

# Oracle Fusion Cloud Risk Management

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**Creating Analytics for Risk  
Management**

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# 1 Introducing Risk Management Analytics

## Overview of Risk Management Analytics

You can develop analyses and dashboards that present information about your company's use of Oracle Fusion Cloud Risk Management to guard against risk in business processes. Your analyses draw data from predefined subject areas.

- An analysis is a display of real-time data. It incorporates "views," which are typically tables, graphs, or both.
- A dashboard is a set of related analyses or a combination of analyses and "dashboard objects." These objects may include images, text, or links to documents, websites, or other items.
- "Analytics" is a generic term that encompasses analyses and dashboards.
- Subject areas are logical groupings of columns that contain data about Oracle Risk Management. As you create analyses, you select the subject-area columns that provide the information you want.

To complement analytics you may create, Oracle Risk Management provides predefined dashboards. Some provide analyses that return administrative information. Others document remediation plans associated with access simulations, details of role-certification projects, and relationships among objects in your risk-control matrix.

Predefined reports are available in Financial Compliance Reports and Advanced Controls Reports work areas. However, these are entirely separate from the analytics you can develop from subject areas. For information about them, see [Financial Compliance Reports](#) and [Advanced Controls Reports](#).

## Considerations for Saving Analytics

You save analyses and dashboards in the business intelligence (BI) catalog. It's located in the Reports and Analytics work area, which is accessible from Tools in the springboard.

The catalog has a hierarchy of folders, starting with My Folders and Shared Folders. One important folder is Custom, which you can find in Shared Folders. Use it to store analytics you create or modify.

### My Folders

You're the only one who can access anything you save in My Folders. You can see your saved items in My Folders on the Reports and Analytics work area, but not in My Folders in the Reports and Analytics pane on any other work area. The only exception is when you use the wizard to create an analysis in the Reports and Analytics pane, and save it in My Folders. In this case, the analysis is available in the pane on all work areas.

### Shared Folders

If you're assigned the appropriate roles, you can also save in Shared Folders. Analytics you create or modify are then available to anyone with the correct access. You should save objects in the Custom subfolder, which has subfolders organized by product family.

## Custom Folder

If you can access Shared Folders, use its Custom folder to store all analytics you create or modify.

- You ensure that those objects aren't affected during upgrades, which can change predefined analytics outside the Custom folder. You might lose changes saved outside the Custom folder during upgrades.
- You can easily find your objects.
- You can edit objects in the Custom folder without compromising security on the original objects.

When you copy an object into the Custom folder, the copied object inherits the permission settings of the Custom folder. An administrator can reset the permissions on the object and the folder that it's in.

## Security for Analytics

To work with Oracle Fusion Cloud Risk Management analytics, you must have a job role that includes at least one of the following duty roles. Each provides functional access to analytics features for the component in its name:

- Access Certification Transaction Analysis Duty
- Advanced Access Control Model Transaction Analysis Duty
- Advanced Access Control Transaction Analysis Duty
- Advanced Financial Control Models Transaction Analysis Duty
- Advanced Financial Control Transaction Analysis Duty
- Financial Reporting Compliance Transaction Analysis Duty

In Oracle Risk Management applications, you have access to records you create, or to which you're added as an owner, editor, or viewer. This data limitation applies also to your analytics.

For more on configuring functional and data access, see [Oracle Fusion Cloud Risk Management: Securing Risk Management](#).

## Synchronize Analytics Data

For analyses to display current data, two jobs must run regularly.

An Access Certification Synchronization job updates reporting tables with changes to owner, manager, and certifier assignments in Oracle Fusion Cloud Access Certifications. (It also updates other elements of Oracle Access Certifications that don't apply to analytics.) It begins running when your organization creates its initial certification. From then on, the job runs once a day. You're expected not to modify this schedule.

A Report Synchronization job updates:

- All dimensions of the Advanced Access Controls Real Time and Advanced Financial Controls Real Time subject areas.
- The following dimensions of the Compliance Real Time subject area: Change History, Inaccessible Records, Related Records, Risk > Risk Analysis, Risk > Risk Evaluation, Risk > Treatment Plans, and Unassigned



Perspectives. Also, the Assessment Details and Perspective dimensions, but only if they're used with one another.

Some subject-area facts and dimensions are updated in real time (without any job being required to run):

- In the Compliance Real Time subject area, these include Control Details, Facts - Controls, Facts - Issue, Fiscal Calendar, Issue Details, Process, Process Details, Remediation, Risk > Facts - Risk, Risk Details, and Time.
- In the Assessment Results Real Time subject area, these include all dimensions, with one exception. If you use either of the Assessment Details or Assessment Results dimensions with the Perspective dimension, run Report Synchronization to update these dimensions.

Schedule the Report Synchronization job to run often enough to reflect the frequency of changes to the data included in your analyses. In a typical environment, it runs daily.

1. Select the Scheduling tab in the Setup and Administration work area.
2. In the Scheduling page, select the row that represents the Report Synchronization schedule, then click the Edit option.
3. In a Schedule Parameter dialog box, enter new values in fields, and make new selections among radio buttons, to define a new schedule. Click the Reschedule button.

You can also run either job on demand: In the Scheduling page, select the row for the job and click the Run Now button.

**Note:** A third synchronization job updates two subject areas that support analyses of model results. One is Advanced Access Models Real Time, and the other is Advanced Financial Models Real Time. This job must be run manually from the Models page of the Advanced Controls work area. (See *Synchronize Model Result Data for OTBI Reporting.*)

## Flexfields in Analyses

To store details unique to its requirements, your company may add descriptive flexfields to process, risk, control, issue, and assessment records. To include these flexfields in analyses, you must first enable them for Transaction Business Intelligence.

Here are some preliminary considerations:

- In part, enabling flexfields for Transactional Business Intelligence involves selecting an option as you configure or edit flexfields. However, this topic doesn't fully discuss how to configure or edit a flexfield. For information on those tasks, see the Flexfields chapter of Oracle Applications Cloud: Configuring and Extending Applications.
- There are three types of flexfield: key, extensible, and descriptive. However, you can use only descriptive flexfields. As you read about flexfields, you can ignore information about key and extensible flexfields.

## Enable Flexfield Segments

To configure descriptive flexfields, you use the Manage Descriptive Flexfields task in Oracle Fusion Functional Setup Manager. For each flexfield, you define global or context segments. Broadly, a global segment is a piece of information that becomes part of an object record under any circumstance. A context segment is a piece of information that applies only under circumstances you define as you create the flexfield.

As you create either type of segment, select a BI Enabled check box if you want that segment to be available for analyses. Clear the check box if not. You can perform either action as you initially configure the flexfield, or as you edit it later.

## Run Jobs to Make Flexfields Available for Analytics

When you finish configuring or editing a set of flexfields, run the Import Oracle Fusion Data Extensions for Transactional Business Intelligence process. It's available under Scheduled Processes in the Tools work area. As you set parameters for this process, be sure to select the Risk Management check box (or the All check box) under Basic Options.

When that job finishes running, also run a Report Synchronization job. You can run it on demand or create a schedule for it to run regularly. Complete either action in the Scheduling page of the Setup and Administration work area.

### Related Topics

- [Configure Flexfield Segments](#)

## Risk Management Flexfields for Business Intelligence

Here's a list of descriptive flexfields and the subject areas in which you can use them.

