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Report Writer

Course Manual and Activity Guide

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CONTENTS

REPORT WRITER FOR WORKDAY 30

DESCRIPTION

This course introduces you to the Workday Report Writer tool. You will learn how to leverage Workday business objects and data sources to access the report data you need. You will also learn how to build custom reports to meet business requirements from various functional areas.

This course will cover the following topics:

- Reporting Overview
- Building Custom Reports
- Sorting and Filtering
- Prompting
- Totaling, Grouping, and Outlining
- Report Security
- Scheduling Reports
- Introduction to Matrix Reports
- Working with Calculated Fields
- Report Performance

GOAL & OBJECTIVES

In this class, you will be stepping into the roles of two workers at Global Modern Services. Logan McNeil, the Vice President of Human Resources, is the report writer for the HCM side of the business. Teresa Serrano, Controller, is the report writer for the financial side of the business. Throughout this class, you will be given a set of business case scenarios in which Teresa and Logan will be required to create reports with specific requirements. You will help them build custom reports using the Workday Report Writer tool.

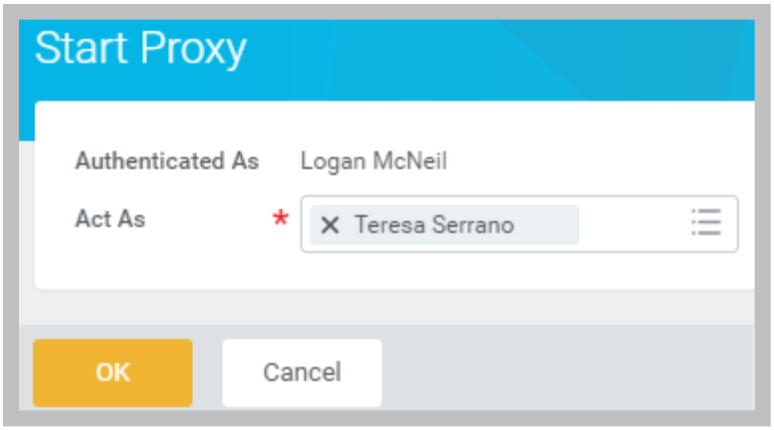
By the end of this course, you will be able to:

- Create a custom report using the Advanced report type that sorts, filters, prompts, groups, and totals the data.
- Create a basic matrix report that summarizes the data and uses drillable fields.
- Use the tools in Workday to determine the appropriate primary business object and data source for a report.
- Create a basic calculated field to display data from a related business object on a report.
- Troubleshoot why a user cannot access a report or see certain data on the report.
- Explain the performance considerations when creating a custom report.

PROXY ACCESS IN TRAINING TENANTS

Throughout this class, you will use proxy access in your training tenants to make it easy to test reports as other users. Proxy access can only be enabled in training, sandbox, and other non-production environments. In order to use proxy access, a proxy access policy must be configured in the tenant.

You can use the Start Proxy task to act as another user in the tenant.

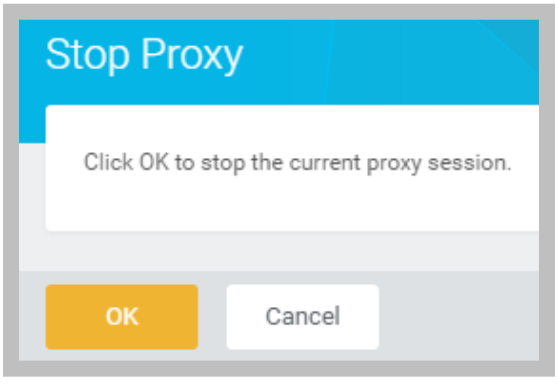


1 - Start Proxy

When acting as another user, you will see “On behalf of:” in the top right corner of the screen.

2 - On Behalf of Another User

You can use the Stop Proxy task to act as yourself again.



3 - Stop Proxy

CHAPTER 1 – REPORTING OVERVIEW

OVERVIEW

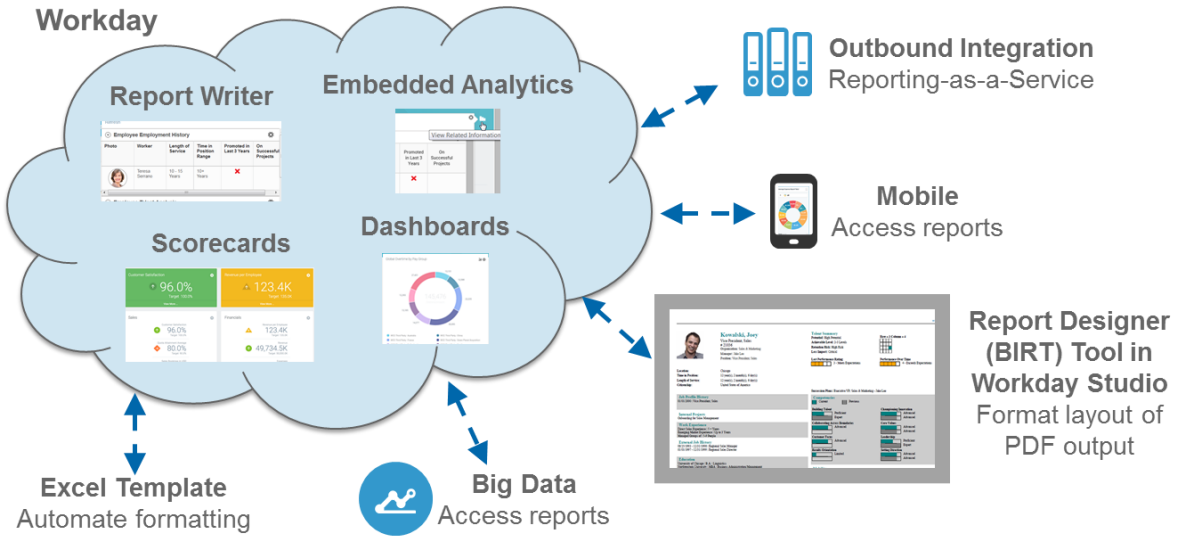
In this chapter, you will become familiar with the Workday Report Writer tool. You will learn how to run standard reports and manipulate the output of a report. You will also learn how to use these standard reports as a starting point for creating custom reports.

OBJECTIVES

By the end of this chapter, you will be able to:

- Describe the high-level reporting capabilities in Workday.
- View Workday standard reports.
- Run a standard report and explore the output.
- Copy a standard report to create a custom report.
- Create a report tag and associate it with custom reports.
- Determine if a standard report can be copied and used as the starting point for a custom report.

WORKDAY REPORTING OVERVIEW



4 - Graphical representation of reporting capabilities and applications in Workday

Reports in Workday are designed for the functional user and have an easy-to-use, consumer-friendly interface. Reports are built in to the application, which allows users to take action on the report output directly from the user interface. By being built-in and not bolt-on, reports in Workday also leverage your security configuration. This allows you to access real-time, relevant data.

You can build custom reports using the Report Writer tool. You can embed reports in your business process transactions to provide relevant data for decision-making at the time of decision. You can also enable reports as worklets and display them on dashboards. In addition, you can use scorecards to display a snapshot of important metrics for a specific organization for a particular period. These metrics are sometimes called KPIs (or key performance indicators).

Reports can be used in outbound integrations (Reporting-as-a-Service) and accessed from mobile devices.

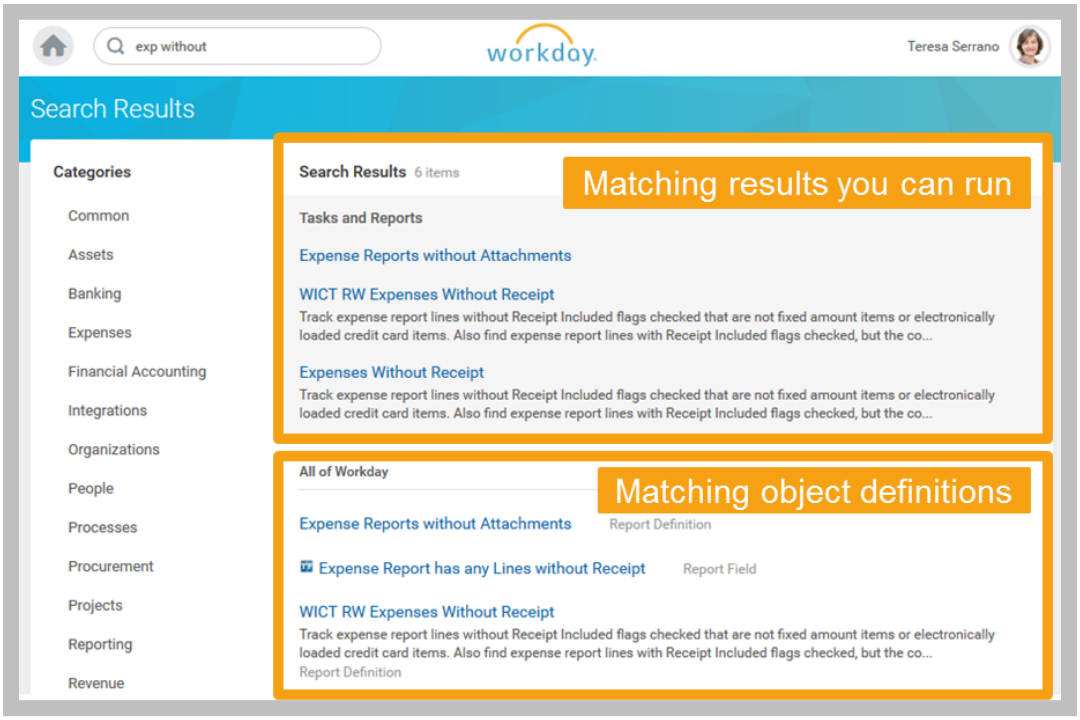
Workday allows you to associate layouts with your custom reports, which it uses to generate PDF files. In Workday, these designs are known as business form layouts. You can define a business form layout using the Report Designer (BIRT) tool in Workday Studio.

You can use Big Data Analytics to analyze data from both Workday and external sources.

Workday helps you automate your Excel processing and formatting when exporting a Workday custom report. Excel Templates reduce the time and effort needed to deliver Excel workbooks based on Workday custom reports, especially in cases where you export a report on a regular basis and then reformat the data in Excel. This feature supports any macros, calculations, and formatting you defined in the associated workbook template.

FINDING REPORTS IN WORKDAY

You can use the Search box to find and run reports in Workday. In the Search Results, you will see two sections of results. The Tasks and Reports section returns matching results you can run. The All of Workday section returns matching object definitions. You can use an object definition's Related Actions icon to take action on the given object. For a custom report, you can use the object definition's related actions to edit the report. You can use the Categories along the left-hand side to further refine the results.



5 - Searching for Reports in Workday

USING SEARCH PREFIXES

You can use search prefixes to limit the search results. Type *?* in the Search box to see a list of supported search prefixes. To search using a search prefix, type *<search prefix>: <specified string>* in the Search box. For example, type *rd: expense* to search for custom reports using a search string.

The following table lists common reporting search prefixes.

Search Prefix	Search Results
rd	Searches for custom reports using a search string.
rdt	Searches for custom report definitions using a report tag.
field	Searches for fields (including report fields) using a search string.

SCENARIO

Teresa Serrano needs to create a report that identifies expenses without a receipt.

These are the fields she needs to display in the report:

Expense Report	Expense Report Date	Cost Center	Worker	Expense Item as Worktag	Currency	Extended Amount	Receipt Attached
EXP-00004948	1/9/15	71200	Neal Jackson	Airfare	USD	$576.69	No
EXP-00004950	1/9/15	10000	Steve Morgan	Meals	USD	$39.49	No
EXP-00004966	1/16/15	41200	Betty Liu	Parking	USD	$117.00	No

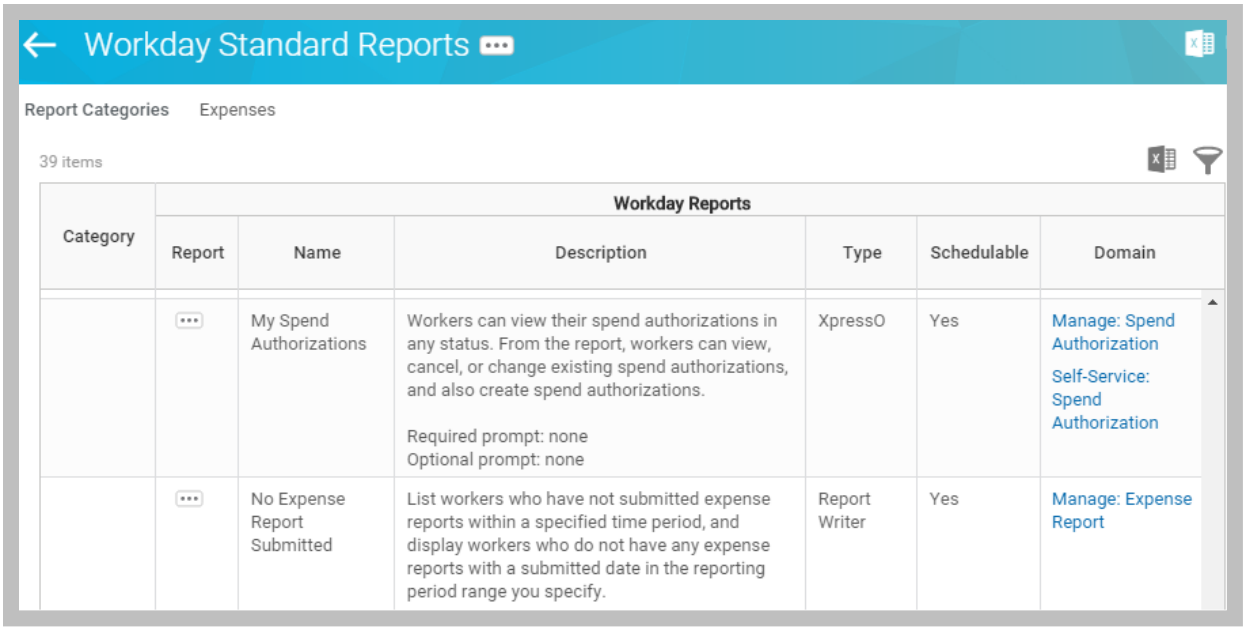
If there is a Workday standard report that is close to what Teresa needs, she can copy and modify it.

WORKDAY STANDARD REPORTS

You can use the Workday Standard Reports report to view Workday-delivered reports. When you run this report, it asks you to select the category whose reports you want to list. You can select as many categories as you want.

Security Notes:

- The report shows all standard reports and all categories, even if you do not have security permissions to access the menu category or the report.
- You must have access to the Custom Report Administration security domain to run the Workday Standard Reports report.



6 - Workday Standard Reports

These are the columns displayed in the report.

Column	Description
Category	The category for the standard report.
Report	Related actions you can take on the standard report.
Name	Name of the standard report.
Description	Description of what is displayed in the report.
Type	The type of report, either XpressO or Report Writer. XpressO reports are created using a proprietary programming tool that provides special capabilities for building reports. You cannot copy and then modify these reports using the Report Writer tool. Report Writer reports are created using the same Report Writer tool that is available to you. You can make a copy of a Report Writer report, change it any way you want, and then save it.
Schedulable	Indicates whether a report can be scheduled.
Domain	Shows the name of the domain in which the report is secured. Users must have access to one of the security domains to run the report.

DEMO – EXPLORE STANDARD REPORTS

Introduction: This demo will show you how to find standard reports using the Workday Standard Reports report. You will also learn how to run a standard report and explore the report output.

TASK #1: EXPLORE WORKDAY STANDARD REPORTS

1. Sign in as Teresa Serrano (tserrano).
2. Type *Work Stan Rep* in the Search box and press **Enter**.
3. Select **Workday Standard Reports** in the top portion of the Search Results.
4. Type *worker* in the Report Categories field and press **Enter**. This will show you all Report Categories that include the word "worker."
5. Select **Worker Data** and **Worker Data History**.
6. Click **OK** to view the report.
    a. Which report lets you find workers in a supervisory organization and filter based on Degree and School?
    b. Which report cannot be scheduled? (Hint: Scroll to the bottom of the report.)
    c. Which reports are XpressO reports?
7. Click the Find Workers report's **Related Actions**. Hover over Standard Report and notice that you can run this standard report. Click anywhere on the page to close the pop up box.
8. Click the Beneficiary Change Summary report's **Related Actions**. Why can't you access Standard Report > Run?
9. Click anywhere on the page to close the pop-up box.

TASK #2: RUN A STANDARD REPORT

1. Click the **Back** arrow next to Workday Standard Reports to select a different report category to view.

2. Click **X** next to Worker Data and Worker Data History to remove them as selected categories.

3. Select **Expenses** as the new Report Category and click **OK**.

4. Click the Credit Card Transactions Not Expensed report's **Related Actions** and select **Standard Report > Run**. This report prompts the user for information.

5. Enter the following information in the report prompts:

Field Name	***Entry Value***
Company	Consolidation - Corporate
Date Loaded From	01/01/2015
Date Loaded To	12/31/2017

6. Click **OK**.

TASK #3: EXPLORE THE REPORT OUTPUT

1. Click the **Billing Date** column and then select **Sort Descending**. This will sort the data by the most recent date.

2. Click the **Billing Date** column and then select **Remove Sort**.

3. Click the **Corporate Credit Card Account** column and then select **GMS USA P-Card (Corp)** in the Value field.

4. Click **Filter**. This will display only credit card transactions for corporate credit cards in the USA.

5. Click the **Corporate Credit Card Account** column and then select **Remove Filter**.

6. Click the **Filter** icon that is just above the grid on the far right and click **Add**. This is another way that you can filter by a column in the report.

7. Click **Cancel**.

8. Click the **Export to Excel** icon that is just above the grid on the far right and view the resulting output.

9. Click the **Export to Excel** icon that is near Teresa's name (upper right corner) and view the resulting output. What is the difference between the two Excel files?

10. Click the **Expand/Collapse Chart** icon  that is just above the grid on the far right to view a chart of the data.

11. Click the **Configure and View Chart Data** icon  and change the chart type to **Clustered Bar**.

12. Click the **Expand/Collapse Chart** icon again to hide the chart.

13. Click the **Select to show/hide columns** icon  that is just above the grid on the far right.

14. Clear the **Transaction Currency** and **Managers** checkboxes.

15. Click **Done** and verify that the report does not display the Transaction Currency and Managers columns.

16. Click the **View Printable Version (PDF)** icon  that is near Teresa's name and view the resulting output.

17. In the Corporate Credit Card Account column, click GMS USA P-Card (Corp)'s **Related Actions**. Notice that there are several related actions you can take for this corporate credit card account right from this report.

18. Click anywhere on the page to close the pop-up box.

19. Click the Credit Card Transactions Not Expensed report's **Related Actions**. Notice there are several related actions you can take for this standard report, including creating a copy.

20. Click anywhere on the page to close the pop-up box.

ACTIVITY 1.1 – RUN A STANDARD REPORT

Business Case: Teresa Serrano needs to create a report that shows expense report line items without a receipt. She needs to display these fields in the report:

- Expense Report
- Expense Report Date
- Cost Center
- Worker
- Expense Item as Worktag
- Currency
- Extended Amount
- Receipt Attached

She needs to see if there is a Workday standard report that meets her needs.

TASK #1: VIEW WORKDAY STANDARD REPORTS

1. Sign in as Teresa Serrano (tserrano).
2. Type *Work Stan Rep* in the Search box and press **Enter**.
3. Select **Workday Standard Reports** in the top portion of the Search Results.
4. Select **Expenses** in the Report Categories field.
5. Click **OK**.
6. Scroll down in the list of reports and find the Expenses Without Receipt report.
    a. Based on the Description field, does this report show expense report line items without an attached receipt?
    b. Is this a Report Writer report?

TASK #2: RUN A STANDARD REPORT

1. Click the Expenses Without Receipt report's **Related Actions** and select **Standard Report > Run**.
2. Enter the following information in the report prompts:

Field Name	*Entry Value*
Company	Global Modern Services, Inc. (USA)
Expense Report Date From	01/01/2015
Expense Report Date To	12/31/2015
Reporting Currency	USD

3. Click **OK**.

4. Compare the fields displayed in the standard report with the fields that Teresa wants in her report. These include: Expense Report, Expense Report Date, Cost Center, Worker, Expense Item as Worktag, Currency, Extended Amount, and Receipt Attached.

    a. Are any of the desired fields missing from the standard report? If yes, which ones?

    b. Are there fields in the standard report that Teresa does not want displayed?

    c. Can Teresa use the standard report as is, or will she need to copy and modify it?

TASK #3: EXPLORE THE REPORT OUTPUT

1. Click the **Expense Report Date** column and then select **Sort Descending**. This will sort the data by the most recent date.

2. Click the **Expense Report Date** column and then select **Remove Sort**.

3. Click the **Expense Item as Worktag** column and then select both **Airfare** and **Meals** in the Value field.

4. Click **Filter**. This will display only expense report lines items for airfare and meals.

5. Click the **Expense Item as Worktag** column and then select **Remove Filter**.

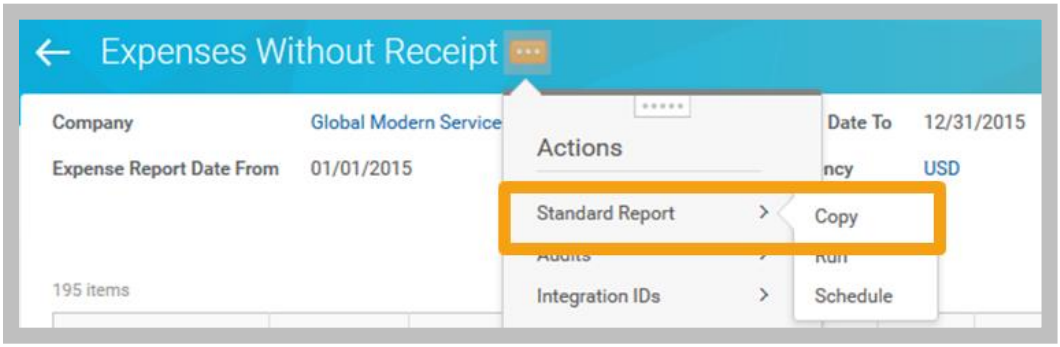
6. In the Worker column, click Neal Jackson's **Related Actions**. Notice that there are several related actions you can take for Neal Jackson right from this report.

7. Click anywhere on the page to close the pop-up box.

COPYING A STANDARD REPORT

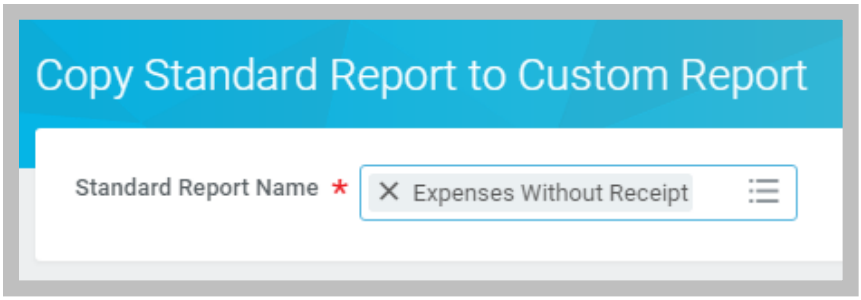
There are two ways to copy a standard report:

1. From the standard report's Related Actions, you can take the **Standard Report > Copy** related action.



7 - Standard Report > Copy Related Action

2. You can use the task **Copy Standard Report to Custom Report**.



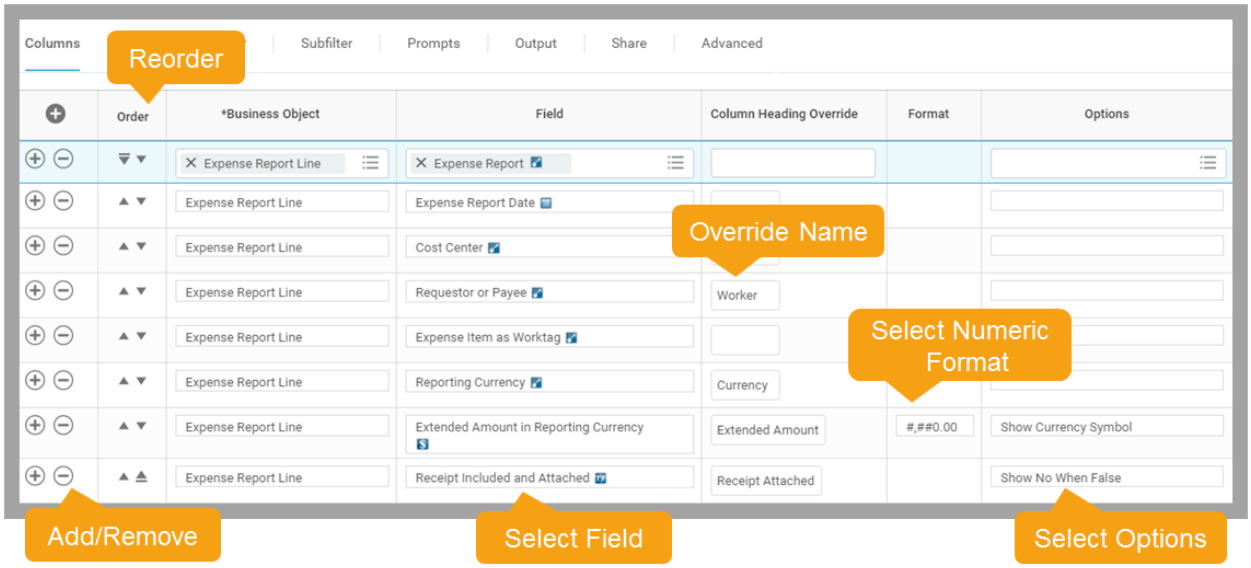
8 - Copy Standard Report to Custom Report

Note: You can only copy Report Writer reports, not XpressO reports.

Security Notes:

- By default, a custom report is not shared with other users. This means only the owner can see and run the report.
- You must have access to the Custom Report Creation security domain to copy a standard report and create a custom report.

MODIFYING REPORT COLUMNS



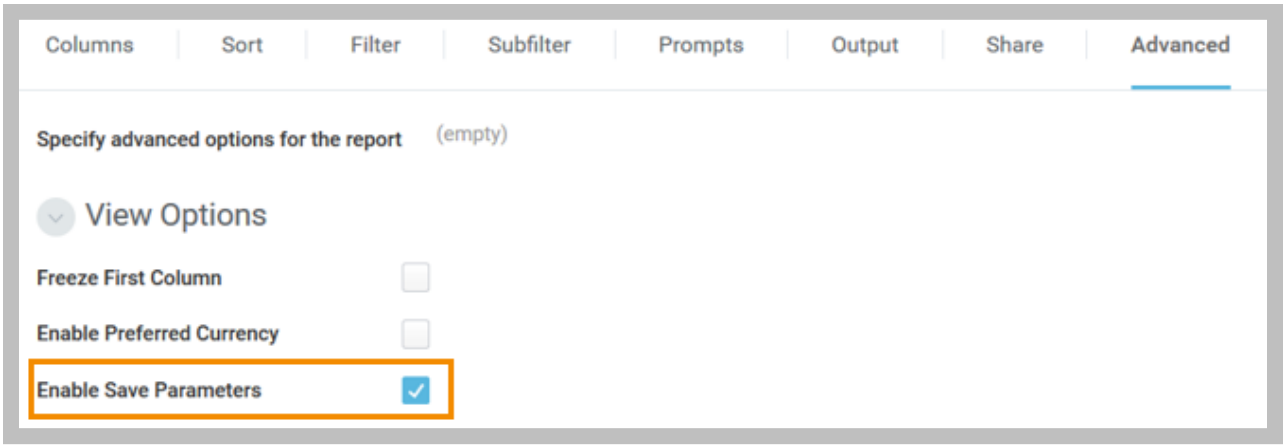
9 – Modify Report Columns

When editing a custom report, you can modify the fields that will be displayed as columns in the report via the Columns tab.

- Use the + and – icons to add or remove a row.
- Use the up and down arrows to reorder the rows.
- Select the field you want to display.
- Optionally, override the field name displayed on the report.
- Select from a variety of numeric formats (masks).
- Select options for how the data should be displayed.

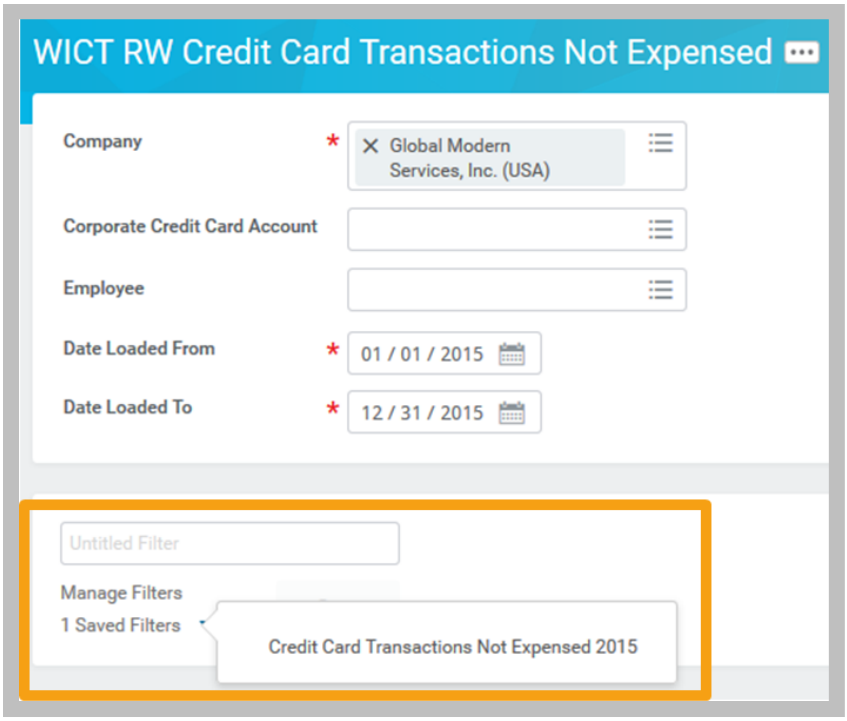
SAVING PROMPT FILTERS

When editing a custom report, you can Enable Save Parameters on the Advanced tab.



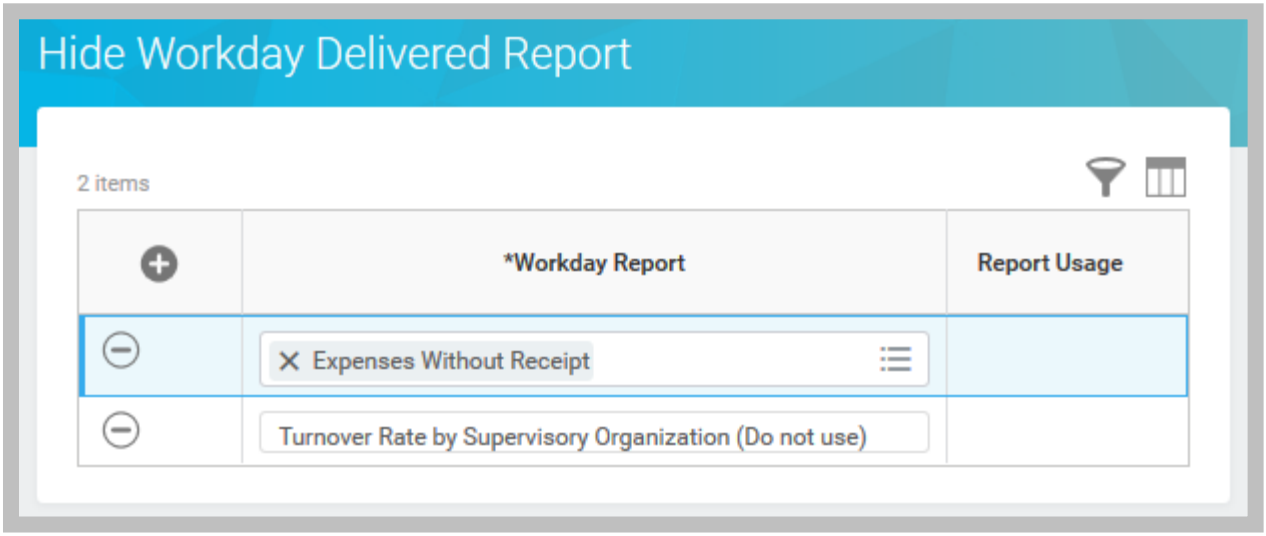
10 - Enable Save Parameters

Enabling this option lets you save and reuse prompt filter values when you run a report.



11 - Saving Prompt Filters

HIDING STANDARD REPORTS



12 - Hide Workday Delivered Report

The Hide Workday Delivered Report task makes standard reports no longer searchable. This eliminates confusion with your users when you create a custom report that should be run instead of the Workday-delivered report.

When you hide a standard report, it is no longer available in search results, in menus, or as a related action.

Hiding standard reports is typically performed by someone at the central organization level. This person needs to understand the full impact of this change across the entire organization.

Security Note: You must have access to the Setup: Tenant Setup - General security domain to hide standard reports. In this class, Logan McNeil has access to this task while Teresa Serrano does not.

Note: When moving reports from Sandbox to Production, Workday does not move the hidden report settings. You will need to use the Hide Workday Delivered Report task in production to hide any reports that you have hidden in the Sandbox.

DEMO – COPY A STANDARD REPORT

Introduction: This demo will show you how to copy a standard report and modify the columns displayed in the report.

TASK #1: COPY A STANDARD REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Type *credit card trans not* in the Search box and press **Enter**.
3. Select the **Credit Card Transactions Not Expensed** report in the top portion of the Search Results.
4. Enter the following information in the report prompts:

Field Name	***Entry Value***
Company	Global Modern Services, Inc. (USA)
Date Loaded From	01/01/2015
Date Loaded To	12/31/2017

5. Click **OK**.
6. Click the Credit Card Transactions Not Expensed report's **Related Actions** and select **Standard Report > Copy**.
7. Change the report name to *WICT RW Credit Card Transactions Not Expensed* and click **OK**.

TASK #2: MODIFY THE COLUMNS IN THE REPORT

1. Click the **Move Row Up** arrow to move the Employee field before the Corporate Credit Card Account field.
2. Click the **Move Row to Top** arrow to move Worker's Manager(s) to the top. Then click the **Move Row Down** arrow to move Worker's Manager(s) to just below Employee.
3. Click the **Remove Row** icon to remove Credit Card Transaction Load Date and Credit Card Billing Date.

4. Use the **Add Row** icon to add a row at the end.
5. Select **Credit Card Transaction Type Code** for the Field.
6. Enter *Transaction Type Code* in the Column Heading Override field.
7. Locate the Credit Card Extended Amount row, and in the Options field select **Valid Options > Show Currency Symbol**.
8. Click the **Advanced** tab and verify that Enable Save Parameters is selected.
9. Click **OK**.
10. Click **Run**.
11. Enter the following information in the report prompts:

Field Name	***Entry Value***
Company	Global Modern Services, Inc. (USA)
Date Loaded From	01/01/2015
Date Loaded To	12/31/2017

12. Enter *GMS USA Credit Card Transactions Not Expensed* in the Untitled Filter box.
13. Click **Save**.
14. Click **OK** to run the report and verify the changes to the columns.
    a. Are Credit Card Transaction Load Date and Credit Card Billing Date displayed on the report?
    b. Does the Extended Amount column show the currency symbol?
    c. What is the name of the last column?
15. Type *wict rw credit* in the Search box and press **Enter**. Notice that the custom report appears in the search results twice. Clicking the report link on the top will run the report, while the report link on the bottom allows you to view or take action on the report definition.
16. Select the **WICT RW Credit Card Transactions Not Expensed** report in the top portion of the Search Results.
17. Select **1 Saved Filters > GMS USA Credit Card Transactions Not Expensed**. This will populate the prompt values with your previously saved values.

18. Click **OK** to run the report.

ACTIVITY 1.2 – COPY A STANDARD REPORT

Business Case: Teresa Serrano needs to copy the Expenses Without Receipt standard report and modify the columns displayed in the report. She needs to display these fields:

- Expense Report
- Expense Report Date
- Cost Center
- Worker
- Expense Item as Worktag
- Currency
- Extended Amount
- Receipt Attached

TASK #1: COPY A STANDARD REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Type *exp without* in the Search box and press **Enter**.
3. Select **Expenses Without Receipt** from the top portion of the Search Results.
4. Enter the following information in the report prompts:

Field Name	***Entry Value***
Company	Global Modern Services, Inc. (USA)
Expense Report Date From	01/01/2015
Expense Report Date To	12/31/2015
Reporting Currency	USD

5. Click **OK**.
6. Click the Expenses Without Receipt report's **Related Actions** and select **Standard Report > Copy**.
7. Change the report name to *WICT RW Expenses Without Receipt*.
8. Click **OK**.

TASK #2: MODIFY THE COLUMNS IN THE REPORT

1. Click the **Remove Row** icon to remove the following fields:

Field Name
Company
Expense Report Line Date
Email – Work
Worker's Manager(s)
Expense Report Status
Expense Report Worker Payment Status
Memo

2. On the Expense Report Date row, click the **Add Row** icon.
3. In the new row, select **Cost Center** for the field.
4. On the Reporting Currency row, click the **Add Row** icon.
5. Enter the following information in the new row:

Field Name	*Entry Value*
Field	Receipt Included and Attached
Column Heading Override	Receipt Attached
Options	Valid Options > Show No When False

6. Click the **Move Row Up** arrow to move Reporting Currency before Extended Amount in Reporting Currency.
7. For the Extended Amount in Reporting Currency row, select **Valid Options > Show Currency Symbol** in the Options field.
8. Click the **Advanced** tab and verify that Enable Save Parameters is selected.
9. Click **OK**.

TASK #3: RUN THE REPORT

1. Click **Run**.

2. Enter the following information in the report prompts:

Field Name	*Entry Value*
Company	Global Modern Services, Inc. (USA)
Expense Report Date From	01/01/2015
Expense Report Date To	12/31/2015
Reporting Currency	USD

3. Enter *Expenses Without Receipt GMS 2015* in the Untitled Filter box.
4. Click **Save**.
5. Click **OK** to run the report and verify the changes to the columns.
6. Type *wict rw exp with* in the Search box and press Enter. Notice that the WICT RW Expenses Without Receipt custom report appears in the search results twice. The top occurrence is the report and the bottom occurrence is the report definition.
7. Select the **WICT RW Expenses Without Receipt** report in the top portion of the Search Results.
8. Select **1 Saved Filters > Expenses Without Receipt GMS 2015**. This will populate the prompt values with your previously saved values.
9. Click **OK** to run the report.

ACTIVITY 1.3 – LEVERAGE STANDARD REPORTS

Business Case: For each scenario, determine if there is a standard report you can use as a starting point. If yes, what modifications would you make?

TASK #1: EXPLORE STANDARD REPORTS

(Hint: Use Workday Standard Reports.)

1. Sign in as Teresa Serrano (tserrano).

2. You need a report that displays journal lines by company, year, and period. The report should display the journal, company, status, accounting date, source, ledger, currency, ledger account, ledger debit amount, ledger credit amount, and worktags.
(Hint: Financial Accounting report category)

   Can you use a standard report as a starting point? If yes, what modifications would you make?

3. You need a report that lists the benefit plans in which a worker is eligible to enroll. The report should display the health care coverage plans, health savings account plans, spending account plans, insurance coverage plans, and defined contribution plans.
(Hint: Benefits report category)

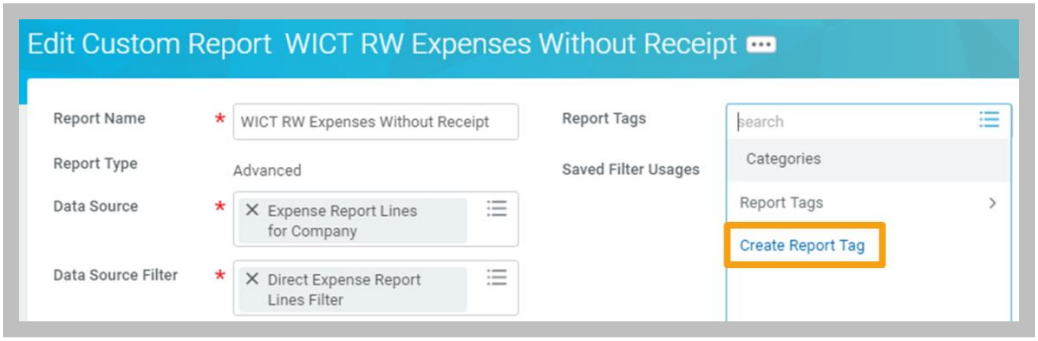
   Can you use a standard report as a starting point? If yes, what modifications would you make?

USING REPORT TAGS

You can use report tags to easily categorize and find reports.

CREATING REPORT TAGS

When editing a custom report, you can create a new report tag by selecting Create Report Tag from the Report Tags field.

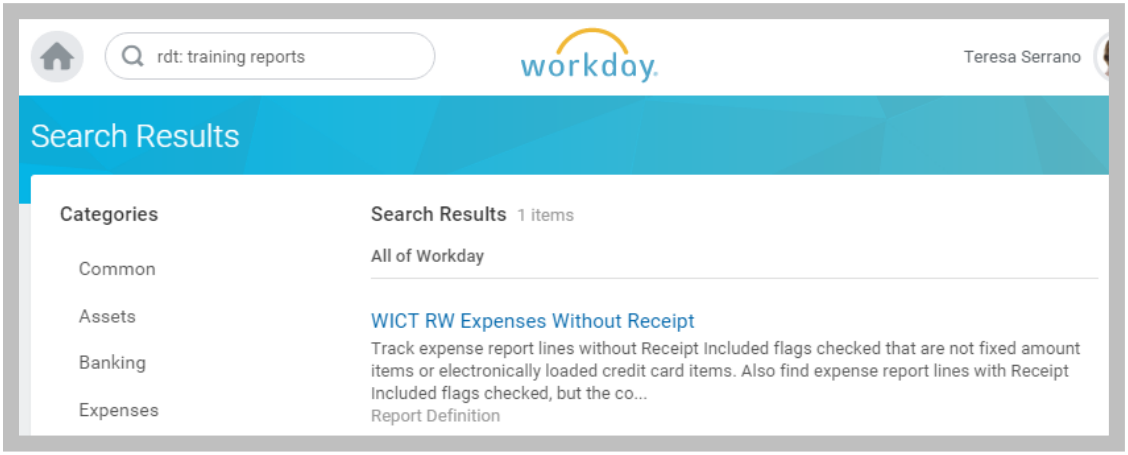


13 - Report Tags

Security Note: You must have access to the Report Tag Management security domain to create report tags.

SEARCHING USING REPORT TAGS

When you search for a report tag name, all associated reports will be displayed. You can use the rdt prefix to only display custom report definitions in the search results.



14 - Searching Using Report Tags

Security Note: When using reports tags to find custom reports, users will only see reports of a given tag that are shared with them.

ACTIVITY 1.4 – ADD REPORT TAGS TO CUSTOM REPORTS

Business Case: Teresa Serrano wants to be able to easily search for the expense report she just created.

TASK #1: ADD REPORT TAGS

1. Sign in as Teresa Serrano (tserrano).
2. Type *wict rw exp with* in the Search box and press **Enter**.
3. Click the WICT RW Expenses Without Receipt report definition's **Related Actions** and select **Custom Report > Edit**.
4. Select **Create Report Tag** in the Report Tags field.
5. Enter *Training Reports* in the Report Tag field.
6. Click **OK**.
7. Select **Expenses** as an additional report tag.
8. Click **OK**.

TASK #2: SEARCH USING A REPORT TAG

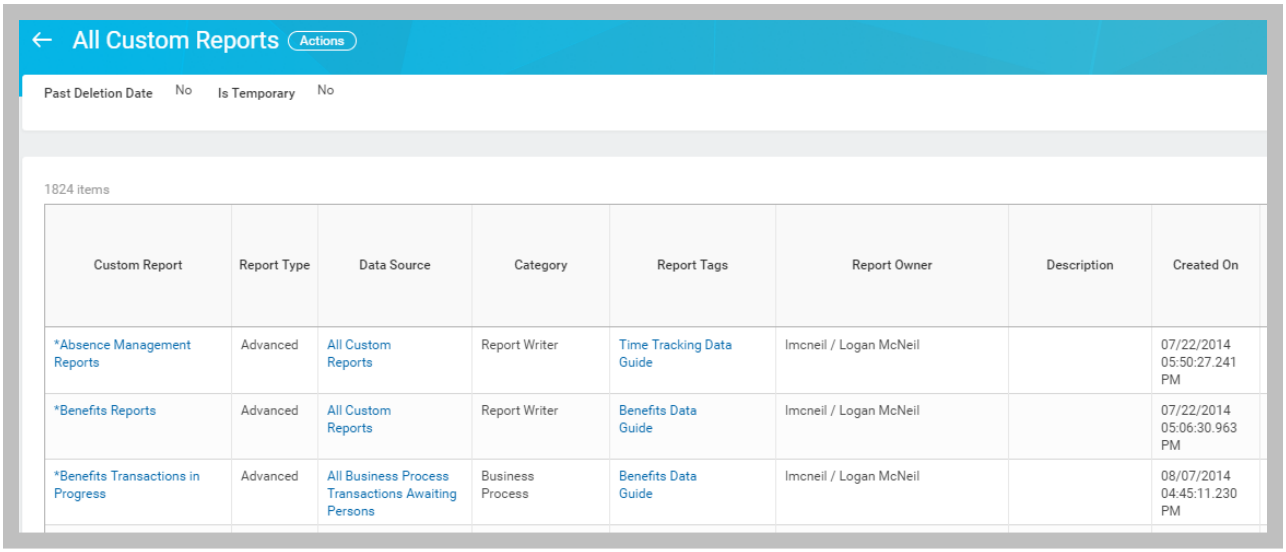
1. Type *?* in the Search box and press **Enter**. This shows you the list of Search Prefixes you can use to limit your search results.
2. Filter the To Find… column to only show values that contain *report*. Notice that there are two prefixes you can use to find custom reports: *rd* and *rdt*. The *rd* prefix searches for custom reports using a search string. The *rdt* prefix searches for custom report definitions using a report tag.
3. Type *rdt: training reports* in the Search box and press **Enter**. Does the WICT RW Expenses Without Receipt report definition appear in the search results?
4. Type *rdt: expense* in the Search box and press **Enter**.
    a. How many items are returned in the search results?

   b. Does the WICT RW Expenses Without Receipt report definition appear in the search results?

5. Access the **Start Proxy** task.
6. Select **Logan McNeil** in the Act As field and click **OK**.
7. Type *rdt: expense* in the Search box and press **Enter**.
   a. How many items are returned in the search results?
   b. Does the WICT RW Expenses Without Receipt report definition appear in the search results?
8. Access the **Stop Proxy** task.
9. Click **OK** to stop the proxy login.

ALL CUSTOM REPORTS

You can use the All Custom Reports report to view all custom reports in the tenant. You can leverage these custom reports as a starting point for new custom reports.



15- All Custom Reports

CHAPTER 1 KNOWLEDGE CHECK

1. Which reports are displayed by the Workday Standard Reports report?

    A. All Workday-delivered reports that you have access to.

    B. All Workday-delivered reports, regardless of access.

    C. All reports in the tenant.

2. When viewing the output of a report, which one of these can you **not** use to manipulate data?

    A. Sort the data

    B. Filter the data

    C. Edit the data

    D. Show or hide columns

3. Which feature lets you easily search for custom reports?

    A. Logical Sort

    B. Report Tags

    C. Data Sources

    D. Report filters

CHAPTER 2 – BUILDING CUSTOM REPORTS

OVERVIEW

In this chapter, you will learn common terminology used in reporting. You will use the tools in Workday to determine the appropriate primary business object and data source for a report. You will also learn how to create a custom report using the Advanced report type, and add fields from the primary and related business objects.

OBJECTIVES

By the end of this chapter, you will be able to:

- Define common reporting terminology.
- View the fields, related business objects, data sources, and reports for a business object.
- View the delivered data sources.
- Use contextual reporting to view report fields and values.
- Create a custom report using the Advanced report type.
- Add fields from the primary and related business objects to a custom report.

DEMO – CREATE A CUSTOM REPORT

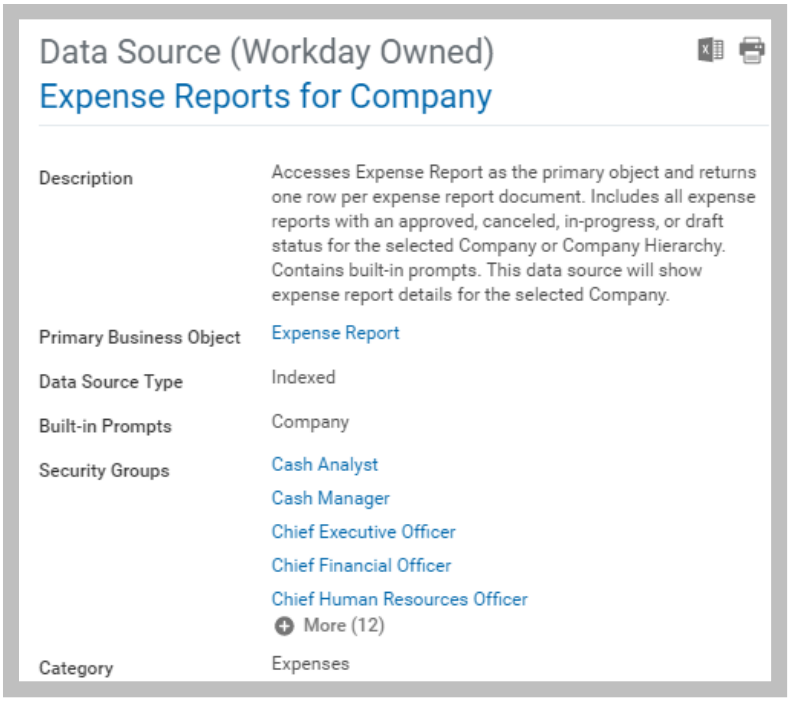
Introduction: This demo will show you how to create a basic custom report. Feel free to follow along in your tenant to get a good preview of the report creation experience.

TASK #1: CREATE A CUSTOM REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Search for and run the **Create Custom Report** task.
3. Enter the following information:

Field Name	*Entry Value*
Name	WICT RW Advanced Report
Report Type	Advanced
Data Source	Expense Reports for Company

Notice the data source selection we're making here. If you click the Related Actions for this data source, you will see some additional information about it.



16 - Expense Reports for Company data source's Related Actions

This data source is Indexed, and contains a built-in prompt for Company.

4. Click **OK** to continue.
5. Notice at the top there is a required field for the Data Source Filter. Select **Expense Reports Filter**.
6. In the Columns section, add three rows and enter the following information:

Field
Company
Expense Report
Expense Report Created by Worker
Approval Date

These are the columns that appear on the report.

7. Click the **Sort** tab.
8. Add a row and enter the following information:

Field Name	***Entry Value***
Field	Fields on Report > Expense Report Created by Worker
Sort Direction	Alphabetical - Ascending

When the report runs, the results will be sorted alphabetically based on the name of the worker who created the expense report.

9. Click the Filter tab.
10. Add a row and enter the following information:

Field Name	***Entry Value***
Field	Fields on Report > Approval Date
Operator	Is not blank

This filter ensures that all expense reports included on the report will have an approval date. This will exclude any expense reports that have been cancelled or are not approved.

11. Click **OK** to save the report definition.

TASK #2: RUN THE CUSTOM REPORT

1. Click the **Run** button.

   Notice the Company prompt appears. Remember, this prompt is built in to the Expense Reports by Company data source.

