management
- » Integrated source control and versioning
- » Seamless collaboration across BPM Process Composer and BPM Studio clients.
- » Provides security and access control using OPSS
- » Utilizes MDS for run-time artifacts.

Business Friendly Rule Authoring

Oracle BPM 12c aims to simplify the business rule authoring experience by providing a very business friendly rules authoring capability, providing an overall improvement in run time execution and improvements in usability.

Verbal Rules

With verbal rules, users can author rules using English-like sentences. These sentences are composed using a set of user-defined business phrases. The phrases provide the appropriate business context and terminology and hide all technical constructs, which makes it easy for business users to define the rules.

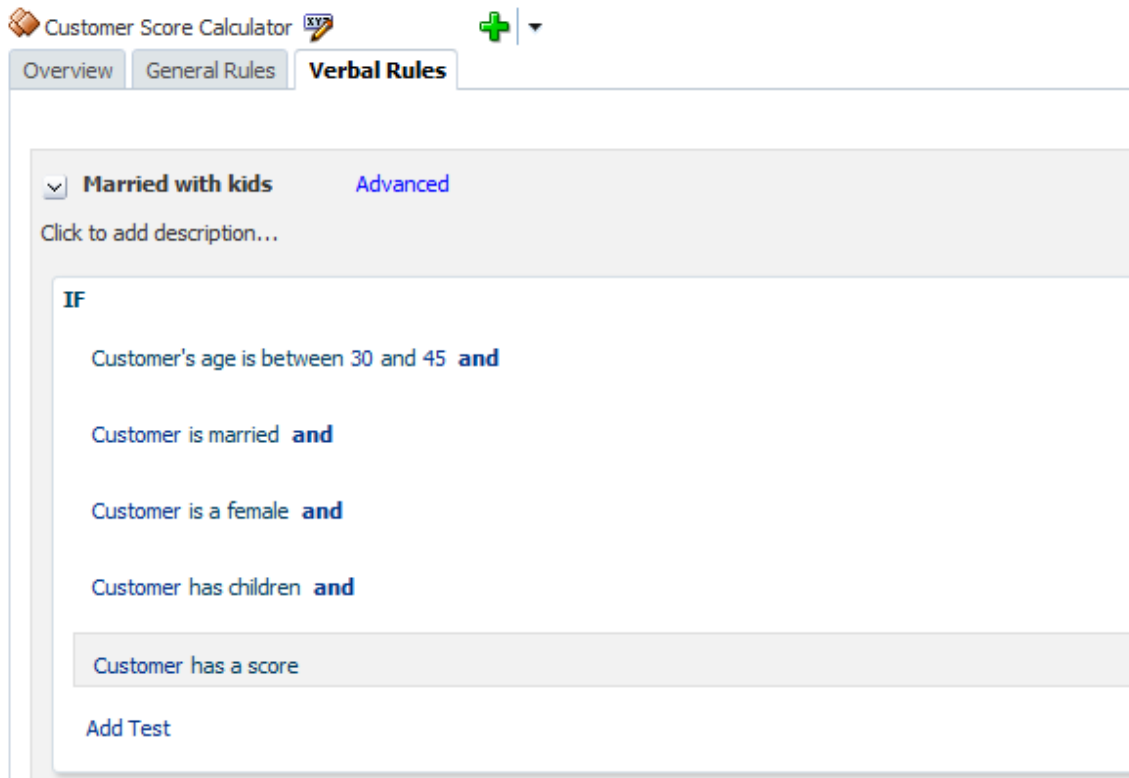


Figure 9: Verbal rules authoring

MS Excel Integration

With Oracle BPM 12c, the users can now export decision tables to MS Excel. The exported Excel can then be edited by business users to define business rules. The updated spreadsheet can then be imported into Oracle Business Rules as a decision table. During the import you have a choice to create a new table or overwrite an existing one. In case the decision table is to be overwritten you can do a diff-merge to decide which changes from the spreadsheet should be incorporated into the decision table.

Usability enhancement

A number of usability enhancements have been made to the Oracle Business Rules editor. Here are some key changes:

- » Master detail layout of rules
- » Description for condition, rule and action in decision table
- » Better searching of choice list
- » Enhanced auto-complete

New Business Activity Monitoring

The new Oracle BAM 12c product gives business executives the ability to monitor service level agreements (SLAs) across various services and business processes in the enterprise, to correlate key performance indicators (KPIs) down to the actual business process themselves and most importantly change the business processes much more quickly and efficiently to get more efficient. Business users can quickly create highly effective dashboards and reports showing critical business measures and KPIs that update in real time with capability to drill into detailed information – all with a few clicks.