- FRC\_CONTROL\_DFF
  - Risk Management Cloud – Assessment Results Real Time, Control Details folder
  - Risk Management Cloud - Compliance Real Time, Control Details folder
  - Risk Management Cloud - Advanced Financial Controls Real Time, Related Control Records folder
  - Risk Management Cloud - Advanced Access Controls Real Time, Related Control Records folder
- FRC\_PROCESS\_DFF
  - Risk Management Cloud - Assessment Results Real Time, Process Details folder
  - Risk Management Cloud – Compliance Real Time, Process Details folder
  - Risk Management Cloud - Advanced Financial Controls Real Time, Related Process Records folder
  - Risk Management Cloud - Advanced Access Controls Real Time, Related Process Records folder
- FRC\_RISK\_DFF
  - Risk Management Cloud - Assessment Results Real Time, Risk Details folder
  - Risk Management Cloud - Compliance Real Time, Risk Details folder
  - Risk Management Cloud - Advanced Financial Controls Real Time, Related Risk Records folder
  - Risk Management Cloud - Advanced Access Controls Real Time, Related Risk Records folder
- FRC\_ISSUE\_DFF
  - Risk Management Cloud - Compliance Real Time, Issue Details folder
- FRC\_ASSESSMENT\_CONTROL\_DFF
  - Risk Management Cloud - Assessment Results Real Time, Assessment Result Details folder

- Risk Management Cloud - Compliance Real Time, Assessment Result Details folder
- FRC\_ASSESSMENT\_PROCESS\_DFF
- Risk Management Cloud - Assessment Results Real Time, Assessment Result Details folder
- Risk Management Cloud - Compliance Real Time, Assessment Result Details folder
- FRC\_ASSESSMENT\_RISK\_DFF
- Risk Management Cloud - Assessment Results Real Time, Assessment Result Details folder
- Risk Management Cloud - Compliance Real Time, Assessment Result Details folder
- FRC\_REMEDIATION\_PLAN\_DFF
- Risk Management Cloud - Compliance Real Time, Remediation Plan Details folder

## Schedule Analytics

You can schedule analytics to run when you need them. You can also schedule other automated tasks, for example to deliver results to specific recipients or to send notifications.

You can use the `CURRENT_DATE` repository variable to generate a list of changes implemented on the day the job runs.

To set this up for an analysis or dashboard, create an agent and save it as an object in the business intelligence (BI) catalog.

1. Open the Reports and Analytics work area, or the Reports and Analytics panel tab if it's available in other work areas.
2. Click the Browse Catalog button.
3. Click New and select Agent in the Actionable Intelligence section.
4. Ensure that you enter information on the Delivery Content tab to specify the analysis, dashboard, or briefing book to run.
5. Save the agent in My Folders.

To edit an agent, browse the BI catalog to find the agent.



## 2 Subject Areas

### Risk Management Subject Areas

Subject areas are logical groupings of columns that contain data. As you create analyses, you select the subject-area columns that provide the information you want.

These subject areas apply to Oracle Fusion Cloud Financial Reporting Compliance:

- Risk Management Cloud - Compliance Real Time
- Risk Management Cloud - Assessment Results Real Time

These subject areas apply to Oracle Fusion Cloud Advanced Controls:

- Risk Management Cloud - Advanced Financial Controls Real Time
- Risk Management Cloud - Advanced Financial Models Real Time
- Risk Management Cloud - Advanced Access Controls Real Time
- Risk Management Cloud - Advanced Access Models Real Time
- Risk Management Cloud - Access Certification Real Time

To create an analysis, begin by selecting a subject area containing columns of information to include in the analysis. For example, to create an analysis that displays records of overdue assessments, select the Risk Management Cloud - Assessment Results Real Time subject area.

The simplest and fastest way to generate an analysis is to use a single subject area. You can use more if one subject area doesn't contain all the dimension attributes and fact metrics you need. An analysis that does so is called a cross-subject area query.

### Subject Area Folders

Each subject area may have fact folders and dimension folders. Folders may have subfolders.

- Fact folders contain attributes that can be measured, meaning that they're numeric values.
- Dimension folders may hold attribute columns or hierarchy columns.
  - An attribute represents a piece of information about an object. Values may be dates, IDs, or text.
  - A hierarchy contains values with parent-child relationships. Only Perspective folders provide hierarchy columns.

## Subject Areas and Star Schemas

Each subject area is built on a star schema approach. A star includes "facts" and "dimensions":

- At the center of the star is a fact: something you can count. In the Compliance Real Time subject area, for example, facts about the Control object include the count of controls and the count of key controls.
- Dimensions branch out from facts, and they define characteristics about the fact. For example, the Control object has dimensions such as Control Name, Type, and Frequency.

Objects have defined relationships to one another, and subject areas are built on star schemas that reflect these relationships. In Oracle Fusion Cloud Financial Reporting Compliance, for example:

- The Process object is the hierarchical parent of the Risk object. In the Compliance Real Time subject area, a Process fact extends to dimension details pertaining to processes and to risks.
- The Risk object is the hierarchical child of the Process object, but parent of the Control object. In the Compliance Real Time subject area, a Risk fact extends to dimension details pertaining to processes, risks, and controls.
- The Control object is the hierarchical child of the Risk object. In the Compliance Real Time subject area, a Control fact extends to dimension details pertaining to controls and to risks.
- In the Compliance Real Time subject area, Process and Control have no dimensions in common.

When an analysis reports on unrelated objects, be sure it includes a fact for each of those objects. For example, you're building an analysis that documents the relationships among object records. It includes Process Name, Risk Name, and Control Name columns. Your data includes objects that have the following relationships to one another:

- Process1 is related to Risk1, which is related to Control1 and Control2.
- Process2 is related to Risk2 and Risk3.
  - Risk2 is related to Control1 and Control2.
  - Risk3 is related to Control2.

If you were to build the analysis without adding any facts, however, it wouldn't return any values for Process Name. It would return one value each for Risk1 and Risk2, and for Control1 and Control2, but it wouldn't show their relationships to other objects.

That's because the Process star schema and the Control star schema aren't related by any common dimensions. To show the proper output, you need to include a process fact and a control fact. The Process and Control stars then have a relationship through the Risk star, and so the analysis would return the proper results. If you don't want the analysis to show the facts you've added, you can hide them.

Knowing the relationships between the objects you're working with is key to building analyses. Basically, if you find an analysis doesn't return the results you expect, try adding a fact from each dimension in your analysis one by one, until it returns the data you expect.

However, because facts are the center of a star schema and serve as a gateway between dimensions and other star schemas, one fact may override another fact and cause a join between dimensions you didn't intend. Your best bet is to start small, run your analysis, and add to it across dimensions. That method enables you to tweak the facts required for inclusion as you go.

## Subject Area Guidelines

As you select subject areas for analyses, keep the following guidelines in mind:

- In several subject areas:
  - You'll find dimensions called Inaccessible Records and Unassigned Perspectives. If you create an analysis based on either dimension, be sure you don't combine it with any other dimension. In fact, rather than create analyses that use these dimensions, you can get the same information from predefined analyses in the Risk Management Administration folders of the BI catalog (see [Use Predefined Dashboards](#)).
  - You'll find a Day Name attribute in the Time dimension. When queried with another dimension or fact, its value is displayed as a number.
- In the Risk Management Cloud - Assessment Results Real Time subject area, an Assessment Results folder contains Assessment Result Details and Control Test Plan Results subfolders. These should not be reported with any fact other than Facts - Assessment Results.
- In the Risk Management Cloud - Compliance Real Time subject area:
  - Assessment Details should not be reported along with Facts - Issue.
  - Facts - Remediation should be reported only along with the following dimensions: Issue Details, Time, and Fiscal Calendar.
  - Risk Analysis should not be reported with any fact other than Fact - Risk.
  - Process Action Item Details should not be reported with any fact other than Fact - Process.
  - Remediation Plan Details and Remediation Task Details should not be reported with any fact other than Fact - Remediation.
  - Fact - Remediation should be reported only along with the following dimensions: Remediation Task, Remediation Plan, Issue Details, Time, and Fiscal Calendar.
  - Remediation Task dimension should not be reported with any dimension or fact other than Issue, Time, Fiscal Calendar, Remediation Plan, Remediation Fact, and Issue Fact.
  - Process and Control related to a risk are displayed only when queried with Process Fact and Control Fact.
  - Process and Risk are joined through the Control Fact. To see only Process and Risk in an analysis (without Control), you must add a metric from the risk fact. (You can hide it in the analysis.)
  - Don't combine Perspective dimension and Survey Facts Results.

