



# CA PPM

# Tendencias y Novedades 15.5

CA Project & Portfolio Management

Septiembre 2018



# Agenda

1 DELIVERED 15.4.1

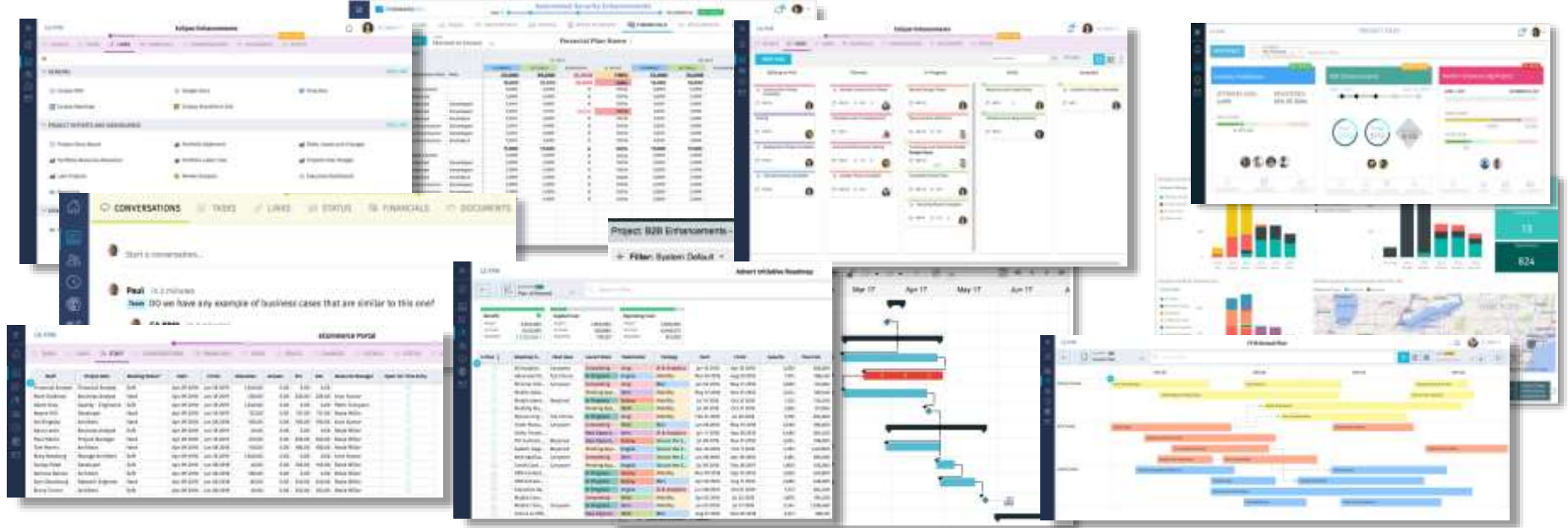
2 NEW 15.5

3 TRENDS

4 QUESTIONS

# Introducing 15.4.1: configurable, powerful & social

Unique ability to enable “business light” and “PM power” in one solution.



- ✓ Project Management
- ✓ Document Management
- ✓ Staffing
- ✓ Time Entry & Approval
- ✓ Task Board
- ✓ Living Status Report
- ✓ Financial Plans
- ✓ Enter & Approve Time for Others
- ✓ Blueprinting
- ✓ Collaboration
- ✓ Project Links
- ✓ Roadmapping

## Strategy & Roadmap

Plan the Initiatives that map to your Business Outcomes

## Business Case Demand Management

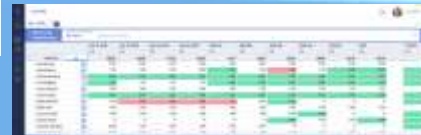
Request funding for initiatives ready to launch near term

## Financial and Headcount Planning

- Ensure you have the right people
- Funding forecasts

## Execution

- Task Management
- Risk / Issue / Change Mgt
- Document Mgt
- Collaboration
- Scheduling & Tracking



## Full Cost Management

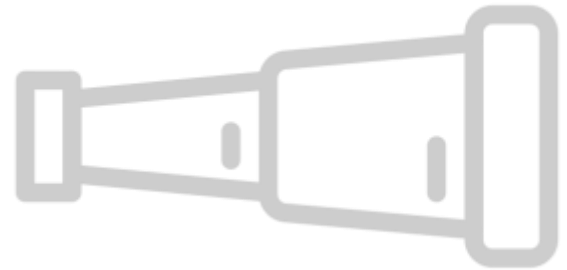
## Budgeting & Forecast

## Resource & Staffing

# New

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CA PPM 15.5



# Introducing...Teams!

CA PPM

## Business Transformation Team

← Search...

TEAM NAME # Business Transformation Team TEAM ID TM00001 Active

Resource	Allocation	Primary Role	Resource Manager	Employment Type	Active
Adriana Ramos	50.00%	Architect	Rosie Miller	Employee	
Alex Garcia	30.00%	Network Engineer	Rosie Miller	Employee	
Alex Riviera	20.00%	Project Manager	Rosie Miller	Employee	
Alicia Gaurand	50.00%	Test Engineer	Rosie Miller	Employee	
Art Kingsley	100.00%	Architect	Arun Kumar	Contractor	
Arun Krishna	100.00%	Test Engineer	Rosie Miller	Employee	
Arun Kumar	100.00%	Business Analyst	Arun Kumar	Contractor	
Ashley Parker	100.00%	Business Analyst	Rosie Miller	Employee	
Barb Hudson	100.00%	Project Manager	Derrick Joseph	Employee	
Beth Roberts	100.00%	Business Analyst	Rosie Miller	Employee	
Blair Ives	100.00%	DBA	Rosie Miller	Employee	
Bruce Turner	100.00%	Test Engineer	Rosie Miller	Employee	
Carlos Perez	100.00%	Project Manager	Rosie Miller	Employee	

Simplify



Simplify Resource Planning. Improve support for Agile. Support Modern and simpler ways of working

