Expert Guide to Cognos Audit Data
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Forward

Of all the subjects in the area of Cognos administration, Audit Data consistently ranks at or near the top of the list on Google searches where the subject is Cognos. People are looking for information to both understand it, and ultimately, to learn how to use it. Interestingly, audit data has never been a subject that’s been covered in any depth in IBM Cognos training courses except on how to set up logging when configuring your Cognos environment.

Our purpose here is to not only cover what Cognos audit data is, but how you can begin to use it to administer and manage your environment. The basic audit data be very useful, but when coupled with other data available from your Cognos environment it can be used in some very creative ways. In fact, there are no limits to what you can do with it.

Our goal here is simple. We want to do three things:

• Help you understand the Cognos audit data and how it works.
• Show you how to work with it and maximize its value.
• Share some creative ways that it can be used.
1. Getting Started

Why should you become an expert in Cognos audit data?

Because those who have mastered it have much greater insight and knowledge of what’s going on in their Cognos world. More importantly:

- They’re on top of change management in Cognos
- They can profile their users along multiple dimensions
- They can focus development on user needs
- They’re able to manage Content Store growth
- They have real information needed to justify resources
- They can track and manage licenses based on hard data

Whether you’re new to Cognos or you’ve been using it for some time, the need to better understand Cognos audit data is something that confronts every Cognos administrator. Its name alone suggests the hope of answering some key questions about how it’s being used, who’s using it and what they’re using. That’s all possible, but not in a way that you can simply ask the questions and get answers.

Unless you want to consider a third party product like UniVisn or something similar you will have learned how to get the audit data in a way that it provides the answers for you. This may seem a bit of a challenge but it’s also a great opportunity to gain deeper insight into how Cognos works and what’s it’s able to capture along the way that can be of use to you.

The good news:

- All the pieces are there
- Learning comes quickly
- Knowing how the audit tables work is key to their successful use
- Creating an automated system is relatively easy
- Persistence pays off

The not-so-good news:

- You have to learn how the pieces fit
- You have to figure out how to put it together; there are no instructions
- You need a good understanding of how to work with data
- Patience is a requirement

This isn’t to scare you off but to set realistic expectations. Learning how to successfully use the audit tables can have a huge positive impact on your Cognos environment and improve the overall satisfaction of your users. Our purpose here is to help you not only get started in the process, but to help you work through it.

Plus, the knowledge you gain from doing this will help you focus the audit data on your unique needs.
2. The Basics

Virtually all large, complex software systems have logs that provide information that can be used debugging, data mining and analysis. When an application or system crashes the causal error can often be found in the log. If and when performance becomes an issue the logs can also be useful in diagnosing the problem and improving performance.

Cognos is no different. There are many different types, targets and levels of Cognos logging. It has the basics like error reporting and timestamps which can isolate performance issues but it also contains some other things. For example, it can tell you when reports were run, when users logged on, when changes were made to objects and many other things. Using this data you can start collecting statistics about how your environment is used and start to keep track of what is happening without having to resort to guessing.

The IBM Cognos Administration and Security Guide has some detailed information about how to set up and use the Cognos logging facilities. This documentation is useful for administrators, but it is also useful for planning how to lay out your environment as well since you have more choices about where and how you store you log data. It’s worth checking out.

Logging Options

By default there is only one Cognos logging target for “File.” This set up has the various Cognos components logging to cogserver.log. This file log is useful for administrators since it can be used with some standard administration tools like “tail” to watch the log as events occur. However, it is not a very useful format for doing analysis and reporting.