## Subject Areas and Default Joins

Subject areas have default joins:

Subject Area	Default Fact Join
Risk Management Cloud - Compliance Real Time	Control Fact

Subject Area	Default Fact Join
Risk Management Cloud - Assessment Results Real Time	Assessment Result
Risk Management Cloud - Advanced Financial Controls Real Time	Incident Transaction Result Details
Risk Management Cloud - Advanced Access Controls Real Time	Incident Access Result Details
Risk Management Cloud - Access Certification Real Time	Facts - Access Certification

The default fact for a subject area determines the join to be used when you combine dimensions. To override that default fact, you add facts. For example, you may use the Compliance Real Time subject area to create an analysis that includes Process Name and Perspective. To see perspective values assigned to processes, you need to add a metric from the Process fact; otherwise, control perspectives appear. Note, there's no way to include perspectives for more than one of the Process, Risk, and Control objects in one report, since the fact determines the perspectives to be shown.

These tips also apply to cross-subject reporting, so keep them in mind when you create an analysis that includes dimensions from, for example, the Compliance Real Time and Assessment Results Real Time subject areas.



# 3 Analytics

## Create and Edit Analytics

Create and edit analytics to provide real-time reporting on your transactional data. You can:

- Create an analysis. You may, for instance, want to track overdue assessments. Your analysis includes assessment name, state, and due date. It filters records to exclude completed assessments and include those with due dates earlier than the present date. An analysis may present information in a table, graphically, or both.
- Create a dashboard. You may, for example, group the overdue-assessment analysis together with other analyses that display other information about assessments.
- Use predefined dashboards, which display predefined analyses.

Analytics display data retrieved from subject areas, which are logical groupings of columns that store individual data points.

You may use the BI catalog to create either an analysis or a dashboard. For an analysis, however, you can use a wizard available in the Reports and Analytics pane.

## Analyses

### Use a Wizard to Create or Edit an Analysis

You can use a wizard to guide you through the creation an analysis. Although you can also create analyses in the BI catalog, the wizard provides a directed process that's simpler, but suitable for many of the analyses you'll create.

1. Select Reports and Analytics in the Tools work area. Then:
  - To create a new analysis, click the Create button. From the list it presents, select the Analysis option. A Select Subject Area list appears. Click the check box for one subject area that will provide data for your analysis. Then click the Continue button.
  - To edit an existing analysis, open the folder in which it's saved. (A Favorites filter may be in force by default. If so, click Clear Filters in the Search area to see a list of folders.) In the record of the analysis, click an ellipsis icon, then click Edit.
2. You're now in a Select Columns page. In its Subject Areas region, you can add subject areas or remove any you don't need. If you want to, click the Add/Remove Subject Areas button, select or clear check boxes for subject areas, and click OK.  
However, you can't remove the original subject area selected for the analysis. To remove any other subject area, first remove its columns from the analysis.
3. From here on, make selections in a series of analysis-definition pages, selecting Next or Back to navigate among them.
  - In the Select Columns page, expand your subject area and folders within it to choose the columns from which your analysis is to draw data. Also set options for those columns.

- In a Select Views page, determine whether your analysis is to include a table, a graph, or both. For either, select among several types. If you include both, select the order in which they appear.
- In Edit Table and Edit Graph pages, select options that apply to your table and graph layouts. Each of these pages is active only if you selected the item it applies to in the Select Views page.
- In a Sort and Filter page, optionally apply filters to any of your columns to select particular records (and so exclude others). You can also apply sorts to arrange the order in which records appear.
- In a Highlight page, optionally add color highlights to numeric column values that exceed thresholds you set.
- In a Save page, create a name for the analysis, select a folder to save it in, and click Submit.

In general, these pages are designed so that procedures for using them are readily apparent. Even so, here are some things you'll want to know.

## Select Columns Page

For each column in your analysis, you select an Interaction option.

- Two of the options, Default and Drill, do the same thing: If you click on a column header, the analysis adds a column displaying values at the next hierarchical level. (For example, if you click on Control Name, the analysis adds a Control ID column.) If you click on a column value, the analysis adds the subordinate column, but also filters to display only records containing the value you clicked.
- Navigate to Transaction: If you click on a value from a column for which this option is set, the analysis presents a link to the record of an object the value applies to.

For such links to work, however, further configuration is required: You need to define paths to the records that are to be opened. If you want to use this option, you're probably better off creating the analysis in the BI catalog. However, you can create it in the wizard, then edit it in the BI catalog. See a series of topics beginning with one titled [Link Analyses to Application Pages](#).

- None: This option in effect turns the Default option off and turns nothing on. Nothing happens if you click on a value in a column for which this option is set.

For each column, you can also select a Hidden option. This prevents the analysis from displaying the column, but leaves its values available for use behind the scenes, for example in filters.

## Select Views Page

You can add a graph to your analysis only if it includes at least one column from a fact folder. (You can include a table in your analysis no matter what columns you select for it.) A fact column contains numeric values, such as counts of incidents returned by advanced controls. Other columns contain attributes of objects, such as names of advanced controls. Without numeric values, there's nothing to base a graph on.

You can create a title for the analysis in this page, but doing so is optional. You also create a name for the analysis in the Save page, and that one is required. If you create both, the analysis displays both; they don't have to be the same.

You can use a Preview option to ensure the analysis returns data you expect. Turn it on or off in this page or in subsequent wizard pages. Once it's on, the preview remains on in other wizard pages you navigate to, unless you turn it off.

## Edit Table Page

Here are the layout options you can select for tables:

- Columns: This is the default. Each column you assign this value to appears as a column in the table.

- **Prompt For:** This creates a prompt field, where you select among values from the column you're configuring. For example, select a date if the column is Calendar Month Start Date. The table would then display only rows containing the value you selected.
- **Section By:** The table is divided into sections. Each value of the column you're configuring becomes a header, and the section beneath each header includes rows containing that value.
- **Excluded:** The column you select is no longer available to the view you're configuring. (A "view" is a table or graph you include in the analysis.) The column is hidden, and its values are unavailable for behind-the-scenes tasks such as filtering. However, the column remains available to other views in your analysis.

## Edit Graph Page

You can't apply layout options to fact columns. For other columns, graph layout options include Prompt For, Section By, and Excluded, which have the same effect as they do in tables. You can also apply these options in graphs:

- **Vary Color By:** Each value in the column you're configuring is represented by a distinct color in the graph.
- **Group By:** Values in the columns you assign this option to are combined in the graph. For example, if you select this option for the State and Calendar Month Start Date columns in a bar graph, each bar represents a particular status on a particular date.

## Highlight Page

You can use this feature only if your analysis includes at least one fact column, and you can apply it only to fact columns.

# An Example of Creating an Analysis in the Wizard

Suppose you want to monitor the number of unresolved issues created each month. You need to select columns that provide counts of issues and that track time. You also need to create filters that exclude closed issues.

1. Open the wizard: Navigate to Tools > Reports and Analytics. Click the Create button. In its list, click Analysis.
2. Under Select Subject Area, click the check box for the Risk Management Cloud - Compliance Real Time subject area. Then click Continue.
3. Select three columns: Count of Issues from the Facts - Issue folder, State from the Issue Details folder, and Calendar Month Start Date from the Time folder. In each case, expand the folder in the Subject Area list, click the column name, and then click the > button.
4. Click Next. In the Select Views page, enter a title: **Unresolved Issues by Month**. In the Table list, select the value **Table (recommended)**. In the Graph list, select the value **Bar (recommended)**. In the Layout list, select **Table below Graph**.
5. Click the Preview option. You should now see:
  - A bar graph. Each vertical bar represents a number of issues that were created in a particular month and are now at a particular state. All bars are the same color.
  - A table. Each row reports a number of issues that were created in a particular month and are now at a particular state. Columns correspond to your selections from the Compliance Real Time subject area, in the order you selected them.
6. Click Next. In the Edit Table page, leave all of the columns in the Columns field. But change their order to organize records by issue-creation month: Select Calendar Month Start Date, and click the Up button until that column is on top. Leave Count of Issues second and State third. In the preview, the table reflects your changes.
7. Click Next. In the Edit Graph page, make the bars in the graph easily distinguishable by making them different colors. In the Group By field, select Calendar Month Start Date. Then open the Move To list, and select Vary

Color By. The column name moves to the Vary Color By field. In the preview, bars appear in distinct colors representing the months issues were created.

