

Oracle® Product Lifecycle Analytics

User Guide

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Preface

Oracle Product Lifecycle Analytics (OPLA) provides business ready analytical applications to enable analysis of data in disparate systems such as Product Lifecycle Management (PLM), Supply Chain Management (SCM), and Customer Relationship Management (CRM).

Audience

This document is intended for OPLA administrators and users.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program web site at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

For more information, see the Oracle Business Intelligence Documentation set and the Oracle Product Lifecycle Analytics Documentation set.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Oracle Product Lifecycle Analytics Overview

Oracle Product Lifecycle Analytics (OPLA) allows you to do the following:

1. Analyze business data thoroughly from multiple perspectives
2. Assess business impact
3. Take timely decisions
4. Trend analysis - providing you with the ability to:
 - a. Identify costly processes
 - b. Foresee risks
 - c. Monitor product performance
 - d. Discover new business demands

OPLA is built on the Oracle Business Intelligence Enterprise Edition (OBIEE) application. OBIEE provides interactive Dashboards and Subject Areas that allow you to:

- View Key Performance Indicators (KPIs).
- Spot trends using reports and metrics.
- Determine the current state of product quality.

Features

The key features of OPLA include the following:

- A library of prebuilt reports, dashboards, dashboard prompts, and filters that present data in interactive charts, graphs, and grids.
- Access to specific objects such as subject areas, dashboards and reports, as per role-based security.
- Ad-hoc query analysis.

OPLA Source Systems

OPLA provides you with the ability to use different source systems. Data is transferred from source systems to the OPLA analytical data store. The transactional data sources are either Agile 9.x or Agile PLM for Process.

While the OPLA foundation is common for the source systems, the analytics available are different. In the OPLA User Guide, the items that are specific to the Agile 9.x (**Agile Product Lifecycle Management**) source system or to the Agile PLM for Process source system are identified accordingly.

Common OPLA Acronyms

A list of acronyms used in this document is provided here for your reference:

Acronym	Expansion
BI	Business Intelligence
ECO	Engineering Change Order
ETL	Extract-Transform-Load
MDS	Multi-Dimensional Schema
OBIEE	Oracle Business Intelligence Enterprise Edition
ODI	Oracle Data Integrator
OPLA	Oracle Product Lifecycle Analytics
PLM	Product Lifecycle Management

Common OPLA Terminology

Dashboards	A Dashboard is an object that provides personalized views of corporate and external information. A dashboard consists of one or more pages. Pages can display anything that you can access or open with a Web browser, such as results of analyzes, images, alerts from agents, and so on.
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Subject Areas	<p>Oracle Business Intelligence presents data in subject areas.</p> <p>A Subject Area is a group of logical tables and logical columns that represent information about the areas of your organization's business or about groups of users within your organization. These are termed as Measures and Dimensions. These columns help analyze specific business processes. OPLA provides subject areas that map to corresponding classes in PLM application.</p> <p>For example, the Customer Complaints subject area consists of all the measures and dimensions that are required to analyze the customer complaints in your organization.</p> <p>In the OPLA application, when you click the Answers link, the OBIEE Answers page appears with a list of subject areas in the Workspace. Click a subject area to view the measures and dimensions on the left pane of the Workspace. Users with appropriate access permissions can drag and drop measures and dimensions into the Workspace to create reports.</p> <p>For more information on creating reports and using the features of Oracle Answers, see <i>OBIEE User Guide</i>.</p>
Dimensions	<p>Dimensions represent the alignment of logical columns (attributes) into different logical dimension tables (entities) that are involved in identifying the details of business process transactions. Examples of dimensions are Time periods, Product lines, Customers, and Suppliers.</p>
Measures	<p>Measures refer to the calculated data or the factual data about the business process with respect to key business entities. For example, in a given time period, the factual data related to customer complaints for a product line gives a better insight into the problems encountered and the solution provided to customers.</p>

Filters and Prompts	<p>Filters are built into requests and are used to limit the results that appear on a dashboard. A report that appears on a dashboard shows only those results that match the filter criteria. Filters are applied on a column-level basis. Certain filters inherit the values that the users specify in dashboard prompts.</p> <p>A prompt facilitates an individual to pass the value to the filters present in built-in reports. Prompts at a page level apply to all the Trend reports, or Time series reports in the dashboard. Report specific prompts, like the CAPA type, help to further drill-down the time series analysis that is based on page level prompts.</p> <p>See <i>Oracle Business Intelligence Answers, Delivers, and Interactive Dashboards User Guide</i>, 'Filtering Requests in Oracle BI Answers' for further information.</p>
Folders	<p>Folders are organizational constructs that hold content saved in the presentation catalog, such as requests created with Oracle BI Answers. A Folder is similar to a UNIX directory or a Microsoft Windows folder.</p>
Guided Navigation	<p>These are links to navigate to the transaction processing application, another dashboard, or a URL. This link can be set up to appear conditionally, based on the results of a report or Key Performance Indicator.</p>
Key Performance Indicator (KPI)	<p>KPIs are key metrics that provide statistics on both the desired and the actual performance of business processes critical to the success of the organization.</p> <p>Example: Current month performance in terms of Complaints Cycle time compared to last 12 months.</p>
Requests (Reports)	<p>Requests are the building blocks of Business Intelligence dashboards. These requests are created using Oracle BI Answers to retrieve and display an organization's data. Data can be displayed in a variety of graphical formats. Links can be established in the chart or table of a report to launch another report and to offer guided analysis.</p>
Star Schema	<p>Star Schema is a relational database schema which contains a fact table associated with a series of multi-dimensional tables.</p>

About This Guide

The *Oracle Product Lifecycle Analytics User Guide* helps you to understand the scope and usage of OPLA applications.

This user guide outlines the following:

- Delivered prebuilt dashboards
- Reports
- Subject areas
- Security setup for OPLA

Oracle recommends that you read the documentation on *Oracle Business Intelligence Enterprise Edition*, for information on the underlying architecture. This information is available on the Oracle Technology

Website <http://www.oracle.com/technology/index.html>.

Audience

The Oracle Product Lifecycle Analytics User Guide is aimed at the implementation and functional experts who add, modify, or delete reports in the Oracle Business Intelligence Enterprise Edition (OBIEE) Interactive Dashboards.

Related Documentation

For a better understanding of the OPLA solution, please refer to the following documents on the Oracle Technology Network (OTN) Web site <http://www.oracle.com/technetwork/documentation/agile-085940.html>:

- Agile PLM for Process
- Oracle Business Intelligence Enterprise Edition (OBIEE)

OBIEE Documentation

Go to the Oracle Technology

Network <http://www.oracle.com/technology/index.html> website for more information on OBIEE and for more information on the following OBIEE component applications:

1. **Oracle Business Intelligence Enterprise Edition (OBIEE)** - OBIEE is the foundation for the OPLA application. OBIEE is a comprehensive suite of enterprise business intelligence products that contain the programs, servers, and tools to support broad self-service access across the organization.
2. **Oracle Business Intelligence Answers (Oracle BI Answers)** - Oracle BI Answers are components within the Oracle BI Enterprise Edition that provide answers to quantitative and analytical queries related to business processes. You can use Oracle BI Answers to create ad-hoc queries into an organization's data.

This interface allows OPLA users with the appropriate permissions to build and modify Reports or Requests that enable OPLA users to:

- Explore and interact with information
- Present and visualize information using charts, pivot tables, and reports

Requests can be saved in the form of reports which can be shared, modified, formatted, or embedded in a dashboard.

3. **Oracle Business Intelligence Delivers (Oracle BI Delivers)** - Oracle BI Delivers is the interface used to create Oracle Business Intelligence Alerts based on analytics results. This is a proactive intelligence solution that enables monitoring of business activities. Results specific to out-of-tolerance situations can be detected within reports. The subscribers and target owners can be notified immediately through Web, Wireless, and Mobile communication channels.

4. **Oracle Business Intelligence Interactive Dashboards (Oracle BI Interactive Dashboards)** - Oracle Business Intelligence Interactive Dashboards provide access points for analytics information. When an OPLA user accesses Oracle BI, the user's default dashboard appears. Dashboards display reports that contain content specific to the needs of individual OPLA users or groups. You can merge the historical and current data sources into a single dashboard. PLM BI users with the appropriate permissions can place results from Oracle BI Answers into dashboards for use by OPLA users.
5. **Oracle Business Intelligence Presentation Catalog (Oracle BI Presentation Catalog)** - The Oracle BI Presentation Catalog stores content created with Oracle BI Answers and Oracle BI Interactive Dashboards. Content can be organized into folders that are either 'Shared' or 'Personal'. Types of content that can be stored in the Presentation Catalog include Requests created with Oracle BI Answers, HTML content, links to other images, documents, and sites.

Oracle Product Lifecycle Analytics Documentation

- Oracle Product Lifecycle Analytics Readme
- Oracle Product Lifecycle Analytics Install and Setup Guide
- Oracle Product Lifecycle Analytics User Guide
- Oracle Product Lifecycle Analytics Data Reference Manual
- Oracle Product Lifecycle Analytics Configurator and Data Mapping Guide

What's New in OPLA Release 3.5

OPLA Release 3.5 introduces the following new features and enhancements.

- Certification for Agile PLM 9.3.5
- Certification for Agile PLM for Process 6.2
- Operational Schema enhancements
- Certification for ODI 11.1.1.9.0
- Certification for OBIEE 11.1.1.9.0
- Performance improvements for Datamart and MDS full loads for Agile PLM (A9) only
- Module selection for Agile PLM (A9) for Operational Data Schema loads.

OPLA for Agile PLM

OPLA provides dashboards and reports using analysis areas created on Agile Product Lifecycle Management (Agile PLM) data. These dashboards are classified into the following groups:

- Product changes
- Product engineering
- Product quality
- Product portfolio

Agile Product Lifecycle Management Acronyms

The table below lists the acronyms used in this chapter.

Acronym	Expansion
AML	Approved Manufacturers List
BI	Business Intelligence
CAPA	Corrective and Preventive Action
DM	Data Mart
ECO	Engineering Change Order
ECR	Engineering Change Request
ETL	Extract-Transform-Load
MCO	Manufacturing Change Order
MDS	Multi-Dimensional Schema
MTBC	Mean Time Between Cycles
MTBF	Mean Time Between Failures
NCR	Non-Conformance Report
OBIEE	Oracle Business Intelligence Enterprise Edition
ODI	Oracle Data Integrator
PLM	Product Lifecycle Management
PLM BI	Product Lifecycle Management Business Intelligence

Acronym	Expansion
PLM DM	Product Lifecycle Management Data Mart
PPM	Product Portfolio Management
PQM	Product Quality Management
PR	Problem Report
SS	Stop Ship
WBS	Work Breakdown Structure

Agile Product Lifecycle Management Dashboards

There are two types of dashboards available for Agile Product Lifecycle Management (Agile PLM) in OPLA:

1. Functional dashboards
2. Role-based dashboards

Functional	Role Based (Samples)
Customer Complaints	Quality Executive
Non-Conformances	Quality Manager
CAPA	Quality Analyst
Audits	Change Analyst
Change Orders	Component Engineer
Manufacturer Orders	Component Manager
Product Portfolio	Commodity Manager
Configuration Manager	
VP Engineering	

Agile Product Lifecycle Management Dashboard Content

The table below describes all the standard dashboard pages.

