



Informatica® Multidomain MDM
10.3

Data Director User Guide

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Preface

The *Multidomain MDM Data Director User Guide* explains how you can create, consume, manage, and monitor master data in Informatica® Data Director.

Informatica Resources

Informatica Network

Informatica Network hosts Informatica Global Customer Support, the Informatica Knowledge Base, and other product resources. To access Informatica Network, visit <https://network.informatica.com>.

As a member, you can:

- Access all of your Informatica resources in one place.
- Search the Knowledge Base for product resources, including documentation, FAQs, and best practices.
- View product availability information.
- Review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

Informatica Knowledge Base

Use the Informatica Knowledge Base to search Informatica Network for product resources such as documentation, how-to articles, best practices, and PAMs.

To access the Knowledge Base, visit <https://kb.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB_Feedback@informatica.com.

Informatica Documentation

To get the latest documentation for your product, browse the Informatica Knowledge Base at https://kb.informatica.com/_layouts/ProductDocumentation/Page/ProductDocumentSearch.aspx.

If you have questions, comments, or ideas about this documentation, contact the Informatica Documentation team through email at infa_documentation@informatica.com.

Informatica Product Availability Matrixes

Product Availability Matrixes (PAMs) indicate the versions of operating systems, databases, and other types of data sources and targets that a product release supports. If you are an Informatica Network member, you can access PAMs at

<https://network.informatica.com/community/informatica-network/product-availability-matrixes>.

Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services. Developed from the real-world experience of hundreds of data management projects, Informatica Velocity represents the collective knowledge of our consultants who have worked with organizations from around the world to plan, develop, deploy, and maintain successful data management solutions.

If you are an Informatica Network member, you can access Informatica Velocity resources at <http://velocity.informatica.com>.

If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at ips@informatica.com.

Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that augment, extend, or enhance your Informatica implementations. By leveraging any of the hundreds of solutions from Informatica developers and partners, you can improve your productivity and speed up time to implementation on your projects. You can access Informatica Marketplace at <https://marketplace.informatica.com>.

Informatica Global Customer Support

You can contact a Global Support Center by telephone or through Online Support on Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

<http://www.informatica.com/us/services-and-training/support-services/global-support-centers>.

If you are an Informatica Network member, you can use Online Support at <http://network.informatica.com>.

CHAPTER 1

Introduction

This chapter includes the following topics:

- [Data Director Overview, 12](#)
- [Key Concepts, 13](#)
- [Logging in to Data Director, 17](#)
- [User Interface, 18](#)

Data Director Overview

Data Director is a data governance tool. Use Data Director to create, manage, and use the master data that is stored in an MDM Hub Store. Master data is the collection of records that represent the best version of the truth about the people, places, and things that are important to your organization.

A master data domain is an area of data critical to the organization that is managed at the enterprise level to support semantic consistency across the organization. Common master data domains include Customer, Supplier, Location, Channel, Partner, Product, Asset, and General Ledger Account. Multidomain master data is the mastering of critical data across multiple master data domains concurrently. Multidomain MDM encompasses related master data domains that are central to an organization's business and business processes. The observations that arise out of multidomain master data are of significant interest to business executives. For example, in a healthcare organization, the relationships among doctors and healthcare sites might reveal gaps in services.

Your MDM administrator configured the application you use within Data Director. The MDM administrator implemented the master data domains by building data structures with a name that is meaningful for your organization. For example, Patient is an implementation of the Customer master data domain. The data structure relates records within a tree structure, with a root record, nodes, and child records. The MDM administrator can use one or both of the following data structures: business entities and subject areas. Each type of data structure comes with its own set of views for Data Director. Ask the MDM administrator which one is used in your application, and follow the instructions in the matching part.

This guide is organized into two parts that tell you how to use the available views:

- Data Director with Business Entities
- Data Director with Subject Areas

Based on your user role privileges, you can use the application to perform the following activities:

- Add records
- Find and edit records

- Verify that records contain the most reliable data from all source systems
- Identify duplicate records and resolve them by merging the records
- Investigate changes to the data in records
- Unmerge merged records
- Manage relationships between records
- Participate in review processes for new and changed records

Key Concepts

To work effectively in Data Director, you need a basic understanding of Informatica Master Data Management concepts.

Records

When you use Data Director, you are working with master records.