2. In the Company field, select **Global Modern Services PLC (U.K)**.

3. Click **OK** to run the report.

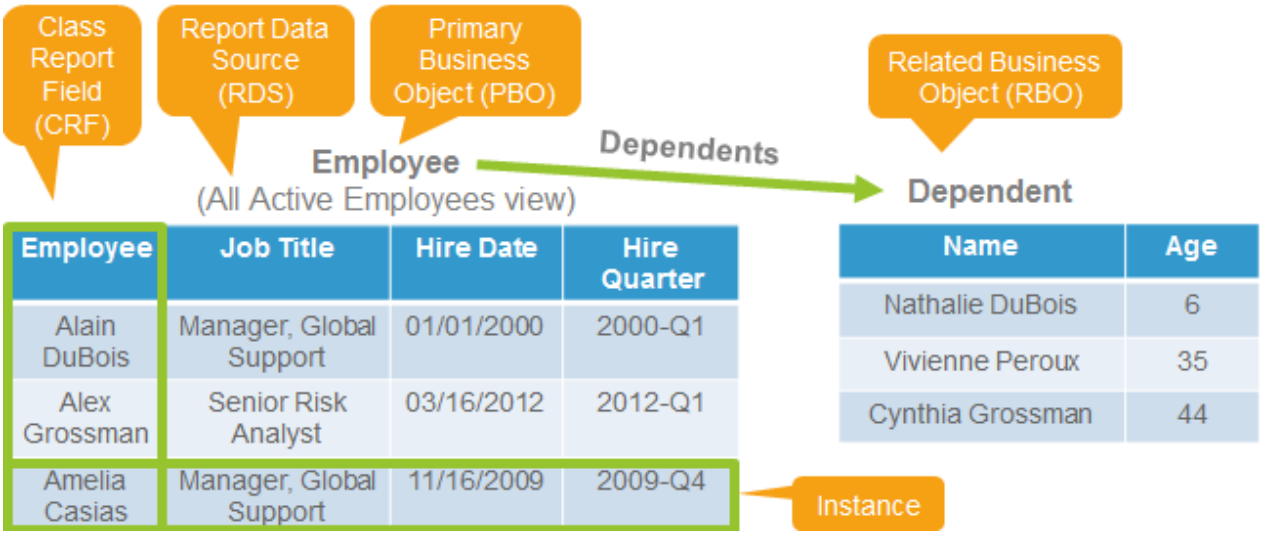
   The report results show all of the approved expense reports for the GMS UK company. Notice that there are no cancelled or unapproved expense reports. Notice also that the results are sorted alphabetically by the name of the worker who created the expense report.

REPORTING TERMINOLOGY

Now that you've seen the Report Writer tool in action, you have some idea of what to expect. The first step to mastering Report Writer is to understand the terminology involved in report, especially when it comes to business objects and data sources.

Workday stores your data in business objects, which can be thought of as database tables or worksheets in Excel. Just as a database table or worksheet has columns and rows, a Workday business object has fields and instances.

The report data source provides the view into the primary business object (PBO). This object gives you access to class report fields (CRFs), as well as links to related business objects (RBOs).



17 - Graphic representation of the relationship between Data Sources, Class Report Fields, and Business Objects

Term	Definition
Primary Business Object	The main business object for the report. It holds the data that will be displayed in your report.
Related Business Object	Objects that are associated with the primary business object. These can have a 1:1 or 1:M relationship with the primary business object. A field on the primary business object links the two business objects together.
Report Data Source	Workday delivers data sources for some business objects. You can think of the data source as the 'view' or 'starting filter' for reporting on the given primary business object. This is the first and most important step in developing a custom report.

Class Report Fields	When working with Workday custom reports, you can select available fields (depending on your security). These fields can be Workday-delivered fields, calculated fields, or custom fields.
Instances	Instances of a business object in Workday are like rows in a table or spreadsheet. Each instance represents a unique occurrence of that type of object, such as a given organization or worker.

REPORT DATA SOURCES

Data sources are defined and delivered by Workday. Workday delivers zero, one, or multiple data sources for business objects. The report data source is the view or selection of instances of a given primary business object; this is essentially the starting data for your report.

With the exception of Composite reports, you must select a single report data source when creating a report. This will determine the primary business object for the report. The report displays one row for each instance of the primary business object.

Let's take a look at an example. If you create a report with All Active Employees as the report data source, then the primary business object for the report will be Employee. The report will show one row for each instance of Employee. Notice that Alain DuBois only appears once in the table. His dependents are listed as "sub-rows" and grouped under the Dependents heading.

Employee	Job Title	Hire Date	Hire Quarter	Dependents	
				Name	Age
Alain DuBois	Manager, Global Support	01/01/2000	2000-Q1	Nathalie DuBois	6
				Vivienne Peroux	35
Alberto Bassani	Senior Customer Services Representative	01/01/2000	2000-Q1		

18 - Report with All Active Employees as the Data Source

If you create a report with All Dependents as the report data source, then the primary business object will be Dependent. The report will show one row for each instance of Dependent. Notice that Alain DuBois appears twice in the table (once for each dependent).

Employee	Job Title	Hire Date	Hire Quarter	Name	Age
Alain DuBois	Manager, Global Support	01/01/2000	2000-Q1	Nathalie DuBois	6
Alain DuBois	Manager, Global Support	01/01/2000	2000-Q1	Vivienne Peroux	35

19 - Report with All Dependents as the Data Source

Both data sources let you access the same information, but the information is displayed differently. You need to understand how users want to view, sort, and filter the data in order to pick the best report data source for the report.

Each data source is associated with a primary business object and has its own security. The access defined for a data source controls whether a user can create or run a custom report based on that data source. Each data source has a list of permitted security groups. You must have access to a permitted security group to create a report using the data source or run the report. In addition, you can only share a report with users who have access the report's data source.

There are two types of data sources: Standard and Indexed. Let's take a look at the difference between the two types.

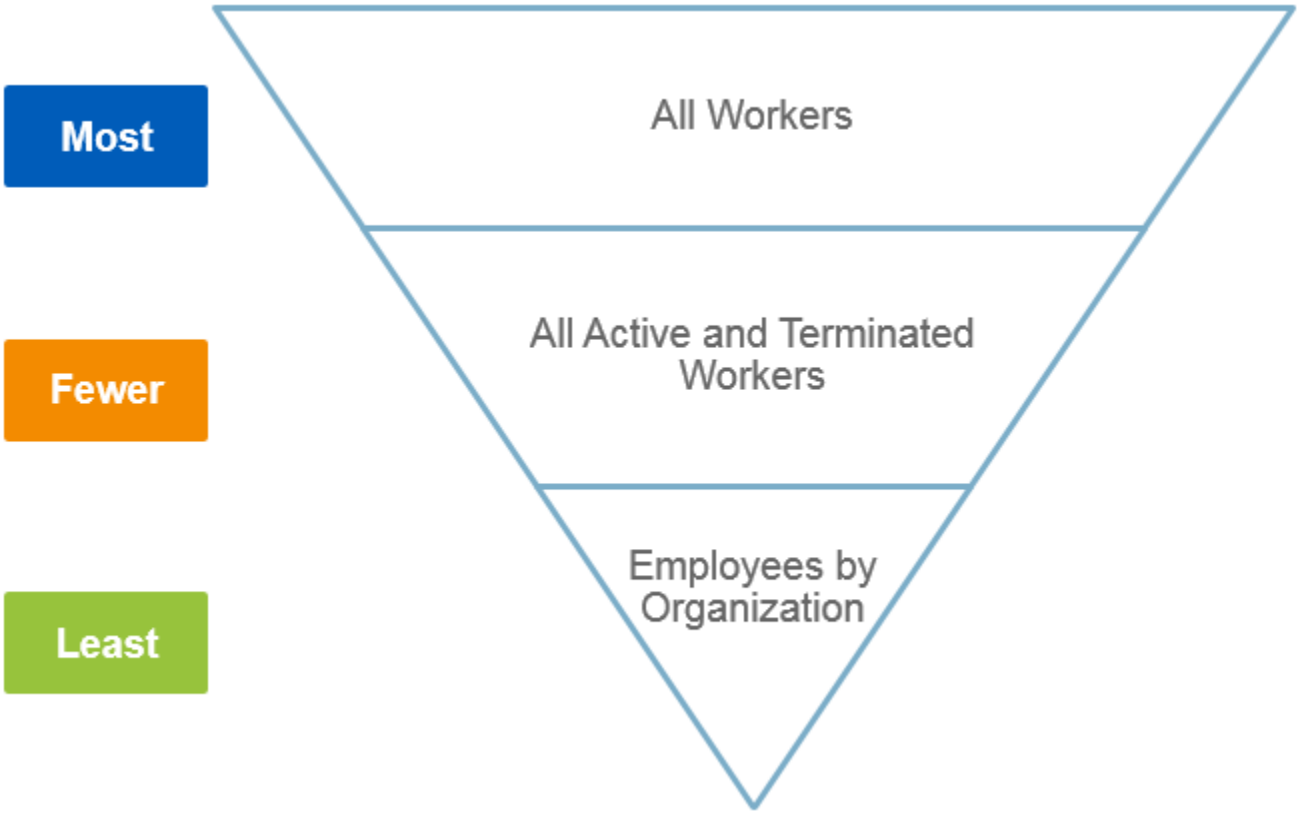
STANDARD DATA SOURCES

Most data sources in Workday are standard data sources. A given Workday business object can have several standard data sources associated with it, each representing a different filter or selection into instances of that object. Think of the data source as a starting filter. You should choose the data source that returns the smallest data set that still includes all needed data. This is more efficient than using a data source that returns a larger data set and applying filters to only display a subset of the data.

A data source can contain all instances of the primary business object (e.g., All Workers), or it can have built-in filtering logic defined by Workday (e.g., All Active and Terminated Workers). If it has built-in filtering, the filter comparison value(s) can either be built into the data source (e.g., All Active Employees) or designed so the user is prompted for the comparison value when running the report (e.g., Employees by Organization).

The following example shows different standard data sources for the Worker and Employee business objects. The All Workers data source will return all active, terminated, and future workers. The All Active and Terminated Workers data source will return active and terminated workers, but not future workers. The All Active Employees data source will return active employees, but not contingent, terminated, or future workers. For optimal performance, choose

the data source that returns the smallest data set that contains all needed data. If you are only interested in active employees, then choosing the All Active Employees data source will result in a more efficient report.



20 - Chart displaying standard data sources with the most, fewer, and lease amount of instances

Standard Data Source Performance Considerations

When selecting a data source for your report, you should be aware of your report's performance as well. Although there are a wide variety of standard data sources that can range from very broad to very specific, all standard data sources will cause your report to run slower than if you select an indexed data source. Therefore, it is always advisable to try to select an indexed data source if it includes all of the fields you need. This is especially true when reporting on large volumes of data, such as all workers in your organization.

INDEXED DATA SOURCES

Indexed data sources are a special type of data source optimized for performance, aggregation, and faceted filtering on large volumes of data. It is recommended that you use these whenever possible to get the best performing reports.

When you create a custom report based on an indexed data source, a prompt enables you to select from a list of predefined filters (if available for that indexed data source). Data source filters are secured so users will only be able to use filters to which they have access.

To gain the performance benefits of indexed data sources, use indexed delivered fields. Non-indexed fields can be used but will not realize indexing benefits. Additionally, fields may be indexed for different purposes. The biggest impact to performance would be using a field for grouping, aggregation, or filtering that is not indexed for those purposes. Non-indexed fields in detailed reporting do not have as great an impact to the overall performance.

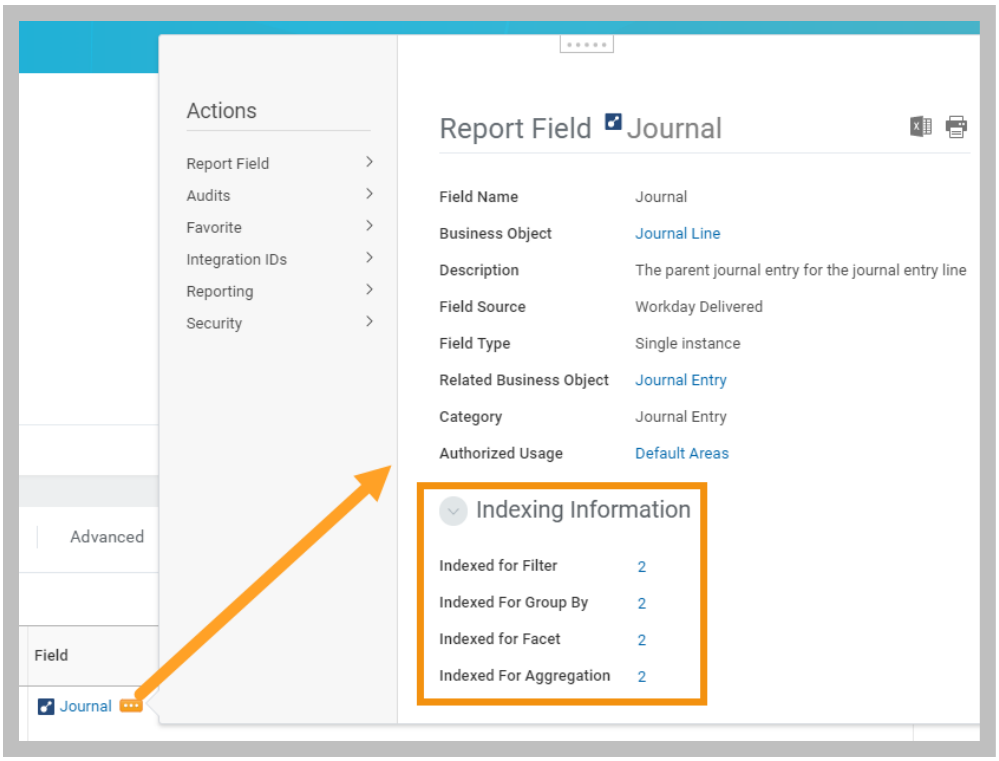
The following is a sample list of indexed data sources available in Workday.

- Indexed External Payroll Results
- Indexed Worker for Professional Profile
- Trended Workers
- Expense Reports for Company
- Expense Reports for Worker
- Expense Report Lines for Company
- Expense Report Lines for Worker
- Payroll Inputs
- Journal Lines
- Journal Lines for Financial Reporting
- Purchase Orders
- Purchase Order Lines
- Project Scenarios
- Project Scenario Assignments
- Project Scenario Assignment Allocations
- Indexed Report Run History
- Supplier Invoices
- Supplier Invoice Lines
- Workers for HCM Reporting
- All Time Blocks
- All Time Clock Events

Just like with standard data sources, a given Workday business object can have multiple indexed data sources associated with it. Each indexed data source provides a different filter into instances of that object. For example, the Journal Line business object has two indexed data sources: Journal Lines and Journal Lines for Financial Reporting. The Journal Lines data source will return more instances than the Journal Lines for Financial Reporting data source. For optimal performance, you should choose the data source that returns the smallest data set that contains all needed data.

INDEXED REPORT FIELDS

Although reports that use indexed data sources typically perform faster than those using standard data sources, there are still some things to consider when trying to maximize your indexed report's performance. One example of this is the selection of fields for your report columns and filters. When selecting the fields for your report, you can use a field's related actions to see indexing information.



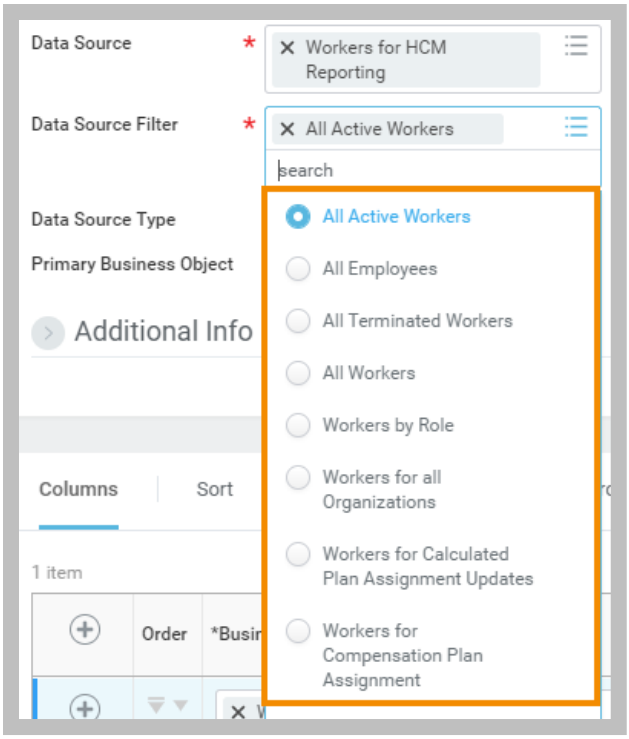
21 - Indexing Information for the Journal field

When creating a report with an indexed data source, try to use only fields indexed for that data source. Using non-indexed fields as columns or filters on your report will hurt your report's performance and in some cases can cause significant slowdown.

DATA SOURCE FILTERS

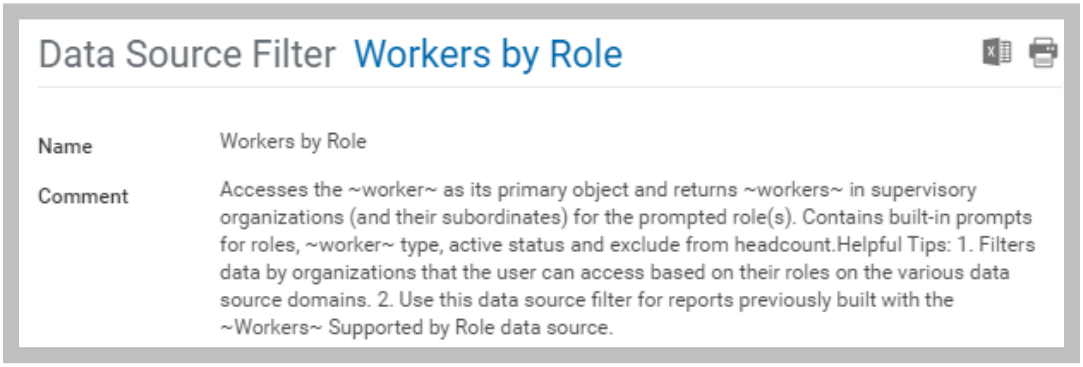
When using an indexed data source for your report, you can identify a data source filter, which will also affect your report performance. Just as a data source hones in on the data that is being evaluated from a business object, a data source filter can limit or re-organize the data being returned in your report.

A given indexed data source may have multiple data source filters. You can use the Data Source Filter field to identify a valid data source filter. For example, when using the Workers for HCM Reporting indexed data source, you have a number of data source filters to use to further refine the report data.



22 - A list of data source filters for the Workers for HCM Reporting indexed data source

Just like data sources, you can use a data source filter's Related Actions to view a description of the data source filter, along with the data source and security information. These descriptions will let you know if the data source filter includes additional prompts, and will often include tips on how the data source filter would best be applied.



23 - A description for the Workers by Role data source filter

If you plan on adding filters to your report definition, consider using a data source filter on your report. When a report runs, it will apply any filters you have added to the definition at runtime; if you have included multiple filters this can negatively impact your report performance. However, if you use a data source filter to hone in on more specific data, you may not need to use as many filters. The data will be pre-filtered by the time you run the report, which can vastly improve performance and let you access the specific data you need as quickly as possible.

CLASS REPORT FIELDS

Each data source has many Class Report Fields (CRFs). When creating custom reports, you can display, sort, filter, and create prompts for Workday-delivered fields, calculated fields, and custom fields.

Class report fields (CRFs) can be simple types or object types. Simple types are not actionable and appear as black text. Object types are actionable and appear as blue text. Access to class report fields is controlled by security.

The following table shows the field type icons and their definitions.

Icon	Definition
	**Text** – Represents a simple text field, such as First Name.
	**Rich Text** – Represents a rich text field, such as Overall Comment – Manager.
	**Numeric** – Represents a numeric field, such as Employee Count.
	**Currency** – Represents a currency field, such as Base Pay.
	**Date** – Represents a date field, such as Hire Date.
	**Time** – Represents a time field, such as End Time.
	**DateTimeZone** – Represents a date and time (in a specific time zone) field, such as End Date/Time.
	**Boolean** – Represents a True/False field, such as Active Status.
	**Single instance**: Represents a one-to-one (1:1) relationship between two objects. For example, one Employee can be associated with one Pay Group.
	**Multi-instance**: Represents a one-to-many (1:M) relationship between two objects. For example, one Worker can have multiple Dependents.
	**Self-referencing instance**: A reference back to itself. For example, a self-referencing instance of worker identifies the worker and allows you to drill into the details and access related actions.

ACTIVITY 2.1 – EXPLORE A CUSTOM REPORT

Business Case: You need to understand how the primary business object and data source control what can be displayed on a custom report.

TASK #1: EXPLORE A CUSTOM REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Type *rd: wdinst rw* in the Search box and press **Enter**.
3. Click the WDINST RW Employee Details report definition's **Related Actions** and select **Custom Report > Edit**. What is the report data source, data source type, and primary business object for this report?
4. On the Columns tab, view the Business Object and Field columns. Which class report fields are from the primary business object and which are from the related business object?
5. In the Business Object column, click the Dependents' **Related Actions**.
    a. What is the Field Type for this field?
    b. What is the Related Business Object for this field?
6. Click **Related Actions** again to close the pop-up box.
7. In the Field column, click the Hire Quarter's **Related Actions**. Is this a Workday-delivered field, calculated field, or custom field?
8. Click **Related Actions** again to close the pop-up box.
9. Click **OK**.
10. Click **Run**.
    a. For Alain DuBois, how many instances of the related business object (Dependent) are returned?
    b. For Alex Grossman, how many instances of the related business object (Dependent) are returned?
11. In the Employee column, click Alex Grossman's **Related Actions**. Note that this field is actionable because it is an Object type field.

12. Click **Related Actions** again to close the pop-up box.

DETERMINING THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

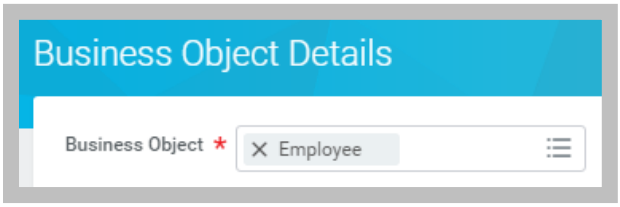
When creating a custom report, you need to determine the primary business object and data source for the report. There are several questions you should ask:

- Which business object(s) contain the fields needed in the report?
- If there are multiple business objects:
  - Are these business objects related?
  - Which should be the primary business object?
  - Which should be the related business object?
  - Which field links the two business objects together?
- Which data source should be used?

BUSINESS OBJECT DETAILS REPORT

The Business Object Details report can help you understand and navigate the Workday object model. Knowing how business objects relate to each other and which data sources are available is invaluable when building reports. We recommend starting with this report first to get an idea of what objects you might want to use in your custom report. You can also use this report to get a list of data sources.

When running this report, you must select which business object you want to view.

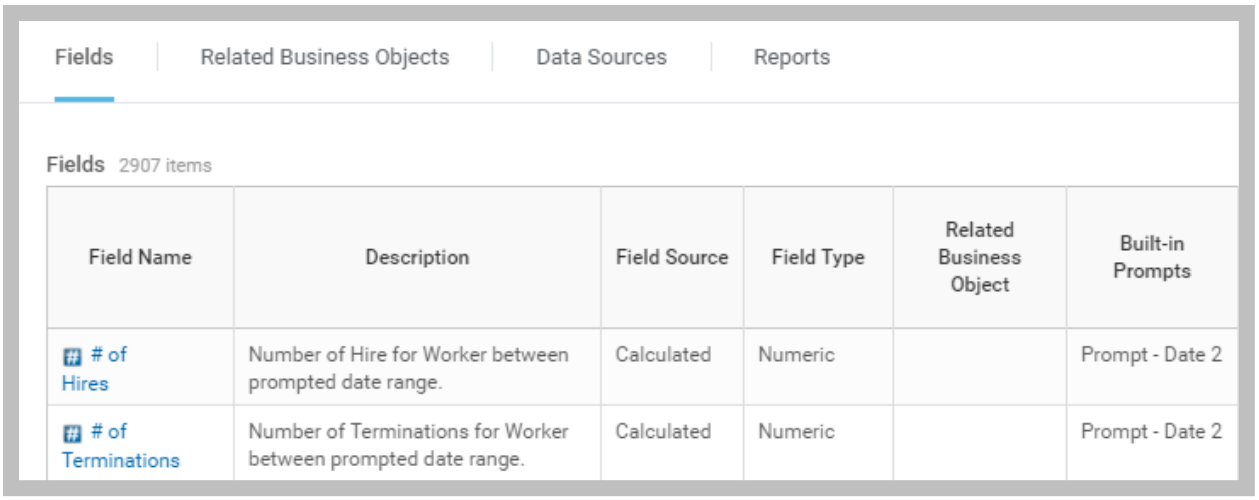


24 - Business Object Details Report

This report contains up to four tabs: Fields, Related Business Objects, Data Sources, and Reports. If the business object does not contain data for one of these tabs, the tab will be hidden.

FIELDS TAB

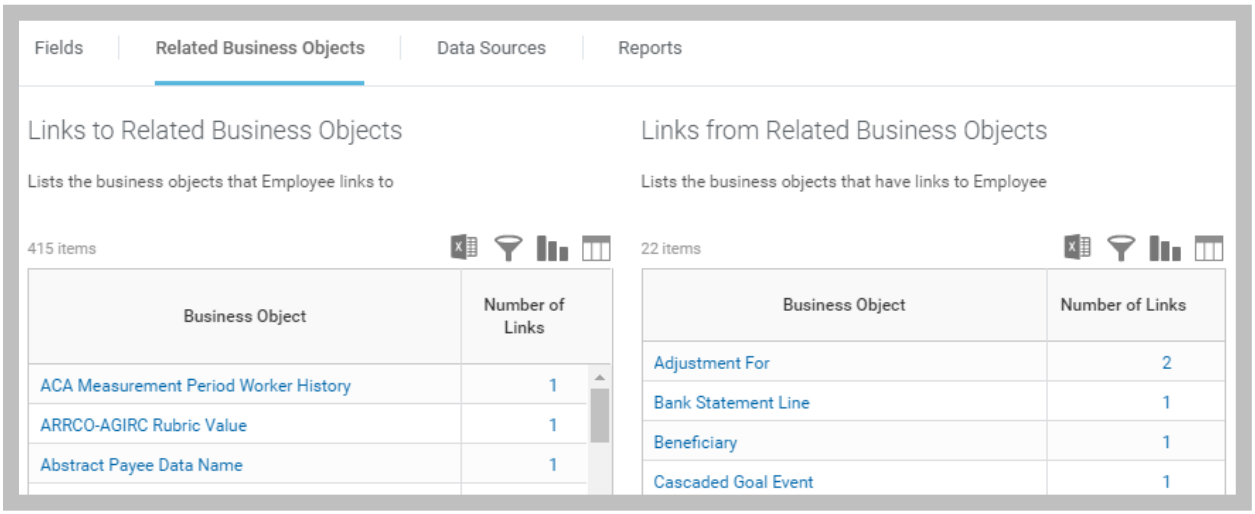
This tab shows all available delivered, calculated, and custom fields for the business object. You can filter by a column in the report to narrow down which fields are displayed. For example, you might filter the Field Source field to only show calculated fields.



25 - Business Object Details Report - Fields Tab

RELATED BUSINESS OBJECTS TAB

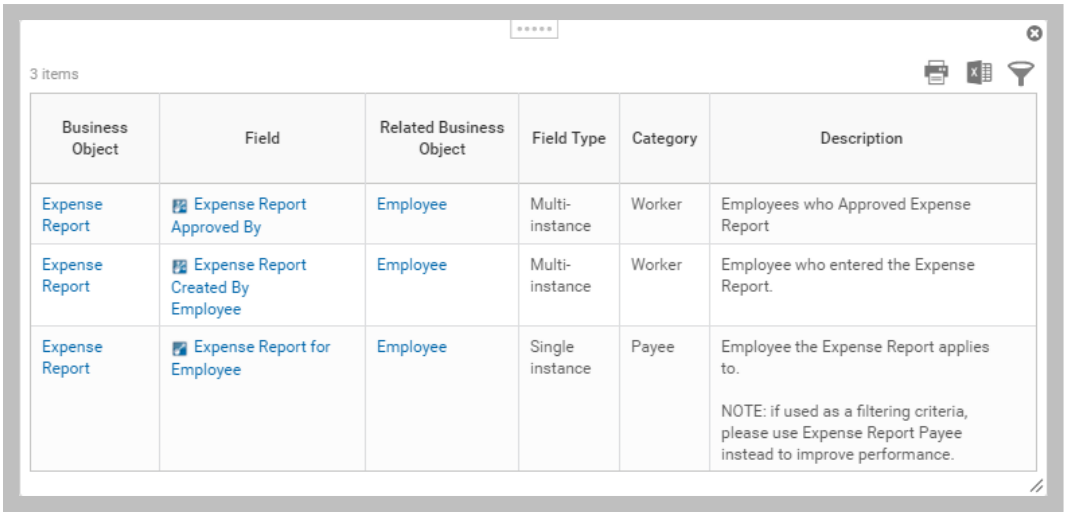
This tab shows information about the relationships between this business object and other business objects. The tab displays two sections of information. On the left hand side, you can see the list of business objects that this business object links to. On the right hand side, you can see the list of business objects that link to this business object.



26 - Business Object Details Report - Related Business Objects Tab

Note: Depending on the width of your browser, the Links to Related Business Objects grid may appear above the Links from Related Business Objects grid, instead of side-by-side.

You can click on the number in the Number of Links column to see which fields link the business objects together. In the following example, there are three fields that link from the Expense Report business object to the Employee business object.



3 items

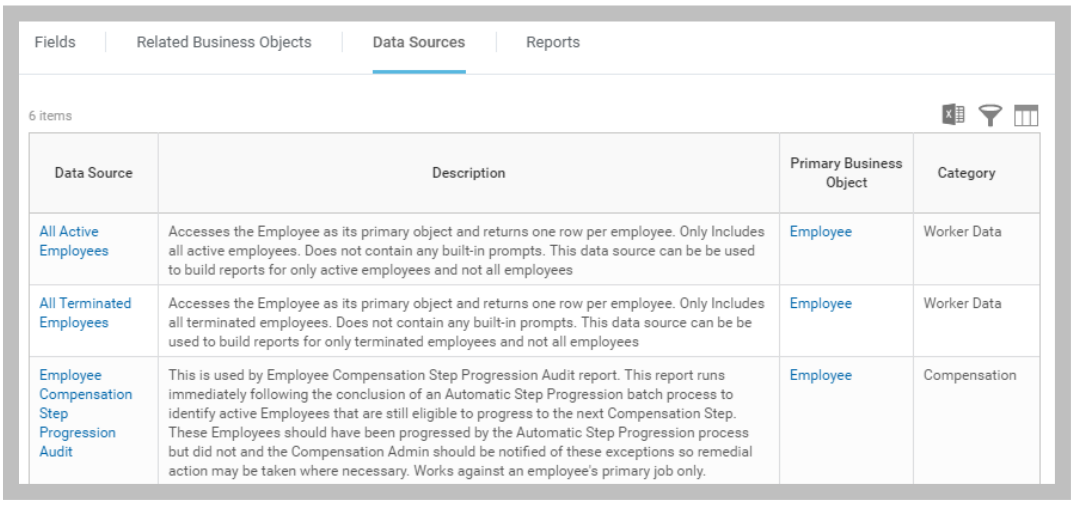
Business Object	Field	Related Business Object	Field Type	Category	Description
Expense Report	Expense Report Approved By	Employee	Multi-instance	Worker	Employees who Approved Expense Report
Expense Report	Expense Report Created By Employee	Employee	Multi-instance	Worker	Employee who entered the Expense Report.
Expense Report	Expense Report for Employee	Employee	Single instance	Payee	Employee the Expense Report applies to. NOTE: if used as a filtering criteria, please use Expense Report Payee instead to improve performance.

27 - Links between Objects

DATA SOURCES TAB

This tab shows available data sources for the business object. You can also view more general data sources and more specific data sources.

Note: If you don't see the Data Sources tab, then there are no delivered data sources for the business object. This means the business object cannot be used as the primary business object for a report. Consider using a related business object to access the data you need.



Fields | Related Business Objects | Data Sources | Reports

6 items

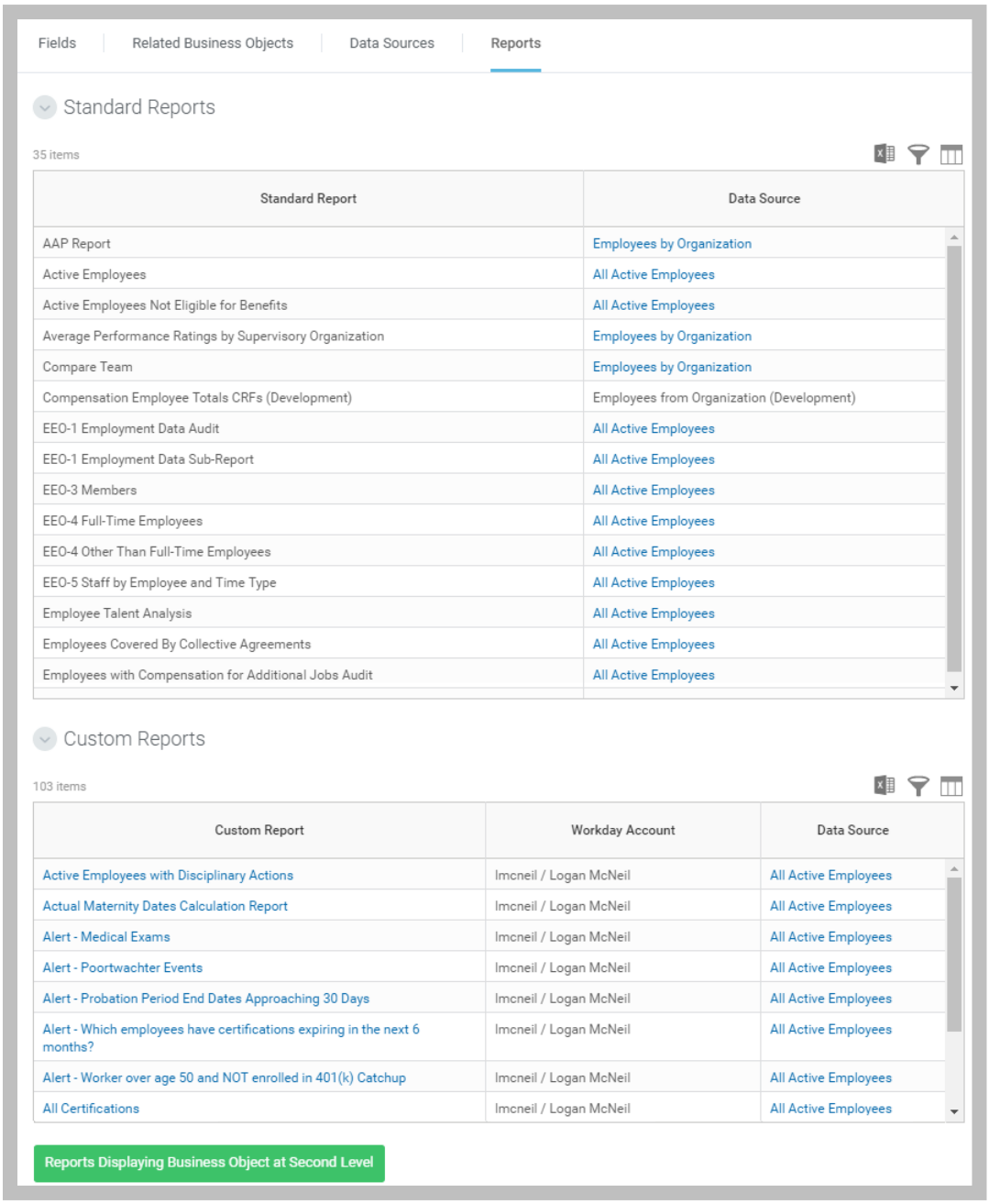
Data Source	Description	Primary Business Object	Category
All Active Employees	Accesses the Employee as its primary object and returns one row per employee. Only Includes all active employees. Does not contain any built-in prompts. This data source can be be used to build reports for only active employees and not all employees	Employee	Worker Data
All Terminated Employees	Accesses the Employee as its primary object and returns one row per employee. Only Includes all terminated employees. Does not contain any built-in prompts. This data source can be be used to build reports for only terminated employees and not all employees	Employee	Worker Data
Employee Compensation Step Progression Audit	This is used by Employee Compensation Step Progression Audit report. This report runs immediately following the conclusion of an Automatic Step Progression batch process to identify active Employees that are still eligible to progress to the next Compensation Step. These Employees should have been progressed by the Automatic Step Progression process but did not and the Compensation Admin should be notified of these exceptions so remedial action may be taken where necessary. Works against an employee's primary job only.	Employee	Compensation

28 - Business Object Details Report - Data Sources Tab

REPORTS TAB

This tab shows if there are reports in the tenant (both standard and custom) that use the given business object. You can use these reports as a reference when writing reports for this business object.

You can click the Reports Displaying Business Object at Second Level button to see the reports that include this business object as a related object.



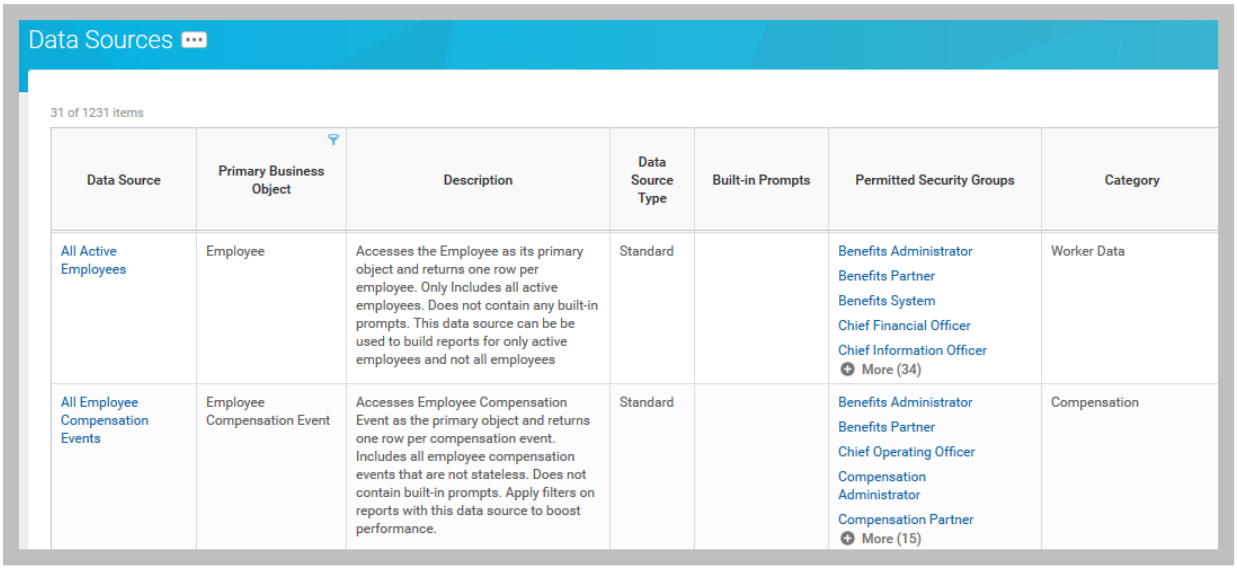
29 - Business Object Details Report - Reports Tab

DATA SOURCES REPORT

Another useful report for research is use the Data Sources report. This report helps you understand:

- Whether a data source is standard or indexed.
- If the data source includes built-in prompts.
- Permitted security groups for the data source.

You can filter the report by category to narrow down the data sources.



30 - Data Sources Report

DEMO – EXPLORE THE BUSINESS OBJECT DETAILS AND DATA SOURCES REPORTS

Introduction: This demo will show you how to leverage the Business Object Details and Data Sources reports.

TASK #1:VIEW THE BUSINESS OBJECT DETAILS REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Business Object Details** report.
3. Select **Expense Report** in the Business Object field.
4. Click **OK**.
5. View the **Fields** tab. How many fields are on the Expense Report business object?

   Note: Your training tenant includes calculated and custom fields. The Expense Report business object in your tenant will contain a different number of fields.

6. View the **Related Business Objects** tab.
7. In the Links to Related Business Objects table on the left, filter the Business Object field by **Worker**.
8. Click **7** in the Number of Links column.
   a. What field types are these fields?
   b. Which field(s) on Expense Report can return more than one worker?
9. Close the pop-up box.
10. In the Links from Related Business Objects table on the right, filter the Business Object field by **Expense Report Line**.
11. Click **2** in the Number of Links column. Which fields link the Expense Report Line business object to the Expense Report business object?
12. Close the pop-up box.

13. View the **Data Sources** tab. How many data sources are available for the Expense Report business object?

14. View the **Reports** tab.

TASK #2: VIEW THE DATA SOURCES REPORT

1. Access the **Data Sources** report.

2. Filter the Primary Business Object field by **Expense Report**. Does the Expense Report business object have both Indexed and Standard report data sources?

SCENARIO

Logan McNeil needs to create a report that shows the last base pay increase for all active employees in Global Modern Services.

These are the fields she needs to display in the report:

Employee	Employee ID	Base Pay - Current	Base Pay - Proposed	Effective Date
Adam Carlton	21237	50,488.66	52,508.20	04/01/2015
Adrian Martin	21104	124,848.00	126,720.72	04/01/2015
Aidan Mitzner	21142	90,032.90	92,283.72	04/01/2015

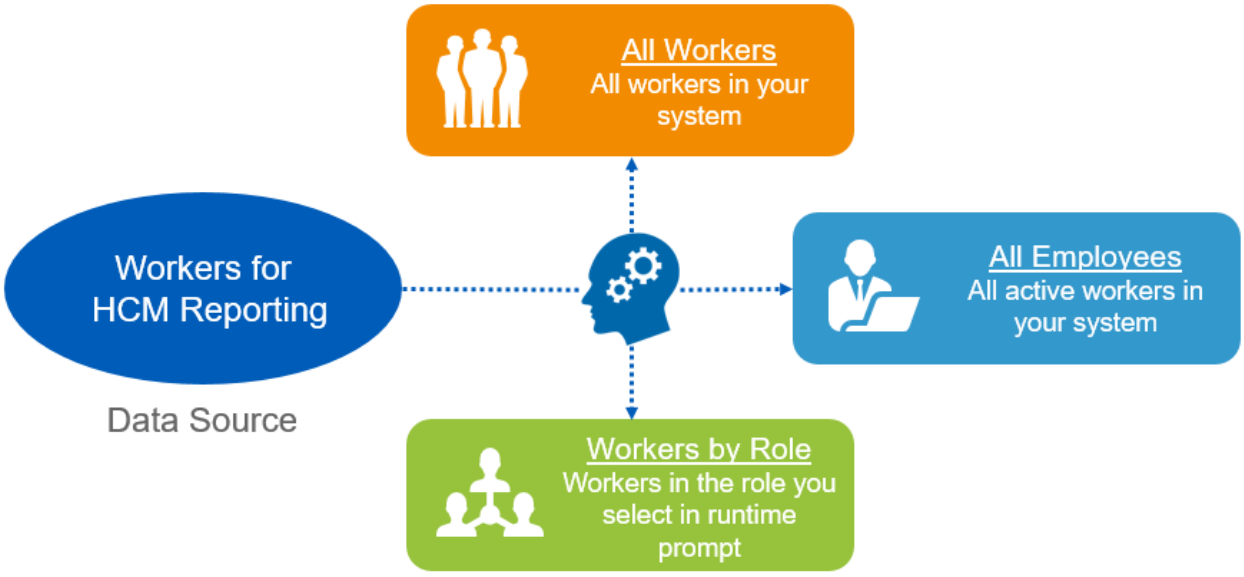
She looked for a standard report, but didn't find one that meets her needs. So she will need to create a custom report. First, she will determine the primary business object and data source for the report.

REPORTING ON WORKERS

Based on the scenario, Logan needs to report on all the active employees in Global Modern Services. There are several business objects that can return data on workers in your system. You can use the Business Object Details report to see what fields are included with each of these business objects to determine which data source contains all the information you need. You will be working with this report in the next activity.

After you've identified your business object, it's important to select the fastest performing data source that will return the data you need. This typically means identifying an indexed data source for your report. If there are none available, you must be sure to select the data source with the most specific set of data so that the system doesn't need to process as many instances when your report runs.

When using an indexed data source, you also want to consider which data source filter will return the most specific set of data possible. This ensures that your report results will be the most relevant to your business needs, as well as enhancing report performance. For example, when using the Workers for HCM Reporting indexed data source, you have several options for the data source filter.



31 - Visualization of some of the data source filter options for the Workers for HCM Reporting data source

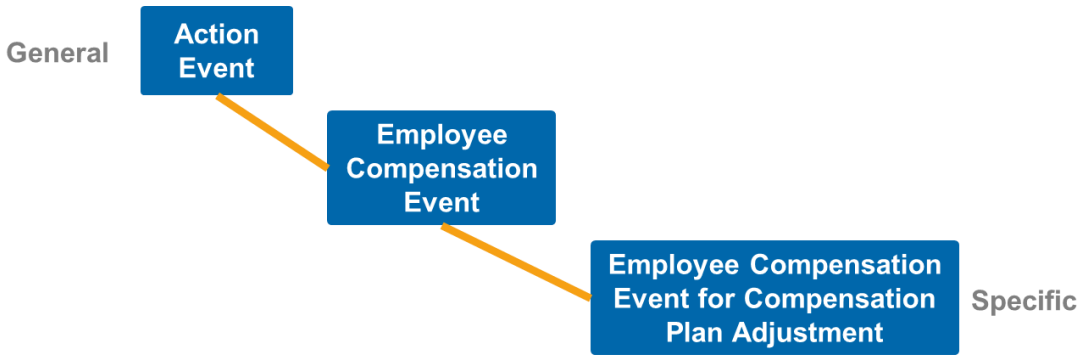
- If you select All Employees, the report will analyze all the active employees in your system. This will exclude any terminated or retired workers in your organization.
- If you select Workers by Role, the report will include additional prompts at runtime. These prompts require you to identify a role – only workers in that role will be returned in the report. For example, if you select the Manager role, only managers will be returned in your report.
- If you select the All Workers data source filter, your report will analyze and return all of the workers in your system, regardless of role or employee status.

There are additional data source filters on this and other indexed data sources. You can use each data source filter's related actions to view a description of the data source filter and list of included prompts.

REPORTING ON EVENTS

Based on the scenario, Logan needs to report on the current base pay, proposed base pay, and effective date of the last base pay increase. She needs to understand what business objects contain this information.

Workday data is commonly updated via business process transactions, or 'events,' that are captured in your tenant as of an effective date. This allows you to future date or past date a given change, such as a compensation change.



32 - Graphical representation of action event data sources from general to specific.

Workday provides data sources allowing you to report on these business process transactions. The Action Event business object captures overall information about your transactions. You can use data sources to report on the Action Event business object more generally.

Workday also provides specific data sources for specific types of transactions. For optimal performance, use targeted data sources to report on specific types of events. Below are some more specific event objects that contain information about compensation events.

- The Employee Compensation Event business object contains the before and after values for compensation changes for each employee.
- The Employee Compensation Events for Compensation Plan Adjustment business object contains more specific data about employee compensation changes.

You can report on events directly or you can get to the event data from another business object, such as Employee. It all depends on how you need to display, filter, group, and sort the data.

ACTIVITY 2.2 (WALKTHROUGH) – DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

Business Case: Logan McNeil needs to create a custom report that shows the last base pay increase for all active employees in Global Modern Services. She needs to display these fields in the report:

- Employee
- Employee ID
- Base Pay – Current
- Base Pay – Proposed
- Effective Date

She needs to determine the primary business object and data source for the report.

TASK #1: EXPLORE BUSINESS OBJECTS

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Report Fields** report.
3. Select **Worker** in the Business Object field.
4. Click **OK**.
5. Filter the Field Name column by **Employee** and **Employee ID**. Are these fields available on the Worker business object?
6. Try filtering the field name column for the remaining required fields; **Base Pay – Current**, **Base Pay – Proposed**, and **Effective Date**. Are these fields available on the Employee business object?
7. Run the **Business Object Details** report.
8. Select **Worker** in the Business Object field and click **OK** to continue.

   Notice that this report returns the same fields for this business object as the Report Fields report, but contains additional tabs for Related Business Objects, Data Sources, and Reports associated with this business object.
9. Click the **Related Business Objects** tab.
10. In the Links to Related Business Objects table, filter the Business Object field by **Employee Compensation Event**.

11. Click **14** in the Number of Links column. This is the number of fields that link the Worker business object to the Employee Compensation Event business object. Which field contains the business process for the last compensation change, with a base pay change for the employee? (Hint: Look at the Description column.)

12. Close the pop-up box.

13. Hover over the **Employee Compensation Event** link.

14. Right-click and select **See in New Tab**.

15. Filter the Field Name column by **Base Pay – Current**, **Base Pay – Proposed**, and **Effective Date**. Are these Workday-delivered fields available on the Employee Compensation Event business object?

16. Close the tab for the Employee Compensation Event business object.

17. Return to the Worker business object details and click the **Data Sources** tab.

18. Notice the All Workers, All Active and Terminated Workers, and Workers for HCM Reporting data sources listed in the table. All of these data sources include active employees. Use the description in this report, along with the Related Actions for each of the data sources to compare the All Workers, All Active and Terminated Workers, and Workers for HCM Reporting data sources. Complete the following table with the information you find.

	All Workers	***All Active and Terminated Workers***	***Workers for HCM Reporting***
Does the data source return active employees or active workers?			
What is the primary business object for this data source?			
Is this an indexed data source?			

Each of these data sources returns a list of active workers. All Workers also includes all workers in the system, even future hires. All Active and Terminated Workers is a bit more specific, as it only includes active and terminated workers. Workers for HCM Reporting includes all active workers, and is indexed, which means it will perform faster than the other two standard data sources. Additionally, the Workers for HCM Reporting data source comes with a number of data

source filters, which will let you hone in on a more specific subset of data. Let's take a closer look at these data source filters to see if this data source would be appropriate for our report.

TASK #2: EXAMINE A DATA SOURCE

1. Access the **Data Sources** report to do some additional research.
2. Filter the Data Source field by **Workers for HCM Reporting**.
3. Examine the list of data source filters on the right side of this report. Each data source filter listed has a brief description, along with a list of built-in prompts and permitted security groups.

Note: We will discuss how prompts are configured and can affect report performance later in this course.

Which of these data source filters includes all active employees in the system?

TASK #3: DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

Based on your research, here are the some questions to help you determine the primary business object and data source.

1. Based on the business object details you've seen in this activity, which business object(s) contain the fields needed in the report detailed in the business case for this activity?
2. Are these business objects related?
3. Which should be the primary business object?
4. Which should be the related business object?
5. Which field links the two business objects together?
6. Which data source should be used?
7. Which data source filter should be used?

CONTEXTUAL REPORTING

You can use contextual reporting in Workday when you know the data you want to report on, but you don't know the business objects and report fields for that data.

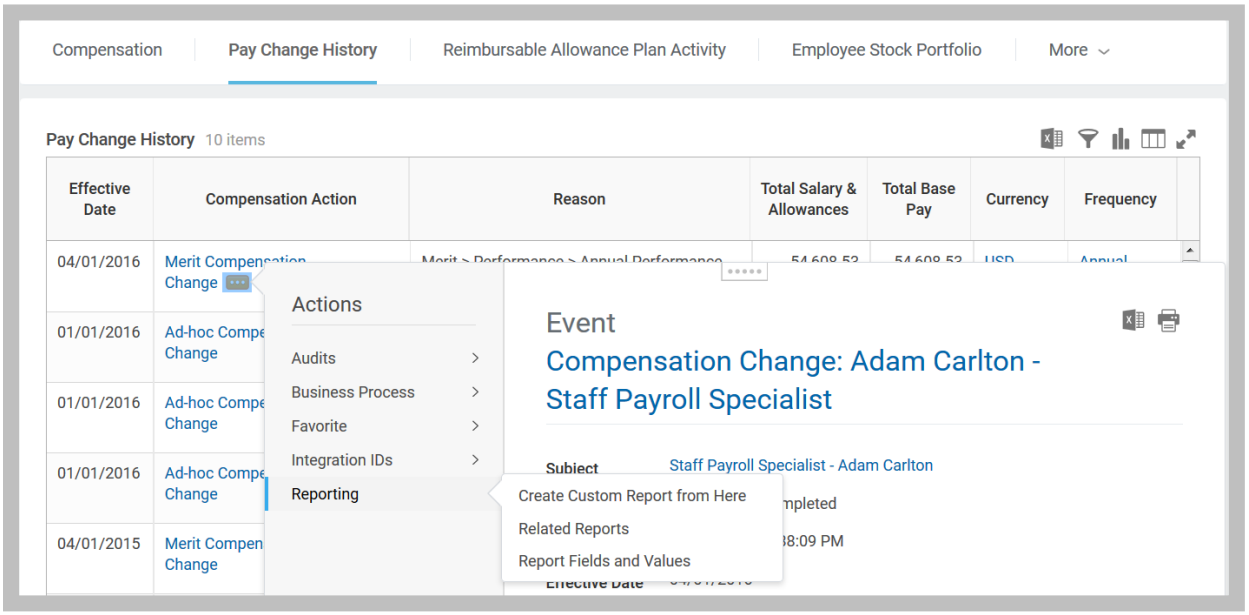
Contextual reporting can be used to create and view related reports directly from the context of a given business instance. It can enhance your knowledge of fields, business objects, and data sources associated with a given instance. It also allows you to view existing related reports that may be repurposed or customized all in the context of a given business object.