Dashboard	Description	Prompt	Example Pages	Example Reports
Customer Complaints	Provides comprehensive and actionable insight into various aspects of Customer Complaints - trends, Open/Overdue volumes, and Cycle time and Failure modes.	Complaints Type, Calendar Year	Complaint Trends, Overdue Complaints	Top 10 product lines based on closed complaints, Overdue complaints by Aging

Dashboard	Description	Prompt	Example Pages	Example Reports
Non-Conformance Reports	Provides comprehensive and actionable insight into various aspects of NCR's - trends, open/overdue volumes, cycle time and failure modes.	NCR Type, Calendar Year	Overview - NCR, Item NCR	Failure Mode Pareto Analysis, NCR Affected Items by Trend
Corrective and Preventive Actions	Provides comprehensive and actionable insight into various aspects of CAPA - trends, open CAPA and cycle time.	CAPA Type, Calendar Year	CAPA Trends, Cycle Time	Closed CAPA by Dimensions, Open CAPA Status Cycle Time by Dimensions
Audits	Provides comprehensive and actionable insight into Audits- trends, open audits and cycle time.	Audit Type, Calendar Year	Audit Trends, Open Audits	Audit Cumulative Trends, Top 5 Suppliers based on Open Audits
Change Analyst	Enables you to track submitted changes and pending approvals	Change Analyst, Quarter	Submitted Issues, Change Documents	Open Change Orders by Status, Documents on Pending Change Orders
Change Orders	Provides the ability to analyze volume, cycle time and trends of Change Orders. It also provides the ability to analyze the trends and reasons for Change Requests and Stop Ships.	Year, Quarter, Change Order Type	Open Change Orders, Item Changes	Open Change Orders Aging by Dimensions, Parts undergoing change by Part Type
Configuration Manager	Enables you to manage the Change Order process with the ability to measure Cycle time and Volume. The analysis help you to identify issues related to process.	Quarter, Preliminary, Year, Quarter, Product Lines	Team Effectiveness, Process Effectiveness	Change Orders Aging by Change Analyst, Number of Closed Change Orders by Workflow Type

Dashboard	Description	Prompt	Example Pages	Example Reports
Manufacturer Orders	Manufacturer Order functional dashboard provides the ability to analyze volume, cycle time and trends of Manufacturer Orders.	Year, Quarter, Month, Mfr Change Type	Mfr Order Trends, Open Mfr Orders, Cycle Time, Item Mfr Order	Open Manufacturer Change Orders by Dimensions, Changes Cumulative Trends
Quality Executive	Provides Quality Executive with comprehensive and high-level view of complaint trends, failure modes and product line performance.	Year and Item Product Line, Calendar Year	Failure Mode, Product Line Performance	NCR Affected Items by Failure Mode, Closed CAPA Volume and Cycle Time
Quality Manager	Provides comprehensive visibility into all aspects of quality in one or more product lines.	Year and Product line, Year Quarter Month	Product Line Performance, Supplier Performance	Complaints Trend and Cycle Time, NCR Trend by Supplier
Quality Analyst	Enables analysts to track and manage open complaints, NCR and CAPA.	Not Applicable	Submitted Issues, Open Issues	Open Complaints by Status, Open NCRs by Days Open
Component Engineer	Enables you to track progress of newly created parts and sign-off progress on Manufacturer Change Orders.	Mfr Part Creator, Item Creator, Manufacturer (AML), Manufacturer, Year, Quarter	NPI Manufacturer	Manufacturer part without Item, Top 10 Manufacturers based on AML count by Mfr part preference status
Component Manager	Helps track key Part risks such as AML (Approved Manufacturer List) risk, Manufacturer Part Risk, and Part risk. It also helps Component Manager track newly created parts and their associated risks.	Year, Quarter, Product Lines, and Part family	NPI, Team Effectiveness	New Mfr Parts and Risk coverage by Part Family, Mfr Part Risk Effectiveness

Dashboard	Description	Prompt	Example Pages	Example Reports
Commodity Manager	Enables you to track Manufacturer and Manufacturer Parts being considered for New Product development. It helps in early visibility of risks associated with new products.	Year, Quarter, Commodity, Product Lines	NPI, Commodity Analysis	Top Ten Commodities by Part Count, Top N Manufacturers based on AML Split
VP Engineering	Provides ability to monitor Product design, quality and risk information. It also helps evaluate effectiveness of Product lines along key parameters such as mean time between changes and design KPI.	Year, Product Lines	NPI, Product Line Performance	Products with Pending Change, Design Effectiveness and Product Risk
Product Portfolio	This dashboard provides the ability to track progress and measure performance of a product portfolio. It has reports that assist in Strategic and Tactical portfolio management. It also provides details about Deliverables in the Project	Portfolio Name, Project State, Project Name, Product Line, Project Region, Project Type, Project Division, Program Name, Portfolio Name, Project Launch Year, Project Customer, Phase Type, Phase Name, Gate Type, Gate Name, Tasks, Task Owner Resource Pool	Projects, Portfolio, Phases and Gates, Deliverables	Top 5 projects with most schedule changes, Task Completion Rate, Current Phase Performance based on Cost Variance, Upcoming Gate reviews, Project Portfolio by Time and Deliverable Drill Down Report
Product Management	This dashboard provides ability to use external data templates (.csv files) to populate and modify reports related to product management process.	Product Lines	Product Management	Late Projects by Product line & Scheduled launch date, Product Revenue - Plan vs. Actual

Agile Product Lifecycle Management Key Performance Indicators

The table below lists the standard Key Performance Indicators (KPI) in the OPLA application.

KPI	Description	Page
Percentage Open Variance	Indicates the variance between the expected and actual number of 'Open' items in Complaints, Audits, NCRs, CAPA, Change Orders, Change Analyst, Configuration Manager, and Manufacturing Orders dashboards.	Overview page in all functional dashboards
Percentage New Variance	Indicates the variance between the expected and actual number of 'New' items in Complaints, Audits, NCRs, CAPA, Change Orders, Change Analyst, Configuration Manager, and Manufacturing Orders dashboards.	Overview page in all functional dashboards
Cycle Time Variance	Indicates the variance between the expected and actual Cycle Time for items in Complaints, Audits, NCRs, CAPA, Change Orders, Change Analyst, Configuration Manager, and Manufacturing Orders dashboards.	Overview page in all functional dashboards
KPI - Projects	Indicates the number of projects as on date for the current year and the past year	Portfolio Page
KPI - Average Project Duration	Indicates the average project duration for the current year and the past year	Portfolio Page
KPI - Projects Under Execution	Indicates the number of projects that are work in progress for the current year	Portfolio Page
KPI - Number of Projects Estimated late	Indicates the number of projects that have been estimated late	Portfolio Page
KPI - Number of Projects completed to date	Indicates the number of projects completed as on date	Portfolio Page
KPI - Number of Projects completed late	Indicates the number of projects that were completed late.	Portfolio Page

Number of Projects estimated	Number of Projects that have exceeded the budget, effort and schedule	Project Page
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Guided Navigation

Guided Navigation directs you through the results obtained from Oracle BI Answers and helps provide insight into business issues, so that you can take appropriate actions. When based on common scenarios and best practices for your industry or organization, Guided Navigation allows you to see and analyze related issues by navigating to a related set of results, another dashboard, or a URL. Guided Navigation is specified using the Dashboard Editor.

The functional dashboards contain a Guided Navigation section that appears conditionally based on certain Key Performance Indicators (KPIs). When the system detects that one of these KPIs has reached its predefined threshold, a link appears in the Guided Navigation section to guide you to a Summary report for further investigation.

The table below lists sample guided navigations, threshold descriptions, and navigation target pages for the navigations that are delivered with the OPLA application.

Guided Navigation Link Name	Dashboard	Page	Condition	Navigation
Overdue Complaints	Customer Complaints	Overview	("- Volume Measures". "# of Overdue Complaints - Not Released" / "- Volume Measures". "# of Open Complaints - Not Released") * 100 > 75	Customer Complaints --> Overdue Complaints Page
Open Complaints without Expected Resolution Date	Customer Complaints	Open Complaints	# of Open Complaints - without expected resolution date returns data	Open Complaints without Expected Resolution Date
Guided Nav Link 1	Quality Executive	Overview	Open Complaints are 10 % above last 12 month average	Open Complaints by Product Lines
Guided Nav Link 1	Quality Executive	Overview	New NCR last month are 10 % higher than the 12 month average	Open NCRs by Product Lines
Guided Nav Link 1	Quality Executive	Overview	CAPA cycle time is 10 % higher than the 12 month average	Closed CAPA Cycle Time by Product Lines
Guided Nav Link 1	Quality Executive	Overview	No Audits were conducted in last 6 months.	New Audits by Product Lines
Change Requests & Stop ships	Change Orders	Overview	Number of Open Change Requests and Stop Ships is greater than 90 days	Change Requests & Stop ships

Elapsed Duration exceeds 75% of Scheduled Duration	Product Portfolio	Phases and Gates	Days elapsed exceeds 75%. Scheduled duration is greater than 1, and Phase Status Type is not equal to or is not in 'Complete' state.	Elapsed duration exceeds 75% of Sch duration
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Agile Product Lifecycle Management Analysis and Subject Areas

The OPLA application supports a number of subject areas. Based on analysis focus the subject areas are grouped into the following analysis areas:

- Product Risk
- Product Change
- Product Quality
- Product Portfolio

The Project Dimension

The dimension **Project** is found in the following subject areas:

- Product Change
- Product Quality
- Product Risk

By using the **Project** dimension the process owner can focus on processes impacting projects. For example, if you are a change analyst, you can identify the change orders that impact projects, and the name of the impacted project, enabling you to get them completed on time. The **Project** dimension helps you to answer such questions as:

- What is the cycle time of change orders associated with my project?
- How many items associated with the project have quality issues?

Product Risk Analysis Area

Product Risk analysis allows you to minimize risk on new products by helping to identify parts with risks.

For example:

- Identify parts that have fewer manufacturer parts associated to them
- Identify inactive manufacturer parts
- Identify parts with no published prices
- Identify parts with quality issues
- Identify parts with compliance issues

Product Risk analysis has four subject areas. Each subject area contains specific measures and dimensions that are important to risk analysis. The four subject areas associated to **Product Risk** analysis are as follows:

1. Item
2. Item and AML
3. Manufacturer Part

4. Product Performance

Note The subject areas reports can drive the organization's tactical decisions, as it provides analysis pertaining to a specific measure and dimension. Management can use trend reports to understand the change from past trends to current trends, and analyze the impact of this trend change on the business over specific time period.

For more information on the measures available in every subject area, see subject area matrices.

Item Subject Area

The **Item** subject area measures the volume and risk associated with preliminary items and released items. In addition, by taking the item revisions into consideration, it also calculates the age of items on the basis of effectivity dates or released dates. You can analyze the item part risk by important **Item** dimensions such as lifecycle, product line, and part family.

This subject area contains items that are associated with manufacturer parts *and* those that are not associated with manufacturer parts.

Examples of some of the most common questions answered in this subject area are:

- What percent of items belonging to a specific product line have price data attached to them?
- How many released items have pending changes associated with them?
- What is the yearly item lifecycle age with respect to part category?

When to use this subject area	To analyze part risks
Key Measures	Counts - for example, number of preliminary items Risk measures - for example, % items with manufacturer part and item age
Key Dimensions	Part Family Lifecycle Product Lines Supplier Creator Project Name Project

Item and AML Subject Area

The **Item and AML** subject area helps to identify the manufacturer or manufacturer part risk on a part or a product line. For example:

1. To avoid downstream supply chain issues, you can determine the minimum number of manufacturer parts per item.
2. You can analyze the impact of a manufacturer on a product line.
3. You can monitor parts impacted by obsolescence

This subject area considers only those items associated with manufacturer parts.