Master Records

A master record contains a root record and multiple child records. In Data Director, the structure and display of the master records depends on the structure defined in either business entities or subject areas.

Root Records

The root record contains the data that identifies the record. For example, the root record for John Smith contains data such as first name, last name, gender, and date of birth.

Child Records

A child record contains data that is associated with a root record. For example, a child record for John Smith might contain addresses while another child record contains phone numbers. Child records can have their own child records.

Active Records

Active records contain approved master data.

Pending Records

When you make a change to a record, the change might need to go through a review workflow before it can be approved as master data. While the record is pending approval, the record is called a *pending record* and you are restricted in the actions that you can perform on a pending record. When the change is approved, the record returns to the active record state.

Source Records

Source records contain the data that MDM used to create the master records that you see in Data Director. Source records are stored in source systems throughout your organization.

Business Entities

Business entities are an implementation of master data domains in your application. For example, the Customer master data domain can be implemented in the following types of business entities: Person, Patient, or Policy Holder.

The business entity data structure maps to the base object tables in the Operational Reference Store database. The base object tables contain all the master records. For example, the root node of a business entity corresponds to the root base object table. A child node in the business entity corresponds to a child base object table. Business entities can have an unlimited depth, though the views that display the child records might not be able to show all levels in a meaningful way beyond a certain depth.

RELATED TOPICS:

- [“Records” on page 13](#)
- [“Adding a Record” on page 32](#)
- [“Adding a Person Scenario” on page 31](#)
- [“Editing Records” on page 49](#)

Subject Areas

Like business entities, a subject area is an implementation of a master data domain. Subject areas are the original data structure used in Data Director.

The data structure supports three levels: parent, child, and grandchild. The parent level corresponds to the root base object table. The child and grandchild levels are child records.

Note: Some applications for Data Director rely on the subject area data structure and custom code, and therefore have not been migrated to business entities. If you have questions about your application, contact your MDM administrator.

Best Version of the Truth

When you view a record in Data Director, you view master data that is consolidated from source systems in your organization, including Data Director. The MDM Hub loads data from the contributing source systems. The load process uses a trust framework and rules to decide which cells from all the contributing source systems are most likely to contain accurate, up-to-date data. The consolidated record represents the best version of the truth (BVT) that is available across your organization.

Note: A BVT record is also known as master data, a golden profile, or a golden record.

For example, consider a car manufacturer that offers an incentive program to employees to buy cars. To construct BVT customer records, the data steward identifies the contributing source systems as the customer relationship management (CRM) system and the human resources (HR) system. The data steward trusts the employee address and telephone number from the HR system more than the same information in the CRM system, because employees are required to notify the human resources department of any changes to their contact information.

Data Director is a special type of contributing source system. Usually, data stewards set Data Director to the highest trust level of all contributing systems, which means that when a user edits data in Data Director, the edit is preferred over other source systems. You can also choose to override the automated BVT process and select a cell value you know is accurate.

For example, the following table shows data coming from two source systems and from Data Director:

Source	Last Name	First Name	Telephone	Telephone Trust
HR System	Brown	Nancy	555-1235	80
CRM System	Brown	Nancy	null	50
Data Director	Brown	Nancy	555-1234	90

Because Data Director has the highest trust score for telephone numbers, the updated telephone number is used. The data steward can add rules that cause the trust value to increase or decrease for a system. For example, if the telephone number is subsequently updated in the HR system, the system might prefer that telephone number because it was updated most recently.

Search and Compare

A best practice in data governance is to check for existing records before adding new records. When you begin adding a record, Data Director (IDD) searches for duplicate records.

You can preview the potential duplicate records as they appear and take one of the following actions:

- If more than one record is a potential match for the record you are adding, you can compare the records side by side. If you find that the records are duplicates, you can initiate a merge.
- If one record matches the record you are adding, you can open the record and begin working with it. In this case, the record that you started adding is discarded.
- If none of the records is a match, you can continue adding the new record.

The MDM administrator configures the fields to use in the search for potential duplicates.

Merge

After you compare records, you can merge records that appear to be duplicated.

When you merge a record, the root records of the merged record are consolidated into a single root record. The child records from each of the root records become child records of the merged root record.

RELATED TOPICS:

- [“Resolving Duplicate Records” on page 55](#)

Review Processes and Tasks

A review process is an automated business process. When a user adds, edits, merges, or unmerges records, the action can initiate a review process. A review process ensures that business managers or data stewards review and ultimately approve the data before it becomes master data.