Many Workday business objects, such as a worker or supplier invoice, allow you to create a custom report directly from them in the context of where you are in the application. This enables you to quickly build a report using data that is familiar to you.

When viewing the data you're interested in, such as a given employee or given expense report, you can select Reporting from the Related Actions. These are the contextual reporting options:

Option	Description
Create Custom Report from Here	Used to create a custom report from the context of where you are in the application. Workday automatically restricts the data sources available for the report to those that are based on the selected business object.
Related Reports	Used to view the standard and custom reports that use this business object as the primary object on the report. You will only see a list of related reports to which you have security access.
Report Fields and Values	Used to display all the report fields and values related to the selected business object and instance. It only displays fields that you are allowed to view. For each field, you can also see data sources that include those fields for reporting.

The following example shows the pay change history for an employee. You can either (1) create a custom report about compensation changes, (2) see related reports that are about compensation changes, or (3) see all the report fields and values around a compensation change event.



33 - Contextual Reporting

DEMO – USE REPORT FIELDS AND VALUES

Introduction: This demo will show you how to leverage the Reporting > Report Fields and Values option when designing and building your reports.

TASK #1: VIEW A WORKER'S RECORD

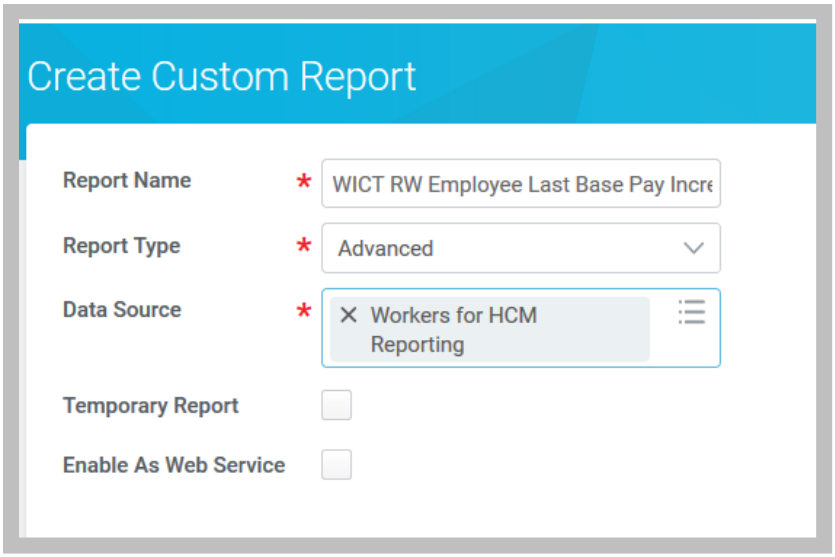
1. Sign in as Logan McNeil (lmcneil).
2. Access the worker record for **Adam Carlton**.
3. Select **Compensation > Pay Change History** to see a list of compensation changes.
4. In the Compensation Action field, click the Merit Compensation Change's **Related Actions**.
5. Select **Reporting > Report Fields and Values**. Notice that the business object is Employee Compensation Event for Compensation Plan Adjustment.
6. Filter the Field column by **Base Pay – Current**, **Base Pay – Proposed**, and **Effective Date**. Notice that you can see the values for these fields for Adam Carlton.

DESIGNING A CUSTOM REPORT

Before building a custom report, there are several questions you should ask to help you design the report:

- Where is the data I need?
- What view of the data do I need?
- What fields should be displayed?
- How should the data be grouped and sorted?
- How should the data be filtered?
- How should the output be displayed?
- Who is this report for? Who should report be shared with?
- Is there an existing report that can be used as a starting point?

You can use the Create Custom Report task to create a custom report. When creating a report, you must specify the Report Name, Report Type, and Data Source. You can also select the Temporary Report and Web Service Enable options, which will be discussed later in this chapter.



34 - Create Custom Report

Reminder: A user's access to data sources drives data source selection for the report.

Note: Selecting the data source determines the primary business object for the report. Once a report is based on a primary business object, you can only change the report's data source to another data source on the same primary business object. You cannot change the primary business object for a report.

REPORT NAME

As a best practice, you should establish a naming convention to make your reports easy to find.

REPORT TYPE

Report Writer provides the following report types for creating custom reports. In this course, we will cover the Advanced and Matrix report types.

Option	Description
Advanced	Allows you to display data from the primary and related business objects. You can also sort and filter the data, show groupings, display subtotals and a grand total, add charts, enable the report as a worklet, share the report with other users, and enable the report as a web service.
Composite	Allows you to combine several existing Matrix or Advanced reports into one report. Each report is considered a sub-report and each report can have its own data source. It also provides advanced formatting options.
Matrix	Forms the foundation for custom analytics. It allows you to group data, summarize the metrics for each grouping, and drill into the summarizations for further analysis.
nBox	Counts the data and displays the results in a two-dimensional matrix.
Search	Displays search results based on values selected for facet filters on the report.
Simple	Provides straightforward design options for the beginning or occasional user to create reports quickly and easily with limited options. It allows you to display, sort, and filter data from the primary business object.
Transposed	Interchanges the rows and corresponding columns on the report. This allows you to create reports that enable side-by-side comparisons.
Trending	Similar to a matrix report, but with a time period element. It is commonly used to report and analyze trended worker data, like headcount and attrition, over time.

DATA SOURCE

When creating a custom report, one of the most important decisions is selecting your report's data source. This data source drives the primary business object for your report as well as the 'view' of that data. Data sources provide the starting filter for your report. You can search on data sources by name, category, business object, or a combination of category and business object.

TEMPORARY REPORT

You can mark a report as Temporary, which means that the report has a defined period of time before it expires and becomes eligible for deletion in the tenant. By default, a report will expire after seven days. For reports that are not the Simple report type, you can change the expiration information on the Advanced tab.

The Delete Temporary Report Definitions task is used to delete temporary reports in a tenant that have expired and are eligible for deletion. This task can be scheduled to run once or on a daily, weekly, or monthly recurrence. This process will permanently purge expired reports from your Workday tenant.

Security Note: You must have access to the Custom Report Administration security domain to schedule reports for deletion.

Note: If you create a custom report and then cancel the report, or if your session times out, your report will be saved as a temporary report. Be sure to either delete the report or change the report options so it is no longer a temporary report.

You may not want to give all Report Writers the ability to create permanent reports that consume system resources indefinitely. Therefore, Workday enables you to restrict specific Report Writer users so that they only have the ability to create temporary report definitions. Report Administrators can still access these temporary reports to mark them as permanent or change the expiration dates as needed.

Security Note: Users associated with security groups configured for the Ability to Create Only Temporary Reports security domain will be limited to just temporary reports. This access can support ad-hoc reporting needs and can help separate groups of report writers in the tenant.

WEB SERVICE ENABLED

To use a custom report in an outbound integration (Reporting-as-a-Service), select the Web Service Enable checkbox. Selecting this checkbox also makes the report available to the Business Intelligence Reporting Tool (BIRT) and the Big Data Analytics tool. You can set additional web services options on the Advanced tab.

CUSTOM REPORT TABS

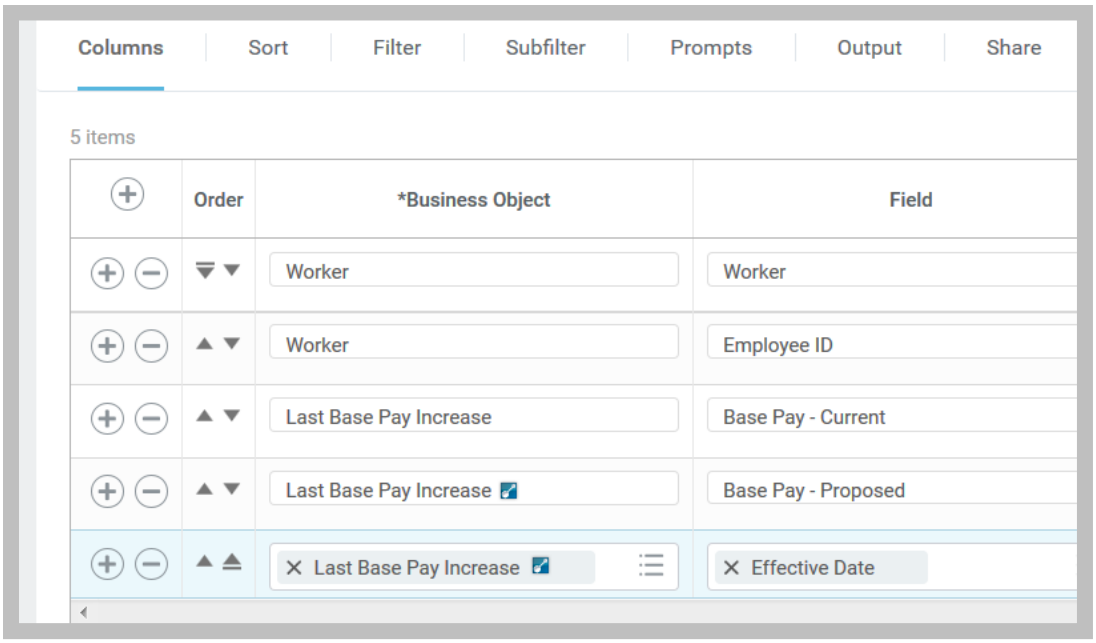
When creating a custom report using the Advanced Report type, you can configure the report using these tabs:

Option	Description
Columns	Specify the fields to include on the report and the sequence in which they should be displayed. The columns grid contains one row for each field that should appear as a column on the report. Each row in the grid defines the business object, field, column heading overrides, and options for how the field should be displayed. Security Note: You can only add fields that you have access to.
Sort	Control the order in which data will be presented and grouped. This tab controls sorting data on the primary business object and sub sorting data on related business objects. You can also specify options for displaying subtotals, grand totals, and outlines. If no sorting or grouping criteria is specified, the report will sort the data based on the first (leftmost) column associated with the primary business object and the data will not be grouped or totaled.
Filter	Specify how you want to filter the primary business object. A filter consists of one or more filter conditions, defined as rows in the filter grid.
Subfilter	Specify how you want to filter the related business objects. You can add subfilters for multiple related business objects. Each subfilter row corresponds to filter conditions for the particular related business object you select.
Prompts	Specify prompt-related data about your report, including populating undefined prompt values. You can set default values for prompts so users do not have to enter values when running a report. You can also hide prompts that have default values, so users do not see them at runtime.
Output	Override the default output options, including output type, worklet options, and help text. By default, a custom report is rendered as a table. You can change this to display the report as a chart, chart and table, or gauge. By default, a custom report is not enabled for use as a worklet, but you can change this setting.
Share	Share the report with other users or groups. By default, a custom report is visible only to its owner. You can only share a report with users who have access to the report data source. Sharing a report with other users allows them to run and copy the report. Once they have copied the report, they can edit and share their version.

Advanced	Define additional report options, such as enabling save parameters, enabling a report as a web service, enabling a report for Worksheets, or changing the expiration information for temporary reports.

ADDING FIELDS FROM RELATED BUSINESS OBJECTS

You have already seen how to add fields from the primary business object. Depending on the report type, you can also add fields from related business objects. On the Columns tab, you specify the Business Object and Field for the related data. A given custom report definition can include fields from more than one related business object. Additionally, you can select a field that links the PBO and RBO together. In the following example, we see the Last Base Pay Increase field linking a report using the Worker PBO to the Employee Compensation Event RBO. This allows you to pull fields from the RBO into your report as well.



35 - Adding Fields from Related Business Objects

Note: When building a report using the Advanced report type, you can only access fields from related business objects that are one level deep. To access fields from RBOs that are more than one level deep, you will need to create a calculated field.

ACTIVITY 2.3 – CREATE A CUSTOM REPORT

Business Case: Now that Logan McNeil knows which primary business object and data source to use, she can create her custom report.

TASK #1: CREATE A CUSTOM REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Create Custom Report** task.
3. Enter the following information:

Field Name	*Entry Value*
Report Name	WICT RW Employee Last Base Pay Increase
Report Type	Advanced
Data Source	Workers for HCM Reporting

4. Click **OK**.
5. Select **All Employees** as the Data Source Filter
6. Add four additional rows to the Columns section and enter the following information:

Business Object	*Field*
Worker	Employee
Worker	Employee ID
Last Base Pay Increase	Base Pay – Current
Last Base Pay Increase	Base Pay – Proposed
Last Base Pay Increase	Effective Date

Note: With Workday's predictive text, if you search for the Employee field, the result that best matches your search will return at the top. This way you don't have to scroll through a long list of all the fields that include the word "employee".

7. Click **OK**.
8. Click **Run**. These are the report prompts that are built-in to the All Employees data source filter.

9. Leave the prompts with the default values and click **OK** and review the report results.

REPORT DESIGN - “THOUGHT GUIDE”

When creating a new report custom report in your tenant, it is important to first stop and assess the business needs of your report. We recommend creating a “Thought Guide”, or a list of things to consider each time you are building a report. Questions you might want to answer before building your custom report include:

- Who is running the report?
- How often will it run? Does it require scheduling?
- What type of information are users getting from this report?
- Data as of today?
- Will you need to summarize or aggregate data for the report’s output?
- Can you get the data from a single source? Or do you require multiple data sources?
- Will users do any further manipulation of the data after running the report?

The answers to these questions will determine the best method of configuring your report to suit your needs.

CHAPTER 2 KNOWLEDGE CHECK

1. What is determined by selecting the data source for a report?
    A. Primary Business Object and Starting Data Set
    B. Which users you can share the report with
    C. PBO, Starting Data Set, which users you can share the report with
2. Which type of class report field will display all expense lines for an expense report?
    A. Self-Referencing
    B. Multi-Instance
    C. Single Instance
    D. Currency
3. When creating a custom report, which information do you **not** have to specify?
    A. Report Name
    B. Report Type
    C. Data Source
    D. Effective Date

CHAPTER 3 – SORTING AND FILTERING

OVERVIEW

In this chapter, you will learn how to further configure your custom reports to just display the data you need. You will learn how to sort and filter the data in a report.

OBJECTIVES

By the end of this chapter, you will be able to:

- Sort and sub sort the data on a report.
- Filter the data on a report using filters and subfilters.
- Leverage custom reports as a starting point for new custom reports.

SCENARIO

Logan McNeil needs to create a report that shows expense report data for all active employees.

The following table shows the fields she needs to display in the report.

Worker	Supervisory Organization	Location	Locale	Expense Reports – All Statuses		
				Expense Report	Expense Items on Expense Report	Expense Report Total Amount
Salim Chabani	Call Center	Mulhouse	fr_FR			
Boris Muller	Consulting	Munich	de_DE	EXP-4960	Airfare Hotel	€1,380.14
Carol Abbott	Consulting	Chicago	en_US	EXP-3916	Hotel	$731.50
				EXP-3598	Airfare	$1040.50

The report output should be sorted first by the supervisory organization and second by the worker. The expense reports for each worker should be sorted by the total amount.

ACTIVITY 3.1 – DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

Business Case: Logan McNeil needs to create a custom report that shows expense report data for all active employees. She needs to display these fields in the report:

- Worker
- Supervisory Organization
- Location
- Locale
- Expense Report
- Expense Items on Expense Report
- Expense Report Total Amount

TASK #1: EXPLORE BUSINESS OBJECTS

1. Sign in as Logan McNeil (lmcneil).
2. Use the Business Object Details and Data Sources reports to determine the primary business object and data source for Logan's report.
    1. Which business objects contain the fields needed in the report?
    2. Are these business objects related?
    3. Which should be the primary business object?
    4. Which should be the related business objects?
    5. Which field links the primary and related business object together?
    6. Which data source should be used?

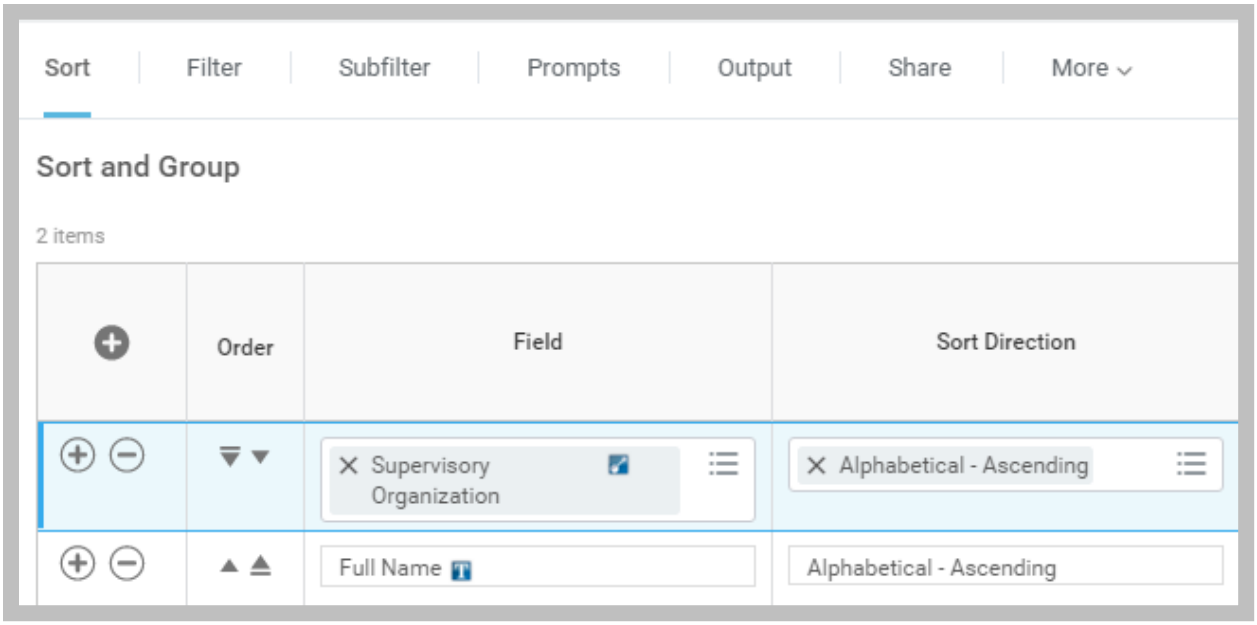
(Hint: The Location business object contains the Locale field. If you get stuck on a question, see appendix B for the answer key)

SORTING

By default, a custom report is sorted by the left-most column of the primary business object. The Sort tab on the report definition allows you to control the order in which data will be presented and grouped.

In the Sort and Group grid, you can specify which fields from the primary business object should be used to sort the data. The first field determines the highest level sort, the second field determines the next level sort, and so on.

In the following example, the report will sort by Supervisory Organization and then by Full Name.



36 – Sorting first by Supervisory Organization, and then by Full Name

Sorting on simple field types performs better than sorting on object field types, because object field types access additional data in the background. In the example above, we are sorting by Full Name instead of Worker. Full Name is a text field, so it will perform better than Worker, which is a self-referencing field.

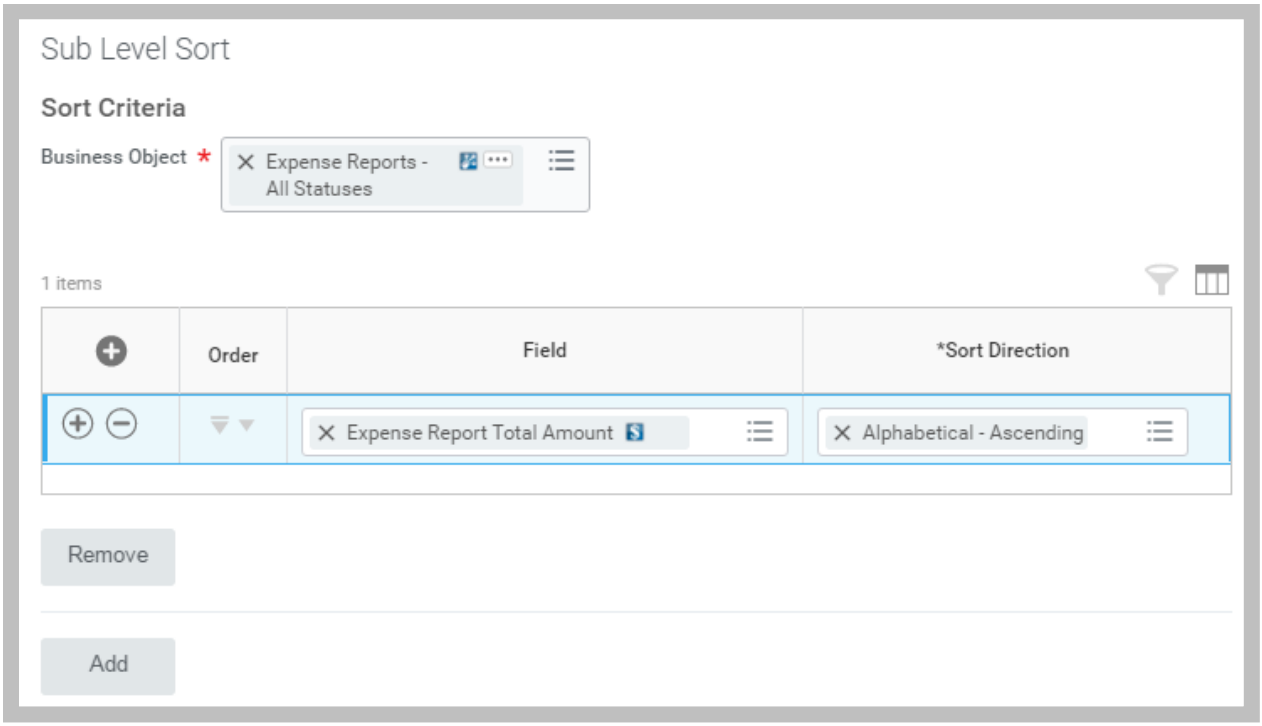
Note: Fields used for sorting do not need to be displayed on the report output.

SUB LEVEL SORTING

In addition to sorting data from the primary business object, you can also sort data from related business objects. In the Sub Level Sort section, you can specify which fields from a related business object should be used to sort the related data. If you do not configure sub level sorting,

related instances are sorted by the left-most column of the related business object by default. Related business objects and fields used for sub level sorting do not need to be displayed on the report output.

In the following example, the report will sort instances of the Expense Reports – All Statuses related business object by the Expense Report Total Amount field.



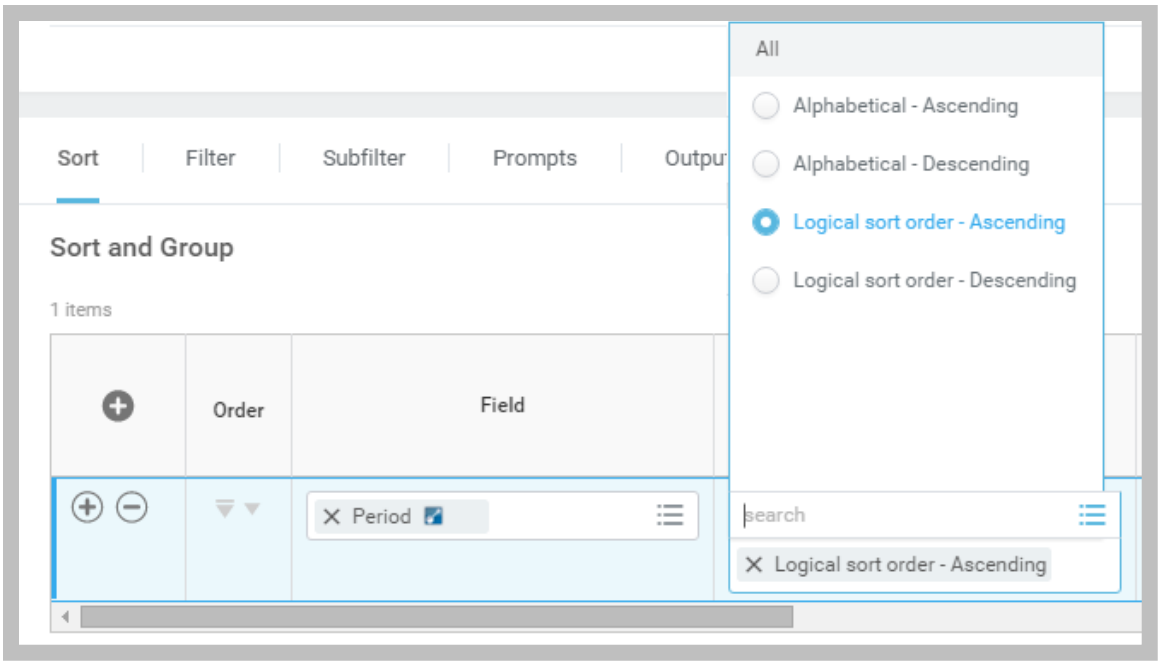
37 - Sub Level Sorting

You can use the Add button to sort data from additional related business objects on your report.

LOGICAL SORT ORDER

Most fields in Workday can only be sorted alphabetically (either or ascending or descending). However, certain fields in Workday are enabled for logical sort order (either ascending or descending). These fields have a logical predefined order. By default, if a field is enabled for logical sort, the logical sort will be used. You can search Community for “logical sort order” to see a list of fields enabled for logical sorting.

The following example shows the Period field which is using in financial reports. This field has a logical sort order of January, February, March, etc.



38 - Logical Sort Order options

DEMO – VIEW THE SORT OPTIONS

Introduction: This demo will show you how to sort a report by fields on the primary business object and on a related business object.

TASK #1: VIEW THE SORT OPTIONS

1. Sign in as Logan McNeil (lmcneil).
2. Copy the **WDINST RW Worker Expense Reports** custom report.
3. Change the report name to *WICT RW Worker Expense Reports Demo* and click **OK**.
4. In the Data Source Filter field, select **All Employees**.
5. Navigate to the Prompt tab and remove the **Contingent Worker Type**, **Employee Type**, and **Worker Types** Prompts.
6.. In the Business Object column, click the Location's **Related Actions**. What is the Field Type?
7. Click somewhere on the report to close the pop up box
8. In the Business Object column, click the Expense Reports – All Statuses' **Related Actions**. What is the Field Type?
9. Click somewhere on the report to close the pop up box.
10. Click the **Sort** tab. Notice that that the report is sorted by two fields from the primary business object: Supervisory Organization and Full Name.
11. Click the **prompt** in the Sort Direction field. It is set to Alphabetical – Ascending. Notice the only other option is Alphabetical – Descending.
12. Click somewhere on the report to close the pop up box.
13. Scroll down to the Sub Level Sort section.
14. Click the Add button.
15. In the Business Object field, add the **Expense Reports – All Statuses** related business object.

16. Add a row and select the **Expense Report Total Amount** field. Accept the default sort of Alphabetical – Ascending.

17. Click **OK**.

18. Click **Run**. Verify that the report is sorted first by Supervisory Organization. Notice that it is sorted second by Worker.

    Remember that we did not sort on the Worker field, which is a self-referencing field, but instead sorted on the field Full Name, which is a text field not used on the report. Sorting on simple field types performs better than sorting on object field types, because object field types access additional data in the background.

19. Scroll down to worker Dylan Shaw and verify that his expense reports are listed from lowest to highest amount.

ACTIVITY 3.2 – SORT THE DATA ON A REPORT

Business Case: Logan McNeil needs to create a custom report that shows expense report data for all active employees. She needs to display these fields in the report:

- Worker
- Supervisory Organization
- Location
- Locale
- Expense Report
- Expense Items on Expense Report
- Expense Report Total Amount

The report output should be sorted first by the supervisory organization and second by the worker. The expense reports for each worker should be sorted by the total amount.

TASK #1: ADD FIELDS TO A CUSTOM REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Create Custom Report** task.
3. Enter the following information:

Field Name	*Entry Value*
Report Name	WICT RW Worker Expense Reports
Report Type	Advanced
Data Source	Workers for HCM Reporting

4. In the Data Source Filter field, select **All Employees**.

   Note that the All Active Workers data source will default into the Data Source Filter field. Delete this value and overwrite it.

5. Click **OK**.
6. Add seven rows to the Columns grid and enter the following information:

Business Object	*Field*	*Column Heading Override*
Worker	Worker	

Worker	Supervisory Organization	
Worker	Location	
Location	Locale	
Expense Reports – All Statuses	Expense Report	
Expense Reports – All Statuses	Expense Items on Expense Report	Expense Items
Expense Reports – All Statuses	Expense Report Total Amount	Total Amount

7. Select **Show Currency Symbol** in the Options field for Expense Report Total Amount.
8. Click **OK**.
9. Click **Run**.

   Note that the Remove Exclude from Headcount, Include Terminated Workers, and Employee Type prompts appear when running the report. These are included in the All Employees data source filter, however neither of these is a required prompt. Click **OK** to continue

10. Observe the report output.

Note: By default, the data is sorted alphabetically by the leftmost column of the primary business object (Worker).

TASK #2: SORT THE DATA

1. Let's change the way this report displays its output. We want these results to appear alphabetically by Supervisory Organization, with workers within each Supervisory Organization ordered alphabetically by their name. Additionally, we want expense reports for a worker listed by amount total, from lowest to highest. Use the report's Related Actions to select **Custom Report > Edit**. This is how you will edit custom reports throughout the course.
2. Click the **Sort** tab.
3. Add two rows to the Sort and Group grid.

4. In the first row, select **Fields on Report > Supervisory Organization** for the Field. Notice that the Sort Direction defaults to Alphabetical – Ascending.

5. In the second row, select **Full Name** for the Field.

Note: Sorting by the Full Name text field will perform better than sorting by the Worker self-referencing field.

6. In the Sub Level Sort section, click **Add**.

7. Select **Business Objects on Report > Expense Reports – All Statuses** in the Business Object field.

8. Add a row to the Sub Level Sort grid.

9. Select **Fields on Report > Expense Report Total Amount** for the Field.

10. Accept the default sort of Alphabetical Ascending and click **OK**.

11. Run the report with the default prompt values. Verify that the report is sorted first by Supervisory Organization and second by Worker.

12. Scroll down to worker Carol Abbott and verify that her expense reports are listed from lowest to highest amount.

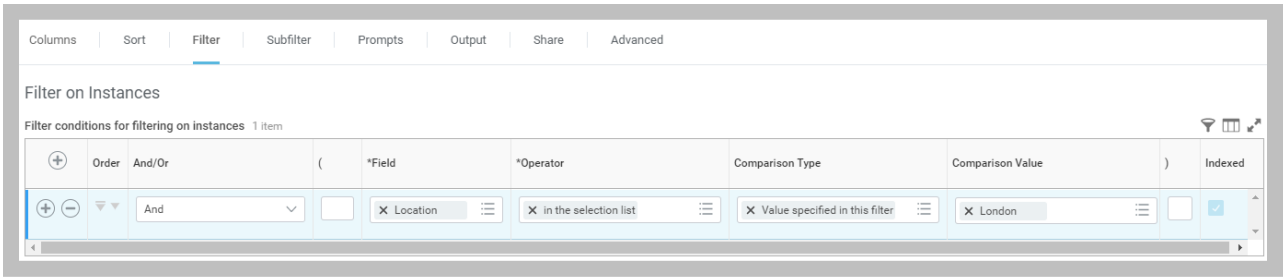
SCENARIO

Logan McNeil needs to filter her report to only show workers from London. For each worker, she wants to show expense reports that contain Airfare and have a total amount greater than 1000.

Worker	Supervisory Organization	Location	Locale	Expense Reports – All Statuses		
				Expense Report	Expense Items on Expense Report	Expense Report Total Amount
Dylan Shaw	Consulting Services	London	en_GB	EXP-4920	Airfare Hotel	£1,048.30
				EXP-4739	Airfare Meals	£1,357.97
Oscar Bell	Facilities Group	London	en_GB	EXP-4985	Airfare Car	£1,951.86
				EXP-2668	Airfare	£2,162.95

FILTERING

The Filter tab allows you to filter the primary business object. A filter consists of one or more filter conditions, defined as rows in the filter grid. You can filter on any field from the primary business object or Global business object (global fields). Fields used for filtering do not need to be displayed on the report output.



39 – Filtering on your report definition

These are the options available when defining a filter:

Option	Description
And/Or	Enables you to specify how multiple filter conditions should be evaluated. Select And to indicate that each business object instance must satisfy all conditions specified in your filter criteria in order to be included in the report. Select Or to indicate that each business object instance must satisfy at least one of the conditions in order to be included in the report.
Parentheses	Some report types, like Advanced, allow you to use any combination of And and Or conditions within a filter. You can use parentheses to group conditions together and control the sequence in which conditions are evaluated.
Field	Specifies the field to be evaluated.
Operator	Specifies the logical operator that should be used in the filter condition. The available choices depend on the field type.
Comparison Type	Specifies how the field should be compared. The options are: • Value specified in this filter – This option allows you to explicitly specify a value to filter on. • Value from another field – This option allows you to compare the value of one field to another. • Prompt the user for the value – With this option, the prompt value is required for filtering and whatever value is entered will be used to filter the report. • Prompt the user for the value and ignore the filter condition if the value is blank – This option configures an optional prompt, so if nothing is entered at the prompt (i.e., blank value), the report will ignore the filter condition. The report will only use the value to filter on if not blank.
Comparison Value	Specifies the value that will be compared to the Field value, or the particular prompt used to prompt the user for a value. The ability to enable this field and available choices depend on the Field type, the Operator, and the Comparison Type.

PERFORMANCE CONSIDERATIONS

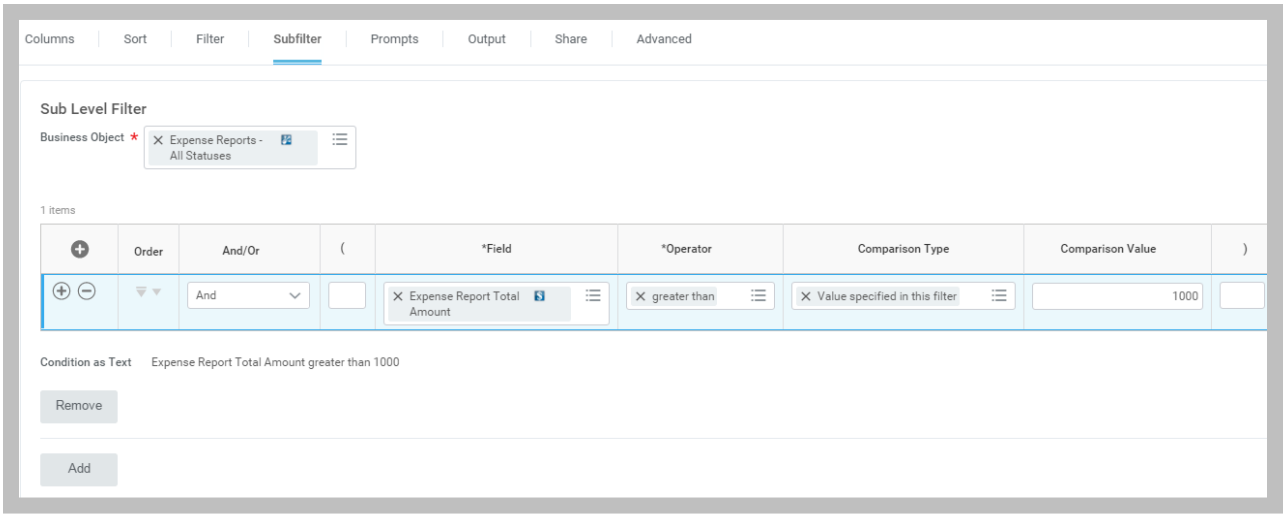
As discussed previously, you should select a data source that filters unnecessary data from the report. Once the data source has narrowed down the data, you can apply filter criteria to further narrow the results. Keep in mind that filters can impact the runtime of a report. Both the number of filters and the order of filters can slow a report down. Whenever possible, use a data source with a built-in filter.

In addition, you should place filters that exclude the greatest amount of instances from the report at the top of the filter grid. This ensures that the system will filter on progressively smaller amounts of instances as it runs through the ordered filters.

Lastly, remember to use indexed fields for your report's filters if you have chosen an indexed data source. Using non-indexed fields as filters on an indexed report will cause your report to not run in indexed mode. You will learn more about this in the Report Performance chapter later on in this course.

SUBFILTERING

In addition to filtering data from the primary business object, you can also filter data from related business objects. On the Subfilter tab, you can specify which fields from a related business object should be used to filter the related data. Related business objects and fields used for subfiltering do not need to be displayed on the report output



40 – Subfiltering on your report definition

FILTER LOGIC

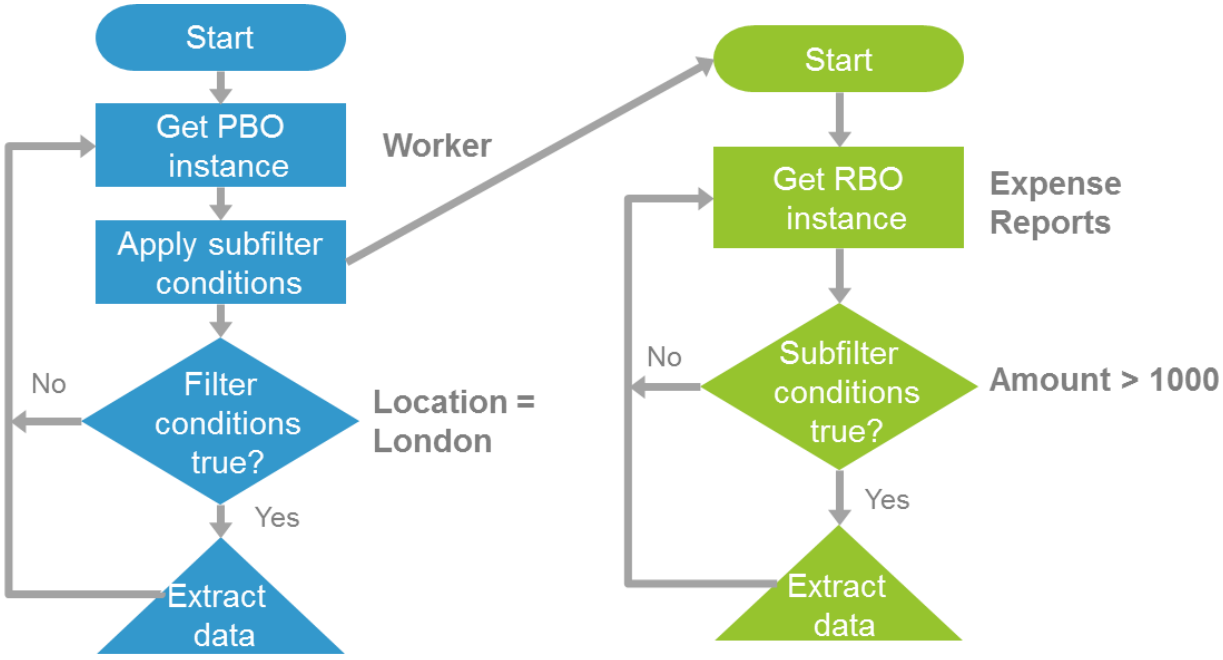
It is important to understand how your report filter and subfilter interact. For a given instance of your primary business object, the subfilter logic is executed first, then your filter logic.

Let's take a look at an example where Worker is the primary business object and Expense Report is the related business object:

- For a worker on the Worker primary business object, the subfilter looks on the Expense Report related business object to see if the worker has corresponding expense reports.
- If the worker has corresponding expense reports, the sub filter applies the "Amount > 1000" logic and returns expense reports that meet the criteria.

- Next, the process moves back to the primary business object.
- The filter determines if the worker lives in London and returns workers that meet the criteria.
- Note that workers who live in London but do not have expense reports will also be returned on the report.

Note: You should include the condition “RBO not empty” in your filter. This will filter out instances of the primary business object that do not have related data.

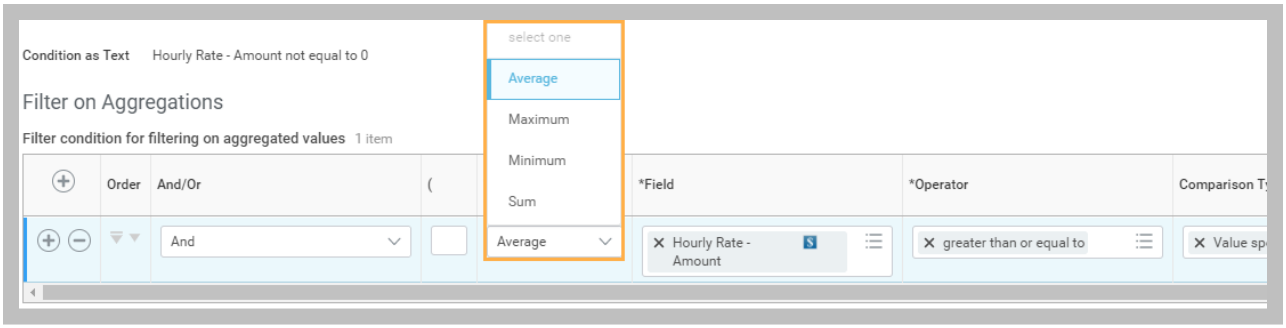


41 - Graphical representation of filter logic using the Worker PBO and Expense Reports RBO

FILTERING ON AGGREGATIONS

In the Filter tab of a report definition, you will see two different types of configurable filters. Throughout this chapter we have introduced you to the functionality in the first section, Filter on Instances, which allows you to identify a limited set of instances to return on your report.

The second section, Filter on Aggregations, provides another level of filtering ability for your report. This section allows you to filter on aggregate values of a field, such as Average, Minimum, Maximum, or Sum. This allows you to further filter your report data so that only the results you need are displayed in the report output.



For example, a Staffing Analyst might need to create a compensation report that shows the average compensation by position, but excludes positions that have less than 3 incumbents. You can use the Filter on Aggregations section to configure this report.

DEMO – VIEW THE FILTER OPTIONS

Introduction: This demo will show you how to filter a report by fields on the primary business object and on a related business object.

TASK #1: VIEW THE FILTER OPTIONS

1. Sign in as Logan McNeil (lmcneil).
2. Edit the ***WICT RW Worker Expense Reports Demo*** custom report.
3. Click the **Filter** tab. Notice that the report is filtered to only display workers whose Location is London.
4. Click the **Subfilter** tab. Notice that the report is subfiltered by Expense Report Total Amount greater than 1000 and Expense Items on Expense Report includes Airfare.
5. Click **OK**.
6. Click **Run**. Verify that the report only shows workers from London. Also verify that the report only shows expense reports that contain Airfare as an expense item and whose amount is greater than 1000. Notice that the report also displays workers from London who do not have any expense reports. Let's filter out those workers from the report.
7. Edit the custom report.
8. Click the **Filter** tab.
9. Add another row to the bottom of the grid and enter the following information:

Field Name	***Entry Value***
Field	Fields on Report > Expense Reports – All Statuses
Operator	Frequently Used > is not empty

10. Click **OK**.
11. Click **Run**. Verify that the report no longer shows workers from London who do not have any expense report.

ACTIVITY 3.3 – FILTER THE DATA ON A REPORT

Business Case: Logan McNeil needs to modify her custom report. She needs to filter the data to only show:

- Workers from London.
- Expense reports that contain Airfare as an expense item.
- Expense reports whose total amount is greater than 1000.

TASK #1: ADD A FILTER

1. Sign in as Logan McNeil (lmcneil).
2. Edit the **WICT RW Worker Expense Reports** custom report.
3. Click the **Filter** tab.
4. Add one row to the grid and enter the following information:

Field Name	*Entry Value*
Field	Location
Operator	in the selection list
Comparison Type	Value specified in this filter
Comparison Value	London

5. Click **OK**.
6. Run the report with the default prompt values. Verify that the report only shows workers from London.

TASK #2: ADD SUBFILTERS

1. Edit the custom report.
2. Click the **Subfilter** tab.
3. Click **Add**.

4. Select **Business Objects on Report > Expense Reports – All Statuses** in the Business Object field.

5. Add two rows to the grid.

6. Enter the following information in the first row:

Field Name	*Entry Value*
Field	Expense Report Total Amount
Operator	greater than
Comparison Type	Value specified in this filter
Comparison Value	1000

7. Enter the following information in the second row:

Field Name	*Entry Value*
Field	Expense Items on Expense Report
Operator	any in the selection list
Comparison Type	Value specified in this filter
Comparison Value	Airfare

8. Click **OK**.

9. Run the report with the default prompt values.

   Verify that the report only shows expense reports that contain Airfare as an expense item and whose amount is greater than 1000. Notice that the report also displays workers from London who do not have any expense reports. Let's filter out those workers from the report.

10. Edit the custom report.

11. Click the **Filter** tab.

12. Add another row to the bottom of the grid and enter the following information:

Field Name	*Entry Value*
Field	Expense Reports – All Statuses
Operator	is not empty

13. Click **OK**.

14. Run the report with the default prompt values.

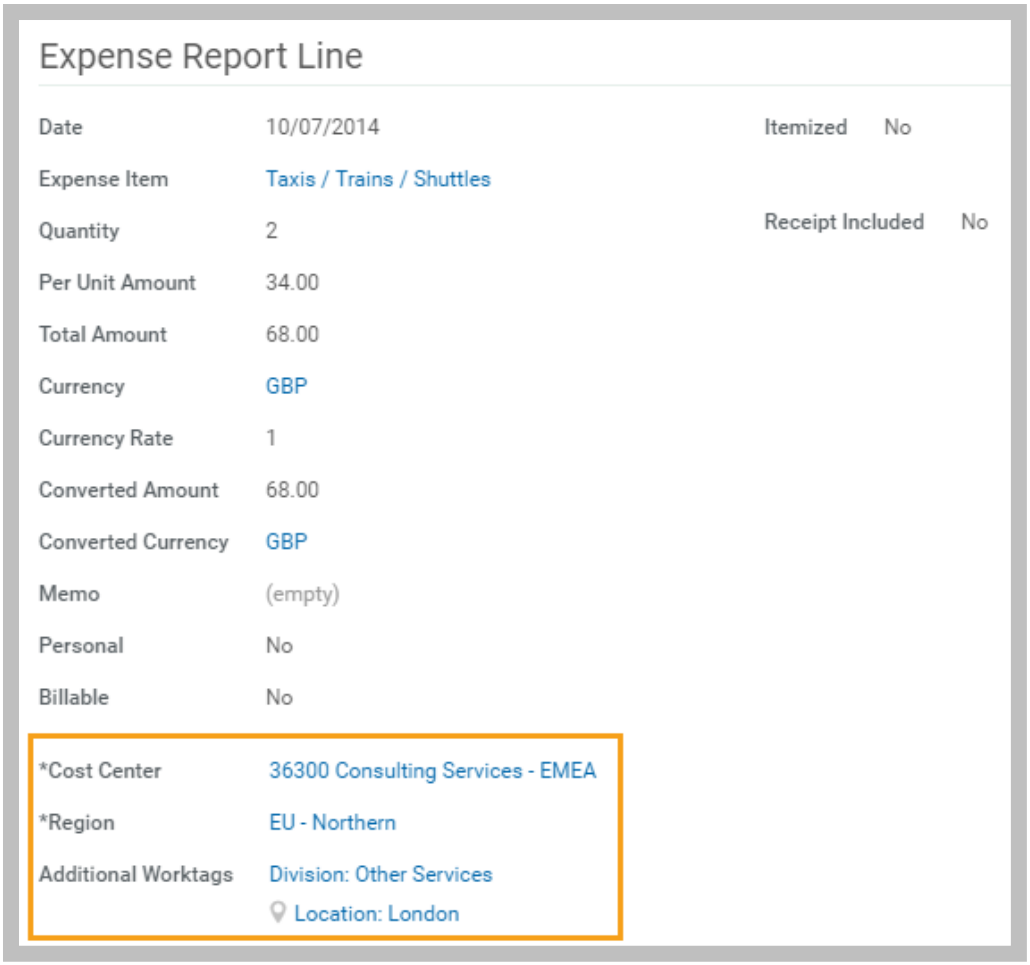
    Verify that the report no longer shows workers from London who do not have any expense reports.

USING WORKTAGS FOR FILTERING

Worktags are a key aspect of financial reporting. They classify transactions and supporting data to make their business purposes clear. For financial reporting, they provide a readily available method of accessing information, filtering searches to focus results, and analyzing information in aggregated and summarized reports. Worktags can be assigned to any line item that generates a financial update.

Resource: Workday delivers many worktag types that you can use to tag your business transactions and supporting data. You can search Community for “worktag types” to see a list of delivered worktag types.

In the following example, each expense report line is tagged with a number of worktags that you can use to access and filter the data in a report. This expense report line contains worktags for Cost Center and Region, as well as Division and Location.



42 - Worktags on an Expense Report Line

You can create a report that filters on worktag values. In the following example, the report filters the data to show only worktags that contain the cost center 36300 Consulting Services - EMEA.

Expense Report	Expense Items	Total Amount	Worktags
Expense Report: EXP-00004894	Airfare Hotel Accommodations Meals Taxis / Trains / Shuttles	£545.00	36300 Consulting Services - EMEA EU - Northern London Other Services
Expense Report: EXP-00004842	Airfare Car Rental & Gas Meals Mobile Phone	£658.43	36300 Consulting Services - EMEA EU - Northern London Other Services
Expense Report: EXP-00004920	Airfare Hotel Accommodations Internet Access Fees Mobile Phone	£1,048.30	36300 Consulting Services - EMEA EU - Northern London Other Services

43 - Report Filtered by Worktags

(OPTIONAL) ACTIVITY 3.4 – FILTER THE DATA ON A FINANCIAL REPORT

Business Case: Teresa Serrano needs to edit a custom report to include a filter using a Worktag value.

TASK #1: ADD A FILTER

1. Sign in as Teresa Serrano (tserrano).
2. Locate and run the **WDINST RW Expense Report Lines for Date Range** custom report.
3. In the Company field, select **Consolidation – Corporate**. Click **OK** to continue.

   Notice that this report includes Cost Center as a column. Each cost center identified here is a worktag value which you can use as a filter in your report.
4. Edit the report definition.
5. Click the **Filter** tab.

   Notice that there are a number of filters included in this report already. Let's add a filter so that only expense reports attributed to the Recruiting cost center are included.
6. Add a row and enter the following information:

Field Name	***Entry Value***
Field	Cost Center
Operator	In the selection list
Comparison Type	Value specified in this filter
Comparison Value	41300 Recruiting

7. Click **OK** to save this report and then click **Run** to run it.
8. In the Company field, select **Consolidation – Corporate**. Click **OK** to continue.

   Now you see that only the expense reports containing the 41300 Recruiting cost center tag are included in the report output. You can use worktags like Cost Center to narrow down your report results to only return the information you need.

9. Edit the report definition and go to the **Filter** tab.
10. Remove the filter for Cost Center and click **OK** to save the report defintion.

    We will be working with this report later on in this course.

CHAPTER 3 KNOWLEDGE CHECK

1. When a filter is being applied, which logic is executed first?

    A. Filter

    B. Subfilter

    C. Filter and subfilter are executed simultaneously

2. You need to filter a custom report to only show regular employees. Which comparison type should you use when creating the filter?

    A. Prompt the user for the value

    B. Prompt the user for the value and ignore the filter condition if the value is blank

    C. Value from another field

    D. Value specified in this filter

CHAPTER 4 – PROMPTING

OVERVIEW

In this chapter, you will learn how to configure prompts and define default prompt values. Prompts provide more flexibility because users can specify the criteria for the report each time it is run.

OBJECTIVES

By the end of this chapter, you will be able to:

- Configure prompts on a report definition.
- Explain where prompts can come from.

SCENARIO

Logan McNeil needs to modify her report to prompt users for values instead of hard-coding filters and subfilters.

The following example shows the data filtered by Location = London, Expense Items on Expense Report includes Airfare, and Expense Report Total Amount > 1000.

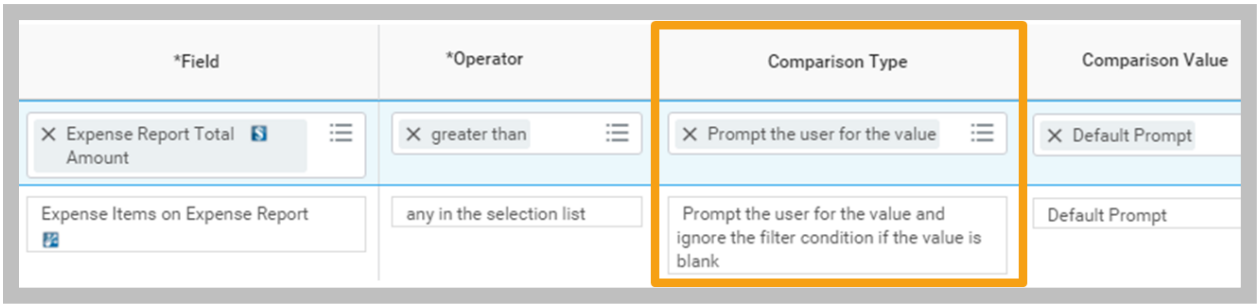
Worker	Supervisory Organization	Location	Locale	Expense Reports – All Statuses		
				Expense Report	Expense Items on Expense Report	Expense Report Total Amount
Dylan Shaw	Consulting Services	London	en_GB	EXP-4920	Airfare Hotel	£1,048.30
				EXP-4739	Airfare Meals	£1,357.97
Oscar Bell	Facilities Group	London	en_GB	EXP-4985	Airfare Car	£1,951.86
				EXP-2668	Airfare	£2,162.95

PROMPTING

Instead of hardcoding filter values, you can use prompts in your filters and subfilters. Prompts provide more flexibility because users can specify the criteria for the report each time it is run.

