Oracle® Health Sciences Data Management Workbench

Data Review Guide

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Oracle Health Sciences Data Management Workbench Data Review Guide, Release 3.0

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Preface

This book tells you how to use Oracle Health Sciences Data Management Workbench to review and clean data.

- Documentation accessibility
- Related resources
- Access to Oracle Support

Documentation accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Related resources

All documentation and other supporting materials are available on the Oracle Help Center.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

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Basics

This section contains the following topics:

Select a study

1. If not open already, click **Home** in the navigation bar to open the Home page.
2. Do one of the following:
   - If you see the study you want listed in the Studies panel, select it.
   - If you do not see the study you want, find it through the fields in the Studies panel:
     a. Select the category for the study from the drop-down list of the first field (top of the Studies panel).
     b. Type all or part of the name of the study in the search field.
     c. Press Enter or click the **Search** icon.

        The system displays all studies that contain the string you typed.

        Tip:

        To clear the search filter, click the **Remove filter** icon.
     d. Select a study.

Note:

The next time you log in, the system displays the last study you worked on. You must select it to work in it.

Access Data Management options

1. If not open already, click **Home** in the navigation bar to open the Home page and select a study from the Studies panel on the left.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Click **Data Management** in the navigation bar.
3. Do one of the following:
   - To view data and create discrepancies, click **Listings**. To see custom listings or validation check (VC) listings, scroll down the left panel and expand a data model.
   - To review and act on discrepancies, click **Discrepancies**.
   - To view how the data flows between the input model and the target model, click **Data Flow**. For example, a flow diagram shows the mapping between the models and indicates the success or failure of the data flow. It also indicates any warnings within the flow.
   - To create or manage custom listings, click **Custom Listing Manager**.

Select a lifecycle stage

Oracle DMW opens in the lifecycle stage you used in your last session. To change it, select a different stage from the **Lifecycle** drop-down menu at the top of the data shown within the Home, Study Configuration, or Data Management page. The stages you can choose are:

- **Development**. For studies and objects getting created or modified. When you check out an object, the new version is in Development.
- **Quality Control**. For studies and objects being tested. It corresponds to UAT in InForm.
- **Production**. For production data in live studies.

Depending on your account privileges, you may only have access to one or two lifecycle stages.

Customize the user interface display

Many pages that use tables in Oracle DMW allow you to customize the columns and rows during your session.

Note:

Oracle DMW displays up to 500 records at a time. If your study includes more than 500 records, use the filter options as described in Create a new filter or the search fields to located them.

See one of the following sections for details:

- Sort rows by column values
- Refresh

Sort rows by column values

You can sort data in a single column or up to three columns. For example:

- To sort on one column, click the up and down arrows in the column heading to sort the data in ascending or descending order. You may need to widen the column to see the arrows.
- To sort on up to three columns (for all tables except the ones in the Listings or Discrepancies pages):
  1. Select **View** from the toolbar at the top of the table. Then select **Sort** > **Advanced**.
  2. In the **Sort By** field, select the primary column to sort on and then select **Ascending** or **Descending** for the order.
  3. In the first **Then By** field, select the secondary column to sort on and then select **Ascending** or **Descending**. Within the sort order you specified in step 2, the system sorts records in the order you specify
  4. In the second **Then By** field, select the tertiary column to sort on and either **Ascending** or **Descending**. Within the sort order you specified in steps 2 and 3, the system sorts records in the order you specify here.
  5. Click **OK**.

Refresh

Click **Refresh** from the navigation bar for Listings or Discrepancies pages or the **Refresh** icon from the upper-right corner of a table for other pages to see any changes that occurred since you opened the page. Other users can work on data or discrepancies you view and you may need to refresh the page to see the latest content.

Use online help

- Hover over fields to display tooltip information (not available for all fields).
- Click the question mark icon to see information about the tab, view, or dialog box you opened.

- Click the **Help** link in the navigation bar (under your account name) to open the Oracle Help Center page for Oracle DMW. You can access links to videos, user guides, and common topics from this page.

Change your password

To change the password you use to log in to Oracle DMW:

1. Log in to Oracle Life Sciences Data Hub using the URL provided by your administrator and your Oracle DMW password.
2. Click the **Preferences** link in the upper right corner of the My Home page.
3. Click the **Change Password** link.
4. Enter:
   - **Known As**: Enter your name as you would like it to appear in the welcome banner on screen.
   - **Old Password**: Enter your current password.
   - **Password**: Enter your new password.
   - **Repeat Password**: Enter your new password again.
5. Click **Apply**.

Session timeout

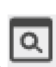
Oracle DMW user sessions time out after 180 minutes maximum.

If the system remains idle for more than 20 minutes, it times out and you must log in again.

Check the network connection status

If you experience slow response times when you download files or perform actions on data, you can check the status of your network connection. If you see the download speed across the network is slow or the latency is high (time it takes the application to respond to an action), you may need to close unnecessary applications or work from a wired connection.

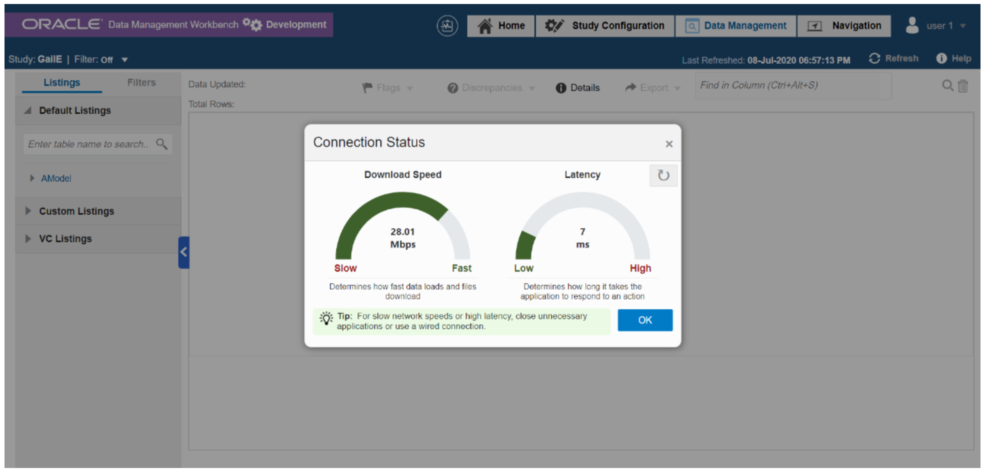
To check the status of the network connection:

1. After you select a study, click  **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. From the drop-down menu, select **Listings** to open the listings page or **Discrepancies** from the drop-down menu to open the discrepancies for the study you selected.
3. Click **<*User Name*> > Connection Status** from the navigation bar to open the Connection Status dialog box.

For example, you may see something similar to this:



4. To rerun the test on the speed and latency of your network, click the  **Refresh** icon next to the Latency chart.
5. Click **OK** to close.

2 View data listings, display data flow, and create discrepancies

This section contains the following topics:

- Choose a listing type and view data
- Search for data
- Review data
- Create discrepancies
- Export data to Excel or CSV
- View data flow
- Create a custom listing
- Copy a custom listing
- Use the Expression Builder
- FAQs

Choose a listing type and view data

You can choose different methods to view data and show records in a study. For example, you can view any of the following listings:

- Default listings
- Custom listings
- Validation check listings

Default listings

Default listings shows the current data in a table.

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings** in the left panel. Then, expand a clinical data model from the list.
4. Select a listing to open it.

To locate a listing, enter part of a listing name in the Search field and click the **Search** icon.

Custom listings

Custom listings show records that satisfy criteria that you or others set.

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Custom Listings** in the left panel. Then, expand a clinical data model from the list.
4. Select a custom listing to open it.

   To locate a listing, enter part of a listing name in the Search field and click the **Search** icon.

> **Tip:**
>
> - You can choose to show disabled listings by selecting **Show disabled CLs** under the Search field. Oracle DMW disables listings if they read from a table that is not used in the study.
> - You may need to **scroll down** to see Custom Listings in the left pane.
> - **To view deleted InForm data** create a custom listing, but do not install it. The system displays all records that meet the criteria, including deleted records. After you install it, the deleted rows are not displayed. For details on creating a custom listing, see Create a custom listing.

Validation check listings

Validation check listings show records that include a discrepancy identified by a validation check.

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **VC Listings** (Validation Check Listings) at the bottom of the left panel. Then, expand a data model from the list.

> **Note:**
>
> - To locate a listing, enter part of a listing name in the Search field and click the **Search** icon.
> - You can choose to show disabled listings by selecting **Show disabled VCs**. Oracle DMW disables listings if they read from a table that is not used in the study.

4. Select one validation check in the batch to see:
   - All records with discrepancies identified by the validation check.
   - Any other discrepancies on the records.

   If someone fixed a data item and closed the discrepancy, you cannot see the record.

Validation checks run in batches as configured in the Home page.

Search for data

You can choose different methods to search for data. For example, you can use the following:

- Find feature to search for column values
- Filters to find data and discrepancies, save filters, and use public filters

See the following procedure for details.

- Use the Find feature

Use the Find feature

Use the Find feature to search on column values in the current records.

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.

3. Expand one of the listings in the left panel (**Default Listings**, **Custom Listings**, or **VC Listings**). Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Click inside the **Find in Column** field at the top of the table to open the **Columns** drop-down list.

> **Tip:**
>
> You can skip the remaining steps and use keyboard shortcuts to access the Find field by pressing **Ctrl+Alt+S**. Start typing a word and press the space bar to open the drop-down list. Then use the arrow keys to select an option. You can press the space bar again to open more options and build an equation. When done, press **Tab** to navigate to the **Apply** icon and press **Enter**.

6. Press the space bar to open the **Operators** drop-down list. Build the find criteria you need. For example, you can select equals (**=**), **contains**, **starts with**, greater than or equal to (**>=**).

   To enter text (string values), add single quotes around the text (for example, 'Boston').

7. Click the **Apply** icon to apply the find. (Click the **Clear** icon to clear the Find criteria.)

Review data

The following topics describe how to view discrepancies in a listing, view details, assign and remove flags, view data lineage, and reprocess discrepancies.

- View discrepancies in the Listings page
- Show all discrepancies on one data item
- View discrepancy details
- Use keyboard shortcuts on listings
- Assign and remove flags
- Show flags assigned to a record
- View data lineage
- View data in InForm or another system
- Reprocess discrepancies that failed to be sent to InForm

View discrepancies in the Listings page

If a user creates or comments on a discrepancy, the record appears with one of the following icons next to the appropriate data point:

Table 2-1 Discrepancy Icons

Discrepancy Icon	Description
	Open discrepancy on the data item. Needs attention. Discrepancies with one or more entries show with a number next to the icon. For example, you see a "2" if the data item has two discrepancies:
	Candidate for a discrepancy. Needs attention.
	Closed or cancelled discrepancy.
	Answered discrepancy. Review comments.
	Cancelled discrepancy.