Your user role determines whether a change to the master data triggers a review. For example, if your user role permits you to add or edit data but not approve changes, then when you save an edit or merge records, the action triggers a review process.

A review process contains people activities. A people activity is a point in the review process when the process requires human participation. When an instance of a review process reaches a people activity, the review process sends a task notification. Business managers and data stewards receive task notifications in their task inboxes.

RELATED TOPICS:

- [“Participating in Review Processes” on page 138](#)
- [“Example of a Review Process for Edits” on page 138](#)

Hierarchies and Relationships

A record can have relationships to other records. When the Hierarchy Manager is enabled, you can view a graph that shows how a record is related to other records.

You use the **Hierarchy** view to investigate relationships. You can view hierarchical relationships, such as an employer-employee relationship, as well as relationships that are not hierarchical, such as peer relationships.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

RELATED TOPICS:

- [“Investigating Hierarchies and Relationships” on page 123](#)

Security and User Roles

An MDM administrator creates user roles, configures permissions to resources and privileges for the user roles, and assigns a user role to all user accounts. Based on your job requirements, your access to master data might be different than your colleagues.

Types of security for business entities records

The following types of security exist:

Access to records based on the type of business entity

A user role is granted permission to all types of business entities or some types of business entities. For example, you can see the types of business entities that you have permission to create in the New dialog box. You might have access to the business entities Customer and Product, but someone else might have access to the business entities Product and Supplier.

Actions you can perform on a record

Your user role grants you a set privileges to the records for each type of the business entities. For example, a business user might have permission to read and create Customer records, but a data steward might also be able to delete and merge Customer records. The privileges can be different for different types of business entities.

In Data Director, your user role privileges control the types of actions you can perform:

- **Create.** You can create and save new master records.
- **Read.** You can view master records.
- **Update.** You can edit and save records.
- **Delete.** You can delete master records.
- **Merge.** You can identify and merge duplicate master records.
- **Unmerge.** You can unmerge a previously merged master record.

Access to records when a field contains a specified value

Your user role privileges might be constrained by field filters, which control whether you have access to the master record based on a value in a field. If a record contains a value specified in a field filter, the user roles are allowed or denied access to the record based on the rules that are defined in the filter.

Access to a parent record when a child node has no records

Your user role privileges might be constrained by node filters, which control whether you have access to a parent record when the node contains no child records.

Access to fields in a record

Some fields might be hidden from your user role. For example, a view of a Supplier business entity might show a DUNs number to people in the finance department, but not to people in the line of business.

Values you can input

Some fields might restrict the values that you can select or add based on your user role.

Values in reference entities

Some fields might restrict the values that you can select from a list of common values, such as country or gender, based on your user role.

Losing access to records

You might lose access to a record that you have accessed in the past.

A loss of access can occur under the following circumstances:

- You or someone else makes a change to a field value such that the record is now denied to your user role. For example, you add a European address to a person record and enable the GDPR check box. After you save the change, only the EU data stewards can access the person record.
- The MDM administrator creates new field filters or node filters on a business entity. One or more of the filters contain a rule that denies access to your user role.
- The MDM administrator changed the user role to which you were assigned.
- The MDM administrator modified the privileges for your assigned user role.

Logging in to Data Director

To log in, you need the URL for Data Director and your user credentials. If your organization has created more than one application for Data Director, you also need the name of the application. If you do not have this information, contact your MDM administrator.

1. Open a supported browser, such as Chrome.
2. Enter the URL for Data Director. The URL has the following format:

```
http://<MDM Server host name>:<MDM Server port number>/e360/mdm/entity360view/
```

The **Log In** page opens.

3. Enter your user name and password.
4. Click **Log In**.
5. If prompted, select an application.

The application opens and displays the **Home** page. Your username appears in the application header.

Tip: From the menu beside your username, you can change your password and change the language of the user interface.

Configuring Microsoft Internet Explorer

If you launch Data Director in Microsoft Internet Explorer, to ensure that the data changes appear in the user interface, configure Microsoft Internet Explorer to reload the web pages. Otherwise, after a data change, you might see the cached data instead of the latest data.