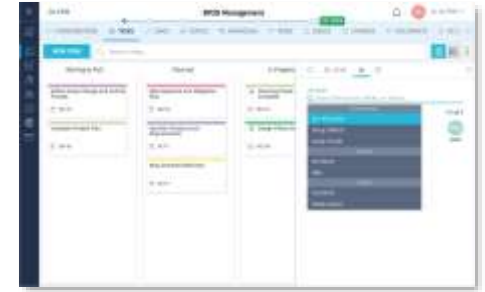
# Teams – end to end workflow



Project allocation –  
Resources, Roles or Teams



Replace - Resource,  
Role or Teams



Task assignment -  
Resources, Roles or Teams



Team time capture  
- Resources or  
Teams



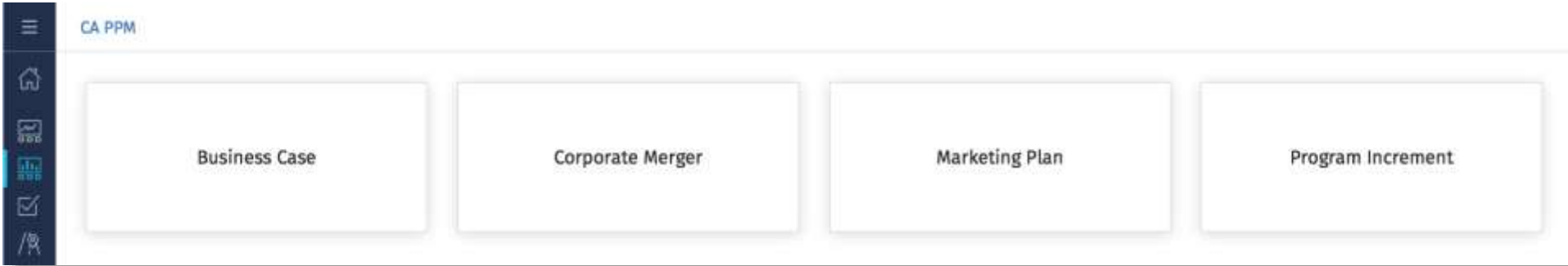
Cost Plans –  
include  
Resources,  
Roles or Teams

Power



Teams – Define > Allocate > Assign > Plan > Execute

# Custom investment types in the modern UX



A screenshot of a software interface showing a table of business cases. The table has columns for Name, Investment ID, Manager, Progress, Stage, Architectural Fit, Business Alignment, Business Unit Priority, Charge Code, Corporate Priority, and Description. The table contains two rows of data. The interface also shows a search bar and a 'VIEW Search...' button.

Name*	Investment ID*	Manager	Progress	Stage	Architectural Fit	Business Alignment	Business Unit Priority	Charge Code	Corporate Priority	Description
A second Business Case	11	Administrator, CA PPM	Started	Business Case		75	Very High		High	This is a really good idea
My Business Case	12	Administrator, CA PPM	Started	Business Case		83	Very High		High	This is an important Business Case

Usable  
Unique



Why call your work what we name it? Why do you need to train people on a new vocabulary?



# Powerful excel like capabilities

CA PPM 2019 IT Plan

VIEW: Planned costs

In Plan	Rank	Roadmap I...	Capit... 1 ↓	Capac... 2 ↑	Opera... 3 ↑	Benefit 4 ↑	Total Cost
<input checked="" type="checkbox"/>	6	Compliance	3,000,000		200,000	4,500,000	3,200,000
<input checked="" type="checkbox"/>	5	Client Portals	3,000,000				
<input checked="" type="checkbox"/>	1	Data Analysis	1,750,000				
<input checked="" type="checkbox"/>	8	One Click Ord	1,500,000				

In Plan	Rank	Roadmap Item*	Capit... 1 ↓
<input checked="" type="checkbox"/>	6	Compliance	3,000,000
<input checked="" type="checkbox"/>	5	Client Portals	3,000,000
<input checked="" type="checkbox"/>	1	Data Analysis	1,750,000
<input checked="" type="checkbox"/>	8	One Click Ordering	1,500,000

- Additional excel like capabilities
- Sort up to 4 columns simultaneously
- Column width changes saved with views and preferences

Power



Refine your data with multi-level column sorting capabilities

# Context sensitive project links

The image illustrates the integration of project management and BI reporting. The top screenshot shows a project management interface for 'Change Mgt for Internal Portal' with tabs for CONVERSATIONS, TASKS, LINKS, STATUS, and FINANCIALS. The 'LINKS' tab is active, showing a 'Project Documents' link. Below this, a BI report is displayed, featuring a table of project data and two charts: 'Resource Hours by Period' and 'Open Risks by Stage'. A blue arrow points from the 'Project Documents' link in the project management interface to a OneDrive file explorer window. The OneDrive window shows a folder named 'Change Mgmt Internal Portal' containing files such as 'Analysis Data.xlsx' and 'July Status Report.docx', demonstrating how project-specific information is passed to external systems.

Project	Start Date	End Date	Status	Manager	Actuals	ETC	DC	DC2	Planned Cost	Project Health
Change Mgt for Internal Portal	18/04/17	31/03/18	Unapproved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track
Change Mgt for Internal Portal	18/04/17	31/03/18	Approved	McCarthy, John	10M	5M	1M	1M	126,400	On Track

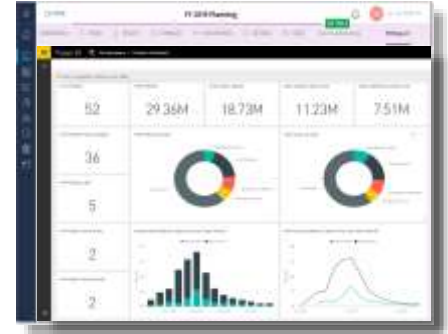
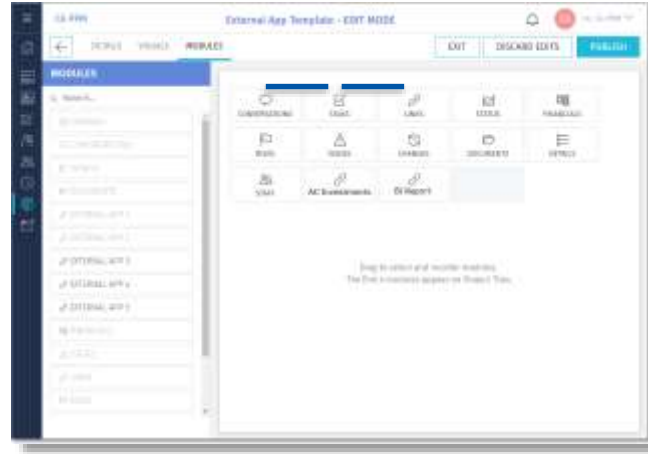
Flexibility



Link Projects to your BI reports or document management system passing project specific information.

# Project channels – window to the world of data

- ✓ Configurable modules which render an external application within CA PPM
- ✓ Remain in the context of the project when accessing external information

A screenshot of a detailed data table, likely a budget or financial report. The table has multiple columns with headers and rows of data. The interface includes a top navigation bar and a dark blue sidebar on the left, consistent with the other screenshots.

