

DWC Monitoring dashboard

Goal

Use DWC monitoring tables to monitor runnings jobs on the DWC environment

DWC Monitoring dashboard

Relevant DWC BC tables with statistics: (when monitoring is activated)



- TASK_LOCKS_V_EXT
 - Table with unfinished tasks
- TASK_LOG_MESSAGES_V_EXT
 - Table with messages for each task
- TASK_LOGS_V_EXT
 - Table with each task
- TASK_SCHEDULES_V_EXT
 - Table with schedule for each application/space/object

https://help.sap.com/doc/653e215be007410e80e64dfc537ef2d0/cloud/en-US/SAP_Data_Warehouse_Cloud_Administrator_Guide.pdf (starting page 264)

DWC Monitoring dashboard

Prerequisites for consuming SQL view in SAC build in DWC:

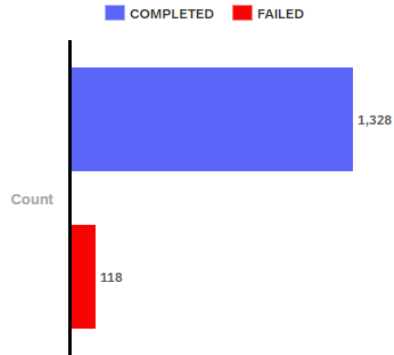
- Semantic Usage >> “Analytical Dataset”
- Expose for Consumption >> On (default setting)
- Status >> Deployed

<input type="checkbox"/>	 V_CLIENT_MONITORING_VIEW	V_CLIENT_MONITORING_VIEW	View (Analytical Dataset)	 Deployed
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DWC Monitoring impression – Monitor page

DWC Monitoring Dashboard

Object Statuses



 SPACE_ID

☒ All

☒ IGMPROD

Show Inactive Values

Failed Objects

 1 Filter [Navigate to Run Details](#)

OBJECT_ID	OBJECT_ID_CORRECTED	START_DATE
SAC_Global_Sales_Report	X	Aug 26, 2021
YY1_OperationalAcctgDocCub	(Null)	Aug 26, 2021
YY1_ProductUnitsOfMeasure2	(Null)	Aug 26, 2021

Locked Objects

 [Navigate to Lock Details](#)

TASK_LOG_ID	OBJECT	CREATION_TIME	
201772	YY1_BillingDocumentHeader	Oct 27, 2021 8:06:04 PM	2
203324	YY1_ProductionOrderItem	Oct 31, 2021 12:00:19 AM	2
204484	YY1_MaterialStock	Nov 2, 2021 10:15:03 AM	2

DWC Monitoring impression – Run Details page

DWC Monitoring Dashboard

Error Details
[🔍](#) [🔗 Navigate to Lock Details](#) 1 ①

OBJECT_ID	TASK_LOG_ID	START_TIME	STATUS	
SAC_Global_Sales_Report	159067	Aug 26, 2021 12:00:08 AM	FAILED	2
	159097	Aug 26, 2021 1:00:06 AM	FAILED	2
	159128	Aug 26, 2021 2:00:09 AM	FAILED	2
	159159	Aug 26, 2021 3:00:05 AM	FAILED	2
	159190	Aug 26, 2021 4:00:06 AM	FAILED	2
	159221	Aug 26, 2021 5:00:09 AM	FAILED	2
	159246	Aug 26, 2021 6:00:24 AM	FAILED	2
	159268	Aug 26, 2021 7:00:16 AM	FAILED	2
	159299	Aug 26, 2021 8:00:07 AM	FAILED	2
	159330	Aug 26, 2021 9:00:06 AM	FAILED	2
	159361	Aug 26, 2021 10:00:05 AM	FAILED	2
	159392	Aug 26, 2021 11:00:06 AM	FAILED	2
	159423	Aug 26, 2021 12:00:07 PM	FAILED	2
	159436	Aug 26, 2021 12:25:46 PM	COMPLETED	2
	159456	Aug 26, 2021 1:00:05 PM	COMPLETED	2
	159487	Aug 26, 2021 2:00:05 PM	COMPLETED	2

Task Messages
[🔍](#) [🔗 1 Filter](#)

TASK_LOG_ID	MESSAGE_NO	SEVERITY	TEXT	START_DATE	
159067	1	INFO	Task 159067 started.	Aug 26, 2021	2
	2	WARNING	Failed to takeover existing task.	Aug 26, 2021	2
	3	WARNING	Error checking for parallel executions. Another task is probably running and blocking this task.	Aug 26, 2021	2
	4	WARNING	A conflicting task is already running.	Aug 26, 2021	2

DWC Monitoring impression – Lock Details page

DWC Monitoring Dashboard



Details locked objects

OBJECT	START_TIME	TEXT	
YY1_BillingDocumentHeader	Oct 27, 2021 8:06:04 PM	Replicating data for YY1_BillingDocumentHeader in BATCH mode.	1
		Task 201772 started.	1
YY1_MaterialStock	Nov 2, 2021 10:15:03 AM	Replicating data for YY1_MaterialStock in BATCH mode.	1
		Task 204484 started.	1
YY1_ProductionOrderItem	Oct 31, 2021 12:00:16 AM	Replicating data for YY1_ProductionOrderItem in BATCH mode.	1
		Task 203324 started.	1