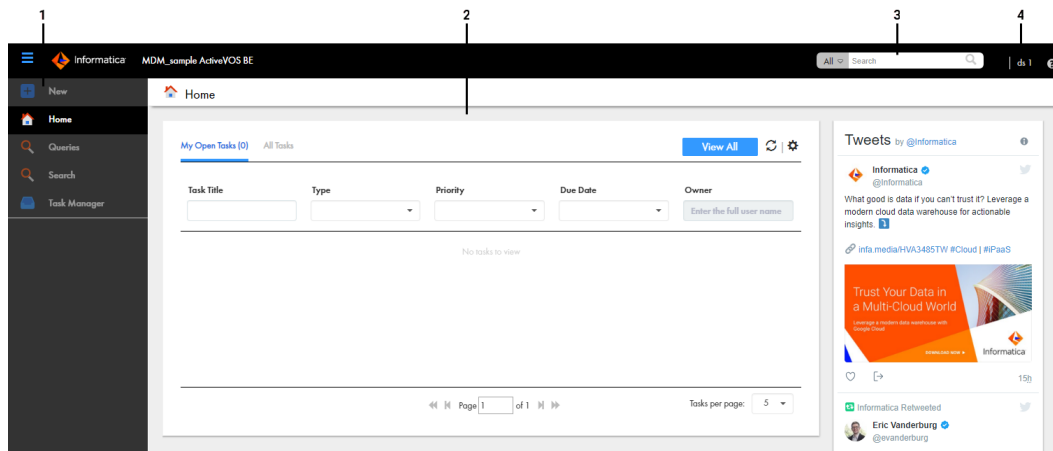
1. Start Microsoft Internet Explorer.
2. Click **Tools > Internet options**.
3. On the **General** tab, configure the browsing history settings to check for newer versions of stored web pages every time you visit the web page.

The settings ensure that the latest version of the Data Director pages appear.

User Interface

The Data Director user interface contains a navigation bar with tabs.

The following image shows the user interface with the **Home** page displayed:



1. Navigation bar
2. Page area
3. Search box
4. User options

The navigation bar contains tabs that link to pages within Data Director. A tab contains a page area with one or more panels. In some tabs, you can switch between different views within the page.

Note: Some tabs might not be visible in Data Director. For example, if the MDM administrator configures an application for Data Director with business entities, the MDM administrator might remove the **Data** tab.

Data Director has the following tabs:

New

Use the **New** tab to create records, and, if configured, import data.

Note: In the **New** window, if you see both the **Business Entity** option and **Subject Area** option, ask the MDM administrator which one to use. The **Business Entity** option opens an entity tab while the **Subject Area** option opens the **Data** tab.

Home

Use the **Home** page as your MDM dashboard. Managers and data stewards can view a list of review tasks in the task inbox. You might see other components, such as social media feeds, external URLs, and reports that display master data. The MDM administrator configures the **Home** page.

Task Manager

Managers and data stewards use the **Task Manager** to review changes to business entity records. When you click a task in the **Home** page, the **Task Manager** opens and displays the record associated with the task.

Data

Use the **Data** tab to search for and view subject area records from different perspectives.

Note: If a Data Director application uses business entities and the **Data** tab is hidden, the records open in an entity tab that displays the name of the business entity type.

The Data tab has multiple views:

- To find a subject area record, run a search query from the **Data** tab. Use search tabs to manage and use search queries to find subject area records.

Note: If a Data Director application uses business entities and the **Data** tab is hidden, use the **Search** tab or **Search** box.

- To view and edit a subject area record, select a record and click **Open**. The record opens in the **Data** view.
- To view the source of the record and pending changes, use the **XREF** view.
- To view past changes to the record, use the **History** view.
- To view a subject area record and potential duplicate records, use the **Match Merge Comparison** view.
- If the subject area record contains effective dates, you can view scheduled changes in the **Effective Periods** view.
- If the Hierarchy Manager is enabled, you can view the subject area record and its related records in the **Hierarchy** view.

Search

When you run a search from the application header, the **Search** tab displays the results of the search. You can open business entity records from the search results.

Entity tabs

In the search results, select a business entity record and open the record in a temporary entity tab. The name on the tab identifies the opened record, usually by the name of the record, but the tab name is configurable. You can view or edit the master data for the record in an entity tab.

Note: If a Data Director application uses subject areas only, the entity tab is unavailable and the records open in the **Data** tab.