The logging configuration in Cognos Configuration can be configured with multiple different targets of various types. In addition to the File type mentioned above, it can be configured to write to:

- The system log
- A named Windows event log
- A SQL database

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>COGIPF_HOST_IPADDR</td>
<td>The host IP address where the log message is generated</td>
<td>VARCHAR2 (15)</td>
</tr>
<tr>
<td>COGIPF_HOST_PORT</td>
<td>The host port number</td>
<td>NUMBER</td>
</tr>
<tr>
<td>COGIPF_PROC_ID</td>
<td>The process ID assigned by the operating system</td>
<td>NUMBER</td>
</tr>
<tr>
<td>COGIPF_LOCAL_TIMESTAMP</td>
<td>The local date and time when the log message was generated</td>
<td>DATE</td>
</tr>
</tbody>
</table>
Choosing the SQL database will let you then consume the data using the Cognos tools you’re already familiar with and using – Framework Manager, Datasources, and Report and Query Studio. Cognos even provides a sample package for doing reporting against this database. They provide a handful of reports which can be run to start understanding who, how, and when your Cognos environment is being used.

There is quite a wealth of information hidden in these tables. There is some Cognos documentation about what the tables and their data available for reference. Basically the types of events are split out into various tables.

**Cognos Tables**

**Cognos User Logon Table**
- Captures basic log-on and log-off event data for Cognos users.
- Covers Framework Manager, Cognos Connection and the SDK.
- Also captures “timeout” info for session terminations.
- Cognos shut downs may result in unbalanced logins, eg, login with no logoff.

To enable this table, as well as the tables below, your Content Manager service needs to be set to at least basic logging.

**Cognos Action Table**

The action table is often ignored by some using the audit tables, but in fact it’s one of the most useful tables.

- Acts as a log for operations performed on Content Store objects.
- Covers querying for, and making changes to: objects, Cognos Connection or third party applications.
- Tells you which session performed which type of action (update, add, move, etc.)
- This can be tied to a user with a join.
- You can begin to build real value here.

Unfortunately, the objects are listed as sort of a display name. This makes the audit data difficult to use when tracking the history of an object, but easy to use for building simple reports. Another limitation to this table is that operations that affect multiple objects only show one row. For instance, if you select multiple objects’ check boxes in Cognos Connection and click delete, you will only get an entry for the first one; the others show no record of being deleted. We’ve figured out how to get around this issue but it can take some work.

**Run Report & Review Report Tables**

Using these tables you can figure out the Who, What and When. Useful for:

- Identifying which reports take longest to run.
- Frequency of usage for each report.
- Seeing if saved output is being used or if reports are run each time.
- Good source of information when dealing with performance issues.

We will expand on these tables going forward.
3: Working With Cognos Audit Data

The sample Cognos Package mentioned in chapter two can be used to start reporting on events within your Cognos environment. It can be very useful to have this running since you can begin to build administrative portals using the provided reports to monitor what is going on in your environment. And because you have a package, you can build reports off of the data if you find that you need something that isn’t in a pre-packaged report. Obviously, there’s a limit to how much information you can get with using the audit tables directly but it’s a start.

Going back to doing development work, we needed to learn how to track changes from the Action Table and their specific value. We simply created a mini SQL development database that captured these along with some custom joins. We can just fire up MS SQL Server Management Studio, paste in one of our queries with custom joins and view event history filtered, sorted and joined however we need it, without having to go through the steps of making sure Framework Manager had it all.

The logical next step was to build a real time monitoring tool to watch the database. In this example we created a tool to watch the development database. Here’s a little screenshot:
This program is simple, it has a background thread that keeps checking to identify if there are any new events in the action table and adds them to the top of the list. We used this to watch for any new or strange data that needs further investigation. This screenshot also highlights one of the unfortunate parts of working with the audit data “as is” – it is very irregular. For instance the 2nd and 4th lines should have some sort of text after the “->” but the table simply doesn’t have any data there. Additionally note how the first and last lines appear to be the Cognos SDK search path syntax, but the middle row is a display path. These are just some of the issues one has to deal with building tools like this using the Cognos audit data.

So where are we going with this?

The reality is that the Cognos audit data “as is” is somewhat imperfect. What we’re doing is conceptually simple but not necessarily easy. The key steps are:

- Understand the Cognos audit data and what it represents.
- Learn the anomalies of the data and how to work with it.
- Think outside the box. What data can be joined to it to add value?
- How can you use what’s there in different ways? Create new measures to use with it.