Examples of some of the most common questions answered in this subject area are:

- What are the average numbers of parts per item by part family?
- What parts are sole-sourced?
- How many items are at risk due to obsolete parts?

When to use this subject area	To determine the manufacturer or manufacturer part risk on a part or a product line.
Common Measures	#Mfr #Released Items #Mfr Parts Avg Mfr parts per Item Items with one Mfr only
Common Dimensions	Part Family Product Line Item Number Mfr Part Lifecycle Mfr Location Mfr Part Family Mfr Part Lifecycle Phase Mfr Preferred Status Mfr Part Creator

Manufacturer Parts Subject Area

The **Manufacturer Parts** subject area helps you understand the risks associated with manufacturer parts. For example:

1. Lack of price and compliance.
2. You can identify obsolete parts.

This subject area considers *only* manufacturer parts.

Examples of some of the most common questions answered in this subject area are:

- How many manufacturer parts are obsolete by product family?
- By product family, how many manufacturers are we dealing with?
- What are the part families that have the highest number of parts to be qualified?

When to use this subject area	When the subject of analysis is manufacturer or manufacturer parts.
Common Measures	Number of manufacturer parts Number of manufacturers
Common Dimensions	Mfr Part Number Mfr Part family Mfr Lifecycle Phase Project

Product Performance Subject Area

The **Product Performance** subject area contains similar measures & dimensions as described in the Item subject area. In addition, the **Product Performance** subject area consolidates the affected item measures belonging to Product Change (such as # Change order Affected Items, # Change request Affected Items etc.) and Product Quality (such as # Problem Report Affected Items, Non Conformance Affected Items etc.). These measures can be analyzed by limited Product dimensions such as Item, Product line, and Item Type enabling 360 degree views of Product and/or Item.

Examples of some of the most common questions answered in this subject area are

- What Item Product lines have most Quality and Changes?
- What Items have most Quality & Change?

Examples of some of the most common questions answered based on external data are:

- What product lines have high parts per million defects based on unit-sales?
- What part types have high parts per million defects based on units-received?
- What Product Changes need to be delayed to reduce impact on inventory?
- What 'End of life' decisions need to be delayed based on demand?

When to use this subject area	To gain a 360 degree visibility into Products and/or Items.
Common Measures	<p>Counts - Affected Item counts, such as:</p> <ul style="list-style-type: none"> # PR Affected Item # NCR Affected Item # CAPA Affected Item # Audit Affected Item # Change Order Affected Item # Change Requests Affected Item # Mfr Order Affected Item # Stop Ship Affected Item <p>External Template measures:</p> <ul style="list-style-type: none"> Product Planned Revenue Product Actual Revenue Product Planned Demand Product Actual Demand Product Planned Units shipped Product Actual Units shipped Product Planned Units received Product Actual Units received Product Planned Inventory Product Actual Inventory Product Planned Inventory value Product Actual Inventory value

Common Dimensions	Part Type Product Lines
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Product Quality Analysis Area

The **Product Quality** analysis area provides information on trends and cycle times across key quality areas. This area also handles non-conformances issues. **Product Quality** analysis has four subject areas. Each subject area contains specific measures and dimensions that is important to product quality. The four subject areas associated to **Product Quality analysis** are as follows:

1. Customer Complaints
2. NCR
3. CAPA
4. Audits

For more information on the measures available in every subject area, see subject area matrices.

Customer Complaints Subject Area

The **Customer Complaints** subject area allows you to obtain reports on volume, cycle time, severity, status, and aging of customer complaints across product lines. Customer complaints are sourced from Problem Reports created in Agile PLM. Examples of some of the most common questions answered in this subject area are:

- How many complaints were recorded in the last quarter per product line? What is the trend?
- How quickly are complaints getting resolved?
- What is the workflow cycle time between the originate state and released state for customer complaints this week?
- What are the cycle times for each status step? Where are the bottlenecks?

When to use this subject area	When a business has queries about complaints on a given product.
Key Measures	Count of New Open and Closed Complaints Cycle Time of Complaints Aging Analysis in Buckets of Time, such as, 11-20, 21-30 days
Common Dimensions	Customer Supplier Product Lines Severity Status Resolution Project

Non-Conformance Reports Subject Area

Non-Conformance Reports (NCR) subject area allows you to analyze the following:

- Volume
- Cycle Time
- Aging of NCR

Examples of some of the most common questions answered in this subject area are:

1. What are common Non-Conformances?
2. What is the trend in closing NCR?
3. What is the aging of open NCR?
4. How many NCRs are in the various aging buckets?
5. What 20% of failure modes cause 80% of NCR?

When to use this subject area	To answer business questions about NCRs recorded on the product.
Key Measures	Count of new, open and closed NCRs Cycle time of NCRs Aging analysis in buckets of time such as 11-20,21-30 days
Common Dimensions	Customer Supplier Product Lines Severity Status Resolution

Audits Subject Area

The **Audits** subject area allows you to analyze the following items that have taken place in the organization:

- Count
- Turnaround Time
- Aging Of Audits

Examples of some of the most common questions answered in this subject area are:

- How many audits have been conducted this year?
- How many audits did not show any change over the past year?
- What is the average cycle time of an audit?
- What are the major areas of concern based on the audit results?

When to use this subject area	To answer business question about audits conducted on the product or process.
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Key Measures	Count of new, open and closed audits Cycle time of complaints Aging analysis in buckets of time such as 11-20,21-30 days
Key Dimensions	Customer Supplier Product Lines Status Audit Result Project

Corrective and Preventive Actions Subject Area

Corrective and Preventive Actions (CAPA) subject area allows you to analyze the following:

- Volume
- Cycle Time
- Aging of CAPA

Examples of some of the most common questions answered in this subject area are:

1. Which status changes take the longest time?
2. How many CAPAs are overdue?
3. How many CAPAs have resulted in changes?

When to use this subject area	To answer business question is about CAPA.
Common Measures	Count of new, open and closed CAPAs Cycle time of CAPAs Analysis in buckets of time, such as, 11-20, 21-30 days
Common Dimensions	Customer Supplier Product Lines Category Status Project

Item Quality Subject Area

Item Quality subject area allows you to analyze the following:

- Items affected by complaints (supports failure mode and affected item analysis and the quantity affected analysis)
- Items affected by NCR (supports failure mode and affected item analysis and the quantity affected analysis)
- Items affected by CAPA (supports affected items analysis)

- Items affected by audits (supports affected items analysis)

Examples of some of the most common questions answered in this subject area are:

1. How many items in this product line are reported in quality incidents?
2. What are the failure modes?

When to use this subject area	Business question is on the items affected by CAPA, Customer Complaints, NCR and Audits.
Common Measures	Number of affected items with changes Number of failure modes
Common Dimensions	Failure Mode Item Type Item Product Line Item Commodity Item Part Family Project

Product Changes Analysis Area

The **Product Changes** analysis area provides information on trends and cycle times related to the following:

- Change Orders
- Manufacturer Orders
- Engineering Change Requests
- Stop Ships
- Deviations

The **Product Changes** analysis area has five subject areas. The five subject areas associated to **Product Changes** analysis are as follows:

1. Change Orders
2. Change Requests
3. Item Changes
4. Mfr. Change Orders
5. Stop Ships
6. Deviations

For more information on the measures available in every subject area, see subject area matrices.

Change Orders Subject Area

The **Change Orders** subject area allows you to analyze the following:

- Volume of processed Change Orders
- Time taken by Change Orders to move from one stage to the next stage (within a workflow)

- Aging of Change Orders
- Sign-off cycle time by users and user groups assigned for the sign-off responsibility

The **Change Orders** subject area also allows you to measure the count of first time right change orders.

Examples of some of the most common questions answered in this subject area are:

1. Who are the analysts with most open change orders?
2. What are the new change orders by product lines?
3. How many change orders have been rejected in the last quarter?

When to use this subject area	To answer business questions on age, cycle time, volume and sign-off of change orders.
Key Measures	Count of New Change Orders Open Change Orders Cumulative Closed Change Orders Change orders open between 11-20 days First Time Right Closed and Released Change Orders Approvers Modified Bill of Materials
Key Dimensions	Product Line Category Reason for Change Project

Manufacturer Change Orders Subject Area

The **Manufacturer Change Orders** subject area allows you to analyze the following:

- Volume
- Cycle Time
- Aging of Manufacturer Change Orders
- Sign-off Cycle Time by the Sign-off Users

Examples of some of the most common questions answered in this subject area are:

1. What are the open manufacturer change orders per originator?
2. What are the reasons of change that are showing spike this year in comparison with the last year's record?
3. Which categories have the highest cycle time?
4. What was the cycle time for the manufacturer change orders that were closed last quarter?

When to use this subject area	To answer business questions (with regards to manufacturer change orders) on age, cycle time, volume, and sign-off.
Common Measures	Volume Sign-off Cycle time Aging Redline First Time Right
Common Dimensions	Product Line Category Reason for Change Project

Change Requests Subject Area

The **Change Requests** subject area allows you to analyze the following:

- Volume
- Cycle Time
- Aging of Change Requests
- Sign-off Cycle Time by the Sign-off Users

Examples of some of the most common questions answered in this subject area are:

1. What is the current status for open change requests?
2. What was the cycle time for change requests that were closed last quarter?
3. Which change requests have the highest cycle time?

When to use this subject area	To answer business questions (with regards to change requests) on age, cycle time, volume, and sign-off.
Common Measures	Count of New Change Requests Open Change Requests Cumulative Closed Change Requests Change Requests open between 11-20 Days First Time Right Closed Released Change Requests and Approvers Sign-off Cycle Time
Common Dimensions	Product Line Category Reason for Change Project

Stop Ships Subject Area

The **Stop Ships** subject area allows you to analyze the following:

- Volume
- Cycle Time
- Aging of Stop Ships
- Sign-off Cycle Time by the Sign-off Users

Examples of some of the most common questions answered in this subject area are:

1. What is the current status on open stop ships?
2. What is the current trend on stop ships per product line?
3. How many new stop ships occurred this year?

When to use this subject area	To answer business questions (with regards to the stop ship subject area) on Age, Cycle Time, Volume, and Sign-off.
Common Measures	Count of New Stop Ships Open Stop Ships Cumulative Closed Stop Ships Stop Ships open between 11-20 days First Time Right Closed Released Stop Ships and Approvers Sign-off Cycle Time
Common Dimensions	Product Line Category Reason for Change Project

Deviations Subject Area

The **Deviations** subject area allows you to analyze the following:

- Volume (specifically changes in volume by time)
- Cycle Time (notably you can measure cycle times between statuses, and measure cycle times within a status)
- Aging of Deviations across category and reason for change
- Analyze the sign-off cycle time by the sign-off users

Examples of some of the most common questions answered in this subject area are:

1. What are the new deviations by product lines?
2. What is the current status for open deviations?
3. Which deviations have the highest cycle time?
4. What was the cycle time for deviations that were closed last quarter?

When to use this subject area	To answer business questions (with regards to the deviations subject area) on Product, Cycle Time, New Volume, Open Volume and Closed Volume.
Common Measures	Number of new Deviations by month, quarter, or year Percent change of open deviations from this month to last month Number of open deviations that are between 31 to 40 days old Number of deviations that closed within the last 90 days
Common Dimensions	Time Changes Product People Workflow Flags Project

Product Portfolio Analysis Area

The **Product Portfolio** analysis area helps you to manage the following:

- Product pipeline
- Project schedules
- Phase Gate processes
- Prioritize and monitor Project progress and costs
- Identify schedule risks
- Monitor project Cycle Time

The **Product Portfolio** analysis area has five subject areas.