USING PROMPTS IN FILTERS AND SUBFILTERS

On the Filter and Subfilter tabs, you can control which fields should prompt the user for a value when the report is run.



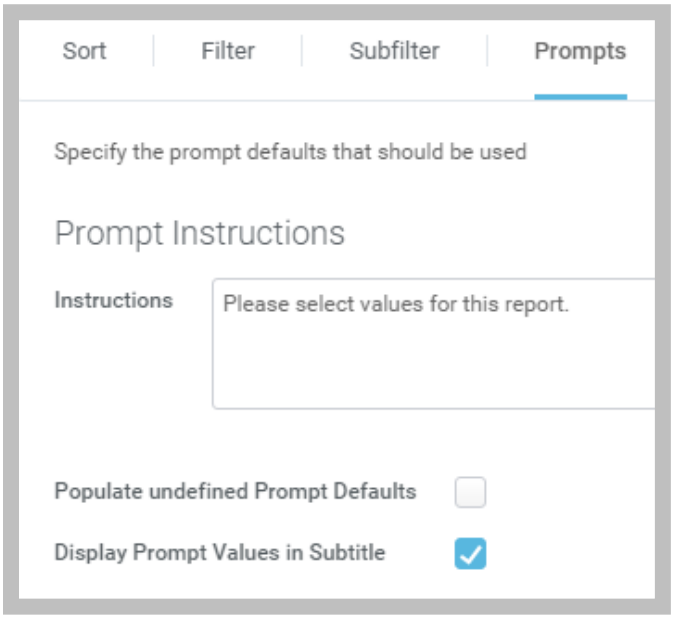
44 - Prompting the User for a Value in Filters and Subfilters

When defining a filter or subfilter condition, there are two comparison types that you can use to prompt the user for a value.

Comparison Type	Description
Prompt the user for a value	Workday will use whatever prompt value is entered to filter the report. If this prompt value is left blank, then the report will be filtered by a blank value.
Prompt the user for a value and ignore the filter condition if the value is blank	With this option, if the prompt value is left blank, the report will ignore the filter condition.

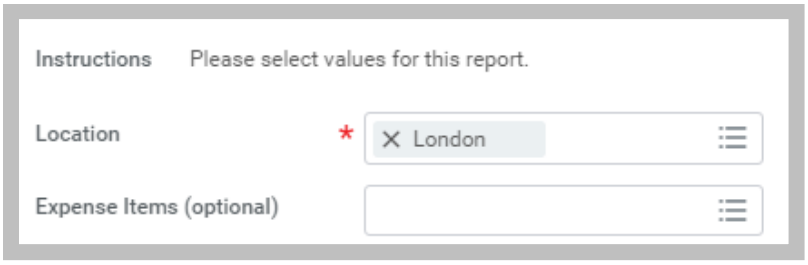
CONFIGURING PROMPTS

On the Prompts tab, you can configure the prompt settings.



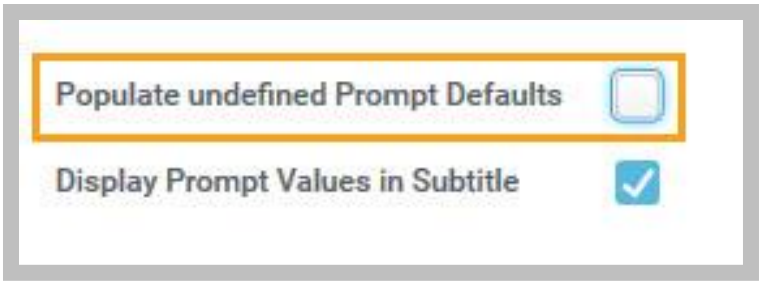
45 - Prompt Settings

The Instructions field lets you specify information to display to the user. When a user runs a report, the user will see your instructions when they are prompted for input.



46 - Instructions When Prompting a User for Input

Some fields in Workday come with default prompts that will automatically be added to your report if you add the field to your report definition. In the Prompt tab, the Populate undefined Prompt Defaults checkbox lets you quickly populate any prompt defaults. When you select this checkbox, any undefined prompts are automatically added to the Prompt Defaults grid.

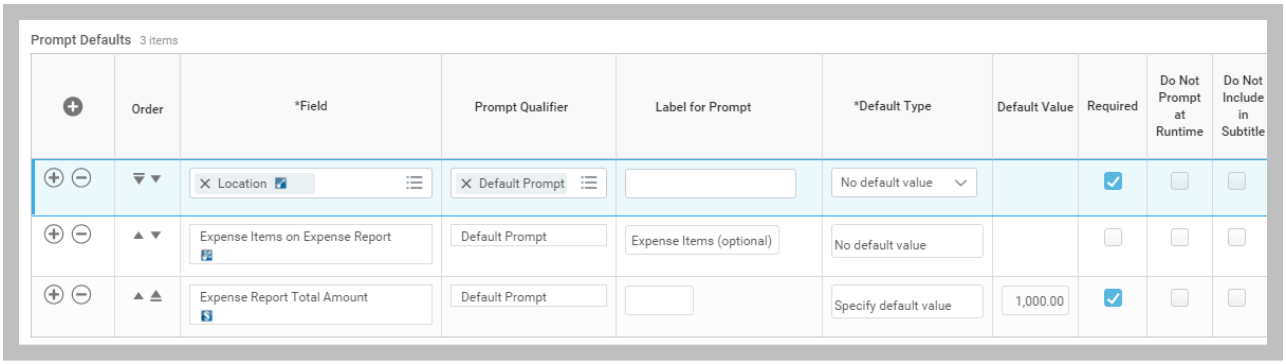


47 – Use the populate Undefined Prompts checkbox in the Prompt tab to add any default prompts to the Prompt Defaults section in this tab.

The Display Prompt Values in Subtitle checkbox lets you show or hide the prompt values at the top of the report output. In the Prompt Defaults grid, you can use the Do Not Include in Subtitle setting to exclude specific prompt values from displaying in the subtitle.

48 - Display Prompt Values at the Top of the Report Output

In the Prompt Defaults grid, you can specify options and default values for your prompt fields.



49 - Prompt Defaults Grid

These are the options available when defining prompt defaults:

Option	Description
Field	Specifies the field for which you want to enter prompt data.
Prompt Qualifier	If you have defined a data range or a data set prompt for this field, you must choose the Prompt Qualifier to identify which prompt you want to override.
Label for Prompt	Overrides the label displayed for this prompt when you run the report.

Default Type	Determines the default values to use when the report is run. The options are: • No default value – Specifies that no default value is defined for the field. When the report runs, the user is prompted for a value. • Specify default value – Specifies that the default value(s) entered in the Default Value field are displayed to the user in the report prompt field. • Determine default value at runtime – Uses the field specified in the Default Value field to determine the default value(s) to display in the report prompt field.
Default Value	Used with the Specify default value and Determine default value at runtime options. This field specifies the default value(s) or field to use to determine the default prompt.
Required	Specifies that a prompt field value is required and the field cannot be left blank when the report runs.
Do Not Prompt at Runtime	Suppresses the display of the prompt for this field. Any default values are used automatically, skipping any interaction for the prompt for this field.
Do Not Include in Subtitle	Suppresses the display of the selected prompt values from the final report display. By default, any values the user selects from prompts appear below the report title (above the detail data) when the report is run.

DEMO – VIEW THE PROMPT OPTIONS

Introduction: This demo will show you how to prompt users for filter values.

TASK #1: PROMPT FOR LOCATION

1. Sign in as Logan McNeil (lmcneil).
2. Edit the **WDINST RW Worker Expense Reports** custom report.
3. Click the **Filter** tab.
4. Locate the Location field, and in the Comparison Type field select **Common > Prompt the user for the value**.
5. Click **OK**.
6. Click **Run**.
7. Leave the Location blank and click **OK**. Notice that the report does not return any results.
8. Edit the custom report.
9. Click the **Prompts** tab.
10. Select the **Populate undefined Prompt Defaults** checkbox. This will add any undefined prompts to the Prompt Defaults grid.
11. For the Location field, enter the following information:

Field Name	***Entry Value***
Default Type	Specify default value
Default Value	London
Required	Select checkbox

12. Click **OK**.
13. Click **Run**.
14. Click **OK**. Verify that the report only shows workers from London.

WHERE CAN PROMPTS COME FROM?

In addition to defining prompts in filters and subfilters, prompts can come from other places. You can set the defaults for these prompts on the Prompts tab.

Location	Example
Data Source	The Employees by Organization data source has these built-in prompts: Include Managers, Include Subordinate Organizations, and Organization.
Data Source Filter	The Journal Lines for Company data source filter has nine built-in prompts, including Company, Year, and Period.
Field	The Expense Report Total Amount in Reporting Currency field has a built-in prompt for Reporting Currency.
Calculated Field	You can create a calculated field using the Prompt for Value function.
Prompt Set	You can create a prompt set to group prompt field values. For example, when a report group or a composite report contains multiple reports all prompting on the same field, a prompt set will allow you to enter the prompt field value once and then will feed the one value to the multiple uses of the field.

Note: When possible, you should use a data source with built-in prompts rather than manually creating filters and prompts on a more generic data source. This will result in a more efficient report.

DEMO – VIEW WHERE PROMPTS CAN COME FROM

Introduction: This demo will show you how to use the Business Object Details and Data Sources reports to determine which data sources, data source filters, and fields contain built-in prompts.

TASK #1: IDENTIFY A BUILT-IN PROMPT

1. Sign in as Logan McNeil (lmcneil).
2. Locate the report definition for the WICT RW Worker Expense Reports Demo
3. In the Data Source Filter field, select **All Employees**.
4. Click the Related Actions icon for the All Employees data source filter.

   Note that in the Comment field, there is a description of the data source filter. This description notes that this data source filter "contains built-in prompts for ~employee~ type, Include Terminated Workers, and exclude from headcount."

5. Navigate to the Prompt tab. If you do not see them already, select the Populate Undefined Prompt Defaults checkbox to see the Employee Type, Include Terminated Workers, and Exclude from Headcount prompts. Why are these prompts included here?

TASK #2: USE THE BUSINESS OBJECT DETAILS REPORT

1. Access the **Business Object Details** report.
2. Select **Journal Line** in the Business Object field.
3. Click **OK**.
4. Filter the Field Type field by **Currency**.
5. Scroll down to the Capitalized Costs field. Does this field have built-in prompts? If yes, which ones?

TASK #2: USE THE DATA SOURCES REPORT

1. Access the **Data Sources** report.

2. Filter the Data Source field by **Billable Project Transactions**. Does the Billable Project Transactions data source have built-in prompts? If yes, which ones?

3. Filter the Data Source field by **Journal Lines**. Does the Beginning Balance Translation Amounts data source filter have built-in prompts? If yes, which ones?

ACTIVITY 4.1 – ADD FILTER PROMPTS

Business Case: Logan McNeil needs to modify her custom report again. This time she needs to replace the hard-coded filters with prompts.

TASK #1: PROMPT FOR LOCATION

1. Sign in as Logan McNeil (lmcneil).
2. Edit the **WICT RW Worker Expense Reports** custom report.
3. Click the **Filter** tab.
4. For the Location field, select **Common > Prompt the user for the value** in the Comparison Type field.
5. Click **OK**.
6. Click **Run**.

   Notice now that there is one additional prompt for Location.
7. Leave the Location blank and click **OK**. Notice that the report does not return any results.
8. Edit the custom report.
9. Click the **Prompts** tab.
10. Enter *Please select values for this report.* in the Instructions field.
11. Select the **Populate undefined Prompt Defaults** checkbox. This will add any undefined prompts to the Prompt Defaults grid. After the values are added to the grid, this box will become unchecked. This is expected behavior.

    Now you see the four three prompts included in this report. Remember, the Employee Type, Include Terminated Workers, and Remove Exclude from Headcount prompts come with the All Employees data source filter. The Location prompt appears because of the filter configuration we just made.
12. For the Employee Type, Include Terminated Workers, and Remove Exclude from Headcount rows, select the **Do Not Prompt at Runtime** checkbox.
13. For the Location row, select the **Required** checkbox.

14. Click **OK**.
15. Click **Run**.

    Now the Location prompt is the only one that appears, and it is marked as required.

16. Click **OK** and notice that you get an error message that Location must have a value.
17. Select London in the Location field and click **OK**. Verify that the report only shows workers from London.

TASK #2: PROMPT FOR EXPENSE REPORT ITEMS AND AMOUNT

1. Edit the custom report.
2. Click the **Subfilter** tab.
3. For the Expense Report Total Amount field, select **Common > Prompt the user for the value** in the Comparison Type field.
4. For the Expense Items on Expense Report field, select **All > Prompt the user for the value and ignore the filter condition if the value is blank** in the Comparison Type field.
5. Click the **Prompts** tab.
6. Select the **Populate undefined Prompt Defaults** checkbox.
7. For the Expense Items on Expense Report field, enter *Expense Items (optional)* in the Label for Prompt field.
8. For the Expense Report Total Amount field, enter the following information:

Field Name	***Entry Value***
Default Type	Specify default value
Default Value	1000
Required	Select checkbox

9. Click **OK**.
10. Click **Run**.
11. Enter the following prompt values:

Field Name	*Entry Value*
Location	London
Expense Items (optional)	Leave blank
Expense Report Total Amount	Leave the default value

12. Click **OK**. Verify that the report only shows workers from London. Also verify that the report only shows expense reports whose amount is greater than 1000.

ACTIVITY 4.2 – ADD A FIELD WITH A BUILT-IN PROMPT

Business Case: Logan McNeil wants to change her custom report so that expense report amounts are all displayed in USD.

TASK #1: ADD A FIELD WITH A BUILT-IN PROMPT

1. Sign in as Logan McNeil (lmcneil).
2. Edit the **WICT RW Worker Expense Reports** custom report.
3. On the Columns tab, change the Expense Report Total Amount field to **Expense Report Total Amount in Reporting Currency**.
4. Select **Show Currency Symbol** and **Show Currency Code Column** in the Options field for Expense Report Total Amount in Reporting Currency.
5. On the Subfilter tab, change the first row in the grid to the following:

Field Name	***Entry Value***
Field	Expense Report Total Amount in Reporting Currency
Operator	greater than
Comparison Type	Prompt the user for the value
Comparison Value	Default Prompt

6. Click the **Prompts** tab.
7. In the Prompt Defaults grid, change the Expense Report Total Amount field to **Expense Report Total Amount in Reporting Currency**.
8. Set the Default Value to *1000*.
9. Select the **Populate undefined Prompt Defaults** checkbox. This will add the Reporting Currency field to the Prompt Defaults grid. Remember that you did not add this field as a filter. This prompt is coming directly from the Expense Report Total Amount in Reporting Currency field.
10. Enter the following values for the Reporting Currency field:

Field Name	*Entry Value*
Default Type	Specify default value
Default Value	USD
Do Not Prompt at Runtime	Select checkbox

11. Click **OK**.
12. Click **Run**. Notice that you are not prompted for the Reporting Currency. This is because you selected the Do Not Prompt at Runtime checkbox.
13. Select **London** and **Singapore** for the Location field.
14. Click **OK**. Verify that the report shows the total amount in U.S. Dollars.

SCENARIO (ON YOUR OWN)

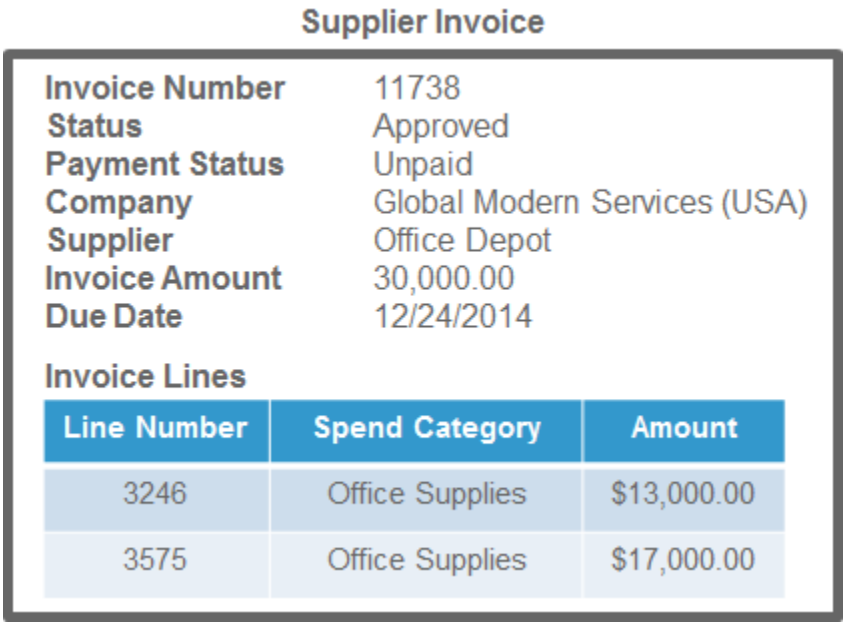
Teresa needs to create a report showing approved supplier invoices that are unpaid or partially paid. The report should prompt the user for which spend categories to display and ignore a blank value.

These are the fields she needs to display in the report:

Supplier Invoice Document	Company	Supplier	Due Date	Invoice Amount in Base Currency	Document Payment Status	Supplier Invoice Lines		
						Supplier Invoice Line	Spend Category	Extended Amount in Company Base Currency
11735	GMS (USA)	Corp. Express	12/21	$25,000	Unpaid	23250	Office Supplies	$25,000
11738	GMS (USA)	Office Depot	12/24	$30,000	Unpaid	3246	Office Supplies	$13,000
						3575	Office Supplies	$17,000

REPORTING ON SUPPLIER INVOICES

Based on the scenario, Teresa needs to report on the approved supplier invoices that are unpaid or partially paid. In Workday, you can create a supplier invoice that contains information about the invoice as well as the individual invoice lines.



Supplier Invoice

Invoice Number	11738
Status	Approved
Payment Status	Unpaid
Company	Global Modern Services (USA)
Supplier	Office Depot
Invoice Amount	30,000.00
Due Date	12/24/2014

Invoice Lines

Line Number	Spend Category	Amount
3246	Office Supplies	$13,000.00
3575	Office Supplies	$17,000.00

50 - Supplier Invoice header and line information

Workday stores the data in the following business objects:

- Supplier Invoice – Contains information about the invoice, including Invoice Number and Status.
- Supplier Invoice Line – Contains information about a single invoice line, including Line Number and Spend Category.

The Supplier Invoice business object has a one-to-many (1:M) relationship to the Supplier Invoice Line business object.

Note: The Supplier Invoice business object does not have any data sources available for use in reporting. However, the Supplier Invoice Document business object has the Supplier Invoice data source necessary to retrieve invoice data. You will use this Suppler Invoice data source in your next activity.

ACTIVITY 4.3 – CREATE A CUSTOM REPORT (ON YOUR OWN)

Business Case: Teresa Serrano needs to create a report showing approved supplier invoices that are unpaid or partially paid. The report should prompt the user for which spend categories to display and ignore a blank value. Try to complete this activity on your own using the directions below. If you have problems or get stuck on what to do next, see Appendix B of the course manual for a walkthrough.

ACTIVITY OBJECTIVES

1. Sign in as Teresa Serrano (tserrano).
2. Create a custom report and name it *WICT RW Unpaid Supplier Invoices*.
    a. Use Advanced as the report type and Supplier Invoices as the data source.
    b. Use Supplier Invoices Filter as the data source filter.
3. Add fields.
    a. Fields from the Supplier Invoice Document business object: Supplier Invoice Document, Company, Supplier, Due Date, Invoice Amount in Base Currency, and Document Payment Status.
    b. Fields from the Supplier Invoice Lines business object: Supplier Invoice Line, Spend Category as Worktag, and Extended Amount in Company Base Currency.
4. Add filters.
    a. Filter by Document Payment Status contains Partially Paid or Unpaid.
    b. Filter by Invoice Status contains Approved.
    c. Filter by Supplier Invoice Lines is not empty.
5. Add a subfilter. Subfilter by Spend Category as Worktag contains value from prompt (ignore if blank).
6. Populate undefined prompts.

7. Run the report for Global Modern Services, Inc. (USA). You should be prompted for Spend Category. Select Office Supplies. Your results should only show the unpaid office supply invoices.

Note: The solution report is in the tenant under WDINST RW Unpaid Supplier Invoices.

CHAPTER 4 KNOWLEDGE CHECK

1. A custom report has a prompt for Include Subordinate Organizations. How can you set the prompt value to always be yes and hide this prompt from users? (Select two correct answers)

    A. Select Specify Default Value and identify the default selection

    B. Add a filter to include subordinate organizations

    C. Select the Do Not Prompt at Runtime checkbox

    D. Use a different data source without a default prompt

2. Which of the following is **not** a source of prompts on a report?

    A. Data Source Filter

    B. Data Source

    C. Report Field

    D. Business Object

CHAPTER 5 – TOTALING, GROUPING, AND OUTLINING

OVERVIEW

In this chapter, you will learn how to configure totaling, grouping, and outlining. When building a custom report using the Advanced report type, you can display subtotals, grand totals, headers, groupings, and collapsible and expandable outlines.

OBJECTIVES

By the end of this chapter, you will be able to:

- Display subtotals and grand totals on a report.
- Group the data on a report.
- Enable collapsible and expandable outlining.

SCENARIO

Teresa Serrano needs to create a report that totals expense items for a worker by cost center and region.

The report should display the following information:

- Total amount of expense items by cost center
- Total amount of cost center expense items within a region
- Grand total of expense items
- Expandable and collapsible groupings to easily visualize the data

These are the fields, headers, groupings, and totals that she needs to display in the report.

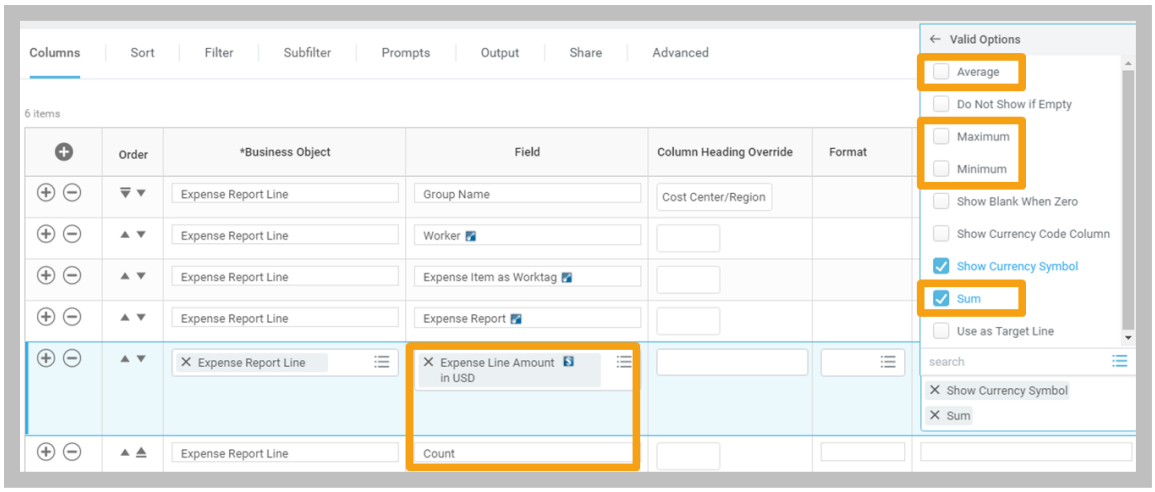
Cost Center/Region	Worker	Expense Item as Worktag	Expense Report	Expense Line Amount in USD	Count
US – West (Region)					
71200 Field Sales (Cost Center)					
	Rodrigo Sanchez	Meals	EXP-5047	$570.85	
	Rodrigo Sanchez	Airfare	EXP-5047	$998.59	
	Rodrigo Sanchez	Lodging	EXP-5047	$1,092.29	
▲ 71200 Field Sales (Cost Center)				$2,661.73	9
▲ US – West (Region)				$2,661.73	9
Grand Total				$98,687.65	205

TOTALING

When building a custom report using the Advanced report type, you can display subtotals and a grand total. These are the steps to set up totaling.

1. On the Columns tab, select a numeric or currency field (or fields) to aggregate. You can select Average, Maximum, Minimum, or Sum in the Options field. You can only select one aggregation option per row.

2. (Optional) Add the Count global field as a column in the report. The report will display the count of instances for each subtotal and the grand total.



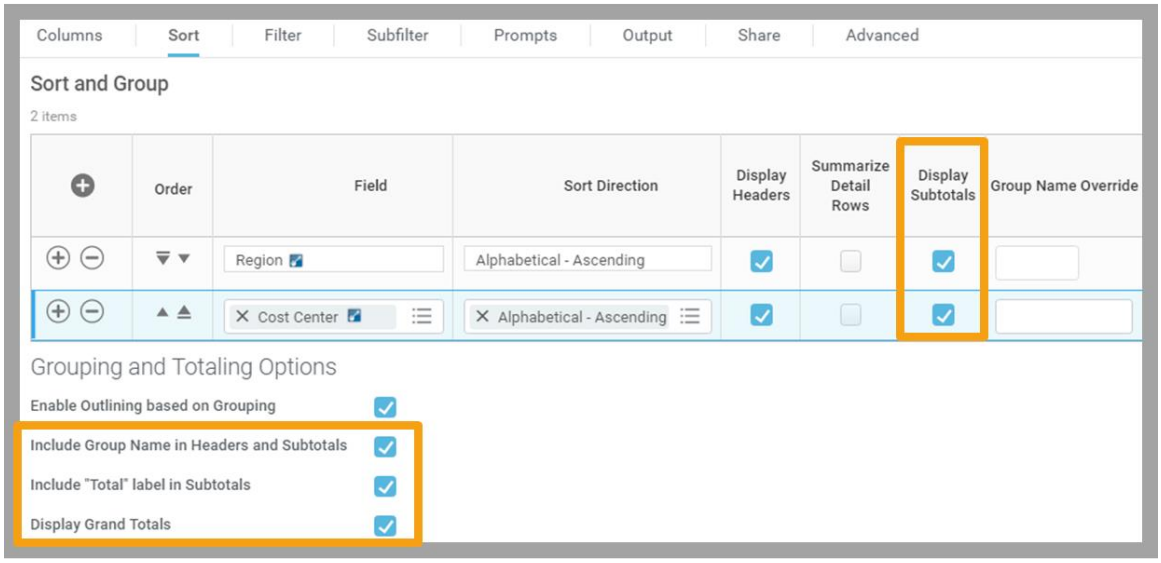
51- Setting up Totaling on the Columns Tab

3. On the Sort tab, select which sort levels on the report should display a subtotal for all their instances.

4. Select if the report should include the group name in subtotals. In the following example, either Region or Cost Center will appear in the subtotal rows.

5. Select if the report should include the word “Total” in subtotal rows.

6. Select if the report should display a grand total for all instances in the report.



52 - Setting up Totaling on the Sort Tab

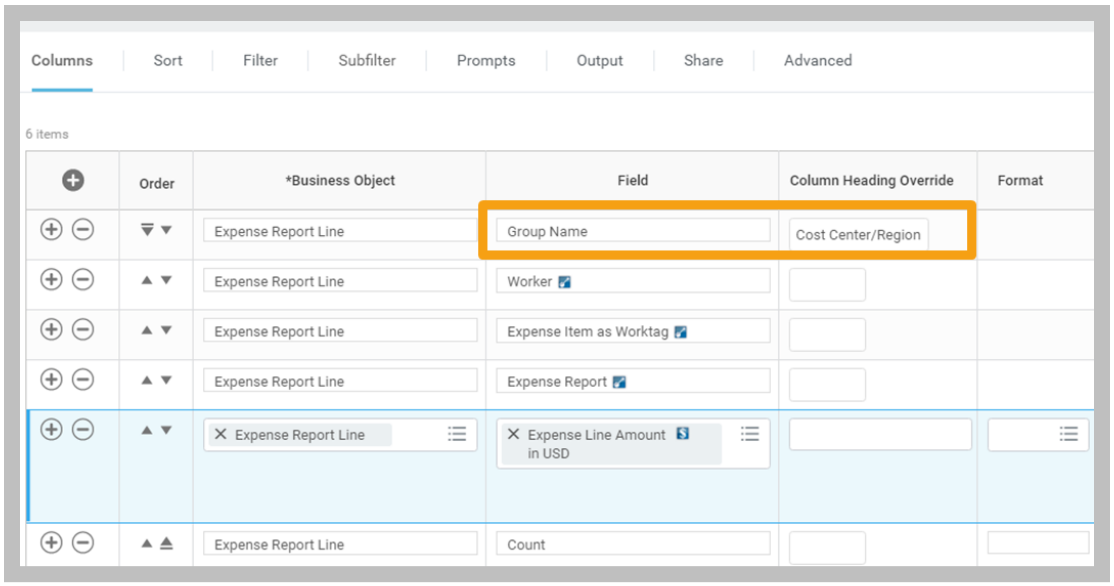
Important:

- If the aggregation type is Sum, subtotals and the grand total will show the sum of the data.
- If the aggregation type is Average, subtotals and the grand total will show the average value of the data.
- If the aggregation type is Maximum, subtotals and the grand total will show the maximum value of the data.
- If the aggregation type is Minimum, subtotals and the grand total will show the minimum value of the data.

GROUPING

When building a custom report using the Advanced report type, you can add groupings to easily visualize the data. These are the steps to set up grouping.

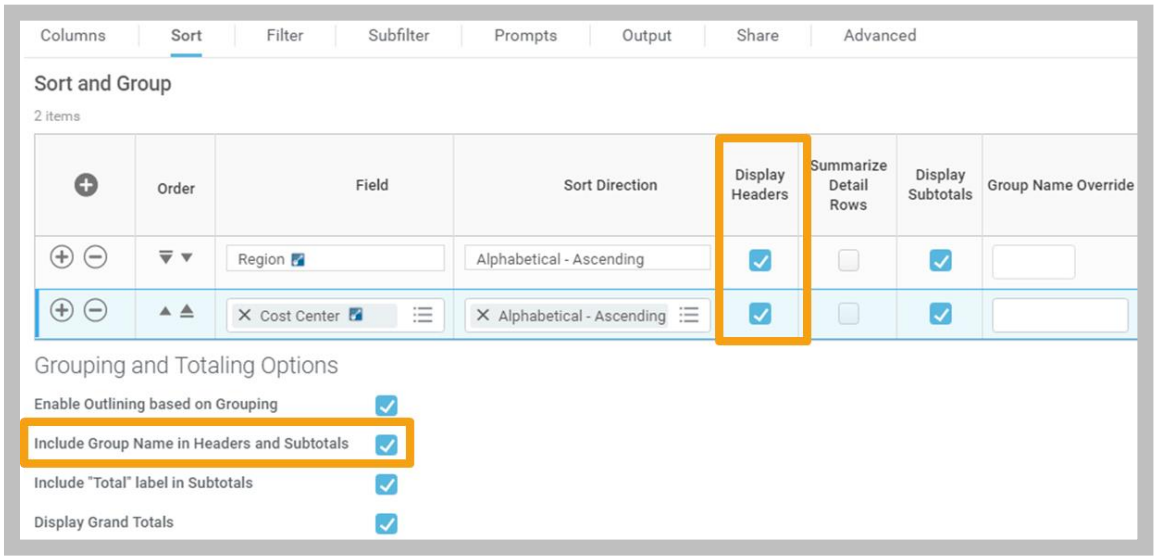
1. On the Columns tab, add the Group Name global field to the top of the Columns grid. You can also override the column heading for this field.



53- Setting up Groupings on the Columns Tab

2. On the Sort tab, select which groups should have a header line at the top of the group.

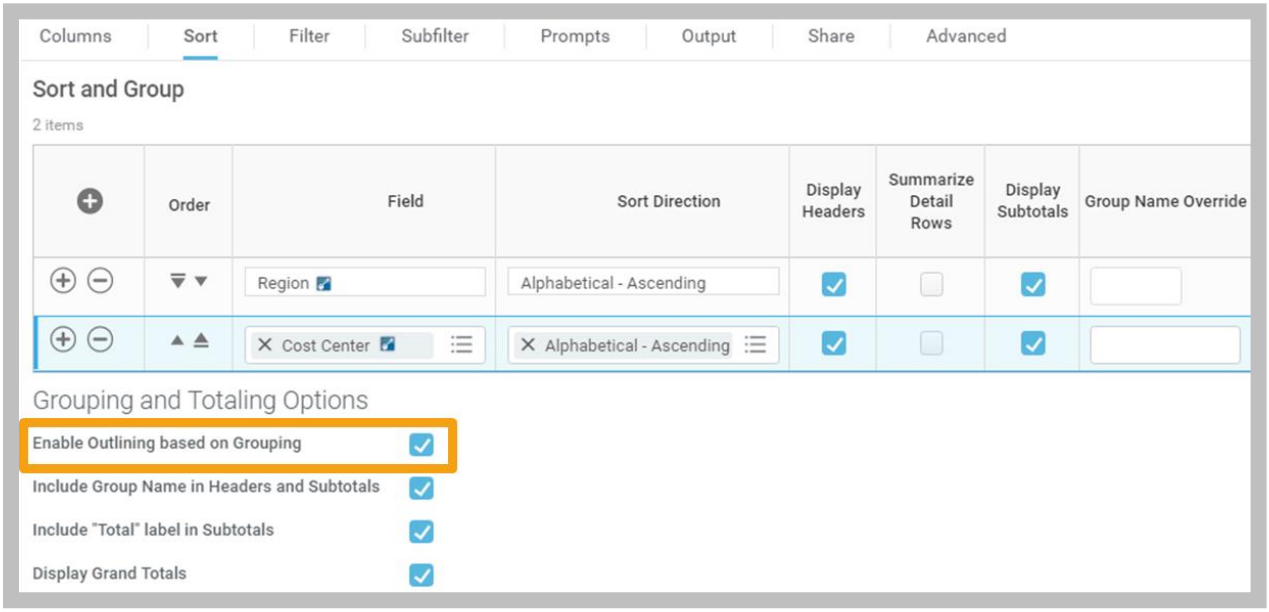
3. Select if the report should include the group name in headers. In the example below, either Region or Cost Center will appear in the header rows.



54 - Setting up Groupings on the Sort Tab

OUTLINING

When building a custom report using the Advanced report type, you can enable outlining to expand and collapse groupings. On the Sort tab, you can select the Enable Outlining based on Grouping checkbox.

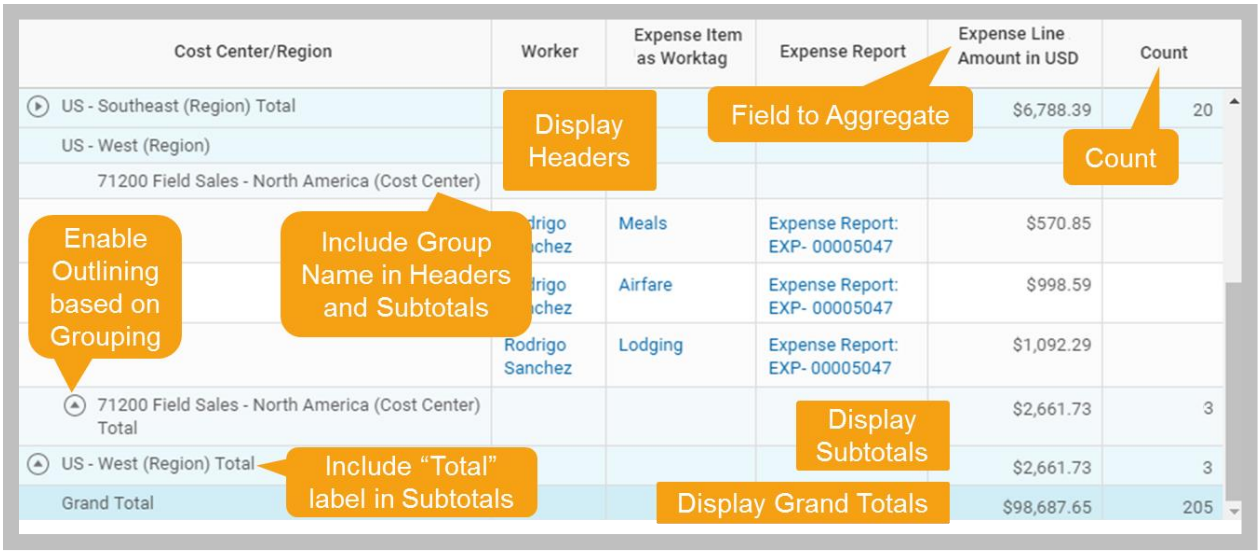


55 - **Enabling Outlining on the Sort Tab**

Note: In order to use outlining, all fields on the report must be from the primary business object.

REPORT OUTPUT

The following image shows how the totaling, grouping, and outlining options map to the report output.



56 - How Totaling, Grouping, and Outlining Options Map to Report Output

These are the totaling, grouping, and outlining options.

Option	Description
Field to Aggregate	Field used in subtotals and grand totals.
Count	Displays the count of instances for each subtotal and the grand total.
Display Subtotals	Shows the total amount for selected groupings.
Display Grand Totals	Shows the grand total.
Display Headers	Shows headers for selected groupings to make the data easier to read.
Include Group Name in Headers and Subtotals	Shows the name of the grouping in heading and subtotals.
Include "Total" label in Subtotals	Shows the word Total in subtotals.
Enable Outlining bases on Grouping	Allows you to expand and collapse groupings.

ACTIVITY 5.1 – CONFIGURE TOTALS, GROUPING, AND OUTLINING

Business Case: Teresa Serrano needs to create a report that totals expense items for a worker by cost center and region. The report should include expandable and collapsible groupings, subtotals, and a grand total.

TASK #1: COPY A CUSTOM REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Access the **Copy Custom Report** task.
3. Select **WDINST RW Expense Report Lines for Date Range** in the Report Name field and click **OK**.
4. Rename the report to *WICT RW Expense Report Lines for Date Range.*
5. Click **OK**. Notice that this report uses an indexed data source.
6. Click the **Filter** tab. Notice that this report will prompt the user for a start and end Expense Report Accounting Date.
7. Navigate to the **Advanced** tab.
8. Select the **Enable Save Parameters** checkbox. This will allow you to save the prompt values when running this report.
9. Click **OK** and then click **Run**.
10. Enter the following information in the report prompts:

Field Name	***Entry Value***
Company	Global Modern Services (USA)
Starting Expense Report Accounting Date	01/01/2016
Ending Expense Report Accounting Date	12/31/2016

11. Enter *GMS 2016* in the Untitled Filter box and click **Save**.
12. Click **OK** and view the results.

TASK #2: ADD SUBTOTALS AND A GRAND TOTAL

1. Edit the custom report.
2. Select **Show Currency Symbol** and **Sum** in the Options field for Expense Line Amount in USD. This is the field you will aggregate for subtotals and the grand total.
3. Click the **Sort** tab.
4. Add two rows to the Sort and Group grid. You will add the Region and Cost Center fields to this grid, since you want to display subtotals at these levels.
5. Enter the following information in the first row:

Field Name	***Entry Value***
Field	Fields on Report > Region
Sort Direction	Alphabetical - Ascending
Display Subtotals	Select checkbox

6. Enter the following information in the second row:

Field Name	***Entry Value***
Field	Fields on Report > Cost Center
Sort Direction	Alphabetical - Ascending
Display Subtotals	Select checkbox

7. In the Grouping and Totaling Options section, select the **Display Grand Totals** checkbox.
8. Click **OK** and then click **Run**.
9. Select **1 Saved Filters > GMS 2016**.
10. Click **OK**.
11. Scroll down to the bottom of the report.
    a. For the US – West Region, what is the total expense line amount for the 71200 Field Sales – North America cost center?
    b. What is the total expense line amount for the US – West region?

c. What is the grand total expense line amount?

TASK #3: ADD THE COUNT FIELD

1. Edit the custom report.
2. Add a row to the bottom of the columns grid.
3. Select **Count** for the Field.
4. Click **OK** and then click **Run**.
5. Select **1 Saved Filters > GMS 2016**.
6. Click **OK**. Notice that the report displays the count of instances for each subtotal and the grand total.
7. Scroll down to the bottom of the report.
    a. In the US West region, how many expense reports are included in the subtotal for the 71200 Field Sales – North America cost center?
    b. How many expense reports are included in the subtotal for the US – West region?
    c. How many expense reports are included in the grand total?

TASK #4: ADD GROUPINGS

1. Edit the custom report.
2. Add a row to the top of the Columns grid.
3. Select **Group Name** for the Field.
4. Click **OK** and then click **Run**.
5. Select **1 Saved Filters > GMS 2016**.
6. Click **OK**.
7. Scroll down to the bottom of the report.
    a. For the third to last row, what information is captured in the Group Name column?

b. For the second to last row, what information is captured in the Group Name column?

c. For the last row, what information is captured in the Group Name column?

8. Edit the custom report.
9. Remove the **Region** and **Cost Center** fields from the Columns grid, since this information is now captured in the Group Name column.
10. Enter **Region/Cost Center** in the Column Heading Override field for Group Name.
11. Click the **Sort** tab.
12. In the Sort and Group grid, select the **Display Headers** checkbox for the Region and Cost Center fields.
13. In the Grouping and Outlining Options section, select the **Include Group Name in Headers and Subtotals** and **Include "Total" label in Subtotals** checkboxes.
14. Click **OK** and then click **Run**.
15. Select **1 Saved Filters > GMS 2016**.
16. Click **OK**.
17. Scroll down to the Headquarters – Corporate (Region) header. Notice that the group name (Region) is included in the header.
18. Scroll down to the 10000 Office of CEO (Cost Center) Total subtotal. Notice that the group name (Cost Center) is included in the subtotal name. Also notice that the word "Total" is included in the subtotal name.

TASK #5: ADD OUTLINING

1. Edit the custom report.
2. Click the **Sort** tab.
3. In the Grouping and Totaling Options section, select the **Enable Outlining based on Grouping** checkbox.
4. Click **OK** and then click **Run**.
5. Select **1 Saved Filters > GMS 2016**.

6. Click **OK.**
7. Expand and collapse the groupings to view the details of the report.
8. Click the **Export to Excel** icon at the top of the grid.
9. Open the exported Excel file. Notice that you can expand and collapse the groupings in Excel.
10. Click the **View Printable Version (PDF)** icon at the top of the page.
11. Open the exported PDF file. Notice that the file only shows the top level of the outline.

SUMMARY REPORTS

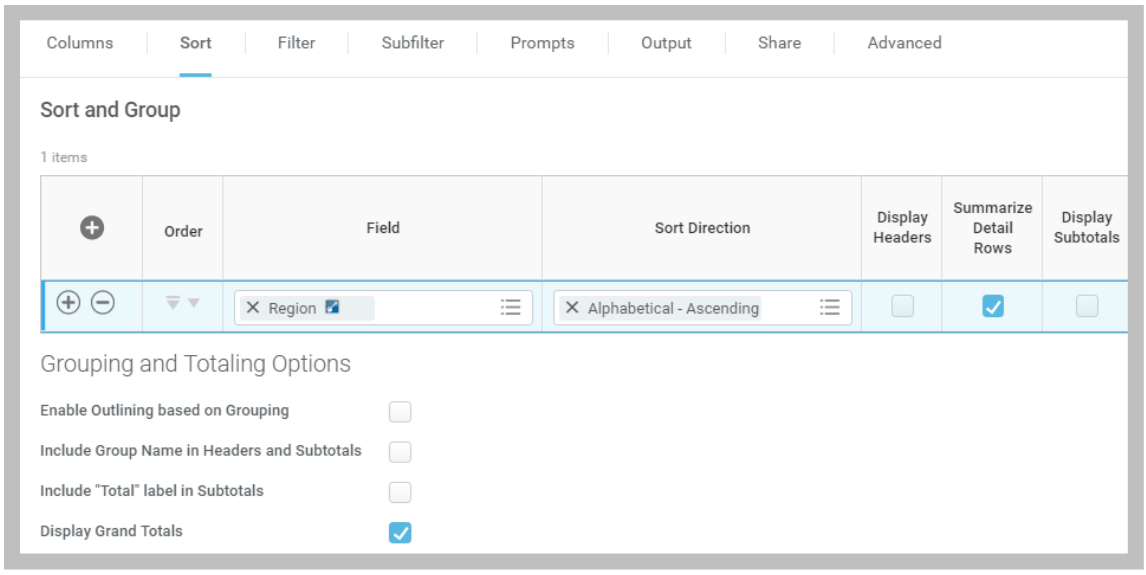
When building a custom report using the Advanced report type, you can also generate summary reports. These reports only show totals, without any of the detail data. The following example shows the report summarized by the Region Field.

Region	Expense Line Amount in USD
	$26,689.98
Headquarters - Corporate	$44,209.95
US - Central	$14,161.67
US - Northeast	$4,175.93
US - Southeast	$6,788.39
US - West	$2,661.73
	$98,687.65

57 - Summary Report

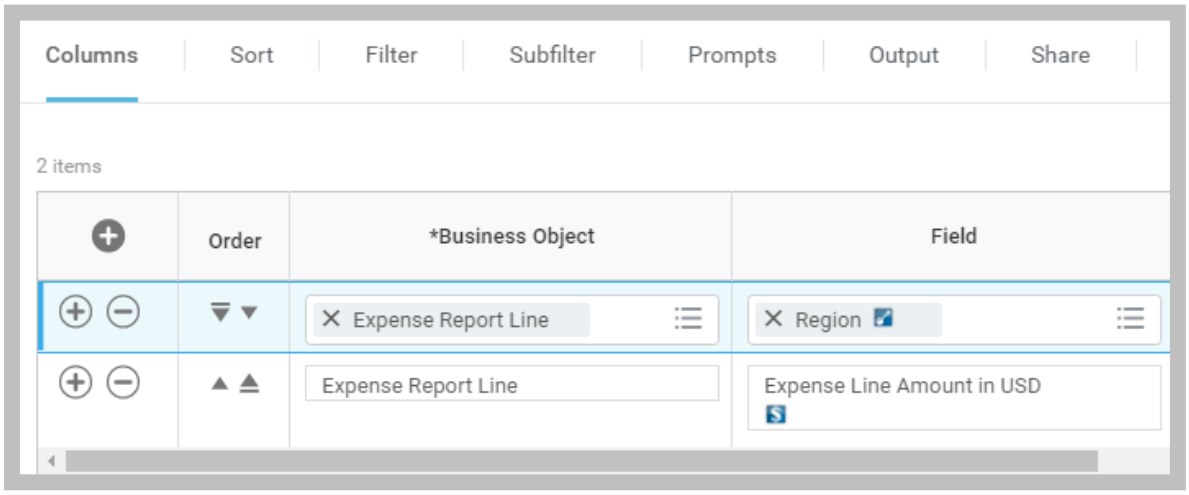
These are the steps to configure a summary report.

1. On the Sort tab, select the Summarize Detail Rows checkbox. Only the last row in the Sort and Group grid can have the Summarize Detail Rows checkbox selected.



58- Setting up Summary Reports on the Sort Tab

2. Remove fields from the Columns tab that are not used to sort or aggregate the data. You will get an error message if the Columns tab includes additional fields



59 - Setting up Summary Reports on the Sort Tab

(OPTIONAL) ACTIVITY 5.2 – CREATE A SUMMARY REPORT

Business Case: Teresa Serrano needs to create a summary version of the report to see the total amount of the expense lines for each region in the Global Modern Services organization.

TASK #1: COPY A CUSTOM REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Access the **Copy Custom Report** task.
3. In the Report Name field, select the **WICT RW Expense Report Lines for Date Range** report and click **OK** to continue.
4. Name your new report *WICT RW Expense Report Lines for Date Range – Summary* and click **OK** to continue.
5. Navigate to the **Sort** tab and remove the Cost Center sort row.
6. In the Region sort row, enter the following information:

Field Name	***Entry Value***
Field	Region
Sort Direction	Alphabetical – Descending
Display Headers	(unchecked)
Summarize Detail Rows	(checked)
Display Subtotals	(unchecked)

7. In the Grouping and Totaling Options, deselect the checkboxes for:
   A. Enable Outlining based on Grouping
   B. Include Group Name in Headers and Subtotals
   C. Include “Total” label in subtotals

   Leave the checkbox selected for Display Grand Totals.

8. Navigate back to the **Columns** tab.
9. Remove the following rows:
    A. Group Name
    B. Worker
    C. Expense Item as Worktag
    D. Expense Report
    E. Count

    Note that you must remove any fields that are not used to sort or aggregate the data.
10. Since you've removed the Group Name field, add a column to the top of the grid and select **Region** as the field.
11. Click **OK** to save the report.
12. Run the report using the following settings:

Field Name	***Entry Value***
Company	Global Modern Services Inc. (USA)
Starting Expense Report Accounting Date	01/01/2016
Ending Expense Report Accounting Date	12/31/2016

Now you see the report output only contains each region in the GMS USA organization, and the total amount of expense lines for each region.

CHAPTER 5 KNOWLEDGE CHECK

1. When totaling data on a report, how many aggregations can you select per row?

    A. One

    B. Two

    C. Three

    D. Four

2. What is the first step of setting up grouping in your report?

    A. Select which groups should have a header line at the top of the group

    B. Indicate if the report should have the group name in headers

    C. Add the Group Name field to the top of the columns grid

    D. Indicate if you want to enable outlining based on grouping

CHAPTER 6 – REPORT SECURITY

OVERVIEW

In this chapter, you will learn how security domains and security groups control access to reports and report data. You will also learn how to share custom reports with authorized users and troubleshoot report access issues.

OBJECTIVES

By the end of this chapter, you will be able to:

- Describe the security features that control access to reports and report fields.
- Share a report with other users.
- Troubleshoot report access issues.

SCENARIO

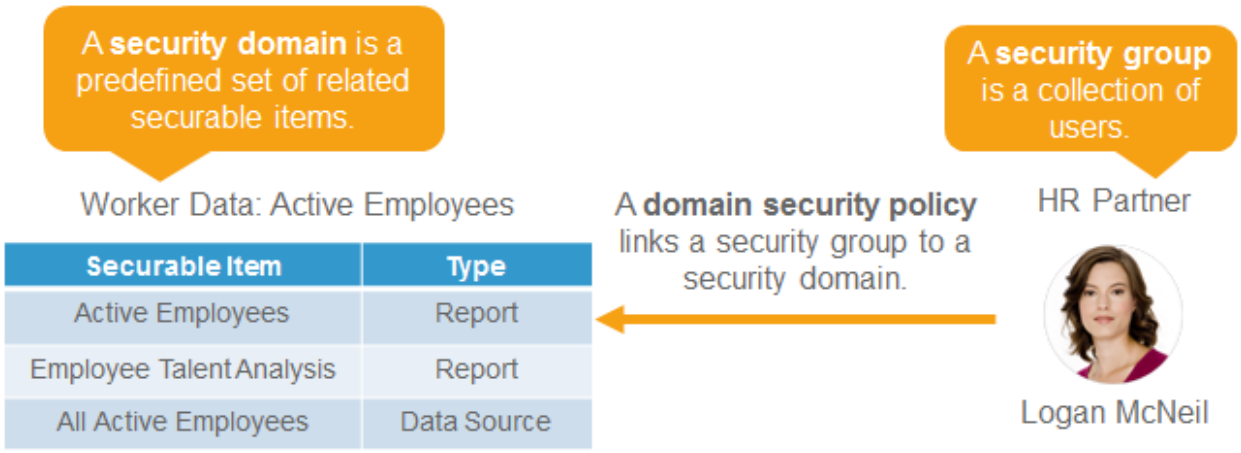
Logan McNeil needs to share an employee audit report with managers.

Employee	Supervisory Organization	Total Base Pay Annualized in USD - Amount	Hire Date	SSN	Age	Emergency Contacts
Nathan Moore	Accounts Payable	85,692.03	01/01/2000	342-10-2843	42	Alice Moore Robert Moore
Jerome Williams	Accounts Payable	80,832.55	01/01/2000	344-20-0127	37	James Williams Ruth Williams
Ian Murray	Accounts Payable	58,349.50	02/01/2013	567-34-9819	28	Samantha Murray

Betty Liu is the manager of the Payroll Department. She is also the payroll administrator for the tenant, which gives her additional access to certain data. Jack Taylor is the manager of the IT HelpDesk Department. They both need to run the report and see which reports fields and data they can access.

WORKDAY SECURITY MODEL

The Workday security model controls access to reports and report data.



