



DevAnalytics

Setup Guide — Last update: 28 June 2023

Basis Technologies

Table of Contents

Introduction	4
Visualization	5
Data export	6
SAP GUI	8
Setup & Configuration.....	9
License Key	10
Setup	11
Configuration	15
Metric Documentation Configuration	16
Velocity	17
Deployments – Total (Transports)	18
Deployments – Success (Transports)	19
Deployments – Error (Transports)	20
Deployments – Percentage in error (Transports)	21
Deployments – Total (Tasks)	22
Deployments – Success (Tasks)	23
Deployments – Error (Tasks)	24
Deployments – Percentage in error (Tasks)	25
Deployments – Emergency (Tasks)	26
Deployments – Emergency percentage (Tasks)	27
Deployments – Daily moving average (Transports)	28
Deployments – Daily moving average Std Dev (Trans)	29
Deployments – Daily moving average (Tasks)	30
Deployments – Daily moving avge -Std Dev (Tasks)	31
Users involved in unreleased transports (Average)	32
Users releasing transports (Average)	33
Cycle Times	34
Time in DEV – Average (Transports)	35
Time in QA – Average (Transports)	36
Time to Completion – Average (Transports)	37
Elapsed time in DEV – Average (Tasks)	38
Total time in DEV – Average (Tasks)	39
Elapsed time in QA – Average (Tasks)	40
Total time in QA – Average (Tasks)	41
Total time to Completion – Average (Tasks)	42
Time in DEV – Average -Std Dev (Transports)	43
Time in QA – Average -Std Dev (Transports)	44
Time to Completion – Average -Std Dev (Transports)	45
Rework	46
Cycles from DEV to QA – Average (Tasks)	47
Percentage of tasks with reworks from DEV to QA	48

Cycles from DEV to PROD – Average (Tasks)	49
Percentage of tasks with reworks from DEV to PROD	50
First pass percentage in QA (Tasks)	51
Work in progress	52
WIP in DEV – Daily Average (Transports)	53
WIP in QA – Daily Average (Transports)	54
WIP in DEV & QA – Daily Average (Transports)	55
WIP in DEV – Daily Average (Tasks)	56
WIP in QA – Daily Average (Tasks)	57
WIP in DEV & QA – Daily Average (Tasks)	58
Approval times	59
Approval time into QA – Average (Transports)	60
Approval time into PROD – Average (Transports)	61
Approval time into QA – Average (Tasks)	62
Approval time into PROD – Average (Tasks)	63
Approval time into QA – Average -Std Dev (Trans)	64
Approval time into PROD – Average -Std Dev (Trans)	65

Introduction

This document provides instructions for the setup, configuration and execution of DevAnalytics to provide detailed analysis of the performance of SAP development and delivery processes.

All setup, configuration, execution and reporting steps are carried out in the main domain controller system.

This is the same system as that being used by ActiveControl which is used to provide the data source for the DevAnalytics metrics.

Visualization

DevAnalytics provides detailed information about your SAP development and delivery processes but also delivers the means to create at-a-glance dashboards. Review data in the SAP GUI, import it into other visualisation tools, or dig right into the spreadsheets.

Data export

Once the data for DevAnalytics has been generated (see Setup section) it can be analysed in SAP or exported for analysis in an external visualization tool.

Note that program **/BTR/DEVA_MAIN_N** must have been run with the required variant in order to generate the data. Any previously generated data can be analysed or exported.

To run the data analysis, execute program **/BTR/DEVA_TRANS**. This program allows data to be analysed for selected data extract runs.

Execution notes:

- **Output mode:** Choose how you want to output the data
 - **Hierarchical (in SAP GUI)** – This displays the metric data output in the SAP GUI via a grid and allows the user to drill down, filter, show graphs, etc.
 - **Report (ALV)** – Output the data as a flat ALV report
 - **Download to server** – Download the data to the specified server folder and filename in tab delimited format. The filename will automatically be appended with a date and timestamp
 - **Download to PC** – Download the data to the specified PC folder and filename in tab delimited format. The filename will automatically be appended with a date and timestamp
- **Analysis period:** Choose the date period that you wish to view the data for
- **Data source:** Always choose “Use instance results”
- **Metric selection:** Choose which metrics you wish to view and the period you wish to have the data aggregated by (E.g. Monthly)
- **Data restrictions:** Enter any specific selection criteria to narrow down the data selection for a more targeted view (E.g. only show data for specific systems and projects)
- **Transformation run options:** This allows specific data extract runs to be selected. In most cases the **Latest run** would be used but previous extract runs (if available) can also be selected if required

Notes

Program ***/BTR/DEVA_TRANS** can be scheduled as a background job using the “Download to server” option to automatically run and download all the available data file for use in external data visualization tools like Tableau, QlikView, etc.

Hierarchical (in SAP GUI)

When the data has been output in SAP there are options to be able to manipulate the data on screen:

- Metrics can be added to / removed from the graphic section
- Different filters, periods, date ranges can be specified
- Data can be expanded to view a breakdown for each classification
- The data visible on screen can be exported to spreadsheet / Excel

Report and Download options

The data extracted in these modes split up by metric and the associated classifications so you can

obtain lower level figures across all available classifications. These modes are best used when extracting the DevAnalytics data to be viewed in external data visualization tools.