The new Oracle BAM 12c not only helps reckon KPIs and SLAs easily, but also enables monitoring of risks to these measures of effectiveness! Business executives now monitor risks to their KPIs by pinning specific risk definitions to KPIs for all of these KPIs and risks to be comprehensively visualized in a watchlist view with easy stop light/traffic light visualization to readily point to calls to action. This facilitates proactive action to a likely jeopardizing of KPIs and RIs. In addition, patterns in business events can be mined and enabled either for automatic system action or displayed in a dashboard for the business executive to action on from the dashboard itself.

A rich set of OOTB (Out of the box) dashboards provide both high level macro views of all critical information like bottlenecks across all views and an ability to drill down into micro level details with just a few clicks. These ootb dashboards provide a catalog of metrics, dashboards and views each usable as-is or customizable for specific implementations and business scenarios.

The BAM 12c is an all new product that provides a richer and business friendly analytics capability such as:

Business Friendly Dashboard Design:

The BAM 12c provides business friendly dashboard design with the new intuitive visualization like

- » Geo-map
- » Scatter chart
- » Tree map
- » Bubble chart
- » KPI Watchlist



Figure 10: Business-friendly dashboard

The BAM 12c dashboard is device agnostic and is available on mobile and tablet devices. It also provides interactivity support like drilling, driving etc.

Business Views & Alerts

Oracle BAM 12c provides business views which are visual representations of the data fetched by a business query or KPI. In most views, numeric data fields, called measures, are grouped by non-numeric data fields, called dimensions. For example, sales, a measure, can be grouped by country, a dimension. The business view comes with the following categories: area, bar, horizontal bar, line, pie, combo, table, KPI watch list, gauge, Geo map, scatter, bubble, tree map. BAM 12c also provides business friendly catalog of rich actionable alerts.

Rich Analytics on Event Streams

BAM 12c provides a rich set of event stream based analytics such as:

- » KPI and KRI Monitoring (e.g. call response time KPI, KRI Call volume increase over (N) consecutive minutes > (M))
- » Trending Detection (e.g. call handling time has increased by > 10% over (N) minutes)
- » Top 'N' for a time period (e.g. top 10 agents with disconnects over last hour)
- » Duplicate Event Detection (e.g. more than (N) calls from same customer to same agent within (M) minutes)
- » Moving Aggregates/Calculations (Moving average of wait time > (N) over (M) minutes)
- » Monitoring Event count (e.g. multiple high value transaction approvals from multiple locations in N minutes).
- » Missing Event Detection (e.g. Dropped call not followed by callback within (N) seconds)

Enterprise Grade Infrastructure

With 12c release, BAM now provides enterprise grade infrastructure. It has --

- » Support for Active-Active High Availability mode.
- » Separation of concerns - Persistence Tier, Processing Tier, Web Tier
- » Fine Grained Security: Query, View and Dashboard and row level security
- » Uniform Administration and Maintenance- in line with SOA/BPM
- » Enhanced Diagnostic support
- » Coherence for Cache: Report cache, Metadata cache
- » Multi-browser support : Chrome, Firefox too
- » Enhanced Transaction Support: DO operations fully transactional via JTA and can span multiple DOs operation in one transaction.
- » BI catalog integration.

Richer Process Analytics

Process Analytics provides process performance monitoring through either BPM Workspace dashboards or Oracle BAM. Out-of-the-box metrics for activities and processes include active instance count and average time to complete, broken out by process, activity, and participant. In addition to the predefined metrics, process designers can create custom metrics using business indicators, a special type of process variable for Process Analytics measures and dimensions. Oracle BPM provides a set of pre-defined cubes, database structures that let you break out aggregated measures in real time by various dimensions.