60 - Graphical representation of the relationship between security domains, security domain policies, and security groups

A security domain is a predefined set of related securable items that include reports, tasks, report fields, data sources, and data source filters. The securable items that make up a domain cannot be changed. The example shows the Worker Data: Active Employees security domain. This security domain contains three securable items:

- Active Employees, which is a report.
- Employee Talent Analysis, which is a report.
- All Active Employees, which is a data source.

A security group is a collection of users. Membership is determined by explicitly identifying individual users or indirectly identifying users by their information, such as by the role assignment on their position, job details such as management level, or by their geographic location. In the example, the HR Partner security group has one member, Logan McNeil. This security group identifies users whose positions are assigned to the HR Partner role.

Each domain has its own domain security policy that controls access to the securable items in the domain. Users in the security group can have view or modify access to the securable items. In this example, Logan will be able to:

- Run the Active Employees and Employee Talent Analysis reports.
- Run a report that uses the All Active Employees data source.

All delivered items, including data sources, report fields, delivered reports, and tasks, are secured to domains. To access an item, users must belong to a security group with access to the domain securing the item. The security administrator can configure the domain security policies and add or remove security groups as needed.

The following table shows examples of using security domains and permitted security groups to control access to reports, tasks, data sources, and report fields.

Securable Item	Security Domain	Permitted Security Groups	Impact
Standard Report: Find Journal Lines	Process: Journals	Accountant Accounting Manager Company Financial Analyst Controller Finance Auditor Financial Management System Implementers	Members of these security groups can run this standard report.
Task: Create Custom Report	Custom Report Creation	Implementers Manager (Unconstrained) Report Writer Setup Administrator Temporary Report Writer	Members of these security groups can create custom reports.
Data Source: All Customer-Owned Deductions	Set Up: Payroll (Calculations - Payroll Specific)	Implementers Payroll Administrator Payroll Auditor Payroll Calculations Administrator Payroll Partner	Members of these security groups can create and run reports that use this data source (assuming the report has been shared with them).

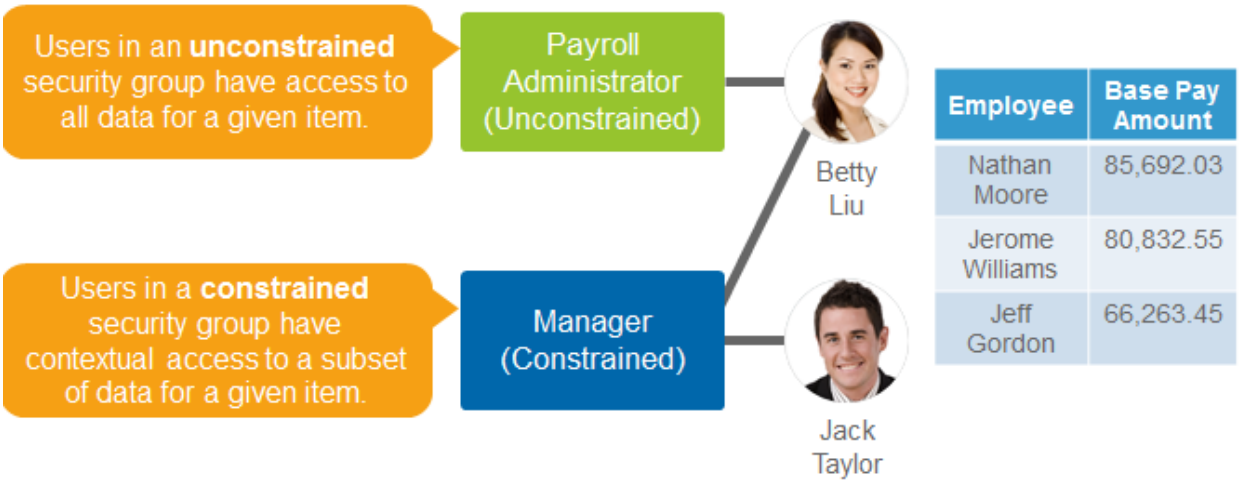
Report Field: Billing Schedule	Process: Billing	Accountant Accounting Manager Billing Specialist Cash Analyst Cash Manager Company Financial Analyst Controller Customer Contract Specialist Customer Contracts System Finance Auditor Implementers Revenue Specialist	Members of these security groups can access this report field and create reports with it.

UNCONSTRAINED VS. CONSTRAINED SECURITY GROUPS

A security group can be unconstrained or constrained. Users in an unconstrained security group have access to all data for a given item. Users in a constrained security group have contextual access to a subset of data for a given item. For constrained security groups, a user's access to specific data is controller either by their individual role or their organization.

In the following example, Betty Liu is a member of both the Payroll Administrator and Manager security groups. Jack Taylor is a member of the Manager security group. Let's assume that both the Payroll Administrator and Manager security groups have access to the Base Pay Amount report field. Betty can see all data for this report field, since she belongs to an unconstrained security group with access to the report field. Jack can only see his employee's (Jeff Gordon) data for this report field, since he belongs to a constrained security group with access to the report field.

Security Note: A user can be a member of many security groups. A user's access is the union of all their security group access.

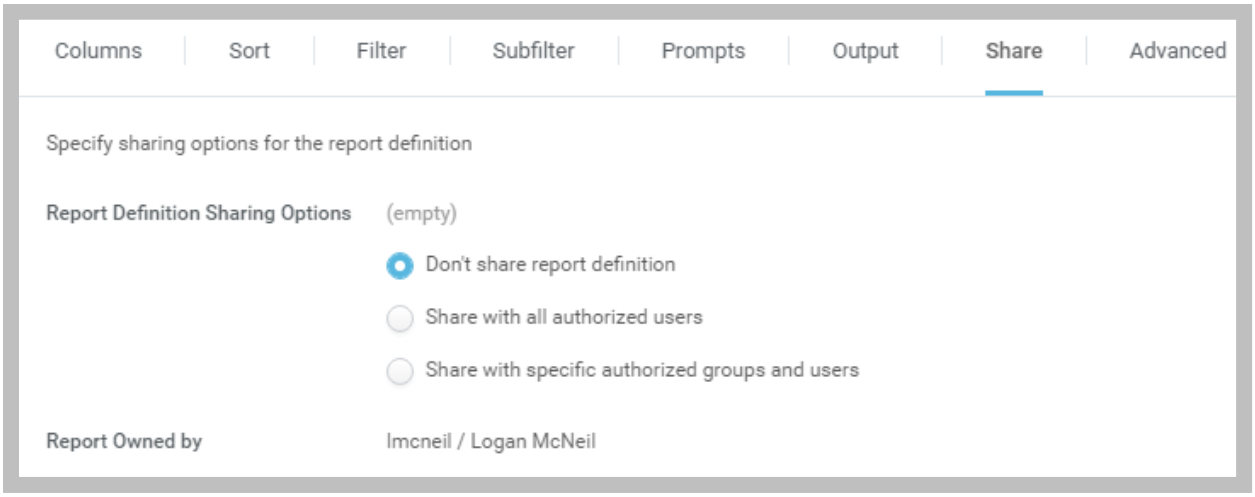


61 - Unconstrained security groups have access to all data for a given item, while constrained security groups only have access to a subset of data.

The most common security group types are user-based and role-based security groups. User-based security groups are unconstrained security groups that are manually assigned to users. User-based security groups are often used for administrators that need to see and set up data in the tenant for a given area. Role-based security groups are commonly constrained and allow you to identify members based on role-assignment as well as constrain members to target access in organizations assigned to the role.

SHARING REPORTS

By default, custom reports are not shared. A custom report is visible only to its owner (and to users who have access to manage all custom reports). The Share tab lets you share a custom report with authorized users. You can share a custom report with all users who have access to the report data source and data source filter, or you can share a report with specific groups and users who have access to the report data source. The domain securing the custom report's data source determines which security groups you can share the custom report with.



62 - Sharing Options

Security Note: You can control if report writers can use the different sharing options. Report writers must have access to these security domains to use the sharing options:

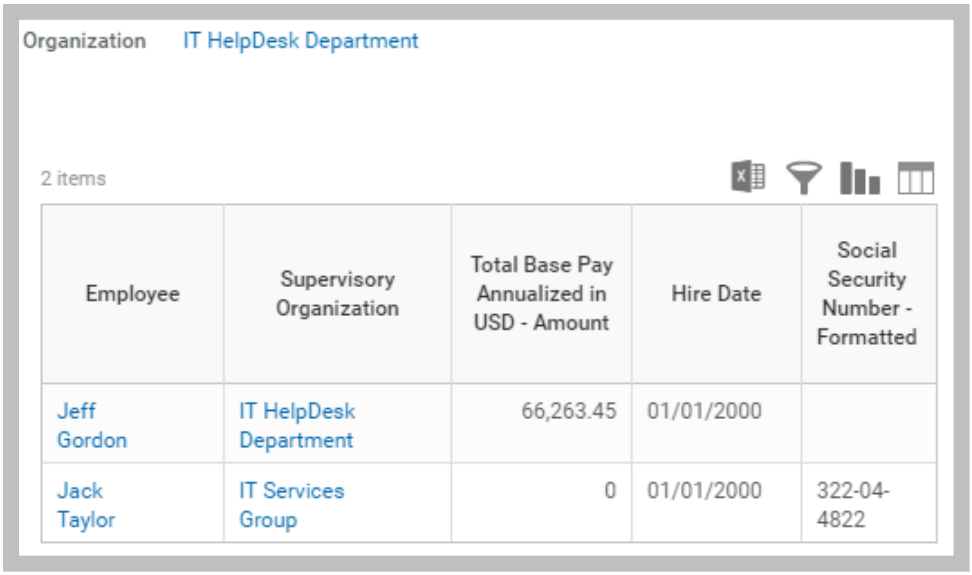
- Domain: Report Definition Sharing – All Authorized Users
- Domain: Report Definition Sharing – Specific Groups
- Domain: Report Definition Sharing – Specific Users

When a report is shared with users, they can run the report but they can't edit the report. Only the report owner (and those who can manage all custom reports) can edit their own custom reports. However, a shared user can view the report definition and copy the report definition if the shared user is also a report writer.

Note: You can use the Start Proxy task to easily test the report as a shared user. This lets you verify that a user can see the appropriate data in the report.

WHAT WILL USERS SEE ON A SHARED REPORT?

A user running a Shared report will see the report results based on their security to the data source, data source filter, and report fields. The following example shows the report output when Jack Taylor runs a shared report.



Organization IT HelpDesk Department

2 items

Employee	Supervisory Organization	Total Base Pay Annualized in USD - Amount	Hire Date	Social Security Number - Formatted
Jeff Gordon	IT HelpDesk Department	66,263.45	01/01/2000	
Jack Taylor	IT Services Group	0	01/01/2000	322-04-4822

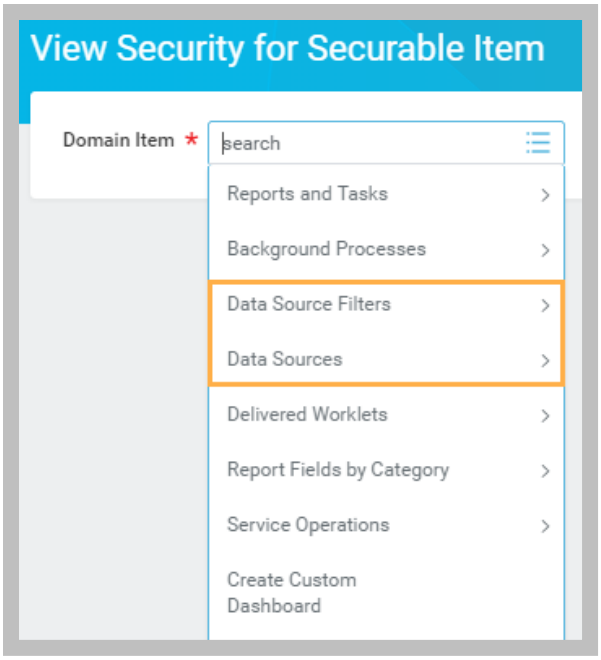
63 - Report Output when Jack Taylor Runs a Shared Report

The Workday security model determines what Jack can see on the report:

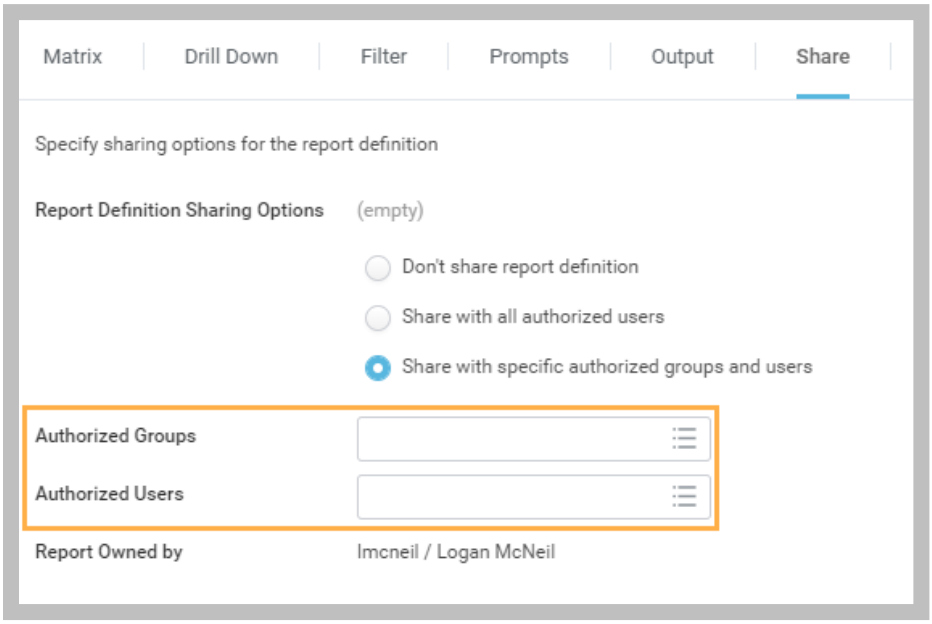
- He only sees 2 instances (rows) based on his access to the data source. Jack can only see employees in his organization (IT HelpDesk Department).
- He cannot see the Social Security Number for his employee Jeff Gordon. Jack has constrained access to this report field, so he can only see his own Social Security Number.
- He cannot see his own base pay amount. Even though Jack has access to this information in Workday, he has constrained access to the report field. On the report, he can only see his employee's base pay.
- He cannot see the Age and Emergency Contacts report fields at all in the output. Jack does not have any access to these report fields.

DATA SOURCE AND DATA SOURCE FILTER SECURITY

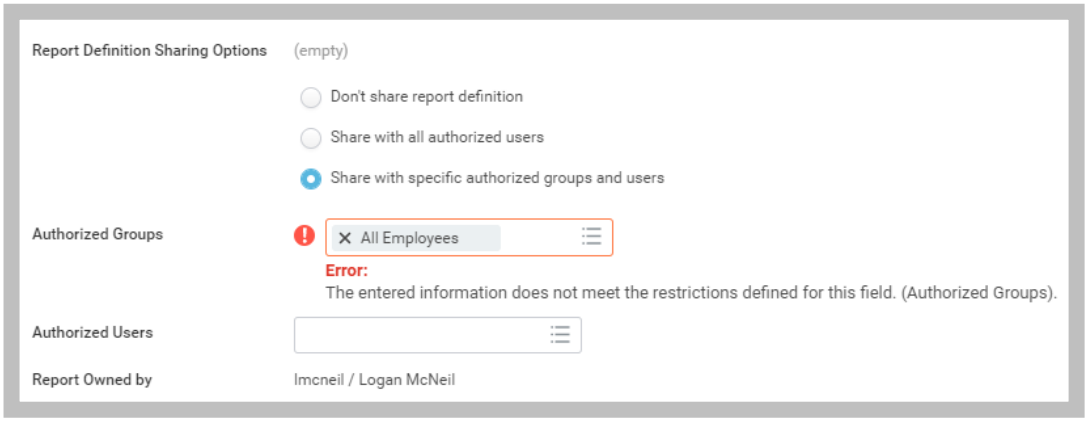
Both reports data sources and data source filters are tied to security domains. To determine if a user has access, or to grant a user security access to the necessary domain to see the report data, you will need to identify which domains a data source and data source filter are tied to. You can use the View Security for Securable Item report to view the security configurations for any object in the Workday system, including data sources and data source filters.



Remember, to share a report with a user, that user must belong to security groups that can access to both the report data source and the data source filter used in the report. When you select Share with specific authorized groups and users, prompts will appear for you to select which authorized security groups or users you wish to share the report with. Only security groups and users authorized to access both the report's data source and data source filter can be selected in these prompts.



Note: If you have shared a report with an allowed security group and subsequently change the data source filter for the report, you may receive an error if the security groups you have selected do not have access to the newly selected data source filter.



DEMO – SHARING AND SECURITY

Introduction: This demo will show you the how to share a report with authorized users. You will also see how security impacts what users see.

TASK #1: RUN THE REPORT AS THE REPORT OWNER

1. Sign in as Logan McNeil (lmcneil).
2. Copy the **WDINST RW Employee Audit by Organization** custom report.
3. Change the report name to *WICT RW Employee Audit by Organization Demo* and click **OK**.
4. Click the **Prompts** tab. Notice that the Organization field is defaulted to Global Modern Services, Inc. (USA). Also notice that the Include Managers and Include Subordinate Organizations fields have default values and are hidden from the user.
5. Click the **Share** tab and verify that the report is not shared with other users.
6. Run the report.
    a. How many instances does Logan see?
    b. Does Logan see all fields in the report? If no, which fields are missing?
    c. Does Logan see data in all the cells? If no, what data is missing?

TASK #2: SEARCH FOR THE REPORT AS A BETTY LIU

1. Access the **Start Proxy** task.
2. Select **Betty Liu** in the Act As field and click **OK**.
3. Search for the **WICT RW Employee Audit by Organization Demo** report. Why can't Betty see the report in the search results?
4. Access the **Stop Proxy** task.
5. Select the **Confirm** checkbox and click **OK**.

TASK #3: SHARE THE REPORT WITH SPECIFIC AUTHORIZED GROUPS

1. Edit the **WICT RW Employee Audit by Organization Demo** custom report.
2. Click the **Share** tab.
3. Select the **Share with specific authorized groups and users** checkbox.
4. Select **Manager** in the Authorized Groups field.
5. Click the **Output** tab and expand the **Help Text** section.
6. Enter *Manager Report – auditing information for active employees* in the Brief Description field.
7. Click **OK**.

TASK #4: RUN THE REPORT AS BETTY LIU

1. Access the **Start Proxy** task.
2. Select **Betty Liu** in the Act As field and click **OK**.
3. Access the **WICT RW Employee Audit by Organization Demo** report. (Notice that the help text displays in the Search Results.)
4. Run the report using Global Modern Service, Inc. (USA) as the Organization.
    a. How many instances does Betty see?
    b. Does Betty see all fields in the report? If no, which fields are missing?
    c. Does Betty see data in all the cells? If no, what data is missing?
5. Access the **Stop Proxy** task.
6. Select the **Confirm** checkbox and click **OK**.

TASK #5: VIEW THE SECURITY SETTINGS FOR BETTY LIU

1. Access the **View Security Groups for User** report.
2. Select **Betty Liu (Employee)** in the Person field.

3. Click **OK**. Here you will see a list of the security groups that Betty is a member of.

Security Note: Betty Liu will have access to the report based on the security groups that she is a member of.

4. Use this report to fill out the following table.

Security Group	*Constrained or Unconstrained?*
Management Chain	
Manager	
Payroll Administrator	
Payroll Interface Partner	
Payroll Partner	

5. View the report definition for the **WICT RW Employee Audit by Organization Demo** report. (Note: Do not view the report definition in edit mode.)

6. Click the Employee by Organization data source's **Related Actions**.

7. Hover over the **Security** action.

8. Right-click on **View Security** and select **See in New Tab**.

9. Click the **More** links to view all permitted security groups. Betty is a member of the Management Chain, Manager, Payroll Administrator, Payroll Partner, and Employee as Self security groups. These are all permitted security domains for this data source. Since Betty belongs to an unconstrained security group (Payroll Administrator), she can see all employees.

10. Close the tab and the Related Actions' pop-up.

11. Use the **Security > View Security** Related Actions for each of the following report fields to fill in the following table. (Hint: Use the table from the earlier step to see which security groups Betty belongs to.)

Report Field	*Which permitted security groups does Betty belong to?*	*What data can Betty see for this report field?*
Total Base Pay Annualized in USD - Amount		
Social Security Number – Formatted		
Age		
Emergency Contacts		

ACTIVITY 6.1 – SHARE A REPORT

Business Case: Logan McNeil needs to share an employee audit report with managers.

TASK #1: SHARE THE REPORT WITH SPECIFIC AUTHORIZED GROUPS

1. Sign in as Logan McNeil (lmcneil).
2. Copy the **WDINST RW Employee Audit by Organization** custom report.
3. Change the report name to *WICT RW Employee Audit by Organization* and click **OK**.
4. Click the **Share** tab.
5. Select the **Share with specific authorized groups and users** checkbox.
6. Select **Manager** in the Authorized Groups field.
7. Click **OK**.
8. Run the report accepting the default prompt value of Global Modern Services, Inc. (USA).
    a. How many instances does Logan see?
    b. What fields does Logan see?

TASK #2: RUN THE REPORT AS A JACK TAYLOR

1. Run the **Start Proxy** task.
2. Select **Jack Taylor** in the Act As field and click **OK**. Jack is the manager of the IT HelpDesk Department and he has one employee, Jeff Gordon.
3. Access the **WICT RW Employee Audit by Organization** report.
4. Click **OK** to run the report and notice that you get an error message. Jack cannot run the report for the Global Modern Services, Inc. (USA) organization. He can only run the report for his own organization.
5. Select **Organizations > IT HelpDesk Department** in the Organization field and click **OK**.

a. How many instances does Jack see?

b. Does Jack see all fields in the report? If no, which fields are missing?

c. Does Jack see data in all the cells? If no, what data is missing?

6. Run the **Stop Proxy** task.
7. Click **OK** to stop the proxy login.

TASK #3: VIEW THE SECURITY SETTINGS FOR JACK TAYLOR

1. Access the **View Security Groups for User** report.
2. Select **Jack Taylor (Employee)** in the Person field.
3. Click **OK**. Notice that Jack is a member of many security groups, including the following groups.

All Employees	Management Chain
All Managers' Managers	Manager
All Project Members	Manager's Manager
All Users	Manager (Job-Based)
Any Organization Role (Leadership or Supporting)	Manager (Unconstrained)
Canada and the United States (WD9 Conversion)	Manager for Majority of Event
Cost Center Manager	Manager - Integrations
Cost Center Manager Chain	Manager Pay Component Visibility
Dallas – All Workers	Organization Planner- Cost Center
Documents - Manager Categories	Primary Manager
Employee As Self	Primary Manager's Manager
Employee As Self (Canada and the United States - WD9 Conversion)	Project Member as Self
Employee Pay Component Visibility	Restricted Spend Category / IT Equipment
IT Workers	Unrestricted Spend Category / All Employees

Security Note: Jack will have access to the report based on the security groups that he is a member of.

4. Use the **View Security Groups for User** report to fill out the following table.

Security Group	*Constrained or Unconstrained?*
Management Chain	
Manager	

5. View the report definition for the **WICT RW Employee Audit by Organization** report. (Note: Do not view the report definition in edit mode.)

6. Click the Employee by Organization Data Source's **Related Actions**.

7. Hover over the **Security** action.

8. Right-click on **View Security** and select **See in New Tab**.

9. Click the **More** links to view all permitted security groups. Jack is a member of the Management Chain, Manager, and Employee as Self security groups. These are all permitted security domains for this data source. Since Jack belongs to constrained security groups, he can only see employees for his organization.

10. Return to the report definition page to review the report fields.

11. Use the **Security > View Security** related actions for the report fields listed below to fill in the following table. (Hint: Use the table from the earlier step where we reviewed Jack's security settings to see which security groups Jack belongs to.)

Report Field	*Which permitted security groups does Jack belong to?*	*On the report, what data can Jack see for this report field?*
Total Base Pay Annualized in USD - Amount		
Social Security Number – Formatted		

Age	
Emergency Contacts	

COMMON REPORT ACCESS ISSUES

The following table shows common report access issues that users face when running a shared report.

Issue	Root Cause
A user can't run a standard report.	The user doesn't have access to a domain securing the standard report.
A user can't run a custom report.	The custom report hasn't been shared with the user.
A user can't see report field data for certain instances.	The data is missing for these instances or the user belongs to a security group that has constrained access to the report field.
A user can't see a report field at all.	The user doesn't belong to a security group that has access to the report field.
A user sees a different number of instances than another user.	The user belongs to a security group that has constrained access to the data source or to report fields used in filters.
When running a report, a user gets an error that they don't have access to a report field.	The user doesn't belong to a security group that has access to a report field used to generate the report, such as in a filter or subfilter.

Below are the basic steps you should take when troubleshooting report access issues.

1. Verify that the user *should* have access to the report or data.
2. Determine which domains secure the standard report, data source, or report field and the permitted security groups.
3. Determine which security groups the user belongs to.
4. Add the user to a security group that already has access to the domain or edit the domain security policy to include a security group to which the user belongs.

You will need to work with your security team to view security groups, view security domains, and change the domain security policy. The security team can use these Workday standard reports to troubleshoot report access issues:

Standard Report	Description
View Security for Securable Item	Shows the security policies and permitted security groups for a securable item, such as a data source or report field.
View Security Groups for User	Shows which security groups a user belongs to.

Below are the specific steps you can take to troubleshoot each report access issue. Remember to first check that the user *should* have access to the report or data.

ISSUE – A USER CAN'T RUN A STANDARD REPORT

Root Cause	The user doesn't have access to a domain securing the standard report.
Resolution	1. Run the **View Security for Securable Item** report to identify the security domains and permitted security groups for the standard report. (Note: The standard report name is the securable item.) 2. Run the **View Security Groups for User** report to identify which security groups a user belongs to. 3. Add the user to a security group that already has access to the domain or edit the domain security policy to include a security group that the user belongs to.

ISSUE – A USER CAN'T RUN A CUSTOM REPORT

Root Cause	The custom report hasn't been shared with the user.
Resolution	1. View the **Share** tab of the custom report definition to see which authorized users and groups the report has been shared with. 2. Share the custom report with the user or with a security group that the user belongs to. If the report can't be shared with the user, then the user doesn't belong to a security group that has access to the custom report's data source. 3. Using the data source's Related Actions, select **Security > View Security** to identify the security domains and permitted security groups. (Note: You can also run the **View Security for Securable Item** report for the data source to get this information.) 4. Run the **View Security Groups for User** report to identify which security groups a user belongs to. 5. Add the user to a security group that already has access to the domain or edit the domain security policy to include a security group that the user belongs to. 6. Once security has been configured, share the custom report with the user or with a security group that the user belongs to.

ISSUE – A USER CAN'T SEE REPORT FIELD DATA FOR CERTAIN INSTANCES

Root Cause	The data is missing for these instances or the user belongs to a security group that has constrained access to the report field.
Resolution	1. Have a user with unconstrained access run the report and verify that data exists for these instances. 2. Using the report field's Related Actions, select **Security > View Security** to identify the security domains and permitted security groups. (Note: You can also run the **View Security for Securable Item** report for the report field to get this information.) 3. Run the **View Security Groups for User** report to identify which security groups a user belongs to. 4. See which security group gives the user access to the report field. 5. Verify that the security group is constrained, and confirm that the data should be hidden based on this constraint. 6. Edit the domain security policy for the report field to give the user unconstrained access.

ISSUE – A USER CAN'T SEE A REPORT FIELD AT ALL

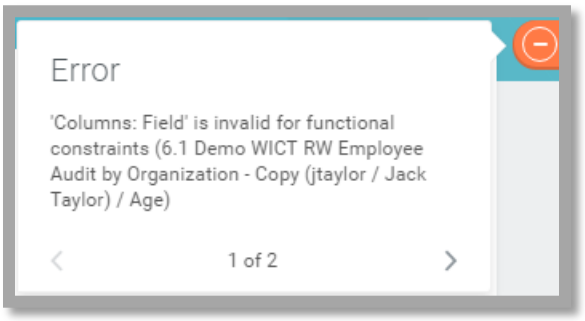
Root Cause	The user doesn't belong to a security group that has access to the report field.
Resolution	1. Using the report field's Related Actions, select **Security > View Security** to identify the security domains and permitted security groups. (Note: You can also run the **View Security for Securable Item** report for the report field to get this information.) 2. Run the **View Security Groups for User** report to identify which security groups a user belongs to. 3. Add the user to a security group that already has access to the domain or edit the domain security policy to include a security group that the user belongs to.

ISSUE – A USER SEES A DIFFERENT NUMBER OF INSTANCES THAN ANOTHER USER

Root Cause	The user belongs to a security group that has constrained access to the data source or to report fields used in filters.
Resolution	1. Run the **View Security Groups for User** report to identify which security groups a user belongs to. 2. Using the data source's Related Actions, select **Security > View Security** to identify the security domains and permitted security groups. (Note: You can also run the **View Security for Securable Item** report for the data source to get this information.) 3. See which security group gives the user access to the data source. 4. Verify that the security group is constrained, and confirm that the data should be hidden based on this constraint. 5. Using the report field's Related Actions, select **Security > View Security** to identify the security domains and permitted security groups. (Note: You can also run the **View Security for Securable Item** report for the report field to get this information.) 6. See which security group gives the user access to the report field. 7. Verify that the security group is constrained, and confirm that the data should be hidden based on this constraint. 8. Edit the domain security policy for the data source and/or report fields to give the user unconstrained access.

ISSUE – WHEN RUNNING A REPORT, A USER GETS AN ERROR THAT THEY DON'T HAVE ACCESS TO A REPORT FIELD.

Below is an example error message that a user gets when running a report where they don't have access to a field used in a report filter.



64 - Error Message

Root Cause	The user doesn't belong to a security group that has access to a report field used to generate the report, such as in a filter or subfilter.
Resolution	1. Read the error message to determine which field is causing the issue. 2. Using the report field's Related Actions, select **Security > View Security** to identify the security domains and permitted security groups. (Note: You can also run the **View Security for Securable Item** report for the report field to get this information.) 3. Run the **View Security Groups for User** report to identify which security groups a user belongs to. 4. Add the user to a security group that already has access to the domain or edit the domain security policy to include a security group that the user belongs to.

WHO CAN CREATE, EDIT, COPY, AND DELETE A CUSTOM REPORT?

Users with access to the Custom Report Creation security domain can create a custom report. Security domains control access to data sources and report fields. When creating a custom report, you must have access to:

- A security domain for the data source you want to use.
- Security domains for the report fields you want to add.

Prompts will only show the data sources and report fields that you have access to.

The report owner and users with access to the Manage: All Custom Reports security domain can edit and delete a custom report. You can't delete a custom report definition if it is used anywhere, such as a worklet on a dashboard.

TRANSFERRING OWNERSHIP OF A REPORT

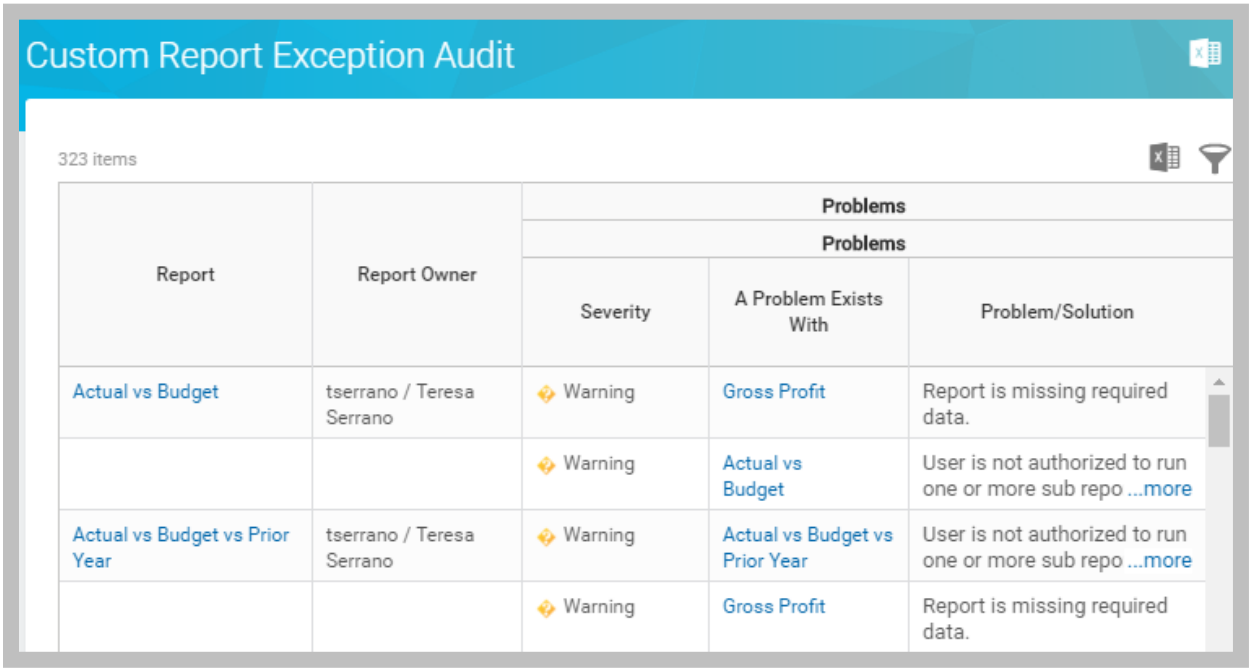
You can use the Transfer Ownership of Custom Reports task to change the owner of one or more reports to a different user. This is useful when people leave the company or change jobs. The new owner must have access to the report's data source and report fields and have access to the Custom Report Creation security domain.

65 - Transfer Owner of Custom Reports Task

Security Note: You must have access to the Custom Report Administration or Manage: All Custom Reports security domain to transfer ownership of reports owned by other users.

CUSTOM REPORT EXCEPTION AUDIT

You can run the Custom Report Exception Audit standard report to view warnings and errors for custom reports. This can be helpful when transferring ownership of a report to another user. You can transfer a report to another user as long the new owner has access to the data source. However, the new owner will get an error when they try to edit the custom report if they don't have access to all of the report fields. Running this report will identify these errors ahead of time.



Report	Report Owner	Problems		
		Problems		
		Severity	A Problem Exists With	Problem/Solution
Actual vs Budget	tserrano / Teresa Serrano	Warning	Gross Profit	Report is missing required data.
		Warning	Actual vs Budget	User is not authorized to run one or more sub repo ...more
Actual vs Budget vs Prior Year	tserrano / Teresa Serrano	Warning	Actual vs Budget vs Prior Year	User is not authorized to run one or more sub repo ...more
		Warning	Gross Profit	Report is missing required data.

66 - Custom Report Exception Audit

DEMO – COPYING A SHARED REPORT

Introduction: This demo will show you how to copy a shared report. You will also see how security issues can causes errors on a report.

TASK #1: RUN THE REPORT AS BETTY LIU

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Start Proxy** task.
3. Select **Betty Liu** in the Act As field and click **OK**.
4. Access the **WICT RW Employee Audit by Organization Demo** report.
5. Run the report using **Global Modern Service, Inc. (USA)** as the Organization.
6. Click the custom report's **Related Actions**.
7. Hover over the Custom Report action.
    a. Can Betty edit the custom report?
    b. Can Betty copy the custom report?
8. Click **Copy**.
9. Change the report name to *WICT RW Employee Audit by Organization Demo Betty* and click **OK**. Notice that you get one error message. Since Betty does not have access to the Emergency Contacts report field, she cannot include them in her report.
10. Remove the **Emergency Contacts** report field from the Columns grid.
11. Click **OK** and run the report.
12. Access the **Stop Proxy** task.
13. Click **OK** to stop the proxy login.

CHAPTER 6 KNOWLEDGE CHECK

1. When creating a custom report, which security domains do you **not** need access to?

    A. The Custom Repot Creation security domain

    B. Security domain for the data source you want to use

    C. Security domains for the report fields you want to add

    D. Any unconstrained security group

2. A user gets the following error message when running a report: “Attempt to run a report where you do not have access to one or more fields referenced in the report’s filter. Fields: Age. filter.” What is the root cause of this issue?

    A. The user doesn’t belong to a security group that has access to a report field used in a filter.

    B. The user doesn’t belong to a security group that has access to a report field used as a column.

    C. The user has designated a report field from a data source outside of the report as a filter.

3. An HR partner runs an employee report that includes the Citizenship Status field. She can see the Citizenship Status for some employees on the report but not all. Why can’t she see this data for some employees? (Two Correct Answers)

    A. The Citizenship Status data is missing for these employees

    B. She has applied a filter to limit the instances returned.

    C. She only has constrained access to the Citizenship Status report field.

CHAPTER 7 – SCHEDULING REPORTS

OVERVIEW

In this chapter, you will learn how to schedule a report to run immediately, at a specific time in the future, or on a recurring basis. You will also learn the significance of sharing report output with other users.

OBJECTIVES

By the end of this chapter, you will be able to:

- Describe the options available when scheduling a report.
- Schedule a report and share the output with specific users.

SCENARIO

Logan McNeil needs to schedule the employee audit report and share the output with managers.

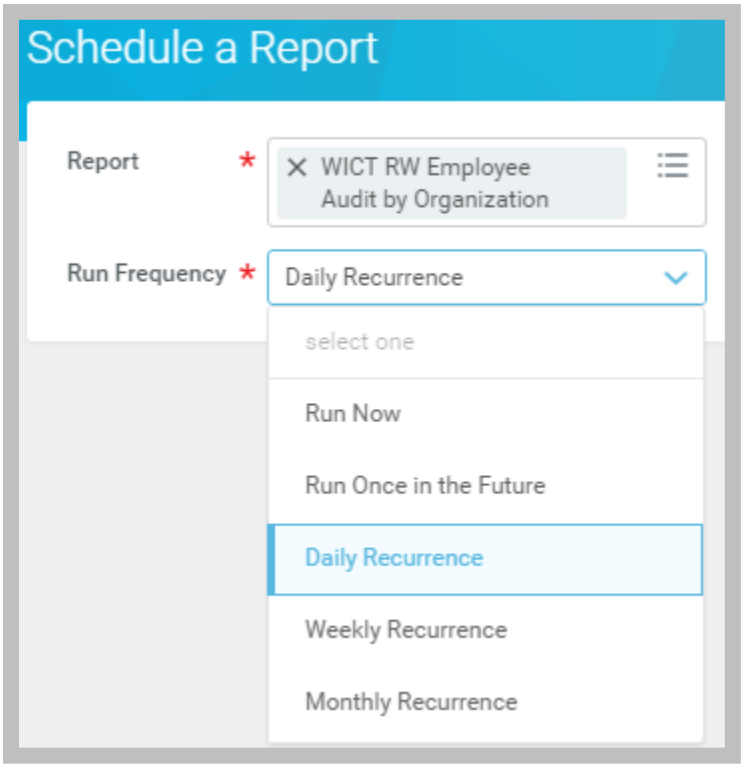
Employee	Supervisory Organization	Total Base Pay Annualized in USD - Amount	Hire Date	SSN	Age	Emergency Contacts
Nathan Moore	Accounts Payable	85,692.03	01/01/2000	342-10-2843	42	Alice Moore Robert Moore
Jerome Williams	Accounts Payable	80,832.55	01/01/2000	344-20-0127	37	James Williams Ruth Williams
Ian Murray	Accounts Payable	58,349.50	02/01/2013	567-34-9819	28	Samantha Murray

As a manager, Jack Taylor needs to view the output of the report.

SCHEDULING A REPORT

You can use the Schedule a Report task to schedule a report or report group to run. Report groups allow you to run multiple reports as a single unit.

You can set the run frequency to run now, run once in the future, daily recurrence, weekly recurrence, or monthly recurrence. Scheduled reports run in the background.

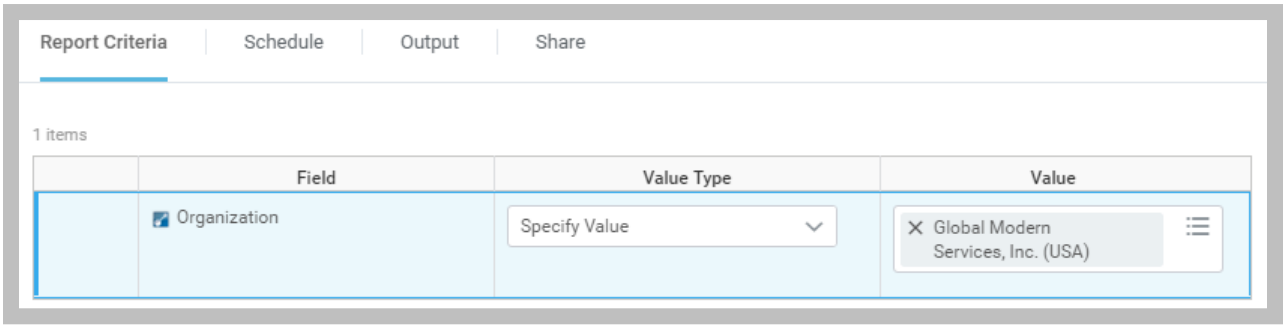


67 - Schedule a Report Task

Note: You can also get to this task from the report's Related Actions.

REPORT CRITERIA

On the Report Criteria tab, you must define default values for prompts that are visible to users when running the report.



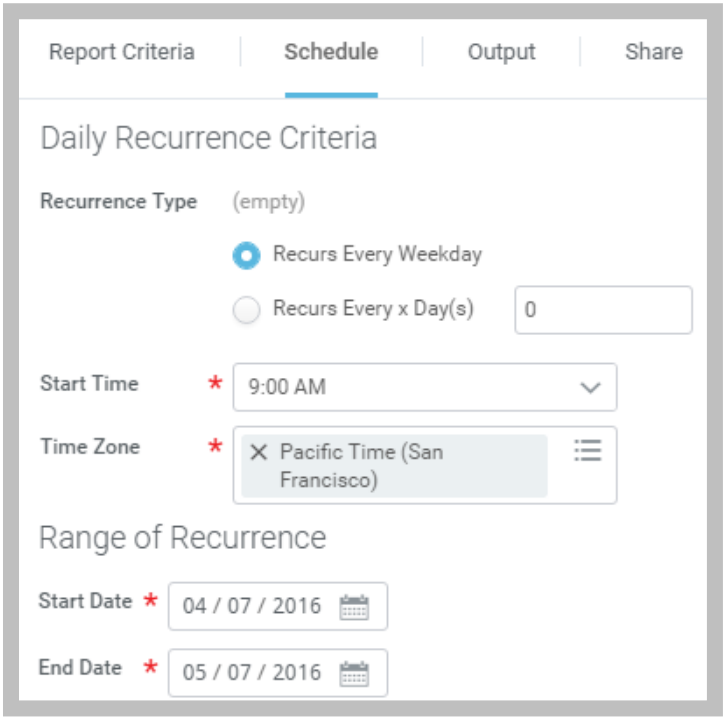
68 - Report Criteria tab

These are the report criteria options.

Option	Description
Value Type	Select whether you want to specify a value for the prompt field or have the value calculated at runtime based on the value of another field.
Value	When the Value Type field is Specify Value, select the prompt value to use when the report is run. When the Value Type field is Determine Value at Runtime, select the field that should determine the prompt value when the report is run.

SCHEDULE

If you are scheduling a report to run later, define the schedule on the Schedule tab.



69 - Schedule tab

The schedule options will vary depending on the run frequency.

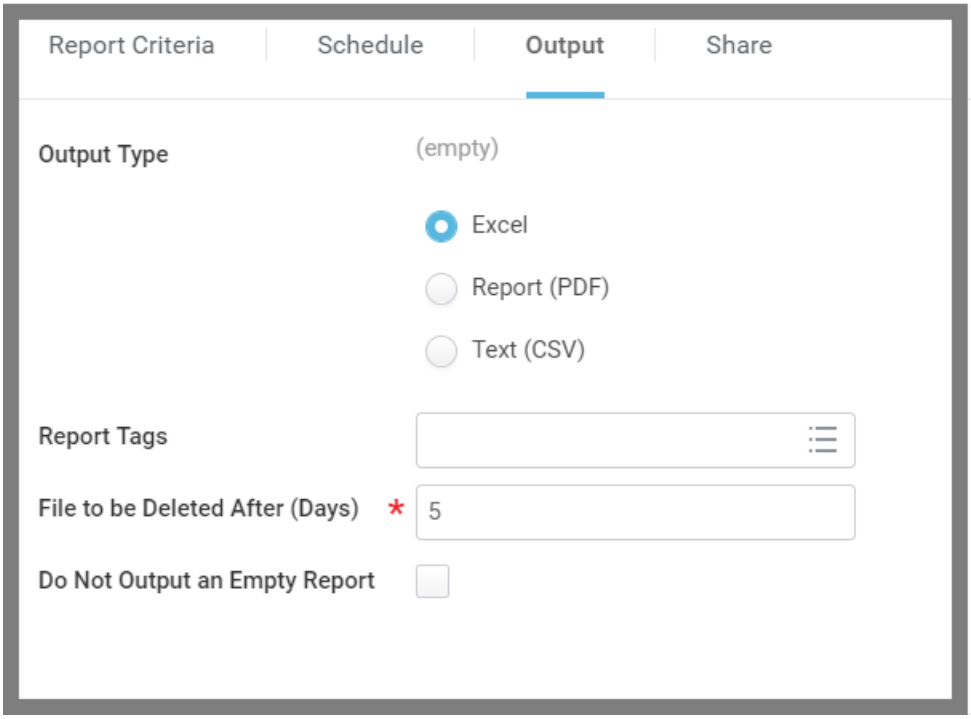
Run Frequency	Schedule Criteria
Run Once in the Future	Specify the Start Date, Start Time, and Time Zone.
Daily Recurrence	Set the Recurrence Type to Recurs Every Weekday or Recurs Every x Day(s). If you select Recurs Every x Day(s), enter a number between 1 and 366 to specify the number of days between recurrences. Specify the Start Time, Time Zone, Start Date, and End Date.
Weekly Recurrence	In the Recurs Every x Weeks(s) field, enter a number between 1 and 52 to specify the weekly frequency. In the Day(s) of the Week field, select one or more days of the week to schedule each recurrence. Specify the Start Time, Time Zone, Start Date, and End Date.

Monthly Recurrence	Set the monthly recurrence criteria to Every Month or Month(s). If you select Month(s), specify one or more months to schedule each recurrence. Set the Recurrence Type to Day(s) of the Month or Day of the Week. Specify the Start Time, Time Zone, Start Date, and End Date.

Note: Workday lets you to select an End Date that allows 5 executions of any recurring report beyond December 31st of the *following* year.

OUTPUT

On the Output tab, you define the report output options.



70 - Output tab

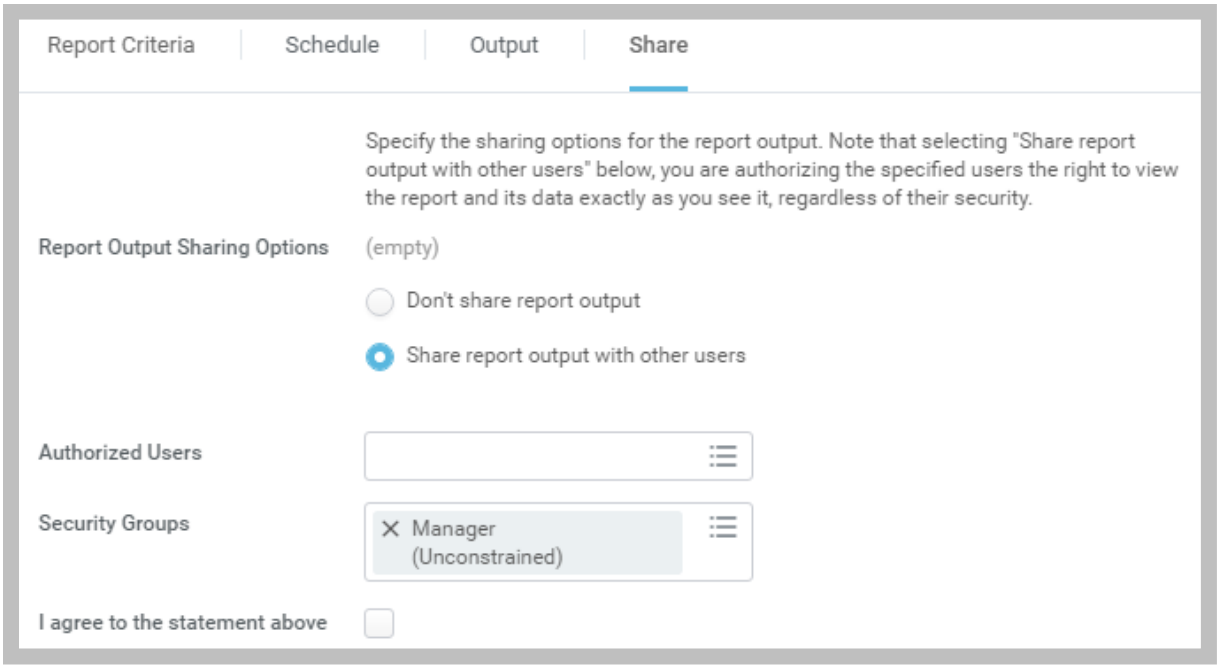
These are the report output options.

Option	Description
Output Type	Select Excel, Report (PDF), or Text (CSV)

Report Tags	Associate report tags with the report output to make the file easy to find.
File to be Deleted After (Days)	Specify how many days Workday should keep the report output before deleting it.
Do Not Output an Empty Report	Select this option to suppress the creation of an empty file on the W: Drive if there is no report output and eliminate the corresponding email notification.

SHARE

On the Share tab, you can share the report output with authorized users and security groups.



71 - Share tab

These are the sharing options.

Option	Description
Don’t share report output	Report output is not shared. Only the user scheduling the report can see the report output file.
Share report output with other users	Report output is shared with any combination of Authorized Users and Security Groups that you specify. You must also select the “I agree to the statement above” checkbox to acknowledge that you understand the implications of sharing report output with other users.

Important: By sharing report output you are specifically authorizing the specified users the right to view the report and its data exactly as you see it, regardless of their Workday security.

Security Note: You must have access to the Report Output Sharing security domain to share scheduled output and bypass security.

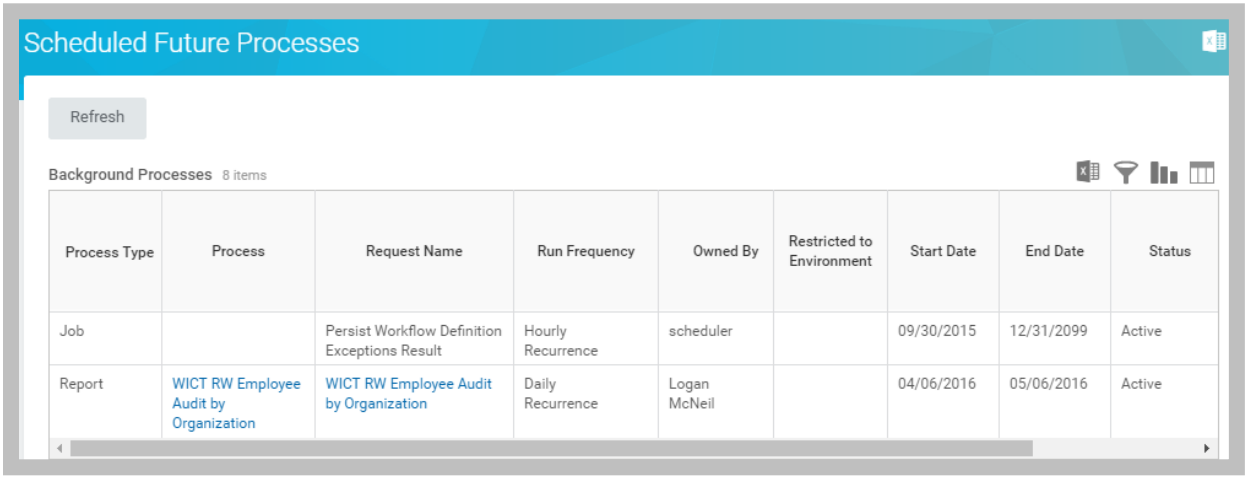
Users can access the report output from their Inbox, from the W: Drive, or by running the My Report Output task. When running the My Report Output Files task or viewing More Reports on the W: Drive, users can search for report output using report tags.

SCHEDULED FUTURE PROCESSES

The Scheduled Future Processes report allows you to view all background processes that are scheduled to run but have not yet done so. The report includes integrations, batch processes, and reports that are scheduled to run either once in the future or on a recurring basis.