8. Click Next. In a Sort and Filter page:
  - o Remove records of resolved issues. Click Add Filter and, in its list, click the State column. A row appears. In its Operator field, select **is not equal to**, and in its Value field, type a state that indicates resolution, for example **Final Close**. Create a distinct filter for each state you want to exclude. (For state and status definitions, see *State and Status of Records in Advanced Controls* and *State and Status of Records in Financial Reporting Compliance*.)
  - o Sort records in the table. For each of the following sorts, click Add Sort, select a column, and choose a sort order. For Calendar Month and Start Date, select Ascending sort order. For Count of Issues, select the High to Low sort order.

Note that the first column you select is the primary sort column, the second is secondary, and so on. Each sort you create takes effect only if it doesn't undo a higher-level sort. You can rearrange the sort order: click the Up or Down icon in the row for each sort parameter to move it.

9. Click Next until you reach the Save page. Reenter the analysis title, **Unresolved Issues by Month**, and select the folder in which you want to save the analysis. Then click Submit.

## An Introduction to Working with Analyses in the BI Catalog

You can create analyses in the BI catalog. You can also create analyses in the wizard, but the BI catalog enables you to use advanced features that support complex analyses or specific requirements.

For example, every analysis consists of "views," such as tables and graphs. The BI catalog provides a much greater variety of views than the wizard does. These include specialized items such as view selectors (which enable users to toggle among views in an analysis). For another example, the BI catalog enables you to use SQL statements to define criteria for filters.

To create or edit an analysis in the BI catalog:

1. Navigate to Tools > Reports and Analytics. Click the Browse Catalog button.
2. Click New > Analysis. A Select Subject Area list appears; in it, select the subject area from which your analysis is to draw data.  
  
Or, select an existing analysis in the catalog and click Edit.
3. The analysis opens. Use features available on four tabs to define your analysis.
4. Click the Save Analysis icon to save an existing analysis at its current location. Or click the Save As icon and, in a Save As dialog, enter a name and select the folder in which to save the analysis.

Here are the basic things you can do in each of the four tabs:

### Criteria

Expand folders in your subject area and choose columns to include in the analysis. Drag each column from its folder and drop it in the Selected Columns region. Or, double-click each column.

For any column you select, you may click a menu icon (it looks like a gear) to create filters, to sort the order in which records appear, or to configure column properties. (The topics that follow this one provide examples of filtering and column-property configuration.) You can view and edit filters you've created in a Filters region below the Selected Columns region.

## Results

The initial view in any analysis is a table consisting of the columns you selected in the Criteria tab. In the Results tab, you can review it to confirm it returns data you expect. You can also add views, configure the layout of each view, and more.

To add a view to the analysis, click a New View icon and select among a wide variety of formats for tables, graphs, and other items. Each view appears in its own box in a Compound Layout region, with a descriptive title such as "Table" or "Graph."

You can add a graph only if the analysis includes at least one column from a fact folder. Only fact-folder columns contain numeric values, without which there's nothing to base a graph on. If you want to add a graph but are uncertain which type to select, click the Best Visualization option. It automatically selects the type of graph that presents your data most clearly.

You set layout options for each view individually:

1. Click the Edit View icon (it looks like a pencil) in the title line of a view.
2. A Layout region opens, with fields representing options suitable for the type of view you're working with. For example, table options are the same as they'd be if you were working with a table in the wizard, so there are Table, Table Prompts, Sections, and Excluded fields.
3. Within the Layout region, drag a column to a field representing an option, to apply that option to the column. Then click a Done button.

## Prompts

A prompt is a drop-down list that enables a user to select among records the analysis is to display. An analysis might, for instance, prompt a user to select records of issues at one or more states. In the Results tab, you can configure similar prompts, but each applies only to an individual view. Each prompt you create in the Prompts tab, however, applies to all views in the analysis.

For a simple example, your analysis might include the State column from the Issue Details folder of the Compliance Real Time subject area. You may want to enable users to view issues at states they choose. In the Prompts tab:

1. Select New > Column Prompt > State.
2. In a New Prompt dialog, accept default values: **is equal to/is in** for Operator, and **Choice List** for User Input. To ensure that users can select only among actual state values, select Options and clear the **Enable user to type values** check box.
3. Then check your work: Click the Preview icon. A preview window presents a drop-down list; in it, you can select any combination of states and then click an OK button. The preview window then displays the analysis, filtered so that only records at prompted-for states appear.

## Advanced

Review or modify the XML code and logical SQL statement that the analysis generates.

In particular, you can add a "prefix" that improves the performance of your analysis. Although the performance boost is more noticeable in some analyses than in others, this addition causes any analysis to generate results faster.

1. In the Advanced tab, scroll down to the Advanced SQL Clauses section.
2. Copy the following statement and paste it into the Prefix field:

```
SET VARIABLE OBIS_ORACLEDB_HINTS_FOR_TOP_SELECT='OPT_PARAM
("_complex_view_merging","false")
OPT_PARAM("_optimizer_skip_scan_enabled","false")
OPT_PARAM("_push_join_predicate","false")
OPT_PARAM("_optimizer_push_pred_cost_based","false")';
```

3. Click the Apply SQL button.

## An Example of Creating an Analysis in the BI Catalog

Suppose you want to track overdue assessments.

You need to select columns that identify records of assessments. You also need columns that provide values to filter those records, so that your analysis includes only incomplete assessments with due dates before the current date.

Create this analysis in the BI catalog because it enables you to specify a relative date. That enables the analysis to add records of assessments that become overdue at any point up to the date you view it.

1. Open the BI catalog: Navigate to Tools > Reports and Analytics. Click the Browse Catalog button. In the catalog, click New > Analysis.
2. Under Select Subject Area, select the Risk Management Cloud - Assessment Results Real Time subject area. The analysis opens with the Criteria tab selected by default.
3. In the Subject Areas list, expand the Assessment Results Real Time > Assessment Details folder. From it, select three columns: Assessment Name, Assessment Batch State, and Assessment Result Due Date. Drag each column to the Selected Columns area, and drop it there.
4. Hide the Assessment Batch State column: Click its menu (it looks like a gear) and select Column Properties. Select the Column Format tab, click the Hide check box, and click OK.

You need the Assessment Batch State column so that you can filter by state to include only assessments that are still being worked on. But you can hide the column because viewers of the analysis don't need to see the state values. The purpose of the analysis is to show overdue assessments, so viewers can take for granted that all assessments are at an incomplete state.

5. Create filters:
  - o Click the menu for the Assessment Batch State column, and click its Filter option. In the Operator field of a New Filter dialog, select **is not equal to/is not in**. In the Value field, insert **Rejected; Closed; Completed; Canceled**. Then click OK to close the dialog.

Note that in the Value field, you can expand a list and select values from it. However, some values may be missing from the list. You can also type values directly into the Value field. Use a semicolon as the value delimiter. (For state and status definitions, see *State and Status of Records in Advanced Controls* and *State and Status of Records in Financial Reporting Compliance*.)
  - o Click the menu for the Assessment Result Due Date column, and click its Filter option. In the New Filter dialog, select **is less than or equal to** in the Operator field. Expand the Add More Options list and select **SQL Expression**. A SQL Expression field appears; in it, type **CURRENT\_DATE**. Click OK to close the dialog.
6. Sort the analysis to arrange records from the oldest overdue assessments to the most recent. Click the menu for the Assessment Result Due Date column. Then select Sort > Sort Ascending.
7. Click the Save Analysis icon. In a Save As dialog, enter a name, **Overdue Assessments**, in the Name field and select the folder in which you want to save the analysis. Then click OK.
8. Click the Results tab to see your analysis. You should see that the assessment name and due date columns are visible but the state column isn't, that assessments appear in date order, and that all due dates are earlier than the current date.

## Analyses of Access Model Results

You can create an OTBI analysis that presents access model results. Use it to review results that change repeatedly during model development.

The development of an access model is typically an iterative process. You define the model and generate results. Upon reviewing them, you may discover the model returns false-positives. You might then modify the model logic to eliminate them, typically by adding condition filters. Or you might discover the model fails to return expected results. You could then correct the model logic, for example by adding or editing access point or entitlement filters. You may even discover there are conflicts you can resolve right away, and do so without waiting to create a control. In any case, you generate and review results repeatedly until you're satisfied with the records the model returns.