For example, if you were tracking which reports were actually being used in your environment, it might make sense to add an organizational dimension to your ability to report on that data. You could do this by simply joining the audit data with an organizational table of users.

You could begin to actually look at how your Cognos environment is actually being used by your user community. This will likely involve creating discrete measures around things like how many times an object was viewed or run, etc.

There are many reminders along the way that the log data was originally designed for a different use. Our challenge is to repurpose and extend it in order to capture all the value that’s there. This can be significant once it’s unlocked.
4: What’s Wrong with Cognos Audit Data

The title of this chapter has to be taken in the context of how Cognos administrators would like to use Cognos audit data. Many of us would like to be able to use the activity data “as is” in multiple ways to better manage our environment. We want to know what’s of value for actual usage. So our focus here is on understanding what’s available out of the box and as compared to the ultimate vision of what may be possible.

Log Table Purpose and Structure

Table 1 through 9 are concerned with troubleshooting, administration and development. Tables 10 through 12 provide detail on the use of dimensions, levels and measures within PowerPlay. Tables 13 through 15 deal with job steps, systems properties and threshold violations monitoring on an ongoing basis. Table 16 keeps track of user logon data. Tables 17 through 21 are focused on activity data for different classes of objects within Cognos. These five tables along with table 16 are the primary ones most Cognos administrators will be concerned with since they relate to tracking and monitoring usage within their environment.

Will I be able to use the log\audit data as is along with the sample reports that come with Cognos 10?

An obvious question to ask is, “Why not just use the audit data “as is” along with the sample reports that come with Cognos 10?”. You can do this but at some point you may find that the data does not hang together. Some of the issues with the raw audit data and the sample reports include:
Data anomalies abound in the audit tables. Some records need to be trimmed to get usable data and in other cases what’s actually provided is not what the table column says it is, eg, PACKAGEPATH sometimes is actually the model path. You can’t build a useful reporting system on usage when key elements can have different meanings.

Narrow dimensionality – Standard dimensions provided limit the sample reports from Cognos to some very basic views of data. By decoding the audit data and combining different data items it’s possible to create new dimensions. Examples would be user, package and content hierarchies.

Depth – The sample reports are essentially list reports that limit the ability to provide any depth to analyses you may want to do. For example, it’s difficult to create cross tab reports with the basic audit data.

Reference data is really the secret sauce here. The right reference data can unlock multiple creative ways to use the Cognos audit tables. It provides a broader context for understanding the audit data. An example is reference data on inactive or deleted objects. The audit data persists in the audit tables after an object has been deleted from the Content Store; having a list of inactive objects enables you to filter out these objects from your usage analysis and narrow your focus.

How to go forward: Audit Tables Need to be Decoded

The raw event data from these six tables is not very useful as is. The reason for this is that there are a number of things you need to know about these tables and they don’t come with any instructions.

If accuracy, precision and broadly dimensioned data are your ultimate goal then you have a bit of work, but the payoff from this is huge. And once it’s done it’s done. The major steps here include the following:

1. Determine how the tables relate to each other. While some of can be seen at a basic level the rest involves decoding the tables and the data in them.

2. You need to perform activity, both interactive and batch, in Cognos Connection and the various studios that will be logged into the tables. This activity should cover all possible permutations that can occur.

3. Then determine how all of this activity gets logged into the audit tables.

4. You have to interpret the log data and determine what it means and how it can be used.

5. Then create a rule based automated system for reading the logs, dealing with data anomalies, normalizing it for a star schema and storing it in newly defined tables.
6. Identify the reference data that needs to be used with the log data to maximize its value. Without this the data are meaningless. Performing the steps above will give you insight into what reference data will be useful. See Figure 2 for how this all comes together into a Framework Manager Model.

In the next chapter we’ll cover some of the reference data that will be useful to using the audit data across your Cognos environment.

Congratulations! You now have a fully automated system for collecting and using the Cognos audit data. Going forward you can add to and refine this system to suit your needs.
Now we have the chance to take our basic auditing and reporting system and focus it on our unique needs.