Flexibility



Obtain business decision making information in one place.

# Solving the planning problem... at scale

Roadmap Planning



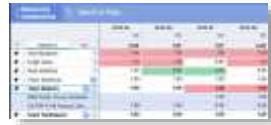
DECIDE

Budget & Cost Management



FUND

Team & Capacity



PLAN

Integrated Work Tracking



EXECUTE

One Paradigm



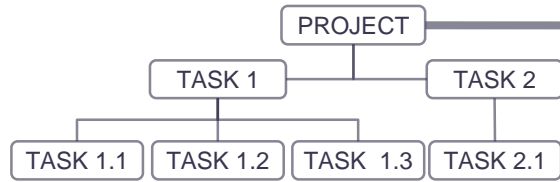
Managing Work, Money and People over Time. The difference is in the granularity of details.

How do you create an agile business?

# Modern Business Management

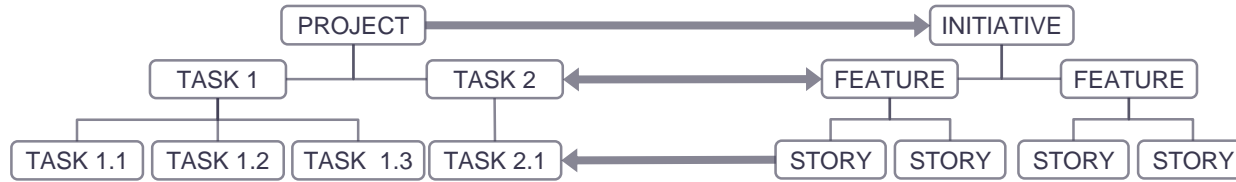
## STRATEGY

BUSINESS  
STAKEHOLDERS 



## EXECUTION

 AGILE TEAMS



FUNDING  
HEADCOUNT  
VALUE DELIVERED



### CA Project and Portfolio Management

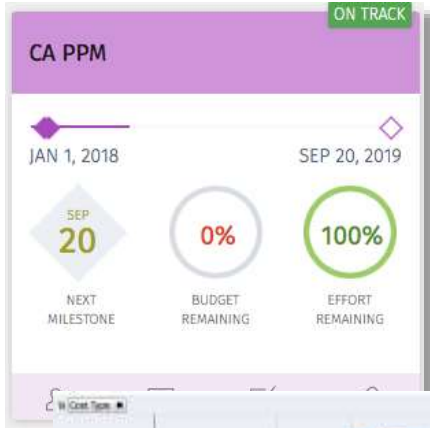
Manage your entire innovation lifecycle and make more informed strategic investments



### CA Agile Central

Coordinate agile development work across teams and programs; handle users and artifacts

# Fund: unified Agile planning – value stream funding



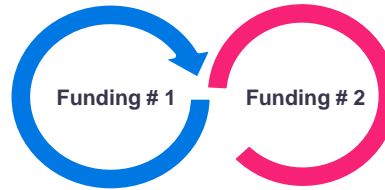
PROJECTS **Consumer Program / ART**

Portfolio Items **Initiative**

New Initiative **Form** Add with Details **+** Select to Add Saved View...

NAME	PERCENT DONE BY STORY COUNT	PROJECT
00148 CA PPM Funding	100%	Consumer Program / ART
00150 Connect Investments to PPM Funding	0%	Architecture
00152 Webhooks	0%	Architecture
00153 Status Transfer	0%	Agile Team 1
00154 In-App Help	100%	Agile Team 1
00156 Data Lake	0%	Online Store, Inc.
00155 Research for Follow-CA	0%	Consumer Program / ART
00158 GDPR Update	0%	Agile Team 1
00154 Roadmapping	0%	Consumer Program / ART
00157 User Permissions	0%	Agile Team 1
00153 Update Mobile	0%	Agile Team 1
00159 Modernize customer service portal	100%	Consumer Program / ART
00157 Outbound SMS messages for support case updates	0%	Consumer Program / ART
00154 Email to case integrations	100%	Agile Team 1

Fund Type*	Department*	Transactions	2019-01			2019-02		
			PLANNED	SPENDING	% SPENT	PLANNED	SPENDING	% SPENT
<b>Operating</b>			<b>1,452,000</b>	<b>1,452,000</b>	<b>0%</b>	<b>1,707,000</b>	<b>1,707,000</b>	<b>0%</b>
	Business Operations	Personnel Co...	552,000	552,000	0%	547,000	547,000	0%
	Development	Licence Costs	363,000	363,000	0%	360,000	360,000	0%
	Development	Royalties	18,000	18,000	0%	18,000	18,000	0%
	Development	Royalties	5,000	5,000	0%	5,000	5,000	0%
	Product Management	Personnel Co...	60,000	60,000	0%	60,000	60,000	0%
	Product Management	Training	75,000	75,000	0%	75,000	75,000	0%
	Product Management PPM	Personnel Co...	79,000	79,000	0%	79,000	79,000	0%
<b>Capital</b>			<b>900,000</b>	<b>900,000</b>	<b>0%</b>	<b>1,950,000</b>	<b>1,950,000</b>	<b>0%</b>
	Development	Hardware Co...	900,000	900,000	0%	900,000	900,000	0%
	Development	Hardware	0	0	0%	75,000	75,000	0%
	Development	Software	0	0	0%	25,000	25,000	0%
	Development	Consulting Co...	0	0	0%	160,000	160,000	0%



- Integrate PPM with AC Investments
- Manage one Agile plan funded by two sources
- Plan for work based on iterative funding cycle \*
- One capability is being funded by multiple sources
- Option to create PPM hierarchy based on AC hierarchy