An OTBI analysis can present model results for review as you work through this development process. The analysis would include data that's also available in the model's Result page. But it would enable you to focus on result values you consider to be key. You could pivot the data in various ways, and so create your preferred view of the data.

The Advanced Access Models Real Time subject area supplies data to this analysis. Each time you refine and then run the model, you must update the subject area with fresh data. To do that, you run a synchronization job from the Models page of the Advanced Controls work area. As you do, you can limit the job to the model (or models) whose results you're interested in seeing.

You can create an analysis that prompts you to select among models you're authorized to work with. It would then display results only for the model you select.

1. Open the BI catalog: Navigate to Tools > Reports and Analytics. Click the Browse Catalog button. In the catalog, click New > Analysis.
2. Under Select Subject Area, select the Risk Management Cloud - Advanced Access Models Real Time subject area. The analysis opens with the Criteria tab selected by default.
3. Select columns in the Subject Areas list, drag them to the Selected Columns area, and drop them there. It's up to you to decide which columns you consider to be important for your review. But:
  - o No matter what else you select, expand the Model Details folder and select the Model Name column. This is the value that enables you to select among models as you use the analysis.
  - o For this example, also select Global User Name, First Name, Last Name, Incident Information, Role Name, and Entitlement Name. These are all available in the Result Details folder.

The first three of these identify a user whose access the model defines as risky. Incident Information reports the path to the access point that's the focus of the result record. Role Name identifies the role that grants that access point to the user. Entitlement Name identifies the entitlement (if any) that's named in the model and includes the Incident Information access point.

4. Click the Results tab. It displays a single view, labeled Table, which displays the columns you've selected.
5. In the title line of the Table view, click Edit View (a pencil icon). A Layout region appears beneath the table. In it, drag the Model Name column to a Table Prompts field. Then click the Done button. The Model Name column now appears as a list field positioned above the other columns, which display data only for the model selected in the list field.
6. Click the Save Analysis icon. In a Save As dialog, enter a name in the Name field, for example **Access Model Results**. Also select the folder in which you want to save the analysis. Then click OK.

### Related Topics

- [Synchronize Model Result Data for OTBI Reporting](#)

## Analyses of Transaction Model or Control Results

You can create analyses that present results returned by transaction models or controls. But results returned by any transaction model or control are incompatible with results returned by any other. That's because:

- A transaction model cites business objects and attributes of those objects, which supply data for analysis. Each business object is a set of related data fields from a business application; an attribute is one field within the set.
- While creating a model, a user selects result attributes. For each risky transaction it finds, the model returns a value for each of these attributes.
- Controls are developed from models, and each control inherits the result attributes selected for its model. For each incident it generates, a control returns a value for each of these attributes.

Because the selection of result attributes is unique for each model or control, you must limit the scope of result analyses.

### First Option

One option is appropriate for a control analysis: It may report on amount values returned by multiple controls. For this to happen, though, some result attributes must be the same for all the controls included in the analysis. They must also occupy the same position among the result attributes in each control. Finally, the analysis must include only the columns that provide values for these attributes.

The recommendation is that as you create models from which these controls are deployed, you place the amount value second among result attributes and a date related to the amount third. Examples of such attributes are Amount and Date in the Payables business object. But it's up to your organization to enforce this convention while creating models.

### Second Option

Another, more typical option is to focus an analysis on a single model or control. This approach is always the right one for model-result analyses, and you can apply it to control-result analyses as well.

Here's why this approach is right for model-result analyses. Model development is an iterative process. You define a model's risk logic and select its result attributes, then review results to see if they're as you expect. If not, you modify the model and repeat. The purpose of a model analysis is to review results of a single model during its development, as those results change with each iteration.

As is true for an access model, the analysis of a transaction model would include data that's also available in the model's Result page. But the analysis would enable you to focus on result attributes that are important to you, presented in your preferred view.

Here's an example of how to create such an analysis:

1. Open the BI catalog: Select Tools > Reports and Analytics, then click Browse Catalog.
2. Click New > Analysis.
3. For a control-result analysis, select the Risk Management Cloud - Advanced Financial Controls Real Time subject area. Or for a model-result analysis, select the Risk Management Cloud - Advanced Financial Models Real Time subject area.
4. In the Subject Areas list of the Criteria tab, expand a details folder and drag a name dimension from it to the Selected Columns region. For a control, the folder and dimension would be Advanced Control Details > Name. For a model, they'd be Model Details > Model Name.
5. Expand another subject-area folder, titled Transaction Incident Result Headers for a control, or Transaction Result Headers for a model. In each, number values indicate the order in which result attributes are arranged



in a control or model. For example Result Header 1 in the Transaction Incident Result Headers folder is the first result attribute selected for a control. Drag those you want to the Selected Columns region. This example uses headers 1 through 3.

- Click the Results tab. In the Compound Layout region, a grid displays records for all the models or controls you can access. (From here on, the term "item" may mean either model or control.) In the grid, each of the dimensions you've selected is a column header, and each row identifies the attributes selected for one item. In this example, suppose you can access two items. The Compound Layout grid might look like this:

Name	Result Header 1	Result Header 2	Result Header 3
Duplicate Invoices	Supplier.Supplier Name	Payables Invoice.Amount	Payables Invoice.Date
Expenses Over Meal Limits	Person.Full Name	Expense Report Details.Original Receipt Amount	Expense Report Information.Date

Note that:

- The standard way to identify an attribute is to concatenate its name with the name of its business object, with a period as the delimiter. For example, "Supplier.Supplier Name" indicates the Supplier Name attribute of the Supplier business object.
  - The order in which result attributes are selected for an item is the same as the order in which they're made available for an analysis. For Duplicate Invoices, for example, Supplier.Supplier Name is Result Header 1 because it was the first result attribute selected for the model, and inherited by the control developed from the model.
- After viewing return values, decide which item you want to select for an analysis. Make a note of its result headers. Later, you may rename result-value columns. The result headers will serve as reminders of what the new names should be.
  - Click the Criteria tab. Create a filter that selects the one item you want. For example:
    - In the Name dimension (for a control analysis) or Model Name dimension (for a model analysis), click the menu icon (it looks like a gear) and select Filter.
    - In a Filter dialog, a Column value defaults to the dimension from which you opened the dialog, either "Name" or "Model Name." Specify an operator and a value to complete the filter, for example "Is equal to" and "Duplicate Invoices."
    - Click OK to close the dialog.
  - Remove the result-header dimensions. Open the menu for each and select Delete.
  - If you're using the Advanced Financial Controls Real Time subject area, expand its Transaction Incident Result Values folder. If you're using the Advanced Financial Models Real Time subject area, expand its Transaction Result Values folder. Identify result-value columns whose numbers match those of the result-header columns you just deleted, and drag them to the Selected Columns region. In this example, they'd be Result Value 1, Result Value 2, and Result Value 3.
  - If you're creating a control-result analysis, give the result-value column headers meaningful names. For each result value in your analysis:
    - Click the menu icon and select Column Properties.
    - In a Column Properties dialog, select the Column Format tab.
    - Select the Custom Headings check box.
    - Enter a new name in the Column Heading field. For example, as you rename Result Value 1, you might enter "Supplier Name."

- o Click OK to close the dialog.

You can do this for a model-result analysis as well, but you may not want to. That's because as you develop a model, you may add or remove result attributes. If so, you also modify the values displayed in the analysis. If, for example, you add an attribute at position 2, the original Result Value 2 becomes Result Value 3, the original 3 becomes 4, and so on. So column names you created for the analysis would no longer be valid.

12. Click the Results tab. The grid in the Compound Layout region now displays results only for the item you selected. These results consist of result-attribute values for each incident generated by the item, rather than result-attribute names.

Also, remember that your analysis displays information that's only as current as the most recent data synchronization. For a control analysis, that synchronization is performed by a Report Synchronization job; it's typically scheduled, and if so you don't need to do anything. (See *Synchronize Analytics Data*.) But for a model-result analysis, you must manually run a separate synchronization job from the Models page of the Advanced Controls work area. Run this job after each run of the model about which your analysis displays data. (See *Synchronize Model Result Data for OTBI Reporting*.)

## Link Analyses to Application Pages

An analysis can contain links to application pages, where you can work on items included in the analysis. These are known as "deep links."