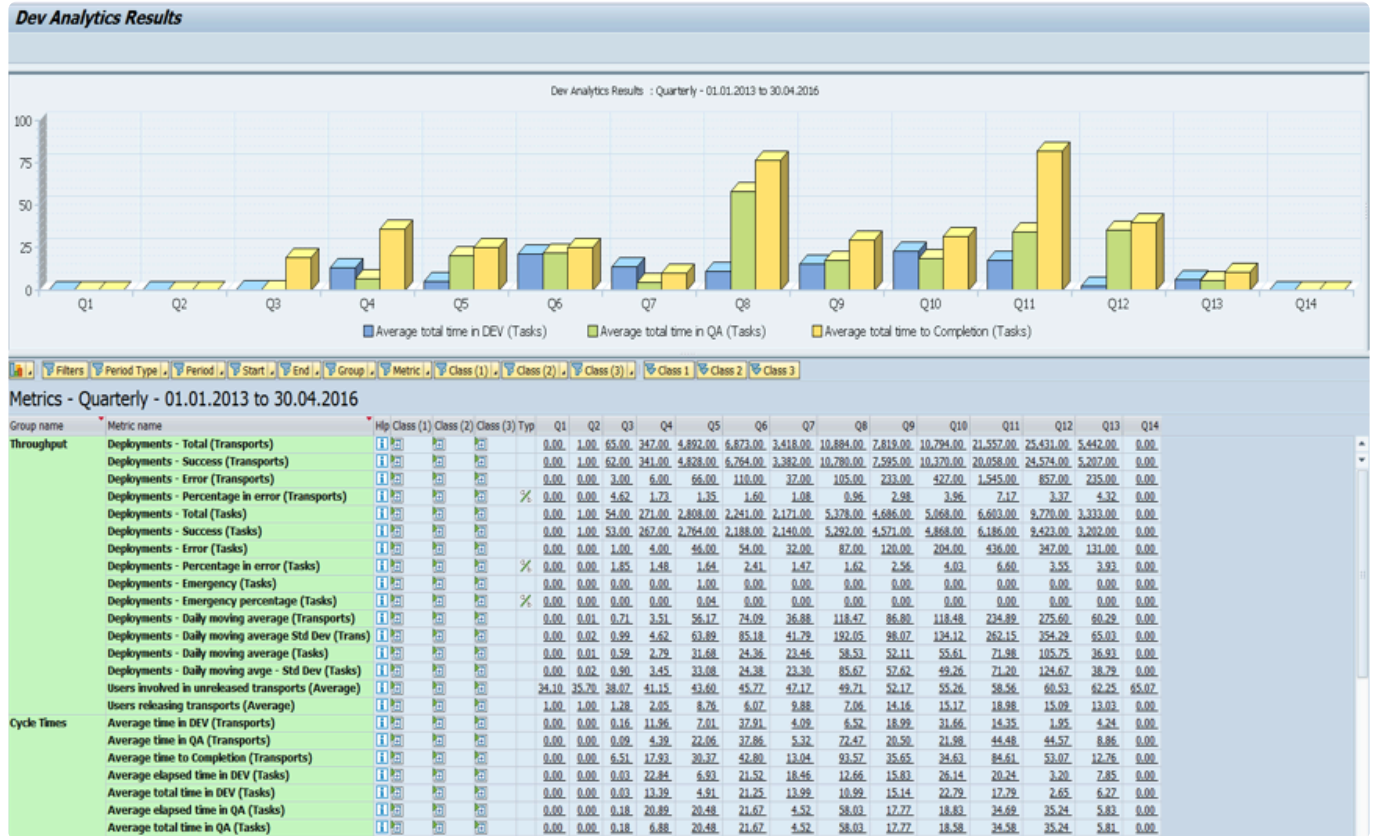
SAP GUI

SAP GUI

No additional software is required in order to view output from DevAnalytics.

Results can be presented in the standard SAP GUI in either tabular or graphical format.

Example



Setup & Configuration

All setup and configuration steps are carried out in the main domain controller system.

This is the same system as that being used by ActiveControl which is used to provide the data source for the DevAnalytics metrics.

License Key

A DevAnalytics License Key is required for ActiveControl versions prior to 6.30. With later versions since 6.30, it is included with ActiveControl.

The key should be requested via Basis Technologies, and uploaded in the ActiveControl Domain Controller.

 Installing of the license key steps [License Key Setup](#)






Setup

Some initial setup is required before running DevAnalytics. This is primarily in order to setup the data extraction processes.

1. In transaction **SE16**, check the SAP target system roles in table **/BTI/TE_TARGROLE** and identify Development, QA and Production/Merge roles.
2. In transaction **SE16**, ensure all that all relevant SAP target systems are assigned with a target system role in **/BTI/TE_TARG**.

Data Browser: Table /BTI/TE_TARG: Selection Screen

Number of Entries

TARGET	<input type="text"/>	to	<input type="text"/>	
SYSID	<input type="text"/>	to	<input type="text"/>	
TTEXT	<input type="text"/>	to	<input type="text"/>	
SOURCE	<input type="text"/>	to	<input type="text"/>	
ROLEID	<input type="text"/>	to	<input type="text"/>	

Width of Output List

Maximum No. of Hits

3. Configure the SAP target roles against the Dev Analytics **D** (Development), **Q** (QA), **P** (Production) roles in table **/BTR/DEVA_WIP_RL**. Note: Merge target systems should be configured as role **P** as this indicates the end of the process

Data Browser: Table /BTR/DEVA_WIP_RL Select Entries9

Table: /BTR/DEVA_WIP_RL
Displayed Fields: 2 of 2Fixed Columns: 1List Width 0250

	ID	ROLE_TYPE
<input type="checkbox"/>	0101307150000000000001	D
<input type="checkbox"/>	0101307150000000000002	Q
<input type="checkbox"/>	0101307150000000000003	Q
<input type="checkbox"/>	0101307150000000000004	F
<input type="checkbox"/>	0101307150000000000005	D
<input type="checkbox"/>	0101307150000000000006	Q
<input type="checkbox"/>	0101307170000000000053	F
<input type="checkbox"/>	0101307230000000000062	Q
<input type="checkbox"/>	0101307230000000000063	Q

4. In transaction **SE38**, run program **/BTI/TE_RU_GEN_FORMP_HISTORY** to populate the requested approval times to support the Approval Times metrics. When ready to execute, make sure it is not in Test mode.

Generate formp history entries

Generate formp history entries1

Totals for Path 07	114	Transports	0	events
Totals for Path 08	45	Transports	0	events
Totals for Path 10	3,586	Transports	0	events
Totals for Path 11	3,038	Transports	0	events
Totals for Path 12	682	Transports	0	events
Totals for Path 13	1,384	Transports	0	events

5. Setup the Diffuser program definition for **/BTR/DEVA_MAIN_N** via transaction **/BTR/DIFFUSER**. Set the transformation program as **/BTR/DEVA_TRANS**

Diffuser

Diffuser Program: /BTR/DEVA_MAIN_N
Dev Analytics Extract

Transform Prog.: /BTR/DEVA_TRANS
Interval Obj.: [Dropdown]
☐ Launch Transform program
☐ Generate variant internally

Object: /BTR/MDR Diffuser application logs
Subobject: DEFAULT Deafult sub-object

Job Format ID: [Text Box]

Main Program: Diffuser Forms
Interval Generation Interval Processing Interval Collation