You can also see a duplicate version of the discrepancy icon to the left of the row if a data item includes a discrepancy. It appears in the second column of the listing.

Show all discrepancies on one data item

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand one of the listings in the left panel (**Default Listings**, **Custom Listings**, or **VC Listings**). Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Select a data item.
6. Click **Details** at the top of the table to open the Discrepancies panel on the right.
7. Expand **Additional Information** to view more details. For example, you can click **View in Source** to access the source of the data (if connected to InForm or another supported source). Or, click **Assign Flags** to assign a flag and state to the data point.

> **Tip:**
>
> To view details or act on one of the discrepancies, right-click the data item, and select **Go to Discrepancies** from the drop-down menu. Select one discrepancy to see its details in the lower panel.

View discrepancy details

1. After you select a study, click **Data Management** in the title bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand one of the listings in the left panel (**Default Listings**, **Custom Listings**, or **VC Listings**). Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Select one or more data items with a discrepancy.
6. Right-click and select **Go to Discrepancies** from the drop-down menu. Or, click **Discrepancies** > **Go to Discrepancies** (or **Show All Discrepancies** to see all of them).
7. Select a discrepancy from the Discrepancies panel on the right to see details on it.

Use keyboard shortcuts on listings

After you select a study, a listing, and a record, you can save time and avoid using a mouse by using keyboard shortcuts to access an action or use search fields to find records.

Table 2-2 Keyboard Shortcuts for Listings

Keyboard Shortcut	Description
Ctrl+Alt+F	**Assign a flag to a record:** Opens the Assign Flags dialog box for the record you selected in a listing. For more details, see Assign a flag to a record.
Ctrl+Alt+S	**Open the Find field:** Opens the **Find** field at the top of the list of records in a listing. For more details, see Use the Find feature.

Table 2-2 (Cont.) Keyboard Shortcuts for Listings

Keyboard Shortcut	Description
Ctrl+C	**Copies column data in one or more rows (Copy Without Column Headers):** Select the column data you want to copy and use the keyboard shortcut to copy it. To copy adjacent rows in the column, press the **Shift** key as you select data items. You see a "Copied Successfully" message that lists what you copied above the table. Press **Ctrl+V** to paste it. For example, you can paste the data into the Discrepancy text field of the Create Discrepancy dialog box. Or, paste it into any other application (for example, an Excel spreadsheet or Notepad). **Note:** To copy column data with the header and row number details, select the column data and select **Copy With Column Headers** from the right-click menu. You cannot use a keyboard shortcut.

Assign and remove flags

Use flags to help track and move the data review process. You can filter by flag in the Listings and Discrepancies pages. See Flag FAQs for more details.

- Assign a flag to a record
- Remove a flag

Assign a flag to a record

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings** listings in the left panel. Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Select the row with the record you want to flag, right-click anywhere in the row and click **Assign Flags**. Or, click **Flags** > **Assign Flags**. (To assign the same flag

to multiple records, select the records by pressing the **Shift** or **Ctrl** key while you select records.) The Assign Flags dialog box opens.

> **Tip:**
>
> You can skip the remaining steps and use keyboard shortcuts to assign a flag to a record by pressing **Ctrl+Alt+F**. Use the down arrow keys to select options and press **Tab** to navigate to fields and buttons.

6. In the **Flags** field, select the previously created flag name you want to use from the drop-down list.
7. In the **States** field, select the previously created state name from the drop-down list. The names are associated with a high, medium, or low flag state.
8. Click **Assign**. You can see the flag state in the first column of the listing (up and red for high state, sideways and yellow for medium, or down and green for low).

> **Tip:**
>
> If a data load completes while you were viewing the page, you see a prompt to refresh the page and Oracle DMW cannot assign the flag. Click the **Refresh** icon and check the data. If the flag still applies, assign it again.

Remove a flag

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings** listings in the left panel. Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Select the row with the flag by clicking the arrow icon at the beginning of the row (first column).

> **Tip:**
>
> To select multiple records with flags, press the Shift or Ctrl key while you select records.

6. Right-click and select **Show Flags**. The Show Flags dialog box opens.

7. Select the flag you want to clear and click the **Clear Flag** icon on the right.

> **Note:**
>
> You cannot remove flags assigned in InForm. InForm flags use a prefix of `Inf_`.

8. Click **OK**.

Show flags assigned to a record

For each flagged record, Oracle DMW shows a colored arrow in the first column of the listings (with a flag icon header) to represent the flag with the highest priority for the record. For example, you may see any of the following arrows if the record includes a flag:

- = High priority flag
- = Medium priority flag
- = Low priority flag

To see the flags applied to a record:

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings** listings in the left panel. Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Select the row with the flag by clicking the arrow icon at the beginning of the row (first column).

> **Tip:**
>
> To select multiple records with flags, press the Shift or Ctrl key while you select records.

6. Right-click and select **Show Flags**. The Show Flags dialog box opens. You can expand the flags to see details on the state or change it.
7. Click **OK**.

View data lineage

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings**, **Custom Listings**, or **VC Listings** in the left panel. Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. Click anywhere in the row of the record.
6. Right-click and select one of the following to open a graphical representation of the source, target, or preferred path:
   - **Show Preferred Path** If there are multiple source data items, one must be designated as *preferred* when the discrepancy is created by a validation check or a person. The system applies the discrepancy to the data items in the preferred path.
   - **View Source Data** to see upstream data that contributed to the selected data item.
   - **View Target Data** to see downstream data that the selected data item contributes to. Target data is not available in the Validation Check Listings page.

> **Note:**
>
> Click the tabs at the top of the graphic to display the source, target, or preferred path.

View data in InForm or another system

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings** in the left panel (**Default Listings**, **Custom Listings**, or **VC Listings**). Then, expand a clinical data model from the list.
4. Select a listing to open it.

5. Select a data item that originated in InForm or a system connected through the generic connector.
6. Right-click and select **View Data in External Source**.
7. Log in to InForm or whatever EDC system the data came from.

   If the selected DMW data item has more than one source data item, the system displays the one on the preferred path.

   > **Tip:**
   >
   > If you see a discrepancy in DMW that should have been sent to InForm or another source but wasn't, it may be that the process of sending the discrepancy to InForm failed. You can check this and fix it on the Home page. See Reprocess discrepancies that failed to be sent to InForm.

Reprocess discrepancies that failed to be sent to InForm

1. Open the **Home** page and click the **Validation Checks** tab.
2. Click the **Failed to send Discrepancies** icon in the upper right corner. The Reprocess Discrepancies dialog box opens.

   For each source data system, Oracle DMW displays the external system, discrepancy tag, and counts for the selected study and lifecycle stage. In the Discrepancy Tag column you see:

   - **PendingFor*System*** shows the number of validation check discrepancies currently pending to go the system.
   - **ProcessingFor*System*** shows the number of validation check discrepancies currently being sent to the system.
   - **Failed Processing for*System*** shows the number of discrepancies that should have been sent to the system but weren't.
3. If any discrepancies failed to be sent, click the **Reprocess Discrepancies** icon to send them again. Click the **Refresh** icon to see progress.
4. Click **OK**.

Create discrepancies

To create a discrepancy on a data item:

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Listings** from the drop-down menu.
3. Expand **Default Listings**, **Custom Listings**, or **VC Listings**. Then, expand a clinical data model from the list.
4. Select a listing to open it.
5. In the appropriate row, select one or more data items where you want to create a discrepancy. (You can select multiple data items if they all have the same issue.)

   > **Tip:**
   >
   > To select multiple data items, press the Shift or Ctrl key while you select items.

6. Right-click and select **Create Discrepancy**. The Create Discrepancy dialog box opens.
7. For the **State**, select **Open** (definitely a discrepancy) or **Candidate** (possibly a discrepancy).
8. In the **Discrepancy** field, enter details about the discrepancy (required). Then, fill in the remaining optional fields if necessary (**Category** and **Action** you want taken [for example, Ready to Send, Send to Spreadsheet, Needs Review]). To include a phrase set by you (for example, your name), select **Append User Name**.
9. Click **Create**. Each selected data item appears with a discrepancy icon. You can also see the discrepancy icon in the second column of the listing. For details on the discrepancy icons, see View discrepancies in the Listings page.

Export data to Excel or CSV

After you select a study and open a listing, you can export the data. To export the data in a listing, click **Export** from the top of the listing table and select one of the following from the drop-down list:

- **Export All to Excel** generates an .xls file that includes all the data that satisfies the current filters (if any used).
- **Export All to CSV** generates a comma-delimited text file that includes all data that satisfies the current filters (if any used).

View data flow

The data flow diagram shows how clinical data models map to each other. It shows an image of the input model and how the data flowed to the target model (successfully, with errors, or with warnings). This helps you locate areas you may need to troubleshoot.