Value Stream



Fund the Value Stream, execute in Agile

# Roadmapping – fiscal period information

FORWARD INC. FY18 Roadmap

SCENARIO: Baseline

VIEW: Exec. Summary

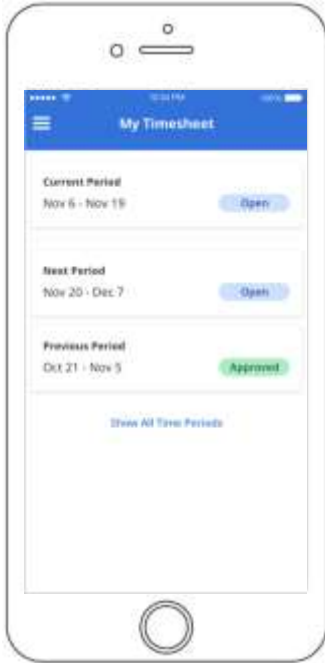
In Plan	Rank	Roadmap Item	Start	Finish	ROI	Operating Cost	Capacity	Totals			Mar-19		Apr-19		May-19
								Operating Cost	Capacity	Operating Cost	Capacity	Operating Cost	Capacity	Operating Cost	Capacity
<input checked="" type="checkbox"/>	1	Analytics App	04/02/2019	05/31/2019	900%	600,000	3								
<input checked="" type="checkbox"/>	2	Authentication	01/01/2019	03/31/2019	93%	1,500,000	4	900,000	1.3	300,000	1.5				
<input checked="" type="checkbox"/>	3	Chat Version 2	05/01/2019	07/31/2019	38%	326,000	6								
<input checked="" type="checkbox"/>	4	Co-op Capital Planning	03/01/2019	05/31/2019	0%	3,000,000	20	1,000,000	6.7	1,000,000	6.7				
<input checked="" type="checkbox"/>	5	Cyber Threat Resilience	08/01/2019	10/31/2019	0%	2,450,000	16								
<input checked="" type="checkbox"/>	6	Data Analysis	01/01/2019	03/31/2019	63%	550,000	2	183,333	0.7						
<input checked="" type="checkbox"/>	8	Digital Branch System	10/20/2019	12/31/2019	471%	1,750,000	30								
<input checked="" type="checkbox"/>	9	Market Launch	11/15/2019	03/31/2020	328%	1,750,000	20								
<input checked="" type="checkbox"/>	10	Media Player	01/01/2019	04/20/2019	75%	2,000,000	8	500,000	2.0	500,000	2.0				
<input checked="" type="checkbox"/>	11	Micro Lending Site	03/25/2019	06/20/2019	24.9%	1,750,000	20			583,333	6.7	68,750	0.3		
<input checked="" type="checkbox"/>	7	Data Warehouse	04/02/2019	11/15/2019	72%	650,000	2								
<input type="checkbox"/>	12	One Click Ordering	01/01/2019	03/31/2019	33%	750,000	4	250,000	1.3						
<input type="checkbox"/>	13	Peer to Peer Payments	10/01/2019	11/30/2019	540%	125,000	25								
<input type="checkbox"/>	14	Regulatory Enhancements	02/01/2019	05/31/2019	0%	3,000,000	50	750,000	12.5	750,000	12.5				
<input type="checkbox"/>	15	Rolling Mobile ATM	06/02/2019	09/30/2019	200%	1,500,000	40								
<input type="checkbox"/>	16	Enterprise Search and Chat	05/01/2019	10/31/2019	0%	4,000,000	16								
<input type="checkbox"/>	17	Security and Performance	04/01/2019	11/30/2019	0%	2,250,000	6			281,250	0.8				
<input type="checkbox"/>	18	User Transformation	06/01/2019	09/25/2019	0%	1,500,000	23								
<input type="checkbox"/>	19	LATAM Digital Transformation	02/15/2019	07/31/2019	42%	350,000	23	58,333	5.8	58,333	5.8				
<input type="checkbox"/>	20	Predictive Analytics Platform v2	02/22/2019	07/15/2019	60%	1,000,000	50	166,667	8.3	166,667	8.3				
<input type="checkbox"/>	21	Mobile Cash Application	02/01/2019	03/22/2019	0%	600,000	50	300,000	25.0						
<input type="checkbox"/>	22	BI Analytics	05/22/2019	11/22/2019	1450%	850,000	85								
<input type="checkbox"/>		New Mobile Portal	01/23/2019	04/22/2019	25%	650,000	25	216,667	8.3	216,667	8.3				

Simplify



Simplify investment planning. Support modern and simpler ways of working

# SSO-compatible mobile timesheet



Convenient



Capture time when you want and where you want without the need to authenticate every time..





# Customer roadmap sessions

You can register for upcoming roadmap sessions here:

<https://www.ca.com/us/product-roadmaps.html>

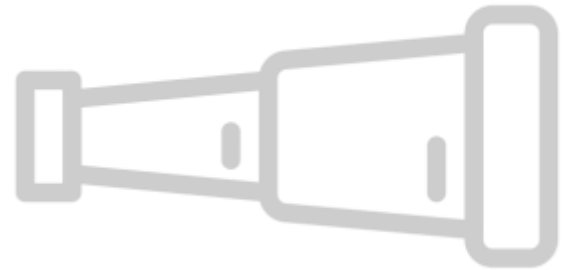
Future customer facing PPM roadmap sessions:

- August 15, 2018            10 PM EDT
- September 12, 2018       11 AM EDT
- September 20, 2018       10 AM EDT

# Trends

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The Power of Trending and Snapshots  
Using the Data Warehouse



# Agenda

1 INTRODUCTION

2 TRENDING TABLES

3 TRENDING JOBS

4 BUILDING REPORTS

# Introduction

# CA Project & Portfolio Management Trending

## Introduction

- Trending introduced in 15.3
- Trending data is only in Data Warehouse Tables
- No changes in Jaspersoft support trending
  - Can only use Jaspersoft Studio to build trending reports
- New jobs created in CA Project & Portfolio Management for trending
- Only stock object data can be trended
- Multiple trends can be created

# What can be trended

## Investment data

### Investment Summary

- Investment name
- Investment manager
- Investment status
- Scheduled start and finish dates
- Baseline start and finish dates
- Status indicator and Overall status
- Schedule, scope, and cost effort statuses from the status report
- Risk

### Other

- **Custom** attributes for trending in the investment, **resource**, **project**, **application**, **asset**, **other work**, **product**, and **service** objects.
- Investment Time Periods
  - Monthly Period Facts
  - Fiscal Period Facts
- Investment OBS Mapping Table
- OBS Unit Table

# What can be trended

Resource data

## Resource Summary

- Resource name
- Resource manager
- Booking manager
- Primary Role

## Other

- Resource Time Periods
  - Monthly Period Facts
  - Fiscal Period Facts
- Resource OBS Mapping Table
- OBS Unit Table

# Trending Tables





# Background

- Trending tables use the following naming convention:
  - DWH\_TRD\_\*
- These tables are managed by the CA Project & Portfolio Management jobs written in ETL
- Some tables are created as part of install/upgrade, while others are created when the trending job is executed the first time