The five subject areas associated to **Product Portfolio** analysis are as follows:

1. Project Summary
2. Phase Gate
3. Project Detail
4. Portfolio Summary
5. Program Summary

For more information on the measures available in every subject area, see subject area matrices.

PLM PPM - Project Summary Subject Area

The **Project Summary** subject area provides you with key metrics to measure project health, phase health, and helps in understanding the impact of baseline over schedule duration.

You can analyze project executions at a macro level by aggregating projects by portfolio and key business dimensions.

For example:

- Product Line
- Region
- Division
- Project Type

The aggregated task measures (such as number of tasks below project) aggregates all tasks. That is, parent tasks and child tasks.

For the definitions of Tasks, see the PPM Analytics - Best Practices section.

Examples of some of the most common questions answered in this subject area are:

1. Which projects in my product line are over schedule, over budget, or require more effort?
2. Which projects/phases are on track to finish this month?
3. Which projects have been baselined the most?
4. How many active projects are there in my portfolio?
5. Which completed projects were the best executed projects?
6. Which projects are scheduled for launch in the next year?

External data templates bring additional information into Project Summary subject area.

External data templates help answer the following questions:

1. What are the launch risks to Top-5 product projects by revenue potential?
2. What Projects are consistently over budget?

These measures qualify only with limited dimensions and the same is described in the Appendix.

When to use this subject area	When you need to understand project execution at a macro level.
Key Measures	Count of projects begun or finished this year Count of projects that are over budget, over schedule, or requires too much effort Count of off-track tasks in a project Average project schedule or actual project durations Average duration variances Cost and effort variances External data template: Project Forecast Revenue Project Actual Revenue Project Planned Total Cost Project Actual Total Cost

Common Dimensions	Product Line Region Division Project Type Customer Portfolio Program Project Phase and Gate
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PLM PPM - Phase Gate Subject Area

The **Phase Gate** subject area allows you to analyze projects in terms of their performance at the decision gates. In addition, you can determine the following:

- Which decision gate the project is at
- The number of deliverables holding up the project before it can reach the next phase
- Trends of business assumption projections that were made at the project approval stage (may require additional configuration or customization)

Examples of some of the most common questions answered in this subject area are:

1. What is the distribution of active projects by decision gate?
2. What projects are in the launch gate? How many tasks are still pending?
3. The number of decision gates that are behind schedule.
4. Which decision gates are the ones that are delayed the most?

When to use this subject area	When you need to analyze project performance with decision gate performance
Common Measures	Count of gates Count of delayed gates Gate schedule variance days Project cost remaining Number of tasks remaining on a particular phase Scheduled duration days to Decision Gate Actual duration days to Decision Gate Gate Cycle Time (pending exit date to complete entry date)

Common Dimensions	Project-product Line Region Division Project Type Customer Portfolio Program Project Phase and Gate
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PLM PPM - Project Detail Subject Area

The **Project Detail** subject area helps you gain detailed visibility into tasks associated with your projects.

Use this subject area to identify the following:

- Completed tasks
- Tasks that did not start on time
- Tasks estimated for late completion
- Delayed Gates (not just Decision Gates)

Examples of some of the most common questions answered in this subject area are:

1. Which tasks are running behind schedule?
2. Who are the task owners with the most number of delayed tasks?
3. Which tasks are scheduled to begin and which tasks are scheduled to finish in the next two weeks?

When to use this subject area	To analyze the project at a task level.
Key Measures	Activity Duration Gate Duration Activities Cost Gate Cost Number of Deliverables Gates # Deliverables on Activities Scheduled Date Variance Days Over First Snapshot Estimated Date Variance Days Over First Snapshot

Key Dimensions	Product Line
	Region
	Division
	Project Type
	Customer
	Portfolio
	Program
	Project
	Phase
	Gates
	Activities

PLM PPM - Portfolio Summary Subject Area

The **Portfolio Summary** subject area allows you to compare the budget that was set at the portfolio level with the actual total costs from all the projects in the portfolio.

For information on how to set up the domain values to enable portfolio, see *Oracle Product Lifecycle Analytics Data Mapping and Configurator Guide*.

When to use this subject area	To analyze portfolio
Key Measures	Number of portfolios
	Portfolio cost variance
Key Dimensions	Portfolio
	Scheduled start date and end date
	Item name
	Program health

PLM PPM - Program Summary Subject Area

Program Summary subject area can be used to analyze Programs.

The metrics available in this subject area help to compare the Budget set at a Program level with summation of Actual costs from Projects that belong to this Program.

For information on setting up domain values to enable portfolio, see *Oracle Product Lifecycle Analytics Data Mapping and Configurator Guide*.

When to use this subject area	To analyze programs.
Key Measures	Number of programs
	Program End Date Variance
	Program Total and Actual Cost

Key Dimensions	Program Scheduled Start Date and End Date Item Name Program Health Note Cannot analyze the Program Summary subject area using the portfolio dimension
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Additional Notes on Item and AML Subject Area and Product Performance Subject Area

It is important to understand the following common scenarios that form the basis of most of the Item, Mfr, and Item and AML reports.

Scenario One

When using Item and AML subject area, we recommend that you create Reports for the Global Items with latest effective revision that are not obsolete. Lifecycle can be used as a dimension, but when there is more than one lifecycle per revision, some aggregation of data may not be valid. Average of data may provide correct results in these use cases.

Use the out of the box filter, 'filter-latest item revisions' to create reports that filter only the latest revision of the Item.

The query used in the filter is as given below:

Site is equal to / is in Global

AND Change Class Type is equal to / is in Change Orders, Manufacturer Orders

AND Is Latest Rev is equal to / is in YES

AND Lifecycle is not equal to / is not in Obsolete

AND REV is not null

OR REV is not equal to / is not in Introductory

Recommended Dimension

For simplified interpretation, we recommend you to use dimension and measure combinations from same dimension/measure group. For example, Item dimensions with Item measures.

For other combinations, interpretations may be necessary. The contexts within each measure provide explanation as required.

Use Item Number, Rev, Site to get a detailed report by Item and revision. Use Item Number, Lifecycle to get a detailed report of Items by lifecycle.

Scenario Two

Some measures are appropriate for creating reports and analyzing the trend over time. For example, AML split distribution in the past vs. present. In such situations, all versions of the Item need to be included with the Time dimension. Even obsolete items need to be included to get the correct analysis.

Use the out of the box filter, 'filter-all item revisions' to create reports for all revisions of the Item.

The query used in the filter is as given below:

Site is equal to / is in Global

AND Change Class Type is equal to / is in Change Orders, Manufacturer Orders

AND REV is not null

OR REV is not equal to / is not in Introductory

Inclusion of this filter does not automatically consider count of every revision of the item. For example, if there are two items with three released revisions each, the result for # Items released displays 2. When you combine the # Items released with Item number and revision, all revisions of every item are counted.

Time dimension is not valid with measures, such as Item Age within Item Subject Area, and measures where aggregation is by averaging data.

Lifecycle can be used as a dimension, but when there is more than one lifecycle per revision, some aggregation of data may not be valid. Summation of data gives correct result.

Recommended Filters

Site = Global;

Class Type = Change Orders, Manufacturer Orders;

Rev not equal to 'Introductory' or not equal to NULL;

Recommended Dimension

Time

Use Item Number, Rev, Site to get a detailed report by Item and revision

Use Item Number, Lifecycle to get a detailed report of Items by lifecycle.

You can also filter the detailed report by a specific item number, to view the trend of items over revision or lifecycle.

Caution: Do not use the recommended filters and dimensions with the following measures: # Item with Pending Changes # Items (Prelim) # Items (All)

OPLA provides revision specific information for few measures and dimensions.

Example: Description and AML. Calculations specific to the remaining Measures and Dimensions use the data specific to the latest revisions for all revisions.

PPM Analytics - Best Practices

We recommend using certain best practice templates to organize your projects so that the OPLA analytical reports on these projects give accurate results.

General Project, Phase, and Gate Hierarchy

You need to identify and configure the Phase sub class to a Phase domain value in the OPLA Configurator.

On the basis of this configuration, OPLA makes the following assumptions:

- Project is identified to be one level above Phase
- Tasks are activities that are one or more levels below Phase

In addition, you need to identify and configure the Decision Gates using the OPLA Configurator. These configurations along with usage of best practice templates shown below are required for OPLA to provide the right information in the analysis areas.

Template 1: Gate is at the same level as the Phase	Template 2: Gate is within a Phase
Project 1 ■ Phase 1 Task 1.1 Task 1.1.1 Task 1.1.2 Task 1.2 ■ Gate 1 ■ Phase 2 Task 2.1 Task 2.2 ■ Gate 2 ■ Phase N Task n.1 Task n.2 Task n.n ■ Gate N	Project 1 ■ Phase 1 Task 1.1 Task 1.1.1 Task 1.1.2 Task 1.2 Gate 1 ■ Phase 2 Task 2.1 Task 2.2 Gate 2 ■ Phase N Task n.1 Task n.2 Gate n

For more detailed metrics on Phases, you can split Phase subclasses into Phase 0, 1, 2, and so on.

While it is possible to look at a flat list of all Tasks below the Phase, OPLA does not maintain or display a tree of tasks. For example, in the above template, it is possible to get Tasks under Phase 1 such as Task 1.1, 1.1.1 & 1.1.2 but it is not possible to get a list of Tasks under Task 1.1.

OPLA does not support a Phase subclass under another Phase subclass.

Portfolio and Programs

OPLA supports Portfolio and Program analysis. The information that is provided in these areas is dependent on the following:

- Domain value configuration of Portfolio and Program in the OPLA Configurator
- Usage of PLM Reference number in Agile Product Lifecycle Management (Agile PLM) Product Portfolio Management

Usage of PLM Reference Number in Agile Product Lifecycle Management PPM

PLM Reference number is available from Agile 9.3 version onwards. If you are a 9.2.2.x customer, use a Defined field instead of PLM Reference number.

Association between Portfolio, Project, and Program for Agile PLM 9.3

Use PLM Reference Number on:

- Portfolio to refer to one or more projects or programs or both. You cannot use PLM Reference Number on Portfolio to refer to other Portfolios.
- Program to refer to one or more Projects. You cannot use PLM Reference Number on Programs to refer to other Programs.
- Project to refer to Items. Reference to any other object will be ignored by OPLA.

Portfolio and Program referred to above are the subclasses configured as Domain Values in OPLA Configurator.

Association between Portfolio, Program, and Project for 9.2.2.x

User Defined fields (P2/P3) on:

- Portfolio to associate with one or more programs, projects or both. You cannot use the Defined field on Portfolio to refer to other Portfolio.
- Program to associate with one or more projects. You cannot use the Defined field on Program to refer to other programs.
- Project to refer to Items. Agile OPLA does not consider references to any other object.

PPM has category fields. In OPLA, these fields are assumed to be associated with the project and exposed as Project dimensional attributes.

Use these fields to capture information regarding the projects. If these fields are associated with Phases or Tasks, they can be analyzed using the Project Detail Subject Area.

Portfolio and Programs

- Portfolio is a collection of projects.
- Portfolio cannot be aggregated as a collection of programs.
- Program can be aggregated as a collection of projects.
- All projects in programs associated with portfolio are treated as belonging to a portfolio.