For more details on viewing the data flow, see this video:

Video

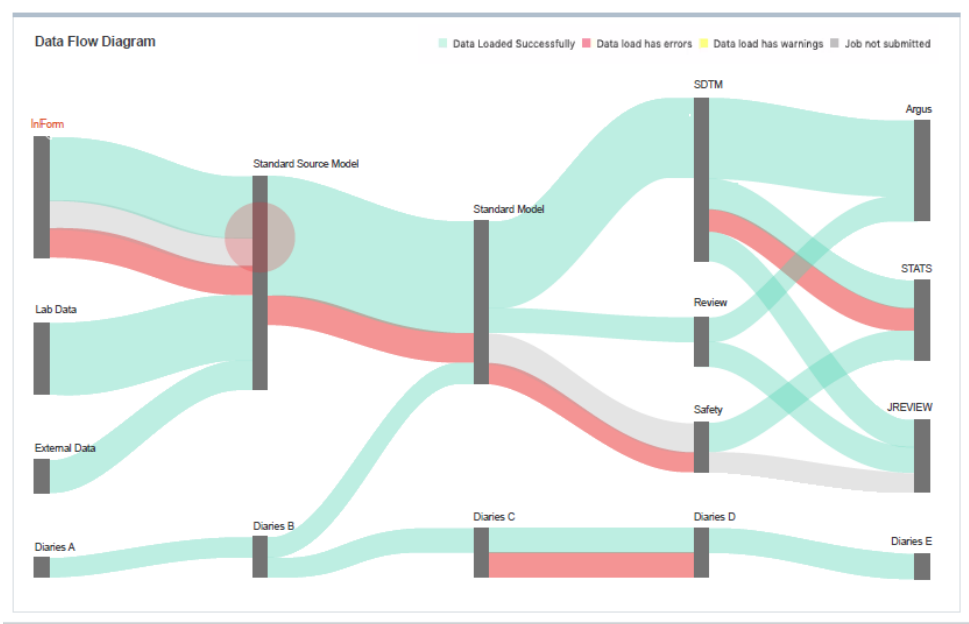
To view the Data Flow Diagram:

1. After you select a study, click **Data Management** in the navigation bar.

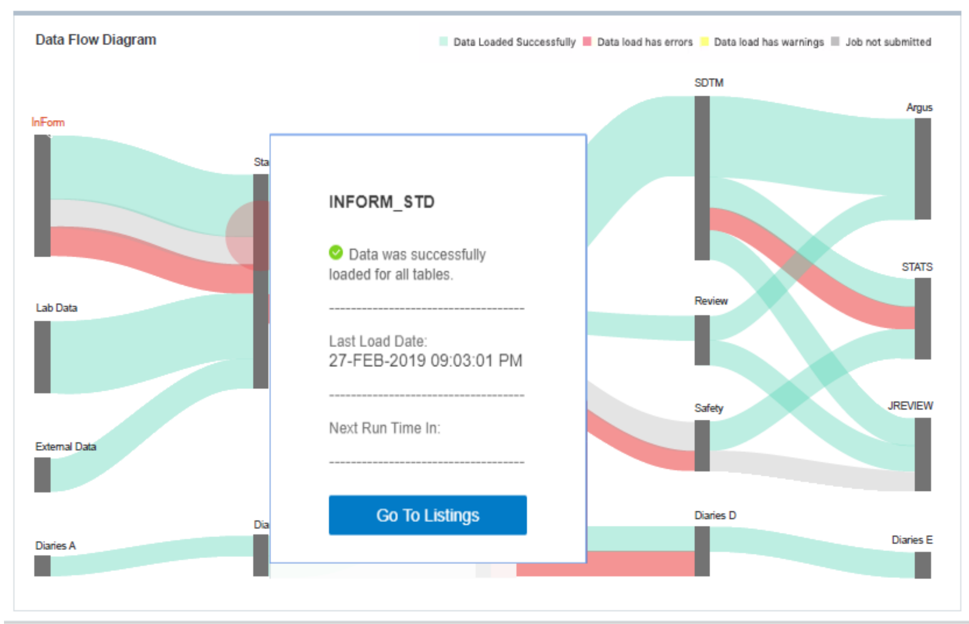
> **Note:**
>
> To display the data flow, select a study with 25 data models or less. (See Select a study for details on selecting a study.)

2. Click **Data Flow** from the drop-down menu. You see a diagram showing the data flow. The width of the flow paths are proportional to the flow rate.

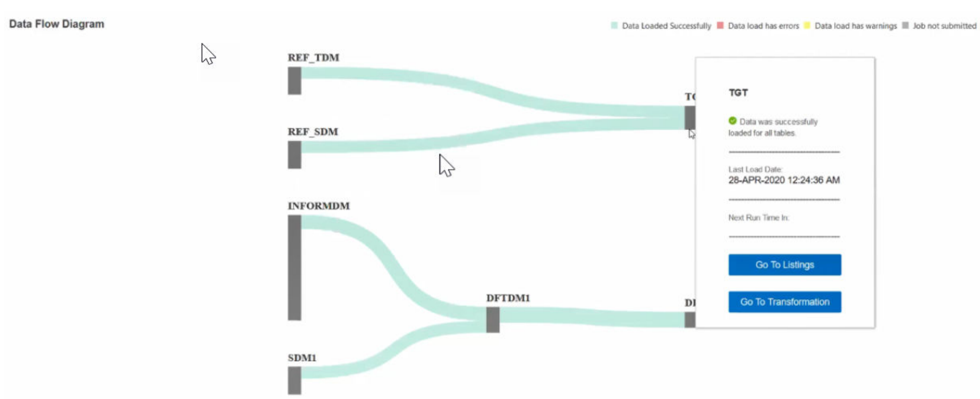
   For example, you may see something similar to this:



3. Review the color of the flows to determine if the data loaded successfully (green path), includes errors (red path), includes warnings (yellow path), or shows light gray (job not submitted).
4. Click on a data model in the data (dark gray, vertical bars) to see more details on the status. For example, if you click an input data model with the area you want to inspect, a dialog box opens with details on the data load, date of the last data load, and next expected run time for the model:



If you click on a target data model you want to inspect, you may see an additional option. For example:



> **Note:**
>
> Depending on the amount of details shown, you may need to use the vertical and horizontal scroll bars to see all the content (if available). And, if the system finds errors (for example, failures when loading data into the data model), the dialog box includes a link to the log file.

5. If you opened a data model to see details, you may see some or all of the following options:
   - Users with Study Manager roles can click **Go To Listings** to open the Listings tab and review the data in the appropriate listing. (Click the left arrow icon in the browser toolbar to return to the Data Flow Diagram page.)
   - Users with Study Configurator roles, can click **Go To Listings** to open the Listings tab or **Go To Transformation** to open the Transformation tab in Study Configuration (for the current lifecycle). The tab opens with the source and target tables used in the transformation for the target data model. (Click the

left arrow icon in the browser toolbar to return to the Data Flow Diagram page.)

- Users with the DMW Exclude Internal Datamodel from Listings in Production role can click **Go To Transformation** to open the Transformation tab in Study Configuration if they select an InForm internal data model in the data flow. But, they cannot access the **Go To Listings** option.
- If available, click **Log** to download the log file and see details on any errors.

> **Note:**
>
> Click anywhere in the Data Flow Diagram title bar to close the data model dialog box.

6. Click any main menu button in the navigation bar to exit the Data Flow Diagram page.

Create a custom listing

You can create a custom listing and define the access, columns displayed, table aliases, and data conditions. See this video for details: Video

This section contains the following topics:

- Define query details
- Select columns to display
- Select packages
- Define table aliases
- Specify and test criteria
- Save and install a custom listing

Define query details

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Custom Listing Manager** from the drop-down menu to open the Custom Listing Manager tab.
3. Click the Add icon from the Custom Listings header in the left panel to open the Add Custom Listing dialog box.
4. Enter the appropriate information for the new custom listing in the **Name** and **Description** fields.

> **Tip:**
>
> Use a name with 25 characters or less to avoid scrolling to see the full name.

5. Select **Authorize access to this listing for users without Blind Break rights** if you know that the listing only displays non-blinded data, even though at least one source table contains blinded data. Take care to select columns that do not contain blinded data.

   If any source table is blinded in any way and this setting is not selected, the system blinds the entire target table, so that only users with Blind Break privileges can view any data.

6. Select **Mark as Public** to enable all data reviewers to use this custom listing.
7. Do one of the following:
   - Continue on to Select columns to display to continue defining your custom listing.
   - Click **OK** to close the dialog box and save the custom listing with the details you entered. You can return to this procedure and search for it to continue defining it later.

Select columns to display

Identify the columns to display in the listing and write an expression to change data display (if needed, for example, to mask blinded data, or to append a string to all values in the column, or to concatenate two column values in a single column).

1. If not done already, open the custom listing you created in Define query details.
2. Click the **Selected Columns** tab. Then drag the tables or columns you want to display from the Source panel into the Selected Columns tab.

   > **Tip:**
   >
   > To select multiple columns, use Ctrl+click or Shift+click.

   Tables and columns that are marked Not Used in the transformation that writes to this model are not displayed here.

3. If you need an **Expression** to operate on a column(s) to affect the way data is displayed, you must create a three-character **Table Alias** for its source table in the Define table aliases tab, then select it from this drop-down list.
4. Enter the **Column Header for Display** in the Custom Listings page.
5. Enter a **Sort Order** number to determine the column's display order relative to other columns.
6. Select Ascending (**ASC**) or Descending (**DESC**) **Sort Type** for the data display.
7. If you need an **Expression** to operate on the column in the SELECT clause, do one:

- Enter the expression in the **Expression** field.

  If you need to use a function and you write the expression in free text, open the **Select Packages** tab and select the packages you will use. This enables the system to generate the query code.

- Click the

  Modify Expression icon to use the Expression Builder. You can edit code generated by the Expression Builder in this field afterward. (For more details, see Use the Expression Builder .)

To write an expression that operates on multiple columns, add all columns in the expression to the same row in the Selected Columns tab:

a. Add one column to Selected Columns and highlight it there.

b. Select the additional column(s) in the Source pane and click the **Use in Expression** icon in the Source pane.

> **Note:**
>
> If you select a column that contains masked data, write an expression for the column to mask values.

8. If necessary, use the following icons in the table toolbar to do the following:

   - The **Select Table Alias** icon opens a Select Table Alias dialog box. You can use the drop-down list to assign an alias to the selected column. Click **OK** when done.

   - The **Reorder Columns** icon opens the Reorder Columns dialog box. You can select a column and click the appropriate arrows to change the order. Click **OK** when done.

   - The **Delete Column** icon deletes the selected column.

   - The Detach icon detaches the table from the page for you to see the whole table. Click X in the upper-right corner to close it.

9. Do one of the following:

   - Continue on to Select packages to continue defining your custom listing.

   - Click **OK** to close the dialog box and save the custom listing with the details you entered. You can return to this procedure and search for it to continue defining it later.

Select packages

Identify the packages of functions (for example, static functions that you defined in the study configuration) that you want included in the listing.

1. If not done already, open the custom listing you created in Define query details.

2. Click the **Selected Columns** tab to open the list of packages you their path that you can add to the custom listing.
3. In the Select column, select the packages you want. You can choose one of the following:
   - Leave the drop-down field over the Select column set to **All**.
   - Select the packages you want to include and click **Selected**. The custom listing only includes the package you selected.
   - Select the packages you do not want to include select and click **Not Selected**. The custom listing only includes the packages you did not select.
4. If necessary, use the following icons in the table toolbar to do the following:
   - The **Idle** icon holds the packages loading.
   - The **Clear Filter** icon clears a filter.
   - The **Query by Example** icon opens fields at the top of each column for you to enter the name, description, or path to locate it.
   - The Detach icon detaches the table from the page for you to see the whole table. Click X in the upper-right corner to close it.
5. Do one of the following:
   - Continue on to Define table aliases to continue defining your custom listing.
   - Click **OK** to close the dialog box and save the custom listing with the details you entered. You can return to this procedure and search for it to continue defining it later.