The Process analytics in BPM 12c has undergone a number of changes to provide a much richer analytics capability to the user with several actionable dashboards and metrics such as:

- » Workflow/Task Analytics:
 - » Productivity indicators (to help with completed work analysis)
 - » Task inflow and outflow with time series
 - » Assignment patterns
 - » Queue depth over time
- » Process Analytics:
 - » Process Performance and workload metrics
 - » Bottleneck / outlier detection in process
 - » Process specific views
- » Case Analytics:
 - » Milestone based analysis
 - » Stakeholder based analysis
 - » Activity based analysis
 - » Case-Time based analysis
 - » Case-Priority based analysis

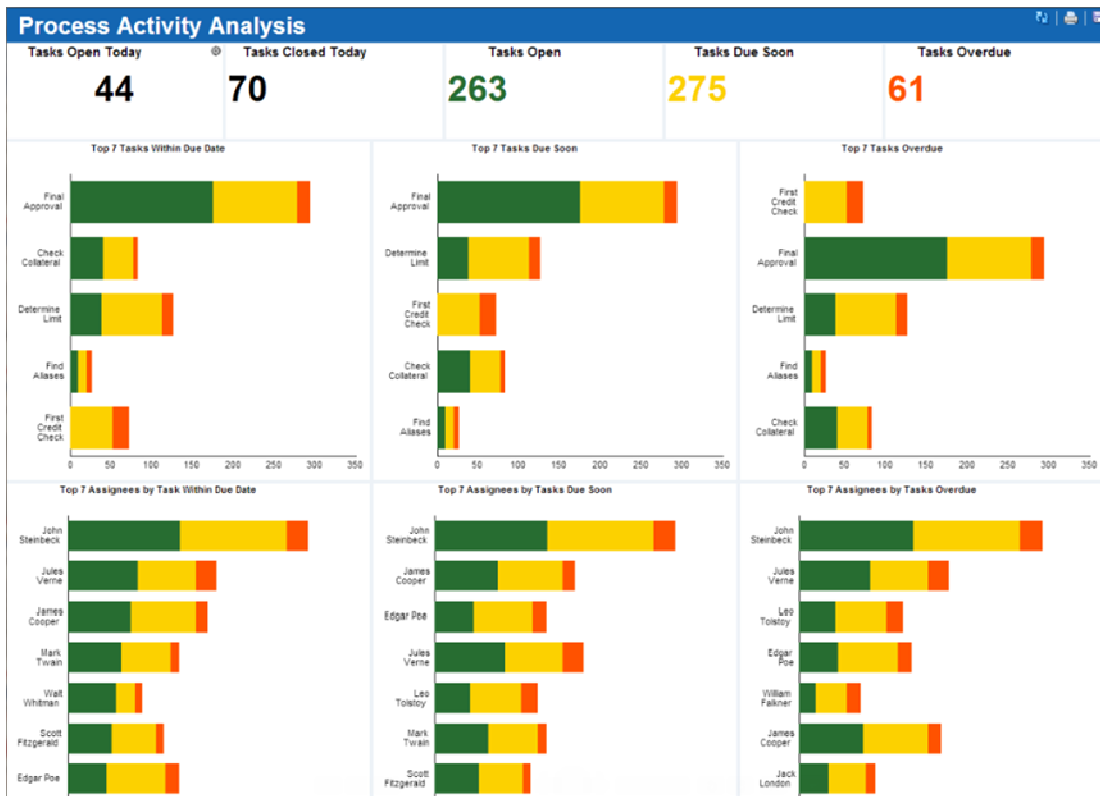


Figure 11: Process Analytics Dashboard

BPM Mobile

With the 12c release, you can build your own custom apps using the comprehensive REST APIs that allow you to interact with your business processes.