For example, an analysis might list issues raised against risks. From the analysis, you might drill down to an issue so that you can take action on it.

Analyses can link to application pages concerning:

- Processes, risks, controls, remediation plans, issues, and assessments.
- The Controls page, advanced control definitions, advanced control results, and result detail pages.
- The Access Certifications page, owner overviews, manager overviews, and certifier worksheets.

Note, though, that a deep link can't override a user-defined search saved as the default for a page. If the user who created the search clicks a deep link to navigate to the page, deep-link parameters are ignored if they're also set as part of the saved search.

## Deep-Link URLs

To configure a deep link, you set an "interaction" property for a column in your analysis whose values are to be links to application pages. This involves associating the column with a deep-link URL.

You can copy URLs from the following tables, which list the pages you can link to and the URL appropriate for each. As you work with these URLs:

- Copy URLs from the HTML version of this guide, not from the PDF version.
- Replace <server\_url> with the URL of your instance.

- Each URL contains one or more parameters. In some cases, you can retain the parameter values embedded in the URL you copy from the following tables. They're shown in all-capital letters.

In other cases, you need to define parameter values. In the following tables, such parameters appear as the value "@{x}," in which x is a number. Entries for these URLs correlate the numbers to parameter names, which identify values you need to enter.

## Financial Reporting Compliance Deep Links

These URLs apply to Oracle Fusion Cloud Financial Reporting Compliance:

Object Type	Deep-Link URL
Manage Risks	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_RISKS</code>
Create Risk	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=CREATE_RISK_OBJECT</code>
Manage Controls	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_CONTROLS</code>
Create Control	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=CREATE_CONTROL_OBJECT</code>
Manage Processes	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_PROCESS</code>
Create Process	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=CREATE_PROCESS_OBJECT</code>
Manage Issues	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_ISSUES</code>
Create Issue	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=CREATE_ISSUE_OBJECT</code>
Manage Remediation Plans	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_REMED_PLANS</code>
Create Remediation Plan	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=CREATE_REMED_PLAN</code>
Assessment Batches	<p><code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_ASSESSMENTS</code></p> <p><b>Note:</b>                      The standard navigation path to this page would be Risk Management &gt; Assessments &gt; Assessment Batches. It's the page in which you view and open records of assessment batches.</p>
Manage Surveys	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=MANAGE_SURVEYS</code>
View Risk	<p><code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_RISK_OBJECT&amp;objKey=ObjectKey=@{1}</code></p> <p>Parameter: 1, risk ID.</p>

Object Type	Deep-Link URL
Edit Risk	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_RISK_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_RISK_OBJECT&amp;objKey=ObjectKey=@{1}</a></p> <p>Parameter: 1, risk ID.</p>
View Risk Analysis	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_RISKANALYSIS_OBJECT&amp;objKey=ObjectKey=@{1};RiskAnalysisId=@{2}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_RISKANALYSIS_OBJECT&amp;objKey=ObjectKey=@{1};RiskAnalysisId=@{2}</a></p> <p>Parameters; 1, risk ID. 2, risk analysis ID.</p>
Edit Risk Analysis	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_RISKANALYSIS_OBJECT&amp;objKey=ObjectKey=@{1};RiskAnalysisId=@{2}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_RISKANALYSIS_OBJECT&amp;objKey=ObjectKey=@{1};RiskAnalysisId=@{2}</a></p> <p>Parameters; 1, risk ID. 2, risk analysis ID.</p>
View Risk Evaluation	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_RISKEVALUATION_OBJECT&amp;objKey=RiskID=@{1};RiskEvaluationId=@{2}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_RISKEVALUATION_OBJECT&amp;objKey=RiskID=@{1};RiskEvaluationId=@{2}</a></p> <p>Parameters; 1, risk ID. 2, risk evaluation ID.</p>
Edit Risk Evaluation	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_RISKEVALUATION_OBJECT&amp;objKey=RiskID=@{1};RiskEvaluationId=@{2}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_RISKEVALUATION_OBJECT&amp;objKey=RiskID=@{1};RiskEvaluationId=@{2}</a></p> <p>Parameters; 1, risk ID. 2, risk evaluation ID.</p>
View Control	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_CONTROL_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_CONTROL_OBJECT&amp;objKey=ObjectKey=@{1}</a></p> <p>Parameter: 1, control ID.</p>
Edit Control	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_CONTROL_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_CONTROL_OBJECT&amp;objKey=ObjectKey=@{1}</a></p> <p>Parameter: 1, control ID.</p>
View Process	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_PROCESS_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_PROCESS_OBJECT&amp;objKey=ObjectKey=@{1}</a></p> <p>Parameter: 1, process ID.</p>
Edit Process	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_PROCESS_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_PROCESS_OBJECT&amp;objKey=ObjectKey=@{1}</a></p> <p>Parameter: 1, process ID.</p>
View Issue	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_ISSUE_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_ISSUE_OBJECT&amp;objKey=ObjectKey=@{1}</a></p> <p>Parameter: 1, issue ID.</p>
Edit Issue	<p><a href="https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_ISSUE_OBJECT&amp;objKey=ObjectKey=@{1}">https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_ISSUE_OBJECT&amp;objKey=ObjectKey=@{1}</a></p>

Object Type	Deep-Link URL
	Parameter: 1, Issue ID.
View Remediation Plan	<pre>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_REMED_PLAN&amp;objKey=ObjectKey=@{1}</pre> Parameter: 1, remediation plan ID.
Edit Remediation Plan	<pre>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=EDIT_REMED_PLAN&amp;objKey=ObjectKey=@{1}</pre> Parameter: 1, remediation plan ID.
View Assessment Batch Records	<pre>/fscmUI/faces/deeplink?objType=VIEW_ASSESSMENT&amp;objKey=ObjectKey=@{1}</pre> Parameter: 1, assessment ID.  <b>Note:</b> This links to the Assessment Records page. The standard way to navigate to this page is to select Risk Management > Assessments > Assessment Batches, then select the Count value for an assessment batch. The assessment ID parameter identifies the batch whose Count value you'd select.
Complete Assessment	<pre>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=COMPLETE_ASSESSMENT_RESULT&amp;objKey=ResultId=@{1}</pre> Parameter: 1, result ID.  <b>Note:</b> This links to the Introduction page of the "train" to complete an assessment. The standard way to reach this page is to navigate to Risk Management > Assessments > My Assessments, select a type of object and then an object record of that type, and finally select Actions > Perform Assessment. The Result ID parameter identifies the assessment you'd be completing.
View Assessment Result	<pre>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_ASSESSMENT_RESULT&amp;objKey=ResultId=@{1}</pre> Parameter: 1, result ID.  <b>Note:</b> This links to a view version of the "train" to complete an assessment. The link opens the Introduction page of the train if the state of the assessment is New, Request for Information in Review, Request for Information in Approval, or Rejected. Or, the link opens the Complete Assessment page if the assessment state is In Review, Awaiting Approval, or Completed. Once the link opens either of these pages, a user can navigate to other train stops. The standard navigation path is the same as for the Complete Assessment link, except you'd select View Assessment from the Actions menu.
View Survey	<pre>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=VIEW_SURVEY&amp;objKey=ObjectKey=@{1}</pre>



Object Type	Deep-Link URL
	Parameters: 1, control ID. 2, global user name. 3, entitlement name. 4, role name. 5, status code. 6, state code.
View a Result	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=GRC_AC_VIEW_RESULT&amp;action=VIEW&amp;objKey=IsReadOnly=true;IncidentId=@{1};Navigation=deepLink</code>  Parameter: 1, result ID.
Edit a Result	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=GRC_AC_VIEW_RESULT&amp;action=VIEW&amp;objKey=IsReadOnly=false;IncidentId=@{1};Navigation=deepLink</code>  Parameter: 1, result ID.
View Results by Control and User	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=GRC_AC_RESULTS_BY_CONTROL_USER&amp;action=VIEW&amp;objKey=ControlId=@{1};GlobalUser=@{2};Navigation=deepLink</code>  Parameters: 1, control ID. 2, global user name.  <b>Note:</b> You don't have to supply the second parameter, global user name. If you don't, the page displays records of all users for whom the control generates incidents. If you do, the page filters those records, displaying only users whose global user names contain the value you supply.
View Results by Control, User, and Role	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=GRC_AC_RESULTS_BY_CTRL_USR_ROLE&amp;action=VIEW&amp;objKey=ControlId=@{1};GlobalUserId=@{2};Role=@{3};Navigation=deepLink</code>  Parameters: 1, control ID. 2, global user ID. 3, role name.  <b>Note:</b> You don't have to supply the third parameter, role name. If you don't, the page displays records of all roles assigned to the user and involved in incidents generated by the control. If you do, the page filters those records, displaying only roles with names containing the value you supply.