From the request name's Related Actions, you can use Schedule Future Process to:

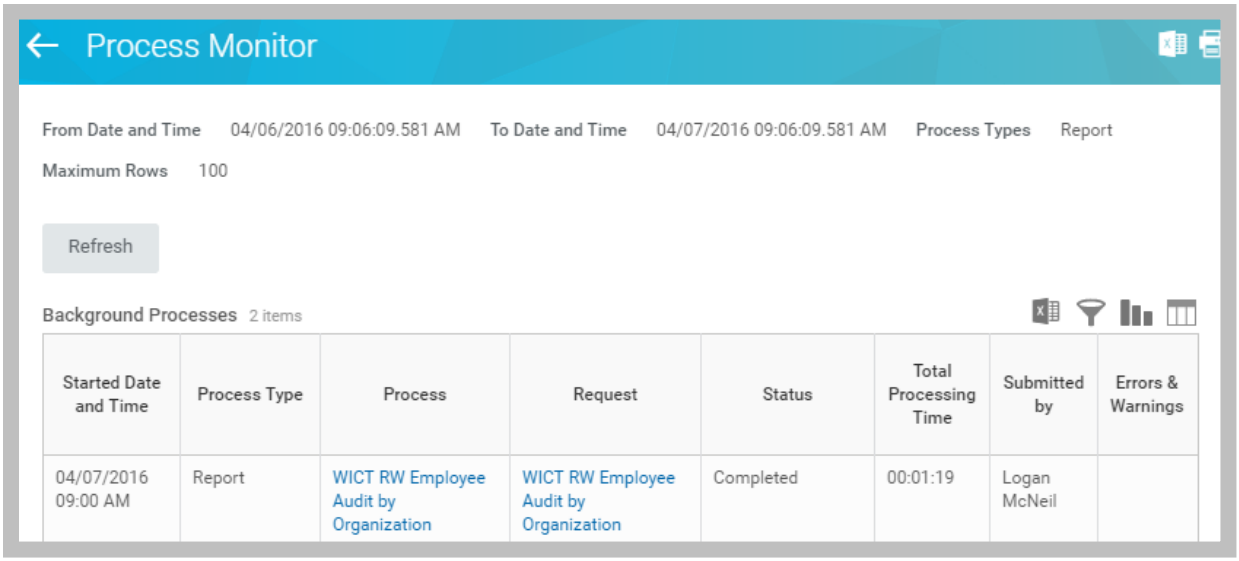
- Edit or delete a scheduled request.
- Suspend or activate a scheduled request.
- Transfer ownership of a scheduled request (if someone leaves the company).



72 - Scheduled Future Processes Report

PROCESS MONITOR

You can run the Process Monitor report to view all background processes that are running or have run.



73 – Process Monitor Report

ACTIVITY 7.1 – SCHEDULE A REPORT

Business Case: Logan McNeil needs to schedule the employee audit report and share the output with managers.

TASK #1: SCHEDULE A REPORT

1. Sign in as Logan McNeil (lmcneil).

   Note that if you only proxy in as Logan, **you will not be able to complete this activity**.

2. Access the **Schedule a Report** task and enter the following values:

Field Name	*Entry Value*
Report	WICT RW Employee Audit by Organization
Run Frequency	Daily Recurrence

3. Click **OK**.

4. On the Report Criteria tab, select **Global Modern Services** in the Value field. You must define default values for prompts that are visible to users when running the report.

5. Click the **Schedule** tab and enter the following values:

Field Name	*Entry Value*
Recurrence Type	Recurs Every Weekday
Start Time	Select the closest available next time to the current time in the Pacific Time zone
Time Zone	Pacific Time (Los Angeles)
Start Date	Today's date
End Date	One month from now

6. Click the **Output** tab and enter the following values:

Field Name	*Entry Value*
Output Type	Excel

Report Tags	Training Reports
File to be Deleted After (Days)	1

7. Click the **Share** tab and enter the following values:

Field Name	*Entry Value*
Report Output Sharing Options	Share report output with other users
Security Groups	Manager (Unconstrained)

8. Read the statement on this tab and select the **I agree to the statement above** checkbox.
9. Click **OK**.

TASK #2: VIEW SCHEDULED FUTURE PROCESSES

1. Access the **Scheduled Future Processes** report.
2. Verify that the WICT RW Employee Audit by Organization report displays in the Background Processes grid.
3. In the Request Name column, click the WICT RW Employee Audit by Organization's **Related Actions** and hover over **Schedule Future Processes**. These are the actions you can take on your schedule.
4. Click anywhere on the page to close the pop-up box.

TASK #3: VIEW THE PROCESS MONITOR

1. Once the scheduled time is reached, access the **Process Monitor** report.
2. Select **Report** in the Process Types field and click **OK**. Verify that the process completed.

TASK #4: VIEW THE REPORT OUTPUT

1. Click Logan McNeil's **picture** in the upper right and select **My Reports** also known as the **W:Drive**.

2. Click the **file name** and open the report output Excel file. Notice that the report shows all data for all users.

3. Close the Excel file.

4. In the File column, click the **Related Actions** and hover over **Repository Document**. From here you can maintain the tags and shared users for this file.

5. Click anywhere on the page to close the pop-up box.

6. Sign out as Logan McNeil.

7. Log back in as **Jack Taylor.** Users can access the report output from their Inbox, the W: Drive, or by running the My Report Output Files task.

8. Access the **My Report Output Files** task.

9. Select **Training Reports** in the Report Tags field and click **OK**.

10. Click the **file name** and open the report output Excel file. Notice that the report shows all data for all users.

Important: Since Logan scheduled the report, her security was used to generate the report output file. When Jack opens the shared output Excel file, he sees the report data from Logan's point of view. He can see all data for all users since Logan has unconstrained access.

11. Close the Excel file.

CHAPTER 7 KNOWLEDGE CHECK

1. When can you schedule a report to run? (Two correct answers)

    A. Whenever you log in

    B. A specific date and/or time in the future

    C. On a recurring basis (every day, week, month)

    D. Whenever there is a change in the relevant system data

2. Logan McNeil scheduled a report to run on a weekly basis. She shared the report output with Betty Liu. What data will Betty see in the report output?

    A. Only data that Betty can access

    B. Data that Logan can access

CHAPTER 8 – INTRODUCTION TO MATRIX REPORTS

OVERVIEW

In this chapter, you will learn how to create matrix reports to group, summarize, and drill into data. You will also learn how to add a chart to visualize the data. This will only be a brief introduction to matrix reports and charts.

Additional Training: If you are interested in learning more, check out the Advanced Reporting and Analytics course in the Workday Learning Center.

OBJECTIVES

By the end of this chapter, you will be able to:

- Describe the capabilities of the Matrix report type.
- Create a matrix report that groups the data by rows and columns.
- Summarize the data in a matrix report.
- Configure the drillable fields and detail data in a matrix report.
- Add a chart to a matrix report to visualize the data.

SCENARIO

Logan McNeil needs to create a matrix report that analyzes the base pay for employees by hiring source and location.

Report Requirements:

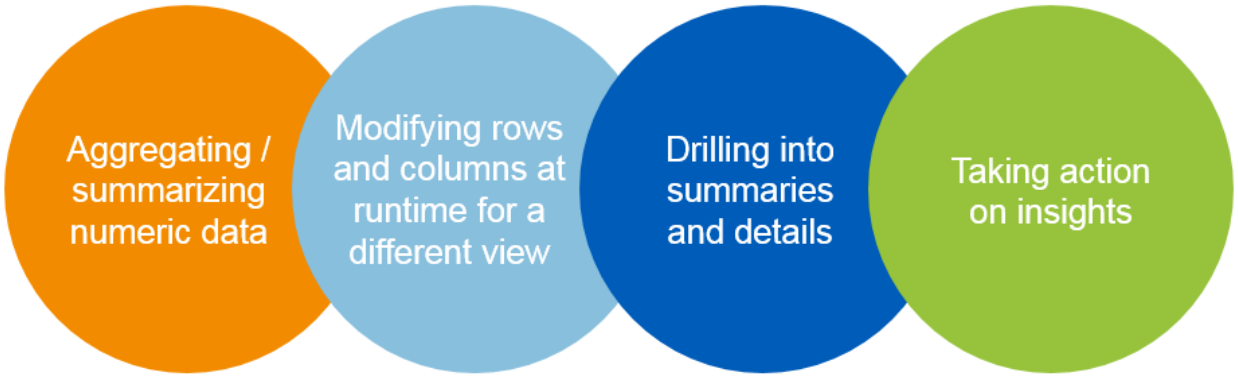
- Average base pay and # of employees by hiring source and location
- Rows for the three hiring sources with highest average base pay
- Columns for the three U.S. locations with highest average base pay
- Drillable fields for Compensation Package, Cost Center, Hiring Source, Location, and Hire Quarter
- Detail data for Employee, Worker's Manager, Total Base Pay Annualized – Amount, Is Manager, and Supervisory Organization

	San Francisco		Boston		New York		Other		Total	
Hiring Source	Avg. Base Pay	Count	Avg. Base Pay	Count	Avg. Base Pay	Count	Avg. Base Pay	Count	Avg. Base Pay	Count
Employee referral	$138K	25	$88K	7	$135K	9	$99K	20	$119K	61
Head-hunter	$85K	8	0K	0	$106K	2	$120K	7	$102K	17
LinkedIn	$94K	14	$203K	3	$91K	7	$89K	15	$100K	39
Other	$108K	20	$77K	5	$82K	7	$82K	30	$90K	62
Total	$114K	67	$107K	15	$105	25	$92K	72	$103K	179

MATRIX REPORT FUNCTIONALITY

The Matrix report type provides the foundation for custom analytics and interactive reporting in Workday. It allows for grouping, aggregation, and interactive drilling across different dimensions, enabling the user to gain new insights into the data and take action on the results.

Matrix reports are ideally suited for:



74 - Matrix reports are used for aggregating data, modifying rows and columns at runtime, drilling into summaries and details, and taking action on insights

The main construct of a matrix report involves:

- **Grouping**: Group instances of the primary business object by defining the row and column groupings.
- **Summarizing**: Define aggregations for each grouping.
- **Drilling**: Drill into the summarizations for further analysis. Report users can view the data by other fields and access detail data behind the summarizations.

CONFIGURING THE MATRIX REPORT

When configuring a matrix report definition, you must first define the row groupings, column groupings, and summarizations under the Matrix tab.

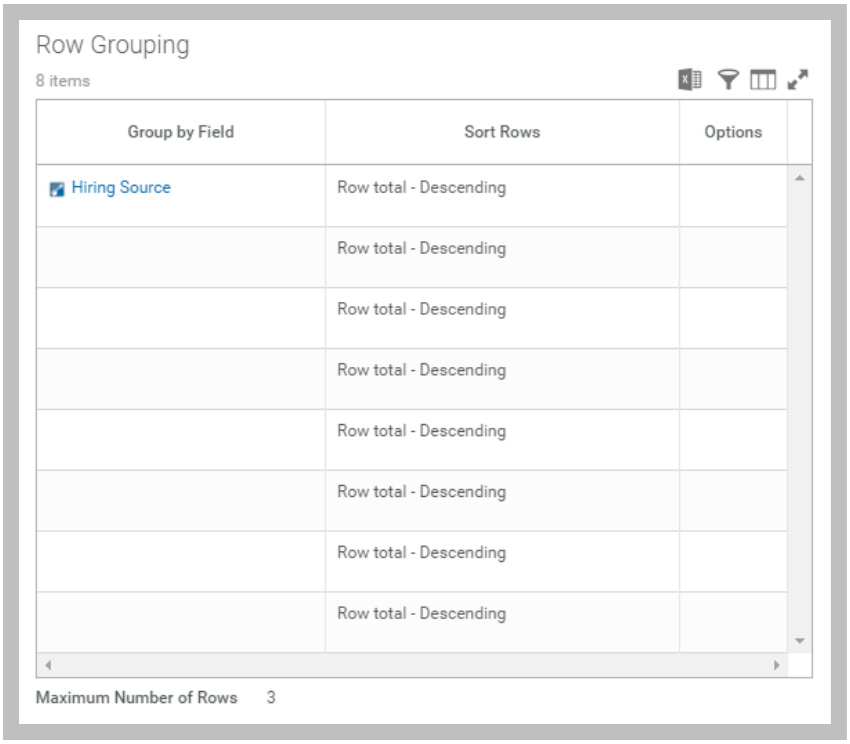
ROW GROUPINGS

You must specify at least one row grouping and one summarization. You may group by more than one dimension, which is referred to as nested levels. You can have a maximum of eight row groupings.

For each grouping, you can specify a sort option. By default, groupings are sorted based on totals in descending order. Alternatively, you can sort alphabetically, based on a logical sort, or based on a defined field value group.

You can control the maximum number of row grouping values to display in the report output using the Maximum Number of Rows field. The report displays the number of rows defined in this field in the output; any additional row grouping values are aggregated into a row labeled “Other” in the report output. The default Maximum Number of Rows is 250. Keep this in mind and check for the “Other” row grouping if your report output appears to be missing data.

In the following example, the matrix report uses the Hiring Source field for the row grouping. The maximum number of rows is set to three. The report output will display a maximum of three hiring sources. If there are more than three hiring sources, they will be aggregated as "Other."



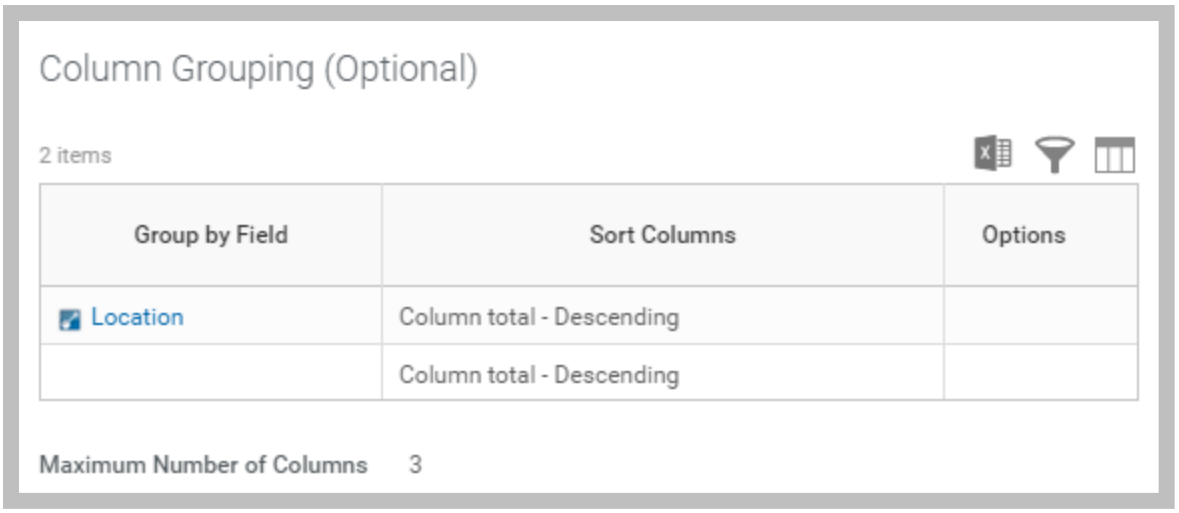
75 - Row Groupings

COLUMN GROUPINGS

Column groupings are optional. You can have a maximum of two column groupings.

You can control the maximum number of column grouping values to display in the report output. The maximum number defined displays in the output while any other column grouping values are aggregated as “Other”. The default number of columns is 20.

In the following example, the matrix report uses the Location field for the column grouping. The maximum number of columns is set to three. The report output will display a maximum of three locations. If there are more than three locations, they will be aggregated as "Other."



76 - Column Groupings

SUMMARIZATION TYPES

The Matrix tab allows you to configure summarizations for your report's numeric or currency data. The Summarization Type enables you to specify the aggregation method applied to the field. The results of the aggregation method are displayed in the matrix cells of the report output. The default summarization type is Count. The first summarization is used to sort Group By Fields.

77 - Fields to Summarize

Summarization options include:

Term	Definition
Count	Counts the number of values (instances) for defined grouping.
Count Distinct	Counts the distinct (or unique) number of instances of an identified field.
Sum	Sums the values of a field for defined grouping.
Average	Averages the values of a field for defined grouping.
Minimum	Displays the minimum value of a field for defined grouping.
Maximum	Displays the maximum value of a field for defined grouping.
Calculation	Creates your own arithmetic calculations on the other summarizations generated in the report. For example, using a calculation, you can subtract the Minimum summarization value generated from the Maximum summarization value generated. Matrix report summary calculations are unique to the report and can be maintained and edited similar to report-specific calculated fields.

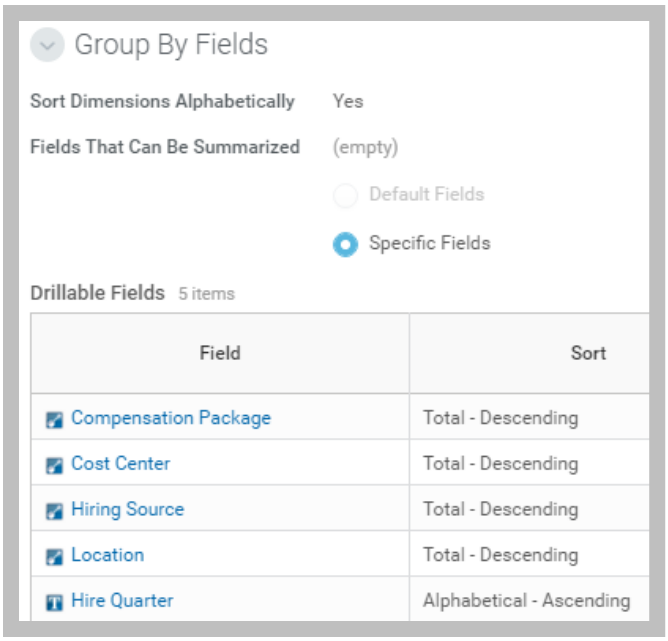
Note: If using an indexed data source, when choosing fields to summarize, use the View Indexed Fields for Data Source report to see if a given field is indexed for Aggregation. If not, you will see a performance warning (not error) in the report.

Security Note: If you create a matrix report and share it with a user who is not authorized to view the row grouping, column grouping, or summarization field, a runtime error appears when the user attempts to run the report.

DRILLABLE FIELDS

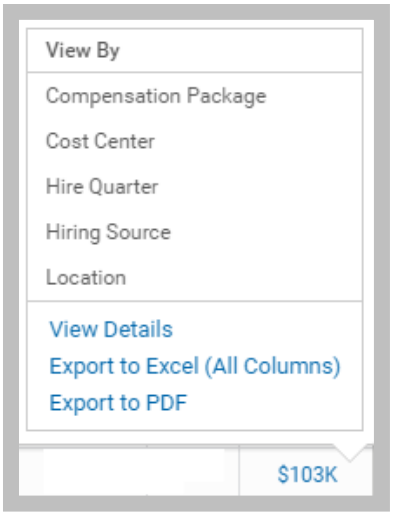
A matrix report displays the data as an aggregate of the row and column groupings. Drillable fields let you view the data by additional dimensions. You can view the data by up to two additional dimensions to further define the data in each cell.

You can control what fields are drillable under the Drill Down tab. There are default drillable fields, but it is best practice to configure specific drillable fields (so that the fields remain consistent).



78 - Drillable Fields

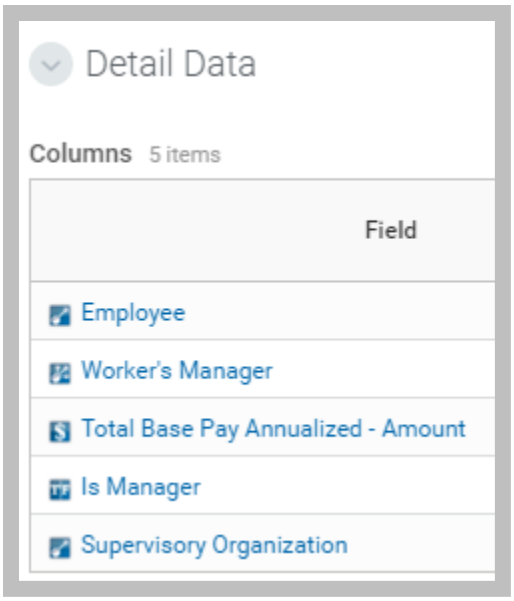
When viewing the output of a matrix report, you can drill down on a summarization using a drill down field. Users will only see fields that they have access to.



79 - View By Drill Down Field

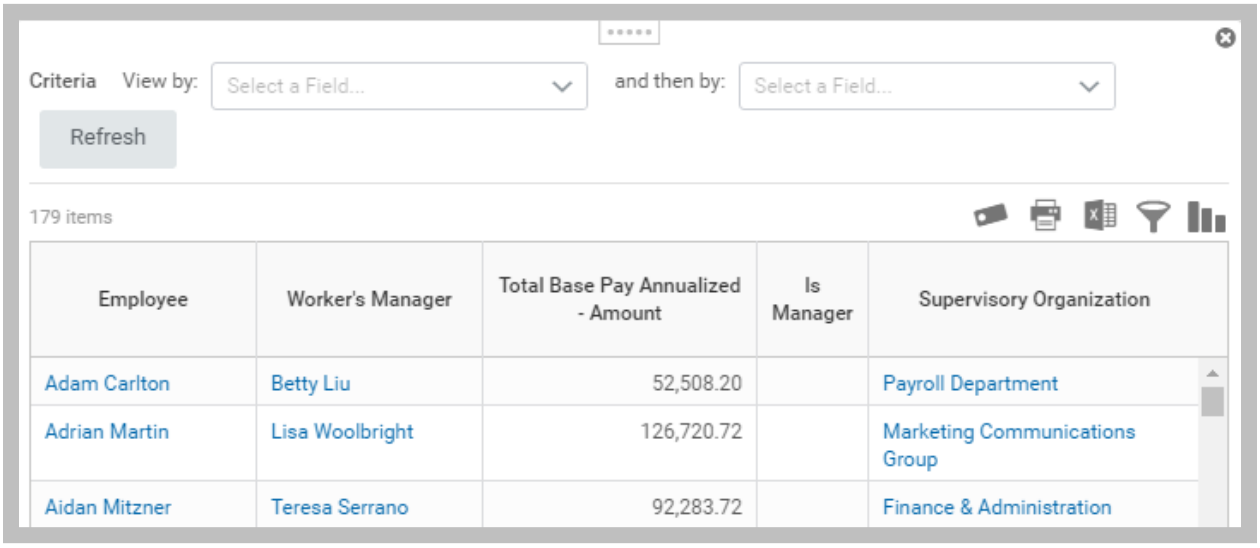
DETAIL DATA

You can configure Detail Data on the Drill Down tab. This lets users view the details behind a summarization.



80 - Detail Data

When the user clicks on a summarization metric, they will see the detail data fields you defined. Users will only see fields that they have access to.



81 - View Details

DEMO – MATRIX REPORTS

Introduction: This demo will show you how to interpret the output of a matrix report.

TASK #1: ANALYZE THE MATRIX REPORT'S RESULTS

1. Sign in as Logan McNeil (lmcneil).
2. Run the **WDINST RW Recruiting Analysis by Hiring Source and Location** custom report. Notice that the columns display locations and the rows display hiring sources.
3. In the bottom right corner of the report, hover over the average total base pay amount for the report.
4. Click the **arrow** and select **Location** as the View By field.
    a. What location reports the highest average salary?
    b. How many employees work at this location?
5. Close the pop-up window.
6. At the bottom of the San Francisco column, hover over the average total base pay amount in the Total row.
7. Click the **arrow** and select **Cost Center** as the View By field. What Cost Center has the highest average salary in San Francisco?
8. Close the pop-up window.
9. In the Total column of the Employee referral row, hover over the average total base pay amount.
10. Click the **arrow** and select **Compensation Package** as the View By field. What Compensation Package has the highest average salary for the Employee Referral hiring source?
11. Close the pop-up window.
12. In the cell for Employee referrals in San Francisco, hover over the average total base pay amount.
13. Click the **arrow** and select **View Details**.

14. Sort the **Total Base Pay Annualized – Amount** field in descending order. What is the total base pay for Oliver Reynolds? Is he a manager?

15. Close the pop-up window.

ACTIVITY 8.1 – CREATE A MATRIX REPORT

Business Case: Logan McNeil needs to create a matrix report that analyzes the base pay for employees by hiring source and location. The report needs to display:

- Average base pay and # of employees by hiring source and location.
- Rows for the three hiring sources with highest average base pay.
- Columns for the three US locations with highest average base pay.
- Drillable fields for Compensation Package, Cost Center, Hiring Source, Location, and Hire Quarter.
- Detail data for Employee, Worker's Manager, Total Base Pay Annualized – Amount, Is Manager, and Supervisory Organization.

TASK #1: DEFINE GROUPINGS AND SUMMARIZATIONS

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Create Custom Report** task and enter the following values:

Field Name	*Entry Value*
Report Name	WICT RW Recruiting Analysis by Hiring Source and Location
Report Type	Matrix
Data Source	Workers for HCM Reporting

3. Click **OK**.
4. Select **All Employees** as the Data Source Filter.
5. In the Row Grouping grid, select **Hiring Source** in the Group by Field.
6. Enter *3* in the Maximum Number of Rows field.
7. In the Column Grouping (Optional) grid, select **Location** in the Group by Field.
8. Enter *3* in the Maximum Number of Columns field.
9. Add a row to the top of the Define the Field(s) to Summarize grid, and enter the following values:

Field Name	*Entry Value*
Summarization Type	Average
Summarization Field	Total Base Pay Annualized - Amount
Format	Thousands > #,##0
Options	Show Currency Symbol

Note that you are using a non-indexed field to aggregate your report data. This will cause an alert appear when you save your report definition, noting that this may affect report performance. Remember, it is important to try and use indexed fields for your report whenever possible. In this case, however, even when aggregating using a non-indexed field, this report will still perform faster than a report using a standard data source like All Active Employees.

TASK #2: DEFINE DRILLABLE FIELDS AND DETAIL DATA

1. Click the **Drill Down** tab. These are the fields you can use to drill into data.

2. Add five rows to the Drillable Fields grid, and add the following fields:

Field Name
Compensation Package
Cost Center
Hiring Source
Location
Hire Quarter

3. Now when you run the report, you can drill into the results and view them by Compensation Package, Cost Center, or the other fields defined. Now let's determine what data appears when you simply view the details of a value in the report. Add five rows to the Detail Data grid, and add the following fields:

Field Name
Employee
Worker's Manager
Total Base Pay Annualized - Amount
Is Manager
Supervisory Organization

Now when you click on a value or select View Details from the drill down menu, you will see the names of the employee, their manager, their annual base pay, their supervisory organization, and if they are a manager.

TASK #3: ADD A FILTER

1. Lastly, let's filter this report so that only workers in the United States are returned. Click the **Filter** tab.

2. Add a row to the grid, and enter the following information:

Field Name	***Entry Value***
Field	Location Address - Country
Operator	in the selection list
Comparison Type	Value specified in this filter
Comparison Value	United States of America

TASK #4: RUN THE MATRIX REPORT AND ANALYZE THE RESULTS

1. Click **OK**.

2. Click **Run**.

3. Drill down into the summarized data to answer the following questions:
(Hint: Hover over a summarization value and click the arrow to drill down.)

    a. What hiring source reports the highest average salary?

    b. What Cost Center has the highest average salary in New York?

    c. What Compensation Package has the highest average salary for the Headhunter hiring source?

    d. What Hire Quarter has the highest average salary for Employee Referrals in San Francisco?

4. View the details of the summarized data to answer the following questions:
(Hint: Hover over a summarization value and click the arrow to view details.)

    a. Which employees in Boston are managers?

b. How many employees in San Francisco report to Betty Liu?

c. Did the Tax Department supervisory organization find employees using the Headhunter hiring source?

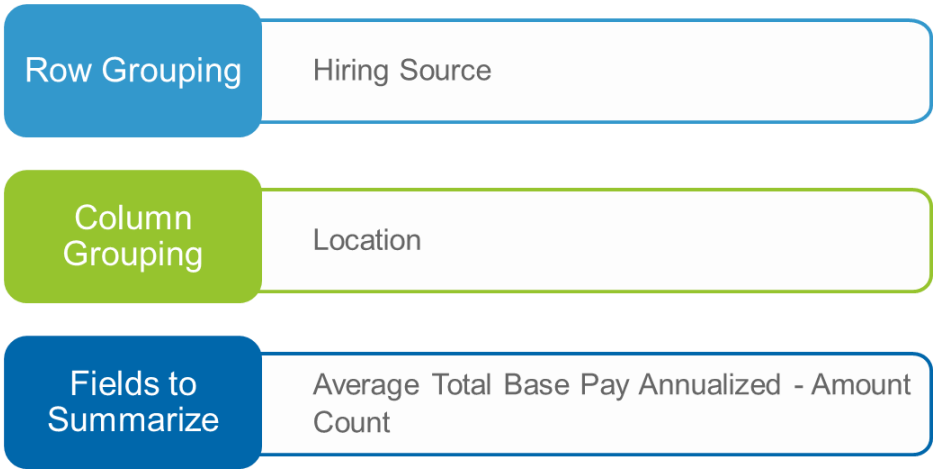
CHARTS

With one set of data, you can create a wide variety of charts. Workday makes it easy to experiment with different variables and chart types to tell a visual story to report users.

Charts can be presented alongside a table or on their own. When chart is specified as the Output Type, a variety of Chart Options will be available:

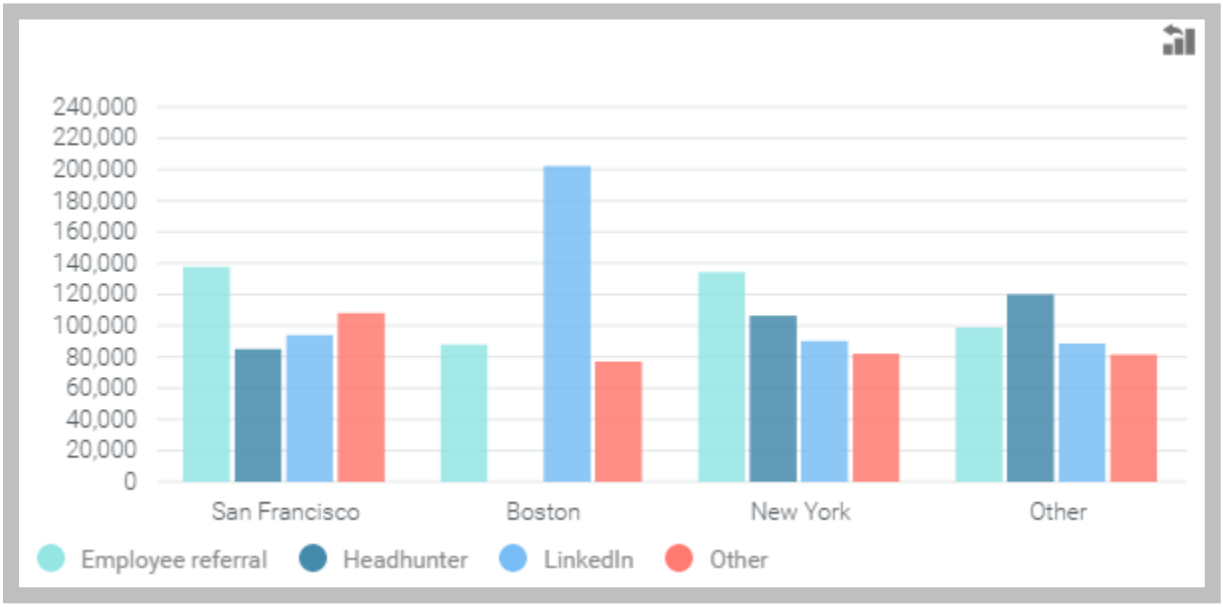
- Pie
- Line
- Bubble
- Column (clustered, stacked, 100%)
- Bar (clustered, stacked, 100%)
- Area (overlaid, stacked, 100%)

In the following example, we want to analyze and compare the average base pay across location by hiring source. The report definition has two dimensions (Hiring Source and Location) and two summarizations (Average Total Base Pay Annualized - Amount and Count).



82 - Visualization of the row and column groupings, as well as the fields to summarize

This is what our chart will look like on the report output:

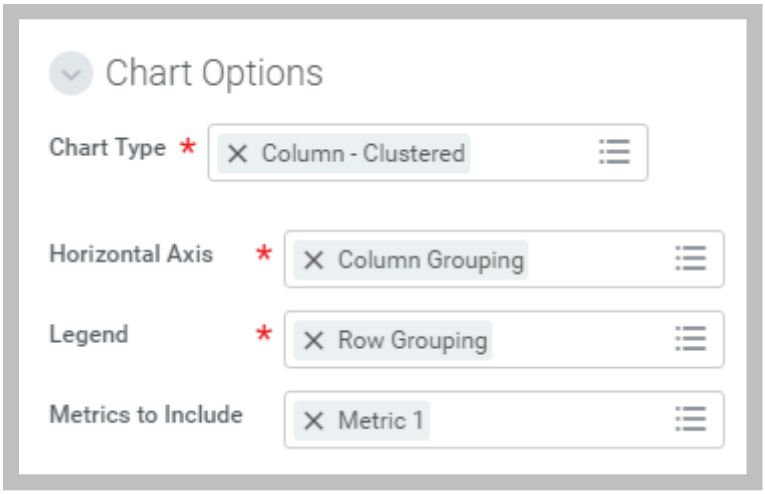


83 – Chart of the average Total Base Pay by Location by Hiring Source

CHART OPTIONS

You configure the Chart Options on the Output tab. The Chart Options available depend on the configuration of the report definition and the Chart Type specified.

In the following example, the Chart Type is Column - Clustered. The Horizontal Axis is set to Column Grouping, which is Location. The Legend is set to Row Grouping, which is Hiring Source. The Metrics to Include is set to Metric 1, which is Average Total Base Pay Annualized – Amount.



84 – Chart Options

Note: Metric 1 is the first row in the Define the Field(s) to summarize grid. Metric 2 is the second row in the grid. Metric 3 is the third row in the grid, and so on.

INTERACTING WITH CHARTS

After executing a report with a chart configured, Workday allows you to interact with the report output to gain further insight.

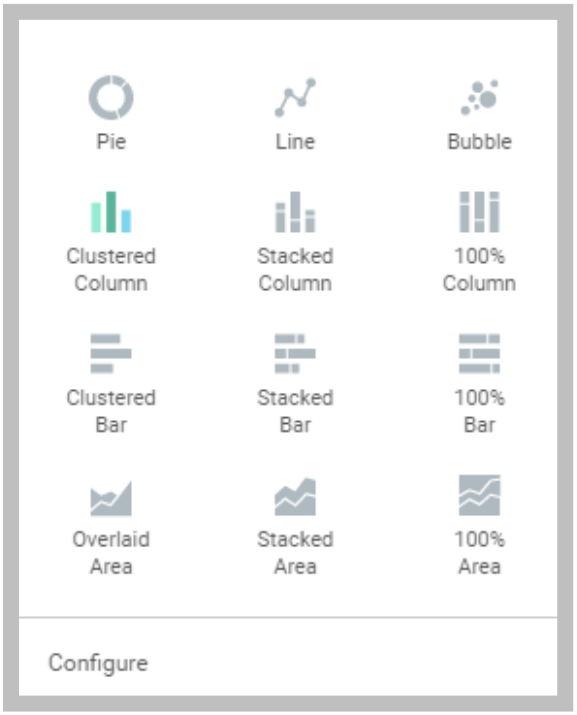
Chart legends are interactive so users can focus on a specific metric or dimension. Users can also zoom in and pan their view of a report output.

85 – Chart Output

The Configuration Panel offers the ability to make modifications in the chart view. Adjust variables such as the Horizontal Axis, Legend, and Metrics. These options are useful when the report has multiple metrics that can interact in different ways.

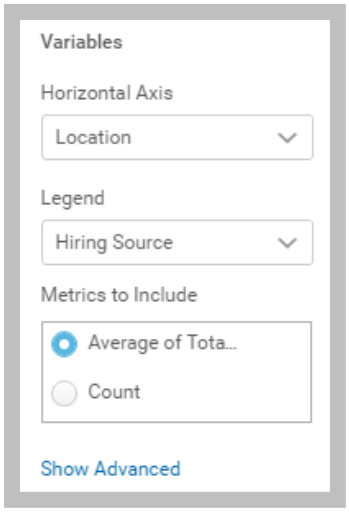
Access the Configuration Panel using the following steps:

1. Click the Configure icon . Choose a different chart type if needed.
2. Click Configure.



86 - Chart configuration options

3. Interact with Variables to view data from different perspectives.



87 - Screenshot of chart variable configurations

4. Click Show Advanced to further interact with the report output.

ACTIVITY 8.2 – ADD A CHART

Business Case: Logan McNeil needs to add a chart to the recruiting analysis matrix report. The chart should display the average base pay by location and hiring source.

TASK #1: ADD A CHART

1. Sign in as Logan McNeil (lmcneil).
2. Edit the **WICT RW Recruiting Analysis by Hiring Source and Location** custom report.
3. Click the **Output** tab.
4. Change Output Type to **Chart and Table**.
5. Expand **Chart Options**, and enter the following values:

Field Name	*Entry Value*
Chart Type	Column - Clustered
Horizontal Axis	Column Grouping
Legend	Row Grouping
Metrics to Include	Metric 1

TASK #2: RUN THE MATRIX REPORT AND CONFIGURE THE CHARTING OPTIONS

1. Click **OK**.
2. Click **Run**. View the chart at the top of the report.
3. Click the **Employee referral** bar for San Francisco.
4. View by **Compensation Package**. (Note: You can also get to this information by drilling down from the table.)
5. Close the pop-up window.
6. Click the **Configure** icon in the top right corner of the chart.
7. Change the chart type to **Stacked Column**. Notice that the bars for each hiring source are now stacked on top of each other.

8. Change the chart type to **Clustered Bar**. Notice that the locations are now along the vertical axis.

9. Change the chart type back to **Clustered Column**.

10. Select **Configure** and select the following values:

Field Name	*Entry Value*
Horizontal Axis	Hiring Source
Legend	Location
Metrics to Include	Average of Total Base Pay Annualized - Amount

11. Close the pop-up window. Notice that the chart now displays the hiring source along the horizontal axis and the location as the legend.

CHAPTER 8 KNOWLEDGE CHECK

1. What is the maximum number of Row Groupings you can use in a matrix report definition?

    A. Two

    B. Four

    C. Six

    D. Eight

2. When drilling into a summarization on a matrix report output, what detail data will they see?

    A. Fields you defined in the Detail Data section

    B. Any field on the primary business object

    C. Any field the user has security access to

    D. Fields you defined in the Detail Data section, that the user also has access to

CHAPTER 9 – WORKING WITH CALCULATED FIELDS

OVERVIEW

In this chapter, you will learn about calculated fields and how they can help you with reporting. Calculated fields are new configurable field definitions that allow you to manipulate, transform, retrieve, and derive values based on existing data. This will only be a brief introduction to calculated fields.

Additional Training: If you are interested in learning more, check out the Calculated Fields course in the Workday Learning Center.

OBJECTIVES

By the end of this chapter, you will be able to:

- Explain the purpose of calculated fields and how to control access to calculated fields.
- Create a calculated field using the Lookup Related Value function to display data from a related business object on a report.
- Create a calculated field using the Format Date function to display in a specific format.

SCENARIO

Teresa Serrano built a matrix report that shows the revenue by company. She needs to modify the report to show the revenue by company org code instead. She also needs to display the accounting date in a different format.

The report should display the following information:

- Summed total of all Journal Lines for a given company in both a chart and a table
- Totals organized by the Company Organization Code
- Details for individual journal lines including the Fiscal Year and Period.

The matrix report should display this information:

Company Organization Code	Actual
GMS USA	155,958K
GPS	22,490K
GMS UK	22,006K

The report should display these fields when a user views details for a summarization:

Business Document	Fiscal Year – Period	Division	Customer	Ledger/Budget Amount for Natural Debit or Credit
Customer Invoice: 9551	2013 – Jan	Technology	Cyberdyne Systems LTD	638,000.00
Customer Invoice: 9580	2013 – Mar	Financial Services	Bluestar LTD	812,000.00

CALCULATED FIELDS OVERVIEW

Calculated fields are new configurable field definitions that allow you to manipulate, transform, retrieve, and derive values based on existing data. As you will see in this course, you can use calculated fields to:

- Perform date calculations and formatting.
- Perform math calculations.
- Manipulate text with concatenate, substring, and formatting functions.
- Convert currency fields.
- Derive range bands from numeric or currency fields.
- Determine if a condition is true or not.
- Drilldown and lookup levels and values in hierarchies and organizations.
- Sum, count, and aggregate information across related instances.
- Lookup values in related objects.

WHERE CAN CALCULATED FIELDS BE USED?

Calculated fields are frequently used in reporting to deliver data that would otherwise be unavailable from the primary business object of the report. However, calculated fields can be used in a variety of ways:

Reporting:

Use	Example
Creating new fields to add to a custom report	Creating a Date Difference calculated field to determine how overdue an employee's performance review is.
Creating custom prompts or filters to affect the report output.	Creating a True/False Condition calculated field to only display workers with a "Regular" or "Full-Time" status and exclude contract workers.
Accessing data from the Primary Business Object	Moving data from a Related Business Object (RBO) to the PBO for use in specific report types and functions, as well as in other calculated fields.

Business Processes:

Use	Example
Controlling condition steps in a business process	Creating a Text Length calculated field to determine how many letters are in a new hire's name. Add it as a condition to the Hire business process so that if the new hire's name is more than 20 characters, a request for a custom nametag will be submitted.

Integrations:

Use	Example
Used with connectors and in reports that may be used to collect data for either document transformation or EIBs.	Using a Format Text calculated field to format employee first names into uppercase to align with the needs of the external system in the integration.

Scheduling Recurring Processes:

Use	Example
Determine dynamic run time parameters for recurring scheduled processes.	Using an Increment or Decrement Date calculated field to determine the date parameters necessary to run a specific report for each day from today through two months ago.

CHARACTERISTICS OF CALCULATED FIELDS

CALCULATED AT RUNTIME

All calculated fields are resolved at runtime. The value can be calculated based on other Workday-delivered fields, other calculated fields, and/or available custom fields. Calculated fields are resolved at runtime because the values of the other fields used to determine the value of the calculated field can vary from day to day or even moment to moment. These field and object instance values are retrieved as of the moment you run the report or execute the condition rule that uses the calculated field.

ASSOCIATED WITH BUSINESS OBJECT

Calculated fields are associated with a business object (BO). This BO determines which fields are available for use within your calculated field. Any calculated fields you create for a business object appear and behave just like any other Workday-delivered fields for the business object. The business object also controls when the calculated field appears in prompts and reports.

Example: A calculated field built on the Worker business object would be based on the existing fields on the Worker object. That calculated field would become a new field on Worker and could be used wherever other fields on Worker are used.

In addition to the data available on the calculated field's business object, any data from fields associated with the Global business object are available for use in all calculations and reports.

BASED ON EXISTING DATA

Calculated fields are based on data already existing within the tenant. Their value is not stored, but instead is pulled from existing fields at runtime. This means that calculated fields will not be affected by changes to the underlying objects and fields used in the calculation.

ACCESS TO CALCULATED FIELDS

WHO CAN CREATE CALCULATED FIELDS?

To create, edit, or delete system-wide calculated fields, you must be assigned to a security group that is authorized for the Custom Field Management domain. To ensure control and consistency and avoid duplicate field definitions, access to that domain should be limited to key individuals in your organization.

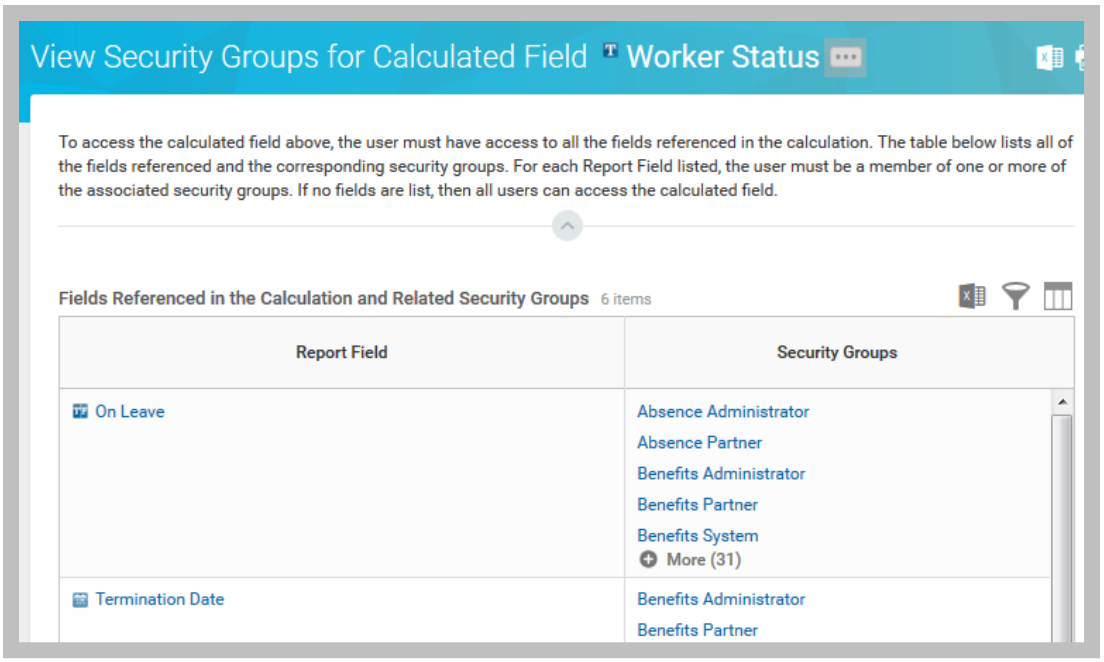
The following domains control who can access and create calculated fields:

- Custom Field Management (for system-wide calculated fields)
- Private Calculated Fields Management (for report-specific calculated fields)

WHO CAN USE AND SEE VALUES FOR A CALCULATED FIELD?

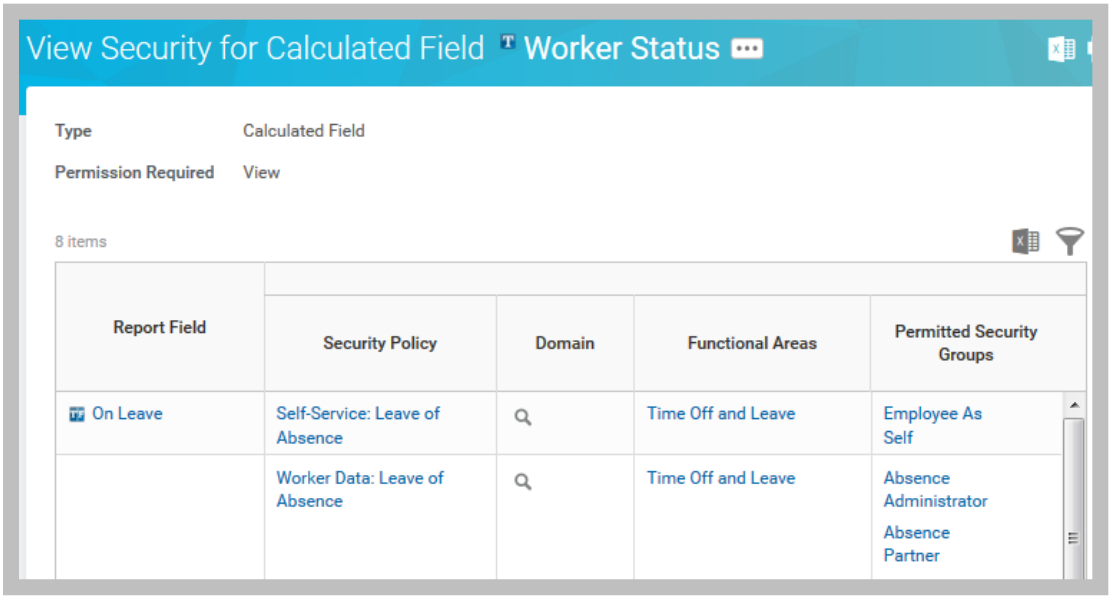
Once defined, only users with access to the underlying secured fields can access and see the values for calculated fields. Underlying secured fields are Workday-delivered report fields, custom fields, or other calculated fields. Workday-delivered report fields and custom fields are secured to domains. Users must have access to the domain(s) for these underlying fields in order to have access to any calculated fields that are based on them. Security access to a calculated field definition is therefore “derived” from its underlying secured fields. In other words, if you can access the field(s) that the calculation is built on, you can access the calculated field.

You can view the security for a calculated field using the field’s Related Actions, select Calculated Field > View Security Groups. Here, you can see the underlying secured fields and configured security groups.



88 - View Security Groups for Calculated Field

To determine which domains/domain security policies can be configured, use the Calculated Field's Related Actions to select Security > View Security. Here, you can see the underlying domains/domain security policies.



89 - View Security for Calculated Field

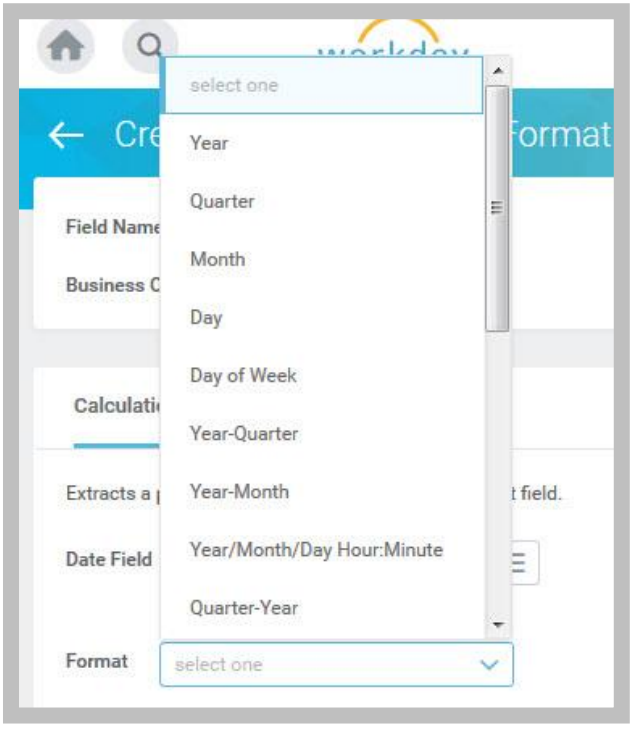
FORMAT DATE

The Format Date function extracts the year, year-quarter, and year-month from a date and formats it as a text field. It can also extract and format fiscal period, fiscal year, fiscal year-period, and date-time fields.

This function enables you to determine higher level time periods from a date. For example, you could use this function to group and summarize headcount activity by month or generate a list of promotions by quarter. You can also use it to extract date components based on an employee's hire date, determine who is going to have an anniversary next month, or extract the month and date from an employee's birth date.

Year returns a four character field. Quarter returns Q1, Q2, Q3, or Q4. Month and Day returns a two-character field with a leading zero as necessary. The calculation assumes the first day of the week is Sunday.

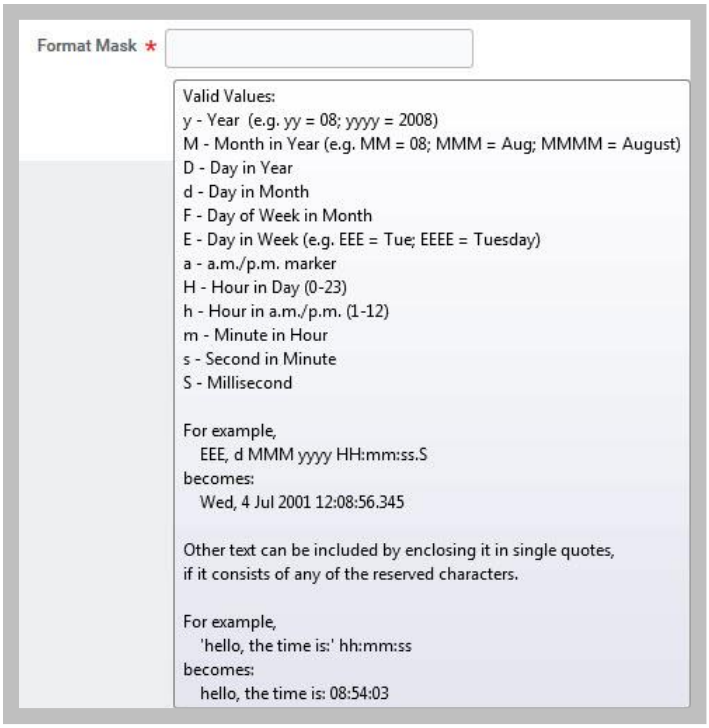
When using the Format Date function, you can select from pre-defined Formats (some of which are shown below), or provide your own Format Mask using the legend of valid values.



