

# BI Publisher Audit Reports

A Complete Guide to set up BI Publisher Audit Reports for Fusion Applications

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## TABLE OF CONTENTS

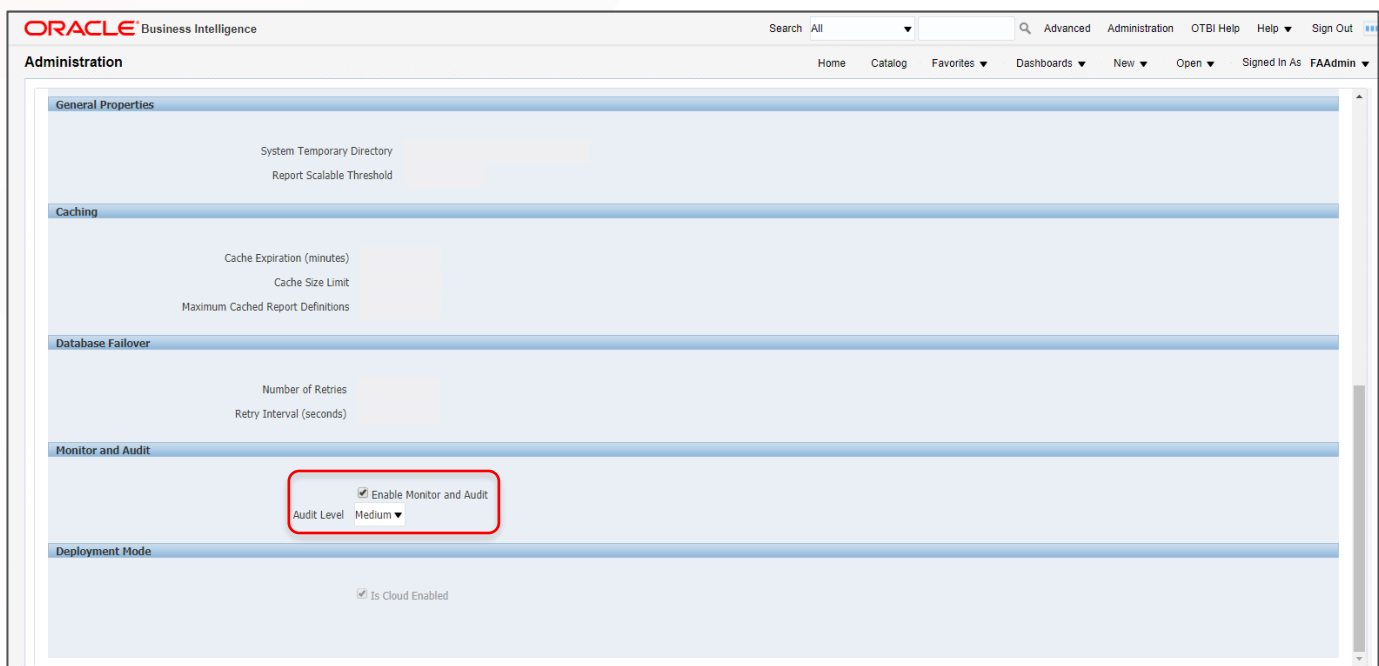
Introduction to Audit Reports in BI Publisher .....	3
Turning ON/OFF Audit Logging .....	3
Viewing the Audit Data .....	4
Audit Data Retention Period .....	4
Sample Audit & Usage Reports .....	4
Download Instruction .....	4
Upload & Configure .....	5
Schedule & View Audit Reports.....	5
Sample Audit & Usage Report Description .....	6
Audit Data for Report Execution .....	7
Audit Data for Catalog Object Updates.....	12
Hourly Concurrency Report.....	15
Report Execution-Time Metrics (Classify into different execution time buckets).....	16
Report Performance By Report Type .....	17
Report Runtime Statistics (Execution Count, Time - Min, Max, Median) .....	18
APPENDIX .....	19
Common Attributes.....	19

## INTRODUCTION TO AUDIT REPORTS IN BI PUBLISHER

Now you can view Audit Data for your BI Publisher reports in Fusion Applications, where in you can turn on or turn off the Audit logging with few clicks and view the Audit Data in few simple steps. The sample Audit reports will not only enable you to view the audit data, but will enable you to give a variety of data insights.

## TURNING ON/OFF AUDIT LOGGING

For Fusion Applications, BI Publisher Audit and Performance monitoring will be turned ON by default with 19A patch release. If one wants to change the default behavior and turn off Audit or Performance Monitoring or both, then one needs to login as BI Administrator and change the Server Configuration as shown in the image below.



Here, when checkbox for 'Enable Monitor and Audit' is checked and when Audit Level is set to Medium, the Audit Logging will be turned ON.

If we set the Audit Level to None, then only Performance Monitoring will be ON

If we uncheck the box for 'Enable Monitor and Audit' then both Performance monitoring and Audit will be turned OFF.

Therefore, You have only following options here

- Audit & Monitoring both ON (by checkbox checked and Audit Level as Medium)
- Audit OFF, Monitoring ON (by checkbox checked and Audit Level as None)
- Audit OFF, Monitoring OFF (by checkbox unchecked)

**Note:**

1. No restart of any service is required to change the audit and performance monitoring setting
2. Ability to view Performance Monitoring data will be available in a future release.

## VIEWING THE AUDIT DATA

For Fusion Applications, Audit data is made available in Audit Reports page under Tools. BI Publisher Audit data is not available yet through this page. However, you can view Audit data by connecting to the Audit table using JNDI connection from BI Publisher Admin Page. The Data model can then connect using SQL data source and fetch the audit data from Fusion\_IAU\_Viewer.bipublisher\_v table view. Once you have the data, you can create the layout using any of the layout templates.

To make this entire effort simple, we are making few Sample Audit Reports available that one can download and use. You will be able to view Audit Data in just few steps.

## AUDIT DATA RETENTION PERIOD

A retention period of 90 days has been set for BI Publisher Audit data in Fusion SaaS environment. Please note that the size of the audit data in Fusion SaaS environment can grow extremely large for environments that have high user activity or high report volume. If you have a requirement to retain Audit data for a longer period, you can export and save the Audit Data as XML or CSV file periodically. You can even create a recurring BI Publisher job to run the Audit reports and deliver the XML or CSV data and the report output to WebCenter Content or any other delivery destination.

## SAMPLE AUDIT & USAGE REPORTS

The following 6 reports are available as sample Reports built using Audit Data:

1. Audit Reports
  - a. Audit Data for Report Execution
  - b. Audit Data for Catalog Object Updates
2. Usage Reports
  - a. Hourly Concurrency
  - b. Report Execution-Time Metrics
  - c. Report Performance by Report Type
  - d. Runtime Statistics

### Download Instruction

You can download the report from BI Publisher Oracle Technology Network (OTN) Home page:

<http://www.oracle.com/technetwork/middleware/bi-publisher/downloads/index.html>

A direct link to the sample reports download file is:

<http://www.oracle.com/technetwork/middleware/bi-publisher/audit-5460233.zip>

Extract Audit.xdrz file from this zip file into your local machine.