6. In **SE38/SA38** setup and save the variant and technical settings for program **/BTR/DEVA_MAIN_N**:

Dev Analytics Extract

Technical Settings

Details

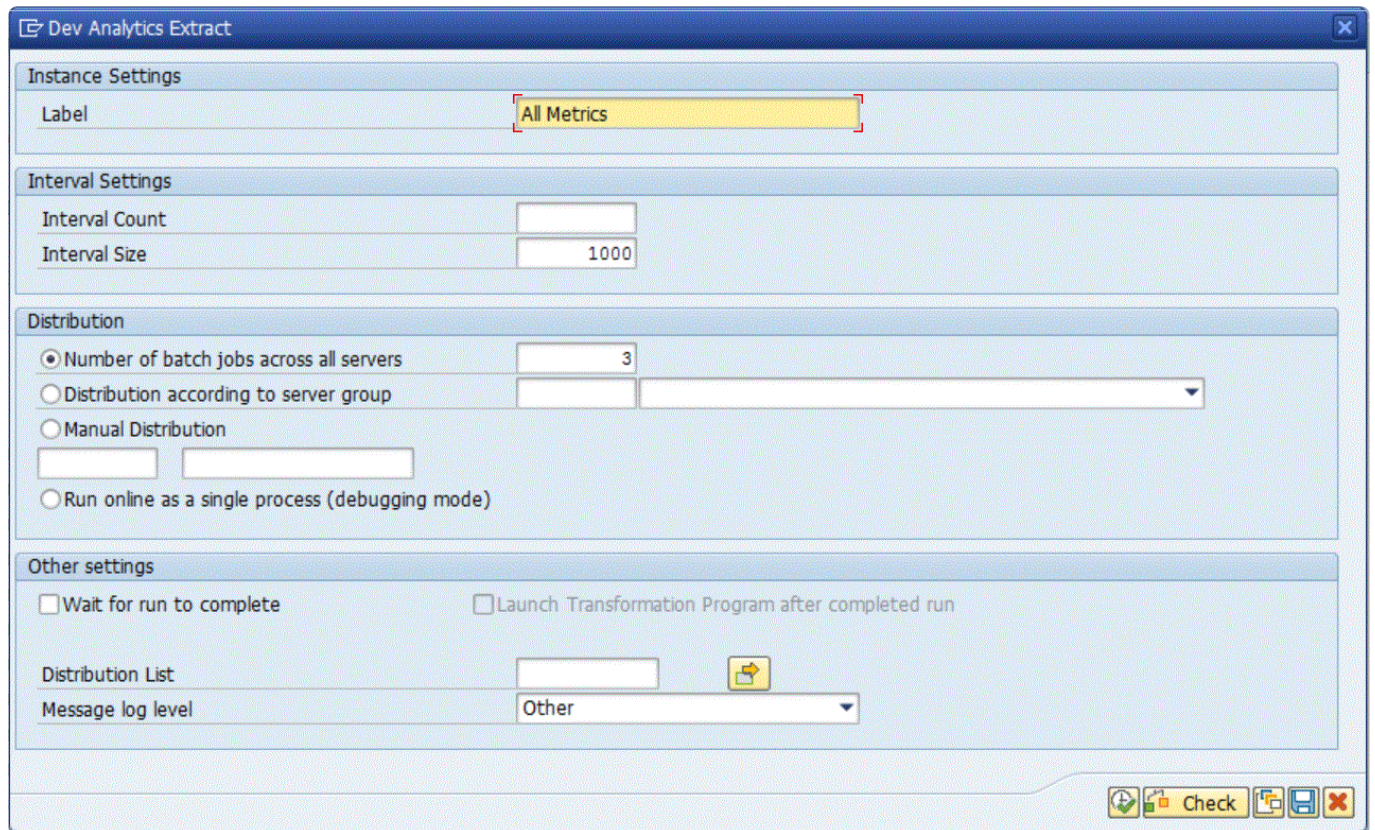
Start date: 01.01.2014
End date: 15.08.2016

System ID: [Text Box] to [Text Box]
Task: [Text Box] to [Text Box]
Request ID: [Text Box] to [Text Box]

No Metrics No Details Classifications Path Tar... Tas...

<input checked="" type="checkbox"/>	Deployments - Total (Transports)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Success (Transports)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Error (Transports)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Percentage in error (Transports)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Total (Tasks)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Success (Tasks)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Error (Tasks)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Percentage in error (Tasks)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Emergency (Tasks)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Deployments - Emergency percentage (Tasks)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...
<input checked="" type="checkbox"/>	Users involved in unreleased transports (Average)	Details <input checked="" type="checkbox"/>	Classifications	Path	Tar...	Tas...

- Specify the start and end dates for analysis
- Select the metrics to be extracted (tick box next to metrics)
- Indicate whether details (details tick box) are required for each metric. This will allow the details of the data for each metrics / date selection to be viewed
- Select the default classifications to be used for data analysis. E.g. Categorise the data by Path, Supplier and Type
- Setup the Technical settings and specify a **Label** (the name of the data extract), the **Interval Size** (E.g. 1000) and the **Number of batch jobs across all servers** (E.g. 3 will split the extract across 3 background job processes)



The screenshot shows the 'Dev Analytics Extract' configuration window. It is divided into four main sections: Instance Settings, Interval Settings, Distribution, and Other settings.

- Instance Settings:** The 'Label' field is set to 'All Metrics'.
- Interval Settings:** The 'Interval Count' field is empty, and the 'Interval Size' field is set to '1000'.
- Distribution:** The 'Number of batch jobs across all servers' radio button is selected, with a value of '3' in the adjacent field. Other options include 'Distribution according to server group', 'Manual Distribution', and 'Run online as a single process (debugging mode)'.
- Other settings:** There are two checkboxes: 'Wait for run to complete' and 'Launch Transformation Program after completed run', both of which are unchecked. The 'Distribution List' field is empty, and the 'Message log level' is set to 'Other'.

At the bottom right of the window, there is a toolbar with icons for navigation and a 'Check' button.

7. Setup a background job to run program **/BTR/DEVA_MAIN_N** with the required variant at the required intervals (E.g. Daily). Note that this can also be run on demand as required.

Configuration

To alter the configuration settings for the metrics so they can be tailored for specific requirements use SAP transaction **/BTR/MFW_CONFIG**.

In here the relevant metric can be selected and the “Metric Parameters” option used to view and update the settings.

For example, for Metric “**Approval time into QA – Average (Tasks)**” the parameters are setup to be based on approvals:

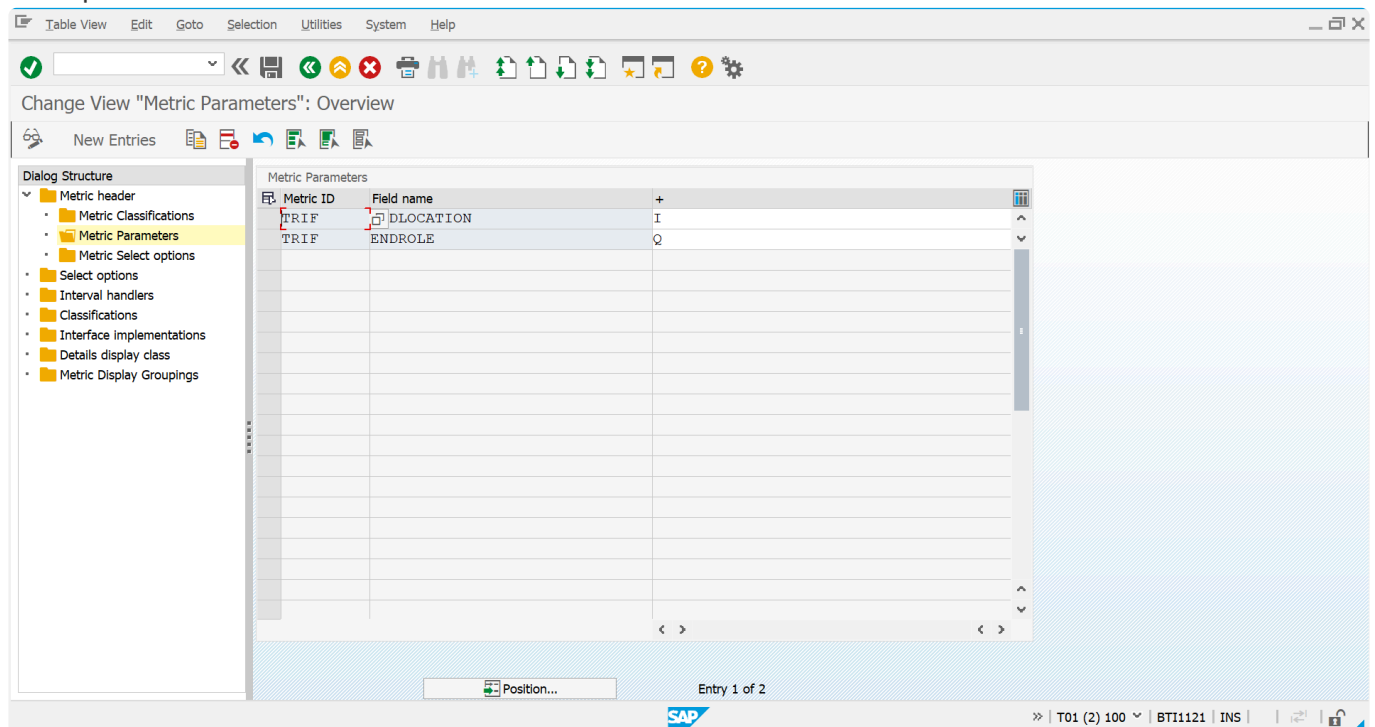
- out of (ENDLOCATION = O)
- Development systems (ENDROLE = D)

If you wish to report this metric for approvals into QA the parameters would need to be set as:

- into (ENDLOCATION = I)
- QA systems (ENDROLE = Q).

Note that all configuration changes are written to an SAP transport request when saved.

Example



Metric Documentation Configuration

DevAnalytics delivers 35 pre-defined, configurable metrics across 5 key areas: velocity, cycle times, rework and waste, work in progress and approval times.

Configuration changes to these metrics are under [Setup & Configuration – Configuration](#)

Within the configuration set up in below topics, the below key can be used:

D= Development System/s

Q=Quality Assurance system/s

P=Production system/s



Full detailed descriptions and documentation of each ([Key Areas](#))

Velocity

Deployments – Total (Transports)

The total number of transport deployments into each target system on any selected date.

Parameters

MAXRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Counts the the total number of transport deployments on any given date.

Includes all transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code up to MAXRETCODE (8 – Includes success (0), warnings (4), errors (8))

Every transport import into every relevant target system will be counted including multiple imports.

Example:

Group name	Metric name	Hlp Class (1)	Class (2)	Class (3)	Typ	07/17	08/17	09/17	10/17	11/17	12/17	01/18	02/18
Velocity	Deployments - Total (Transports)					15,0	28,0	9,00	22,0	43,0	8,00	12,0	49,0
	Path	ECC BAU / Production Support				15,0	2,00	9,00	9,00	15,0	7,00	7,00	7,00
		ECC Project (N+1)				0,00	0,00	0,00	2,00	4,00	0,00	0,00	0,00
		EWM - Option 1				0,00	0,00	0,00	0,00	0,00	0,00	0,00	18,0
		EWM - Option 2				0,00	0,00	0,00	0,00	0,00	0,00	0,00	24,0

Dev Analytics Results

Request ID	Current Date	Time	Name	Ret. code	Path	Target	Group Project	Type	Priority	Supplier name
D01K905555	06.07.2017	11:01:09		0	ECC BAU / Production Support T01	ECC Test - BAU	PI BAU - Weekly Release (Week #1)	Incident Fix	Normal	
D01K906681	27.07.2017	11:00:58		0	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #1)	Incident Fix	Normal	
D01K907369	06.07.2017	11:00:53		0	ECC BAU / Production Support T01	ECC Test - BAU	MM BAU - Weekly Release (Week #1)	Business Change	Normal	Internal
D01K907413	27.07.2017	11:01:09		4	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #1)	Project Change	Normal	Internal
D01K907415	27.07.2017	11:01:16		4	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #1)	Project Change	Normal	Internal
D01K907417	27.07.2017	11:01:20		4	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #1)	Project Change	Normal	Consultancy ABC
D01K907917	06.07.2017	11:01:13		0	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #1)	Incident Fix	Normal	
D01K907951	27.07.2017	11:01:23		0	ECC BAU / Production Support T01	ECC Test - BAU	Basis BAU - Weekly Release (Week #2)	Business Change	Normal	
D01K910477	25.07.2017	16:53:37	Ross McLanachan	0	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #1)	Incident Fix	Emergency	Internal
D01K915412	25.07.2017	16:53:37	Ross McLanachan	0	ECC BAU / Production Support T01	ECC Test - BAU	FICO BAU - Weekly Release (Week #3)	Project Change	Normal	
D01K915721	25.07.2017	16:53:37	Ross McLanachan	0	ECC BAU / Production Support T01	ECC Test - BAU	FICO BAU - Weekly Release (Week #2)	Incident Fix	Normal	Internal
D01K921776	27.07.2017	11:01:33		0	ECC BAU / Production Support T01	ECC Test - BAU	SD BAU - Weekly Release (Week #2)	Business Master Data	Normal	
D01K929237	21.07.2017	13:50:53	James Roberts	0	ECC BAU / Production Support T01	ECC Test - BAU	FICO BAU - Weekly Release (Week #2)	Business Change	Normal	Internal
D01K930058	27.07.2017	11:01:39		0	ECC BAU / Production Support T01	ECC Test - BAU	HR BAU - Weekly Release (Week #1)	Business Change	Normal	Internal
D01K932135	06.07.2017	08:28:09	Ross McLanachan	0	ECC BAU / Production Support D01	ECC Development - BAU	HR BAU - Weekly Release (Week #2)	Normal Change	Normal	Internal

Deployments – Success (Transports)

The total number of successful transport deployments into each target system on any selected date.

Parameters

MAXRETCODE=7

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Counts the the total number of successful transport deployments on any given date.

Includes all transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code up to MAXRETCODE (7 – Includes success (0), warnings (4))

Every transport import into every relevant target system will be counted including multiple imports.

Deployments – Error (Transports)

The total number of transport deployments in error into each target system on any selected date.

Parameters

MINRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation logic

Counts the the total number of transport deployments in error on any given date.

Includes all transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code of at least MINRETCODE (8 – Includes error (8) only)

Every transport import into every relevant target system will be counted including multiple imports.