Projects

Agile Product Lifecycle Management (Agile PLM) PPM has fields on cover page known as Category fields. These fields can be used as dimensions on Project. In addition they can be used as Dimensions on Activities only in Project Detail subject area.

OPLA for Agile PLM for Process

Agile PLM for Process Acronyms

A list of acronyms used in this document is provided here for your reference:

Acronym	Expansion
GSM	PLM for Process Global Specification Management
NPD	PLM for Process New Product Development
NPDI	New product development and innovation
ISP	PLM for Process New Product Development Innovation Sales Pipeline
BU	PLM for Process Business Unit

Agile PLM for Process Dashboards

The following are the types of dashboards available in the OPLA application for Agile PLM for Process:

- Functional Dashboards - Agile PLM for Process

Agile PLM for Process Dashboard Content

Dashboard	Description	Example Prompts	Example Pages	Example Reports
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Projects	This dashboard provides visibility into the design process. It is useful for managing strategic initiatives and tactical issues related to projects. Information is presented for projects, stages, gates, activities and can be filtered to display portfolios of projects.	Business Unit, Project Type, Project Visibility, Owner, Team Leaders, Global Categories, Brands, Demographics, Channels, Lead Countries, Enabling Technology, Consumer Value Perception, Project Name, Project Number, Current Stage, Planned In-Market Launch Year	Portfolio, Execution, Cycle Time, Detail	Active Projects by Stage, Project Distribution, In-Market Launch Next 3 Months, Project Cycle Time, Stage Cycle Time, Activity Cycle Time By Activity Template Name, Top 10 Highest Cost Active Projects, Top 10 Highest Revenue Projects - Last 12 Months
Specifications	The Specification dashboard summarizes information regarding GSM specifications. The information is useful for presenting and analyzing scenarios related to specification counts, workflow cycle time, and the impact of specification ownership.	Business Unit, Category / Sub-category / Group, Workflow Name, Specification Type	Cycle Time	BU Cycle Time By Spec Type, Cycle Time By Workflow Template, Active Specification Duration By BU, # of New Specifications By BU

Agile PLM for Process Key Performance Indicators

The table below lists the Key Performance Indicators (KPI) in the OPLA application.

KPI	Description	Page
# Projects Started This Year - To Date	A count of the number of projects where the initial stage Actual Start Date is equal to the current year.	Portfolio
# Projects Launched This Year - To Date	A count of the number of projects where the In-Market Launch Actual Start Date year is equal to the current year.	Portfolio

KPI	Description	Page
# Projects Started Last Year	A count of the number of projects where the initial stage Actual Start Date is equal to the year prior to the current year.	Portfolio
# Projects Launched Last Year	A count of the number of projects where the In-Market Launch Actual Start Date year is equal to the year prior to the current year.	Portfolio
% Time to Market Change Over Last Year	A percent variance of the project duration comparing the current year to the prior year.	Portfolio
Project Late	A count of active projects where the current date is greater than the Planned In-Market Launch Date and the Actual In-Market Launch Date is not populated.	Execution
Phases Late	A count of active projects where the current date is greater than the Stage's Planned End Date and the stage is considered active.	Execution
Gates Late	A count of the number of late gates in the project.	Execution
Activities Late	A count of Activities where the current date is greater than the Planned End Date and the activity is still considered active.	Execution
Activity Status - Red	A count of Activities where the SLA indicator is marked "Red".	Execution Project Detail
Activity Status - Amber	A count of Activities where the SLA indicator is marked "Amber" or yellow.	Execution Project Detail
Completed Projects On Time	A count of the project where the Stage 5 Actual End Date is less than or equal to the Stage 5 Planned End Date.	Project/Cycle Time
Completed Projects Late	A count of the project where the Stage 5 Actual End Date is greater than the Stage 5 Planned End Date.	Project/Cycle Time
Completed Phases On Time	A count of the project stages where the stage Actual End Date is less than or equal to the stage Planned End Date.	Project/Cycle Time
Completed Phases Late	A count of the project stages where the stage Actual End Date is greater than the stage Planned End Date.	Project/Cycle Time

KPI	Description	Page
Completed Activities On Time	A count of the project activities where the activity's Actual End Date is less than or equal to the activity's Planned End Date.	Project/Cycle Time
Completed Activities Late	A count of the project activities where the activity's Actual End Date is greater than the activity's Planned End Date.	Project/Cycle Time
Activities Late	A count of active project activities where the activity's Actual End Date is greater than the activity's Planned End Date.	Project Detail
Activity Status - Red	A count of specifications where the SLA indicator is marked "Red".	Specification/Cycle Time
Activity Status - Amber	A count of specifications where the SLA indicator is marked "Amber" or yellow.	Specification/Cycle Time

Agile PLM for Process Subject Areas

OPLA subject areas for Agile PLM for Process helps your organization to monitor & measure processes related to New Product Development & Specifications.

Each subject area contains specific measures and dimensions pertinent to NPD and Specifications. You can create reports by combining the measures and dimensions. These reports assist you in making strategic decisions on various business processes in your organization.

New Product Development

The New Product Development (NPD) subject areas help you manage your active Projects and learn so you can continuously improve your processes - based your outcomes of past projects.

Some benefits of these analysis areas are as follows:

1. Gain Phase Gate visibility into the Project pipeline.
2. Identify Projects that may be behind and take appropriate action before it impacts the business.
3. Facilitate better management and help accelerate time-to-market with improved visibility to project activities.
4. Analyze project and activity workflows to identify bottlenecks in the process.

OPLA provides subject areas that give analysis across NPD. These subject areas are as follows:

- Project Summary
- Project Detail
- Phase Gate

For more information on NPD, see the *Agile Product Lifecycle Management for Process New Product Development User Guide*.

Agile PLM for Process - Project Summary Subject Area

The **Agile PLM for Process - Project Summary** subject area focuses on Project and Phase analysis.

Examples of some of the most common questions answered in this subject area are:

1. How many active Projects are we managing by Business Unit/ Project Type?
2. Which of the high priority Projects are at risk?
3. For a Project, what percent of activities are complete?
4. What Projects are about to be launched?
5. What Projects/Phases are taking longer than planned? What is the variance?
6. What Projects/Phases completed late?
7. By BU/Project Type, what Projects take the longest/shortest cycle time?
8. Is there a time to market improvement compared to last year?
9. How many related Trade & Packaging specifications are associated with this Project?

In addition the external data templates bring in additional information into Project Summary subject area.

The external data templates help answer the following questions:

1. What are the launch risks to Top-5 product projects by revenue potential?
2. What Projects are consistently over budget?

These measures qualify only with limited dimensions and the same is described in the Appendix.

Key Measures	Project Actual and Scheduled Durations # of Projects # of {Specifications} in Project # of Team Members Assigned On Active Phase Phase Actual and Scheduled Duration # of Phases External data templates: Project Forecast Revenue Project Actual Revenue Project Planned Total Cost Project Actual Total Cost
---------------------	--

Key Dimensions	Project Name Current Phase Business Unit Project Type Team Leaders Priority Risk Phase Name Phase Number Strategic Brief Innovation Sales Pipeline (ISP)
-----------------------	--

Warning The # PROJECTS YTD measure only works with the Fiscal Year dimension. The # PROJECTS YTD measure does not work with any other Time dimension. In addition, the # PROJECTS YTD measure does not work with Fiscal Quarter, Fiscal Month, Fiscal Week and Day.

Agile PLM for Process - Phase Gate Subject Area

The **Agile PLM for Process - Phase Gate** subject area provides detailed information about Project gates and time taken to sign-off on the gates.

Examples of some of the most common questions answered in this subject area are:

1. How many gates are currently delayed?
2. What is the actual duration of the gates?
3. What is the variance in actual completion of gate over scheduled date?
4. By Signatory, what is the duration taken to sign-off on the gates?
5. What are the days to red or amber for a gate in a Project?

Key Measures	Phase-gate duration days Gate actual duration # of delayed current gates Gate template days to red Gate template days to amber.
Key Dimensions	Project Name Business Unit Project Type Gate Name Gate Number Gate RAG Status

Agile PLM for Process - Project Detail Subject Area

The **Agile PLM for Process - Project Detail** subject area provides detailed information about Project activities.

Examples of some of the most common questions answered in this subject area are:

1. What activities are behind schedule?
2. What activities are currently in Red or Amber status?
3. What is the actual duration of activities?
4. What activities take the longest?
5. By Business Unit/Project Type, what is the average variance of actual activity durations compared to planned durations?
6. What is the average duration for each of the steps activities?

Key Measures	# of activities that are complete # of incomplete activities that started late # of activities in red, actual activity duration days activity workflow cycle time SLA red SLA amber (yellow)
Key Dimensions	Project Name BU Project Type Activity Name Activity Template Name Step Name Step Owner Functional Area

Agile PLM for Process - Specification Subject Area

The **Agile PLM for Process - Specification** subject area answers questions related to Global Specifications.

Examples of some of the most common questions answered in this subject area are:

1. By specification type, what is the number of specifications?
2. How many specifications are not approved?
3. What is the cycle time of specification from creation to approval dates?
4. What is the cycle time of each of the steps in specification workflow?
5. What specification steps are in red?

Key Measures	# of new specifications specification create to approve cycle time open specifications - in process cycle time specification step cycle time days # specifications with active steps in red
---------------------	---

Key Dimensions	Specification Number
	Business Unit
	Category, Sub-Category, Group
	Workflow Name
	Step Name
	Owner
	Fields related to Specification Types

PLM for Process - Best Practices for Analytics

Important: The custom milestone must be created by selecting an existing activity template. If you create a custom milestone 'textually'. That is by entering the name of custom milestone and not by adding an existing activity template, OPLA will not recognize the custom milestone to be a matching pair, and the Planned Start and End dates are not available.

OPLA requires certain best practices to be followed when using the PLM for process.

Some of these best practices have a higher impact on metrics within the OPLA.

The highly recommended best practices for New Product Development (NPD) are shown in the table below.

Description	Impact on OPLA if this best practice is not followed
Planned Start & End dates for Projects, Phases & Gates Use Project Schedule Activity Type to capture Planned Start & End dates for Projects, Phases & Gates & the In-Market Launch date	OPLA will not be able to compute the Scheduled duration calculations for Projects, Phases & Gates which help you to determine the variance to plan.
Planned Start & End dates for Activities using the custom milestones. Use Custom Milestones to capture the Planned Start & End dates for Activities. The name of the Custom Milestone needs to be identical to the Activity listed in the Activities tab.	OPLA will not be able to compute the Scheduled duration calculations for Activity which help you to determine the activity variance to plan.

Description	Impact on OPLA if this best practice is not followed
<p>Project Templates:</p> <ol style="list-style-type: none"> 1. Setting durations within templates: Use templates to create expected durations for Project, Phase, Gate, and the In-Market launch date. 2. Using a Single template for a Project: In case of a Project with multiple instances of Project Schedule, create each of the instances using the same Project Template. 3. Creating Projects that can be traced back to one single Project Template. <p>Note When the Project Templates are created, avoid creating templates at Project Type hierarchy levels that may result in more than one template being available for a specific hierarchy level.</p>	<ol style="list-style-type: none"> 1. OPLA will not be able to compute the Template durations for Projects & Phases. Which help in comparing the Project /Phase performance against the Template durations. 2. The Project/Phase Template durations will be inaccurate. 3. OPLA will not compute the Project Project Template duration. The Gate days to red & days to amber will not be based on those provided in the Project Template.
<p>Projects with more than one Project Schedule:</p>	<p>The Project Schedule must be in the Complete state, or the last termination step, but not in an Approved step.</p> <p>A Project can have a multiple number of Project Schedules in the Complete state. When this occurs OPLA computes only the scheduled dates for the last completed Project Schedule template.</p>
<p>Multiple instances of an activity being created in different Phases.</p>	<p>Activities are associated with the Phase they were created in.</p>

The highly recommended best practices for Global Specification Management (GSM), are shown in the table below.