Define table aliases

Table aliases are required only if you are using a self-join or writing a SELECT expression on a table column.

1. If not done already, open the custom listing you created in Define query details.
2. In the **Define Table Alias** tab, select the table from the drop-down list.
3. Enter an alias. **Use an alias with three characters or less.**

   The system displays the alias in the Selected Columns tab.
4. If necessary, click **View** to access options to see all or specific columns, detach the table, sort, or reorder columns. (For more details on customizing the view, see Customize the user interface display.) You can also use the following icons in the toolbar to do the following:
   - The **Delete Column** icon deletes the selected column.
   - The **Add Table Alias** to add another alias.
   - The **Remove Table Alias** icon deletes the alias.

- The Detach icon detaches the table from the page for you to see the whole table. Click X in the upper-right corner to close it.

5. Click **OK**.
6. Do one of the following:
   - Continue on to Specify and test criteria to continue defining your custom listing.
   - Click **OK** to close the dialog box and save the custom listing with the details you entered. You can return to this procedure and search for it to continue defining it later.

Next: Specify and test criteria.

Specify and test criteria

Specify the data condition the listing will look for.

1. If not done already, open the custom listing you created in Define query details.
2. Select the **Criteria** tab.
3. Build the WHERE clause to determine which records appear in the listing. Click the **Add or Modify Criteria** icon and Use the Expression Builder .
4. In the custom listing Query Details pane, view and test the generated code:
   - Click **View Source**. The system generates and displays the PL/SQL code.
   - Click **Test**: The system generates PL/SQL code, validates it, and displays either an error message or the records retrieved.
5. Do one of the following:
   - Continue on to Save and install a custom listing to continue defining your custom listing.
   - Click **OK** to close the dialog box and save the custom listing with the details you entered. You can return to this procedure and search for it to continue defining it later.

Save and install a custom listing

1. In the Custom Listings panel, select the listing you created.

   > **Note:**
   >
   > For details on creating a custom listing, see Create a custom listing.

2. Click the **More Actions** icon from the Custom Listings title bar, then do one of the following:
   - Click the **Save as Query** icon to save the listing for use in another session. For new queries, the Save operation includes installation.

- Click the **Install Custom Listing** icon to install the listing. This is required only for copied queries.

Copy a custom listing

1. After you select a study, click **Data Management** in the navigation bar.

   Note:

   For details on selecting a study, see Select a study.

2. Select **Custom Listing Manager** from the drop-down menu to open the Custom Listing Manager tab.
3. From the Custom Listings header in the left panel, click the **More Actions** icon, then click **Copy Custom Listings**.
4. Select a project (or other study grouping).
5. Select a model.
6. Select one or more custom listings within the model.
7. Click **OK**. The system searches the current model for the tables and columns that the selected custom listings read from.
   - If the tables or columns do not exist, the Copy operation fails with an error message.
   - If they exist but are marked Not Used in the transformation that writes to the model, the system copies the listings as disabled.

Use the Expression Builder

There are two ways to add an expression, with different advantages:

- **Use the Expression Builder user interface**. This more cumbersome process makes the transformations, validation checks, and custom listings that use it easier to copy and map in the new study.
- **Enter code as free text directly in the Expression Text field**. This is a simpler process for a programmer but results in a less easily reusable transformation, validation check, or custom listing.

> **Important:**
>
> – If you reference a static package or function **in free text**, you must select it in the **Selected Packages tab**.
>
> – In free text, **use just the column name**, not the table.column format, **unless** you need to use an alias, as in a self-join. In that case the alias.column format is required.

To use the Expression Builder:

1. In the Expression Criteria pane, select the following as needed to build the expression from left to right.
   - **Add Group** to add the parentheses () that surround a phrase in an expression or group smaller units of logic.
   - **Add Item** to add a unit of logic smaller than a group.
2. To add a phrase within a group, click the parentheses ().

   To add a phrase outside a group, click **Expression**.
3. To add an item, in the Expression Item pane select **Column**, **Function** (for functions written by your company), or **Standard Function** (for Oracle SQL functions).

   To create an expression using column values:

   a. For Item Type, select **Column**.

   b. Click the **Select Column** icon.

   In the Select Column window, you can filter above any of the attribute columns to find the table column you want. Select a column and click **OK**.

   c. If needed, select an operator from the list.

   d. If needed, enter a data value. The system encloses the value you enter in single quotes.

   e. If needed, select a conjunction from the list.

   > **Tip:**
   >
   > If you select a conjunction within a group, it appears within the group, at the end. If you need a conjunction outside the group, click **Expression** above, then select the conjunction.

   f. Click **Add**. The system generates the SQL expression and displays it in the Expression Text pane.

> **Note:**
>
> You can edit the generated code in the Expression Text pane, but if you do, you cannot continue to build the expression in the user interface.

Click **Validate** to check the generated code.

To use a function in your library:

a. For Item Type, select **Function**. The Select Function window appears, displaying a list of Oracle functions.
b. Select a function and click **OK**.

To use a standard SQL function:

a. For Item Type, select **Standard Function**.
b. Click the **Select Standard Function** icon. A search window appears. To filter, enter all or part of the name in the field above. You can use the wildcard `%`.
c. Select a function and click **OK**.

4. Define additional groups and items to complete the expression as necessary.
5. Click **Save**.
6. Click **Validate**. The system validates the code and displays any errors or warnings.

   To make a correction in the Expression Builder:

   a. Select the faulty item in the Expression Criteria pane. An Update button appears in the Expression Item pane.
   b. Make your changes in the Expression Item pane and click **Update**.

   For more information, see the following sections.

- Pass data as input parameter values
- Pass constant values

Pass data as input parameter values

Use curly brackets ("{" and "}") as delimiters and the fully qualified format (*model.table.column*) to indicate input parameter values to SQL functions or custom functions in the expression. The default input is the column value if no metadata is specified after the column name.

For example, to calculate a subject's age from his date of birth:

```
round((sysdate - {Review.LAB_SRC.dob})/365)
```

where `Review` is the data model name, `LAB_SRC` is the table name, and `dob` is the column name. No metadata follows the column name, so by default the system passes the Date of Birth (dob) data value to the expression.

Pass constant values

You can hard-code a value for a target column using an expression that contains only a constant value or by calling a SQL function based on constants, for example:

```
round(3.14 * power(10, 2))
```

FAQs

This section includes the following topics:

- Listings FAQs
- Flag FAQs
- Data lineage FAQs

Listings FAQs

This sections includes details on these listing questions:

- What is a clinical data model?
- One of the rows says "Yes" under the Discrepancy_Exists Column, but no cells are highlighted yellow. Where is the discrepancy?
- What is a disabled listing?
- Where can I copy a custom listing from?
- What happens if I modify a Table Alias?
- How can I view blinded data?
- How can I resend data that needs coding to TMS?

What is a clinical data model?

A clinical data model is a logical set of tables of study data. They were either loaded together into DMW from a single source or they contain data transformed by your study configurator for a purpose such as data review or analysis.

One of the rows says "Yes" under the Discrepancy_Exists Column, but no cells are highlighted yellow. Where is the discrepancy?

An active discrepancy filter has probably identified a discrepancy in a column that is not displayed.

What is a disabled listing?

Listings are disabled if a table they read from is not used in the study.

Where can I copy a custom listing from?

You can copy custom listings from another study or from a different clinical data model in the same study. The system checks if the required source tables are available in the current model.

What happens if I modify a Table Alias?

If you are creating the listing and modify the alias after defining an expression or criterion that refers to the original alias, you must update the expression or criterion manually before saving.

If you are modifying a saved listing and modify an alias, the system will update the expression or criterion when you save, as long as the expression or criterion was originally created using the Expression Builder.

How can I view blinded data?

When you choose a listing that contains blinded data and your account includes the privileges to view it, Oracle DMW prompts you to confirm that you want to access the blinded data.

After clicking **Yes**, you can use the **Show Blinded Data** field in the Filters tab of the Listings page or the Filter panel of the Discrepancies page to toggle between viewing or not viewing blinded data or masking values.

How can I resend data that needs coding to TMS?

If you make structural changes like updating a dictionary or adding columns to hold derived data from TMS, you can send all data that has been designated as needing coding by running the Force Rederivation job.

1. Open the **Home** page.
2. Select a study.
3. Click the **Modify Study** icon in the Studies panel.
4. Click the **TMS** tab.
5. Click **Force Rederivation** to run Rederivation once, immediately. A confirmation message opens to notify you of a long processing time. But, you can still work while the rederivation runs.
6. Click **OK**.

Flag FAQs

- Why can't I assign a flag?
- Can the flags I assign be seen in InForm?
- I wish a different flag were available.
- Why can't I change some flags?

Why can't I assign a flag?

The Assign Flags function is available only if flags have been defined for the current data model type and if you have the privileges required to assign flags.

Can the flags I assign be seen in InForm?

You can only see Oracle DMW flags in Oracle DMW.

I wish a different flag were available.

Your administrator creates the flags you can assign in DMW.

Why can't I change some flags?

Flags that start with `Inf_` are CRF form and section states imported from InForm as flags. After the `Inf_` the name is the same as in InForm. You cannot change these flag assignments in DMW. Each of these flags has two states: Yes an No (Y and N).

Data lineage FAQs

- What is data lineage?
- When I create a discrepancy against a data item, how does that affect the data lineage?
- Why does the wrong source data item have the discrepancy?

What is data lineage?

A single data item, such as a subject's weight, appears in DMW first as loaded from InForm or another system and then in subsequent *downstream* clinical data models. DMW maintains tracks each data item as it appears in each model.

The column name may change from one model to the next, for example from WT to WEIGHT, and the value may be converted to different units and used to derive other values, such as Body Mass Index (BMI).

When I create a discrepancy against a data item, how does that affect the data lineage?

The system immediately displays the discrepancy against the corresponding data items upstream and downstream.

Why does the wrong source data item have the discrepancy?

When a data item like a derived BMI has more than one source data item, the validation check must designate a single column as the one against which to create the discrepancy, even if it is impossible to know in advance which one is faulty. A BMI that is out of range might be due to a bad value for height, weight, or unit, but one of them must be preselected. However, all relevant values can be displayed.

See also Why is a query on a different item in InForm than in DMW?.

3
Review and act on discrepancies

The section contains the following topics:

- How do I create a discrepancy?
- Find discrepancies
- Act on a discrepancy
  Once you find the discrepancies you need to locate, you can act on them to change the state, send to InForm or another system, modify the description, or export the details.
- See more information about a discrepancy
- FAQs

How do I create a discrepancy?