Deployments – Percentage in error (Transports)

The percentage of transport deployments in error on any selected date.

Parameters

MINRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Calculates the transport deployments in error (Deployments – Error (Transports)) as a percentage of the total transport deployments (Deployments – Total (Transports)).

Deployments – Total (Tasks)

The total number of task deployments into each target system on any selected date.

A task is considered to be deployed if any of its component transports have been deployed. For example, If a task has transports that have been imported into 3 different target systems on a specific date this will count as 3 task deployments.

Parameters

MAXRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Counts the the total number of task deployments on any given date.

A task is considered to be deployed if any of it's component transports have been imported.

Includes tasks with transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code up to MAXRETCODE (8 – Includes success (0), warnings (4), errors (8))

If a task has transports that have been imported into 3 different target systems on a specific date this will count as 3 task deployments

Deployments – Success (Tasks)

The total number of successful task deployments into each target system on any selected date.

Parameters

MAXRETCODE=7

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Counts the the total number of successful task deployments on any given date.

A task is considered to be deployed if any of it's component transports have been imported.

Includes tasks with transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code up to MAXRETCODE (7 – Includes success (0), warnings (4))

If a task has transports that have been imported into 3 different target systems on a specific date this will count as 3 task deployments

Deployments – Error (Tasks)

The total number of task deployments in error into each target system on any selected date.

Parameters

MINRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Counts the the total number of task deployments in error on any given date.

A task is considered to be deployed if any of it's component transports have been imported.

Includes tasks with transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code of at least MINRETCODE (8 – Includes error (8) only)

If a task has transports that have been imported into 3 different target systems on a specific date this will count as 3 task deployments

Deployments – Percentage in error (Tasks)

The percentage of task deployments in error on any selected date.

Parameters

MINRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Calculates the task deployments in error (Deployments – Error (Tasks) as a percentage of the total task deployments (Deployments – Total (Tasks)).

Deployments – Emergency (Tasks)

The total number of emergency task deployments into each target system on any selected date. A task is considered to be an emergency if it's priority is set to Emergency / Urgent.

Parameters

MAXRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Counts the the total number of emergency task deployments on any given date.

A task is considered to be an emergency if it's PRIORITY is set to 4 (Emergency / Urgent, etc.)

A task is considered to be deployed if any of it's component transports have been imported.

Includes tasks with transports imported into target systems:

- With roles specified in TARGET_ROLES (D, Q, P)
- With an import return code up to MAXRETCODE (8 – Includes success (0), warnings (4), errors (8))

If a task has transports that have been imported into 3 different target systems on a specific date this will count as 3 task deployments

Deployments – Emergency percentage (Tasks)

The percentage of emergency task deployments on any selected date.

Parameters

MAXRETCODE=8

TARGET_ROLES=D,Q,P

Documentation of operation and logic

Calculates the task deployments in emergency (Deployments – Error (Tasks) as a percentage of the total task deployments (Deployments – Total (Tasks)).

Deployments – Daily moving average (Transports)

The moving average of the total number of transport deployments on any selected date and the two days before and after.

Parameters

Defaults if not set:

LOOKBACK=2

LOOKAHEAD=2

Documentation of operation and logic

Calculates the moving average of the “Deployments – Total (Transports)” in an interval centered on the analysis date.

The interval is based on the days before (LOOKBACK) and after (LOOKAHEAD) the analysis date (from 2 days before to 2 days after).

Deployments – Daily moving average Std Dev (Trans)

The standard deviation of the moving average of the total number of transport deployments on any selected date and the two days before and after.

Parameters

Defaults if not set:

LOOKBACK=2

LOOKAHEAD=2

Documentation of operation and logic

Standard deviation of the moving average of the “Deployments – Total (Transports)” in an interval centered on the analysis date.

The interval is based on the days before (LOOKBACK) and after (LOOKAHEAD) the analysis date (from 2 days before to 2 days after).

Deployments – Daily moving average (Tasks)

The moving average of the total number of task deployments on any selected date and the two days before and after.

Parameters

Defaults if not set:

LOOKBACK=2

LOOKAHEAD=2

Documentation of operation and logic

Moving average of the “Deployments – Total (Tasks)” in an interval centered on the analysis date.

The interval is based on the days before (LOOKBACK) and after (LOOKAHEAD) the analysis date (from 2 days before to 2 days after).

Deployments – Daily moving avge -Std Dev (Tasks)

The standard deviation of the moving average of the total number of task deployments on any selected date and the two days before and after.

Parameters

Defaults if not set:

LOOKBACK=2

LOOKAHEAD=2

Documentation of operation and logic

Standard deviation of the moving average of the “Deployments – Total (Tasks)” in an interval centered on the analysis date.

The interval is based on the days before (LOOKBACK) and after (LOOKAHEAD) the analysis date (from 2 days before to 2 days after)

Users involved in unreleased transports (Average)

The average number of users with transports that are unreleased on any selected date including sub-task users.

Documentation of operation and logic

Calculates the average daily number of users with unreleased transports both with and without transport forms.

Counts the users involved at the transport parent and sub-task levels. As the subtask release date is not known, these are considered released with the main transport.

It doesn't distinguish the case when the same users release transports every day or different ones do, and reports the average of the daily number

Users releasing transports (Average)

The average number of users releasing transports on any selected date.

Documentation of operation and logic

Calculates the average number of users releasing transports each day.

All users involved at the transport parent and sub-task levels are included, but the date is based on the release of the parent transport

It doesn't distinguish the case when the same users release transports every day or different ones do, and reports the average of the daily number

Cycle Times

Time in DEV – Average (Transports)

The average amount of time in days that transports have spent in development.

Parameters

ENDROLETYPE=Q

USE_SOURCE_TARGET=X

Documentation of operation and logic

Calculates the average time a transport has spent in Development.

Start time: Earliest of the transport creation, transport form creation or transport release

End time: Earliest import into a QA target system (ENDROLETYPE = Q)

This is the average of all the calculated actual times.