Description	Impact on OPLA if this best practice is not followed
<p>To identify the approval step in a specification workflow use the Is Approved tag.</p>	<p>OPLA will not be able to provide, the following:</p> <ul style="list-style-type: none"> Create to approved date cycle time Count of approved Specifications

Dimensions and Measures

For simplified interpretation, we recommend you to use dimension and measure combinations from same dimension/measure group. For example, Project dimensions with Project measures or Phase dimensions with Phase measures. For other combinations, interpretations may be necessary.

Dimensions Library

Dimensions are columns that you want to analyze by, such as 'Complaints by Product Line'. The dimensions represent the organization of logical columns (attributes) that belong to a single logical dimension table. These dimensions are grouped into folders in Oracle Answers. Examples of dimensions are Time, Product lines, Customers, and Suppliers. This section briefly describes some important dimensions.

Time Dimensions

You can use time dimension to limit the results of your query to a specific period of interest.

Time Dimension is categorized into the following groups:

- Calendar Time
- Fiscal Time
- Time Utility

Calendar Time

This group of dimensions follows the Gregorian calendar starting January 1st. The various time buckets available in Calendar Time category are:

- Year
- Quarter
- Month
- Week
- Day

When you use this dimension in combination with a measure in a report, it returns results in the chosen calendar time buckets.

Fiscal Time

This group of dimensions follows the company's Fiscal Calendar. The date is set during the installation.

The various time buckets available in Fiscal Time category are:

- Year
- Quarter
- Month
- Week
- Day

When you use this dimension in combination with a measure in a report, it returns results in the chosen fiscal time buckets.

Time Utility

In analysis, there might be requirements to know the results from time periods such as the last quarter, the current week and rolling 6 months. The Time Utility group of dimensions enables you to obtain results specific to a Current, Previous or Rolling time bucket - Year, Quarter, Month, Week. All calculations that use these time buckets are based on the current date. All reports using Time Utility stay current.

Some of the Time Utility members are:

- Current Month,
- Previous Year
- Rolling 12 months
- Rolling 6 Quarters

Note Rolling time provides results for the last x quarters, months or weeks. By default the time utility members use fiscal calendar.

Changes

This folder contains a list of most commonly used dimensions. You can use Change Number dimension to generate detailed reports on product changes. You can use Complaint number to generate the most granular reports.

People

This folder contains user dimension that helps answer questions pertaining to the user role. For example, you can use People dimensions for questions such as, 'Who is the Originator or Change Analyst on the Product Changes?' The People dimensions also include a Sign-off user and Sign-off group that combine with Sign-off Measures.

Workflow Status Cycle Time

This dimension returns cycle time within a status when used in combination with work flow status cycle time measure.

Total Cycle Time Dimensions

This dimension returns average cycle time between two statuses when combined with workflow total cycle time measure.

This dimension works with workflow cycle time measure only.

Flags

The flags enable you to constrain the queries. For example: Has CAPA flag indicates whether the Change has CAPA related to it or not.

Defined Fields

These Defined fields work only when PLM source attributes are configured to Defined fields in MDS, using Configurator.

Workflow Status Cycle Time Dimensions

This dimension returns cycle time within a status when used in combination with workflow status cycle time measure.

Workflow Total Cycle Time Dimensions

This dimension returns average cycle time between two statuses when combined with Workflow Total cycle time measure.

Affected Items Dimensions

There are Affected Items associated with any complaint (or NCR, CAPA, or Audit). The dimensions which analyze these affected items are termed as Affected Items Dimensions.

The counts from the dimensions may be misleading, especially when one complaint (or NCR, CAPA, or Audit) has more than one Affected Item.

Item Dimensions

Item dimensions consist of categories of dimensions specific to Parts and Documents. These categories contain the attributes which are useful in the Item Analysis. Example dimensions are: Change Class Type, Overall Compliance and Supplier.

Role-playing Dimensions in PPM

In PPM, the measures render results based on the chosen time dimension. The role-playing time dimensions in PPM Analytics are as follows:

Scheduled Start Date

The data in reports using this dimension are based on the Scheduled Start Date of the projects. The value of the Scheduled Duration is computed as the average duration of the projects.

Scheduled End Date

The data in reports using this dimension are based on the Scheduled End Date of the projects. The value of the Scheduled Duration is computed as the average duration of the projects.

Actual Start Date

The data in reports using this dimension are based on the Actual Start Date of the projects. The value of the Scheduled Duration is computed as the average duration of the projects.

Actual End Date

The data in reports using this dimension are based on the Actual End Date of the projects. The value of the Scheduled Duration is computed as the average duration of the projects.

Measures Library

For simplified interpretation, we recommend you to use dimension and measure combinations from same dimension/measure group. For example, Project dimensions with Project measures or Phase dimensions with Phase measures. For other combinations, interpretations may be necessary.

Measures are the count or sum of columns such as Total Sales of Brand, Number of Complaints, and Number of Suppliers.

Cycle Time Measures

Cycle Time measures help you to identify processes that took long time to complete. This helps the management team to identify the reasons and take necessary process improvement actions.

Cycle Time in-process measures enable you to identify processes that are running late and thereby help management team to allocate resources.

The Average Days Overdue measures provide the list of objects that are past the expected resolution or completion date. The calculations are as on the 'Current date' for 'Open' (or in-process) objects and as on 'Released Date' for objects in the 'Released' state.

Note The Cycle time calculations are based on System Dates. The PLM System auto-populates the Start dates (Originate or Submit) and End dates (Released or complete) on objects. Some of the measures enable you to obtain the Cycle time without including the 'Hold' duration.

Workflow Measures

Workflow cycle time provides cycle time for each of the statuses and thereby help identify the bottlenecks in the process. Cycle time combined with volume measures helps assess if high volume is causing the cycle time to tangentially deviate from the usual time.

There are two types of Workflow Measures:

- Workflow Status Cycle time
- Workflow Total Cycle time

Workflow Status Cycle Time

Workflow Status Cycle time returns cycle time within a status, when used in combination with workflow status cycle time dimension. The Workflow Status Cycle Time in-process considers only 'Open' objects calculated as on date. When you analyze

the workflow status cycle time for one object, the aggregation rule used in the reports is Average. If your analysis involves the total time taken by all the statuses for an object, then you need to use SUM as the aggregation rule.

Workflow Status Cycle time measures are to be used with Workflow Status Cycle time dimensions.

Workflow Total Cycle Time

Workflow Total Cycle time returns cycle time between two selected statuses when used in combination with workflow total cycle time dimension. The Workflow Total Cycle time in-process returns the cycle time between two selected statuses where the object is still in the second status. The aggregation rule used is the average of every combination of 'From' state and 'To' state. Use this measure to understand the cycle time between one 'From' state and multiple 'To' states. The report provides every valid combination of 'From' and 'To' state. You may want to use pivot table if you want to filter 'From' or 'To' by specific states.

The Workflow calculations are based on Workflow Dates. Workflow Total Cycle time measures are to be used with Workflow Total Cycle time dimensions.

Risk Measures

Risk Measures help to quantify risk carried by Product Lines or Part Families on various sectors such as Cost, Quality and Compliance. New Product Risks can be analyzed by risks on preliminary items and items with pending change.

Item risk measures are classified as follows:

- Preliminary
- Released

Risks on Items and Manufacturer parts can be analyzed separately and together when they are a part of AML.

In the Item AML subject area, Item risk measures quantify risk in terms of the Mfr part association, the Mfr Part risk measures provide average manufacturer parts per item and number of manufacturer parts on items, and Mfr risk measures provide count of items that have only one approved manufacturer.

Preliminary Measures

Preliminary measures provide count and percentage of Items in the 'Not Released' state that have or do not have a specific risk.

Example:

The percent of items with PR in a Product line.

Released Measures

Released measures provide count and percentage of Items in the 'Released' state that have or do not have a specific Risk.

Example:

The percent of items with PR in a Product line.

First Time Right Measures

First Time Right measures enable you to identify the number of objects that are currently in a 'Closed' state without a single rejection. When compared with the total number of objects in the 'Closed' state, this metric provides an insight on the agreement that the initiator and sign-off approver have on the routed document. Low FTR count indicates poor process adoption or training issues. The trend of FTR is an indicator of process adoption.

OPLA has the following types of FTR measures:

- Closed FTR
- Cumulative FTR
- Open FTR

Closed FTR Measures

Closed FTR measures provide a count of the FTR objects in the 'Closed' state. You can obtain information about the 'Closed' FTR objects which are in the 'Complete' and 'Released' state.

Cumulative FTR Measures

Cumulative FTR measures provide a cumulative count of the FTR objects. Cumulative counts are available for 'New', 'Complete', and 'Released' states.

Open FTR Measures

Open FTR measures list the number of FTR objects which are in the 'Open' state. You can view the count of Open FTRs which are in the 'Not Complete' and 'Not Released' state.

Redline Measures

The Redline Measures provide a count of row modifications in the Bill of Material or Approved Manufacturers List. These measures provide the number of BOMs and AMLs added, modified, and deleted for a specific dimension. You can also obtain an average of the number of items that change as a result of a redlining activity. These Redline Measures convey the magnitude of change very accurately.

Sign-off Measures

Sign-off Measures enable you to identify the approval statistics on objects that are routed for approval in a workflow. These measures provide information on number of approvers, number of approvals, number of rejected objects, number of reviewers and percentage of sign-off that is complete.

Number of Approvers

These measures help identify optimal number of approvers required to ensure process compliance without compromising on the turnaround time.

Number of Rejects

The number of rejects helps study changes with high rejects for process changes or training issues.

Sign-off Complete

The percentage sign-off complete enables you to understand the current sign-off status of Open changes. The calculations are based on the number of sign-off users who have signed off or the total number of sign-off users in the 'Review' or 'Released' status type.

Sign-off Cycle Time

Sign off cycle time is the time taken for an object to be signed off. The time is calculated from the date on which the object in the workflow enters the signoff status. Sign off cycle time helps to identify sign off users and user groups that are taking too long to sign off and take necessary management actions. It takes into account, the sign-off users assigned to both 'Review' and 'Released' status types, even if objects are not currently in that status. Use Workflow status along with Sign-off Measures and Dimensions to understand the individual user sign-offs for an object. When you analyze sign-off cycle time of one object, the aggregation rule used is Average.

Note Sign-off cycle time measures are to be used with sign-off cycle time dimensions.

Sign-off Cycle Time in Process

Sign off cycle time in process indicates the sign-off cycle time calculated for an object till it reaches the current state from any other state. The workflow is 'In progress' and the sign-off is 'Not Complete'. Sign off cycle time in-process helps identify sign-off users and user groups that are running late in signing off the currently open changes. This measure provides the average amount of time for which the object has been on pending sign-off with a specific sign-off user or user group.

Note Sign-off cycle time in-process shows value only when sign-off is pending from user. Sign-off cycle time in hours is simply converting days to hours. Sign-off cycle time = Sign-off cycle time (days) * 24

Task Completion Rate

Task Completion Rate (TCR) measure is a ratio of number of tasks actually completed versus number of scheduled tasks for a Project. This gives you an idea of how well Projects are executing their tasks relative to each other.