In an entity tab, you can open the following views:

- To view and edit business entity records, use the **Business Entity** view.
- To view the source of the business entity record, use the **Cross-reference Records** view.
- To view past changes to the business entity record, use the **History** view.
- To view a business entity record and potentially duplicate records, use the **Matching Records** view.

- If the business entity record contains effective dates, you can view the scheduled changes in the **Timeline** view.
- If the Hierarchy Manager is enabled, you can view the business entity record and its related records in the **Hierarchy** view.

Note: If your MDM administrator created custom views, you might see different names for the views.

Other Tabs

The MDM administrator can configure other tabs.

Record Views

Based on how the MDM administrator configured your application for Data Director, you might have more than one way to access master data. When you access master data in Data Director, you use record views. You might have record views for business entities or record views for subject areas.

Usually the MDM administrator configures an application to use either business entities or subject areas. If you do not see the **Data** tab in the navigation bar, you have access to record views for business entities. If you see the **Data** tab, you have access to record views for subject areas.

If the application supports both business entities and subject areas, you have a hybrid application and both types of record views are available. In this case, you see the **Data** tab in the navigation bar. Also, when you use the **New** tab to create records, the **Business Entity** option and the **Subject Area** option appear.

Regardless of how you add a record, the MDM Hub Store saves the record that makes up the business entity or subject area in the same way. A parent record contains the identifying information. Child records contain other types of related information, such as addresses or telephone numbers.

The following table describes differences between records views for Data Director with business entities and record views for Data Director with subject areas:

Elements	Data Director with Business Entities	Data Director with Subject Areas
Access to record view	Use the View list in an entity tab.	Use the tabs in the Data tab.
Data in the record view	Master data Optionally, related data from external sources, such as social media. Optionally, other panels, such as a Similar Records panel.	Master data
Core entities representation	Business entities	Subject areas
Nesting records	Business entities can have an unlimited depth of descendant records.	A subject area can include descendant records up to the grandchild level.
Language in the user interface	You select the language to use. In the application header, select the menu beside your username and select Change Language .	You select the language to use. In the application header, select the menu beside your username and select Change Language .

Elements	Data Director with Business Entities	Data Director with Subject Areas
Search	<p>Smart search, which performs a full-text search.</p> <p>In the Search box in the application header, type your search term.</p> <p>In the Search tab, type your search term in the Search box.</p>	<p>Search queries, which searches for terms by field.</p> <p>Click Data, and then use an existing search query or create a new search query.</p>
Supported in Data Director version	10.0 and later	All supported versions
Data Director applications using the record views	<p>Applications developed for Data Director version 10.0 and later.</p> <p>In addition, MDM administrators can update older applications.</p>	<p>Applications developed for Data Director version 9.7.x and earlier.</p> <p>Note: Some applications based on subject areas include customizations that cannot be easily converted to business entities.</p>

RELATED TOPICS:

- [“Data Director with Subject Areas” on page 75](#)

CHAPTER 2

Getting Started

This chapter includes the following topics:

- [Getting Started Overview, 22](#)
- [Home Page, 23](#)
- [Start Page, 25](#)
- [Sorting and Filtering Tasks, 26](#)
- [Refreshing Data in the Home Page, 27](#)
- [Configuring the Columns for the Task Inbox, 28](#)
- [Localizing Your User Interface, 28](#)

Getting Started Overview

After you log in to Data Director, you see the **Home** page. The **Home** page is unique to your organization and to your user role.

Based on the **Home** page layout, you might be able to monitor data in reports, monitor social media feeds, run a search in an embedded search engine, and organize your task inbox.

RELATED TOPICS:

- [“Adding Business Entity Records” on page 30](#)
- [“Editing Records” on page 49](#)
- [“Resolving Duplicate Records” on page 55](#)
- [“Establishing the Best Version of the Truth” on page 65](#)
- [“Investigating Data Changes” on page 68](#)
- [“Investigating Hierarchies and Relationships” on page 123](#)
- [“Participating in Review Processes” on page 138](#)

Home Page

Use the **Home** page as a data monitoring dashboard. A **Home** page can contain charts that display views of selected master data or display lists of available tasks in the task inbox. The **Home** page can also contain content from other external sources, such as Twitter or a search engine.