## Upload & Configure

You can follow the below steps to upload the Sample Audit Reports:

- Login to your BI Server with BI Author or BI Administrator role. URL: <https://servername.companyname.com/xmlpserver>
- Click on Catalog link on the Global Menu on top
- In the Catalog page, navigate to **Shared Folders/Custom Folder**
- Click on Upload from the Task window in the Accordion Pane and select Audit.xdrz file for upload.
- After upload you will see the Audit Folder under Custom Folder with all the sample Audit Reports included
- Before you run the report, you need to configure the Audit Data Source. You need to login as BI Administrator to configure a JNDI Connection as a data source.

Click Administration > Data Sources > JNDI Connection,

Click Add Data Source. On Add Data Source page, enter

**Data Source Name:** AuditViewDB

**JNDI Name:** jdbc/AuditViewDB

Click "Test Connection" to confirm the data source works, and click Apply to save.

The screenshot shows the Oracle Business Intelligence Administration console. The page title is "Administration" and the breadcrumb is "Home > Catalog > Favorites > Dashboards". The main content area is titled "Update Data Source: AuditViewDB". Under the "General" tab, the following fields are visible: "Data Source Name" (AuditViewDB), "JNDI Name" (jdbc/AuditViewDB), "Pre Process Function" (empty), and "Post Process Function" (empty). There is a checkbox for "Use Proxy Authentication" which is unchecked, and a "Test Connection" button below it. The "Security" tab is also visible at the bottom.

- Under Security section for this Data Source, you can define the roles that will have access to the Audit Data.
- You can further add security permission to the Audit Folder to secure the access to these reports

## Schedule & View Audit Reports

The Audit tables for BI Publisher may fill up very quickly and can soon have huge amount of data that can take long time to process and may even exceed the data size limits to view these reports online. Therefore, all report properties are unchecked to be viewed online as default and these reports should be run as scheduled Jobs.

To schedule the report, you can navigate to the report in the BI Catalog, and then click on Schedule. Select “Date From” and “Date To” parameters, keep output format as PDF and then add delivery destinations as suitable. In case you do not want to deliver the report, you can simply save the report output and allow the job to run on server. You will be able to view this report from Job History page after the job completes.

However, you can enable the “Run Report Online” option in case you want to enable the option to view the report online.

The screenshot shows the 'Report Properties' dialog box with the 'General' tab selected. The 'Description' field contains 'Audit report for Report Author Actions on BI Publisher Catalog Objects'. The 'Run Report Online' checkbox is checked and highlighted with a red box. Other options include 'Show Controls', 'Allow Sharing Report Links', 'Open Links in New Window', and 'Auto Run'. The 'Advanced' section includes 'Job Priority' (Normal), 'Enable Bursting', and 'Report is Controlled by External Application'. There are also text boxes for 'Enterprise Scheduler Job Package Name' and 'Enterprise Scheduler Job Definition Name'.

**Do not enable “Auto Run”** when viewing the report online as this will execute the report with default values for the parameters.

### SAMPLE AUDIT & USAGE REPORT DESCRIPTION

A set of sample Audit Reports and Usage Reports are shared to help you quickly access the Audit data in few easy steps. You can further customize the layouts or even add new layouts for your requirement. We recommend that only the layouts be customized or be created on the existing data models. We do not recommend modification of data model or addition of new data models, as this may lead to improper handling of audit data and could potentially create performance issues.

For any requirement for specific data model, not fulfilled by the sample data model, customer can raise a service request with Oracle Support.

NOTE:

1. 'Date From' and 'Date To' are Mandatory parameters for all the reports, so that the one carefully selects the date interval. In case these parameters are not selected, you will get a blank report.
2. User and Report Path are optional parameters, in case you like to filter the report to a specific user and specific report.

**Audit Data for Report Execution**

**Report Name:** BIPReportAuditTrail

This report has been designed from end user or the consumer activity to execute BI Publisher Reports. There are 5 layouts in this report:

- A. **Report Execution History By User:** This layout displays the report execution grouped by a user name. The report is sorted by user name and the report start time.

User	Report Name	Output Type	Report Output Size (kb)	Execution Type	Status	Report Start Time	Report End Time	Total Report Time (sec)
abraham.mason	ImportAndProcessTransactions.xdo	pdf	7.00	Scheduler	Success	11-Feb-2019 14:28:45	11-Feb-2019 14:28:54	8.06
alice.parkar	ImportAndProcessTransactions.xdo	pdf	6.98	Scheduler	Success	11-Feb-2019 15:29:12	11-Feb-2019 15:29:20	7.76
		pdf	6.98	Scheduler	Success	11-Feb-2019 14:53:07	11-Feb-2019 14:54:44	97.52
	GenerateBurdenTransactionsRep.xdo	pdf	7.47	Scheduler	Success	11-Feb-2019 15:28:26	11-Feb-2019 15:28:26	2.07
	InvoiceGenerations.xdo	pdf	5.25	Scheduler	Success	11-Feb-2019 15:41:09	11-Feb-2019 15:41:14	4.29
	ArInterfaces.xdo	pdf	6.59	Scheduler	Success	11-Feb-2019 16:03:55	11-Feb-2019 16:04:06	11.17
	GenerateRevenue.xdo	pdf	6.10	Scheduler	Success	11-Feb-2019 16:13:06	11-Feb-2019 16:13:17	10.54
	AwardBatchImportReport.xdo	pdf	17.17	Web Services	Success	11-Feb-2019 13:44:11	11-Feb-2019 13:44:14	2.30
	InvoicePreview.xdo	pdf	19.69	Web Services	Success	11-Feb-2019 15:55:28	11-Feb-2019 15:55:33	4.46
ap_mgr_operations	PayablesTrialBalance.xdo	pdf	6.57	Scheduler	Success	11-Feb-2019 16:30:30	11-Feb-2019 16:30:39	9.55
	CashRequirement.xdo	pdf	3.76	Scheduler	Success	11-Feb-2019 16:33:13	11-Feb-2019 16:33:19	6.15
ap_supv_operations	DisbursementPaymentFileFormats.xdo	pdf	1.59	Web Services	Success	11-Feb-2019 17:35:02	11-Feb-2019 17:35:02	0.06
		pdf	1.62	Web Services	Success	11-Feb-2019 17:31:16	11-Feb-2019 17:31:16	0.05
		pdf	1.62	Web Services	Success	11-Feb-2019 17:28:18	11-Feb-2019 17:28:18	0.07
		pdf	1.62	Web Services	Success	11-Feb-2019 17:27:48	11-Feb-2019 17:27:48	0.06
		pdf	1.62	Web Services	Success	11-Feb-2019 17:27:05	11-Feb-2019 17:27:05	0.05
		pdf	1.63	Web Services	Success	11-Feb-2019 17:26:33	11-Feb-2019 17:26:33	0.12
		pdf	1.60	Web Services	Success	11-Feb-2019 17:05:10	11-Feb-2019 17:05:10	0.07
		pdf	1.60	Web Services	Success	11-Feb-2019 17:03:17	11-Feb-2019 17:03:17	0.12
		text	0.46	Web Services	Success	11-Feb-2019 16:35:08	11-Feb-2019 16:35:08	0.28
		pdf	1.65	Web Services	Success	11-Feb-2019 16:12:22	11-Feb-2019 16:12:22	0.13

B. **Report Design & Execution Summary:** This layout displays a history of report executions. You can see the reports run sorted by Report Start Time, therefore most recent report execution will show on top.