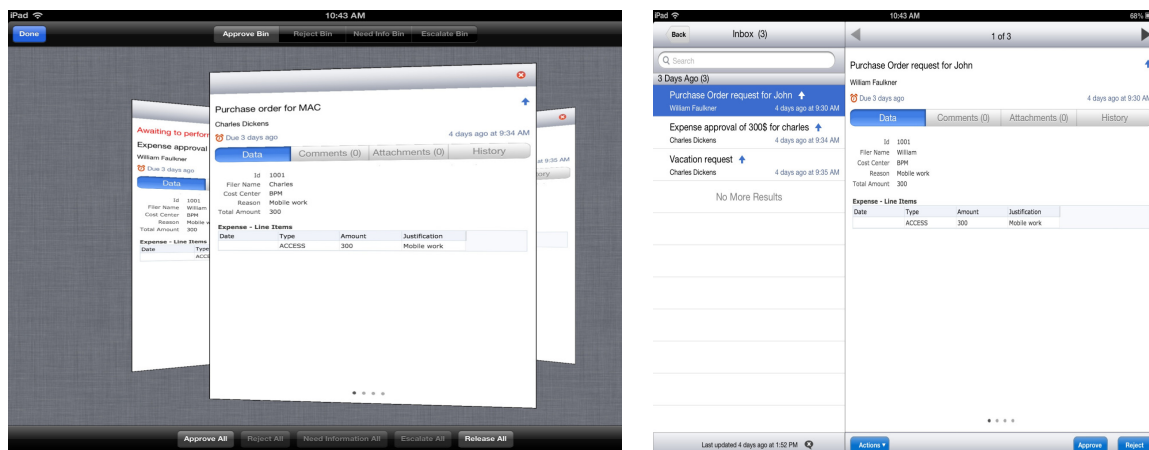


Figure 12: Apple iPad BPM App

BPM Oracle BPM 12c Developer Features:

The addition to adding new features supporting emerging industry trends like cloud and mobile, Oracle BPM 12c provides the following set of developer features targeted for BPM application developer community.

BPM Quick start Install:

The crucial steps in every BPM development cycle are the installation and configuration of a BPM Integrated development environment (IDE), which is JDeveloper for BPM. With Oracle BPM 12c, this has been dramatically simplified with the introduction of the new Quick Start installer. The download consists of 2 jar files that can be obtained from the Oracle Technology network. The user only needs to answer a few questions, such as defining the location for Oracle Home etc, and the installation usually completes in less than 30 minutes.

With the Quick Start installer you get

- » Integrated JDeveloper which installs both design-time & run-time.
- » One screen install which eliminates complexity
- » Pre-seeded JavaDB which means a reduced memory footprint