We might first want to think about some of the questions we’ve had about our Cognos environment or have been asked by others:

- What content is actually being used? How often?
- Do we know which groups or departments are using it the most?
- Which reports take the longest to run?
- What’s our success/failure rate on reports?
- What is the usage profile across our environment?
- Who are the non-users in our environment?

Creating a Framework

When you begin to do this you quickly come up against something that is not entirely unexpected. What really makes the audit data useful is to use it in different ways for different needs or questions. This brings up two key areas necessary to insure that the audit data has the flexibility to meet a broad set of needs:

- **Dimensions** – Obvious ones are time, users, activity status, public versus private, etc. Dimensions provide the connectedness to using the data the data in multiple different ways to answer virtually any question on usage.

- **Measures** – Discrete ways of measuring the audit data bring consistency to how it’s used across different dimensions. This is needed to insure we’re looking at things the same way no matter what dimension it is.

Here are some suggestions to consider for dimensions:

- **Time** – Years, months, days.
- **Content Class** – Public and personal
- **Users** – All named users
- **Packages** – All packages
- **Content Classes** – Report, Query, PowerPlay Report, Report View, Package, etc.
- **Run Types** – Batch (scheduled) and interactive
- **Activity Status** – Failure, Success, Incomplete.
- **Dispatchers** – Active dispatchers in use.
- **Content Status** – Active, Inactive.
- **Days** – All days of the week.
- **Hours** – The 24 hours of the day
You might think of some others that are more appropriate for your use.

All of these are possible dimensions for using the Cognos audit data. Possible, but not necessary, unless they meet your specific needs. You should decide what’s appropriate for your environment.

Coming up with the appropriate measures might take some time and experience in working with the actual audit data. The reason for this is that the measures have to be meaningful for all dimensions. This is what we’ve come up with, or rather evolved to over time:

- **Activity** – Measures of activity, times a report was run, number of edits, etc.
- **Session** – Number of sessions, time length of sessions, etc.
- **Content** – Number of objects, number of users

Whatever you choose for your measures should have a formal definition. This is important so that your users will have confidence that what’s being measured comes from a discrete measure.

Also, creating measures in particular, requires a high level of specificity in order to insure that they are providing *“hard numbers”* and are real metrics that are consistent *no matter where or how they’re used*. In short, they have to be able to work with all dimensions.

Adding additional dimensions and measures is relatively simple once you’ve gotten this far. An example of another useful dimension might be to overlay the organizational structure with that of the users. With this you would be able to see the actual utilization rate by functional area or department relative to the number of reports available or users.
6: Using Cognos Audit Data Creatively

In the previous couple of chapters we focused on creating a systematic way of collecting and using the Cognos audit data on a regular basis.

Here we focus on how to begin to use this data in creative ways. The payoff here is large and immediate. Some of the examples shown can have a big impact in your environment.

Going Beyond Basics

Can you use the audit data available from the standard, out-of-the-box offering that IBM Cognos provides?

Yes, but you’ll find there are some limitations with what you get here. The basics are helpful up to a point but have limited dimensionality and measures. Moving beyond this requires some work unless you decide to purchase a tool that does this for you.

The key thing to keep in mind here is that the value of going beyond the basics of what’s available is that the benefits are cumulative. The more you are able to do with the audit data the more you’ll be able to extend this into new areas of use by building upon what you’ve already created.

Adding dimensionality and measures can greatly enhance the basic audit data to be able to identify problems or opportunities. More granular measures on usage such as sessions, activity types and content will make it easier to add value and precision to your audit data for usage analysis and reporting.

Form Factor

Standard reports or OLAP? – In many Cognos environments the audit data is used in multiple reports with different dimensions while others use OLAP cubes. Reports are best for standard metrics on things like utilization of content, frequency of usage, Pareto analyses, etc. OLAP cubes have an advantage when exploring and analyzing the data because of the ease with which this can be done on the fly.