# Core Trend Tables

Table Name	Description
DWH_TRD_TREND	Stores the trend and information about the trend
DWH_TDR_TREND_DETAIL	Stores 1 record each for the trend, table being trended and the dates that trending occurred
DWH_TRD_TREND_HISTORY	Stores the dates for each time a trend is processed. If you update a trend, there would be 2 records for a trend: 1 when created, 1 when updated
DWH_TDR_TREND_DELETION	Stores the trend key, name, dates and the date the trend was deleted
DWH_TRD_ERROR_MESSAGES	Stores any error messages that may have occurred during trend processing. Also displays the SQL statement that was trying to execute
DWH_TRD_META_TABLES	Stores meta data for the tables that are trended
DWH_TRD_META_COLUMNS	Stores meta data for the table columns that are trended
DWH_TRD_META_IDX_PK_FK	Stores meta data for the table indexes, primary and foreign keys that are being trended

# Trend Fact Tables

- Taken from dwh\_trd\_meta\_tables

DWH_TABLE_NAME	TABLE_TYPE	TREND_TYPE	MASTER_TABLE
DWH_TRD_INV_SUM_FACTS	FACT	SUMMARY	DWH_INV_SUMMARY_FACTS
DWH_TRD_RES_MONTH_FACTS	FACT	MONTH	DWH_RES_PERIOD_FACTS
DWH_TRD_INV_MONTH_FACTS	FACT	MONTH	DWH_INV_PERIOD_FACTS
DWH_TRD_RES_FISCAL_FACTS	FACT	FISCAL	DWH_RES_PERIOD_FACTS
DWH_TRD_INV_FISCAL_FACTS	FACT	FISCAL	DWH_INV_PERIOD_FACTS

- Each fact table has a table\_type = FACT
- Each fact table has a trend\_type
  - SUMMARY for summary tables
  - MONTH for monthly period trends
  - FISCAL for fiscal period trends
- The master table is the table from the data warehouse that drives the population of the trend table

# Trend Dimensional Tables

- Taken from dwh\_trd\_meta\_tables

DWH_TABLE_NAME	TABLE_TYPE	TREND_TYPE	MASTER_TABLE
DWH_TRD_INV_INVESTMENT	DIMENSION	ALL	DWH_INV_INVESTMENT
DWH_TRD_INV_INVESTMENT_LN	DIMENSION	ALL	DWH_INV_INVESTMENT_LN
DWH_TRD_INV_OBS_MAPPING	DIMENSION	ALL	DWH_INV_OBS_MAPPING
DWH_TRD_LKP_OBS_UNIT	DIMENSION	ALL	DWH_LKP_OBS_UNIT
DWH_TRD_RES_OBS_MAPPING	DIMENSION	ALL	DWH_RES_OBS_MAPPING
DWH_TRD_RES_RESOURCE	DIMENSION	ALL	DWH_RES_RESOURCE

- Each dimension table has a table\_type = DIMENSION
- Trend\_type is set to ALL for dimensions (Always trended)
- The master table is the table from the data warehouse that drives the population of the trend table

# Materialized/Indexed Views

3 materialized views exist in trending that store the active trend by period and period type

Materialized/Indexed View	Description
Dwh_trd_per_trend_by_f_mv	Stores the most recent trend by fiscal period for reporting against fiscal facts and dimensions
Dwh_trd_per_trend_by_m_mv	Stores the most recent trend by monthly period for reporting against monthly facts and dimensions
Dwh_trd_sum_trend_by_per_mv	Stores the most recent trend by period for reporting against summary facts and dimensions

- These views are very important when writing reports because they tie the trends to the periods in which they're relevant.

Example:

- Ran the trend job for Monthly facts in January for All Periods. Scheduled trending job for Monthly facts to run Monthly for the Current Period. Assume it is now August. See the data on the next page.

# Data Warehouse Trend Materialized Views

Example Data in the Monthly Materialized View:

TREND_KEY	PERIOD_TYPE	PERIOD_NAME	PERIOD_START_DATE	PERIOD_END_DATE	YEAR_END_DATE	LANGUAGE_CODE
5000000	Monthly	Jan-17	1/1/2017 12:00:00 AM	1/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000001	Monthly	Feb-17	2/1/2017 12:00:00 AM	2/28/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000002	Monthly	Mar-17	3/1/2017 12:00:00 AM	3/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000003	Monthly	Apr-17	4/1/2017 12:00:00 AM	4/30/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000004	Monthly	May-17	5/1/2017 12:00:00 AM	5/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000005	Monthly	Jun-17	6/1/2017 12:00:00 AM	6/30/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000006	Monthly	Jul-17	7/1/2017 12:00:00 AM	7/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000007	Monthly	Aug-17	8/1/2017 12:00:00 AM	8/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000000	Monthly	Sep-17	9/1/2017 12:00:00 AM	9/30/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000000	Monthly	Oct-17	10/1/2017 12:00:00 AM	10/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000000	Monthly	Nov-17	11/1/2017 12:00:00 AM	11/30/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en
5000000	Monthly	Dec-17	12/1/2017 12:00:00 AM	12/31/2017 12:00:00 AM	12/31/2017 12:00:00 AM	en

Notice September thru December uses the trend that was taken in January because that was the only trend that populated all the periods for the year. The other trends were run monthly for the current period so they only have data in that period.

If the trend taken in January was for the Current Period instead of All Periods, then there would be no records for September thru December.

# Data Warehouse Trend Materialized Views

More Example Data in the Monthly Materialized View:

Example: Today is July 10, 2017. Run the Create Trend Job for All Periods and Year 2017.

Result: Records will show up for periods July thru December in 2017.

Example: Today is July 10, 2017. Run the Create Trend Job for All Periods and Year 2018.

Result: Records will show up for every period in 2018

Example: Today is July 10, 2017. Run the Create Trend Job for Current Period

Result: Records will show up for July only.

Example: Today is July 10, 2017. Run the Create Trend Job for Next Period and Year 2018.

Result: Records will show up August 2017 because Next Period supercedes the Year (Year is ignored).

Important: The materialized views use logic where `dwh_trd_trend.last_updated_date <= dwh_cmn_period.period_end_date`. Therefore, trying to back populate trending won't be reflected in the materialized views.



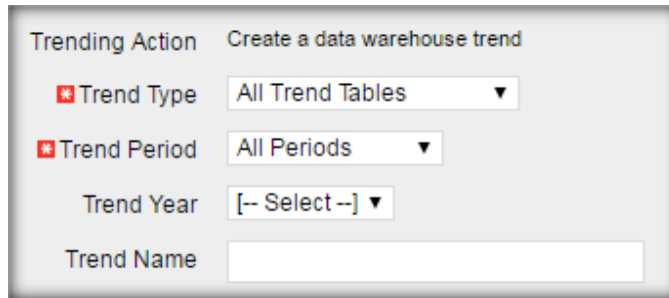
# Trending Jobs





# Create Data Warehouse Trend

- Processes the meta data and adds tables/columns as needed
- Verifies the database views for populating tables are up to date
- Creates the new snapshots/trends
- Updates the materialized views that determine the active trend for each period



The image shows a screenshot of a web-based form titled "Create a data warehouse trend". The form is set against a light gray background and contains the following fields:

- Trending Action:** A text field containing the value "Create a data warehouse trend".
- \* Trend Type:** A dropdown menu with "All Trend Tables" selected.
- \* Trend Period:** A dropdown menu with "All Periods" selected.
- Trend Year:** A dropdown menu with "[-- Select --]" selected.
- Trend Name:** An empty text input field.