Latest job details (related to locked objects)

OBJECT	LOG_START_TIME	MSG_TEXT	
YY1_BillingDocumentHeader	Nov 4, 2021 1:06:07 PM	A conflicting task is already running.	1
		Error checking for parallel executions. Another task is probably running and blocking this task.	1
		Task 205524 started.	1
		Task REMOTE_TABLES/REPLICATE/IGMPROD/YY1_BillingDocumentHeader failed to take existing lock WRITE/REMOTE_TABLES/IGMPROD/YY1_BillingDocumentHeader...	1

DWC Monitoring views

We have used views have been build for the DWC Monitoring dashboard:

1. V_CLIENT_MONITORING_VIEW; View that combines the relevant monitoring tables with measures like “Duration” and different counters (see link on bottom of this slide for more details about this view)
2. V_TASK_LOG_MESSAGES_V_EXT; View that contains the tasks and the related messages
3. MON_LOCK_TASK_DETAILS; View looks at the tasks that are running in the system (thus lock objects) and collects the corresponding messages
4. MON_LOCK_LOG_TASK_DETAILS; View looks at the tasks that are causing locks in the system and collects the messages of the latest failed task related to the same application/space/object combination in DWC

<https://blogs.sap.com/2021/10/12/sap-data-warehouse-cloud-data-integration-monitoring-sample-content-for-reporting/>

DWC Monitoring objects (with linked views)

Page: Monitor

1. Graph "Object Statuses" uses view V_CLIENT_MONITORING_VIEW1
2. Table "Failed Objects" uses view V_CLIENT_MONITORING_VIEW1
3. Table "Locked Objects" uses view MON_LOCK_TASK_DETAILS

Page: Run Details

1. Table "Error Details" uses view V_CLIENT_MONITORING_VIEW1
2. Table "Task Messages" uses view V_TASK_LOG_MESSAGES_V_EXT2

Page Lock Details

1. Table "Details locked objects" uses view MON_LOCK_TASK_DETAILS
2. Table "Latest job details (related to locked objects)" uses view MON_LOCK_FAILED_TASK_DETAILS

V_CLIENT_MONITORING_VIEW

View following hyperlink for SQL view details:

<https://blogs.sap.com/2021/10/12/sap-data-warehouse-cloud-data-integration-monitoring-sample-content-for-reporting/>

V_TASK_LOG_MESSAGES_V_EXT

```
SELECT 1 as counter,  
base."TASK_LOG_ID",  
"MESSAGE_NO",  
"SEVERITY",  
"TEXT",  
"DETAILS",  
"SPACE_ID",  
"APPLICATION_ID",  
"OBJECT_ID",  
"ACTIVITY",  
"STATUS",  
to_date(base."START_DATE") "START_DATE"  
FROM "TASK_LOGS_V_EXT" as base  
LEFT outer JOIN "TASK_LOG_MESSAGES_V_EXT" as log  
ON base."TASK_LOG_ID" = log."TASK_LOG_ID"
```

MON_LOCK_LOG_TASK_DETAILS

```

SELECT "LOCK"."APPLICATION_ID" AS "APPLICATION","LOCK"."SPACE_ID" as "SPACE","LOCK"."OBJECT_ID" as "OBJECT","LOCK"."TASK_LOG_ID" AS "LOCK_TASK_ID",7"LOCK"."CREATION_TIME" AS "LOCK_CREATION_TIME",
"LOGS"."TASK_LOG_ID" AS "LOG_TASK_ID","LOGS"."START_TIME" AS "LOG_START_TIME",
"MSG"."MESSAGE_NO" AS "LOG_MESSAGE_NO","MSG"."SEVERITY" AS "MSG_SEVERITY","MSG"."TEXT" AS "MSG_TEXT","MSG"."DETAILS" AS "MSG_DETAILS",
1 AS "COUNTER"
from "TASK_LOCKS_V_EXT" as "LOCK"
left outer join "TASK_LOGS_V_EXT" AS "LOGS" ON
"LOCK"."APPLICATION_ID" = "LOGS"."APPLICATION_ID" AND
"LOCK"."SPACE_ID" = "LOGS"."SPACE_ID" AND
"LOCK"."OBJECT_ID" = "LOGS"."OBJECT_ID"
left outer join "TASK_LOG_MESSAGES_V_EXT" AS "MSG" ON
"LOGS"."TASK_LOG_ID" = "MSG"."TASK_LOG_ID"
WHERE "LOGS"."STATUS" = 'FAILED'
AND "LOGS"."TASK_LOG_ID" = (
select MAX("LOGS_MAX"."TASK_LOG_ID")a
from "TASK_LOGS_V_EXT" as "LOGS_MAX" WHERE
"LOGS_MAX"."STATUS" = 'FAILED' AND
"LOCK"."APPLICATION_ID" = "LOGS_MAX"."APPLICATION_ID" AND
"LOCK"."SPACE_ID" = "LOGS_MAX"."SPACE_ID" AND
"LOCK"."OBJECT_ID" = "LOGS_MAX"."OBJECT_ID")
group by "LOCK"."APPLICATION_ID","LOCK"."SPACE_ID","LOCK"."OBJECT_ID","LOCK"."TASK_LOG_ID","LOCK"."CREATION_TIME",
"LOGS"."TASK_LOG_ID","LOGS"."START_TIME",
"MSG"."MESSAGE_NO","MSG"."SEVERITY","MSG"."TEXT","MSG"."DETAILS"
order by "LOCK"."APPLICATION_ID","LOCK"."SPACE_ID","LOCK"."OBJECT_ID","LOCK"."TASK_LOG_ID","LOCK"."CREATION_TIME",
"LOGS"."TASK_LOG_ID","LOGS"."START_TIME",
"MSG"."MESSAGE_NO","MSG"."SEVERITY","MSG"."TEXT","MSG"."DETAILS"