URLs for Result pages (marked by an asterisk in the table) include parameters for status code and state code. These are optional. If you omit them, you navigate to Result pages that display pending incidents, which are those at the Assigned or Remediate status and at the In Investigation state.

Include these parameters if you want to link to records of incidents at other status-state pairings. The following pairings are valid. If you pair a status value with an inappropriate state value, no results appear in the Results page you link to. You're required to use code values rather than display names. In the following list, the first value is a status code and the second is a state code appropriate for the status.

- ACCEPTED / APPROVED
- RESOLVED / APPROVED
- CONTROL\_INACTIVE / CLOSED
- CLOSED / CLOSED

## Access Certifications Deep Links

These URLs apply to Oracle Fusion Cloud Access Certifications:

Object Type	Deep-Link URL
Certification List	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=ACCESS_CERTIFICATION&amp;action=CERTIFICATION_LIST</code>
Certification List (filtered to individual certification)	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=ACCESS_CERTIFICATION&amp;action=CERTIFICATION_LIST&amp;objKey=certificationId=@{1}</code>  Parameter: 1, certification ID.
Owner Overview	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=ACCESS_CERTIFICATION&amp;action=OWNER_OVERVIEW&amp;objKey=certificationId=@{1}</code>  Parameter: 1, certification ID.
Manager Overview	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=ACCESS_CERTIFICATION&amp;action=MANAGER_OVERVIEW&amp;objKey=certificationId=@{1}</code>  Parameter: 1, certification ID.
Certifier Worksheet	<code>https://&lt;server_url&gt;/fscmUI/faces/deeplink?objType=ACCESS_CERTIFICATION&amp;action=CERTIFIER_WORKSHEET&amp;objKey=certificationId=@{1}</code>  Parameter: 1, certification ID.

## How to Add Deep Links to Analyses

To add deep links to an analysis, configure the column whose values you want turn into links: Supply an appropriate deep-link URL. Modify its parameters (if you need to) so that they return the results you want.

As general principles:

- An analysis may include columns that provide ID values. In such an analysis, a deep link fails if ID numbers are incorrectly formatted. For any column that provides ID values, click its menu icon (it looks like a gear), select Column Properties, and then the Data Format tab. Then set the format to Number, with no decimals or commas.
- If you create a deep link in an analysis that includes multiple columns, configure the link for a column that returns unique values.

### Initial Steps

Whenever you add a deep link to analysis, begin with these five steps:

1. Open the analysis in the BI catalog.
2. Click the menu icon for the column whose values you want to turn into links. In the menu, select Column Properties, and then the Interaction tab.



3. Two Primary Interaction fields appear, one for Column Heading and the other for Value. If you're linking to a page, expand the Column Heading field; if you're linking to individual records, expand the Value field. In the list of values, select Action Links. Then click the Add Action Link icon.
4. A New Action Link window appears. In a Link Text field, enter a description of what your link does. (Users who click on the link in your analysis will see this description, and then click on it to open the linked application page.)
5. Next to an Action field, click the Create New Action icon and select its Navigate to a Web Page option.

## Link to a Page

As a first example, suppose an analysis displays records of the Risk object. One of its columns is Risk Name, from the Compliance Real Time subject area, which returns unique values. You want the analysis to link to the Risks page.

This would use a deep-link URL that doesn't require you to define parameters. Moreover, every link would go to the same place (in this example, the Risks page), so there's no reason for the analysis to contain more than one link. So this example shows how to add the deep link to the Risk Name column heading in the analysis, not to individual values.

1. Complete the five steps in the Initial Steps section of this topic.
  - o Use the Risk Name column to create your link. Click its menu icon.
  - o Use the Primary Interaction field that applies to Column Heading, not to Value.
  - o The Link Text you create might be "Open the Risks page."
2. Having reached the Create New Action dialog, enter the appropriate deep-link URL. In this case, it's the one you can copy from the Manage Risks entry in the table of Financial Reporting Compliance URLs. Be sure to replace `<server_url>` with your URL.

```
https://<server_url>/fscmUI/faces/deepLink?objType=MANAGE_RISKS
```

3. Having confirmed that it contains no parameters you need to define (none contains an `@{x}` value), don't click the Define Parameters button. Do click the Options button, and select Open in New Window.
4. Click OK to close each of the windows you've worked in, and run your analysis.

## Link to Individual Records

Now suppose an analysis lists advanced controls and the global users for whom those controls have generated incidents. Among its columns are Control ID, Name, and Global User. ("Name" is the heading of the column that provides the control name.) All three of these are available in the Advanced Access Controls Real Time subject area. The Control ID and Name columns are in the Advanced Control Details folder, and the Global User column is in the Incident Result Details folder.

You want to make each global user a link to the incident result involving that user. This would use a deep-link URL that does require you to define parameters. Moreover, you intend links to open distinct records of distinct incidents. So you want to add links to individual values of the Global User column in the analysis, not to the column heading.

1. Complete the five steps in the Initial Steps section of this topic:
  - o You'll be turning values from the Global User column into links. Click its menu icon.
  - o Use the Primary Interaction field that applies to Value, not to Column Heading.
  - o The Link Text you create might be "Open this user's incident."

- Having reached the Create New Action dialog, enter the appropriate deep-link URL. This time, it's the one you can copy from the View Results for a Control and User entry in the table of Advanced Controls URLs. Again, be sure to replace <server\_url> with your URL.

```
https://<server_url>/fscmUI/faces/deeplink?
objType=GRC_AC_RESULTS&action=VIEW&objKey=controlId=@{1};Navigation=deepLink;GlobalUser=@{2}
```

- Having determined that you need to define parameters (the URL contains @{x} values), click the Define Parameters button.
- Ensure that the number of rows equals the number of parameters in your URL (in this case, two). As needed, click the Add Parameters icon to add rows.
- In each row to define a parameter:

A Name cell includes a number corresponding to a parameter number in the URL. Don't change that value. A Prompt cell includes text that you can modify to any value that's meaningful to you. It should describe the corresponding Value selection.

In the Value cell, click the **Change type of value** drop-down list (on the left), and select **Column Value**. Another drop-down list appears to the right of the cell; expand it and select a column.

For the link in this example, enter prompts and select values as follows. (The Prompt entries are suggestions.) Note that Value entries exist for you to select because you included their columns in the analysis.

Name	Prompt	Value
1	control ID	"Advanced Control Details"."Control Id"
2	global user name	"Incident Result Details"."Global User Name"

- Click the Options button, and select Open in New Window.
- Click OK to close each of the windows you've worked in, and run your analysis.

## Link to Filtered Transaction Results

In an analysis that presents results generated by a transaction control, a deep link can open the control's Results page so that it presents a filtered set of incidents. The link designates one or more result columns that provide filtering values. When a user clicks the link in a row of the analysis, the Results page opens. But it displays only records with values that match values in the designated filtering columns of the selected row.

For example, supplier ID may be one of the result attributes for a control. An OTBI analysis for that control may include the supplier ID column and create a deep link that designates it as a filter. A user may click the link in a row in which supplier ID is 12. The Results page would present all records in which the supplier ID is 12, and no others. Or, the user may click the link in a row with a different supplier ID value. The Results page would display only records containing that value.

You can designate as many as five filtering values, although you don't have to use them all.

The deep link depends on two dimensions: Transaction Incident Result Values returns the values of result attributes included in the control, and ResultDrillId creates filtering identifiers for those results. Parameters in each of these dimensions are numbered, and each number corresponds to the position of a result attribute among all the result attributes included in a control.