You create a discrepancy on a data item by selecting a study and clicking **Data Management** in the navigation bar. Then, select **Listings** from the drop-down menu. You can then select a listing, locate the data item with the possible discrepancy, right-click on it, and select **Create Discrepancy**. For full details on creating a discrepancy, see Create discrepancies.

You can also see this video for details: Video

- Use keyboard shortcuts on discrepancies

Use keyboard shortcuts on discrepancies

After you open the Discrepancies page, and select one or more discrepancies, you can save time and avoid using a mouse by using keyboard shortcuts to perform actions or use search fields. (The number of actions you can take on a discrepancy vary depending on the state of the discrepancy.)

Table 3-1 Keyboard Shortcuts for Discrepancies

Keyboard Shortcut	Description
Ctrl+Alt+S	**Search for a column value:** Use the keyboard shortcut and press **Enter** to open the Search field drop-down list and select the column you want to search. For more details, see Use the search fields at the top.

Table 3-1 (Cont.) Keyboard Shortcuts for Discrepancies

Keyboard Shortcut	Description
Ctrl+Alt+E	**Edit a discrepancy:** Opens the Edit Discrepancy dialog box in the right panel. For more details, see Change discrepancy text or category. **Note:** You can only edit one discrepancy at a time. To open the Edit Discrepancy dialog box for more than one discrepancy at a time, select multiple discrepancies and click **Edit** for each discrepancy you opened. Do not use the keyboard shortcut.
Ctrl+Alt+Q	**Ready to Send to InForm (if available):** Opens the Ready to Send to InForm dialog box in the right panel. For more details, see Change the state or send to InForm or another system.
Ctrl+Alt+C	**Close one or more discrepancies:** Opens the Close Discrepancy dialog box in the right panel (for one or more discrepancies). For more details, see Change the state or send to InForm or another system.

Find discrepancies

You can find particular discrepancies using one or both of the following methods:

- Filters in the left panel (use one or more fields, build an advanced filter with a formula, or both)
- Search fields at the top of the table

See the following sections for details:

- Use filters in the left panel
- Use the search fields at the top
- Show blinded data

Use filters in the left panel

To find discrepancies, use the filter fields in the left panel. You can use one or more fields, build an advanced filter formula, and save a favorite filter for later use.

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. In the left panel, do one or more of the following:
   - Select a saved filter from the **Saved Filters** fields drop-down menu, if available. The fields used in the filter automatically populate.
   - Click **Advanced Filters** to open a text box. Click inside the box to open a drop-down menu, select a filter item and start building your formula using the appropriate operators. The criteria you select determines what additional items you can access. See Advanced Filters for more information.
   - Click in one or more of the following fields to enter or select the quick filter criteria you want to use (with or without an advanced filter formula). Use the scroll bars to see all your choices:
     a. **Model**: Lists the models in the study (only shown through Discrepancies page).
     b. **Listing**: Lists the listings for the model you selected (only shown through Discrepancies page).
     c. **Country**: Lists the countries of the study or listing (depending if you accessed the filters from Listings or Discrepancies).
     d. **Site**: Lists the location of where the study or listing was done.
     e. **Subject**: Lists the available subject IDs.
     f. **Visit**: Lists the available names of visits.
     g. **Discrepancy State**: Lists the available discrepancy states. You can select **Answered**, **Cancelled**, **Candidate**, **Closed**, **Open**.

        > **Tip:**
        >
        > By default, you cannot see cancelled or closed discrepancies. You must apply the **Discrepancy State** filter of **Cancelled** or **Closed** to see them.

     h. **Discrepancy Tag**: Lists the available discrepancy tags (for example, **ClosedWithAnswer**, **NeedsDMReview**, **ClosedAsIs**).
4. If your account includes the appropriate privileges and you need to show blinded data, select **Show Blinded Data** and click **Yes** when prompted. (The system tracks the number of times you view blinded data.)
5. If you want to keep displaying the filtered data, select **Keep the Filter in effect**.
6. Click **Apply**.
7. (Optional) To save the filter criteria for future use, click **Save**, name the filter, and click **Save and Apply**. If you want to use this filter as a template to create a new filter, click **Create New** and repeat these steps.

Tip:

Saving a filter allows you to modify it one field at a time, saving after each change. To edit or delete filters, see Use or modify existing filters or Delete a filter. To make a public filter, see Create a public filter.

8. To clear the filters, click **Clear**. To view the data after clearing the filters or creating a new filter, click **Apply**.

Use the search fields at the top

You can enter a partial value here to find all records that contain that value. For example, if you search for Subject ID=CA, you find all subject IDs that contain CA, unlike the filters that find only the exact value entered.

- If there are filters in effect when you search in these fields, the system applies the filters and searches on these values within the filter results.
- If there are no filters in effect, the system searches across all discrepancies.

Tip:

To see which filters are in effect, click the down arrow in the 

Filter: ON indicator at the top of the page.

1. After you select a study, click **Data Management** in the navigation bar.

Note:

For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. In the drop-down list above the discrepancies table, select what to search on, for example: **Category**, **Datasource**, **Days since last state change**, **Validation check**. The choices depend on the columns your organization uses.

Tip:

You can skip the remaining steps and use keyboard shortcuts to access the Search field by pressing **Ctrl+Alt+S**. Press **Enter** to open the Search field drop-down list of available columns you can search. Use the arrow keys to select the column name. Then press **Tab** to navigate to next field and enter a value. Press **Enter** to find the data under the criteria you specified.

4. Enter a value in the text box.
5. Click the **Search** icon.

6. To clear the filters, remove the value entered in the text box and click **Refresh** from right of the navigation bar.

Show blinded data

As described in Use filters in the left panel, you can select **Discrepancies** from the **Data Management** menu to drill down into the data and locate specific items. If your account includes the appropriate privileges and you need to show or hide blinded data, do one of the following:

- To show blinded data, select **Show Blinded Data** from the Filter panel on the left and click **Yes** when prompted. (The system tracks the number of times you view blinded data.)
- To hide blinded data, clear the **Show Blinded Data** field and click **Yes** when prompted.

> **Note:**
>
> If you selected a listing instead of discrepancies and clicked **Yes** when prompted to access blinded data (if available), the **Show Blinded Data** field appears selected already in the Filters panel (tab).

Act on a discrepancy

Once you find the discrepancies you need to locate, you can act on them to change the state, send to InForm or another system, modify the description, or export the details.

See this video for details: Video

This section describes how to complete the following tasks:

- Change the state or send to InForm or another system
- Add a comment
- Change discrepancy text or category
- Export discrepancies on lab data

Change the state or send to InForm or another system

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.

3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. Select one or more discrepancies. To select adjacent rows, press **Shift** as you click rows (or press the down arrow key). To select nonadjacent rows, press **Ctrl** as you click rows.

> **Tip:**
>
> You can skip the remaining steps and use keyboard shortcuts to select **Ready to Send to InForm** by pressing **Ctrl+Alt+Q**. Or, close one or more discrepancies by pressing **Ctrl+Alt+C**. Use the down arrow keys to open the drop-down list and select an option. Press **Tab** to navigate to fields and enter a comment (if necessary). Press **Tab** to navigate to **Submit** and press **Enter**.

5. From the **Manage Discrepancies** drop-down, select the action to take (for example, **Ready to Send to InForm**). The drop-down list only includes valid actions for the discrepancies you selected. A new dialog box with the name of the action you selected opens in the right panel.
6. In the **Reason** field, select a reason from the drop-down list. Or, enter reason in the **Comment** field instead. (If you select a reason and enter a comment, Oracle DMW only saves the reason.
7. Click **Submit**.

Add a comment

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. Select one discrepancy.
5. In the right panel, click **Add Comment**.
6. Enter the comment and click **Submit**.

Change discrepancy text or category

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. Select a discrepancy.
5. In the right panel, click **Edit**.

> **Tip:**
>
> You can skip the remaining steps and use keyboard shortcuts to edit one discrepancy at a time by pressing **Ctrl+Alt+E**. Edit the **Discrepancy** field (if available). Press **Tab** to navigate to the **Category** field (if necessary), use the down arrow key to open the drop-down menu and select an option. Press **Tab** to navigate to **Submit** and press **Enter**.

6. Edit the **Discrepancy** field, **Category** field, or both. You can also select or clear the **Allow Auto Close** option. (You cannot change the state of the discrepancy.)
7. Click **Submit**.

Export discrepancies on lab data

To send discrepancies to a lab, create a file, and email it manually, follow these steps.

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. If you want to export only selected discrepancies, select the discrepancies. To select adjacent rows, press **Shift** as you click rows (or press the down arrow key). To select nonadjacent rows, press **Ctrl** as you click rows.
5. Select one of the following from the **Export** drop-down list:
   - **All to Excel**
   - **All to CSV**
   - **Selected to Excel**
   - **Selected to CSV**

The system exports all or selected data to a Microsoft Excel or CSV file and prompts you to save it.

See more information about a discrepancy

This section contains the following topics:

- View the full record containing a discrepancy
- View the record in its source system
- View the discrepancy in its source system

View the full record containing a discrepancy

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. Select one discrepancy.
5. From the **View** drop-down in the top section of the right panel, select **Full Record** to open the Full Record dialog box.
6. To see a particular column, enter part of the column name in the Search field and click to locate it.
7. (Optional) Select **Show Only Changes** to see only items with different current and original data values.
8. Click to close the Full Record dialog box.

View the record in its source system

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. Select one discrepancy.

5. From the View drop-down in the top section of the right panel, select **Query in External Source**.
6. When the source system opens, log in.

View the discrepancy in its source system

1. After you select a study, click **Data Management** in the navigation bar.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Select **Discrepancies** from the drop-down menu.
3. Find the discrepancies you need to locate using the filters on the left panel or the top of the page. (See Find discrepancies for details on using the filters.)
4. Select one discrepancy.
5. From the **View** drop-down in the top section of the right panel, select **Data in External Source**.
6. When the source system opens, log in.

FAQs

- Acting on a discrepancy FAQs
- InForm query and discrepancy FAQs
- Lab data discrepancy FAQs
- TMS discrepancy FAQs

Acting on a discrepancy FAQs

- Can I take an action on multiple discrepancies at once?
- Why don't I see the action I want to apply?
- Can I send discrepant data items to multiple sources?
- Why can't I send a particular data item to another source?

Can I take an action on multiple discrepancies at once?

Yes, but you should select discrepancies that are all in the same state. The discrepancies may also need the same tag depending on how your company uses the system, and may need to be from the same data source. The system only displays actions that are valid for all the selected discrepancies.