```

MON_LOCK_TASK_DETAILS

```

SELECT "LOCK"."APPLICATION_ID" AS "APPLICATION","LOCK"."SPACE_ID" as "SPACE","LOCK"."OBJECT_ID" as "OBJECT","LOCK"."TASK_LOG_ID" AS
"LOCK_TASK_ID","LOCK"."CREATION_TIME" AS "LOCK_CREATION_TIME",
"LOGS"."TASK_LOG_ID" AS "LOG_TASK_ID","LOGS"."START_TIME" AS "LOG_START_TIME",
"MSG"."MESSAGE_NO" AS "_LOG_MESSAGE_NO","MSG"."SEVERITY" AS "MSG_SEVERITY","MSG"."TEXT" AS "MSG_TEXT","MSG"."DETAILS" AS "MSG_DETAILS",
1 AS "COUNTER"
from "TASK_LOCKS_V_EXT" as "LOCK"

left outer join "TASK_LOGS_V_EXT" AS "LOGS" ON
"LOCK"."TASK_LOG_ID" = "LOGS"."TASK_LOG_ID"

left outer join "TASK_LOG_MESSAGES_V_EXT" AS "MSG" ON
"LOCK"."TASK_LOG_ID" = "MSG"."TASK_LOG_ID"

group by "LOCK"."APPLICATION_ID","LOCK"."SPACE_ID","LOCK"."OBJECT_ID","LOCK"."TASK_LOG_ID","LOCK"."CREATION_TIME",
"LOGS"."TASK_LOG_ID","LOGS"."START_TIME",
"MSG"."MESSAGE_NO","MSG"."SEVERITY","MSG"."TEXT","MSG"."DETAILS"

order by "LOCK"."APPLICATION_ID","LOCK"."SPACE_ID","LOCK"."OBJECT_ID","LOCK"."TASK_LOG_ID","LOCK"."CREATION_TIME",
"LOGS"."TASK_LOG_ID","LOGS"."START_TIME",
"MSG"."MESSAGE_NO","MSG"."SEVERITY","MSG"."TEXT","MSG"."DETAILS"

```

Appendix		
DWC Beheer Monitor v2		
Exported on Tue Nov 23 2021 21:38:15 GMT+0100 (Midden-Europese standaardtijd)		
https://interdobs2.eu/10.sapanalytics.cloud/sap/fpa/ui/tenants/33658/boistory/EFA01806FE4F2558E2809E9811EE40A9		
Story Filter		
Model	Dimension	Value
V_CLIENT_MONITORING_VIEW1	START_DATE	Aug 26, 2021
Model Links		
Model	V_CLIENT_MONITORING_VIEW1	- V_TASK_LOG_MESSAGES_V_EXT2
Dimension	TASK_LOG_ID	- TASK_LOG_ID
Dimension	START_DATE	- START_DATE
Model	MON_LOCK_TASK_DETAILS	- MON_LOCK_FAILED_TASK_DETAILS
Dimension	OBJECT	- OBJECT
Monitor		
Page Filter		
Model	Dimension	Value
V_CLIENT_MONITORING_VIEW1	SPACE_ID	(All)
V_CLIENT_MONITORING_VIEW		
Model	Dimension	Value
V_CLIENT_MONITORING_VIEW	Measures	Count Completed
Failed Objects		
Model	Dimension	Value
V_CLIENT_MONITORING_VIEW1	Measures	Count
V_CLIENT_MONITORING_VIEW1	STATUS	FAILED
Locked Objects		
Model	Dimension	Value
MON_LOCK_TASK_DETAILS	Measures	COUNTER
Run Details		
Error Details		
Model	Dimension	Value
V_CLIENT_MONITORING_VIEW1	Measures	Count
Task Messages		
Model	Dimension	Value
V_TASK_LOG_MESSAGES_V_EXT2	Measures	count
Lock Details		
Latest job details (related to locked objects)		
Model	Dimension	Value
MON_LOCK_FAILED_TASK_DETAILS	Measures	COUNTER
Details locked objects		
Model	Dimension	Value
MON_LOCK_TASK_DETAILS	Measures	-



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