### Report Execution History

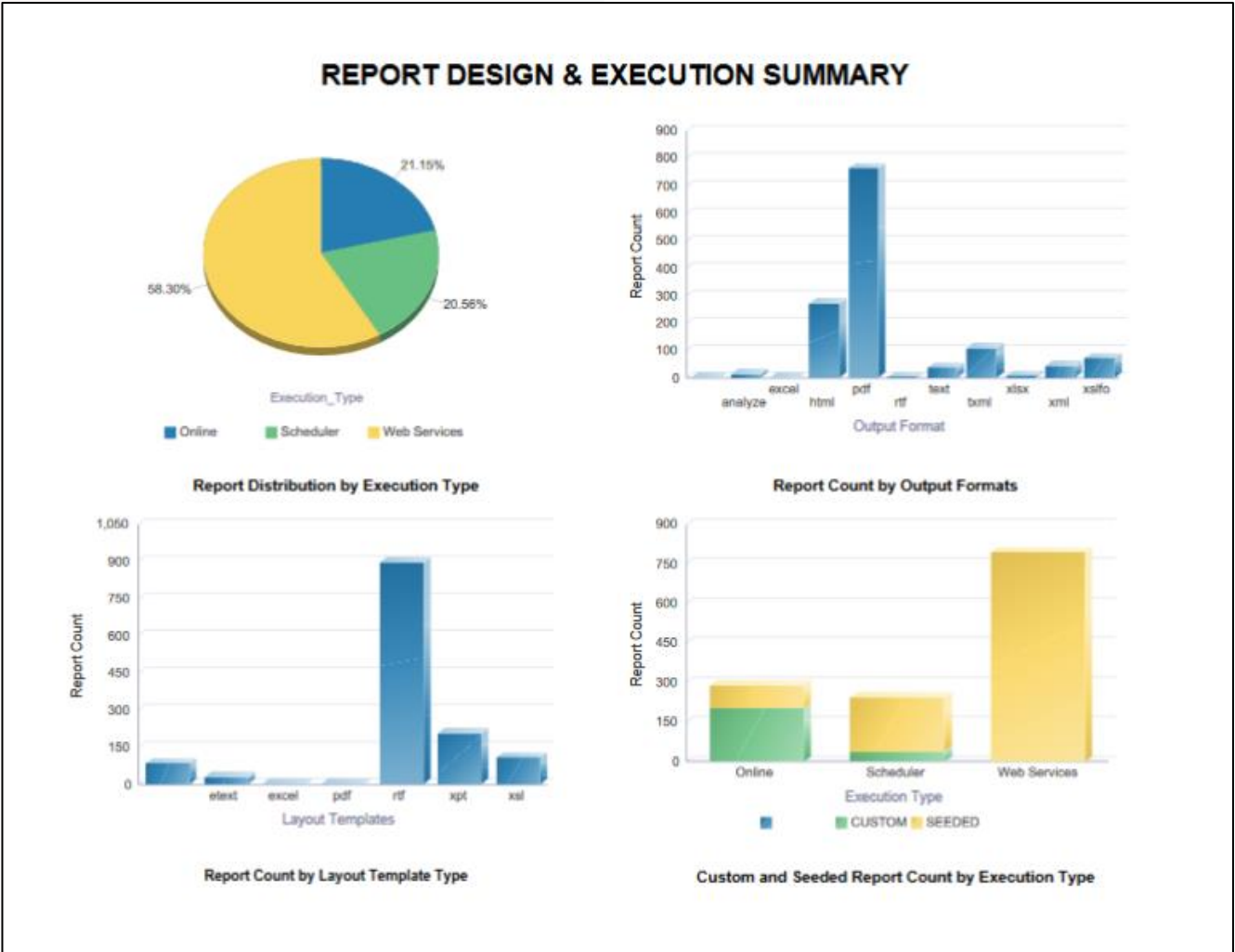
Report Name	Report Type	Execution Type	Report Start Time	Report End Time	Total Report Time (Sec)	Report Output Size (KB)	User
BIPReportAuditTrail.xdo	CUSTOM	Online	20-Feb-2019 11:11:37	20-Feb-2019 11:11:38	1.00	63.37	faadmin
BIPReportAuditTrail.xdo	CUSTOM	Online	20-Feb-2019 11:07:58	20-Feb-2019 11:07:59	1.16	101.94	faadmin
BIPReportAuditTrail.xdo	CUSTOM	Online	20-Feb-2019 11:04:59	20-Feb-2019 11:05:01	2.25	123.48	faadmin
ReportRuntimeStatistics.xdo	CUSTOM	Online	20-Feb-2019 11:02:48	20-Feb-2019 11:02:57	9.33	30.10	faadmin
ReportRuntimeStatistics.xdo	CUSTOM	Online	20-Feb-2019 10:55:43	20-Feb-2019 10:55:52	9.65	28.91	faadmin
ReportRuntimeStatistics.xdo	CUSTOM	Online	20-Feb-2019 06:36:52	20-Feb-2019 06:37:02	9.53	25.90	faadmin
ReportPerformanceByReportTypeDM.xdm	CUSTOM	Online	20-Feb-2019 06:34:38	20-Feb-2019 06:34:38	0.34		faadmin
ReportRunStatisticsDM.xdm	CUSTOM	Online	20-Feb-2019 06:30:58	20-Feb-2019 06:31:07	8.99		faadmin
HourlyConcurrencyReport.xdo	CUSTOM	Online	20-Feb-2019 05:32:50	20-Feb-2019 05:32:51	0.65	5.01	faadmin
HourlyConcurrencyDM.xdm	CUSTOM	Online	20-Feb-2019 05:31:59	20-Feb-2019 05:32:00	1.82		faadmin
ReportExecutionTimeMetricsDM.xdm	CUSTOM	Online	20-Feb-2019 04:46:29	20-Feb-2019 04:46:30	0.72		faadmin
BudgetaryControlResults.xdo	SEEDED	Scheduler	19-Feb-2019 18:32:12	19-Feb-2019 18:32:13	1.39	3.36	app_impl_consultant
ReportPerformanceByReportType.xdo	CUSTOM	Online	19-Feb-2019 13:54:06	19-Feb-2019 13:54:06	0.40	2.52	faadmin
ReportPerformanceByReportType.xdo	CUSTOM	Online	19-Feb-2019 13:45:51	19-Feb-2019 13:45:52	0.44	2.52	faadmin
ReportExecutionTimeMetrics.xdo	CUSTOM	Online	19-Feb-2019 13:42:37	19-Feb-2019 13:42:38	0.78	28.93	faadmin
ReportRuntimeStatistics.xdo	CUSTOM	Online	19-Feb-2019 13:38:45	19-Feb-2019 13:38:54	9.76	29.86	faadmin
BIPCatalogObjectAuditTrail.xdo	CUSTOM	Online	19-Feb-2019 13:28:15	19-Feb-2019 13:28:16	0.72	56.03	faadmin
BIPCatalogObjectAuditTrail.xdo	CUSTOM	Online	19-Feb-2019 13:27:53	19-Feb-2019 13:27:53	0.74	33.80	faadmin
BIPReportAuditTrail.xdo	CUSTOM	Online	19-Feb-2019 12:14:24	19-Feb-2019 12:14:26	2.47	122.40	faadmin
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:39:02	19-Feb-2019 11:39:05	2.92	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:34:02	19-Feb-2019 11:34:04	1.93	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:29:01	19-Feb-2019 11:29:03	1.79	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:24:03	19-Feb-2019 11:24:06	2.76	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:19:03	19-Feb-2019 11:19:05	2.36	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:14:02	19-Feb-2019 11:14:04	1.97	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:09:01	19-Feb-2019 11:09:03	1.91	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 11:04:01	19-Feb-2019 11:04:03	1.79	1.91	app_impl_consultant
TCABulkImportErrors.xdo	CUSTOM	Scheduler	19-Feb-2019 10:59:00	19-Feb-2019 10:59:02	2.49	1.91	app_impl_consultant