Suppose an analysis returns results of a control deployed from delivered model 30001: Duplicate Payables Invoices. You know that the control may return false positives: incidents for a given supplier may be legitimate invoices rather than duplicates. So you want the ability to filter by supplier ID and invoice number, so that you can accept legitimate

invoices easily. Your analysis would include the Control ID and Name columns, as well as any other columns that provide information you consider to be useful.

The analysis would also include matched columns from the Transaction Incident Result Values and ResultDrillId dimensions. One pair would be Result Value 14 and Result Drill ID 14, because Payables Invoice.Supplier ID is the fourteenth result attribute in the control. The other pair would be Result Value 5 and Result Drill ID 5, because Payables Invoice.Number is the fifth result attribute in the control.

1. Complete the five steps in the Initial Steps section of this topic:
  - o You'll be turning values from the Name column into links. Click its menu icon.
  - o Use the Primary Interaction field that applies to Value, not to Column Heading.
  - o The Link Text you create might be "Filter on supplier ID and invoice number."
2. In the Create New Action dialog, enter the deep-link URL you can copy from the Filter Results for a Transaction Control entry in the table of Advanced Control URLs. However, include only enough of its parameters to support the number of filtering values you want to use. In this case:

```
https://<server_url>/fscmUI/faces/deeplink?
objType=GRC_AC_RESULTS&action=VIEW&objKey=controlId=@{1};Navigation=deepLink;resultValueA=@{2};resultDrillIdA=@{
```

Again, be sure to replace <server\_url> with your URL.

3. Click the Define Parameters button, and add rows as needed to support five parameters.
4. Use the procedure from step 5 of the previous example to define the following parameters.

Name	Prompt	Value
1	Control ID	"Advanced Control Details"."Control Id"
2	supplier ID value	"Transaction Incident Result Values"."Result Value 14"
3	supplier ID drill	"Result Drill IDs"."Result Drill ID 14"
4	invoice number value	"Transaction Incident Result Values"."Result Value 5"
5	invoice number drill	"Result Drill IDs"."Result Drill ID 5"

5. Click the Options button, and select Open in New Window.
6. Click OK to close each of the windows you've worked in, and run your analysis.

## Deep Links to Other Applications

You can create links from your analyses to records in other Oracle Fusion Cloud applications. Product areas that offer deep links generally share examples in My Oracle Support. For example, see:

- Note 2603149.1 for examples of linking to AP invoices, AP payments, journals, assets, credit transactions, credit memos, receipts, customers, and subledger accounting.
- Note 2444555.1 for examples of linking to purchase orders and purchase agreements.

Essentially, you follow the procedures outlined in this guide's examples. But you use deep-link URLs and parameter definitions provided in the documents on My Oracle Support.

## Dashboards

### An Introduction to Working with Dashboards

A dashboard presents a set of related analyses or other objects created in Transaction Business Intelligence.

You may add other items, such as explanatory text, links to actions or alerts appropriate for records that appear in the dashboard, or links to "embedded content" such as spreadsheets or websites.

Once you create a Risk Management dashboard, you can open it from a Risk Management Dashboard icon on the Risk Management springboard. This requires a simple setup; see *Set Up the Risk Management Dashboard Icon*.

To create or edit a dashboard:

1. Navigate to Tools > Reports and Analytics. Click the Browse Catalog button.
2. Click New > Dashboard. A New Dashboard dialog opens. In it, supply a name and optionally a description, select a location in which to save the dashboard, and select an Add Content Now button. Then click OK.

Or, select an existing dashboard in the catalog and click its Edit option.

3. The dashboard opens, displaying a "page" that will contain content. Each dashboard initially has a single page, but you may add pages: click the Add Dashboard Page icon. You can view each page by clicking its tab at the top of the dashboard. If you choose to delete a page, select its tab, then click the Delete Current Page icon.
4. Drag content from a Dashboard Objects panel or a Catalog panel to the dashboard page. If you've added pages to the dashboard, add content to each page.
  - o In the Catalog panel, navigate through the folder hierarchy to select items stored in the BI catalog, such as analyses or other dashboards.
  - o In the Dashboard Objects panel, select additional items, which are described below.

As you add items, each must be contained in a "section," and each section must be contained in a "column." These containers are created automatically whenever the need for them is apparent. For example, if you drag an analysis into a blank page, it's automatically contained in a section, and that section in a column. If you drag a second object to that section, it would be included there. If you were to drop it within the column but outside the section, a new section would be created for it.

5. Arrange the items you've added until they're organized as you want them. You can drag items within a section, or from one section to another. You can move sections within a column, or from one column to another. You can drag columns in relation to one another. You can move an item or a container above, to either side of, or below another item or container.

You can also delete items, sections, or columns. For each, click the delete icon in its corner. If you delete a section, you also delete all the items it contains. If you delete a column, you also delete all the sections and items it contains.

6. When you're satisfied with your arrangement, click Save.

The objects you can select in the Dashboard Objects panel include the following:

- **Columns and sections:** Add these only when they wouldn't be added automatically. For example, if you drag an analysis into a blank page, it's contained by a section and a column. But if you want to add a second analysis in a second column, you need to add the column manually.
- **Alert Section:** Adds a section to display alerts from agents, if you've configured agents.
- **Action Link or Action Link Menu:** Adds a link, or a set of links, to related content or to operations, functions, or processes in external systems.
- **Link or Image:** Adds text or an image that serves as a link, and specifies what should happen when a user clicks it. You can link to a website, another dashboard, documents, or other items. You can also add text or an image only, without a link.
- **Embedded Content:** Adds a spreadsheet, document, website, or other content. To embed the content, you specify a URL that provides it.
- **Text:** Adds plain text.
- **Folder:** Adds a view of a BI catalog folder and its contents. You might, for example, add a folder that contains analyses you run frequently. From the dashboard, you can open the folder and run any of the analyses.

In most cases, you must set properties for dashboard objects you select. Click the Properties icon for the object, then click the Help icon in the Properties dialog for detailed information.

By default, the first page in any dashboard is named Page 1. You can change the name. You name other pages as you create them, but you can rename them too:

1. Click the Catalog link.
2. In the Folders panel, select your dashboard.
3. In the row for the page whose name you want to change, click More and select Rename.
4. Enter the new name and click OK.

## Use Predefined Dashboards

Predefined dashboards provide analyses that document your use of Oracle Fusion Cloud Risk Management applications:

- A Related Records dashboard reports relationships you've configured between records of the Process, Risk, and Control objects. For example, you might relate several controls to a risk to indicate that each control plays a part in reducing the risk.
- A Simulation Remediation Plan dashboard documents remediation-plan steps and their results. To address conflicts identified by access controls, each step simulates the removal of an access point from a role hierarchy. If the simulated change were actually made, the access point would no longer be granted to users. So conflicts involving that access point in that hierarchy would be resolved.
- An Access Certification Detail dashboard displays information about a selected certification project, including:
  - The assignable roles it scopes, the users assigned each role, and the action selected for each user-role pairing.
  - The certifiers and managers who participate in reviewing each user-role pairing.
  - The start and due dates for the certification.
- Three sets of dashboards provide administrative information for the financial-reporting, access-control, and transaction-control applications. Each set consists of three dashboards:

- **Change History:** This dashboard provides information recorded in revision history about changes to objects. Or, where those changes are documented through audit history, the dashboard shows incident-status changes.
- **Inaccessible Records:** This dashboard identifies records that are no longer accessible by any application user.
- **Unassigned Perspective:** This dashboard identifies perspective hierarchies and values that aren't assigned to any object.

To use these dashboards and their analyses, open them from the BI catalog.

1. From Tools in the springboard, open the Reports and Analytics work area. Or, open the Reports and Analytics pane if it's available in other work areas.
2. Click the Browse Catalog button.
3. Locate the dashboard you want. In the Folders tree, navigate to an appropriate subfolder of Shared Folders > Risk Management:
  - In most cases, the subfolder is [Product Name] > Administration.
  - For the Simulation Remediation Plan dashboard, the subfolder is Advanced Access Controls > Simulation.
  - For the Access Certification Detail dashboard, the subfolder is Access Certification.

#### *Related Topics*

- [Audit Objects](#)