Since these measures require you to combine Scheduled and Actual dates, which is normally not supported, special rules apply. When you use time dimension with these measures, you would always need to filter them by a Server variable such as 'CURRENT MONTH'.

Examples:

Use Scheduled activity end date and filter it by server variable = 'CURRENT MONTH'

Use Actual activity end date and filter it by server variable = 'CURRENT MONTH'

This measure does not provide right results unless you use these server variables.

Volume Measures

This category of measures provides a count of the objects for a specific time period such as month, year, or quarter.

The following are the various types of Volume Measures:

- **New** - Provides count of newly reported objects for a time period.
- **Open** - Provides count of open objects at the end of a time period.

- **Closed** - Provides count of objects that closed in a time period.

Note Cumulative counts provide count of all objects until the time interval.

New Measures

New Measures provide a count of newly reported objects in a specific time period such as week, month, quarter, year sorted by *Originated* date. These 'New' measures indicate the trend of reported objects such as Customer Complaints. An increasing or decreasing trend in your report is a sign that an action needs to be taken or an action taken was successful.

Open Measures

Open Measures provide the count of number of objects in the *Open* state arranged by *Originated* date for a specific time period. The count of the *Open* objects is as on the current date if the time period is not complete at the time of the report. If the time period is complete, then the count is as on the last day of the time period. The count does not consider *Originated Date* for calculations.

Closed Measures

The Closed Measures provide count of the objects that are marked 'Closed' in a given time period such as week, month, quarter, or year arranged by 'Release Date'. Cumulative Closed Measures provide the count of all the 'Closed' objects till a specific time interval. The count is calculated using 'Release Date' or 'Complete Date'. The trend charts of 'Closed' indicate if there is a rise or fall in the rate or closure of the objects. The count of the number of complaints closed in a month is an example.

Ago Measures

These measures enable you to compare current volume to a previous period such as Quarter ago. The results help you decide if the trend is better than the past. Visibility to the trend is the purpose of these reports.

To Date Measures

These measures enable you to assess performance in a specific time period such as Quarter, Week, or Year. These measures are used to compare results against a specific bench mark. For example, if you are expecting the number of customer complaints for a specific quarter to be 30, then at anytime during the quarter, the count of the customer complaints to date, informs you of the current count of complaints. You might decide to appoint more people for a specific product, if you see the number of complaints increasing at an alarming rate and you still have a whole month before the quarter ends.

To Date Ago Measures

To Date Ago measures enable you to compare performance of a current period of time to the corresponding period of time in the past.

For example, Quarter to date, Quarter Ago helps to compare current performance to a previous time period of equal duration.

Aging Measures

Aging measures enable you to identify objects (complaints or changes) that are in 'Open' state for long time periods. In comparison with other issues, there are chances of the Aging issues to be overlooked, primarily because of lower priority.

The Aging measures provide information on such issues with more focus on complex issues. The management can choose to take decisions that ensure closure of such prolonged issues.

The aging calculation is based on the difference between 'Current Date' and 'Originated Date'.

OPLA has the following types of Aging Measures:

- Open Aging
- Closed Aging
- Overdue Aging

Note Aging Measures cannot combine with Time Dimension.

Open Aging

This measure provides count of 'Open' objects in each Aging bucket. Age is based on Duration calculated from object 'Originate' date to 'Current' date.

Closed Aging

This measure provides count of 'Closed' objects in each Aging bucket. Age is based on the duration calculated from object 'Originate' date to 'Release' date.

Overdue Aging

This measure provides count of the 'Overdue' objects in each Aging bucket. The age is based on duration calculated from object 'Originate' date to 'Current' date. Overdue aging measures are available only for Customer Complaints and NCR.

 Templates and References

Analysis Details

Project Revenue and Cost Analysis Details

	Project Revenue	Project Cost
Subject Area The presentation area within OPLA that supports this analysis.	Project Summary	Project Summary
Matching Attribute The required common field values between OPLA and the .csv template that allows data to "blend in" for analysis.	Project Number	Project Number
Supported Template Measures The measures within the Template that can be analyzed by Template dimensions and other qualifying dimensions.	Project Forecast Revenue Project Actual Revenue	Project Planned Total Cost Project Actual Total Cost
Supported Template Dimensions The dimensions within the Template that are used to analyze Template measures only.	Reference #	Reference #
Other Qualifying Dimensions The dimensions within the subject area, that along with Template measures, can be used for analysis.	Project and Project attributes Product line Region Division Project Type	Project and Project attributes Product line Region Division Project Type

	Project Revenue	Project Cost
Time Dimensions The time dimensions used for analysis with Template measures.	External data dimensions only	External data dimensions only

Product Revenue and Demand Analysis Details

	Product Revenue	Product Demand
Subject Area The presentation area within OPLA that supports this analysis.	Product Performance	Product Performance
Matching Attribute The required common field values between OPLA and the .csv template that allows data to "blend in" for analysis.	Item	Item
Supported Template Measures The measures within the Template that can be analyzed by Template dimensions and other qualifying dimensions.	Product Planned Revenue Product Actual Revenue	Product Planned Demand Product Actual Demand
Supported Template Dimensions The dimensions within the Template that are used to analyze Template measures only.	Customer Reference #	Customer Supplier Reference #
Other Qualifying Dimensions The dimensions within the subject area, that along with Template measures, can be used for analysis.	Part Category Part Type Commodity Part Family Item Product lines Item Site Size	Part Category Part Type Commodity Part Family Item Product lines Item Site Size
Time Dimensions The time dimensions used for analysis with Template measures.	External data dimensions only	External data dimensions only

Product Units Shipped or Received and Inventory Analysis Details

	Units Shipped or Units Received	Product Inventory
Subject Area The presentation area within OPLA that supports this analysis.	Product Performance	Product Performance
Matching Attribute The required common field values between OPLA and the .csv template that allows data to "blend in" for analysis.	Item	Item
Supported Template Measures The measures within the Template that can be analyzed by Template dimensions and other qualifying dimensions.	Product Planned Units Shipped Product Actual Units Shipped Product Planned Units Received Product Actual Units Received	Product Planned Inventory Product Actual Inventory Product Planned Inventory Value Product Actual Inventory Value
Supported Template Dimensions The dimensions within the Template that are used to analyze Template measures only. Note The Customer and Supplier numbers must match the Customer and Supplier number that was inputted in Agile.	Customer (not available for Unit Received) Supplier Reference #	Supplier Reference #
Other Qualifying Dimensions The dimensions within the subject area, that along with Template measures, can be used for analysis.	Part Category Part Type Commodity Part Family Item Product lines Item Site Size	Part Category Part Type Commodity Part Family Item Product lines Item Site Size
Time Dimensions The time dimensions used for analysis with Template measures.	External date dimensions only	External date dimensions only

Subject Area Matrices

The following tables provide the combination of measures and Product Change analysis area:

Subject Area > Measure	Change Orders	Manufacturer Orders	Change Requests	Stop Ships	Deviations
Volume (New, Open, Closed)	X	X	X	X	X
Ago, To date	X	X	X	X	X
Cycle Time	X	X	X	X	X
Workflow Cycle Time	X	X	X	X	X
Sign-off Cycle Time	X	X	X	X	X
Aging	X	X	X	X	X
Expected Closed, Overdue					
Redlines	X	X			
First Time Right (FTR)	X	X	X	X	X

Note: The X mark in the matrix indicates the availability of the measure in the subject area.

The following table provides the combination of measures and Product Quality analysis area:

Subject Areas > Measures	Customer Complaints	NCR	CAPA	Audit
Volume (New, Open, Closed)	X	X	X	X
Ago, To date				
Cycle Time	X	X	X	X
Workflow Cycle Time	X	X	X	X
Sign off Cycle Time				
Aging	X	X	X	X
Expected Closed, Overdue	X	X		
Redlines				
First Time Right (FTR)				

The following table provides the combination of measures and Product Risk analysis area:

Subject Areas > Measures	Product Performance	Item	Manufacturer Part	Item - AML	Item Changes	Item Quality
Volume	X	X	X	X	X	X
Affected Item Volume	X	X	X			
Item Risk	X	X				
Mfr Part Risk	X					
AML Risk	X					
AML Split Measures	X					
Mean Time	X					
Age	X	X				

PLM Agile Product Lifecycle Management

Item - AML Subject Area Matrix

Dimensions > Measures	Item	Item.Lifecycle	Mfr	Mfr part	Item-Mfr Part junction Example: Preferred Status	Time
Item Measures						

Dimensions > Measures	Item	Item.Lifecycle	Mfr	Mfr part	Item-Mfr Part junction Example: Preferred Status	Time
Items (Released)	Count of the released items in the system.	Count of the lifecycles that the released items have traversed.	Count of the released items associated with the manufacturer. The association is by an ECO or MCO.	Count of the released items associated with the manufacturer parts.	Count of the released items associated with a preference status.	Count of the items released over time. When you combine Time dimension with a dimension in a different group such as Mfr.Part, it gives the number of item and revisions associated with this Mfr.Part.
Note For all Dimensions, except Time, the revision data (Latest revisions or all revisions) about an item in the result is based on the recommended filters and dimensions used.						
# Items with One Mfr only	Number of items associated with a single Manufacturer. When you combine with Product Line, it gives the number of Items within a Product Line that have only one Manufacturer.	Lifecycle of Items that have one Mfr only	Mfr associated with the Item	Mfr Part associated with Item	Preferred status of the Mfr Part associated with the Item	

Dimensions > Measures	Item	Item.Lifecycle	Mfr	Mfr part	Item-Mfr Part junction Example: Preferred Status	Time
# Items with One Mfr Part Only (Released Items)	Number of Items associated with a single Manufacturer Part. When combined with Product line, it gives number of Items within a Product line that has only one Manufacturer Part.	Lifecycle of Items that have one Manufacturer Part only	Manufacturer associated with the Item	Manufacturer Part associated with Item	Preferred status of the Manufacturer Part associated with the Item	
Mfr Part Measures						
# Mfr. Parts	Number of Mfr. Part associated with the Items belonging to a Product Line or any other Item dimension. Example: How many Mfr.parts are associated with the Product Line Leo?	Number of Mfr Part associated with each Lifecycle transition of Item. This includes the current and past data.	Number of Mfr parts by Mfr dimension. This number considers only the Mfr.Parts associated to an Item. Example: How many Mfr.Parts are manufactured by a specific manufacturer?	Number of Mfr.Part s by Mfr.Part dimension. Mfr.Part that is not associated with item is not considered. Example: How many Mfr.Parts are from Part family, 'Cable'?	Number of Mfr Part by Part preference status. Example: How many Mfr Parts are preferred?	