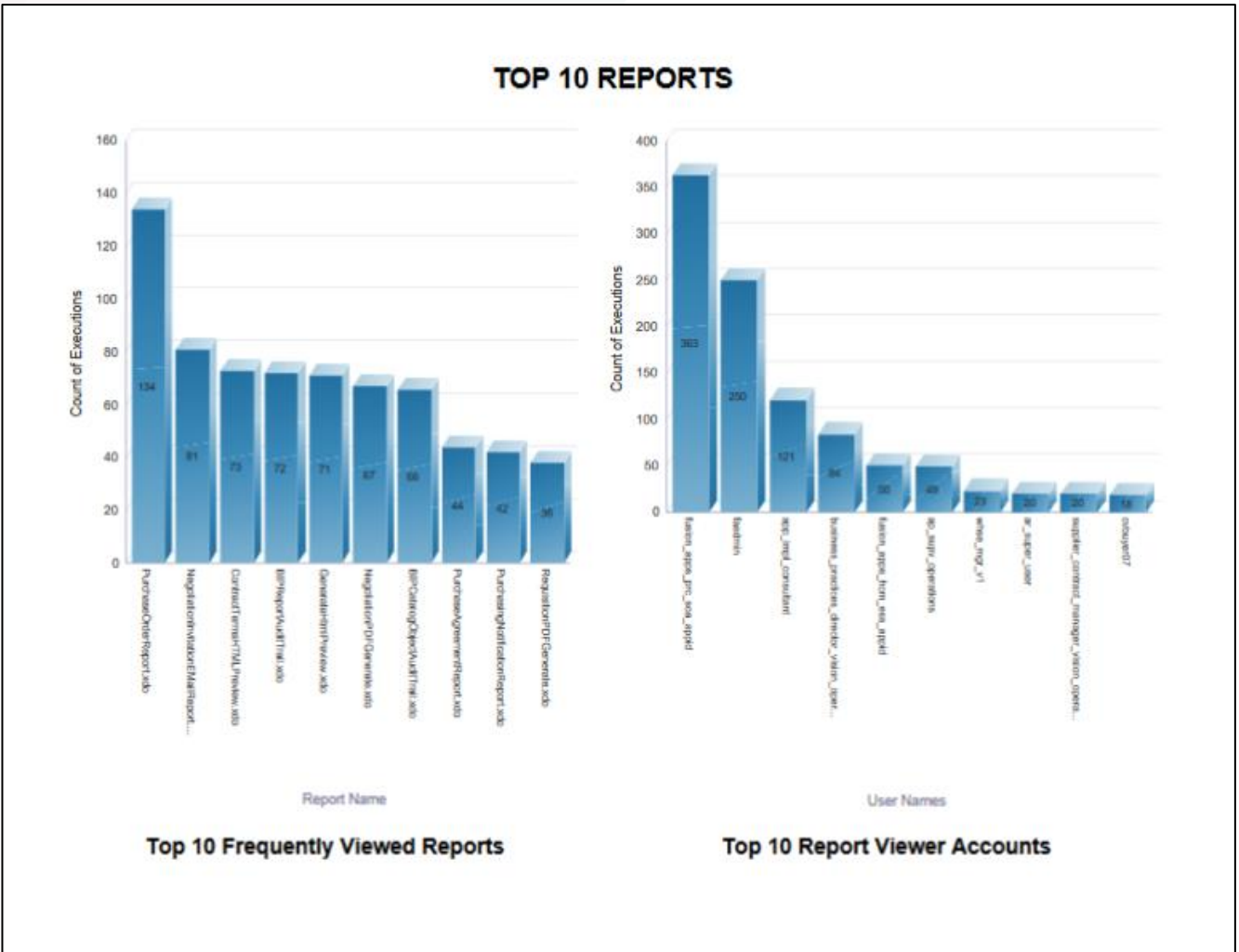
- C. **Report Data sets & Query Execution Report:** This layout gives an insight into the different data sets that get executed for a report, the different time taken by each query, number of rows processed for each query and the overall time taken by all the queries to generate the data.