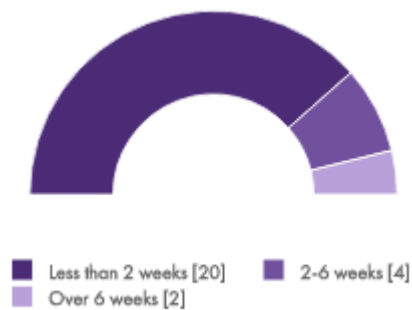
Note: The MDM administrator configures **Home** pages by user role. If you and a colleague have different user roles, your page might look different from your colleague's page.

Charts

If your organization uses a business intelligence tool or charting tool, you can use it to create charts that show master data. An IDD developer embeds the charts in the **Home** page.

Charts can be static or dynamic. Static charts display the results of predefined criteria. Dynamic charts include input fields, where a business user can select different criteria to use with the chart. Before you analyze the data in charts, recalculate the charts to ensure that the data reflects the current master data.

For example, the following image shows a duration chart that was created with Highcharts:



Social Media Feeds

A **Home** page can include social media feeds. Social media feeds can help you keep up with your organization's social media presence.

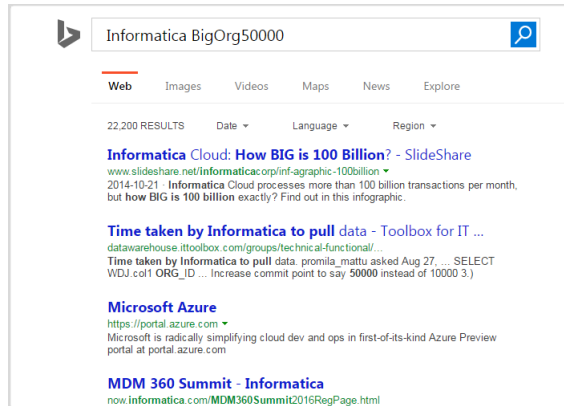
For example, the following image shows Twitter feed:



Search Engine and External URLs

A **Home** page can include an embedded search engine or other external URLs. With embedded external URLs, you can access the internet without leaving Informatica Data Director. For example, you might search for the internet for more information about a business entity or monitor competitor offerings.

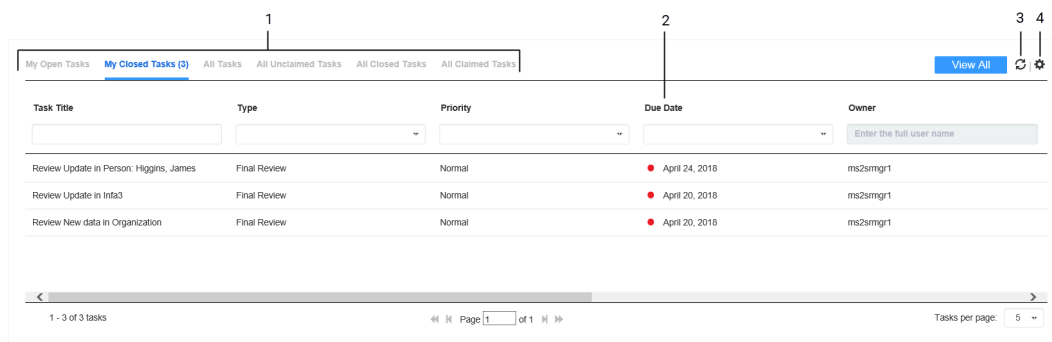
The following image shows an embedded Bing search engine:



Task Inbox

A task is a request to participate in a review process. For example, you might need to approve a new record or review changes to a record. You receive task notifications in the task inbox. By default, the task inbox displays the tasks based on the first quick filter. For example, if the first quick filter is My Open Tasks, the task inbox lists all your open tasks.

The following image shows the task inbox with the My Closed Tasks filter selected:



1. Quick filters
2. Column filter
3. Refresh icon
4. Table Settings icon

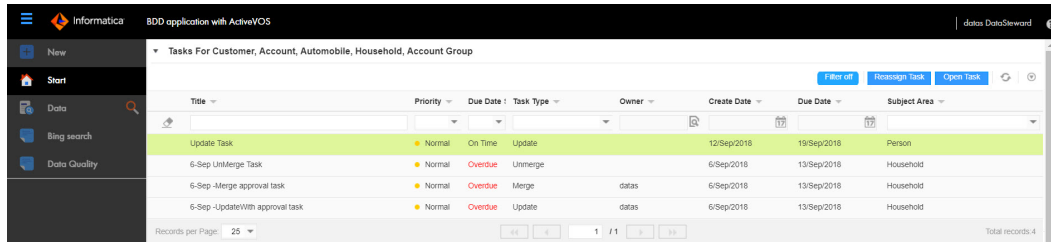
The following table describes the elements in the task inbox:

Inbox Element	Description
Filters	Filters the tasks based on the filter criteria. You can use the following types of filters alone or in combination: <ul style="list-style-type: none"> - Quick filters. Filters the tasks based on the predefined filter that you select. - Column filters. Filters the tasks based on the task properties that are visible in the list.
View All	Displays the details of all the listed tasks in the Task Manager.
Refresh icon	Updates the contents of the task inbox.
Table Settings icon	Opens a dialog box where you can configure the columns for each quick filter listed in the task inbox.
Task Title	A link that displays a short description of the review task. To review the record and take action on the task, click the task title. The task opens in the Task Manager and displays the associated record in the review panel. If your role permits it, you can edit the record from this view before taking action on the task.
ID	Instance ID of the review process that generated the task.
Type	Name of a people activity within the process.
Priority	Priority of the task. The task priority can be Low, Normal, or High. When generating tasks, the review process assigns the same priority to all tasks of the same type.
Due Date	Date the task is due. The review process calculates a default due date based on the task creation date plus a predefined time period. The due date of each task is prefixed with one of the following colored dots: <ul style="list-style-type: none"> - Green. Indicates that the task is not overdue. - Red. Indicates that the task is overdue. - Amber. Indicates that the task will be overdue in the next 24 hours.
Status	Status of the task can be Open or Closed. When the task status is Open, you can view the record associated with the task.
Owner	Name of the signed-in user.
Creator	Name of the user who created the task.
Creation Date	Date on which the user created the task.

Start Page

If the **Data** tab is enabled for your environment and a **Home** page is not configured for your role, use the **Start** page as a data monitoring dashboard. The **Start** page contains a list of review tasks in the task inbox.

The following image shows the **Start** page with the default task inbox:



If the Task Manager is not enabled, when you click a task, the task opens in the **Data** tab. If the Task Manager is enabled, the task opens in the Task Manager.

Sorting and Filtering Tasks

You can sort and filter the list of tasks in the task inbox. For example, you might want to review edited records before you review merge proposals.

The task inbox contains quick filters and column filters. You can use these filters in combination to get specific results. For example, to see high priority tasks assigned to you, select the **My Open Tasks** quick filter and set the Priority column filter to **High**. In logical terms, filters are joined by the AND operator.

Note: You can set one column filter at a time. For example, you can narrow your list to Organizations and then further restrict the results to show only the Merge tasks for organizations.

1. In the navigation bar, click **Home**.
The task inbox appears.
2. To sort the list of tasks by a field, click the column heading with that field name.
For example, to sort tasks by task type, click the **Task Type** column heading.

Sorts the tasks based on the values in the selected column. An up arrow beside the column heading indicates that the values are sorted in ascending order. A down arrow indicates descending order.

Note: By default, the task inbox sorts tasks case insensitively. If the number of tasks to sort is more than the value of the `CompositePagerTotalRecords` property, case-sensitive sorting is database dependent. For more information about the `CompositePagerTotalRecords` property, see the *Multidomain MDM Data Director Implementation Guide*.

3. To filter the list of tasks, set filter criteria in any order.
 - To filter tasks by the most commonly used criteria, select one of the following quick filters:

Filter	Description
My Open Tasks	Shows your open tasks.
My Closed Tasks	Shows the tasks that you closed.
All Tasks	Shows all the closed, claimed, and unclaimed tasks that are assigned to your user group.
All Unclaimed Tasks	Shows all the unclaimed tasks that are assigned to your user group.

Filter	Description
All Closed Tasks	Shows all the tasks that the users in your user group closed.
All Claimed Tasks	Shows all the tasks that the users in your user group claimed.

- To filter tasks based on the values of column headings, enter appropriate values for the following column headings:

Column	Description
Task Title	Shows tasks that contain the specified text. Enter the text that you want to search for in the task titles.
ID	Shows the tasks based on the value that you enter.
Type	Shows tasks with the selected task type. Select a task type from the list, such as Final Review or Merge .
Priority	Shows tasks with the selected priority, such as High . Select a priority from the list.
Due Date	Shows tasks that are due before or by the selected date. Click the field and then select a date from the calendar.
Status	Shows tasks with the selected status, such as Open or Closed . Select a status from the list.
Owner	Shows tasks that are assigned to the user. Enter a user name.
Creator	Shows tasks that the specified user created.
Creation Date	Shows tasks that are created on the specified date.