Drill-through reports are the example where both are used together. Thus, most environments will usually have a mix of offering audit data using multiple formats. The decision should be made on what makes it easiest to consume the information.

Getting Creative With Cognos Audit Data

Some examples of using Cognos audit data creatively include the following items:
1. **Average User Session Length** – *(Figure 1)*
   This example shows average session length by users from high to low for a given time period.

2. **Report Run Count by Dispatcher and Run Type** –
   This is useful for looking at the load by dispatcher and run type (interactive or batch) for a given time period.

3. **Object Type Count by Package** – *(Figure 2)*
   Makes it easy to see which FM packages are actually being used and weed out those that have no usage.

4. **Report Average Run Times** — Identifies reports with consistently long run times that may indicate problems. Can also drill down on weeks/days/hours.

5. **New Content Adoption Rates by Organization and User** — Measures subsequent usage of new content developed in a given period. Useful to see if new content is actually being used and how quickly it’s being adopted.

6. **Test Validation** — Shows run counts for reports in Test or UA environment to validate that testing is actually being done.
7. Reports Scheduled & Run but Never Viewed – (Figure 3) This can be a problem in any environment but especially in large ones where users may schedule and run reports but seldom, if ever, look at them. Getting control of this can free up lots of platform resources.

8. Run Count by Hours/Days – (Figure 4) Shows run activity by week broken down into hours and days. Helpful for identifying peak activity periods.

9. Users With No Activity – This can be useful in identifying user licenses that can be redeployed.

10. Reports Ranked by Success/Failure Rate – Identifies reports that consistently have problems.

11. Top Active Reports – Useful for identifying most popular reports by organization, package, user, etc.

Once you’ve created the appropriate dimensions and measures to use with the Cognos audit data the creative opportunities are limited only by your imagination and real needs. Focus on those that represent real opportunities to expand user adoption and remove problems that get in the way of users.
7: Using IBM Cognos Audit Extensions

Released with the introduction of Cognos 10.1 in November 2010, IBM Cognos 10 Audit Extension was designed to fill in the cracks of audit coverage beyond the standard audit table coverage. Its purpose is to provide coverage of Cognos auditing into areas that customers have been asking for such as user data and capability assignments. Users have had difficulty complying with their licensing limits if they cannot track these on a day to day basis. (Information on Cognos Audit Extensions can be found here.)

What You Get

Cognos Audit Extension is an application fully compatible with Cognos 10.1 and later versions and provides the following:

1. **Account Audit** – This provides an audit of all user accounts that are found in all configured namespaces along with some of the properties of those accounts such as create date and modified date, portal pages, etc. This provides reporting on the Cognos user base and also records the content of users’ My Folders.

2. **Content Audit** – Covers all objects that exist in the Content Store. It processes the entire Content Store tree to capture all objects along with key detail on each of them.

3. **Status Audit** – Covers the state of a server and related dispatchers. For each dispatcher in the target system the configuration and activity is logged including time to connect, number of active processes and request duration.

4. **Role/Capability Audit** – Provides an audit of all capabilities configured in the Cognos namespace and which roles, groups and users have been assigned access to those capabilities.

5. **Sample Deployment and Model** – This is a portfolio of sample reports for use with the sample Framework Manager Model that is also provided. The sample model can be used as the basis for further development should you choose to extend it.

The sample IBM Cognos Framework Manager model supplied with the Audit Extension application.
How It Works

The application works with most major databases and the installation and configuration is reasonably straightforward. Some 30 plus tables are included with the application.

It is worth noting that there is a fundamental difference between how the standard audit tables get populated versus those in the Audit Extension. With the standard audit tables every time a report is run or a user logs on this event is written to the audit tables. Not a big deal. To populate the Audit Extension tables, however, the application has to run an audit through the entire Content Store. Running the Content Audit processes the entire Content Store tree and logs all objects such as folders, queries, reports, etc. that it finds along with detail attributes of those objects. This appears to be the case for all four audit types.

