



# **Understanding the Audit Database in SAP BI 4.x**

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# **RESOURCES**

http://help.sap.com/bobip42

See: Business Intelligence Platform Administrator Guide (Chapters 23 – 24)



# **SAP WEBINAR**

https://youtu.be/II9G2JEWb9Q

SAP Business Intelligence 4.2: New Auditing Universe and Reports



# WHAT IS AUDITING?

The SAP BI platform can record activity on the system, such as:

- Which users are logging in and when?
- Which reports are being run and by whom?
- Who deleted an object?
- Who is creating or modifying reports?
- And so on...
- Does <u>not</u> record system content, security, metadata



# AUDIT ≠ CMS

The audit database records activity.

The CMS database records <u>content and</u> <u>configurations</u>.



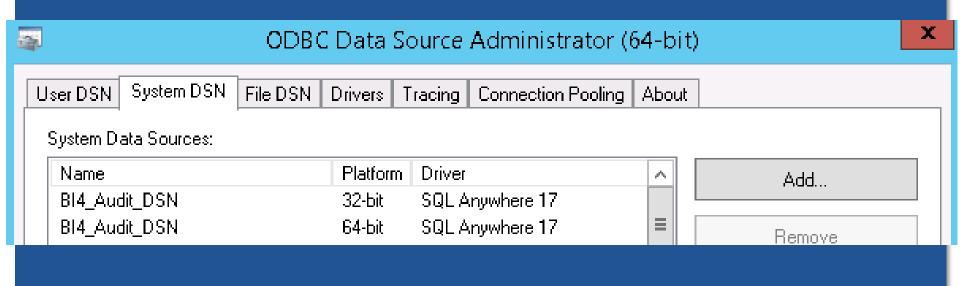
#### Central Management Console



Welcome: Administrator | Preferences | Help ▼ | Log Off Auditing ~ **Status Summary** ADS Last Updated On 3/6/18 7:37:40 AM GMT-07:00 CMS Auditor 8 Auditing Thread Utilization ADS Database Connection BI4 Audit DSN (%) Name Last Polling Cycle Duration 180 ADS Database User Name dba (Seconds) 6 Set Events Set Event Details Query 0 User Group Details Off Complete Minimal Default Custom 112 Folder Path Details Common Events Rights Details View Property Value Details Refresh Prompt Configuration Create ADS Database ✓ Delete Modify Connection BI4 Audit DSN Name Save SQL Anywhere V Type Search Edit Run Deliver User Name Retrieve Password Logon √ Logout Delete Events Older Than 36500 Trigger (Days) √ Recycle ✓ ADS Auto Reconnect ✓ Restore

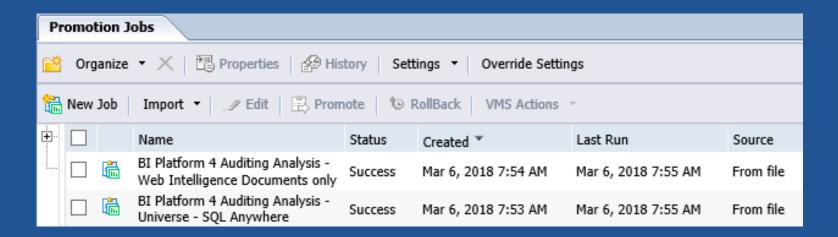
# <u>ODBC</u>

# Configure 32-bit and 64-bit ODBC connections to the audit database



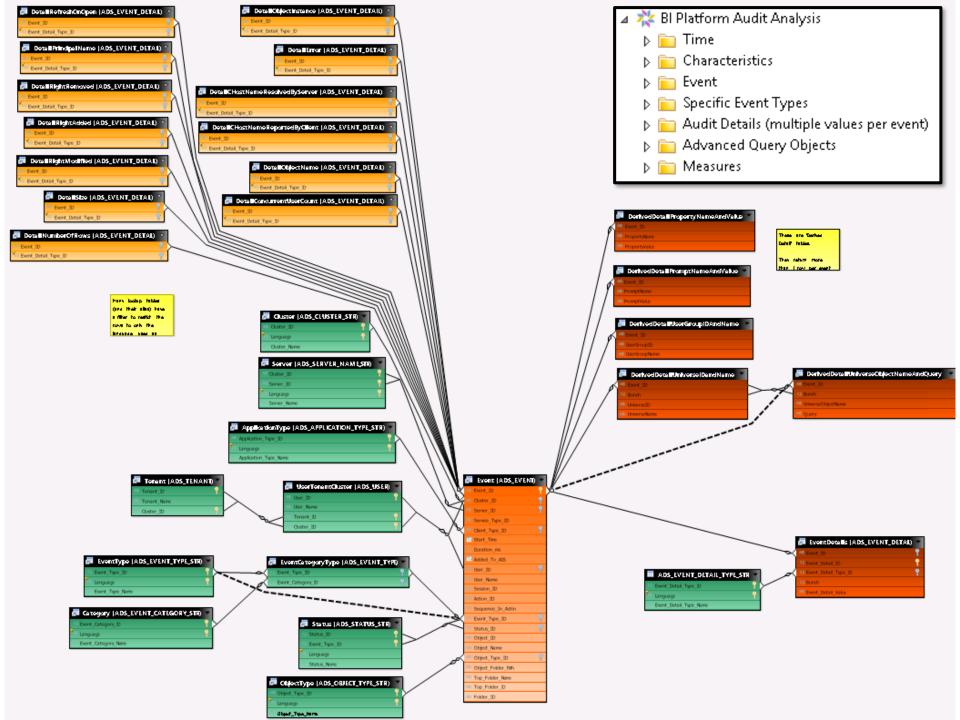


Download auditing universe and reports (LCMBIAR files) and install via Promotion Management in CMC