> **Note:**
>
> To select adjacent rows, press **Shift** as you click rows (or press the down arrow key). To select nonadjacent rows, press **Ctrl** as you click rows.

Why don't I see the action I want to apply?

If you selected multiple discrepancies, the system displays only actions that apply a valid next state for all the selected discrepancies. If you select discrepancies that do not share a valid action, the system lists no actions. You must change your selection to a set of discrepancies that are in the same state. They may also need to have the same tag applied.

If you selected a single discrepancy and the discrepant data point is derived from multiple data values from different sources, the system uses the data source identified as on the preferred path in the transformation to determine which routing action to enable. If no action is available to send the discrepancy to the source you need, you may need to enter the discrepancy against the data point in the source data model.

Can I send discrepant data items to multiple sources?

If a single discrepant data item is derived from data in more than one source, you can only send the discrepancy to InForm if an InForm data item is designated as being on the preferred path. You can always filter and use Export to Excel for sending a discrepancy to a lab.

Why can't I send a particular data item to another source?

The system uses the preferred path source specified in the transformation or validation check to determine where you can send the discrepancy. If no action is available to send the discrepancy to the right source, you can go to the Listings page, change to the source data model, and create a discrepancy against the data item there.

Add a comment to the current discrepancy detailing what you did.

InForm query and discrepancy FAQs

- Can I change the state of a discrepancy that was loaded from InForm?
- Can I create a discrepancy in DMW on a data item that originated in InForm?
- Can I send a discrepancy to InForm?
- Why can't I open InForm and see a discrepancy there?
- What happens to the discrepancy after I send it to InForm?
- If I don't send the discrepancy to InForm, can InForm users act on the discrepancy?
- Before I send the discrepancy to InForm, can I act on it?

Can I change the state of a discrepancy that was loaded from InForm?

You can only move discrepancies/queries to the Answered state in InForm. You can close them in either system.

This is true no matter which system the discrepancy/query was created in.

Can I create a discrepancy in DMW on a data item that originated in InForm?

Yes. Validation checks can also create discrepancies on a data item originating in InForm.

Can I send a discrepancy to InForm?

Yes. When you send a discrepancy on an InForm data item back to InForm, you create a new query in InForm.

InForm does not accept discrepancies on data that is *hidden* in InForm. Any resolution must occur within DMW.

Why can't I open InForm and see a discrepancy there?

You have to wait until data has been reloaded from InForm after sending the discrepancy.

What happens to the discrepancy after I send it to InForm?

InForm users can act on the discrepancy using the same rules that apply to queries. InForm users can also correct the underlying data item.

Changes made in InForm are loaded into DMW during the next scheduled data load. The discrepancy is then "in" DMW and cannot be sent to InForm again, though updates made in DMW are sent to InForm.

If I don't send the discrepancy to InForm, can InForm users act on the discrepancy?

No. InForm users can change the underlying data item, and that change is loaded into DMW during the next scheduled data load, but they can't act on the discrepancy.

Before I send the discrepancy to InForm, can I act on it?

Yes. In DMW you can apply an action that changes the state of the discrepancy and must supply a reason for the change. The state change and reason for change are sent to InForm almost immediately.

Lab data discrepancy FAQs

- Can I create a discrepancy on a data item that originated in a lab?
- How do I send these discrepancies to the lab?

Can I create a discrepancy on a data item that originated in a lab?

Yes. Validation checks can also create a discrepancy on a data item that originated in a lab.

How do I send these discrepancies to the lab?

You can use **Export All to Excel** to export discrepancies to a spreadsheet and manually send them to the source lab. Lab personnel can then respond or change the underlying data item and load the changes into DMW, and you can act on the discrepancy in DMW.

When you use the **Export All to Excel** option to send discrepancies to a spreadsheet, all discrepancies that meet the current filter criteria are included, even if they are not visible on the screen.

TMS discrepancy FAQs

- What does it mean when a discrepancy's category includes "TMS"?
- What do the different TMS Discrepancy Categories mean?
- What should I do with a TMS discrepancy?
- Why is a query on a different item in InForm than in DMW?

What does it mean when a discrepancy's category includes "TMS"?

If your study is set up to use Oracle Thesaurus Management System (TMS) for coding source data to standard terminologies, or dictionaries, TMS processes designated data items with new or changed data during DMW transformation. If TMS is able to automatically code a designated source term to a dictionary term, it does so and derives specified data back to DMW.

TMS creates a discrepancy when it cannot automatically code a data item to a dictionary term.

What do the different TMS Discrepancy Categories mean?

- **TMS in Progress** prevents updates in DMW while the data item (*term*) awaits manual classification in TMS.
- **TMS Evaluation** means that the item or discrepancy has been updated either in the source system or in DMW, and triggers autoclassification on the term in TMS during the next transformation. No updates can be made in DMW while the category is TMS Evaluation.
- **TMS DM Review** means that the data manager should review the discrepancy in DMW.
- **TMS Inv Review** means that the discrepancy has been sent to InForm as a query for review by the investigator. The system also sends any subsequent updates to the discrepancy to InForm.

You can use a Discrepancy Categories filter to help process these discrepancies.

What should I do with a TMS discrepancy?

You can only review the discrepancy in DMW. TMS discrepancies must be resolved in either TMS or the source data system.

A TMS user can either:

- Classify the data item manually. TMS then closes the discrepancy and derives data to DMW.
- Send text to DMW as discrepancy text describing a problem with the data or an action required. For example, if the data item is "headache and nausea," the message could be "Split the term."

A source data system user can correct the term so that it can be classified in TMS.

> **Tip:**
>
> A discrepancy can be updated in the source system and in TMS at the same time. This may cause conflicts. For example, an InForm user might close a discrepancy thinking the term is a valid one while TMS does not recognize it. In this case, even though the Closed status is loaded into DMW, closing the discrepancy, TMS opens a new discrepancy when autoclassification fails.

Why is a query on a different item in InForm than in DMW?

This can happen if your study designer set up Coding Maps in Central Designer to purposefully attach a query to a different form item than the one it was raised on. This feature is intended for use with Central Coding.

If the same form item is set up for coding in TMS through DMW, when the discrepancy is sent to InForm the Coding Map routes the query to its mapped item.

4
Use filters to find data and discrepancies

This section has information on the standard (quick) and advanced filters available in the Listings pages and in the Discrepancies page. Quick filters include a list of fields where you can enter data or select options from a drop-down list. Advanced filters include numerous categories with operators for you to build a filter formula from a list of drop-down options (depending on the criteria and operators you use). You can use the quick and advanced filters together, if necessary.

Tip:

By default, you cannot view canceled or closed discrepancies unless you use the **Discrepancy State** field in the filter. For more details, see Create a new filter.

For more details, see this video: Video

This section contains the following topics:

- Create a new filter
- Use or modify existing filters
- Delete a filter
- Create a public filter
- FAQs

Create a new filter

1. After you select a study, click **Data Management** in the navigation bar.

   Note:

   For details on selecting a study, see Select a study.

2. Do one of the following:
   - Select **Listings** from the drop-down menu to open the listings page. Expand a default, custom, or VC listing, expand a data model, and select a listing. Then click the **Filters** tab from the left panel.
   - Select **Discrepancies** from the drop-down menu to open the discrepancies for the study you selected. The filter panel appears on the left.
3. In the left panel, do one or more of the following:

- Click **Advanced Filters** to open a text box. Click inside the box to open a drop-down menu, select a filter item and start building your formula using the appropriate operators. The criteria you select determines what additional items you can access. See Advanced Filters for more information.
- Click in one or more of the following fields to enter or select the quick filter criteria you want to use (with or without an advanced filter formula). Use the scroll bar to see all your choices:
  a. **Model**: Lists the models in the study (only shown through Discrepancies page).
  b. **Listing**: Lists the listings for the model you selected (only shown through Discrepancies page).
  c. **Country**: Lists the countries of the study or listing (depending if you accessed the filters from Listings or Discrepancies).
  d. **Site**: Lists the location of where the study or listing was done.
  e. **Subject**: Lists the available subject IDs.
  f. **Visit**: Lists the available names of visits.
  g. **Discrepancy State**: Lists the available discrepancy states. You can select **Answered**, **Cancelled**, **Candidate**, **Closed**, **Open**.

     > **Tip:**
     >
     > By default, you cannot see cancelled or closed discrepancies. You must apply the **Discrepancy State** of **Cancelled** or **Closed** to see them.

  h. **Discrepancy Tag**: Lists the available discrepancy tags (for example, **ClosedWithAnswer**, **NeedsDMReview**, **ClosedAsIs**).

> **Note:**
>
> If your account includes the appropriate privileges and you need to show blinded data, select **Show Blinded Data** and click **Yes** when prompted. (The system tracks the number of times you view blinded data.) If you selected a listing, saw a prompt to access blinded data, and clicked **Yes**, the **Show Blinded Data** field appears selected already. To stop showing blinded data, clear this field and click **Yes** when prompted.

4. If you want to keep displaying the filtered data, select **Keep the Filter in effect**.
5. Click **Apply**.
6. (Optional) To save the filter criteria for future use, click **Save**, name the filter, and click **Save and Apply**. Use a unique name across all the private, shared, and public filters that you can see in the current study and lifecycle. If you want to use this filter as a template to create a new filter, click **Create New** and repeat these steps.

> **Note:**
>
> To edit or delete filters, see Use or modify existing filters or Delete a filter. To make a filter public, see Create a public filter.

7. To clear the filters, click **Clear**. To view the data after clearing the filters or creating a new filter, click **Apply**.

- Advanced Filters

Advanced Filters

As described in Create a new filter, you can find particular records and discrepancies by creating a filter (or using a previously saved one).

The filter panel includes an Advanced Filters field that allows you to use additional filter criteria with operators to build a formula. You can use advanced filters with or without the quick filter fields.

Once you click inside the **Advanced Filters** field, the text box opens. Click in the text box to select a filter and start building your formula using these guidelines:

- Use the space bar to open the list of operators, categories, or linking options.

> **Note:**
>
> The operators depend on the filter you choose. For example, you may see an operator of **=**, **!=** (not equal to), **is empty**, or **is not empty** with one filter category or **exactly**, **before**, **after**, **between**, **is empty**, or **is not empty** with another category. Once you select a filter, operator, and value (if required), you can use the **AND** linking option to build on the formula.