Example:

Group name	Metric name	Hlp Class (1)	Class (2)	Class (3)	Typ	07/17	08/17	09/17	10/17	11/17	12/17	01/18
Cycle Times	Time in DEV - Average (Transports)					1.15	12.7	0.00	0.00	162.	0.00	28.5
	Path					1.15	0.00	0.00	0.00	362.	0.00	0.00
		ECC BAU / Production Support				0.00	0.00	0.00	0.00	4.98	0.00	0.00
		ECC Project (N+1)				0.00	0.00	0.00	0.00	0.00	0.00	0.00

Dev Analytics Results												
Request ID	Request date	Req time	Current Date	Time	Value Path	Target	Group Project	Type	Priority	Supplier/T		
D01K905555	26.09.2012	13:24:08	06.07.2017	11:01:09	1,74390000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU PI	BAU - Weekly Release (Week #1) Incident Fix	Normal			
D01K906681	22.05.2013	16:40:10	27.07.2017	11:00:58	1,52676000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #1) Incident Fix	Normal			
D01K907369	17.06.2013	11:31:04	06.07.2017	11:00:53	1,47998000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU MM	BAU - Weekly Release (Week #1) Business Change	Normal	Internal		
D01K907413	18.06.2013	12:05:10	27.07.2017	11:01:09	1,49996000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #1) Project Change	Normal	Internal		
D01K907415	18.06.2013	12:06:37	27.07.2017	11:01:16	1,49995000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #1) Project Change	Normal	Internal		
D01K907417	18.06.2013	12:07:49	27.07.2017	11:01:20	1,49995000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #1) Project Change	Normal	Consultan		
D01K907917	08.07.2013	14:50:50	06.07.2017	11:01:13	1,45883999999999999999E+03	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #1) Incident Fix	Normal			
D01K907951	08.07.2013	16:12:15	27.07.2017	11:01:23	1,47978000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU Basis	BAU - Weekly Release (Week #2) Business Change	Normal			
D01K910477	09.01.2014	10:34:00	25.07.2017	16:53:37	1,29326000000000000000E+03	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #1) Incident Fix	Emergency	Internal		
D01K915412	01.12.2014	10:24:15	25.07.2017	16:53:37	9,67269999999999999998E+02	ECC BAU / Production Support	D01 ECC Development - BAU FICO	BAU - Weekly Release (Week #3) Project Change	Normal			
D01K915721	01.12.2014	10:05:55	25.07.2017	16:53:37	9,67279999999999999997E+02	ECC BAU / Production Support	D01 ECC Development - BAU FICO	BAU - Weekly Release (Week #2) Incident Fix	Normal	Internal		
D01K921776	05.12.2015	00:42:49	27.07.2017	11:01:33	6,00429999999999999995E+02	ECC BAU / Production Support	D01 ECC Development - BAU SD	BAU - Weekly Release (Week #2) Business Master Data	Normal			
D01K929237	21.07.2017	13:41:06	21.07.2017	13:50:53	1,00000000000000000000E-02	ECC BAU / Production Support	D01 ECC Development - BAU FICO	BAU - Weekly Release (Week #2) Business Change	Normal	Internal		
D01K930058	03.04.2017	08:03:30	27.07.2017	11:01:39	1,15120000000000000000E+02	ECC BAU / Production Support	D01 ECC Development - BAU HR	BAU - Weekly Release (Week #1) Business Change	Normal	Internal		

Time in QA – Average (Transports)

The average amount of time in days that transports have spent in QA.

Parameters

ENDROLETYPE=P

STARTROLETYPE=Q

Documentation of operation and logic

Calculates the average time a transport has spent in QA.

Start time: Earliest import into a QA target system (STARTROLETYPE = Q)

End time: Earliest import into a PROD target system (ENDROLETYPE = P)

This is the average of all the calculated actual times.

Time to Completion – Average (Transports)

The average amount of time in days that transports have taken to be completed. (E.g. deployed into Production or Merged).

Parameters

ENDROLETYPE =P

Documentation of operation and logic

Calculates the average time a transport takes to be completed. This is the time from the start of Development until the deployment into a Production or merge target system.

Start time: Earliest of the transport creation, transport form creation or transport release

End time: Earliest import into a PROD target system (ENDROLETYPE = P)

This is the average of all the calculated actual times.

Elapsed time in DEV – Average (Tasks)

The average amount of time in days that tasks have spent in development – from the first transport creation until the deployment of all transports for the task into QA.

Parameters

ELAPSED=X

ENDROLETYPE=Q

REPORT_START_TARGET= X

Documentation of operation and logic

Calculates the average elapsed time a task has spent in Development. This is the time from the start of Development for the first transport of a task until the deployment of all component transports for the task into a QA system.

Start time: Earliest of the transport creation, transport form creation or transport release for any component transport of the task

End time: Last import into a QA target system (ENDROLETYPE = Q) for ALL of the component transports of the task

This is the average of all the calculated actual times.

Total time in DEV – Average (Tasks)

The average total time in days that tasks have spent in development only (excludes overlapping time in QA).

Parameters

ENDROLETYPE=Q

REPORT_START_TARGET=X

Documentation of operation and logic

Calculates the average total time a task has spent in Development. This is the time total that a task has spent in Development excluding the time it has spent in QA.

Each Development time bucket is calculated as:

Start time: Earliest of the transport creation, transport form creation or transport release for any component transport of the task

End time: Last import into a QA target system (ENDROLETYPE = Q) for ALL of the component transports of the task

This is the average of all the calculated actual times.

Elapsed time in QA – Average (Tasks)

The average amount of time in days that tasks have spent in QA – from the first import of a transport for a task into QA to the time all transports for the task are completed. (E.g. deployed into Production or Merged).

Parameters

ELAPSED=X

ENDROLETYPE=P

REPORT_START_TARGET= X

STARTROLETYPE=Q

Documentation of operation and logic

Calculates the average elapsed time a task has spent in QA. This is the time from first import of a transport for a task into a QA target system to the time until the deployment of all component transports for the task into a Production or merge target system.

Start time: First import of a transport into a QA target system (STARTROLETYPE = Q) for any component transport of the task

End time: Last import into a Production target system (ENDROLETYPE = P) for ALL of the component transports of the task

This is the average of all the calculated actual times.

Total time in QA – Average (Tasks)

The average total time in days that tasks have spent in QA only (excludes overlapping time in development).

Parameters

ENDROLETYPE=P

REPORT_START_TARGET=X

STARTROLETYPE=Q

Documentation of operation and logic

Calculates the average total time a task has spent in QA. This is the time total that a task has spent in QA excluding the time it has spent in Development.

Each QA time bucket is calculated as:

Start time: First import of a transport into a QA target system (STARTROLETYPE = Q) for any component transport of the task

End time: Last import into a Production target system (ENDROLETYPE = P) for ALL of the component transports of the task

This is the average of all the calculated actual times.

Total time to Completion – Average (Tasks)

The average amount of time in days that tasks takes have taken to be completed – from the first transport creation to the time all transports for the task are completed. (E.g. deployed into Production or Merged).

Parameters

ELAPSED=X

ENDROLETYPE=P

Documentation of operation and logic

Calculates the average time a task takes to be completed. This is the time from the start of Development for the first transport of a task until the deployment of all component transports for the task into a Production or merge target system.

Start time: Earliest of the transport creation, transport form creation or transport release for any component transport of the task

End time: Last import import into a Production target system (ENDROLETYPE = P) for ALL of the component transports of the task

This is the average of all the calculated actual times.

Time in DEV – Average -Std Dev (Transports)

The standard deviation of the average time in transports have spent in development.