Report Data sets & Query Execution Report							
REPORT NAME	SQID	DATASET NAME	ROWS PROCESSED	DATA GENERATION START TIME	DATA GENERATION END TIME	SQL EXEC TIME (ms)	TOTAL QUERY EXECUTION TIME (ms)
BIPReportAuditTrail.xdo		BIPAudit	996	20-Feb-2019 11:20:44	20-Feb-2019 11:20:44	257	257
BIPReportAuditTrail.xdo		BIPAudit	1364	20-Feb-2019 11:13:25	20-Feb-2019 11:13:25	353	353
BIPReportAuditTrail.xdo		BIPAudit	1363	20-Feb-2019 11:12:35	20-Feb-2019 11:12:36	353	353
BIPReportAuditTrail.xdo		BIPAudit	1362	20-Feb-2019 11:11:37	20-Feb-2019 11:11:38	344	344
BIPReportAuditTrail.xdo		BIPAudit	1361	20-Feb-2019 11:07:58	20-Feb-2019 11:07:59	325	325
BIPReportAuditTrail.xdo		BIPAudit	1360	20-Feb-2019 11:04:59	20-Feb-2019 11:05:00	384	384
ReportRuntimeStatistics.xdo		myDS	192	20-Feb-2019 11:02:48	20-Feb-2019 11:02:57	8840	8840
ReportRuntimeStatistics.xdo		myDS	192	20-Feb-2019 10:55:43	20-Feb-2019 10:55:52	9082	9082
ReportRuntimeStatistics.xdo		myDS	192	20-Feb-2019 06:36:52	20-Feb-2019 06:37:01	9066	9066
ReportPerformanceByReportTypeDM.xdm		myDS	5	20-Feb-2019 06:34:38	20-Feb-2019 06:34:38	226	226
ReportRunStatisticsDM.xdm		myDS	90	20-Feb-2019 06:30:58	20-Feb-2019 06:31:07	8882	8882
HourlyConcurrencyReport.xdo		myDS	58	20-Feb-2019 05:32:50	20-Feb-2019 05:32:51	379	379
HourlyConcurrencyDM.xdm		myDS	50	20-Feb-2019 05:31:59	20-Feb-2019 05:32:00	1710	1710
ReportExecutionTimeMetricsDM.xdm		myDS	100	20-Feb-2019 04:46:29	20-Feb-2019 04:46:30	314	314
BudgetaryControlResults.xdo	g4qq2jw7wpp4_1cdk0pqb41u3_3kzz4q4gcvas3	Trxn_View,Budget_View,Budget_View_Details	0,1,0	19-Feb-2019 18:32:12	19-Feb-2019 18:32:12	28,24,19	91
ReportPerformanceByReportType.xdo		myDS	6	19-Feb-2019 13:54:06	19-Feb-2019 13:54:06	179	179
ReportPerformanceByReportType.xdo		myDS	6	19-Feb-2019 13:45:51	19-Feb-2019 13:45:52	263	263
ReportExecutionTimeMetrics.xdo		myDS	189	19-Feb-2019 13:42:37	19-Feb-2019 13:42:38	253	253
ReportRuntimeStatistics.xdo		myDS	189	19-Feb-2019 13:38:45	19-Feb-2019 13:38:54	9241	9241
BIPCatalogObjectAuditTrail.xdo		myDS	497	19-Feb-2019 13:28:15	19-Feb-2019 13:28:15	89	89
BIPCatalogObjectAuditTrail.xdo		myDS	497	19-Feb-2019 13:27:53	19-Feb-2019 13:27:53	141	141
BIPReportAuditTrail.xdo		BIPAudit	1344	19-Feb-2019 12:14:24	19-Feb-2019 12:14:25	530	530
TCABulkImportErrors.xdo	gbxaa3weg30x8,dmp hv1dxypr7,c5k5zw0k 77a5w,J082szwmgrz	IMPORT_BATCH_SUMMARY,IMPORT_PARTIES,IMPORT_PARTYSITES,IMPORT_PARTY	0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0	19-Feb-2019 11:39:03	19-Feb-2019 11:39:04	22,19,21,25,12,8,55,21,19,18,16,20,20,19,20	1215

D. **Report Execution Summary:** This layout gives a generic report execution insight on how many of the reports are run online on browser vs scheduled to run offline vs requested through web service calls. Also, the layout shows a distribution of different output formats, different layout templates and custom vs seeded reports across all the executions.



E. **Top 10 Reports:** This layout displays Top 10 reports in terms of count of executions, duration of run, size of report and also shows top 10 user accounts with count of report executions.



## Audit Data for Catalog Object Updates

Report Name: BIPCatalogObjectAuditTrail

This report has been designed from report author activity usage perspective where a person with BI Author or BI Administrator takes certain action (Update, Delete, Copy, etc) on catalog objects. There are 2 layouts in this report:

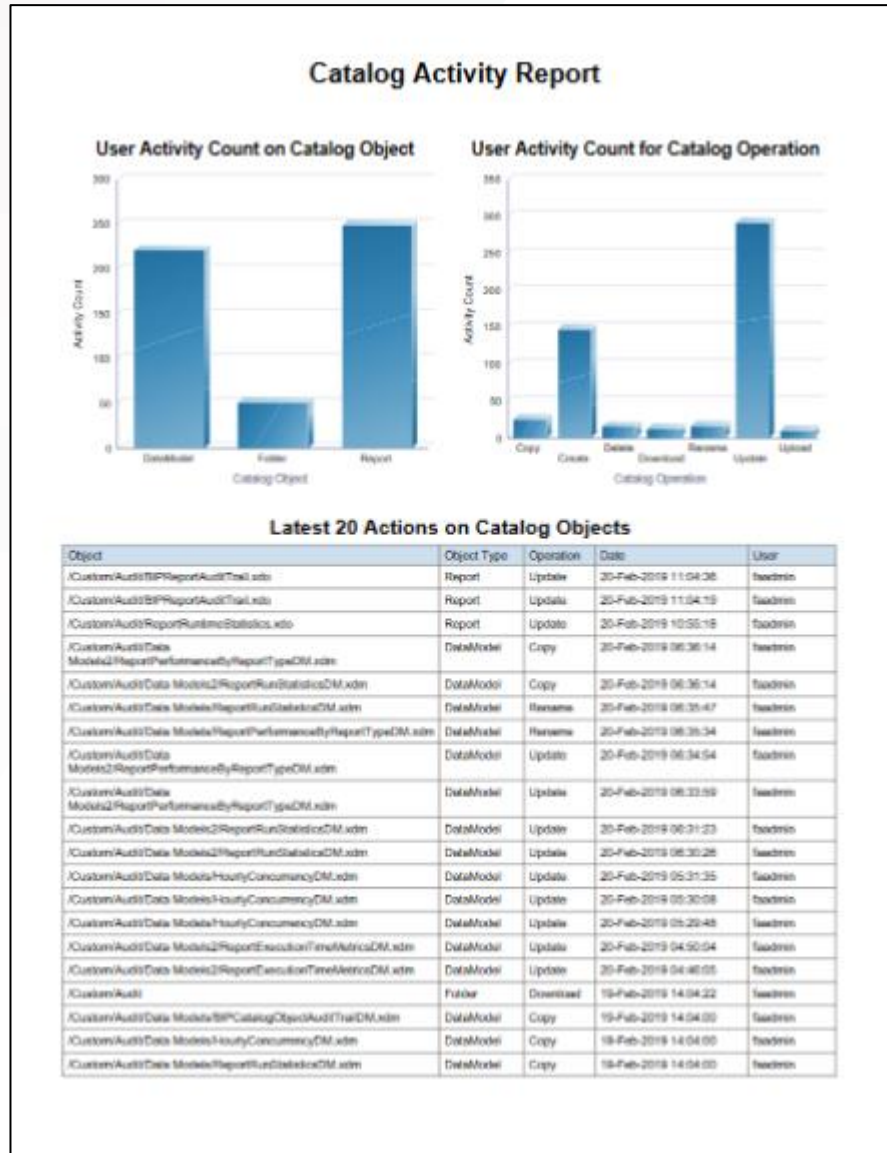
- A. **BI Publisher Catalog Object Update History:** This layout simply lists all the activity on a catalog object performed by any user.