# Create Data Warehouse Trend: Parameters

- Trend Type
  - **All Trend Tables:** Processes all the trending dimension and fact tables
  - **Summary Trend Table:** Processes all the dimension tables and the summary fact tables
  - **Monthly Trend Tables:** Processes all the dimension tables and the monthly fact tables
  - **Fiscal Trend Tables:** Processes all the dimension tables and the fiscal fact tables


# Create Data Warehouse Trend: Parameters



- Trend Period
  - **All Periods:** Processes all periods for the current year. For a summary fact table, it simply stores the summary record (Same for all 4 options). For monthly facts, there are 12 fact records stored, 1 for each period in the current year
  - **Previous Period:** Creates the trend and stores the data in the previous period. Example: If today is Sept 1, there would be 1 period worth of data for monthly that would be stored for August
  - **Current Period:** Creates the trend and stores the data in the current period. Example: If today is Sept 1, there would be 1 period worth of data for monthly that would be stored for September
  - **Next Period:** Creates the trend and stores the data in the next period. Example: If today is Sept 1, there would be 1 period worth of data for monthly that would be stored for October

# Update Data Warehouse Trend

- Deletes the selected trend data
- Refreshes the selected trend data
- Input Parameter: Trend Name

Trend Action Update a data warehouse trend

 Trend

# Delete Data Warehouse Trend

- Deletes the selected trend data
- Input Parameter:
  - Specific trendor
  - Delete all trends created prior to a specific or relative date

Trend Action Select a trend or date to delete data warehouse trends

Trend

Delete Trends Created Prior To

Specific Date

Relative Date [-- Select --]



# Building Reports



# Investment Data Trending

## Query

- Customer wants to trend the Status Indicator and Scheduled Finish Date for the year for an investment.

```
SELECT mv.trend_key,
       i.investment_key,
       i.investment_name,
       mv.period_name,
       i.schedule_finish schedule_finish,
       ti.schedule_finish schedule_finish_t,
       il.status_indicator,
       til.status_indicator status_indicator_t
FROM   dwh_trd_per_trend_by_m_mv mv
       INNER JOIN dwh_trd_inv_investment ti ON mv.trend_key = ti.trend_key
       INNER JOIN dwh_trd_inv_investment_ln til ON ti.investment_key = til.investment_key
                                                AND ti.trend_key = til.trend_key
       INNER JOIN dwh_inv_investment i ON ti.investment_key = i.investment_key
       INNER JOIN dwh_inv_investment_ln il ON i.investment_key = il.investment_key
WHERE  til.language_code = 'en'
AND    il.language_code = 'en'
AND    mv.language_code = 'en'
ORDER BY investment_name, mv.period_end_date, mv.period_name
```

# Investment Data Trending

## Results

- Output produced by trending tables

TREND_KEY	INVESTMENT_KEY	INVESTMENT_NAME	PERIOD_NAME	SCHEDULE_FINISH	SCHEDULE_FINISH_T	STATUS_INDICATOR	STATUS_INDICATOR_T
5000000	5001010	APJ Data Center	Jan-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000001	5001010	APJ Data Center	Feb-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000002	5001010	APJ Data Center	Mar-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000003	5001010	APJ Data Center	Apr-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	At Risk
5000004	5001010	APJ Data Center	May-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	At Risk
5000005	5001010	APJ Data Center	Jun-17	12/31/2018 12:00:00 AM	3/31/2019 12:00:00 AM	On Track	Critical
5000006	5001010	APJ Data Center	Jul-17	12/31/2018 12:00:00 AM	3/31/2019 12:00:00 AM	On Track	Critical
5000007	5001010	APJ Data Center	Aug-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000000	5001010	APJ Data Center	Sep-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000000	5001010	APJ Data Center	Oct-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000000	5001010	APJ Data Center	Nov-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track
5000000	5001010	APJ Data Center	Dec-17	12/31/2018 12:00:00 AM	12/31/2018 12:00:00 AM	On Track	On Track