- Use single quotes around any alpha characters you manually enter (for example, 'Boston').
- Use a comma (outside single quote if quote used) to add multiple entries or a range of numbers. For example, to show a range of 1 to 10, enter 1, 10.
- Select dates from the pop-up calendar. Click the left (<) or right (>) arrows to move backward or forward through the months. The date appears in the DD-MMM-YYYY format.
- Click ✕ to remove the advanced filter from the formula.
- Click ✕ to close the Advanced Filters text box.

The following table lists the advanced filters you can use to drill down to the data you need to access:

Table 4-1 Advanced filter options

Advanced Filter	Available Operators	Description
Discrepancy Category	=, !=, is empty, is not empty	Lists the records with the discrepancy category that you specify (for example, From InForm, TMS IN PROGRESS, QC: Manual).
Discrepancy Change Date	exactly, before, after, between, is empty, is not empty	Lists the records with the most recent discrepancy change update that occurred during the time period you specify.
Discrepancy State Change Date	exactly, before, after, between, is empty, is not empty	Lists the records with the most recent discrepancy state change update that occurred during the time period you specify.
Discrepancy Created by User	=, !=, is empty, is not empty	Lists the records with the discrepancies created by the user you specify.
Discrepancy Modified by User	=, !=, is empty, is not empty	Lists the records with the discrepancies modified by the user you specify.
Discrepancy Origin	=, !=, is empty, is not empty	Lists the records with discrepancies that originate from the application you specify (for example, InForm, TMS).
Data Source Name (for Discrepancies only)	=, !=, is empty, is not empty	Lists the records from the data source you specify (for example, InForm, Undetermined).
Data Source Type (for Discrepancies only)	=, !=, is empty, is not empty	Lists the records for the data source type you specify (for example, InForm, Unknown).
Record Level Flag	=, !=	Lists the records with the flag priority level you specify.
Subject Visit Flag	=, !=	Lists the records with the subject visti flag you specify.
Site ID	=, !=, is empty, is not empty	Lists the records with the site ID values you specify.
Investigator Name	=, !=, is empty, is not empty	Lists the records with the investigator names you specify.
Investigator ID	=, !=, is empty, is not empty	Lists the records with the investigator IDs you specify.
Unique Subject ID	=, !=, is empty, is not empty	Lists the records with the unique subject IDs you specify.
Visit Date	exactly, before, after, between, is empty, is not empty	Lists the records with the visit date you specify.
Visit Day	=, !=, >, >=, <, <=, between, is empty, is not empty	Lists records with the visit day numeric values you specify.
Visit Number	=, !=, is empty, is not empty	Lists records with the visit number values you specify.

Table 4-1 (Cont.) Advanced filter options

Advanced Filter	Available Operators	Description
Visit Cycle	=, !=, is empty, is not empty	Lists records with the one or more visit cycle numeric values you specify.
Data change date (for Listings only)	exactly, before, after, between, is empty, is not empty	Lists records that data that changed during the time period you specify.
Discrepancy Reopened	=	Lists records that do or do not include discrepancies that were reopened. Can specify Y (for yes) or N (for no).
Discrepancy Data Changed	=	Lists records that do or do not include discrepancies with changed data. Can specify Y (for yes) or N (for no).

Use or modify existing filters

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Do one of the following:
   - Select **Listings** from the drop-down menu to open the listings page. Expand a listing, expand a data model, and select a listing. Then click the **Filters** tab from the left panel.
   - Select **Discrepancies** from the drop-down menu to open the discrepancies for the study you selected. The filter panel appears on the left.
3. In the **Saved Filters** field, select the filter you want to use or edit. The fields automatically populate with the criteria saved for the filter. For example, if the filter used a formula, you see it appear in the **Advanced Filters** field.
4. Do one of the following:
   - Click **Apply** to use the saved filter without changes.
   - Make any necessary changes to the fields or formula. For more details, see Create a new filter and Advanced Filters. Then click **Apply**.
5. If you made changes to the filter and you want to save it, click **Save**. When prompted, click **Save and Apply**. If you want to use this filter as a template to create a new filter, click **Create New**, enter a new filter name, select **Save as Public Filter** (if you want it available to others), and click **Save and Apply**.

> **Note:**
>
> To edit a saved filter name (or use a filter as a template and give it a new name), select the filter and click **Edit Filter** at the top of the left panel. Enter a new filter name, select **Save as Public Filter** (if you want it available to others), and click **Save and Apply**.

Delete a filter

To delete a filter, follow these steps:

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Do one of the following:
   - Select **Listings** from the drop-down menu to open the listings page. Expand a listing, expand a data model, and select a listing. Then click the **Filters** tab from the left panel.
   - Select **Discrepancies** from the drop-down menu to open the discrepancies for the study you selected. The filter panel appears on the left.
3. In the **Saved Filters** field, select the filter you want to delete. The fields automatically populate with the criteria saved for the filter. For example, if the filter used a formula, you see it appear in the **Advanced Filters** field.
4. Click **Delete filter** from the top of the Filters panel.
5. Click **Remove** when prompted to delete the filter.

Create a public filter

If your account includes the appropriate privileges, you can make a filter public. Data reviewers can:

- Use any public filter.
- Change public filter values temporarily.
- Change public filter values and save them using a different name.

1. After you select a study, click **Data Management** in the navigation bar.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Do one of the following:
   - Select **Listings** from the drop-down menu to open the listings page. Expand a listing, expand a data model, and select a listing. Then click the **Filters** tab from the left panel.
   - Select **Discrepancies** from the drop-down menu to open the discrepancies for the study you selected. The filter panel appears on the left.
3. In the **Saved Filters** field, select the filter you want to make public. The fields automatically populate with the criteria saved for the filter. For example, if the filter used a formula, you see it appear in the **Advanced Filters** field.
4. Click **Edit Filter** at the top of the Filter panel. Enter a new filter name, select **Save as Public Filter** (if you want it available to others), and click **Save and Apply**.

FAQs

- How do data filters work on the Discrepancies page?
- How do I know if any filters are applied?
- How can I tell which filters are applied?
- How do I turn filters off?
- Why can't I make my filters public?

How do data filters work on the Discrepancies page?

When you open the Discrepancies page from the Listings page (**Discrepancies** > **Go to Discrepancy**) and you leave the **Keep the Filter in effect** option selected in the Filters panel, the system continues to apply the same filters with these exceptions:

- If any of the current Subject or Visit filters only apply to a specific data model, the system only displays discrepancies in that model.
- If different Subject and Visit filters have different driver data models and they are applied at the same time, the system ignores all Subject and Visit filters.

A message appears when any of these conditions occur.

How do I know if any filters are applied?

You can determine if the Listings or Discrepancies pages use filters by looking at the Filter field at the left of the navigation bar. For example,

- If the page includes filtered data, the Filter field appears as On: Filter: On
  If you select the drop-down for the field, you see the toggle switch show blue with a white circle to the right when the page uses one or more filters:

  You also see a list of any filters used, including advanced filters. For example, if you used the Site or Discrepancy State filter, you see it listed as an applied filter in the drop-down list.
- If the page does not include filtered data, the Filter field appears as Off: Filter: Off

If you select the drop-down, you see the toggle switch show gray with a white circle to the left: 

How can I tell which filters are applied?

To determine the current filters in use on the Listings or Discrepancies page, select the drop-down list from the **Filter** field on the left of the navigation bar (Filter: On). You see a list of one or more filters applied to the data (including advanced filters, if used). For example, if the data uses the Discrepancy State field, you see it listed with the state used for the filter:

Note:

If the Filter field appears as Filter: **Off**, the data was not filtered.

How do I turn filters off?

From the Listings or Discrepancies page, you can turn the filters off by selecting **Clear** from the Filters tab or panel on the left.

Why can't I make my filters public?

To make a filter public, your account needs the appropriate privileges. For more details, see Create a public filter.

5

Run jobs and check history

This section contains the following topics:

View and edit your subscriptions to job status notifications

You can subscribe to receive email notifications about the completion status of jobs.

1. Click **Home** in the navigation bar and select a study from the Studies panel.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. In the Studies title bar, click the **Notify** icon.
3. Select the checkbox for each type of job and completion status that you want to be notified about:
   - **Job types**: File loads, InForm loads, Transformations, Validation Checks
   - **Completion statuses**: Success, Warning, Failure

     > **Note:**
     >
     > Your subscriptions for the current study appear as selected. An administrator can also subscribe or unsubscribe you from notifications.

   To stop receiving a particular type of notification, deselect its checkbox.
4. Click **OK**.

To subscribe or unsubscribe to notifications for other studies, select a different study and repeat the steps in this procedure.

Run transformations and view run history

1. Click **Home** in the navigation bar and select a study from the Studies panel.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Click the **Transformations** tab to open tables on the Target Model and Run History.
3. To view all jobs, click the **View Full Job History** icon.

   To view only recent jobs again, click the **View Recent Jobs Only** icon.

- View transformation job history
- Run a transformation
- Cancel a transformation job

View transformation job history

As described in Run transformations and view run history, you access transformation through the Transformations tab on the Home page. Transformations are displayed by the name of their target clinical data model.

- **To view table transformations**, click a transformation's node.
- **To view run history and pending jobs**, select a transformation in the upper pane.
- **To view log files**, click the icon in the column for the type of job:
  - **Log**: The most recent manually submitted job.
  - **Triggered Job Log**: The most recent triggered job.
  - **Install Job Log**: The most recent installation of the transformation.

Run a transformation

To run or schedule a transformation:

1. Click **Home** in the navigation bar and select a study from the Studies panel.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Click the **Transformations** tab to open tables on the Target Model and Run History.

3. Select a transformation and click the **Submit Job** icon.

   > **Tip:**
   >
   > The **Submit Job** icon is not active if the selected transformation has not been installed. Check the Install Status column.
   >
   > If the installation status of the transformation is Warning, you may still be able to run the batch. Check the installation log file.

4. Enter values:
   - **Submission Mode**: Select one:
     - **Full** mode includes data deletion. Use Full mode only if you are confident that you are reloading all current data.
     - **Incremental** mode is faster and does not include data deletion.

     If you are submitting a transformation for a single table and the table is defined with Unit of Work processing, select:
     - **Full UOW** includes data deletion. Use Full UOW only if you are confident that you are reloading all current data for each subject or subject visit that has any data included.
     - **Incremental UOW** is faster and does not include data deletion.

       > **Tip:**
       >
       > Set up regular Incremental loads at frequent intervals and do Full loads at longer intervals.

   - **Force Execution**: Select if you want to run the job even though the source data currency, parameter values, and the version number of the program(s) have not changed since the last run. The system uses **Full mode** regardless of the Submission Mode setting. Full mode includes data deletion.