Object	Object Type	Operation	Date	User
/Custom/Audit/ReportAuditTrail.rpt	Report	Update	20-Feb-2019 11:04:38	saadmin
		Update	20-Feb-2019 11:04:19	saadmin
		Update	19-Feb-2019 07:20:42	saadmin
		Update	19-Feb-2019 04:50:17	saadmin
		Update	19-Feb-2019 04:42:27	saadmin
		Update	18-Feb-2019 13:40:47	saadmin
		Update	18-Feb-2019 12:49:00	saadmin
		Update	18-Feb-2019 12:43:05	saadmin
		Update	18-Feb-2019 12:42:55	saadmin
		Update	18-Feb-2019 12:23:39	saadmin
		Update	18-Feb-2019 10:58:25	saadmin
		Update	18-Feb-2019 08:09:57	saadmin
		Copy	18-Feb-2019 03:14:29	saadmin
		Update	18-Feb-2019 03:04:31	saadmin
		Update	18-Feb-2019 03:04:18	saadmin
		Update	15-Feb-2019 05:44:19	saadmin
		Update	15-Feb-2019 05:44:14	saadmin
		Update	14-Feb-2019 08:50:20	saadmin
		Create	14-Feb-2019 08:50:20	saadmin
		Update	14-Feb-2019 08:14:54	saadmin
Create	14-Feb-2019 08:14:54	saadmin		
/Custom/Audit/ReportRunTimeStatistics.rpt	Report	Update	20-Feb-2019 10:55:18	saadmin
		Update	15-Feb-2019 12:01:56	saadmin
		Copy	15-Feb-2019 11:41:51	saadmin
		Update	15-Feb-2019 05:47:52	saadmin
		Update	15-Feb-2019 05:47:46	saadmin
		Update	14-Feb-2019 08:50:21	saadmin
		Create	14-Feb-2019 08:50:21	saadmin
/Custom/Audit/Data Models2/ReportPerformanceByReportTypeDM.rdm	DataModel	Copy	20-Feb-2019 08:38:14	saadmin
		Update	20-Feb-2019 08:34:54	saadmin
		Update	20-Feb-2019 08:33:59	saadmin
/Custom/Audit/Data Models2/ReportRunStatisticsDM.rdm	DataModel	Copy	20-Feb-2019 08:38:14	saadmin
		Update	20-Feb-2019 08:31:23	saadmin
		Update	20-Feb-2019 08:30:26	saadmin
/Custom/Audit/Data Models/ReportRunStatisticsDM.rdm	DataModel	Rename	20-Feb-2019 08:35:47	saadmin
		Copy	19-Feb-2019 14:54:00	saadmin
		Update	19-Feb-2019 13:16:24	saadmin
		Update	19-Feb-2019 13:16:22	saadmin
		Update	19-Feb-2019 13:16:14	saadmin
		Update	19-Feb-2019 13:16:14	saadmin

B. **User Action History:** This layout shows the History of User Action on Catalog Objects

<b>User Action History on Catalog Objects</b>				
User	Operation	Date	Catalog Object	Catalog Object Type
faadmin	Download	10-Apr-2019 10:04:21	/Custom/Audit	Folder
	Update	10-Apr-2019 08:04:12	/Custom/Audit/BIPReportAuditTrail.xdo	Report
	Update	10-Apr-2019 08:04:30	/Custom/Audit/BIPCatalogObjectAuditTrail.xdo	Report
	Update	10-Apr-2019 08:04:55	/Custom/Audit/BIPCatalogObjectAuditTrail.xdo	Report
	Upload	09-Apr-2019 12:04:18	/Custom/Audit	Folder
	Update	09-Apr-2019 12:04:17	/Custom/Audit/Data Models/ReportRunStatisticsDM2.xdm	DataModel
	Create	09-Apr-2019 12:04:17	/Custom/Audit/Data Models/ReportRunStatisticsDM2.xdm	DataModel
	Update	09-Apr-2019 12:04:17	/Custom/Audit/Data Models/ReportRunStatisticsDM.xdm	DataModel
	Create	09-Apr-2019 12:04:17	/Custom/Audit/Data Models/ReportRunStatisticsDM.xdm	DataModel
	Update	09-Apr-2019 12:04:16	/Custom/Audit/Data Models/ReportPerformanceByReportTypeDM2.xdm	DataModel
	Create	09-Apr-2019 12:04:16	/Custom/Audit/Data Models/ReportPerformanceByReportTypeDM2.xdm	DataModel
	Update	09-Apr-2019 12:04:15	/Custom/Audit/Data Models/ReportPerformanceByReportTypeDM.xdm	DataModel
	Create	09-Apr-2019 12:04:15	/Custom/Audit/Data Models/ReportPerformanceByReportTypeDM.xdm	DataModel
	Update	09-Apr-2019 12:04:15	/Custom/Audit/Data Models/ReportExecutionTimeMetricsDM.xdm	DataModel
	Create	09-Apr-2019 12:04:15	/Custom/Audit/Data Models/ReportExecutionTimeMetricsDM.xdm	DataModel
	Update	09-Apr-2019 12:04:14	/Custom/Audit/Data Models/HourlyConcurrencyDM.xdm	DataModel
	Create	09-Apr-2019 12:04:14	/Custom/Audit/Data Models/HourlyConcurrencyDM.xdm	DataModel
	Update	09-Apr-2019 12:04:13	/Custom/Audit/Data Models/BIPReportAuditTrailDM.xdm	DataModel
	Create	09-Apr-2019 12:04:13	/Custom/Audit/Data Models/BIPReportAuditTrailDM.xdm	DataModel
	Update	09-Apr-2019 12:04:13	/Custom/Audit/Data Models/BIPCatalogObjectAuditTrailDM.xdm	DataModel
	Create	09-Apr-2019 12:04:13	/Custom/Audit/Data Models/BIPCatalogObjectAuditTrailDM.xdm	DataModel
	Create	09-Apr-2019 12:04:12	/Custom/Audit/Data Models	Folder
	Update	09-Apr-2019 12:04:11	/Custom/Audit/ReportRuntimeStatistics.xdo	Report
	Create	09-Apr-2019 12:04:11	/Custom/Audit/ReportRuntimeStatistics.xdo	Report
	Update	09-Apr-2019 12:04:11	/Custom/Audit/ReportPerformanceByReportType.xdo	Report
	Create	09-Apr-2019 12:04:11	/Custom/Audit/ReportPerformanceByReportType.xdo	Report
	Update	09-Apr-2019 12:04:10	/Custom/Audit/ReportExecutionTimeMetrics.xdo	Report
	Create	09-Apr-2019 12:04:10	/Custom/Audit/ReportExecutionTimeMetrics.xdo	Report
	Update	09-Apr-2019 12:04:09	/Custom/Audit/HourlyConcurrencyReport.xdo	Report
	Create	09-Apr-2019 12:04:09	/Custom/Audit/HourlyConcurrencyReport.xdo	Report
	Update	09-Apr-2019 12:04:08	/Custom/Audit/BIPReportAuditTrail.xdo	Report
	Create	09-Apr-2019 12:04:08	/Custom/Audit/BIPReportAuditTrail.xdo	Report
Update	09-Apr-2019 12:04:07	/Custom/Audit/BIPCatalogObjectAuditTrail.xdo	Report	
Create	09-Apr-2019 12:04:07	/Custom/Audit/BIPCatalogObjectAuditTrail.xdo	Report	
Create	09-Apr-2019 12:04:07	/Custom/Audit	Folder	
Upload	09-Apr-2019 12:04:41	/~faadmin/Audit	Folder	