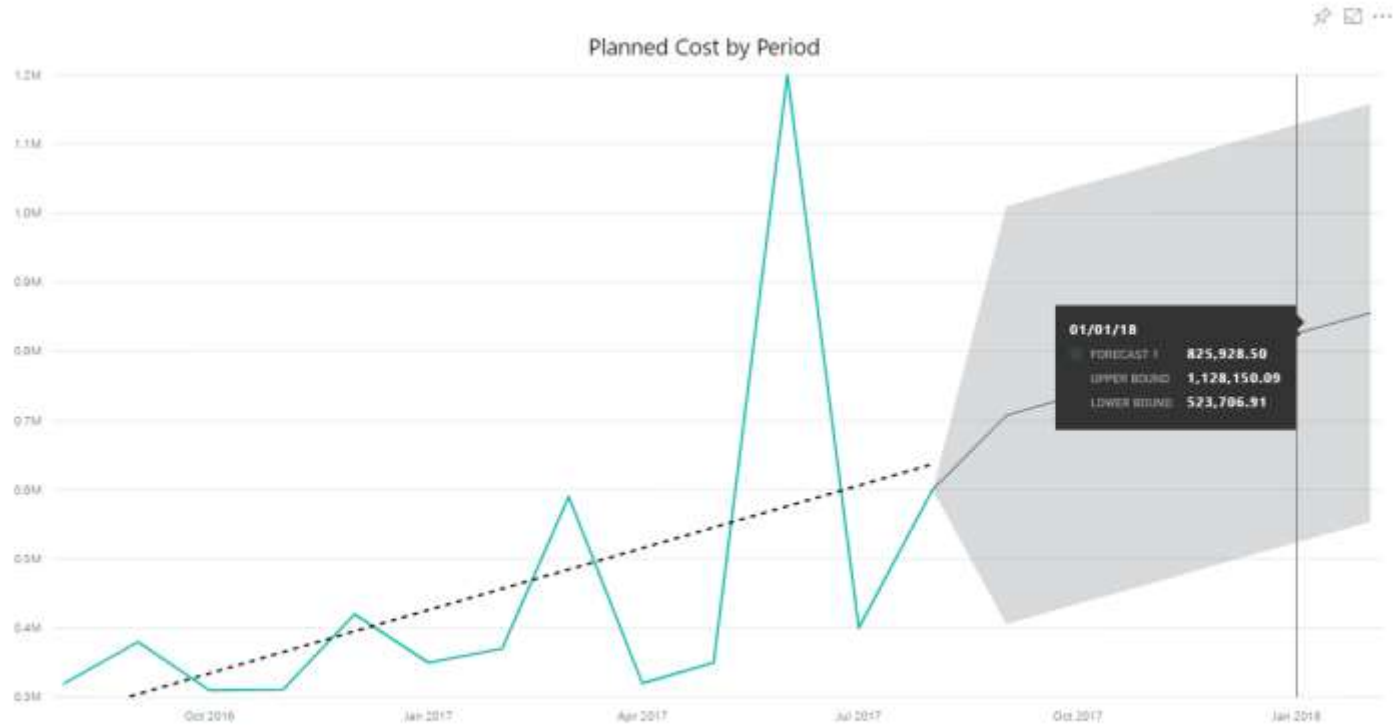


# Organization Reporting Options

- Report on the current investments in an OBS leaf
  - Filter by the OBS lookup
  - Join the investments to the current OBS mapping table (dwh\_inv\_obs\_mapping)
  - You get the investment trended data reported on by the current Org structure

```
FROM dwh_trd_inv_investment, dwh_inv_obs_mapping, dwh_trd_sum_trend_by_per_mv
WHERE dwh_trd_inv_investment.investment_key = dwh_inv_obs_mapping.investment_key
AND dwh_trd_inv_investment.trend_key = dwh_trd_sum_trend_by_per_mv.trend_key
AND dwh_trd_sum_trend_by_per_mv.trend_key = ?
AND dwh_inv_obs_mapping obs_unit_key = ?
```

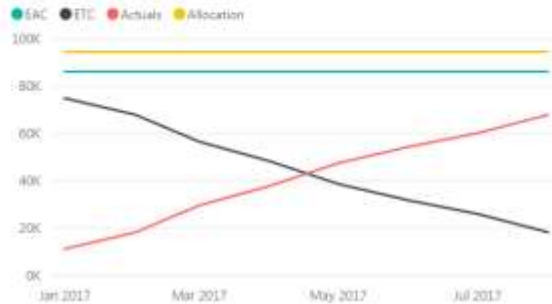
# Data Warehouse Trend Reports in Power BI



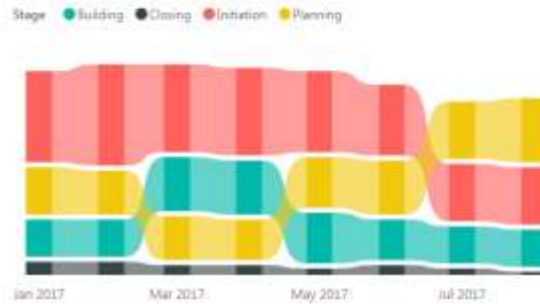
# Data Warehouse Trend Reports in Power BI

Project	Start Date	Finish Date	Status	Manager	Actuals	ETC	EAC	Allocation	Planned Cost	Project Health
4G Upgrade Readiness	09/01/17	12/14/17	Unapproved	Reed, Henry	1200	8	1208	1208.00	\$179,960	★★★★★
Automated Security Enhancements	09/01/17	12/16/17	Unapproved	Berks, Paul	1200	400	1600	1672.00	\$264,400	★★★★★
BYOD Management	11/01/17	05/04/18	Unapproved	Tanner, Paul	5500	860	6360	6360.00	\$343,020	★★★★★
Change Mgt for Internal Portal	10/04/17	01/21/18	Unapproved	McCarthy, John	1000	600	1600	1568.00	\$264,400	★★★★★
Change Mgt for Online Order Entry	08/04/17	08/22/17	Approved	McCarthy, John	12	44	56	76.00	\$81,560	★★★★★
Client Services Datamart	08/01/17	11/24/17	Approved	Martin, Paul	950	370	1320	1432.00	\$218,800	★★★★★
Compliance Audit - Security	10/01/17	02/28/18	Approved	Sutherland, Joy	0	0	0	0.00	\$250,000	★★★★★
Credit Card Processing Enhancement	09/01/17	09/28/17	Unapproved	Berks, Paul	600	200	800	800.00	\$133,600	★★★★★
Credit Card Security Improvements	09/01/17	12/23/17	Unapproved	Reed, Henry	1000	600	1600	1640.00	\$335,000	★★★★★
CRM Contact Center Development	05/01/17	09/26/17	Approved	Riviera, Alex	0	2400	2400	2400.00	\$386,800	★★★★★
CRM Enhancements	05/29/17	10/08/17	Approved	Riviera, Alex	2200	80	2280	2306.00	\$367,600	★★★★★
Data Warehouse Performance Tuning	08/01/17	12/13/17	Approved	Martin, Paul	1800	120	1920	1952.00	\$317,200	★★★★★