In a large production Content Store this can be a long process that places additional overhead on machine resources. Thus, since you may have to pick and choose when you want to run these audit extensions, their usefulness around lifecycle management and reporting is limited. The configuration files give you some options here and if you only need limited amounts of data it may be worth it.

Another limitation is that the sample reports have narrow dimensionality and depth so if a given report or set of reports don’t give you the answer you need you’re out of luck. You can of course write your own reports using the FM model provided but a better alternative might be to use the Audit Extension data in a different mode.

With OLAP, for example, you can dynamically create both dimensionality and depth real time for your specific question or need. And since much of what you need to measure and track over time is not point data but trends, this approach will provide you with the time series analyses that make this possible. This cannot be done with the canned reports that are part of the out of the box audit data with Cognos 10.

Another usage consideration is that Audit Extensions are not supported by IBM Cognos which means that if you run into issues or problems you’re on your own.

Summary

Pros:
- Extends the Cognos audit data into some important areas.
- Provides a basic, entry level means of reporting on additional dimensions of Cognos content and usage.

Cons:
- High overhead processes for capturing the extension audit data.
- Limited dimensionality and depth in sample reports provided.
- Not likely to scale well for use in large environments.
- Not supported by IBM Cognos.
8: Tracking User Capabilities and Licenses

This chapter is focused on helping Cognos administrators address the need for Cognos license tracking and how best to do it. Administrators are usually the ones tasked with Cognos license auditing and ensuring compliance with their license agreement.

Why track licenses in IBM Cognos?

Many Cognos administrators typically don’t worry about Cognos license auditing or license compliance unless they are being audited on their license usage or it’s in preparation for the annual support renewal. If it seems like you’re more likely to be audited than in the past, it’s probably true. From their perspective this is just an issue of keeping honest people honest.

As an IBM Cognos customer, however, you want to avoid a situation where the result of an audit is a large, expensive surprise in order to “true up” for what you are using versus what you purchased. This can be avoided by having a regular process of comparing what you’re actually using against the number of licenses you purchased.

The term licenses and capabilities are often used interchangeably. And while they do imply the same thing, there are some differences:

- **Licenses typically connote what you actually purchased in terms of user licenses for certain features or functions within Cognos.**
- **Capabilities relate to these but from the perspective of what is actually available for a given user to use.**

Your licenses need to be tracked against the license bundle(s) or model that you purchased those licenses. That may seem obvious at one level but its implications can be confusing to some. Our work to create the Cognos license and capability tracking feature within our NetVisn product was a real eye opener. In talking with Cognos it became obvious that looking for a standard model or structure behind how user licenses were sold would not provide the results we were looking for.

**Why?** Because in most cases these were packaged and sold in a way that best met the customer’s needs at a given point in time. This makes sense because it typically results in the customer getting what they need for their unique requirements at a competitive price. Another proof of this is that our own customers pointed out the need to be able to count and aggregate licenses in a flexible manner since license audits are only one of the reasons for tracking licenses.
Get It Your Way

*Figure 1* shows a partial listing of capabilities within Cognos 10 or 11 that can be assigned to users via the security tab of IBM Cognos Administration. Some secured functions have sub-categories for more detailed control of capabilities. Report Studio, for example, has a bursting feature to control who can edit and run burst reports. In this example we are looking for counts on Analysis Studio and Event Studio.

In *Figure 2* we see the results of this license count selection. It shows the total and detail of users for two of the functions selected; Analysis Studio and Event Studio. In this example Analysis Studio has fourteen users and Event Studio has eleven users. We can also see the names of those users for each studio.