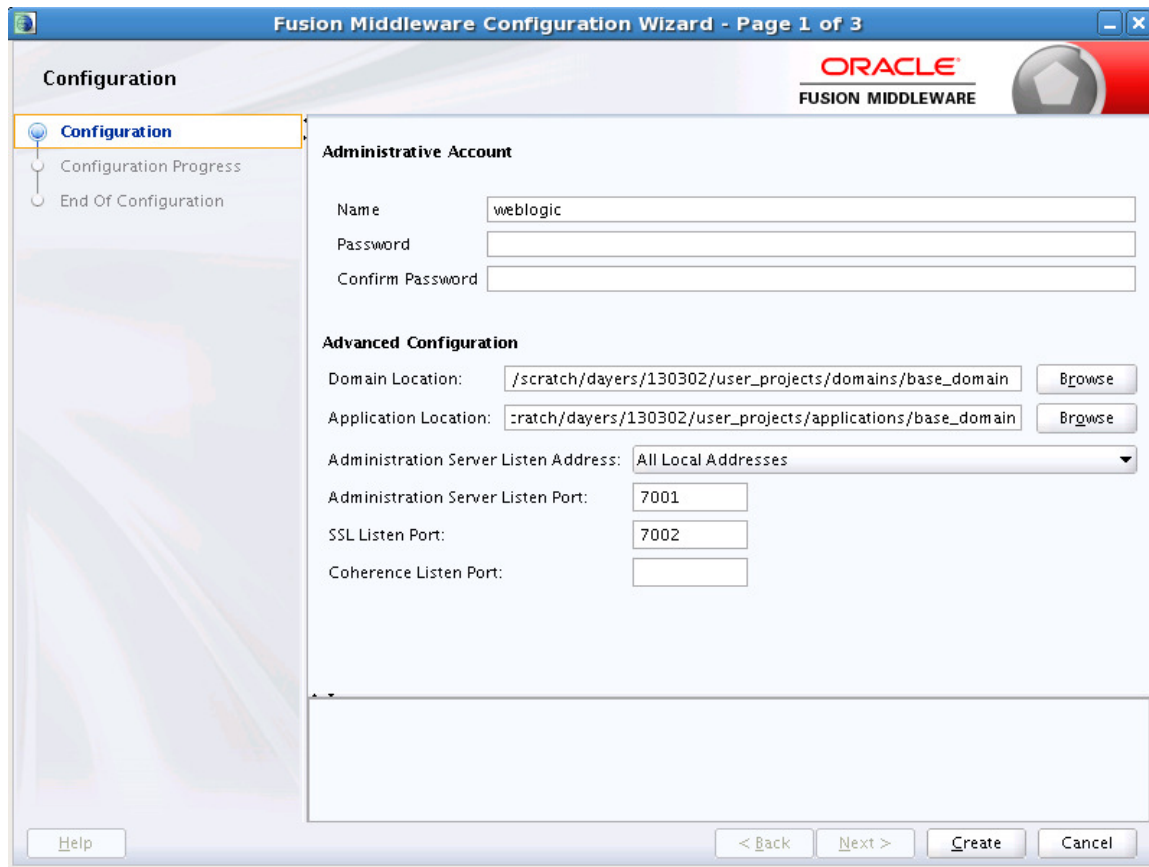


Figure 13: BPM Quick Start installer

Integrated Debugger

A successful development process requires simple tools for debugging and testing during development. The Oracle BPM Suite 12c includes a visual debugger in Oracle JDeveloper that allows setting breakpoints within a composite. This integrated debugger tool aims to provide debugging capability for

- » Process
- » Sub-Process
- » Event Sub-Process
- » Child Sub-Process

This debugger like a java debugger provides debug actions like:

- » Step-into
- » Step-over
- » Step-out
- » Resume

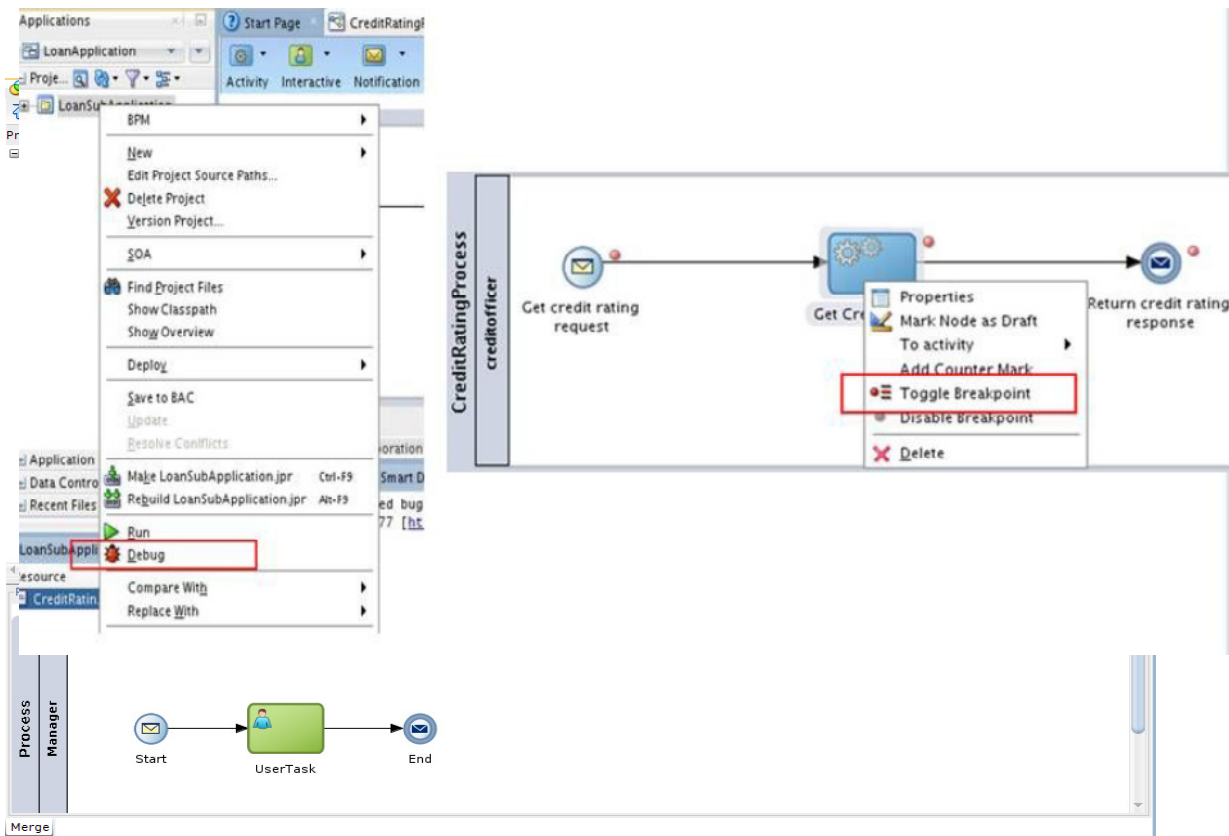


Figure 12: BPM debugging session

During the debug process, the debugger allows to inspect and modify the following data in a data window:

- » Data Objects (both Simple and Complex)
- » Instance Attributes (Process and Activity)
- » Conversation and Correlation properties
- » Create “Watches”

Visual Diff Merge inside BPM Studio:


The Oracle BPM 12c provides a visual diff merge capability inside BPM studio. This capability allows the user to:

- » Select “Resolve Conflicts” for visual Diff-Merge.
- » The user will be able to do this for every file that shows “Conflict”.
- » Perform “Save to PAM” once all conflicts are resolved.

Figure 9: Visual diff-merge

Migration Tool

The Oracle BPM 12c provides the users of Oracle 10gR3 with a migration toolset that aims to facilitate the seamless and simplified migration of both Process artifacts and Organization Unit related artifacts of BPM 10gR3 to BPM 12c.



This migration tool is an easy to run ant based tool with output as 12c exp file and a migration report. The migration tool also provides information about 10g artifact usage; it sets the basis for understanding the required migration effort and help in estimating manual effort in migration.

Adaptive Case Management

BPMN modeling in Oracle BPM 12c is quite powerful with the ability to model highly complex and dynamic processes and is a perfect tool for processes that are well defined and with predictable paths of progression. Most routine processes such as approvals, reviews, and financial processes fall into this category. There are also those types of processes that are difficult to model using a typically structured flow. These processes tend to have a high-degree of variability in execution and have significant dependency on human decisions. BPMN by itself is inadequate to handle such processes. With Oracle BPM 12c you can address even these types of unstructured and ad-hoc processes using the case management features.

Adaptive Case Management features in Oracle BPM 12c provide support for the following:

- » Case as a first-class entity whose lifecycle is managed by the Case engine
- » **New!** Case relationships -- support for run time linking of cases as sub-cases, duplicates, dependents etc. Sub-cases can also be defined at design-time
- » Stakeholder model definition – this can be design-time as well runtime
- » Case Activities – implementation-independent activity definitions that define who can perform the activity, if it can be repeated, whether its required and if its manually or automatically initiated
- » Case Data – structured data used by the activities, stakeholders and rules to progress the case. Case Data can be defined as internal or as external
- » **New!** Milestones with due dates – are used to mark the progression of a case, Milestones can be defined to have due dates. In case a milestone crosses the due date an event is raised
- » Content – Webcenter Content backed content management that allows managing all unstructured content for individual cases. Optionally, CMIS-compliant Content Management Systems can be configured in place of Webcenter Content
- » Case Rules – Oracle Business Rules authored rules for handling various case events. These rules allow you to control activity availability, case life cycle and mark milestone completions. They can also be used to react to external events as well as case events such as milestone expiration, stakeholder addition, document changes and data modifications.

- » **New!** Case Analytics – out-of-the-box case analytics is now available that allows creation of reports such as Activity Summary, Operational Summary, Status Summary and case closing trends.

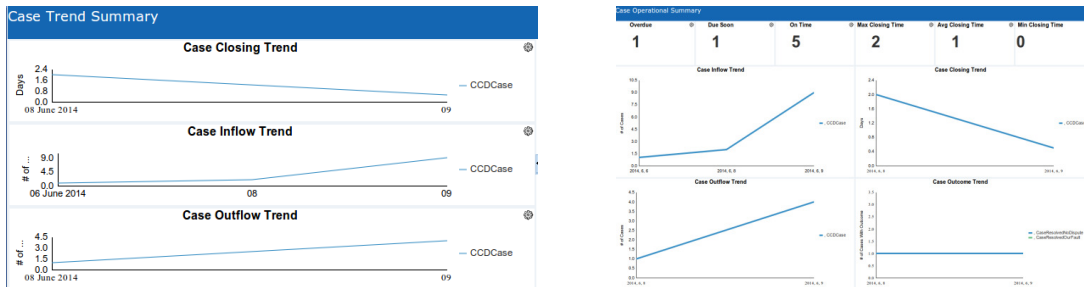






Figure 14: Case trend reports



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Hardware and Software, Engineered to Work Together

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