Resource Hours by Period



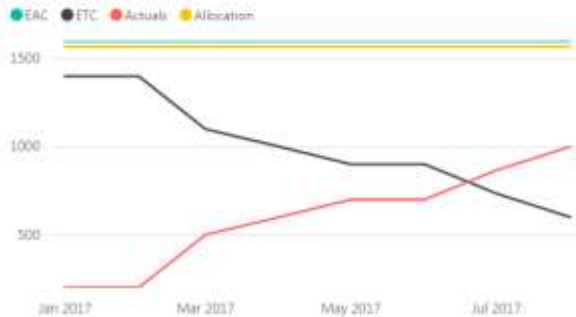
Open Risks by Stage



# Data Warehouse Trend Reports in Power BI

Project	Start Date	Finish Date	Status	Manager	Actuals	ETC	EAC	Allocation	Planned Cost	Project Health
4Q Upgrade Readiness	08/01/17	12/14/17	Unapproved	Reed, Henry	1200	8	1208	1208.00	\$178,560	★★★★★
Automated Security Enhancements	08/01/17	12/16/17	Unapproved	Berkic, Paul	1300	400	1600	1672.00	\$254,400	★★★★★
EFDD Management	11/01/17	05/04/18	Unapproved	Tanner, Paul	5500	860	6360	6360.00	\$41,070	★★★★★
<b>Change Mgt for Internal Portal</b>	<b>10/04/17</b>	<b>01/21/18</b>	<b>Unapproved</b>	<b>McCarthy, John</b>	<b>1000</b>	<b>600</b>	<b>1600</b>	<b>1568.00</b>	<b>\$264,400</b>	<b>★★★★★</b>
Change Mgt for Online Order Entry	08/04/17	08/22/17	Approved	McCarthy, John	12	44	56	76.00	\$61,560	★★★★★
Client Services Dashboard	08/01/17	11/24/17	Approved	Martin, Paul	950	370	1320	1432.00	\$218,800	★★★★★
Compliance Audit - Security	10/01/17	02/28/18	Approved	Sutherland, Roy	0	0	0	0.00	\$250,000	★★★★★
Credit Card Processing Enhancement	09/01/17	08/28/17	Unapproved	Berkic, Paul	600	200	800	800.00	\$133,600	★★★★★
Credit Card Security Improvements	09/01/17	12/23/17	Unapproved	Reed, Henry	1000	800	1800	1640.00	\$15,000	★★★★★
CRM Contact Center Development	05/01/17	08/28/17	Approved	Riviera, Alex	0	2400	2400	2400.00	\$86,800	★★★★★
CRM Enhancements	05/29/17	10/08/17	Approved	Riviera, Alex	2200	80	2280	2306.00	\$87,600	★★★★★
Data Warehouse Performance Tuning	08/01/17	12/13/17	Approved	Martin, Paul	1800	120	1920	1952.00	\$217,200	★★★★★

Resource Hours by Period



Open Risks by Stage



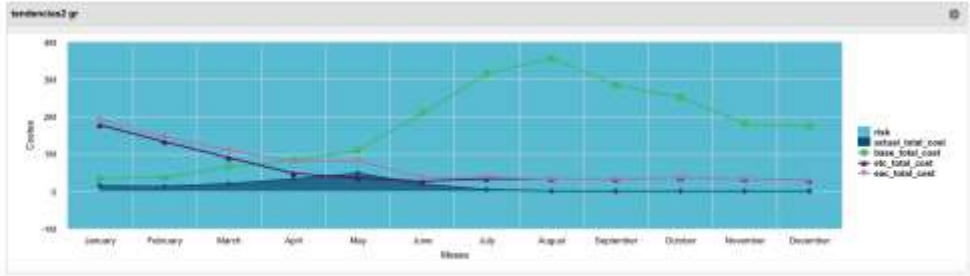
# Trends

```

SELECT
  @SELECT:DIM_PROP:USER_DEF:IMPLIED:OBJ:TABLA.res:mes@,
  @SELECT:DIM_PROP:USER_DEF:IMPLIED:OBJ:TABLA.PERIOD_KEY@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:RISK:RISK@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:ACTUAL_TOTAL_COST:ACTUAL_TOTAL_COST@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:ACTUAL_CAP_COST:ACTUAL_CAP_COST@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:ACTUAL_OPER_COST:ACTUAL_OPER_COST@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:EAC_TOTAL_COST:EAC_TOTAL_COST@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:ETC_TOTAL_COST:ETC_TOTAL_COST@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:BASE_TOTAL_COST:BASE_TOTAL_COST@,
  @SELECT:METRIC:USER_DEF:IMPLIED:OBJ:EAC_BASE_COST_VAR:EAC_BASE_COST_VAR@
FROM
  (
SELECT DISTINCT
  TO_CHAR(F.PERIOD_END_DATE,'Month') AS mes ,
  TO_CHAR(F.PERIOD_END_DATE,'MM') AS mes_cab,
  F.PERIOD_KEY,
  AVG(NVL(I.RISK,0) ) as RISK,
  SUM(NVL(F.ACTUAL_TOTAL_COST,0)) AS ACTUAL_TOTAL_COST,
  SUM(NVL(F.ACTUAL_CAP_COST,0)) AS ACTUAL_CAP_COST,
  SUM(NVL(F.ACTUAL_OPER_COST,0)) AS ACTUAL_OPER_COST,
  SUM(NVL(F.EAC_TOTAL_COST,0)) AS EAC_TOTAL_COST,
  SUM(NVL(F.ETC_TOTAL_COST,0)) AS ETC_TOTAL_COST,
  SUM(NVL(F.BASE_TOTAL_COST,0)) AS BASE_TOTAL_COST,
  SUM(NVL(F.EAC_BASE_COST_VAR,0)) AS EAC_BASE_COST_VAR
FROM DMH_TRD_INV_MONTH_FACTS F
JOIN DMH_TRD_INV_INVESTMENT I ON (I.INVESTMENT_KEY = F.INVESTMENT_KEY)
GROUP BY F.PERIOD_END_DATE, F.PERIOD_END_DATE, F.PERIOD_KEY
ORDER BY TO_CHAR(F.PERIOD_END_DATE,'MM')
)
) TABLA
WHERE @FILTER@
  
```

Overview: Tendencias

Month	Risk	Actual Total Cost	Actual Cap Cost	Actual Oper Cost	EAC Total Cost	ETC Total Cost	Base Total Cost	EAC Base Cost Var
January	🟡	0	144,072	144,072	306,148,089,690	1,668,170,902,753	1,810,016,700,000	1,172,843,700,000
February	🟢	0	120,200	120,200	307,728,060,230	1,669,802,505,915	1,447,086,421,000	1,322,408,421,000
March	🟡	0	186,208	186,208	408,086,270,713	488,413,888,888	1,381,813,262,000	881,205,262,000
April	🟡	81,813.98	243,844	325,657.98	423,910,088,429	(29,989,103,984)	797,884,433,000	477,888,433,000
May	🟡	20,085.1	130,872	478,727.1	1,090,709,029,534	(286,227,083,984)	811,471,700,844	587,766,721,844
June	🟢	41,208	144,344	185,552	2,890,136,321,233	(1,737,383,816,976)	362,626,805,000	295,802,805,000
July	🟢	0	80,808	45,000	3,146,887,672,274	(2,816,702,800,000)	273,128,872,000	323,338,872,000
August	🟡	0	0	0	3,981,203,144,738	(2,732,969,816,976)	327,413,617,878	527,413,617,878
September	🟡	0	0	0	2,408,203,030,249	(2,278,221,807,771)	315,982,222,771	316,852,024,771
October	🟡	0	0	0	2,520,943,581,485	(2,180,871,225,840)	303,076,355,645	380,826,328,845
November	🟡	0	0	0	1,880,302,124,782	(1,474,081,874,771)	330,180,238,771	330,740,238,771
December	🟡	0	0	0	1,739,808,433,985	(1,448,070,024,976)	268,732,808,889	268,732,808,889



# Preguntas





**Thank you.**