Documentation of operation and logic

Calculates the standard deviation of the “Average time in DEV (Transports)”.

For example, on a given date if 10 transports were processed, this will calculate the standard deviation of the 10 transports times for the average time in Development

Time in QA – Average -Std Dev (Transports)

The standard deviation of the average time in transports have spent in QA.

Documentation of operation and logic

Calculates the standard deviation of the “Average time in QA (Transports)”.

For example, on a given date if 10 transports were processed, this will calculate the standard deviation of the 10 transports times for the average time in QA

Time to Completion – Average -Std Dev (Transports)

The standard deviation of the average time in transports have taken to be completed

Documentation of operation and logic

Calculates the standard deviation of the “Average time to Completion (Transports)”.

For example, on a given date if 10 transports were processed, this will calculate the standard deviation of the 10 transports times for the average time to completion.

Rework

Cycles from DEV to QA – Average (Tasks)

The average number of cycles from Development to QA for tasks. A cycle represents the deployment of all the transports for a task into QA for testing. Each time there is a test failure another development cycle will be required to fix it. More than 1 cycle indicates a rework.

Parameters

CALC_METHOD=CYCLES

ROLETYPE=Q

TIME_TOLERANCE=1

FILTERTARGROLE=P

Documentation of operation and logic

Calculates the average number of cycles for tasks from Development to QA.

A cycle is a continuous interval of time during which the task is in Development in a given transport path. The cycle ends when all the component transports for the task that were created before the given date and time are imported in a QA target system and no other transport is created within the time tolerance period.

Start time: Earliest of the transport creation, transport form creation or transport release for any component transport of the task (outside the TIME_TOLERANCE period (1 hour))

End time: Last import import into a QA target system (ROLETYPE = Q) for ALL of the component transports of the task

The start time of a new Development cycle will be considered only when the time set in TIME_TOLERANCE is exceeded (default is 1 hour)

Values are reported at the end of last cycle, only if the task is fully imported in FILTERTARGROLE (Production).

Note: When a task involves several characteristics (E.g. supplier) all characteristics get the full amount, but get an averaging weight based on the transports they contributed to the task.

So if a task has 5 cycles, with 2 transports from supplier A and 8 from B, both A and B will get a value of 5, but B's value will count 20% of the task on which they worked alone, while for A it will count 80% of the task.

Percentage of tasks with reworks from DEV to QA

The percentage of tasks with more than 1 cycle from Development to QA indicating that there were reworks.

Parameters

AS_PERCENTAGE=X

CALC_METHOD=NOT_FIRST_PASS

ROLETYPE=Q

TIME_TOLERANCE=1

FILTERTARGROLE=P

Documentation of operation and logic

Calculates the percentage of tasks with reworks from Development to QA.

A task is considered to have a rework in QA (ROLETYPE=Q) if it has greater than 1 cycle.

The percentage is calculated by taking the number of tasks with reworks as a percentage of the total tasks deployed (Deployments – Total (Tasks)) on a given date.

This is the average of the calculated percentages.

Only the tasks fully imported in FILTERTARGROLE (Production) are reported.

Cycles from DEV to PROD – Average (Tasks)

The average number of cycles from Development to Production for tasks. A cycle represents the deployment of all the transports for a task into Production. Each time there is a Production failure another development cycle will be required to fix it. More than 1 cycle indicates a rework.

Parameters

CALC_METHOD=CYCLES

ROLETYPE=P

TIME_TOLERANCE=1

Documentation of operation and logic

Calculates the average number of cycles for tasks from Development to Production.

A cycle is a continuous interval of time during which the task is in Development in a given transport path. The cycle ends when all the component transports for the task that were created before the given date and time are imported in a Production target system and no other transport is created within the time tolerance period.

Start time: Earliest of the transport creation, transport form creation or transport release for any component transport of the task (outside the TIME_TOLERANCE period (1 hour))

End time: Last import import into a QA target system (ROLETYPE = P) for ALL of the component transports of the task

The start time of a new Development cycle will be considered only when the time set in TIME_TOLERANCE is exceeded (default is 1 hour)

Values are reported at the end of last cycle.

Note: When a task involves several characteristics (E.g. supplier) all characteristics get the full amount, but get an averaging weight based on the transports they contributed to the task.

So if a task has 5 cycles, with 2 transports from supplier A and 8 from B, both A and B will get a value of 5, but B's value will count 20% of the task on which they worked alone, while for A it will count 80% of the task.

Percentage of tasks with reworks from DEV to PROD

The percentage of tasks with more than 1 cycle from Development to Production indicating that there were reworks.

Parameters

AS_PERCENTAGE=X

CALC_METHOD=NOT_FIRST_PASS

ROLETYPE=P

TIME_TOLERANCE=1

Documentation of operation and logic

Calculates the percentage of tasks with reworks from Development to Production.

A task is considered to have a rework in Production (ROLETYPE=P) if it has greater than 1 cycle.

The percentage is calculated by taking the number of tasks with reworks as a percentage of the total tasks deployed (Deployments – Total (Tasks)) on a given date.

This is the average of the calculated percentages.

First pass percentage in QA (Tasks)

The percentage of tasks with only 1 cycle from Development to QA indicating that there no were reworks.

Parameters

CALC_METHOD=FIRST_PASS

ROLETYPE=Q

FILTERTARGROLE=P

TIME_TOLERANCE=1

AS_PERCENTAGE=X

Documentation of operation and logic

Calculates the percentage of tasks with no reworks from Development to QA.

A task is considered to have a no reworks in QA (ROLETYPE=Q) if it has only 1 cycle.

The percentage is calculated by taking the number of tasks with no reworks as a percentage of the total tasks deployed (Deployments – Total (Tasks)) on a given date.

This is the average of the calculated percentages.

Only the tasks fully imported in FILTERTARGROLE (Production) are reported.

Work in progress

WIP in DEV – Daily Average (Transports)

The average number of transports in Development on any selected date where no deployment into QA has taken place.

Parameters

ENDROLES=Q,P

MAXRETCODE=8

EXCLUDE_NON_TE_TRANSPORTS=X

Documentation of operation and logic

Calculates the average number of transports that are in a state of Development at a given point in time. A transport is deemed to be WIP in Development after it has been created and before it is imported into a QA target system.

Start time: Earliest of the transport creation, transport form creation or transport release

End time: Earliest import into a QA target system (ENDROLES = Q) or a Production target system (ENDROLES = P)

Only the first import into QA or Production is considered and all other subsequent imports are ignored. A transport will cease to be 'Work In Progress' if it is imported into a Production target system or the transport form has been deleted from a path.

By default transports outside of ActiveControl are ignored (EXCLUDE_NON_TE_TRANSPORTS = 'X'). Reset this parameter to include non-ActiveControl transports.

WIP in QA – Daily Average (Transports)

The average number of transports in QA on any selected date where they have been deployed into QA but are not yet completed. (E.g. deployed into Production or Merged).