Dimensions > Measures	Item	Item.Lifecycle	Mfr	Mfr part	Item-Mfr Part junction Example: Preferred Status	Time
# Mfr. Parts in Released Item	Number of Mfr. Part associated with the Released Items belonging to a Product Line or any other Item dimension. Example: How many Mfr.parts are associated with the Product Line Leo?	Number of Mfr Part associated with each lifecycle transition of Released Item. This includes the current and past data.	Number of Mfr parts by Mfr dimension. This count considers only the Mfr.Parts associated with a Released Item. Example: How many Mfr.Parts are manufactured by a specific manufacturer?	Number of Mfr.Parts by Mfr.Part dimension. This count considers only the Mfr.Parts associated with a Released Item. Example: How many Mfr.Parts are from Part family, 'Cable'?	Number of Mfr Part by Part preference status. This count considers only the Mfr.Parts associated with a Released Item. Example: How many Mfr Parts are preferred?	
# Mfr. parts on more than one Item	Item or Product Line to which Mfr.Parts that are on more than one Item is associated with.					
Average Mfr. Parts per Released Item	Average number of Mfr. Parts per released revision of the Item by a specific dimension. Example : Product Line	Average number of Mfr Parts per Released Item by Lifecycle.	Do not use	Do not use	Do not use	
Mfr.Measures						

Dimensions > Measures	Item	Item.Lifecycle	Mfr	Mfr part	Item-Mfr Part junction Example: Preferred Status	Time
# Mfr	Number of Manufacturers associated with the Items belonging to a Product line.	Number of Manufacturers associated with each Lifecycle transitions of one or more items. The revision data (Latest revisions or all revisions) about an item in the result is based on the recommended filters and dimensions used.	Number of Mfr by Mfr dimension. Example: How many Manufacturers that are not associated with Mfr.Parts or Manufacturers that are not associated with Mfr.Parts that have association with item are not included.	Number of Mfr by Mfr.Part dimension. Example: How many Mfr does Mfr Part family have?	Example: How many Manufacturers are preferred?	
Item Mfr Part Measures						
AML Split by Item Create Date	AML split of Mfr Parts associated with Items by Product line	AML split associated with each Lifecycle.	AML split by Mfr	AML split by Mfr.Part	AML split by preference status	
Defined Measures						
Spend by Mfr by Item Create date	Spend on Mfr Parts associated with Items by Product line	What is spend by Item lifecycle?	What is the spend by Mfr as on date?	Do not use	Do not use	

Dimensions > Measures	Item	Item.Lifecycle	Mfr	Mfr part	Item-Mfr Part junction Example: Preferred Status	Time
Note This measure requires Defined Fields Cost 1 and Quantity 1 to be configured to P2 or P3 attribute. The spent amount is calculated as Cost 1 x Quantity 1. This measure is not revision-specific. Use the 'Items with latest revision along with this measure.						
Spend by Mfr by Item Effective date						

Product Performance Subject Area Matrix

Dimensions > Measures v	Item	Item.Lifecycle
Mean Time Between Cycles (MTBC)	Recommend not to use with Lifecycle since this is based on Item age.	
Mean Time Between Design Failures (MTDF)	Recommend not to use with Lifecycle since this is based on Item age.	

For Mean Time between Cycles, use the recommended filter 1 for latest revision. When using recommended filter 2 for all revisions, use Item-age only in all cases except when exposing lifecycle as a dimension. If there are two repeating lifecycles on an Item, the duration of each lifecycle is averaged (not summed) thereby providing an inaccurate Mean Time Between Cycles, Mean Time Between Design Failures for Lifecycle.

Product Portfolio Analysis Area Matrices

The following table provides the combination of measures and subject areas in Product Portfolio analysis area:

Subject Areas > Measures v	PLM-PPM Phase - Gate	PLM-PPM Portfolio Summary	PLM-PPM Program Summary	PLM-PP M Project Detail	PLM-PPM Project Summary
Portfolio	X				
Cost	X	X	X	X	X
Phase	X	X			
Gate	X	X			
Program	X				
Project	X				
Activities	X				
Baseline	X				
Snapshot	X				
Revenue Forecast	X				

Defined	X				
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The following table provides the combination of measures and dimensions for the Project Summary Subject Area:

	Measures	Project Measures	Phase Measures	Baseline Measures	Snapshot Measures	Cost Measure	Project Cost	Phase Cost	Baseline Cost	Snapshot Cost	Revenue Forecast Measures	Defined Revenue	Defined Measures
Dimensions													
Time													
Project Scheduled Start Date		X	X	X			X	X	X			X	X
Project Scheduled End Date		X	X	X			X	X	X			X	X
Project Actual Start Date		X	X	X	X		X	X	X	X		X	X
Project Actual End Date		X	X	X	X		X	X	X	X		X	X
Phase Scheduled Start Date			X					X					
Phase Scheduled End Date			X					X					
Phase Actual Start Date			X					X					
Phase Actual End Date			X					X					
Gate Scheduled End Date			X					X					
Gate Actual End Date			X					X					
Baseline Date				X					X				
Snapshot Date					X					X			
Product		X	X		X		X	X		X		X	X
Portfolio		X	X		X		X	X		X		X	X
Program		X	X		X		X	X		X		X	X
Project		X	X		X		X	X		X		X	X
Dependent Project		X	X		X		X	X		X		X	X
Phase			X					X					
Gate			X					X					
Baseline				X					X				

The following table provides the combination of measures and dimensions for the Phase-Gate Subject Area:

	Measures	Phase Measures	Gate Measures	Cost Measures	Project Cost	Phase Cost
Dimensions						
Time						
Project Scheduled Start Date		X	X		X	X
Project Scheduled End Date		X	X		X	X
Project Actual Start Date		X	X		X	X
Project Actual End Date		X	X		X	X
Phase Scheduled Start Date		X			X	
Phase Scheduled End Date		X			X	
Phase Actual Start Date		X			X	
Phase Actual End Date		X			X	
Gate Scheduled End Date			X			X
Gate Actual End Date			X			X
Product		X	X		X	X
Portfolio		X	X		X	X
Program		X	X		X	X
Project		X	X		X	X
Phase		X			X	
Gate			X			X

The following table provides the combination of measures and dimensions for the Project Detail Subject Area:

	Measures	Activities Measures	Gate Measures	Cost Measures	Activities Cost	Gates Cost
Dimensions						
Time						
Project Scheduled Start Date		X	X		X	X
Project Scheduled End Date		X	X		X	X
Project Actual Start Date		X	X		X	X
Project Actual End Date		X	X		X	X
Activity Scheduled Start Date		X	X		X	X
Activity Scheduled End Date		X	X		X	X
Activity Actual Start Date		X	X		X	X
Activity Actual End Date		X	X		X	X
Gate Scheduled End Date			X			X
Gate Actual End Date			X			X
Product		X	X		X	X
Portfolio		X	X		X	X
Program		X	X		X	X
Project		X	X		X	X
Dependent Project		X	X		X	X
Phase		X	X		X	X
Gate			X			X
Activities/Gates		X	X		X	X
Costs		X			X	

The following table provides the combination of measures and dimensions for the Portfolio Summary Subject Area:

	Measures	Portfolio Measures	Cost Measures
Dimensions			
Time			
Portfolio Scheduled Start Date		X	X
Project Scheduled End Date		X	X
Product		X	X
Portfolio		X	X

The following table provides the combination of measures and dimensions for the Program Summary Subject Area:

	Measures	Portfolio Measures	Cost Measures
Dimensions			
Time			
Portfolio Scheduled Start Date		X	X
Project Scheduled End Date		X	X
Product		X	X
Portfolio		X	X

PLM for Process

Project Portfolio Analysis Area Matrices

	Measures	Phase Gate Measures	Gate Measures	Gate Template Measures	Gate Signoff Measures
Dimensions					
Time					
Project Scheduled Start Date		X	X	X	X
Project Scheduled End Date		X	X	X	X
Project Actual Start Date		X	X	X	X
Project Actual End Date		X	X	X	X
Project Scheduled Launch Date		X	X	X	X
Project Actual Launch Date		X	X	X	X
Phase Scheduled Start Date		X			X
Phase Scheduled End Date		X			X
Phase Actual Start Date		X			X
Phase Actual End Date		X			X
Gate Scheduled End Date		X	X	X	X
Gate Actual End Date		X	X	X	X
Product		X	X	X	X
Project		X	X	X	X
Phase		X			
Gate		X	X	X	X
Gate Signature					X

Agile PLM for Process Phase Gate

	Measures	Activities Measures	Activity Team Measures	Activity Workflow Measures	Activity Signoff	Gate Measures
Dimensions						
Time						
Project Scheduled Start Date		X		X	X	X
Project Scheduled End Date		X		X	X	X
Project Actual Start Date		X		X	X	X
Project Actual End Date		X		X	X	X
Project Scheduled Launch Date		X		X	X	X
Project Actual Launch Date		X		X	X	X
Activity Scheduled Start Date		X		X	X	
Activity Scheduled End Date		X		X	X	
Activity Assignment Start Date		X		X	X	
Activity Assignment End Date		X		X	X	
Activity Actual Start Date		X		X	X	
Activity Actual End Date		X		X	X	
Gate Scheduled End Date						X
Gate Actual End Date						X
Activity Step Start Date				X	X	
Activity Step End Date				X	X	
Activity Step Expected Date				X	X	
Product		X		X		X
Project		X		X		X
Phase		X		X	X	
Gate		X		X		X
Activities/Gates		X		X	X	
Activity Team Dimensions			X			
Activity Workflow				X		
Signature Request					X	

Agile PLM for Process Project Detailed

	Measures	Project Measures	Project Baselines	Related Items	Phase Measures	P4P Metrics Measures	External Template Measures
Dimensions							
Time							
Project Scheduled Start Date		X	X		X	X	
Project Scheduled End Date		X	X		X	X	
Project Actual Start Date		X	X		X	X	
Project Actual End Date		X	X		X	X	
Project Scheduled Launch Date		X	X			X	
Project Actual Launch Date		X	X			X	
Phase Scheduled Start Date					X		
Phase Scheduled End Date					X		
Phase Actual Start Date					X		
Phase Actual End Date					X		
Gate Scheduled End Date							
Gate Actual End Date							
External Date							X
Product		X	X	X	X	X	
Project		X	X	X	X	X	X
Baseline			X				
Project Team		X		X	X	X	
Phase		X			X		
Phase Team		X			X		
Gate		X			X		
P4P Metrics		X				X	
External Template Dimensions							X

Agile PLM for Process Project Summary

WARNING: The # PROJECTS YTD measure only works with the Fiscal Year dimension. The # PROJECTS YTD measure does not work with any other Time dimension. In addition, the # PROJECTS YTD measure does not work with Fiscal Quarter, Fiscal Month, Fiscal Week, and Day.

	Measures	Project Measures	Project Baselines	Related Items	Phase Measures	P4P Metrics Measures	External Template Measures
Dimensions							
Time							
Project Scheduled Start Date		X	X		X	X	
Project Scheduled End Date		X	X		X	X	
Project Actual Start Date		X	X		X	X	
Project Actual End Date		X	X		X	X	
Project Scheduled Launch Date		X	X			X	
Project Actual Launch Date		X	X			X	
Phase Scheduled Start Date					X		
Phase Scheduled End Date					X		
Phase Actual Start Date					X		
Phase Actual End Date					X		
Gate Scheduled End Date							
Gate Actual End Date							
External Date							X
Product		X	X	X	X	X	
Project		X	X	X	X	X	X
Baseline			X				
Project Team		X		X	X	X	
Phase		X			X		
Phase Team		X			X		
Gate		X			X		
P4P Metrics		X				X	
External Template Dimensions							X

Important: The following measures work *only* with Project dimensions (and *not* Phase dimensions): Avg # of Functional Areas on Phase Avg # of Team Members on Phase Avg # of Gate Keepers on Phase

Specification Matrices

	Measures	Volume Measures	Cycle Time Measures	Workflow Measures
Dimensions				
Time				
Specification Approve Date		X	X	
Specification Create Date		X	X	X
Specification Entry Date				X
Specification Exit Date				X
Specification		X	X	X
Trade		X	X	X
Formulation		X	X	X
Ingredient		X	X	X
Packaging Material		X	X	X
Printed Packaging		X	X	X
Menu Item		X	X	X
Product		X	X	X
Nutrient Profile		X	X	X