This level of granularity is important in auditing and tracking IBM Cognos licenses and capabilities. It provides the administrator with the ability to:

- **Determine how many of a given license type are currently in use and by whom.**
- **Identify which functions and sub-categories are assigned to specific users.**
- **Easily map actual licenses in use against those purchased.**
- **Provide lead time for planning and budgeting for additional licenses.**
Summary

It’s likely that all IBM Cognos environments at one time or another will be faced with the need to do an audit of their licenses. It may come for a number of reasons and administrators need to be able to count and track licenses and capabilities in multiple dimensions. If you are going to purchase or create a tool or utility for doing this you need be clear about the rules it uses to insure that it is accurate and has the level of precision for what you need to track and measure.
9: Some Things to Try

In previous chapters we focused on the Cognos audit tables and the audit extensions. We made the point in one of these articles that working with the Cognos audit data was important in understanding the data itself and how it could be used. So we thought it might be appropriate to pass on some things to try that we learned along the way. They may help you maximize the value in creating auditing tools for Cognos BI.

1. Use calculation on COGIPF_RUN_REPORT to determine if the run was Interactive or Batch:

Batch means it ran on a schedule or a job, which also means it’s running in background. Interactive is where the user is waiting for the report to finish. Having this information is important if you want to determine what content is schedule driven versus user inquiry based (interactive).

```
IF ([COGIPF_TARGET_TYPE] like '%Batch%') THEN ('Batch')
ELSE ('Interactive')
```

2. Use this outer join to the link run/view tables with the logon table to get user info:

This captures activity data and by linking it to the user session is able to identify the user.

```
FROM COGIPF_RUN_REPORT RunReport
LEFT OUTER JOIN COGIPF_USERLOGON Logon
ON RunReport.COGIPF_SESSIONID = Logon.COGIPF_SESSIONID
AND Logon.COGIPF_LOGON_OPERATION = 'Logon'
```

3. Add filter to any COGIPF_RUN_REPORT query to remove prompting activity and eliminate double counting:

The issue of double counting occurs on reports with prompts. To get around this use this filter on your SQL query to eliminate double counting of report.

```
SQL Server: PATINDEX('%Prompt%', [COGIPF_TARGET_TYPE]) = 0
Oracle: NOT [COGIPF_TARGET_TYPE] LIKE '%Prompt%'
This next one is a bit more involved but it can also be very useful. It uses the actions table to determine when reports are created or updated from Cognos studios (report/query/analysis).

4. Use SQL Sub-Queries on the COGIPF_ACTION table to report on saves from Cognos Studios (Report, Query or Analysis).

This can be useful to verify Cognos Studio license compliance when also combined with a join to the COGIPF_USERLOGON table.

When a report is saved from a studio, multiple rows are written to the Cognos audit COGIPF_ACTIONS table. In one of these rows the Operation will be an ADD or UPDATE, and Target Type will be the Studio type. An additional row is written on the status of the Save operation.

By using a Sub-Query you can determine if that additional row was written to prove that the Add or Update occurred from a Cognos Studio:

```sql
SELECT
    Action.COGL primitive_TIMESTAMP,
    Action.COGL target_PATH,
    (CASE
        WHEN Action.COGL operation = 'ADD' AND
            Action.COGL target_TYPE IN ('REPORT', 'QUERY', 'ANALYSIS') AND
            Exists (Select * from COGIPF_ACTION b
                    Where b.COGL SUBREQUESTID = Action.COGL REQUESTID and
                    b.COGL operation = 'ReportAdd' and
                    b.COGL status = 'Success')
        THEN 'ReportAdd'
        ELSE NULL
    END) As SUB_ACTION
FROM COGIPF_ACTION Action
WHERE
    (CASE
        WHEN Action.COGL operation = 'ADD' AND
            Action.COGL target_TYPE IN ('REPORT', 'QUERY', 'ANALYSIS') AND
            Exists (Select * from COGIPF_ACTION b
                    Where b.COGL SUBREQUESTID = Action.COGL REQUESTID and
                    b.COGL operation = 'ReportAdd' and
                    b.COGL status = 'Success')
        THEN 'ReportAdd'
        ELSE NULL
    END) Is Not Null
```
1. This report is helpful for identifying objects that could potentially be culled out due to no usage. In this example it’s 8 weeks but the time period can be varied to whatever is appropriate. A variation of this could be created that shows reports with no usage and sorted by report owner.
2. This example shows actual usage for a representative user: *Sevell Dubois*. He appears to be an active user. Variations of this report could be used to determine power users across the environment or by department.
3. Here we see an example of an audit usage report showing a rich set of data:

- Run count by dispatcher for last six months.
- User count and run count by month.
- Use count and run count by each report sorted in descending order.
4. This report shows logon counts by user across the environment. Different examples of this report can be used to identify patterns of usage across the environment.
5. All objects (reports or queries) for the Package: Av Sales with a View Count of zero for the last six months. Should these objects be culled out from Cognos Connection?
6. This report shows a list of users with no Cognos activity for the last six months. This raises the question of whether these users actually need a Cognos account.

<table>
<thead>
<tr>
<th>User Name</th>
<th>Security Namespace</th>
<th>Security Path</th>
<th>Last Activity</th>
<th>Year</th>
<th>Month</th>
<th>Month No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alesia Voisin</td>
<td>Demo1</td>
<td>Users / BI Marketing</td>
<td>Sep 18, 2012 12:54:49 PM</td>
<td>2012</td>
<td>September</td>
<td>9</td>
</tr>
<tr>
<td>Ardath Hollen</td>
<td>Demo1</td>
<td>Users / BI Marketing</td>
<td>Jul 9, 2015 2:45:40 PM</td>
<td>2015</td>
<td>July</td>
<td>7</td>
</tr>
<tr>
<td>Baigle, Peter</td>
<td>LDAP</td>
<td>Users / E-H</td>
<td>Jan 26, 2015 5:48:41 AM</td>
<td>2015</td>
<td>January</td>
<td>1</td>
</tr>
<tr>
<td>Basia Blau</td>
<td>Demo1</td>
<td>Users / BI Sales</td>
<td>Sep 17, 2014 3:06:28 PM</td>
<td>2014</td>
<td>September</td>
<td>9</td>
</tr>
<tr>
<td>Bauer, Aug.</td>
<td>LDAP</td>
<td>Users / E-H</td>
<td>Apr 30, 2015 4:01:02 PM</td>
<td>2015</td>
<td>April</td>
<td>4</td>
</tr>
<tr>
<td>Bey, Aug.</td>
<td>LDAP</td>
<td>Users / A-D</td>
<td>Dec 4, 2014 1:57:05 PM</td>
<td>2014</td>
<td>December</td>
<td>12</td>
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</tbody>
</table>

**Number of Days Without Activity:** 180
7. Being able to see which Packages in the environment actually are being used to create reports or queries is helpful. Here a small number of packages have quite a few reports while the rest have very few.

<table>
<thead>
<tr>
<th>Package Name</th>
<th>Report(s)</th>
<th>Query(s)</th>
<th>Report/View(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV Finance</td>
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<td>AV Sales</td>
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<td>BI Reporting</td>
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<tr>
<td>BI Reporting Test 1</td>
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<tr>
<td>CIO LinVis Demo</td>
<td>19</td>
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<td>Dimension Package</td>
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<td>4</td>
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<tr>
<td>Dimension Package V32</td>
<td>2</td>
<td>1</td>
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<td>Dimensional Reporting</td>
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</tr>
<tr>
<td>GO Data Warehouse (analysis)</td>
<td>23</td>
<td>3</td>
<td></td>
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<tr>
<td>GO Data Warehouse (query)</td>
<td>22</td>
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<tr>
<td>GO Metrics</td>
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<td></td>
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</tr>
<tr>
<td>GO Sales (analysis)</td>
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<td>GO Sales (query)</td>
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<tr>
<td>great outdoors 6</td>
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<td>1</td>
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<td>HR Reporting</td>
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<td>HR Activity</td>
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<td>HR Report</td>
<td>6</td>
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<tr>
<td>Marketing Profitability Data Mart</td>
<td>11</td>
<td></td>
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</tbody>
</table>
Contact Envisn

If you have any questions or would like more information on any of our other BI products for Cognos, please don’t hesitate to contact us.

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