Parameters

ENDROLES=P

STARTROLE=Q

MAXRETCODE=8

EXCLUDE_NON_TE_TRANSPORTS=X

Documentation of operation and logic

Calculates the average number of transports that are in a state of QA at a given point in time.

A transport is deemed to be WIP in QA after it has been imported into a QA target system until it is imported into a production system.

Start time: Earliest import into a QA target system (STARTROLE = Q)

End time: Earliest import into a QA target system (ENDROLES = P)

Only the first imports into QA or Production are considered and all other subsequent imports are ignored.

A transport will cease to be 'Work In Progress' if it is imported into a Production target system or the transport form has been deleted from a path.

By default transports outside of ActiveControl are ignored (EXCLUDE_NON_TE_TRANSPORTS = 'X').

Reset this parameter to include non-ActiveControl transports.

WIP in DEV & QA – Daily Average (Transports)

The average number of transports in Development and QA on any selected date where they are not yet completed. (E.g. in Production or Merged).

Documentation of operation and logic

Calculates the total of “Average daily WIP in DEV (Transports)” and “Average daily WIP in QA (Transports)”

WIP in DEV – Daily Average (Tasks)

The average number of tasks in Development on any selected date where no deployments into QA for any transports in the tasks have taken place.

Parameters

ENDROLES=Q,P

MAXRETCODE=8

EXCLUDE_NON_TE_TRANSPORTS=X

Documentation of operation and logic

Calculates the average number of tasks that are in a state of Development at a given point in time.

A task is deemed to be WIP in Development from the creation of the first transport of the task until the first import of a component transport for the task into a QA system.

Start time: Earliest of the transport creation, transport form creation or transport release

End time: Earliest import import into a QA target system (ENDROLES = Q) or a Production target system (ENDROLES = P)

Only the first import into QA or Production is considered and all other subsequent imports are ignored.

A task will cease to be 'Work In Progress' when all of its component transports are imported into a Production target system or if all of its component transports have been deleted from a path.

By default transports outside of ActiveControl are ignored (EXCLUDE_NON_TE_TRANSPORTS = 'X').

Reset this parameter to include non-ActiveControl transports.

WIP in QA – Daily Average (Tasks)

The average number of tasks in QA on any selected date where transports for the tasks have been deployed into QA but are not yet completed. (E.g. deployed into Production or Merged).

Parameters

ENDROLES=P

STARTROLE=Q

MAXRETCODE=8

EXCLUDE_NON_TE_TRANSPORTS=X

Documentation of operation and logic

Calculates the average number of tasks that are in a state of QA at a given point in time.

A task is deemed to be WIP in QA from the first import of a component transport for the task into a QA system until the deployment of all component transports for the task into a Production target system.

Start time: Earliest import into a QA target system (STARTROLE = Q)

End time: Earliest import into a Production target system (ENDROLES = P) for all component transports of the task

Only the first import into QA or Production is considered and all other subsequent imports are ignored.

A task will cease to be 'Work In Progress' when all of its component transports are imported into a Production target system or if all of its component transports have been deleted from a path.

By default transports outside of ActiveControl are ignored (EXCLUDE_NON_TE_TRANSPORTS = 'X').

Reset this parameter to include non-ActiveControl transports.

WIP in DEV & QA – Daily Average (Tasks)

The average number of tasks in Development and QA on any selected date where they are not yet completed. (E.g. in Production or Merged).

Documentation of operation and logic

Calculates the total of “Average daily WIP in DEV (Tasks)” and “Average daily WIP in QA (Tasks)”

Approval times

Approval time into QA – Average (Transports)

The average amount of time in days it takes for transports to be approved for deployment into QA.

Parameters

ENDLOCATION=I

ENDROLE=Q

Documentation of operation and logic

Calculates the approval time for a transport into a QA target system.

Start time: When a transport arrives at a Inbox (ENDLOCATION = 'I') in a QA target system (ENDROLE=Q)

End time: When the approval has been processed

The figure displayed is the average of the actual times.

Note: To calculate other approval times, for example, the approval out of a Development system set ENDLOCATION=O and ENDROLE=D

Approval time into PROD – Average (Transports)

The average amount of time in days it takes for transports to be approved for deployment into Production.

Parameters

ENDLOCATION=I

ENDROLE=P

Documentation of operation and logic

Calculates the approval time for a transport into a Production target system.

Start time: When a transport arrives at a Inbox (ENDLOCATION = 'I') in a Production target system (ENDROLE=P)

End time: When the approval has been processed

The figure displayed is the average of the actual times.

Note: To calculate other approval times, for example, the approval out of a QA system set ENDLOCATION=O and ENDROLE=Q

Approval time into QA – Average (Tasks)

The average total amount of time in days it takes for the transports for tasks to be approved for deployment into QA.

Parameters

ENDLOCATION=I

ENDROLE=Q

Documentation of operation and logic

Calculates the approval time for a task into a QA target system.

Start time: When a transport for a task arrives at a Inbox (ENDLOCATION = 'I') in a QA target system (ENDROLE=Q)

End time: When the approval has been processed

When multiple transports are assigned to a task the time is calculated by totalling up the approval times for each component transport.

The figure displayed is the average of the actual times

When multiple characteristics (e.g. Supplier) are involved in a task, the total time is assigned to all.

Note: To calculate other approval times, for example, the approval out of a Development system set ENDLOCATION=O and ENDROLE=D

Approval time into PROD – Average (Tasks)

The average total amount of time in days it takes for the transports for tasks to be approved for deployment into Production.

Parameters

ENDLOCATION=I

ENDROLE=P

Documentation of operation and logic

Calculates the approval time for a task into a Production target system.

Start time: When a transport for a task arrives at a Inbox (ENDLOCATION = 'I') in a Production target system (ENDROLE=P)

End time: When the approval has been processed

When multiple transports are assigned to a task the time is calculated by totalling up the approval times for each component transport.

The figure displayed is the average of the actual times

When multiple characteristics (e.g. Supplier) are involved in a task, the total time is assigned to all.

Note: To calculate other approval times, for example, the approval out of a QA system set ENDLOCATION=O and ENDROLE=Q

Approval time into QA – Average -Std Dev (Trans)

The standard deviation of the average amount of time in days it takes for transports to be approved for deployment into QA.

Documentation of operation and logic

Calculates the standard deviation of the Average approval time into QA (Transports).

For example, on a given date if 10 transports were processed, this will calculate the standard deviation of the 10 transports times for the average approval time into QA

Approval time into PROD – Average -Std Dev (Trans)

The standard deviation of the average amount of time in days it takes for transports to be approved for deployment into Production.

Documentation of operation and logic

Calculates the standard deviation of the Average approval time into Prod (Transports).

For example, on a given date if 10 transports were processed, this will calculate the standard deviation of the 10 transports times for the average approval time into Production.