90 - Format Date pre-defined formats

Format Mask provides additional date formatting flexibility beyond the predefined formats. It allows you to construct a formatting mask using the options shown below. The mask options are case sensitive and can be combined with each other, along with spaces and other characters. For example, a format mask such as `h:m a` would produce a result such as "9:28 PM". In addition, you can add other text, even if the text contains these reserved characters, provided

that you wrap the text in single quotes, such as: `'Hello, the time is:' h:m a`. This would produce a result like "Hello, the time is 9:28 PM".



91 - Format Date format mask options

The following are examples of tasks you can perform using Format Date:

- Group and summarize headcount activity by month
- Produce a list of promotions by quarter
- List employees who have a birthday this month
- Based on an employee's hire date, determine who is going to have an anniversary next month
- Extract the month and day from an employee's birth date
- Return the fiscal year and period in which an employee was hired
- Group supplier purchases by quarter

DEMO – VIEW FORMAT DATE

Introduction: This demo will explore the format date calculated field.

1. Sign in as Teresa Serrano (tserrano).
2. Type *cf: year-month* in the Search box and press **Enter**.
3. Click the first search result for **Year-Month** to view the calculated field. This function formats the Expense Report Line Date field to display as year-month.
4. Click the Year-Month field's **Related Actions** and select **Calculated Field** > **Edit**.
5. Delete the value in the Date Field.
6. Click the **prompt** and select **All** to view the date fields available for the business object specified.

Note: All date fields available on the business object display, regardless of the security of the worker creating the calculated field.

7. Click the **drop-down arrow** in the Format field and select **Format Mask**.
8. Hover over the Format Mask field to view the valid values for configuring the date format.
9. Click **Cancel**.

REPORTING ON JOURNAL LINES

Journal lines work similarly to the supplier invoice lines you saw earlier. Each journal contains information on the entire journal (journal header) as well as information on the individual journal lines.

- The Journal Header business object contains information about the journal as a whole, such as who created it, total debits and credits, period, and ledger.
- The Journal Line business object contains information about specific journal transactions, such as ledger account, debit/credit amount, associated cost center, and worktags.

Journal Header

Journal Number	6759
Status	Posted
Originated by	Teresa Serrano
Accounting Date	03/01/2015
Currency	USD
Period	Mar-2015 Actuals (Global Modern Services, Inc. (USA))
Ledger	Global Modern Services, Inc. (USA): Actuals
Journal Source	Accrual Journal
Book Code	(empty)

Journal Line

Company	Ledger Account	Debit Amount	Credit Amount	Memo	Cost Center	Additional Worktags
Global Modern Services (USA)	1300: Investments	10,000.00	0		50000 Office of CFO	Bank Account: Morgan Stanley Spend Category: Municipals
Global Modern Services (USA)	1300: Investments	0	15,000.00		50000 Office of CFO	Bank Account: Morgan Stanley Spend Category: Mutual Funds

92 - Journal header and line information

In Workday, there are multiple data sources for the Journal Lines business object:

- Journal Lines – Returns all journal line transactions associated with the required data source filter. This is the data source that Teresa is using in her report.
- Journal Lines for Financial Reporting – Only contains information about journal lines on journals that have a Posted or Proforma status. This automatically excludes Cancelled, In Error, or Draft status journals.

Note: There is one additional data source on the Journal Lines business object called *Journal Lines (Do Not Use)*. Data sources, reports, and fields labeled with "Do Not Use" shouldn't be used in your reports or calculated fields.

ACTIVITY 9.1 – BUILD A FORMAT DATE CALCULATED FIELD

Business Case: Teresa Serrano built a matrix report that shows the revenue by company. She needs to modify the report to show the revenue by company org code and she also needs to display the accounting date in a different format. Start by copying the report and creating a format date calculated field.

TASK #1: COPY AN EXISTING MATRIX REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Access the **Copy Custom Report** task.
3. Select the **WDINST RW Revenue by Company Org Code** report.
4. Rename the report *WICT RW Revenue By Company Org Code* and click **OK** to save.
5. Review this report's definition.
    a. The PBO is Journal Line
    b. The Data Source is Journal Lines and the Data Source Filter is Journal Lines for Company.
6. In the **Matrix** tab, notice that the rows are grouped by Company. This means that journal lines will be grouped by Company.
7. In the Define Field(s) to Summarize section, note that the Translated Amount for Natural Debit or Credit is summed.
8. In the **Drill Down** tab, review the Group By Fields and the Detail Data sections.
9. In the **Filter** tab, notice that there are no filters defined.
10. In the **Prompts** tab, notice that there are many Prompt Defaults. This is because the Journal Lines data source has a number of built-in prompts. Here you can preset some default values to save data entry at run time. Note that all of the prompts here have the Do Not Prompt at Runtime checkbox selected. This means that this report will automatically run using the defaulted values for these prompts. Users will not have to enter any information when running this report.
11. In the **Output** tab, notice that the Output Type is set to Chart and Table.

12. Save and then run this report. Notice that the summarizations in the chart and table are grouped by company.

13. Click the **number** in the Actual column for the Global Modern Services, Ltd. (Canada) organization. Notice that Accounting Date is one of the details included. In this activity, Teresa will need to replace this information with the Fiscal Period for this accounting date. To do this, you will need to use the Format Date calculated field function.

TASK #2: CREATE A FORMAT DATE FIELD

1. Run the **Create Calculated Field** task and enter the following information:

Field Name	***Entry Value***
Field Name	WICT CF Accounting Date Fiscal Period
Business Object	Journal Line
Function	Format Date

2. Click **OK** and then enter the following information:

Field Name	***Entry Value***
Date Field	Accounting Date
Format	Fiscal Year-Period
Fiscal Schedule for Time Period	Standard Corporate Schedule
Fiscal Period Return Type	Fiscal Period

Note: Selecting Fiscal Year-Period as the Format will make the next two fields appear.

3. Click **OK** to save this field.

TASK #3: ADD FIELD TO REPORT

1. Edit the **WICT RW Revenue by Company Org Code** report.

2. In the Drill Down tab, locate the Detail Data section and replace the Accounting Date field with **WICT CF Account Date Fiscal Period**.

3. Click **OK** to save these changes.

4. **Run** the report.

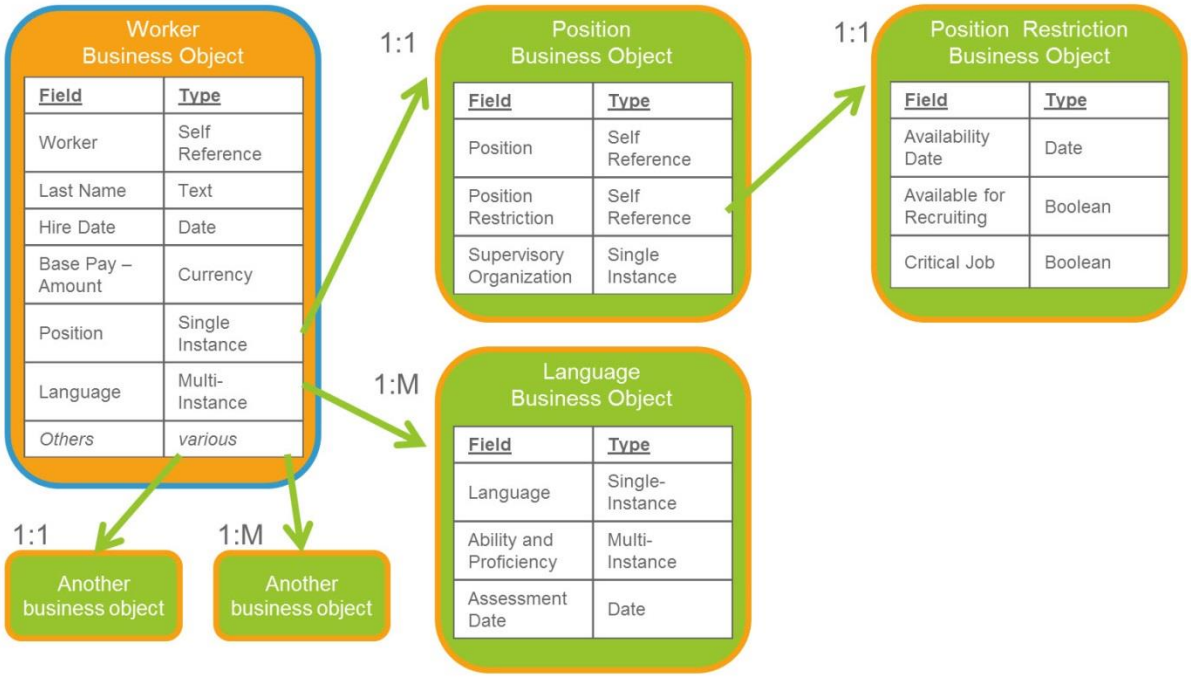
5. Click the Actual amount for Global Modern Services, Ltd. (Canada) organization. Now you can see the Fiscal Year-Period combination defined in the calculated field.

WORKING WITH RELATED BUSINESS OBJECTS

With Advanced reports, you can include fields from related business objects directly in your report without needing a calculated field. Advanced reports let you include fields from RBOs that are “one level deep" or in other words directly related to the primary business object. However, when you are creating a Simple or Matrix report, or if you want your Advanced report to access data from a related business object of your report's related business object, or “two levels deep," you will need to use a calculated field.

The calculated field function Lookup Related Value allows you to retrieve a value from an instance on a related business object and “promote” it to your primary business object. This is useful in cases where you need the value from the RBO to be available from your PBO. For example:

- When you need to perform an arithmetic calculation between two fields that exist on separate business objects.
- When you need to report on a field that your reports primary business object can’t directly access.
- When you need to include a field in a business process condition rule, but it isn’t available given the context of the rule.



93 - Visual representation of the Worker business object and its one level deep relationship with the Position business object, and two levels deep relationship with the Position Restriction business object.

LOOKUP RELATED VALUE

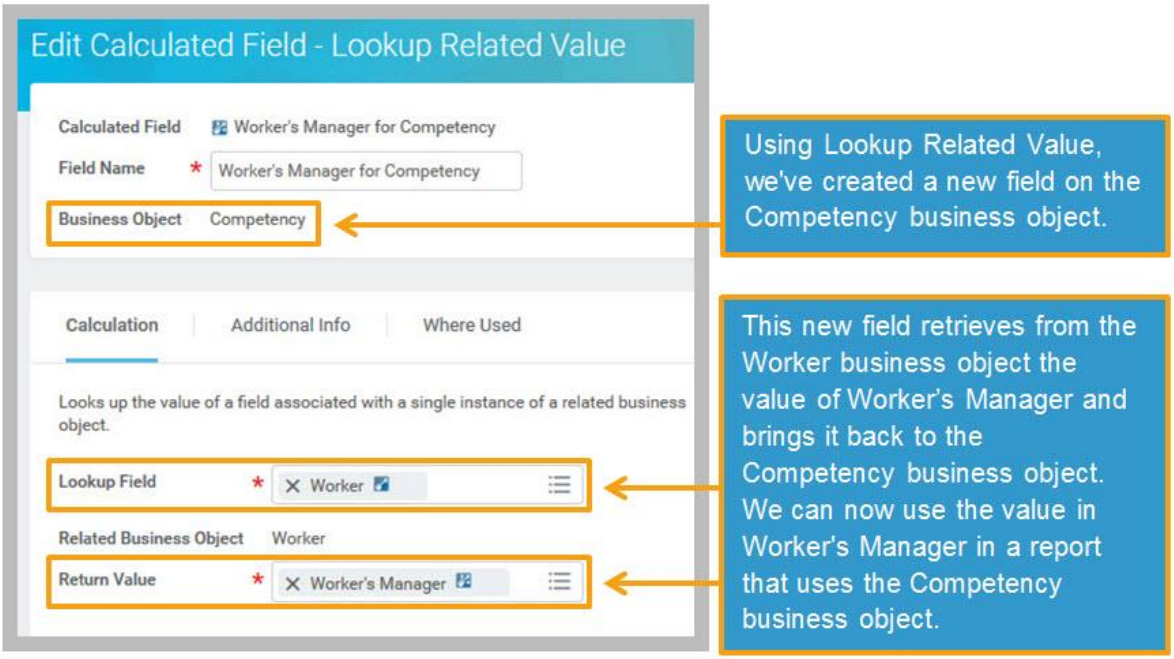
The Lookup Related Value function retrieves a value from a field on a related business object and promotes it up one level, making it available for use in calculated fields, rules, or reporting.

Here are some examples of looking up a value on a related business object:

- Promote a value from an RBO to a PBO to make it available for a matrix report.
- Promote a field from an RBO to the PBO to make it available for grouping and totaling on an advanced report.
- Promote a field from an RBO to a PBO to use it in combination with a field on the PBO to create a calculated field.
- Make a field available for a business process condition rule.

In order to use the Lookup Related Value calculated field function, there must be a 1:1 relationship between the PBO and RBO.

In the example below, we extract Worker's Manager on the Worker business object for a report based on the Competency object.



94 - Example of a Lookup Related Value field

USING THE BUSINESS OBJECT DETAILS REPORT

As previously mentioned, the two business objects used in your Lookup Related Value calculated field must have a 1:1 relationship. If you are unsure of the relationship between the two objects, you can use the Business Object Details report to determine whether the relationship between your two objects is 1:1 (single instance) or 1:M (multi-instance).

ACTIVITY 9.2 – BUILD A LOOKUP RELATED VALUE CALCULATED FIELD

Business Case: Now that Teresa has copied the matrix report and formatted the accounting date, she needs to modify the report to show the revenue by company org code using a lookup related value calculated field.

TASK #1: RUN THE MATRIX REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Run the **WICT RW Revenue by Company Org Code** report you created earlier.
3. Click the **Global Modern Services BV (Netherlands)** company.
4. Move to the **Details** tab. Notice the company Code here: GMS NLD. This code exists on the Company business object. In order to use it in the WICT CF Revenue by Company Org Code report, you will need to create a calculated field to promote this field to the Journal Lines business object.

TASK #2: CREATE A LOOKUP RELATED VALUE FIELD

1. Run the **Create Calculated Field** task.
2. Enter the following information:

Field Name	***Entry Value***
Field Name	WICT CF Company Org Code on Journal Line
Business Object	Journal Line
Function	Lookup Related Value

3. Click **OK**.
4. Enter the following information:

Field Name	*Entry Value*
Lookup Field	Company When selecting the Lookup Field, notice that there are two Company fields available. Use the Related Actions for each of these fields for more information about each and select the one on the Financial Line business object.
Return Value	Code

5. Click **OK** to save this field.

TASK #3: ADD CALCULATED FIELD TO MATRIX REPORT

1. Edit the **WICT RW Revenue by Company Org Code** report.
2. In the Row Grouping section, remove Company as the Group by Field and replace it with the **WICT CF Company Org Code on Journal Line** field.
3. Click **OK** to save the report definition.
4. Run the report. Notice that the data in the chart and table is now grouped by the company code instead of the company name.

CHAPTER 9 KNOWLEDGE CHECK

1. Where can calculated fields **not** be used?

    A. Reports

    B. Business Process Condition Rules

    C. Integrations

    D. Security Configurations

2. What type of report allows you to access fields from Related Business Objects one level away without using a calculated field function?

    A. Advanced

    B. Matrix

CHAPTER 10 – REPORT PERFORMANCE

OVERVIEW

It is important to keep performance in mind when designing your custom reports. As you increase the number and complexity of the custom reports in your system, you need to make sure your reports are always running the way they were intended to: instantaneously. Due to the flexibility and high configurability of your system's security and report settings, diligent report administration is vital to ensuring that your reports perform at a high level. In this chapter, you will learn the different factors that can impact report performance. You will also learn how to use report logs to test and debug report performance issues.

OBJECTIVES

By the end of this chapter, you will be able to:

- Describe the factors that impact report performance.
- Identify best practices for building reports that perform well.
- Log and view the performance of a report.

REPORT DESIGN - "THOUGHT GUIDE"

When creating a new report custom report in your tenant, it is important to first stop and assess the business needs of your report. Earlier in this course we went over a list of questions to think about when designing a custom report. We also recommend creating a "Thought Guide", listing these considerations each time you are building a report. Questions you might want to consider as part of your Thought Guide include:

- Who is running the report?
- How often will it run? Does it require scheduling?
- What type of information are users getting from this report?
- Data as of today?
- Will you need to summarize or aggregate data for the report's output?
- Can you get the data from a single source? Or do you require multiple data sources?
- Will users do any further manipulation of the data after running the report?

The answers to these questions will determine the best method of configuring your report to suit your needs.

ADDITIONAL DESIGN CONSIDERATIONS

Now that you have learned the basic principles of using Report Writer, you can keep some additional considerations in mind when planning out your custom report.

- Use the Business Object Details report to research all options available before choosing a business object and data source for your report.
- Whenever possible, copy Workday-delivered reports to create new custom reports.
- Carefully consider what report type will work best for your business needs, and from a performance perspective.
    - Choose Matrix reports with calculations if aggregating data in calculated fields. Creating an advanced report to achieve the same will result in a significantly slower report.
    - Choose composite reports if comparing data and looking for changes/variances like data audit reports, year-over-year reports, etc.
    - For infrequently-run reports (per quarter, per month, per fiscal period, etc.) or executive reporting, choose scorecards.
    - For recurring runs of reports (for example, every Monday morning or every last Friday of the month), consider pushing the reports to the background as a scheduled process.
    - For reporting on trends, choose trended data sources and scorecards.
- For reporting across multiple sources of data, consider composite reports and ensure that underlying sub-reports are built using indexed data sources ONLY.
- For advanced reports that need downstream heavy lifting (pivots), consider creating matrix reports instead.

- Pay attention to ALL warnings in Report Writer. These will often tip you off to performance issues as soon as you make the configuration. For example, the system will warn you if you are including or filtering on a non-indexed field while using an indexed data source.

SCENARIO

Logan McNeil needs to compare her version of the Recruiting Analysis by Hiring Source and Location report to a previously existing version to see which version is move efficient. The older version of the report used a standard data source, while the newer version, which you created in chapter 8, used an indexed data source.

Throughout this course, you have heard that indexed data sources perform better than standard data sources. To test this claim, later in this chapter we will be running both repots using Workday's Report Log tool. This tool gives you the ability to track any reports being run in your system and view each report's performance. But before we test out the report performance in the report log, let's quickly review the data sources used in these two versions of the Recruiting Analysis by Hiring Source and Location report.

In chapter 8, you created the WICT RW Recruiting Analysis by Hiring Source and Location report using the Workers for HCM Reporting data source, applying the All Employees data source filter to return only active employees in your report. Note that this data source exists on the Worker business object, which contains a very large volume of information.

If you view the report definition for the WDINST RW Recruiting Analysis by Hiring Source and Location-Non Indexed report, you will see that this report uses a completely different data source and primary business object. The data source for this report is All Active Employees, which is on the Employee business object. This data source/business object combination effectively returns the same information as the combination used in the indexed version you created in chapter 8. Note also that the Employee business object is a little smaller and more focused than the Worker business object. This means that when the report is run, the system has fewer instances of data to sort through when determining the report output.

With all of this in mind, does the difference in the volume of data in the business object make up for the performance rate of a non-indexed data source? We will find out later in this chapter. Before we get there, let's review some other factors that could affect your report's performance.

FACTORS THAT IMPACT PERFORMANCE

This following table summarizes the factors that impact performance when creating a custom report.

Resource: Search Community for *Optimizing Report Performance* for more information on performance considerations.

Term	Description
Data Source	The data source is the biggest factor for your report's performance. Select the data source that will return the smallest data set. When possible, use an indexed data source since it is optimized for performance. Additionally, report data sources with built-in prompts will typically perform faster.
Report Fields	When displaying data from related business objects, select the field that returns the smallest data set whenever possible, especially when you then use a subfilter to reduce instances.
Calculated Fields	Using a large number of calculated fields will affect your report performance. Using very complex calculated field definitions could adversely affect your report performance as well.
Filtering	When configuring your report filters, order your filters so that the first filter listed reduces the data set by the most rows possible. This will ensure that subsequent filters will evaluate the fewest number of instances possible, which will increase your report's performance. Also consider the complexity of your filters, as more complex filters can affect performance.
Sorting	Sorting on simple field types performs better than sorting on object field types.
Security	Security affects the performance of your custom report. Workday determines accessibility field by field. The more fields you include in your report and the more complex the security, the longer it takes Workday to return results.

Let's review of these factors in a little more detail.

DATA SOURCE

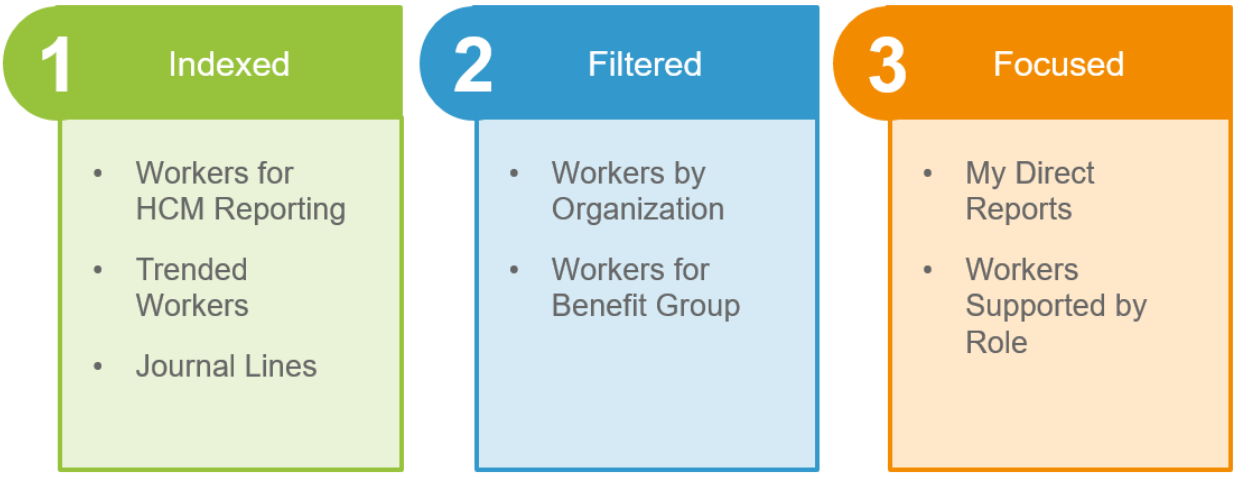
The data source is the biggest factor for your report's performance. Data sources, and data source filters, that return a smaller data set will usually perform better. There a few things related to performance to consider when selecting a data source.

DATA SOURCE CATEGORIES

In Workday, there are three different categories of data source.

- **Indexed** – Indexed data sources are the first choice for performance-critical reports, such as those used in dashboards. These data sources are specifically designed by Workday to be the most efficient in returning large volumes of data.
  - E.g. Workers for HCM Reporting, Trended Workers
- **Filtered** – Many non-indexed data sources are filtered to narrow down results. These improve performance by only fetching limited data sets of interest for a given report.
  - E.g. Workers by Organization, Workers for Benefit Group
- **Focused** – Some non-indexed data sources return limited instances based on the user running the reports. For example, My Direct Reports data source will only return workers who report directly to the worker running the report. This limited data set also can improve report performance.
  - E.g. My Direct Reports, Workers Supported by Role

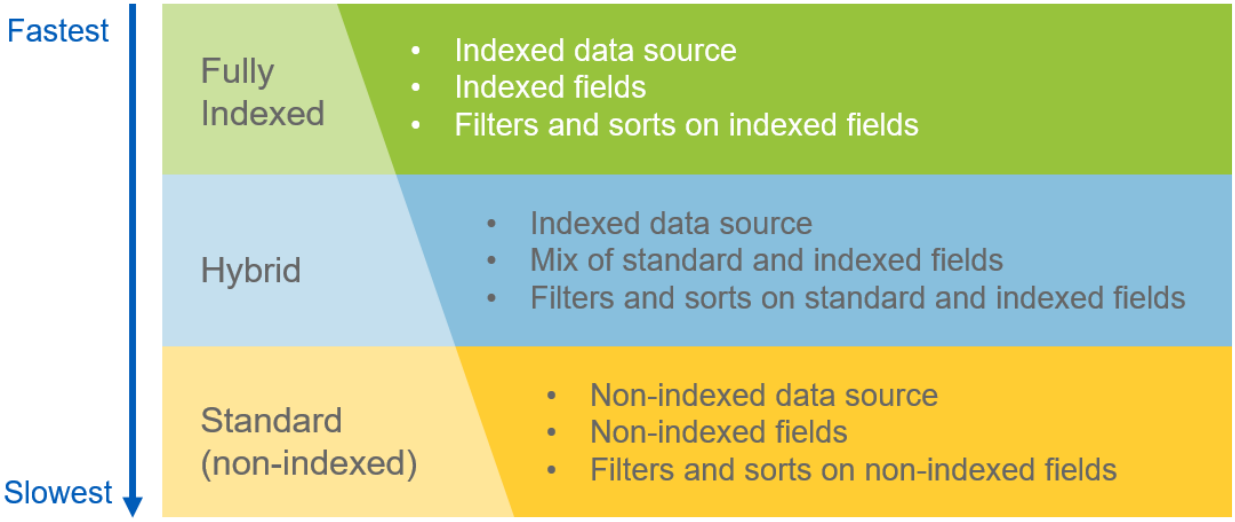
When building a report, try to use one of these categories, prioritizing in the following order:



In other words, always try to build your report on an indexed data source. If there are no indexed data sources that suit your needs, try to find a filtered data source that does. If there are none, then try to use a focused data source instead. Only after exhausting these options should you build a report on a large standard data source.

INDEXED REPORTS

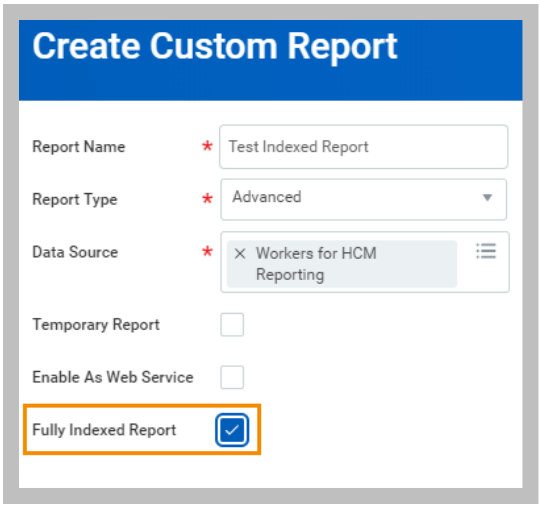
By now you understand that you should always attempt to build your reports on indexed data sources when possible. However, the data source is not the only factor that makes a report "indexed" or not. In fact, there are three types of indexing possible in Workday.



Even if you select an indexed data source, you still need to use indexed fields for your report columns and filters for the report to run in a fully indexed capacity. Using non-indexed fields in your report's columns and filters will make your report run in Hybrid mode. Hybrid reports will still perform better than a standard, or non-indexed, report. However, fully indexed reports will still provide the best performance possible.

Fully Indexed Report Option

While not always possible do to reporting requirements, a report running in Fully Indexed Mode will ensure the most optimal performance possible. As such, you can use the Fully Indexed Report option when creating a custom report to make sure that your report fields and filters will be indexed.



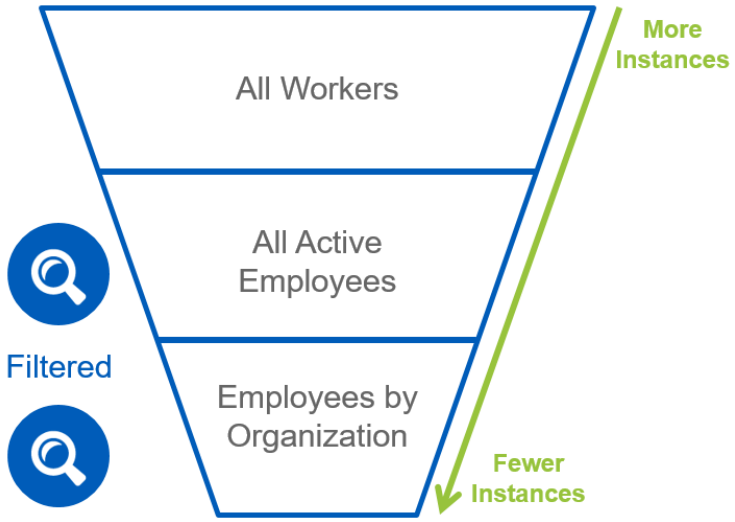
Selecting the Fully Indexed Report checkbox during report creation will limit the fields available to include as report columns or filters to only those that are indexed. In other worse, by selecting this box at report creation, you ensure that your new custom report will always run in Fully Indexed mode.

There are a couple of considerations to keep in mind when deciding to use this feature:

- This feature is only available after you have selected an indexed report data source.
- You may not be able to access all of the fields you require for your report's context.

FILTERED DATA SOURCES

If an indexed data source isn't possible for your report, the next best thing is a filtered data source. This will limit the number of results being processed at report runtime and improve performance. Remember, the smaller the data set included in the report data source, the faster the system can process through that data set. The following diagram shows three standard data sources.



95 - Visual representation of the All Workers, All Active Employees, and Employees by Organization data sources from least to most specific.

- All Workers – Returns the most instances.
- All Active Employees – Returns fewer instances (doesn't include contingent, future, or terminated workers).
- Employees by Organization – Returns the fewest instances (only shows active employees for the specified organizations).

As you can see, when selecting a data source for your report, especially when using standard data sources, you should choose the data source that returns the fewest instances and still includes all needed data.

Data Source Filters

When using an indexed data source for your report, you also need to consider the data source filter you use for your report. Data sources and data source filters with built-in prompts are more efficient than adding filters to your report's definition. For example, when creating a report on the Workers for HCM Reporting data source, using the Employees by Role data source filter is more efficient than adding a filter prompt to identify role to a report using the All Employees data source filter.

Remember, indexed data sources are already optimized for performance, aggregation, and filtering large volumes of data. Here are some commonly used indexed data sources:

- HCM: Workers for HCM Reporting, Trended Workers
- Financials: Budget Lines, Journal Lines, Customer Invoices, Supplier Invoices

Be careful with adding too many standard or calculated fields to a report that uses an indexed data source since they can significantly slow the performance. You can run the View Indexed Fields for Data Source report for a list of indexed fields and the type of indexing used by each field on the data source.

ADDITIONAL DATA SOURCE PERFORMANCE CONSIDERATIONS

In addition to the guidelines mentioned, here are a few more tips to consider when deciding on the best data source to use for your report.

- Always use the Trended Workers data source for reports related to trended data on your workforce.
- Consider using a custom data source if you cannot find an indexed, filtered, or focused data source that suits your reporting needs.
- Never use a data source marked as Do Not Use. Data sources marked this way have been tagged for deprecation by Workday and will usually be removed from the system within one or two Workday version updates. If you have a custom report built on a data source that is later marked as Do Not Use, use a Workday-provided alternative data source to rebuild that report.
- Be wary of data sources designed to house massive volumes of data. These data sources often have the data your report needs, but also included lots of data you do not need and can make your report's performance suffer. Examples of these types of data sources include:
    - All Business Process Transactions
    - All Active and Terminated Workers

REPORT FIELDS

Along with the report data source you choose, the fields you include on your report can have a tremendous impact on report performance. There are several factors to remember when selecting and ordering the fields in your report.

LIMIT THE NUMBER OF REPORT FIELDS IN A REPORT

When building a report, it may be tempting to include several fields to provide additional insight into the data the report is intended to present. However, the more fields that you include in your report, the more data that needs to be processed. The system also requires more time to test the security for each field included on the report. This is why, when deciding which fields to include on a report definition, strive to only include the fields that are truly needed for the report's purposes.

BE CAREFUL WITH CALCULATED FIELDS

Calculated fields can provide a flexible solution for accessing report data where and how you want it. However, from a report performance standpoint, calculated fields can be a taxing addition to your report definition. Complicated calculated fields with multiple levels of calculation can take a significant amount of time for the system to process. Try to avoid including these

types of calculated fields in your report if possible, opting instead for fields from related business objects or using subfilters to modify your report output.

Additionally, even simple calculated fields can cause performance issues when there are several included in the report. Try your best to limit the number of calculated fields used in a report definition.

USING FIELDS FROM RELATED BUSINESS OBJECTS

When displaying data from related business objects, use the field that returns the smallest data set. The following example shows several fields that access worker base pay change event data.

96 - Worker Events - Completed, Work History Summary, Compensation History, Compensation History - Base Pay Changes Only fields listed from most to least amount of data returned

The Worker Events – Completed field returns the most data and the Compensation History – Base Pay Changes Only field returns the least data. The before report uses the Worker Events – Completed field, so we need to filter out events that are not base pay increases. The after report uses the Compensation Events – Base Pay Changes Only field, so the data set only includes base pay increases.

When working with calculated fields, using complex calculated fields increases the processing time. Workday determines the value of a calculated field at the time it's used, which requires processing time. When your calculated field performs a simple operation like removing a portion of the text, Workday completes the transaction quickly. But when your calculation involves other calculated fields, Workday takes longer to return a value.

FILTERING

Filtering your report results can narrow down the scope of the data returned and contribute to faster and more streamlined results. However, when applied improperly, filters can also hamper report performance as well. There are several considerations to keep in mind when configuring filters on your report definition.

FILTERING ON INDEXED FIELDS

First, remember that reports built on indexed data sources can only perform as fast as the filter fields included in the report definition. This means that you should always try to use indexed fields in your report filters. Using a non-indexed field for a filter will make your report run in Hybrid mode, instead of the ideal fully indexed mode. Therefore, if you are using an indexed data source for your report, always try to use indexed fields even in the filters.

USING DELIVERED PROMPTS

Prompts can provide an excellent and flexible framework for limiting report data to only the most contextually relevant data for the user running the report. However, too many prompts and subsequent filters can cause the system to take additional time to process the report at runtime. Many data sources include built-in prompts that you can and should use before creating additional prompts or filters of your own.

For example, the Workers by Organization data source has built-in prompts for *Organization*, *Subordinate Organization*, and *Is Manager*. Using these in your report will cause your report to perform much better than if you had replicated these prompts manually in the report definition.

OPTIMIZE FILTER ORDER

The order of the filters you include in your report will have a big impact on your report performance. The system evaluates filters from the top down, so it is important that the first filter listed is the one that will eliminate the largest number of instances. This way, the system will progress through any subsequent filters in a much shorter time.

LIMIT THE USE OF SUBFILTERS

Using too many subfilters can cause the system to take additional time in evaluating report data before output, slowing your report performance. Additionally, the excessive use of subfilters is often a good indication that you have chosen a primary business object and report data source that isn't specific enough to the needs of your report. Here's a good rule of thumb; if your report uses 8 or more subfilters, use the Business Object Details report to try and identify a more targeted and efficient business object or data source to use instead.

ADDITIONAL FILTER PERFORMANCE TIPS:

- Use simpler filter logic, since complex filters take longer to run.
- Limit the use of nested conditions. Using too many “Or” conditions in a filter will take the system longer to process the report.
- Try to use a pre-filtered data source that is already optimized for performance (such as All Active Employees).
- Use the Prompt the user for the value and ignore the filter condition if the value is blank comparison type instead of configuring two conditions.
- Avoid using calculated fields as filters.

SORTING

Effective sorting increases the performance of your custom report, just as inefficient sorting can decrease the report's performance. Here are a few tips for making sure your report sorts in the most efficient way possible.

SORT ON SIMPLE FIELD TYPES

The system can sort on simple field types like Text, Date, and Numeric fields much faster than on more complex object field types like Single Instance, Multi Instance, or Self-referencing Instance. Sorting by object field types is slower, because object fields access additional data in the background. Therefore, when configuring a report's sorting criteria, using text or other simple fields can improve your report's performance. Text fields, in particular, can provide a very efficient method of sorting.

WORKDAY IS ALWAYS SORTING

It is important to note that even if you do not indicate any sorting configurations on your report definition, Workday will automatically sort report results by the first column of your report. This means that, even if you do not explicitly lay out sorting criteria, you should still try to adhere to the principles of efficient sorting in your report column layout. Selecting a Text field, or other simple field type, as the first column of your report can often lead to improved report performance.

LESS IS MORE

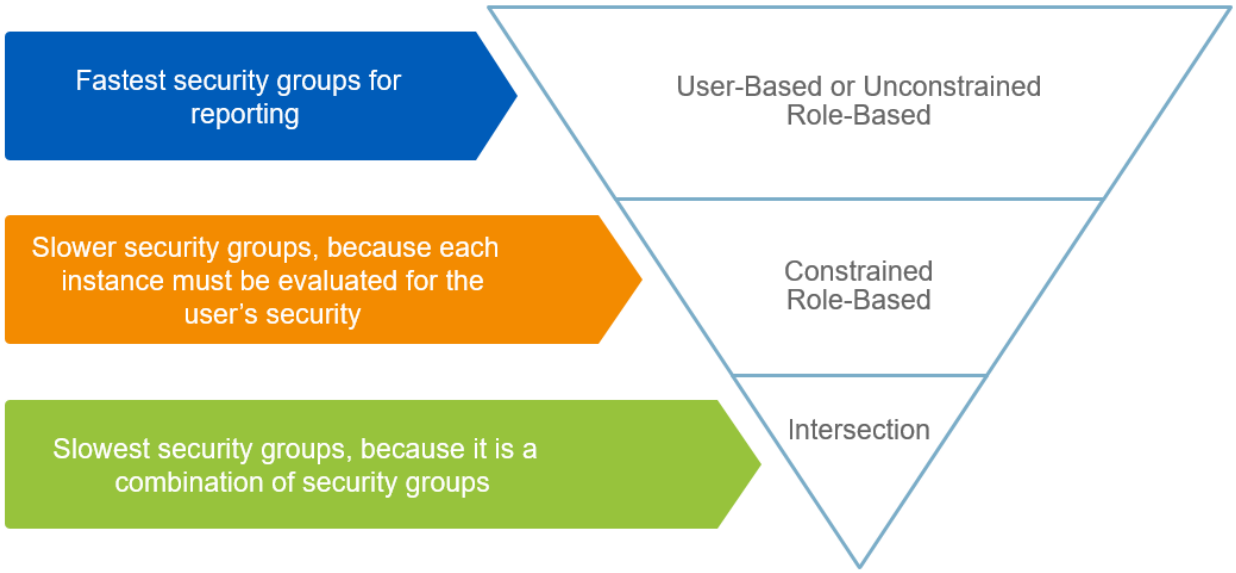
From a system-resource and performance standpoint, sorting can be a very "expensive" operation. The more sorts you configure for your report, the longer it will take for the system to organize the data for report output. Strive to optimize a report's sorting configurations by minimizing the number of sorts, as well as creating the most efficient sorts possible using the guidelines above.

TEST, TEST, TEST!

As with many of the performance tips in this chapter, these sorting tips are not hard and fast rules, but rather serve as a guideline for considerations for you, the report administrator, to keep in mind. After making changes to your report, always test the results to note whether your configurations helped or hindered your report performance.

SECURITY

The security group type that you share your report with also impacts performance. The following diagram shows different security group types.



97 - Security group types listed from fastest to slowest performance

- User-Based or Unconstrained Role-Based – These are the fastest security groups for a report.
- Constrained Role-Based – These are slower because each instance has to be evaluated as to whether it is supported by the security of the report user.
- Intersection – These are comprised of one or more security groups, and include users who are in all of the groups. This security group is the slowest because it is a combination of security groups.

ADDITIONAL SECURITY TIPS

- When using Constrained Role-Based security groups, selecting *Current Organization and All Subordinates* will perform faster than *Current Organization and Unassigned Subordinates*.

USE CASES

The following list shows example reports that may have performance issues.

- A report on > 8K workers without an indexed data source
- Executive dashboard with turnover report NOT on Trended Workers for > 100K workers
- An integration that searches through all worker history for each worker to find an effective date
- A report using the All Workers data source on hundreds or thousands of workers
- Any report that attempts to search through or return large amounts of data
- An advanced report on the Journal Line BO that uses a large number of Lookup Related Value calculated fields to pull in different field values from an RBO

As a report writer, you need to anticipate performance issues and design effective reports. You also need to determine which data source will deliver the needed data while minimizing the number of instances that will be returned in the report output.

TESTING AND DEBUGGING

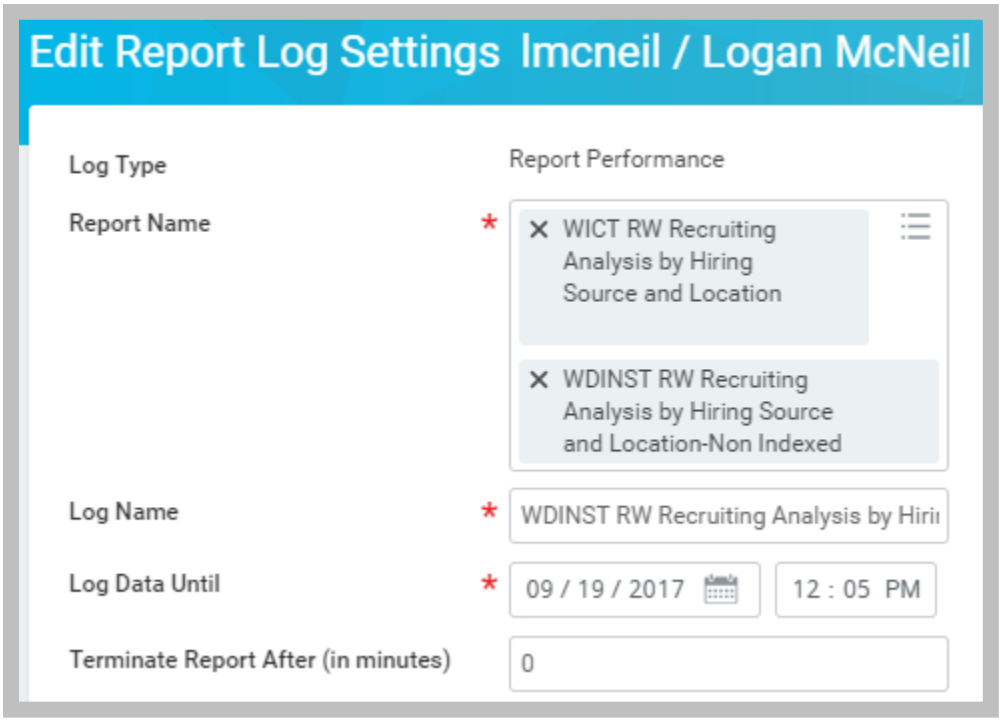
You can log and view report performance of specific reports using Edit Report Log Settings and View Report Log. Workday creates three types of logs for the specified report definition:

- Customer Log – Allows you to view performance data and use it to optimize report performance.
- Support Log – Provides additional performance data for Workday's support team to help them resolve performance issues.
- Internal Log – Provides even more detailed performance data that Workday developers can analyze if needed.

By collecting and analyzing reporting statistics, you can assess and compare report designs and make adjustments to come up with the optimal design. Note that timings in the logs are in milliseconds.

EDIT REPORT LOG SETTINGS

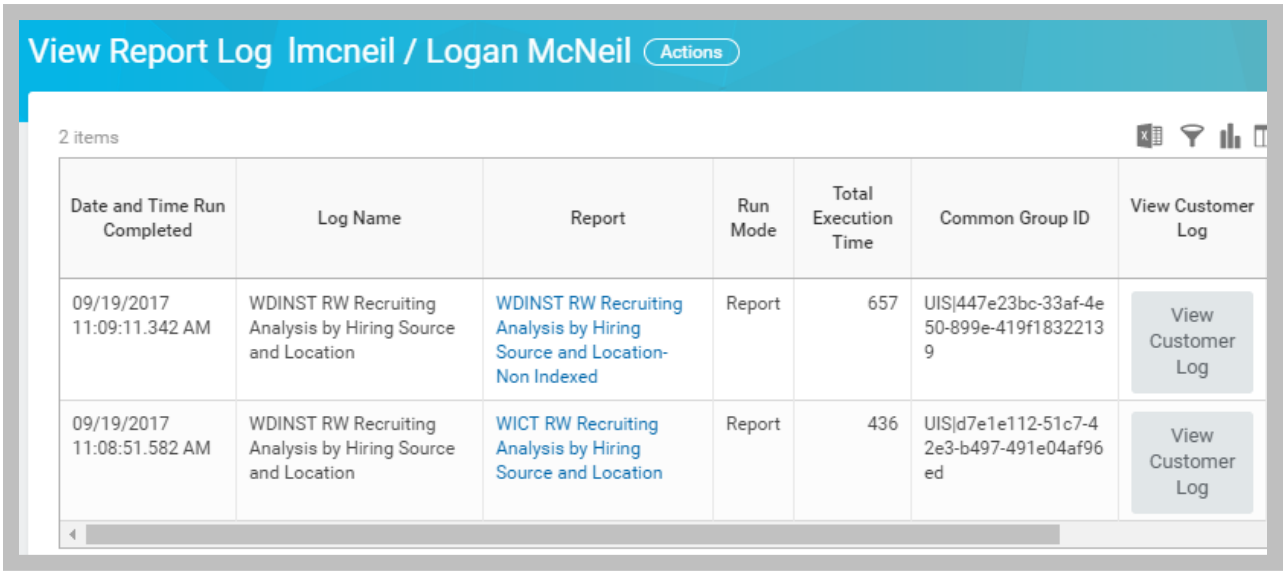
You can use the Edit Report Log Settings task to log timings for specific reports. You can specify when to stop logging the report.



98 - Edit Report Log Settings task

VIEW REPORT LOG

Once you have enabled logging for specific reports, you can use the View Report Log report to view the timings for a specific report.



99 - View Report Log task

WHAT CAN YOU LEARN FROM REPORT LOGS?

Report logs contain several different timings that you can use to improve the performance of your report. The following table shows different timings that are included in the report logs.

Report Timing	Meaning
Total Execution Time	Shows the total time it takes to run the report. Use this time to compare the overall effect of different changes you try in the report. Keep in mind that timing may vary due to other factors in the tenant.
Data Source Time	Shows how long it takes for the report to identify the data source and gather its instances. If this time is high, try using a different data source.
Top Level Filter Time	Shows how long it takes to filter the data. If this time is high, try reordering the filters, simplifying the filter logic, or using a data source that requires less filtering.
Top Level Sort Time	Shows how long it takes to sort the data. If this time is high, try sorting by simple field types instead of object field types.

Field Timings	Identifies which fields are running slower than others. If the slow field is a calculated field, try making improvements to make it faster.
DataSource Instance Count vs. Post Filter Instance Count	Compares the number of instances in a data source before and after filtering is applied. If there is a large delta between these two counts, try using a data source that requires less filtering. When displaying data from related business objects, use the field that returns the smallest data set.

ACTIVITY 10.1 – COMPARE REPORT PERFORMANCE

Business Case: Logan McNeil needs to compare her version of the Recruiting Analysis by Hiring Source and Location report to a previously existing version to see which version is move efficient. The older version of the report used a standard data source, while the newer version, which you created in chapter 8, used an indexed data source.

TASK #1: VIEW THE STANDARD DATA SOURCE REPORT

1. Sign in as Logan McNeil (lmcneil).
2. Locate the **WDINST RW –Recruiting Analysis by Hiring Source and Location – Non Indexed** custom report definition.

   Notice that this report is built in a very similar way to the one you created earlier in this course. It includes the same Row and Column Groupings, summarizations, and filters. The only difference is the data source on this report. Let's use the Report Log to see which of these reports performs better.

TASK #2: COMPARE THE PERFORMANCE OF THE TWO REPORTS

1. Access the **Edit Report Log Settings** task, and enter the following values:

Field Name	***Entry Value***
Report Name	WICT RW Recruiting Analysis by Hiring Source and Location WDINST RW Recruiting Analysis by Hiring Source and Location – Non Indexed
Log Name	Recruiting Analysis Performance Log
Log Data Until	One hour from now

2. Click **OK**.
3. Run the **WICT RW Recruiting Analysis by Hiring Source and Location** and **WDINST RW Recruiting Analysis by Hiring Source and Location – Non Indexed** reports using the default prompt values.
4. Access the **View Report Log** task.

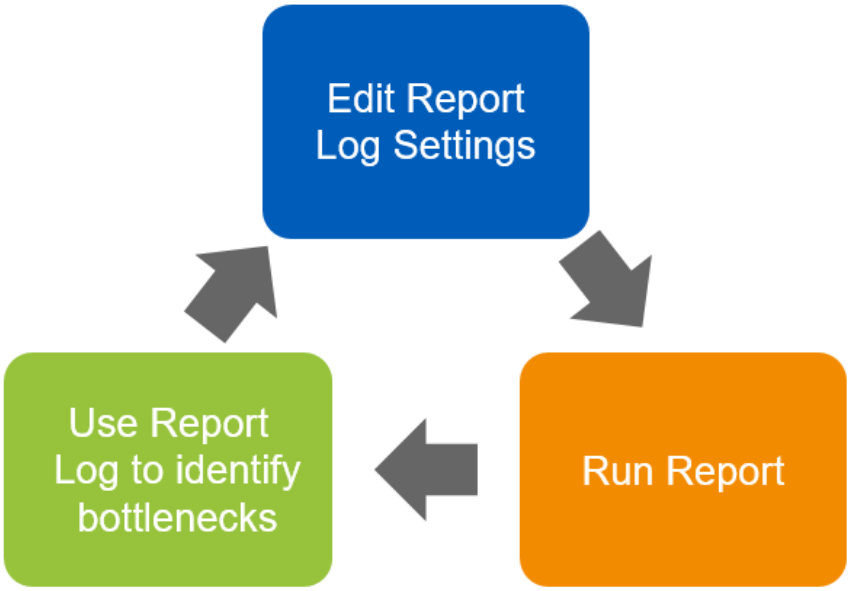
5. Click **View Customer Log** to review the timings. Review the log files created for each report and note which report had the faster timing in the following table. Mark both boxes if the timing for both reports is about the same

Report Timings	***WICT RW Recruiting Analysis by Hiring Source and Location***	***WDINST RW Recruiting Analysis by Hiring Source and Location – Non Indexed***
Total Execution Time		
Initialization Time		
Data Source Time		
Top Level Filter Time		
Top Level Sort Time		
Processing Time		
DataSource Instance Count		
Post Filter Instance Count		

Important: The indexed report performs better. As we've noted throughout the course, you should always try to use an indexed data source when creating custom reports.

REPORT PERFORMANCE ADMINISTRATION

Remember, the ongoing review and administration of the custom reports in your system is a vital component in keeping your tenant running smoothly and efficiently. You should establish a recurring report administration schedule to periodically review the reports in your system using the report log.



Additionally, here are some additional reviews you can perform on a recurring basis to keep your reports running quickly and efficiently.

Report Data Source Review

Set up a routine task to check for Reports with Retired Data Sources and Fields and rebuild reports using alternative data sources/fields provided. Consider creating custom Audit reports to track outdated analytics content in your reporting repository.

Report Design Review

Use the All Custom Reports report to identify the custom reports in your system. Create a schedule for ongoing review of these reports to ensure that the most up to date fields and filters are in place. Remember, Workday is always expanding the reporting capabilities in your tenant. There is a good chance of finding newer and more precise fields to use in your system as time goes by.

Report Run Optimization

Use the System Health Dashboard to identify time periods when your tenant's processing resource usage is at its lowest and set up your scheduled report runs in those windows.

Security Review

Check the report sharing configurations in your systems as part of ongoing security or report administration. As time goes on, your system's security settings will change as new security groups and domains are added. Make sure your reports are being shared with the correct security groups as part of your regular maintenance.

CUSTOMIZABLE DATA SOURCE – TRENDED WORKER

At this point, you have learned that indexed data sources are generally better to use for your report creation than standard data sources. You have also learned that when using an indexed data source, you should try to identify and use as many indexed fields as possible. The more non-indexed or calculated fields you include in your report, the more your report performance will suffer.

But what happens when you want to build a report on an indexed data source, but there are many standard or calculated fields you want to include? You know that your report performance will suffer, but is there anything you can do to alleviate this issue? Fortunately, Workday provides a customizable data source option on the Worker business object: the **Trended Worker** data source. Let's take a closer look at this data source.

Trended Worker is a delivered indexed data source on the Trended Worker business object. It is designed for reporting on trends in worker data over time, as it captures both staffing transactions and snapshots of worker data at selected intervals. This data source ideal for producing high-performing reports for executive dashboards.

The Trended Worker data source comes delivered in your Workday tenant, but must be configured to use. You can use the Maintain Trended Workers task to set up this data source. Here you can:

- Add a limited number of single-instance, Boolean, or numeric fields from the Worker and Worker Business Process business objects.
- Add Workday-delivered fields.
- Create custom calculated fields.
- Secure fields you add to a security domain.
- Select if fields you add are semi-additive measures, which don't sum over multiple periods.
- View field usage in reports you create.
- Map a limited number of organization types to trended worker report fields.
- Specify trending job configuration options.
- View worker trending job processing status.