     If not selected and all the conditions are the same as the last run, the system does not execute the job and returns a status of Success.
   - **Submission Type**:
     - **Immediate** Run the job once, as soon as possible.
     - **Scheduled** Set up a regular schedule.
     - **Deferred** Run the job once, at a future time.
   - **Trigger Downstream Transformations and Validation Checks**: Select to make this job trigger validation checks on the target model and transformations from the target model to all others that come after it, in sequence. This can happen only if the source models are set up to trigger downstream processes.

Click the **Refresh** icon for an update to the **Job Status**.

Cancel a transformation job

As described in Run a transformation, you access transformation through the Transformations tab on the Home page. Select a transformation in the Run History pane and click:

- **Cancel Job** to cancel the currently running or next pending job.
- **Cancel All Jobs** to cancel the currently running or next pending job and all future jobs in the schedule for the selected transformation. Available only for scheduled jobs.

  > **Note:**
  >
  > If there is an immediate or deferred job for the same transformation, or another schedule for the same transformation, those jobs are not affected.

- **Cancel Triggered Job** to cancel the currently running or pending job. Available only for jobs that are set up to be triggered by another job.

Run validation check batches and view run history

1. Click **Home** in the navigation bar and select a study from the Studies panel.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Click the **Validation Checks** tab to open tables with details on the validation check batches for a model and run history.
3. From the **Model** field, select the clinical data model from the drop-down list.
4. Select a validation check batch from the Validation Check Batches for Model *<model name>*.

   The system displays information about its validation checks in the middle pane and information about its run history in the lower pane.

5. To view all jobs, click the **View Full Job History** icon.

   To view only recent jobs again, click the **View Recent Jobs Only** icon.

   To view log files, click the icon in the column for the type of job:

   - **Log** (Run History pane) The most recent manually submitted job.
   - **Triggered Job Log** (Run History pane) The most recent triggered job.

- **Install Job Log** (Validation Check Batch pane) The most recent installation of the validation check batch.

> **Note:**
>
> A validation check can be *disabled* so that it is not included in the batch execution. To find out if a check was included in the run, check the log file.

- Run a validation check batch
- Cancel a validation check batch job

Run a validation check batch

You must run validation checks as a batch.

1. Click **Home** in the navigation bar and select a study from the Studies panel.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Click the **Validation Checks** tab to open tables on the validation check batches for a model and run history.
3. Select a validation check batch from the Validation Check Batches for Model *<model name>* table and click the **Submit Job** icon.

> **Tip:**
>
> The **Submit Job** icon does not appear if the validation check batch is not installed. Check the Installed Status.
>
> If the installation status of a validation check batch is Warning, you may still be able to run the batch. Check the installation log file. If the status is Warning because one of the source tables is not used in the current study, the batch runs without input from that table.

4. Enter values:
   - **Submission Mode**: Select one:
     - **Full** mode processes all records.
     - **Incremental** mode processes only new and changed records.
   - **Force Execution**: Select to run the job even though the source data currency, parameter values, and the version number of the program(s) have not changed since the last run. The system uses **Full mode** regardless of the Submission Mode setting. Full mode includes data deletion.

If not selected and all the conditions are the same as the last run, the system does not execute the job and returns a status of Success.

- **Submission Type**: Select:
  - **Immediate** to run the job once, as soon as possible.
  - **Scheduled** to set up a regular schedule.
  - **Deferred** to run the job once, at a future time.
- **Trigger Downstream Transformations and Validation Checks**: Select this check box if you want the system to detect all transformations and validation checks set up for this data model and all others that come after it, and submit them sequentially.

> **Note:**
>
> This option appears only if the validation check batch is set up to allow it.

- Click the **Refresh** icon at any time for an update.
- To check the log file, click the icon in the **Log** column.

Cancel a validation check batch job

As described in Run a validation check batch, you access validation check batches through the Validation Checks tab on the Home page. Select a validation check batch in the Run History table and click:

- **Cancel Job** to cancel the currently running or next pending job.
- **Cancel All Jobs** to cancel the currently running or next pending job and all future jobs in the schedule for the selected validation check batch (available only for scheduled jobs).

> **Note:**
>
> Cancelling a job does not affect an immediate or deferred job for the same batch or another schedule for the same batch.

- **Cancel Triggered Job** to cancel the currently running or pending job (available for jobs triggered by another job).

Reprocess discrepancies that failed to be sent to InForm

Validation checks with an Initial Action of Send to InForm immediately send discrepancies they create to InForm as queries. To check the status of this operation:

1. Click **Home** in the navigation bar and select a study from the Studies panel.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Click the **Validation Checks** tab to open tables on the validation check batches for a model and run history.

3. Click the **Failed to Send Discrepancies** icon in the upper-right corner of the tab.

   The system displays counts for the selected study and lifecycle stage:

   - **Processing for *System*** shows the number of discrepancies currently being processed.
   - **Failed Processing for *System*** shows the number of discrepancies that should have been sent to InForm but weren't.

4. If any discrepancies fail to send, click the **Reprocess Discrepancies** icon to send them again. Click the **Refresh** icon to see progress.

Check if data files loaded

The section contains the following topics:

- View data files not processed
- View data load history
- Review data load errors (optional)

View data files not processed

1. Click **Home** in the navigation bar and select a study from the Studies panel.

> **Note:**
>
> For details on selecting a study, see Select a study.

2. Click the **Files Not Processed** tab to open a table with uploaded files that did not load into the selected study.

   A file may not load into a study for any of these reasons:

   - It is misnamed or uses the different capitalization compared to the file specification defined for the clinical data model.
   - There is a mistake in the File Specification regular expression defined for the model.
   - There is a matching File Specification, but the end date passed.
   - There is a matching File Specification, but data loading is suspended.
   - There is a matching File Specification, but the model is not installed.

3. View unprocessed files.

   Columns include:

   - **File Name**: Name of the file.
   - **Path**: Path to the file location.
   - **Status**: The possible statuses are:
     - **DETECTED**: The file has been detected in the watched folder but has not yet been submitted.
     - **MISSING**: The file was detected but deleted before the scheduled deletion or archive date.
     - **DELETED**: The file was deleted by File Watcher as scheduled.
     - **ARCHIVED**: The file was archived by File Watcher as scheduled.
   - **File Type**: The type of file.
   - **File Modified**: The modification date of the file on the file system.
   - **Detection Date**: The date and time the file was detected, using the date and time in the DMW database.
   - **Archive Date** displays the scheduled archive date before the file is archived and the actual archive date afterward.

     > **Note:**
     >
     > Archiving is not supported in this release.

   - **Deletion Date** displays the scheduled deletion date before the file is deleted and the actual deletion date afterward.
   - **Date Missing**: If the file is overwritten or removed from the file system before it is archived or deleted, then the Date Missing is store here.
   - **File Error**: Information about the problem.

View data load history

1. Click **Home** in the navigation bar and select a study from the Studies panel.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Click the **Data Loads** tab to open a table with details on files that loaded into the selected study.

3. To view all jobs, click the **View Full Job History** icon.

   To view only recent jobs again, click the **View Recent Jobs Only** icon.

4. You can filter by entering a value in the blank field above any column. If blank fields are not displayed, click the **Query By Example** icon.

   Columns include:

   - **Data Model**: The clinical data model into which data was or will be loaded.
   - **Type**:
     - **FILEWATCHER** for data loaded from a file.
     - **INFORM** for data loaded from InForm.

       > **Note:**
       >
       > All pending jobs for InForm data loads are for the Production lifecycle stage. It isn't possible to schedule InForm data loads for the Development or Quality Control lifecycle stage.

   - **File Name/InForm Load Process**:
     - For files, the full path of the file loaded.
     - For InForm, the type of data load: INFORM_DEFINITION, INFORM_METADATA, INFORM_MANUAL_DATA or INFORM_SCHEDULED_DATA.
   - **Last Job** shows the date of the last completed job.
   - **Last Load** shows the date of the last load time.
   - **Last Load Results** shows the job status: **Success**, **Warnings**, or **Failure** for completed jobs.
   - **View Output** opens a file with the output of the data load history.
   - **View Error File** opens an error file on the data load.
   - **View Comprehensive Error Report** opens a detailed error report on the data load.
   - **User Name** shows the name of user who loaded the data.
   - **Next Run Date** shows the date of the next data load run.
   - **Frequency** shows how often data loads into the study.
   - **Units** shows the size of the data load.
   - **Columns with icons**: Click the icon to open the error, log, or output file.

   > **Note:**
   >
   > For details on viewing errors in reports, see Review data load errors (optional).

- Statuses for uncompleted jobs

Statuses for uncompleted jobs

As described in View data load history, you can view data load history through the Data Loads tab on the Home page. For incomplete jobs, the system displays the job's current status. Click the **Refresh** icon to update the table.

- **Pending**: The job has not yet started running.
- **Started**: The job has begun pre-processing.
- **Executing**: The Program has connected to the database and is running.
- **Finalizing**: The job has begun post-processing.
- **Aborted**: The job has been manually stopped while underway.
- **On Hold**: The job is waiting for the quiesce process to complete for the clinical data model work area.
- **Expired**: The system removed the job from the queue after the timeout interval passed.
- **Duplicate**: The job is a duplicate of another job; the currency of the source data, parameter values, and executable instance version are the same. The system does not rerun the job unless the person submitting the job chooses to force reexecution.

Review data load errors (optional)

To review data load errors:

1. Click **Home** in the navigation bar and select a study from the Studies panel.

   > **Note:**
   >
   > For details on selecting a study, see Select a study.

2. Click the **Data Loads** tab to open a table with details on files that loaded into the selected study.
3. Open a file in one of the following columns:
   - **Last Load Results**: Contains the results of the most recent data load. This file is produced whether the data load is successful or failed.
   - **View Output:**: Produced during a data load (the SQL*Loader log). This file is produced whether the data load is successful or failed.
   - **View Error File**: Created when a text file for a data load contains more fields than there are columns in the table you're loading the data into. This file is produced for failed data loads only.

     > **Tip:**
     >
     > This column is typically empty.

- **View Comprehensive Error Report**: The error log includes a list of the specific data record and field from the file that caused the error. This file is produced for failed data loads only.

FAQs

Why can't I see a job that ran a while ago?

By default you can see only recent jobs. To see a job that happened longer ago, click the **View Full Job History** icon.

To change back, click the **View Recent Jobs Only** icon.

This applies to the Home page Data Loads tab and the Run History pane of the Transformations and Validation Checks tab.

Why am I seeing a Diagnostics Icon?

The icon indicates that your administrator is running diagnostics for troubleshooting purposes. Performance may be slower than usual.