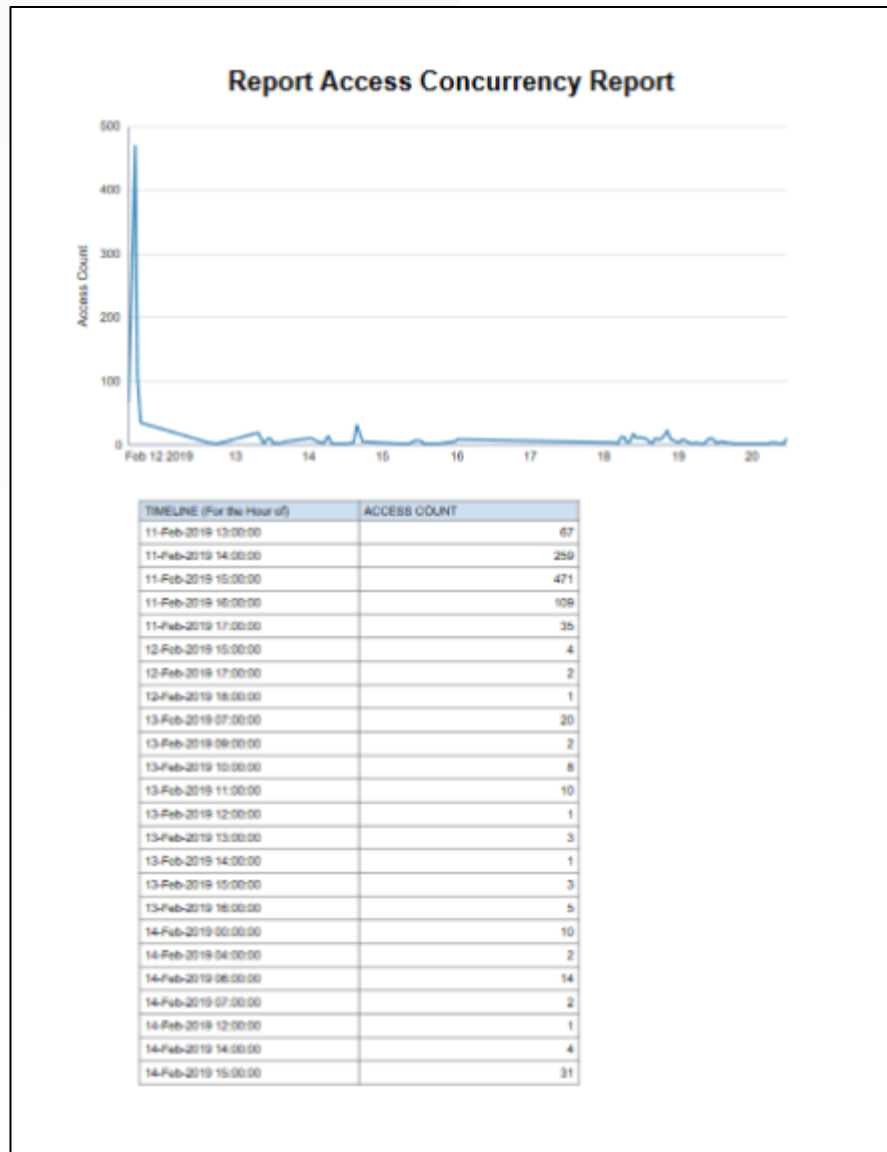
- C. **Catalog Activity Report:** This layout gives an insight into activity count on different catalog objects and also a count of different operations being performed on the catalog objects. You can see the latest 20 actions performed on Catalog Objects.



## Hourly Concurrency Report

Report Name: HourlyConcurrencyReport

This report gives you an hourly data for number of concurrent report executions through all different channels (Online, Scheduled Jobs or Web Services). The timeline skips the hours when no reports were executed. This report will help you look at any spike of report executions, planned or unplanned, that could be causing performance bottlenecks and may help plan the resources better.





## Report Execution-Time Metrics (Classify into different execution time buckets)

Report Name: ReportExecutionTimeMetrics

This report classifies all the reports into different time interval buckets, such as reports that run in 0-3s, 3s to 1 minute, 1minute to 10 minute, 10m to 1 hour, 1 hour to 2 hour, and reports that run longer than 2 hours. This will help you identify reports in different categories such as small, medium, large and extremely large reports and their count of execution to assess the resource better.

### REPORT EXECUTION METRICS

REPORT NAME & PATH	EXECUTION COUNT	UNIQUE USER	NO OF ERRORS	CACHE HIT	0 - 3s	3s - 1m	1m - 10m	10m - 1hr	1 - 2hr	> 2hr	MIN EXEC TIME	MAX EXEC TIME	AVG EXEC TIME
/Customer Data Management/TCABulkImportErrors.xdo	32	2	0	0	26	4	0	0	0	0	1.37	4.34	2.36
/Enterprise Contracts/Contract Terms Printing/ClauseLayout.xdo	5	2	0	0	5	0	0	0	0	0	0.48	0.63	0.56
/Projects/Project Enterprise Resources/MaintainProjectEnterpriseLaborResourcesExecReport.xdo	1	1	0	0	0	0	1	0	0	0	103.71	103.71	103.71
/Human Capital Management/Payroll/Regulatory and Tax Reporting/UK/Pensions Automatic Enrolment Employer Reports.xdo	5	1	0	0	4	1	0	0	0	0	2.48	3.21	2.72
Procurement/Purchasing/PurchaseOrderReport.xdo	134	3	0	1	30	102	2	0	0	0	0.00	68.32	13.49
/Projects/Project Assets/GenerateAssetLines.xdo	1	1	0	0	0	0	1	0	0	0	206.97	206.97	206.97
/Human Capital Management/Payroll/Payroll Calculations/Statutory Deduction Register.xdo	1	1	0	0	0	1	0	0	0	0	4.51	4.51	4.51
/Financials/Collections/Correspondence/PromiseConfirmationDelivery.xdo	1	1	1	0	0	1	0	0	0	0	6.66	6.66	6.66
/faadmin/Audit/ReportExecutionTimeMetrics.xdo	1	1	0	0	1	0	0	0	0	0	1.18	1.18	1.18
Projects/Project Billing/InvoicePreview.xdo	3	3	0	0	0	3	0	0	0	0	3.95	17.70	8.70
/Custom/Audit_latest/BIPCatalogObjectAuditTrail.xdo	1	1	0	0	1	0	0	0	0	0	0.34	0.34	0.34
/Human Capital Management/Payroll/Regulatory and Tax Reporting/UK/FPS.xdo	2	1	0	0	1	1	0	0	0	0	0.05	13.01	6.53
/Custom/Audit/Copy of BIPReportAuditTrail.xdo	12	1	0	4	11	1	0	0	0	0	0.01	3.32	0.50
/Financials/Budgetary Control/BudgetImportAnalysis.xdo	2	1	0	0	0	1	1	0	0	0	6.74	108.04	57.39
/Human Capital Management/Payroll/Regulatory and Tax Reporting/US/Year End/W2Register.xdo	1	1	0	0	0	1	0	0	0	0	4.36	4.36	4.36
/Human Capital Management/Payroll/Regulatory and Tax Reporting/US/Year End/W2RegisterTotals.xdo	1	1	0	0	0	1	0	0	0	0	6.47	6.47	6.47
/Financials/Payables/Payments/CashRequirement.xdo	1	1	0	0	0	1	0	0	0	0	6.15	6.15	6.15
/Financials/General Ledger/Account Analysis/GeneralLedger.xdo	1	1	0	0	1	0	0	0	0	0	1.74	1.74	1.74
/Human Capital Management/Workflow Notifications/AbsenceApprovalNotificationReport.xdo	5	2	0	0	3	2	0	0	0	0	1.12	4.05	2.89
/Procurement/Purchasing/PurchasingNotificationReport.xdo	42	25	0	0	24	18	0	0	0	0	0.97	9.01	3.28
/Financials/Intercompany Accounting/IntercompanyAccountDetails.xdo	3	1	0	0	0	3	0	0	0	0	3.87	5.73	5.06
/Financials/Cash Management/Bank Statements and Reconciliation/InboundBankStatements.xdo	4	1	0	0	4	0	0	0	0	0	0.03	0.07	0.06
/Enterprise Contracts/Transformation	71	15	0	0	71	0	0	0	0	0	0.06	0.53	0.11



## Report Performance By Report Type

Report Name: ReportPerformanceByReportType

This report performance metrics by execution type and based on whether the report is seeded or custom.