Additional Training: For more information and additional training on setting up the Trended Worker data source, check out the Worker Trending Learn Independent on the Workday Learning Center. This course will give you information about this data source and show you how to use it to create dashboards and financial trending reports for your organization.

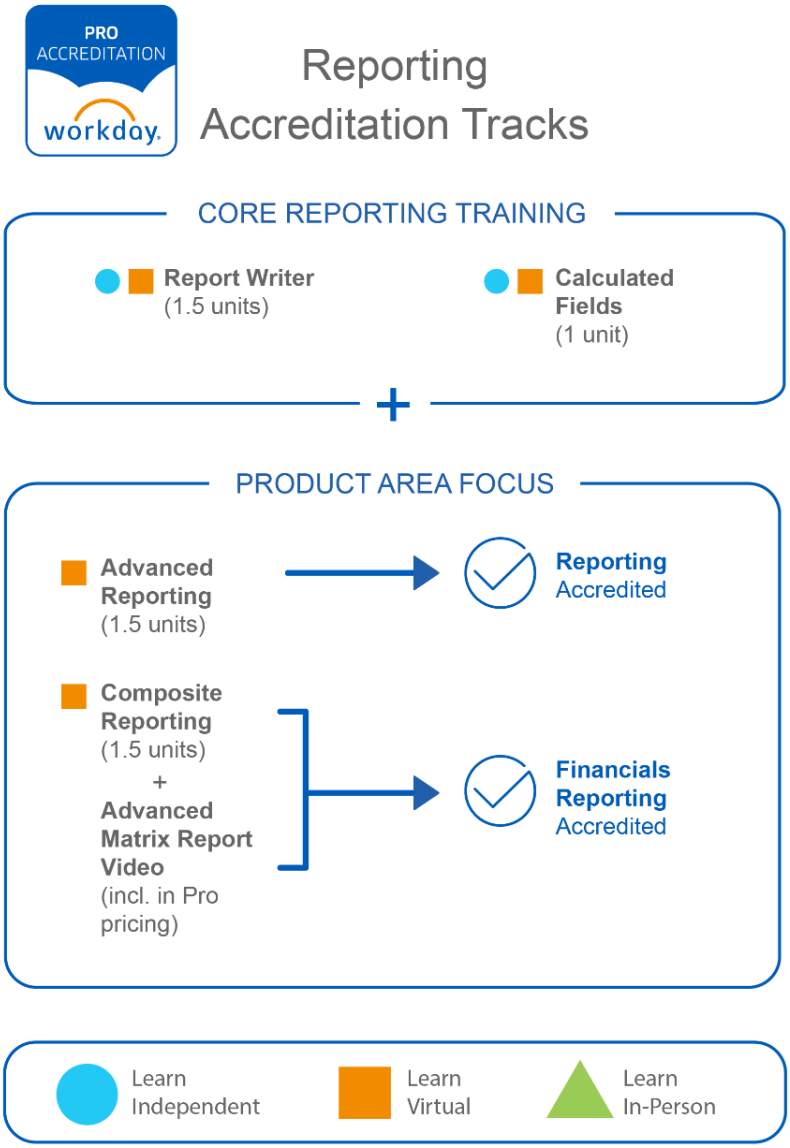
CHAPTER 10 KNOWLEDGE CHECK

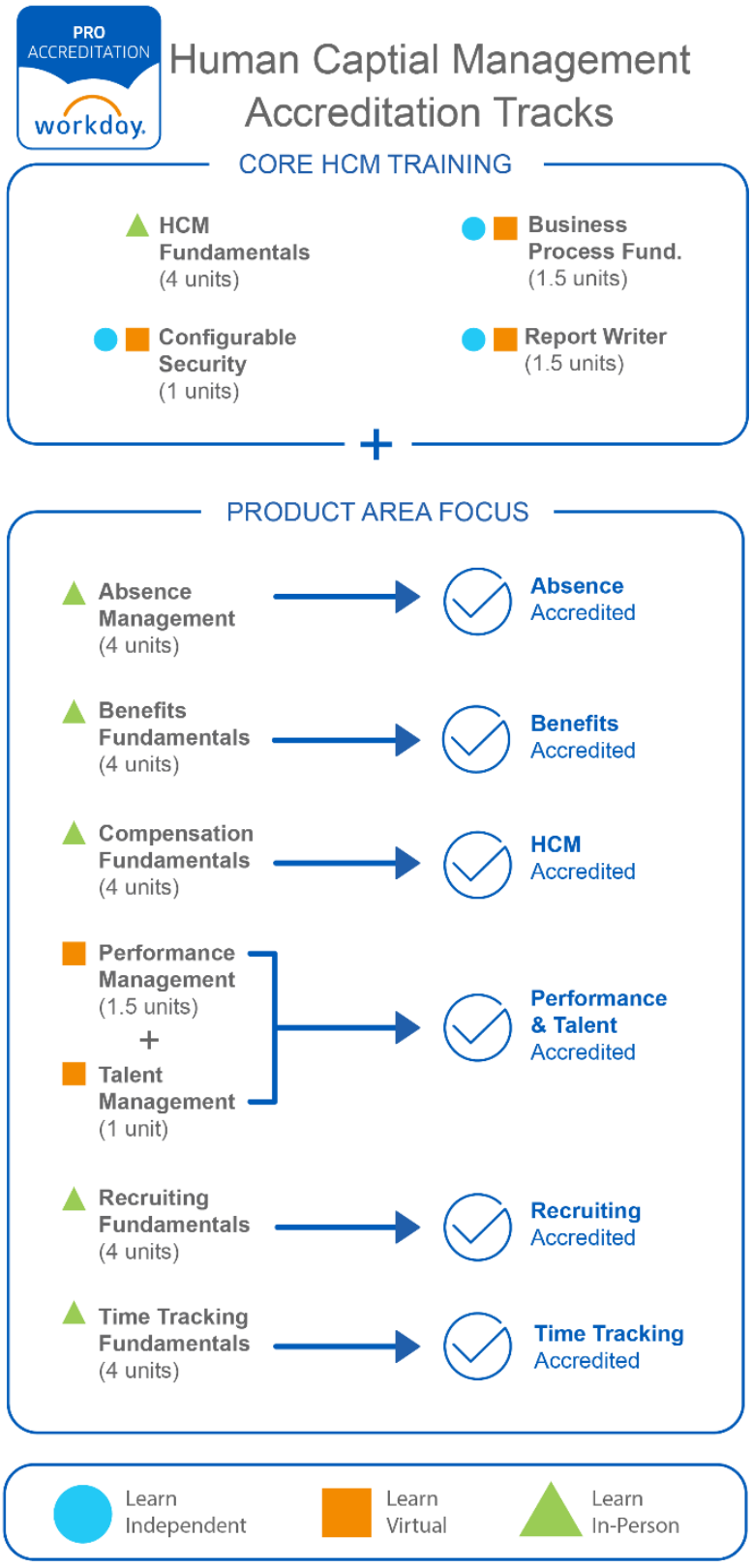
1. To optimize processing times, sort your report results by _____ field types.
    A. Simple
    B. Complex
    C. Calculated
    D. Report
2. What is the single biggest factor in report performance?
    A. Number of columns
    B. Data Source
    C. Filters
    D. Sorting
3. When should you use report logs to check the performance of your reports?
    A. When you first create the report
    B. Never
    C. On a recurring basis
    D. After the report has been in use for a few months

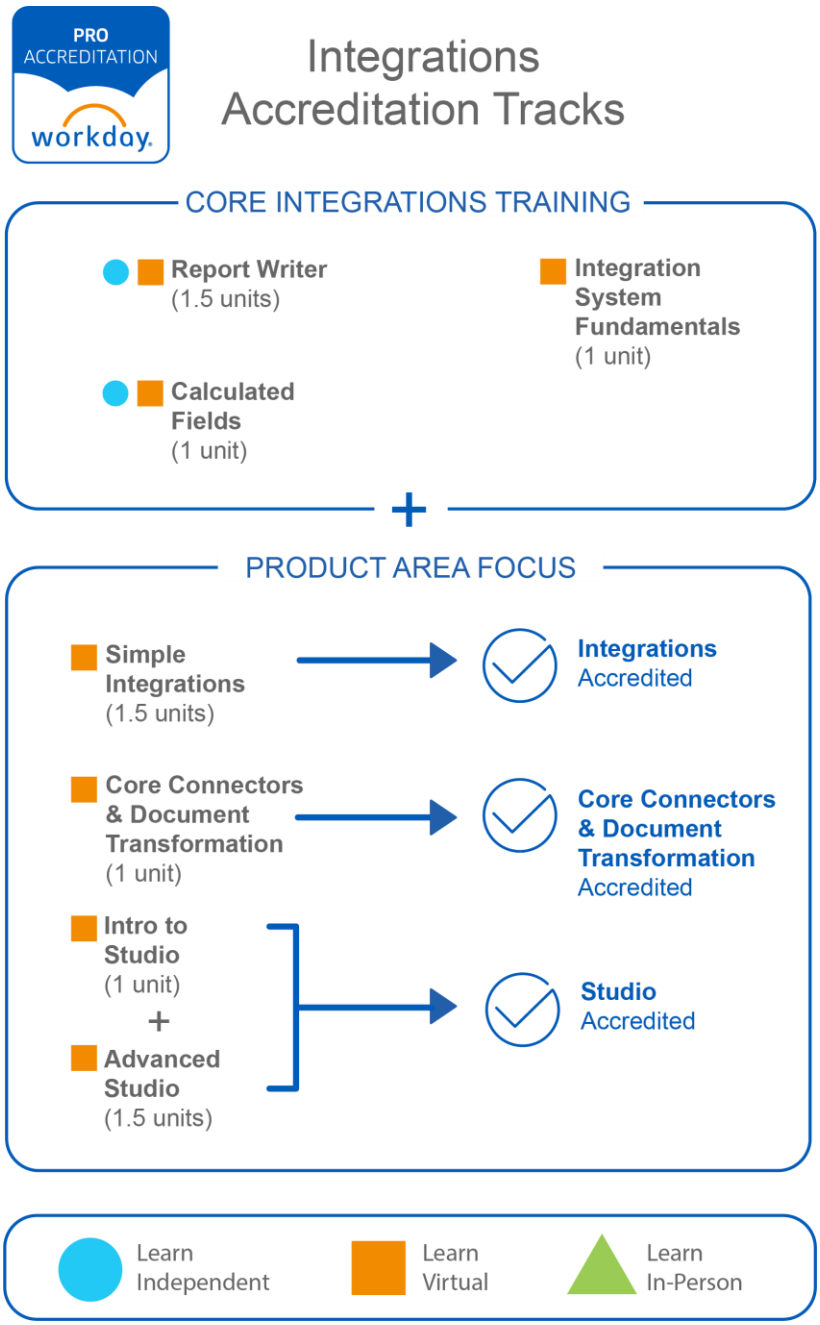
APPENDIX A – WORKDAY PRO

CUSTOMER ACCREDITATION PROGRAM

Workday Pro is a customer-focused accreditation program targeted at customers who want to actively engage and work side-by-side with the ecosystem on a path to develop a similar level of knowledge and expertise. It consists of several tracks, each with relevant courses, plus a written test.







Learn more: community.workday.com/pro

APPENDIX B – ACTIVITY ANSWER KEYS

This section contains answers to questions posed throughout the activities in this course. It also contains the step-by-step solutions for activities that only contain the high-level requirements.

ACTIVITY 1.1 – RUN A STANDARD REPORT

TASK #1: VIEW WORKDAY STANDARD REPORTS

5a. Based on the Description field, does this report show expense report line items without an attached receipt? Yes

5b. Is this a Report Writer report? Yes

TASK #2: RUN A STANDARD REPORT

4a. Are any of the desired fields missing from the standard report? If yes, which ones?
Yes, the standard report is missing the Cost Center and Receipt Attached fields.

4b. Are there fields in the standard report that Teresa does not want displayed?
Yes, she does not need the Company, Expense Report Line Date, Email Address, Managers, Status, Payment Status, and Memo fields.

4c. Can Teresa use the standard report as is or will she need to copy and modify it?
She will need to copy and modify the standard report so it contains the fields she needs.

ACTIVITY 1.3 – LEVERAGE STANDARD REPORTS

Sign in as Teresa Serrano (tserrano)

TASK #1: EXPLORE STANDARD REPORTS

(Hint: Use Workday Standard Reports.)

1. You need a report that displays journal lines by company, year, and period. The report should display the journal, company, status, accounting date, source, ledger, currency, ledger account, ledger debit amount, ledger credit amount, and worktags.
   (Hint: Financial Accounting report category)

   a. Access the **Workday Standard Reports** report.

   b. Select **Financial Accounting** in the Report Categories field.

   c. Click **OK**.

   d. Scroll down to the Find Journal Lines report and read the description.

      Can you use a standard report as a starting point?
      Yes, based on the description you can use this standard report as a starting point.

   e. Click the Find Journal Lines report's **Related Actions** and select **Standard Report > Run**.

   f. Enter the following information for the report prompts:

Field Name	***Entry Value***
Company	Global Modern Services, Inc. (USA)
Year	2015

Period	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

g. Click **OK** and review the fields displayed in the report.

If yes, what modifications would you make?
To meet the requirements, you would remove these fields: Journal Number, Intercompany Initiating Company, and Line Memo.

2. You need a report that lists the benefit plans in which a worker is eligible to enroll. The report should display the health care coverage plans, health savings account plans, spending account plans, insurance coverage plans, and defined contribution plans. (Hint: Benefits report category)

a. Access the **Workday Standard Reports** report.

b. Select **Benefits** in the Report Categories field.

c. Click **OK**.

d. Scroll down to the Benefits Eligibility by Worker report and read the description.

Can you use a standard report as a starting point? If yes, what modifications would you make?
Although the report description matches the requirements, you cannot use this standard report as a starting point because it is an XpressO report.

ACTIVITY 1.4 – ADD REPORT TAGS TO CUSTOM REPORTS

TASK #2: SEARCH USING A REPORT TAG

3. Does the WICT RW Expenses Without Receipt report definition appear in the search results? Yes

4a. How many items are returned in the search results? 53

4b. Does the WICT RW Expenses Without Receipt report definition appear in the search results? Yes

7a. How many items are returned in the search results? 20

7b. Does the WICT RW Expenses Without Receipt report definition appear in the search results? No, because this report had not been shared with Logan.

ACTIVITY 2.1 – EXPLORE A CUSTOM REPORT

TASK #1: EXPLORE A CUSTOM REPORT

3. What is the report data source, data source type, and primary business object for this report?

   Data Source: Workers for HCM Reporting

   Data Source Type: Indexed

   Primary Business Object: Worker

4. Which class report fields are from the primary business object and which are from the related business object?

   Primary Business Object: Employee, Job Title, Hire Date, Hire Quarter

   Related Business Object: Name, Age

5. In the Business Object column, click the Dependents' **Related Actions**.

   a. What is the Field Type for this field? Multi-instance

   b. What is the Related Business Object for this field? Dependent

6. In the Field column, click the Hire Quarter's **Related Actions**. Is this a Workday-delivered field, calculated field, or custom field? Calculated field

7. Click **Run**.

   a. For Alain DuBois, how many instances of the related business object (Dependent) are returned? 2

   b. For Alex Grossman, how many instances of the related business object (Dependent) are returned? 1

ACTIVITY 2.2 – DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

TASK #1: EXPLORE BUSINESS OBJECTS

5. Filter the Field Name column by **Employee** and **Employee ID**. Are these fields available on the Worker business object? Yes

6. Try filtering the field name column for the remaining required fields; **Base Pay – Current**, **Base Pay – Proposed**, and **Effective Date**. Are these fields available on the Employee business object? No

8. Which field contains the business process for the last compensation change, with a base pay change for the employee? Last Base Pay Increase

9. Are these Workday-delivered fields for the Employee Compensation Event business object? Yes

10. Use the following table to compare the All Active Employees, Employees by Organization, and Workers for HCM Reporting data sources.

	All Workers	***All Active and Terminated Workers***	***Workers for HCM Reporting***
Does the data source return active employees or active workers?	All workers regardless of status	Active and terminated Employees	Active Workers (with All Employees data source filter)
What is the primary business object for this data source?	Worker	Worker	Worker
Is this an indexed data source?	No	No	Yes

TASK #2: EXAMINE A DATA SOURCE

11. Which of these data source filters includes all active employees in the system? All Employees

TASK #3: DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

Based on your research, here are the answers to the questions that help you determine the primary business object and data source.

1. Based on the business object details you've seen in this activity, which business object(s) contain the fields needed in the report detailed in the business case for this activity?

   The Worker business object contains the Employee and Employee ID fields.

   The Employee Compensation Event business object contains the Base Pay – Current, Base Pay – Proposed, and Effective Date fields.

2. Are these business objects related? Yes
3. Which should be the primary business object? Worker
4. Which should be the related business object? Employee Compensation Event
5. Which field links the two business objects together? Last Base Pay Increase
6. Which data source should be used? Workers for HCM Reporting
7. Which data source filter should be used? All Employees

ACTIVITY 3.1 – DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

TASK #1: EXPLORE BUSINESS OBJECTS

1. Sign in as Logan McNeil (lmcneil).
2. Access the **Business Object Details** report.
3. Select **Worker** in the Business Object field.
4. Click **OK**.
5. Filter the Field Name column by **Worker**, **Supervisory Organization**, and **Location**. Verify that these are Workday-delivered fields.
6. Click the **Related Business Objects** tab.
7. In the Links to Related Business Objects table, filter the Business Object field by **Expense Report** and **Location**.
8. Click **6** in the Number of Links column for Expense Report. Notice that the Expense Reports – All Statuses field is a multi-instance field that contains all expense reports for the worker.
9. Close the pop-up box.
10. Click **33** in the Number of Links column. Notice that the Location field is a single instance field that contains the location for the worker.
11. Close the pop-up box.
12. Hover over the **Expense Report** link.
13. Right-click and select **See in New Tab**.
14. Filter the Field Name column by **Expense Report**, **Expense Items on Expense Report**, and **Expense Report Total Amount**. Verify that these are Workday-delivered fields.
15. Close the tab for the Expense Report business object.
16. On the tab for the Worker business object, hover over the **Location** link.
17. Right-click and select **See in New Tab**.

18. Filter the Field Name column by **Locale**. Verify that this is a Workday-delivered field.

19. Close the tab for the Location business object.

20. Click the **Data Sources** tab for the Worker business object.

21. Filter the Data Source column by **All Workers** and **Workers for HCM Reporting**. Both of these data sources will return only active (not terminated) workers.

TASK #2: COMPARE DATA SOURCES

1. Access the **Data Sources** report to do some additional research.

2. Filter the Data Source field by **All Workers** and **Workers for HCM Reporting**. Notice that All Workers is a standard data source and Workers for HCM Reporting is an indexed data source. Logan should use the Workers for HCM Reporting data source, since indexed data sources are optimized for performance. Notice also that Workers for HCM Reporting has several Data Source Filters. Each of these provides a more specific filter on the data set. Review the descriptions for each of these data source filters. For this report, the All Employees data source filter would return the active employees in the system.

TASK #3: DETERMINE THE PRIMARY BUSINESS OBJECT AND DATA SOURCE

Based on your research, here are the answers to the questions that help you determine the primary business object and data source.

1. Which business objects contain the fields needed in the report?
   The Worker business object contains the Worker, Supervisory Organization, and Location fields.
   The Location business object contains the Locale field.
   The Expense Report business object contains the Expense Report, Expense Items on Expense Report, and Expanse Report Total Amount fields.

2. Are these business objects related?
   Yes

3. Which should be the primary business object?
   Worker

4. Which should be the related business objects?
   Location
   Expense Report

5. Which field links the primary and related business object together?
   The Location field links the Worker business object to the Location business object.
   The Expense Reports – All Statuses field links the Worker business object to the Expense Report business object.

6. Which data source should be used?
   Workers for HCM Reporting, with the All Employees data source filter.

ACTIVITY 4.3 – CREATE A CUSTOM REPORT

TASK #1: CREATE A CUSTOM REPORT

1. Sign in as Teresa Serrano (tserrano).
2. Access the **Create Custom Report** task.
3. Enter the following information:

Field Name	*Entry Value*
Report Name	WICT RW Unpaid Supplier Invoices
Report Type	Advanced
Data Source	Supplier Invoices

4. Click **OK**.
5. Select **Supplier Invoices Filter** for the Data Source Filter field.

TASK #2: ADD FIELDS

1. Add the following information to the Columns grid:

Business Object	*Field*	*Options*
Supplier Invoice Document	Supplier Invoice Document	
Supplier Invoice Document	Company	
Supplier Invoice Document	Supplier	
Supplier Invoice Document	Due Date	
Supplier Invoice Document	Invoice Amount in Base Currency	Show Currency Symbol
Supplier Invoice Document	Document Payment Status	
Supplier Invoice Lines	Supplier Invoice Line	
Supplier Invoice Lines	Spend Category as Worktag	

Supplier Invoice Lines	Extended Amount in Company Base Currency	Show Currency Symbol

TASK #3: ADD FILTERS

1. Click the **Filter** tab.
2. Add three rows to the grid and enter the following information:

Field	***Operator***	***Comparison Type***	***Comparison Value***
Document Payment Status	in the selection list	Value specified in this filter	Partially Paid Unpaid
Invoice Status	in the selection list	Value specified in this filter	Approved
Supplier Invoice Lines	is not empty		

TASK #4: ADD SUBFILTERS

1. Click the **Subfilter** tab.
2. Click the **Add** button.
3. Select **Supplier Invoice Lines** for the Business Object field.
4. Add a row to the grid and enter the following information:

Field	***Operator***	***Comparison Type***	***Comparison Value***
Spend Category as Worktag	in the selection list	Prompt the user for the value and ignore the filter condition if the value is blank	Default Prompt

TASK #5: POPULATE UNDEFINED PROMPTS

1. Click the **Prompts** tab.
2. Select the **Populate undefined Prompt Defaults** checkbox. Notice that Company is added to Prompt Defaults grid. This prompt comes from the Supplier Invoices Filter for the Supplier Invoices data source.

TASK #6: RUN THE REPORT

1. Click **OK**.
2. Click **Run**.
3. Enter the following information in the report prompts:

Field Name	***Entry Value***
Company	Global Modern Services, Inc. (USA)
Spend Category as Worktag	Office Supplies

4. Click **OK** and verify the data on the report.

ACTIVITY 5.1 – CONFIGURE TOTALS, GROUPING, AND OUTLINING

TASK #2: ADD SUBTOTALS AND A GRAND TOTAL

11a. For the US – West region, what is the total expense line amount for the 71200 Field Sales – North America cost center? $11,097.83

11b. What is the total expense line amount for the US – West region? $13,881.49

11c. What is the grand total expense line amount? $325,533.32

TASK #3: ADD THE COUNT FIELD

7a. In the US West Region, how many expense reports are included in the subtotal for the 71200 Field Sales – North America cost center? 42

7b. How many expense reports are included in the subtotal for the US – West region? 53

7c. How many expense reports are included in the grand total? 909

TASK #4: ADD GROUPINGS

7a. For the third to last row, what information is captured in the Group Name column? The grouping for the subtotal, which is the 71200 Field Sales – North America cost center in the US West region

7b. For the second to last row, what information is captured in the Group Name column? The grouping for the subtotal, which is the US – West region

7c. For the last row, what information is captured in the Group Name column? The text “Grand Total”

ACTIVITY 6.1 – SHARE A REPORT

TASK #1: SHARE THE REPORT WITH SPECIFIC AUTHORIZED GROUPS

5. Run the report accepting the default prompt value of Global Modern Services, Inc. (USA).

    A. How many instances does Logan see? 179

    B. What fields does Logan see? Employee, Supervisory Organization, Total Base Pay Annualized in USD – Amount, Hire Date, Social Security Number – Formatted, Age, Emergency Contacts.

TASK #2: RUN THE REPORT AS A MANAGER

6. Select **Organizations > IT HelpDesk Department** in the Organization field and click **OK**.

    a. How many instances does Jack see? 2

    b. Does Jack see all fields in the report? If no, which fields are missing? No, Jack does not see all the fields in the report. He cannot see the Age and Emergency Contacts fields. He does not have access to these fields.

    c. Does Jack see data in all the cells? If no, what data is missing? No, Jack cannot see data in all cells. He cannot see the Social Security Number for his employee..

TASK #3: VIEW THE SECURITY SETTINGS FOR JACK TAYLOR

4. Use the View Security Groups report to fill out the following table.

Security Group	***Constrained or Unconstrained?***
Management Chain	Constrained by Roles - Supervisory
Manager	Constrained by Roles - Supervisory

11. Use the **Security > View Security** related actions to fill in the following table.

Report Field	*Which permitted security groups do Jack belong to?*	*What data can Jack see for this report field?*
Total Base Pay Annualized in USD - Amount	Management Chain Manager Organization Planner-Cost Center	The base pay amounts for his employees, since Jack belongs to constrained security groups. His own base pay amount based on his being assigned to the role Organization Planner for the IT Helpdesk Cost Center, which he also is a part of.
Social Security Number – Formatted	Employee as Self	His own Social Security Number, because the Employee as Self security group only lets users see their own data.
Age	None	He cannot see the field at all, because he doesn't belong to a security group with access to the field.
Emergency Contacts	None	He cannot see the field at all, because he doesn't belong to a security group with access to the field.

ACTIVITY 8.1 – CREATE A MATRIX REPORT

TASK #4: RUN THE MATRIX REPORT AND ANALYZE THE RESULTS

3a. What hiring source reports the highest average salary? Employee referral

3b. What Cost Center has the highest average salary in New York? 51100 Finance Mgmt – Corp Acctg

3c. What Compensation Package has the highest average salary for the Headhunter hiring source? Executive Compensation Package

3d. What Hire Quarter has the highest average salary for Employee Referrals in San Francisco? 2014-Q2

4a. Which employees in Boston are managers? Angela Bianchi, Jake Lee, Jamie Stone, and Patrick O'Brien

4b. How many employees in San Francisco report to Betty Liu? 3

4c. Did the Tax Department supervisory organization find employees using the Headhunter hiring source? Yes

ACTIVITY 10.1 – COMPARE REPORT PERFORMANCE

TASK #2: COMPARE THE PERFORMANCE OF THE TWO REPORTS

5. Review the log files created for each report and note which report had the faster timing in the following table. Mark both boxes if the timing for both reports is about the same.

Report Timings	***WICT RW Recruiting Analysis by Hiring Source and Location***	***WDINST RW Recruiting Analysis by Hiring Source and Location – Non Indexed***
Total Execution Time	X	
Initialization Time		X
Data Source Time	X	
Top Level Filter Time	X	
Top Level Sort Time	X	X
Processing Time	X	
DataSource Instance Count	X	
Post Filter Instance Count	X	X

APPENDIX C – KNOWLEDGE CHECK ANSWER KEYS

INTRODUCTION

This section contains answers to questions posed throughout the Knowledge Checks in this course.

Note: You can use sequential numbering here because your numbers should not skip around for a knowledge check.

CHAPTER 1 KNOWLEDGE CHECK

1. Which reports are displayed by the Workday Standard Reports report?

    B. All Workday-delivered reports, regardless of access.

2. When viewing the output of a report, which one of these can you **not** use to manipulate data?

    C. Edit the data

3. Which feature lets you easily search for custom reports?

    B. Report Tags

CHAPTER 2 KNOWLEDGE CHECK

1. What is determined by selecting the data source for a report?

    C. PBO, Starting Data Set, which users you can share the report with

2. Which type of class report field will display all expense lines for an expense report?

    B. Multi-Instance

3. When creating a custom report, which information do you **not** have to specify?

    D. Effective Date

CHAPTER 3 KNOWLEDGE CHECK

1. When a filter is being applied, which logic is executed first?

    B. Subfilter

2. You need to filter a custom report to only show regular employees. Which comparison type should you use when creating the filter?

    D. Value specified in this filter

CHAPTER 4 KNOWLEDGE CHECK

1. A custom report has a prompt for Include Subordinate Organizations. How can you set the prompt value to always be yes and hide this prompt from users? (Select two correct answers)

    A. Select Specify Default Value and identify the default selection

    C. Select the Do Not Prompt at Runtime checkbox

2. Which of the following is **not** a source of prompts on a report?

    D. Business Object

CHAPTER 5 KNOWLEDGE CHECK

1. When totaling data on a report, how many aggregations can you select per row?

    A. One

2. What is the first step of setting up grouping in your report?

    C. Add the Group Name field to the top of the columns grid

CHAPTER 6 KNOWLEDGE CHECK

1. When creating a custom report, which security domains do you **not** need access to?

    C. Any unconstrained security group

2. A user gets the following error message when running a report: “Attempt to run a report where you do not have access to one or more fields referenced in the report’s filter. Fields: Age. filter.” What is the root cause of this issue?

    A. The user doesn’t belong to a security group that has access to a report field used in a filter.

3. An HR partner runs an employee report that includes the Citizenship Status field. She can see the Citizenship Status for some employees on the report but not all. Why can’t she see this data for some employees? (Two Correct Answers)

    A. The Citizenship Status data is missing for these employees

    C. She only has constrained access to the Citizenship Status report field.

CHAPTER 7 KNOWLEDGE CHECK

1. When can you schedule a report to run? (Two correct answers)

    B. A specific date and/or time in the future

    C. On a recurring basis (every day, week, month)

2. Logan McNeil scheduled a report to run on a weekly basis. She shared the report output with Betty Liu. What data will Betty see in the report output?

    B. Data that Logan can access

CHAPTER 8 KNOWLEDGE CHECK

1. What is the maximum number of Row Groupings you can use in a matrix report definition?

    D. Eight

2. When drilling into a summarization on a matrix report output, what detail data will they see?

    D. Fields you defined in the Detail Data section that the user also has access to

CHAPTER 9 KNOWLEDGE CHECK

1. Where can calculated fields **not** be used?

    D. Security Configurations

2. What type of report allows you to access fields from Related Business Objects one level away without using a calculated field function?

    A. Advanced

CHAPTER 10 KNOWLEDGE CHECK

1. To optimize processing times, sort your report results by _____ field types.

    A. Simple

2. What is the single biggest factor in report performance?

    B. Data Source

3. When should you use report logs to check the performance of your reports?

    C. On a recurring basis

APPENDIX D – REPORTING SECURITY DOMAINS

Domain security policies control which security groups have access to a given security domain. The following table describes common security domains that control access to reporting features.

Security Domain	Description
Ability to Create Only Temporary Reports	Controls which users can only create temporary custom reports. Users must also have access to the Custom Report Creation domain.
Composite Report Preview	Enables users to preview composite report functionality.
Custom Report Administration	Allows users to control characteristics of any report, such as whether it appears on the menu.
Custom Report Creation	Allows users to create reports and view, edit, and delete custom reports they own. It also allows users to copy standard and custom reports that they can view.
Export to PDF and Excel	Controls which users can download files from the user interface to PDF or Excel. The View printable version (PDF) and Export to Excel icons will be hidden from the user interface for users who don't have access to this domain.
Facet Range Management	Enables users to create, edit, delete, and view facet ranges.
Formatting Style Management	Provides access to create, edit, delete and view formatting styles.
Maintain Excel Template	Allows users to attach an excel template to a report definition.
Manage: All Custom Reports	Allows users to view, edit, and delete all custom reports, regardless of who owns the report.
Outline Structure Management	Provides access to managing outline structures for composite reporting.
Report Background Processes	Allows users to view all report background processes.
Report Definition Sharing – All Authorized Users	Allows users to share report definitions with all users who have access to the report data source.
Report Definition Sharing – Specific Groups	Allows users to share report definitions with specific groups who have access to the report data source.

Report Definition Sharing – Specific Users	Allows users to share report definitions with specific users who have access to the report data source.
Report Output Sharing	Allows users to share the output of reports scheduled to run in the background.
Report Prompt Set Management	Allows users to create, edit, and delete prompt sets.
Report Tag Management	Allow users to create report tags.
Reporting Audits	Allows user to audit changes to custom report definitions.
Reporting Functionality	This domain is a parent domain, which includes child policies. Users with access to this domain will inherit access to all child policies. The child policies in this parent domain are: • Ability to Create Only Temporary Reports • Composite Report Preview • Facet Range Management • Formatting Style Management • Maintain Excel Template • Outline Structure Management • Report Definition Sharing - All Authorized Users • Report Definition Sharing - Specific Groups • Report Definition Sharing - Specific Users • Report Output Sharing • Report Prompt Set Management • Report Tag Management
Scheduled Report Processes	Allows users to schedule a report to run in the background. It also allows users to review, modify, and transfer ownership of scheduled report processes.

Resource: For more information on configuring security using security domains and security groups, search Workday Community for *configurable security*.

Additional Training: You can sign up for Workday's Configurable Security Fundamentals class to learn more about this topic.

APPENDIX E – FREQUENTLY ASKED QUESTIONS

DELIVERED REPORTS

How can I see what reports are delivered?

Run the Workday Standard Reports report. You must have access to the Custom Report Administration security domain to run this report.

Who can run a delivered report?

Delivered reports are secured to domains. Users must belong to a security group that has access to one of the report's security domains to run the delivered report. You can run the Workday Standard Reports report to see which domains secure each delivered report. (Note: You can also run the View Security for Securable Item report to get this information.)

CAN I EDIT A DELIVERED REPORT?

No, you cannot directly edit a delivered report.

CAN I COPY A DELIVERED REPORT?

You can only copy a delivered report if the type is Report Writer. You can't copy a delivered report if the type is XpressO.

CAN I VIEW THE BUSINESS OBJECTS AND FIELDS USED IN AN XPRESSO REPORT?

No, you can't view the report definition for an XpressO report. You can only run an XpressO report.

CREATING, EDITING, AND DELETING CUSTOM REPORTS

WHO CAN CREATE A CUSTOM REPORT?

To create a custom report, users must have access to the Custom Report Creation security domain. Users must also have access to the security domains for the report data source and for the report fields they want to add.

WHEN CREATING A CUSTOM REPORT, WHY CAN'T I CHOOSE THE DATA SOURCE I NEED?

You don't belong to a security group with access to the domain securing the data source.

WHEN CREATING A CUSTOM REPORT, WHY CAN'T I ADD THE REPORT FIELDS I NEED?

You don't belong to a security group with access to the domains securing the report fields.

HOW CAN I SEE WHAT CUSTOM REPORTS I HAVE CREATED?

Run the Custom Reports for Person standard report.

WHO CAN VIEW, EDIT, AND DELETE A CUSTOM REPORT DEFINITION?

The report owner and users with access to the Manage: All Custom Reports security domain can view, edit, and delete a custom report.

WHY CAN'T I DELETE A CUSTOM REPORT DEFINITION THAT I CAN ACCESS?

You can't delete a custom report definition if it is used anywhere, such as a worklet on a dashboard.

HOW CAN I SEE WHEN A CUSTOM REPORT WAS LAST UPDATED?

From the custom report's Related Actions, select Audits > View Audit Trail. (Note: You can also run the All Custom Reports standard report and view the Last Updated field to see this information.)

CAN A CUSTOM REPORT BE OWNED BY MORE THAN ONE PERSON?

No, custom reports can only have one owner.

SHARING CUSTOM REPORTS

WHO CAN SHARE A CUSTOM REPORT?

The report owner and users with access to the Manage: All Custom Reports security domain can share a custom report. A user must have access to these security domains to change the sharing options:

- Domain: Report Definition Sharing – All Authorized Users
- Domain: Report Definition Sharing – Specific Groups
- Domain: Report Definition Sharing – Specific Users

WHO CAN A CUSTOM REPORT BE SHARED WITH?

A custom report can be shared with groups and users who have access to the report's data source. Users must belong to a security group with permissions to the domain securing the data source. From the report data source's Related Actions, select Security > View Security to see the list of permitted security groups.

HOW CAN I SEE WHICH CUSTOM REPORTS HAVE BEEN SHARED WITH WHICH USERS?

Create a custom report using the All Custom Reports data source and Advanced report type. Include these fields on the report: Custom Report, Report Owner, Sharing Option, and Authorized Users.

RUNNING CUSTOM REPORTS

WHO CAN RUN A CUSTOM REPORT?

The report owner and users who the report has been shared with can run a custom report.

DOES A USER NEED ACCESS TO ANY SECURITY DOMAINS TO RUN A REPORT?

No, any user can run a report to which they have access. You only need access to specific security domains if you need to view and modify custom report definitions.

HOW CAN I SCHEDULE A REPORT TO RUN ON A DAILY, WEEKLY, OR MONTHLY BASIS?

Run the Schedule a Report task or use the Custom Report > Schedule related action.

HOW CAN I CHANGE OR SUSPEND A SCHEDULED REPORT?

Run the Scheduled Future Processes standard report. From the Request Name's Related Actions, select Schedule Future Process > Edit or Schedule Future Process > Suspend.

CAN A USER SEE REPORT OUTPUT USING ANOTHER USER'S SECURITY?

Only scheduled reports allow a user to see report output using another user's security. You can schedule a report and share the output with users. Users will see the output file generated using the schedule owner's security.

MANAGING REPORTS

HOW CAN I SEE HOW OFTEN A GIVEN REPORT HAS BEEN RUN?

Run the Report Run History standard report. Click on the number in the Count column to see detailed information about each time the report was run.

HOW CAN I SEE A LIST OF ALL CUSTOM REPORTS?

Run the All Custom Reports standard report.

HOW CAN I TRANSFER OWNERSHIP OF A REPORT?

Run the Transfer Ownership of Custom Reports standard report. The new owner must have access to the report's data source and report fields and have access to the Custom Report Creation security domain. You must have access to the Custom Report Administration or Manage: All Custom Reports security domain to transfer ownership of a custom report.

WHO CAN CREATE REPORT TAGS?

Users with access to the Report Tag Management security domain can create report tags.

WHO CAN ASSIGN REPORT TAGS TO THEIR CUSTOM REPORTS?

Users with access to the Custom Report Creation security domain can assign report tags to their custom reports.

HOW CAN I FIND OUT WHERE A GIVEN REPORT IS BEING USED?

Copy the All Custom Reports standard report, and add the Areas Where Used report field to your copy of the report.

HOW CAN I MIGRATE A CUSTOM REPORT DEFINITION FROM ONE TENANT TO ANOTHER (I.E., SANDBOX TO PROD)

You can use Solutions or OX to migrate a custom report definition.

HOW CAN I TRANSLATE TEXT ON A CUSTOM REPORT TO ANOTHER LANGUAGE?

The Custom Report > Translate related action lets you to translate label overrides for columns, sorts, prompts, etc. The Translation > Translate Instance related action lets you translate text information about the report instance itself, such as the brief description or more information.

APPENDIX F – HELPFUL RESOURCES

This appendix contains some helpful standard reports, tasks, and community links that you can use when creating and managing custom reports.

STANDARD REPORTS

Report	Description
Workday Standard Reports	Displays all Workday delivered reports.
Report Administrator dashboard	This dashboard can be configured with key reports that show potential issues or changes to reports in the tenant. Workday delivers some reports enabled as worklets for this dashboard. These reports include: 1. Custom Report Exceptions by Owner 2. Recently Created and Modified Reports 3. Slowest Reports Run in Background 4. Custom Reports Not Run 5. Recently Updated Calculated Fields 6. Scheduled Reports That Will Fail You can also configure the dashboard to include quick links to a number of tasks that will help you manage your existing reports.
All Custom Reports	Displays all custom reports in the tenant.
Business Object Details	Displays the fields, related business objects, data sources, and reports for a business object.
Data Sources	Displays information about the delivered data sources, including whether a data source is standard or indexed, if the data source includes built-in prompts, and permitted security groups for the data source.
View Security for Securable Item	Shows the security policies and permitted security groups for a securable item, such as a data source or report field.
View Security Groups for User	Shows which security groups a user belongs to.
Scheduled Future Processes	Displays all background processes that are scheduled, but not yet run.
Process Monitor	Displays the reports that are running or have run in the background.

Report Fields	Displays the Workday-delivered fields and calculated fields in your tenant. Includes descriptions of each field, field type, business object, and more.
View Report Log	Shows the timings for a specific report.
Maintain Calculated Fields	Shows all the system-wide calculated fields your company has defined in Workday. It can also be used as the control center for tasks related to system-wide calculated fields.
Manage Report Usage	Shows all usages of a selected report, along with the usage owner. For usages in a business process, this report also displays exactly which step the report is being used for. You can also use this report to delete non-future scheduled processes that are owned by you, as well as usages or saved searches that were created by terminated workers.

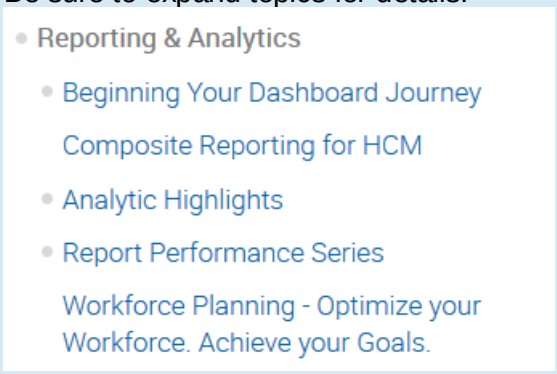
TASKS

Task	Description
Transfer Ownership of Custom Reports	Changes the owner of one or more reports to a different user.
Schedule a Report	Schedule a report or report group to run now, at a specific time in the future, or on a recurring basis.
Edit Report Log Settings	Log timings for specific reports.
Create Calculated Field	Create calculated fields for use in reports, rules, or additional fields.

COMMUNITY LINKS

Task	Description
Reporting & Analytics Product Dashboard	https://community.workday.com/dashboards/products/reporting-and-analytics
Reporting Tips	https://community.workday.com/node/25658 See right frame for contents/topics.

Reporting Documentation	Custom Reports & Analytics: https://doc.workday.com/#/reader/HAJOEAaClxziA9ljvuBqZA/J9gJmo0D~Aschkf_OdkEkA Calculated Fields: https://doc.workday.com/#/reader/3DMnG~27o049IYFWETFtTQ/3urzXpoId8Ty_ilvi5Aw1w Composite Reporting: https://doc.workday.com/#/reader/HAJOEAaClxziA9ljvuBqZA/0bC3ohbTfw4WHrle0IlVcg Workday Report Designer (BIRT): https://doc.workday.com/#/reader/HAJOEAaClxziA9ljvuBqZA/pJfWoz~ItDjOfsWDf_0qkA Worksheets: https://doc.workday.com/#/reader/HAJOEAaClxziA9ljvuBqZA/RHfWCDcu6wW5cj~Go7Ic3A Indexed Data Sources and Fields: https://doc.workday.com/#/reader/HAJOEAaClxziA9ljvuBqZA/zlQ8f1n8sm0KtXl_KW0F~g
Reporting related training catalog	https://community.workday.com/training-catalog?f[0]=product_hierarchical%3A92
Product Presentations Page	https://community.workday.com/articles/192623?int=hp-learn Filter on areas of interest.
Rising Presentations	https://community.workday.com/rising-sessions?f[0]=rising_product_facet%3A92

Next Level Series	https://community.workday.com/NextLevel See right frame for options and choose Reporting and Analytics. Be sure to expand topics for details. 
Custom Reports and Operational Issues Review	https://community.workday.com/articles/235221
Service update notes	https://community.workday.com/service-update-notes Filter by Product > Cross Application Services > Reporting & Analytics.
Join groups	https://community.workday.com/articles/51736
Office Hours	https://community.workday.com/office-hours

Additionally, Workday Community also contains a variety of customer-contributed solutions and posts that could also prove beneficial. A few examples include:

Thought Guide – Approach for new report:
https://community.workday.com/node/94039

Naming Conventions and best practices:

- https://community.workday.com/contributed/44978
- https://community.workday.com/node/82770

For Report Administrators:

- https://community.workday.com/node/288684

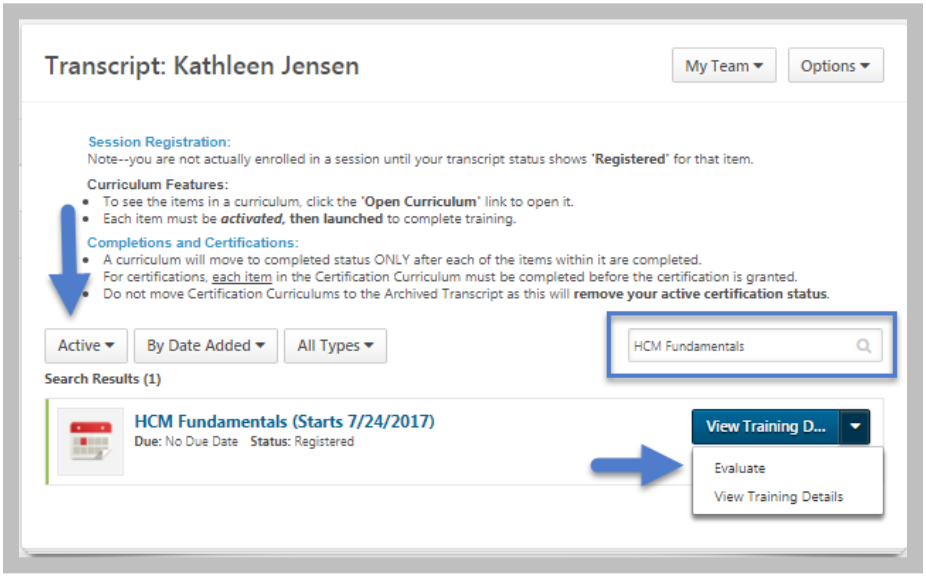
Shared report definitions and calculated fields to administer/track/manage reports:

- https://community.workday.com/contributed?int=main&f[0]=contrib_solu_product%3A92
    - **Solution ID=** 129e48178b7a4cd780621317a84b8f80

APPENDIX G – CLASS EVALUATIONS

AVAILABLE AT THE START OF THE LAST DAY OF CLASS

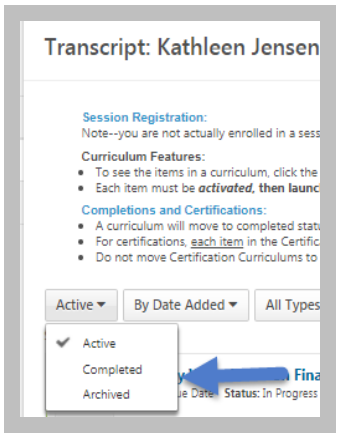
1. Log in to the Learning Center.
2. Select **View Transcript**.
3. Locate the training session in your **Active** tab. (Use the search field to quickly find your training session.)
4. Click the **View Training Details** pull-down menu and select **Evaluate**.



100 - Screenshot of the Evaluate option from the learning center

AVAILABLE AFTER CLASS ENDS AND ROSTER SUBMITTED

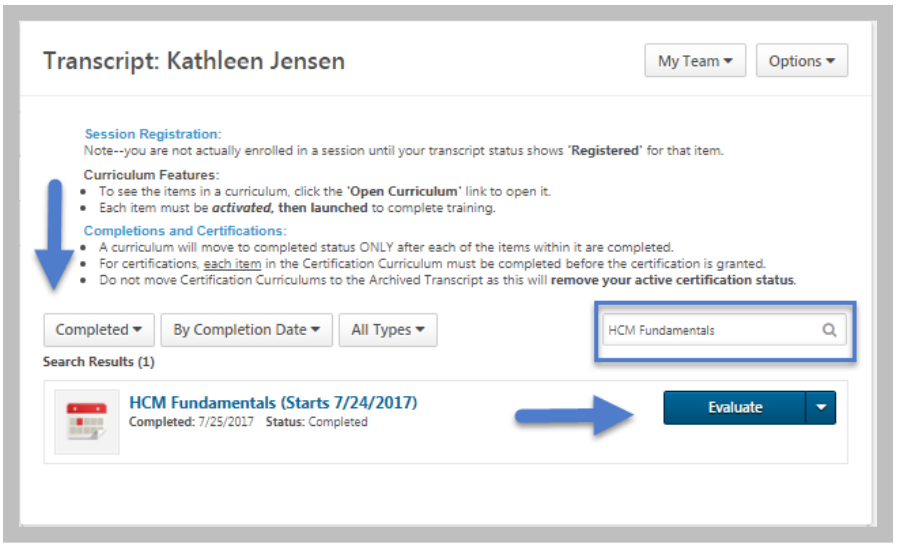
1. Log in to the Learning Center.
2. Select **View Transcript**.
3. Select the **Active** tab to toggle to your **Completed** training.



101 - Click Activate to toggle your completed training

4. Locate and select the completed training session. (Use the search field to quickly find your training session.)

5. Click **Evaluate**.



102 - Click the Evaluate button

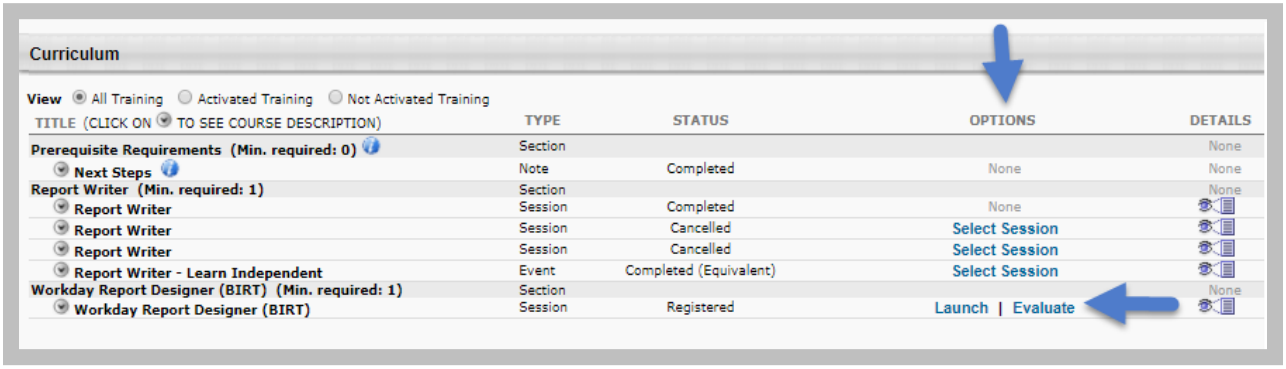
CLASS EVALUATION (SESSION WITHIN A CURRICULUM): AVAILABLE AT THE START OF THE LAST DAY OF CLASS

1. Log in to the Learning Center.

2. Select **View Transcript**.

3. Locate the training session within the curriculum in your Active tab. (Use the search field to quickly find your training session and select the Curriculum Training Tile link to open the curriculum.)

4. Select **Evaluate** under the Options column.



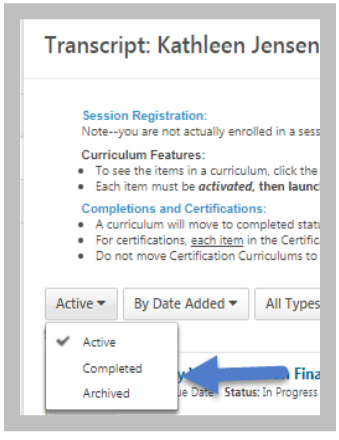
103 - Click Evaluate in the Options column

CLASS EVALUATION (WITHIN A CURRICULUM): AVAILABLE AFTER CLASS ENDS AND ROSTER SUBMITTED

1. Log in to the Learning Center.

2. Select **View Transcript**.

3. Select the **Active** tab to toggle to your **Completed** training.

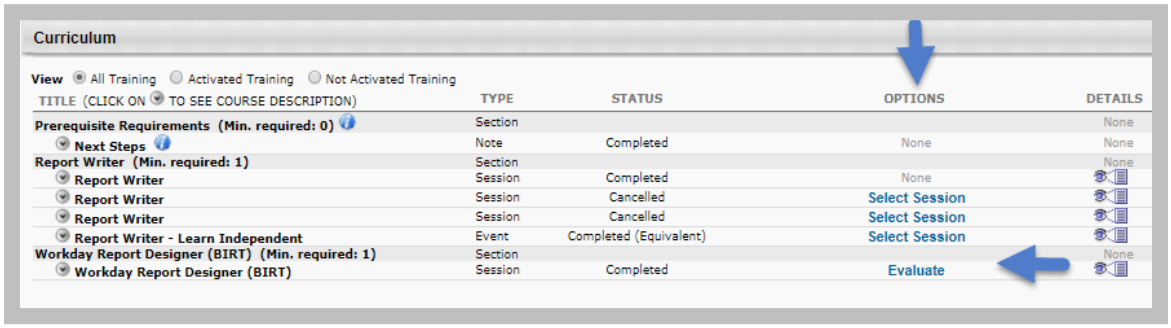


104 - Select Activate to toggle your complete training

Note: If the curriculum is still Active, meaning the curriculum requirements have not been met, the curriculum will remain on the Active tab.

4. Locate and select the completed training curriculum. Select the Training Title link to open the curriculum and locate the session. (Use the search field to quickly find your training session.)

5. Click **Evaluate**.



105 - Click Evaluate