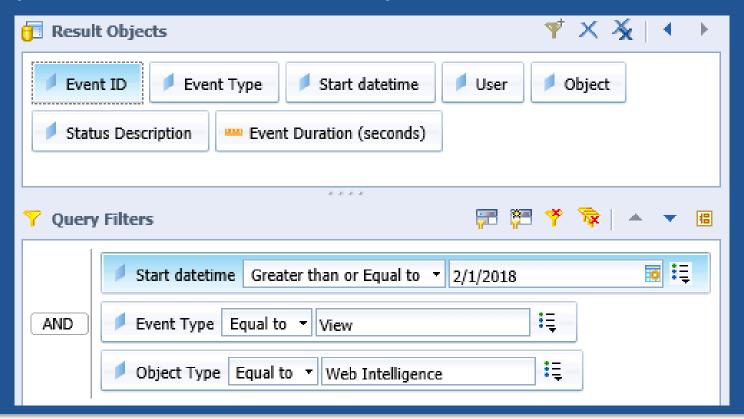


https://blogs.sap.com/2015/07/15/unlock-the-auditing-database-with-a-new-universe-and-web-intelligence-documents-for-bi41/



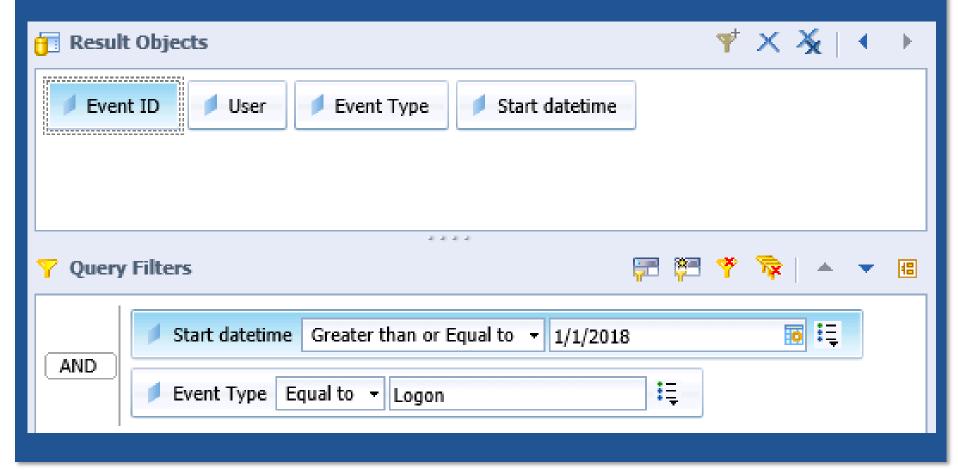


Retrieve a list of Web Intelligence reports viewed (i.e. opened) since February 1, 2018.



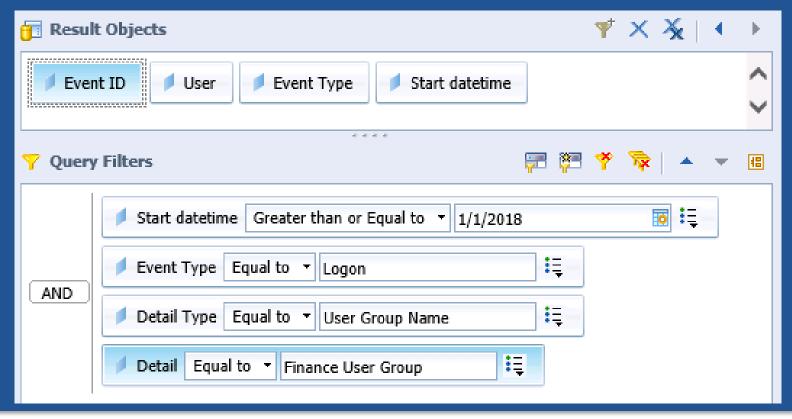


List of users logged in since January 1, 2018.





List of users from the Finance Universe Group who have logged in since January 1, 2018.





ADS\_Event: Main log table

ADS\_Event\_Type\_Str: View, Delete, Logon, etc.

ADS\_Object\_Type\_Str: User, Web Intelligence, etc.