### REPORT PERFORMANCE METRICS BY REPORT TYPE

REPORT TYPE	COUNT OF RUN	UNIQUE USER	REPORT FAILED	FROM DOC CACHE	0-3 s	3s - 1M	1M - 10 M	10 M - 1 Hr	1 - 2 Hr	> 2hr	MIN EXECUTION TIME (Sec)	MAX EXECUTION TIME (Sec)	AVG EXECUTION TIME (Sec)
Custom Scheduler	41	2	32	0	31	8	0	2	0	0	0.27	801.75	43.27
Custom Web Services	351	20	2	1	192	157	2	0	0	0	0	88.32	7.41
Seeded Web Services	443	85	3	0	385	58	0	0	0	0	0.02	51.68	1.65
Seeded Online	3	2	0	0	3	0	0	0	0	0	1.37	2.92	2.28
Custom Online	297	4	6	22	252	41	2	2	0	0	0	827.85	7.98
Seeded Scheduler	239	43	3	0	80	142	17	0	0	0	0.76	214.92	15.8
Total	1374	156	46	23	943	406	21	4	0	0			

## Report Runtime Statistics (Execution Count, Time - Min, Max, Median)

Report Name: ReportRuntimeStatistics

This report has been designed from report author activity usage perspective where a person with BI Author or BI Administrator takes certain action (Update, Delete, Copy, etc) on catalog objects. There are 2 layouts in this report:

### REPORT RUNTIME STATISTICS

Report_Path	Distinct Users Count	Report Execution Count	Max Execution Time	Avg Execution Time	Median Execution Time	Max Rows Returned by Report	Median Rows Returned by Report	Min Rows Returned by Report	Max Report Output Size (KB)	Median Report Output Size (KB)	Min Report Output Size (KB)
/Custom/Audit/BIPCatalogObjectAuditTrail.xdo	1	52	11355	587.73	341.5	1019	274	0	1594.18	74.09	0.00
/Custom/Audit/BIPReportAuditTrail.xdo	1	40	4708	1937.25	1896.5	1366	1131	0	2368.79	1808.12	1.92
/Custom/Audit/Copy of BIPReportAuditTrail.xdo	1	12	3323	503.17	250.5	1107	26.5	0	1893.03	45.95	0.00
/Custom/Audit/Data Models/BIPCatalogObjectAuditTrailDM.xdm	1	4	284	160	128.5	5	2.5	0	1.40	0.83	0.30
/Custom/Audit/Data Models/BIPReportAuditTrailDM.xdm	1	8	480	262.88	252.5	78	0	0	112.28	0.32	0.27
/Custom/Audit/Data Models/HourlyConcurrencyDM.xdm	1	3	1821	1677.67	1607	50	45	27	4.79	4.29	2.68
/Custom/Audit/Data Models/ReportExecutionTimeMetricsDM.xdm	1	3	491	430	476	100	50	5	59.79	30.12	3.13
/Custom/Audit/Data Models/ReportPerformanceByReportTypeDM.xdm	1	2	980	629	629	6	6	6	3.69	3.69	3.68
/Custom/Audit/Data Models/ReportRunStatistics2DM.xdm	1	1	504	504	504	5	5	5	3.12	3.12	3.12
/Custom/Audit/Data Models/ReportRunStatisticsDM.xdm	1	3	8738	8053.67	7857	100	50	50	66.08	32.92	32.92
/Custom/Audit/Data Models2/ReportExecutionTimeMetricsDM.xdm	1	1	723	723	723	100	100	100	60.79	60.79	60.79
/Custom/Audit/Data Models2/ReportPerformanceByReportTypeDM.xdm	1	1	336	336	336	5	5	5	3.07	3.07	3.07
/Custom/Audit/Data Models2/ReportRunStatisticsDM.xdm	1	1	8993	8993	8993	50	50	50	24.73	24.73	24.73
/Custom/Audit/HourlyConcurrencyReport.xdo	1	8	4893	1973.88	1562	72	28	26	12.46	6.83	6.30
/Custom/Audit/ReportExecutionTimeMetrics.xdo	1	19	1459	677.21	703	192	152	0	153.05	113.87	2.06
/Custom/Audit/ReportPerformanceByReportType.xdo	1	9	1293	447	404	6	5	0	6.21	5.39	0.00
/Custom/Audit/ReportPerformanceByReportType2.xdo	1	1	570	570	570	5	5	5	5.45	5.45	5.45
/Custom/Audit/ReportRuntimeStatistics.xdo	1	10	9760	7985.7	8781.5	192	152	0	155.97	124.84	2.03
/Custom/Audit/ReportRuntimeStatistics2.xdo	1	6	3093	957	644	5	5	0	5.56	5.49	0.00
/Custom/Audit_latest/BIPCatalogObjectAuditTrail.xdo	1	1	344	344	344	25	25	25	7.92	7.92	7.92

## APPENDIX

Audit table captures several Audit Events and attributes. Some common attributes are listed here:

### Common Attributes

The below attributes are logged for all events (some restrictions apply).

ATTRIBUTE	DATABASE COLUMN	NOTE
Amount of free memory when the event is recorded	FREEMEMORY	
Event category (ex. report access, report execution, resource access)	IAU_EVENTCATEGORY	
Event recorded date/time	IAU_TSTZORIGINATING	
Event status (1 = success, 0= error)	IAU_EVENTSTATUS	
Event type (ex. report request start, scheduled job end, resource delete)	IAU_EVENTTYPE	
Report full path	IAU_RESOURCE	IAU_RESOURCE is not recorded for ReportJobPause, ReportJobResume, ReportJobDelete (user can find IAU_RESOURCE for these events by JobID)
Total amount of memory allocated to JVM when the event is recorded	TOTALMEMORY	
User name	IAU_INITIATOR	

In addition, there are "common" attributes also added and maintained by audit library, but not relevant for BI Publisher Audit Report.

There are different events, that needs to be looked at when creating these Audit Reports from scratch

1. Report Access Events
2. Report Execution Events
3. Report Job Events
4. Resource Access Events

Details on the above events adds to the complexity of retrieving the Audit Data and therefore, Sample Audit Reports will eliminate the need to deep dive into understanding the events and sequence of events.

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