ADS\_User: Table of users and user names

ADS\_Event\_Detail: Supplemental information about

each transaction, e.g. universe name, user group

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ADS\_EVENT



ADS\_EVENT\_TYPE\_STR

ADS\_EVENT



ADS\_EVENT\_TYPE\_STR

ADS\_OBJECT\_TYPE\_STR

ADS\_EVENT



ADS\_EVENT\_TYPE\_STR

ADS\_OBJECT\_TYPE\_STR

**ADS\_EVENT** 

ADS\_USER



ADS\_EVENT\_TYPE\_STR

ADS\_OBJECT\_TYPE\_STR

ADS\_EVENT

ADS\_USER

ADS\_EVENT\_DETAIL





ADS\_EVENT\_TYPE\_STR

ADS\_OBJECT\_TYPE\_STR

**ADS\_EVENT** 

ADS\_EVENT\_DETAIL TYPE STR

ADS\_USER

ADS\_EVENT\_DETAIL





### **AUDIT SQL EXAMPLES \***

```
SELECT
E.User Name,
MAX(E.Start Time) Most Recent Logon,
COUNT(*) Logins
FROM
ADS EVENT EINNER JOIN
ADS_EVENT_TYPE_STR T ON E.Event_Type_ID = T.Event_Type_ID AND T.Language = 'EN'
WHFRF
T.Event_Type_Name = 'Logon'
AND E.User Name <> "
AND E.User_Name IS NOT NULL
AND E.Start_Time >= CONVERT(DATETIME, '11/01/2017', 101)
```

GROUP BY E.User Name



### **AUDIT SQL EXAMPLES \***

```
SELECT
E.Object ID,
E.Object Name Report Name,
FOLDER1.FOLDER NAME + ISNULL(' > ' + FOLDER2.FOLDER NAME, ") Folder,
COUNT(*) Runs,
COUNT(DISTINCT E.User Name) Users,
MAX(CAST(FLOOR(CAST(E.Start Time AS FLOAT)) AS DATETIME)) Last Opened
FROM
ADS EVENT E INNER JOIN
ADS_EVENT_TYPE_STR T ON E.Event_Type_ID = T.Event_Type_ID AND T.Language = 'EN' INNER JOIN
ADS OBJECT TYPE STR O ON E.Object Type ID = O.Object Type ID AND O.Language = 'EN' LEFT JOIN
(SELECT F1.Object ID, MAX(F1.Object Name) FOLDER NAME
FROM ADS_EVENT F1 INNER JOIN ADS_OBJECT_TYPE_STR O1 ON F1.Object_Type_ID = O1.Object_Type_ID AND O1.Language = 'EN'
WHERE O1. Object Type Name LIKE '%Folder%'
GROUP BY F1.Object ID) FOLDER1 ON E.Top Folder ID = FOLDER1.Object ID LEFT JOIN
(SELECT F1.Object_ID, MAX(F1.Object_Name) FOLDER NAME
FROM ADS_EVENT F1 INNER JOIN ADS_OBJECT_TYPE_STR O1 ON F1.Object_Type_ID = O1.Object_Type_ID AND O1.Language = 'EN'
WHERE O1.Object Type Name LIKE '%Folder%'
GROUP BY F1.Object_ID) FOLDER2 ON E.Folder_ID = FOLDER2.Object_ID
WHERE
O.Object Type Name = 'Web Intelligence'
AND T.Event Type Name = 'View'
GROUP BY
E.Object ID,
E.Object Name,
FOLDER1.FOLDER_NAME + ISNULL(' > ' + FOLDER2.FOLDER_NAME, ")
ORDER BY
```

COUNT(\*) DESC

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## REPORT COMMENTARY

Comments posted on Web Intelligence reports are stored in the Commentary\_Master table

#### 1 SELECT \* FROM COMMENTARY MASTER Results CommentID CommentText UserCuid UserName Docid 1 AbVEyw3VMthHlvaLoOOFvvU We should look to add a waterfall chart as well. AfRWaT5\_131NLLf5bRMLKY Administrator Wow! Let's look at expansion opportunites soon. AfRWaT5 131NLLf5bRMLKY 2 AbVEvw3VMthHlvaLoOOFvvU Administrator. 3 AbVEvw3VMthHlvaLoOOFvvU New Text AfRWaT5 131NLLf5bRMLKY Administrator. This is a comment about how comments are the new comment! 4 AXccOwXFcThLhJiQ4otuiSI AfRWaT5\_131NlLLf5bRMLKY Administrator 5 AXccOwXFcThLhJiQ4otuiSI AfRWaT5 131NILLf5bRMLKY test Administrator 6 AXccOwXFcThLhJiQ4otuiSI AfRWaT5\_131NlLLf5bRMLKY test Administrator. 7 AWJIKyKXaR5OuVF5\_6mkjKY AfRWaT5\_131NlLLf5bRMLKY Administrator test



SQL Statements

## NEXT STEPS

- 1) Download and review BI Platform Admin Guide (Chapters 23 24)
- 2) Create 32-bit and 64-bit ODBC
- 3) Set auditing parameters in CMC
- 4) Install SAP auditing universe and sample reports