- To remove filters, click the **Clear Filter** icon.

Refreshing Data in the Home Page

Before you perform an analysis of the data in the **Home** page, refresh the components to ensure that they display current data. You can refresh all components at the same time, or you can refresh some of the components individually.

Note: Third-party components might refresh themselves periodically. If so, the refresh rate depends on the API provided by the third-party component. For more information, contact the MDM administrator.

Perform one of the following tasks:

- To refresh all the components in the page, refresh your browser instance.
- To refresh only the task inbox, click the **Refresh** icon.
- To refresh a chart with current data, click **Recalculate**.

Configuring the Columns for the Task Inbox

By default, the task inbox displays the columns that the administrator configured for all the quick filters. For each quick filter, you can add or remove the available columns.

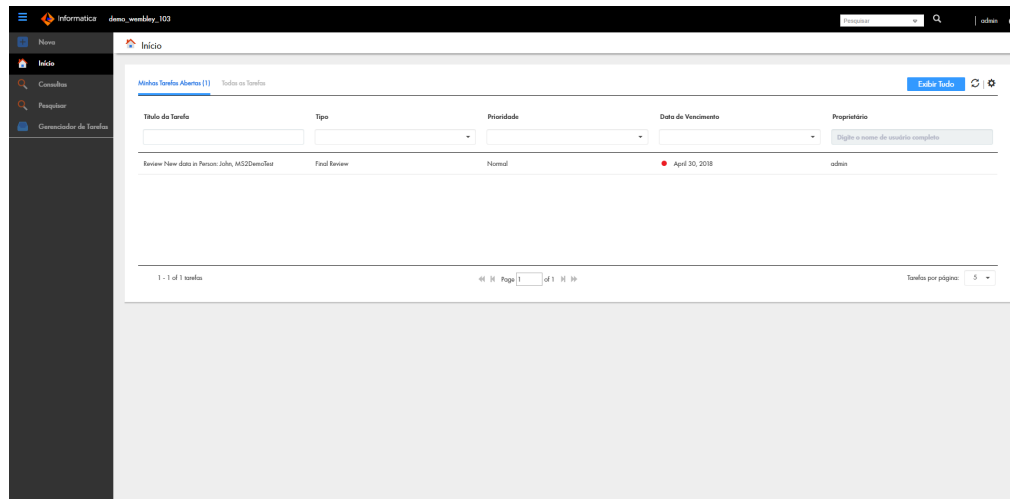
1. In the navigation bar, click **Home**.
The task inbox appears.
2. Select a quick filter for which you want to configure the columns.
3. Click **Table Settings**.
The **Table Settings** dialog box appears.
4. To add a column heading, in the **Available Fields** section, select a field and click **Add**.
5. To remove a column heading, in the **Selected Fields** section, select a field, and click **Remove**.
6. Click **OK**.

Localizing Your User Interface

You can display all elements of the Data Director user interface in another language. All elements of the user interface are localized in the selected language. The localized elements are menus, buttons, navigation links, labels, error messages, and metadata.

1. Login to Data Director, and if prompted, select your application.
2. From the application header, click your user name, select **Change Language**, and select a language.

The Data Director user interface displays the selected language.



Part I: Data Director with Business Entities

This part contains the following chapters:

- [Adding Business Entity Records, 30](#)
- [Finding Records, 35](#)
- [Editing Records, 49](#)
- [Resolving Duplicate Records, 55](#)
- [Establishing the Best Version of the Truth, 65](#)
- [Investigating Data Changes, 68](#)
- [Investigating Data Change Events for Effective Periods, 71](#)

CHAPTER 3

Adding Business Entity Records

This chapter includes the following topics:

- [Adding Records Overview, 30](#)
- [Adding a Person Scenario, 31](#)
- [Adding an Organization Scenario, 31](#)
- [Adding a Record, 32](#)
- [Adding a Record with Data from DaaS Provider, 34](#)

Adding Records Overview

To add records based on a business entity, use the **New** tab with the **Business Entity** option and select a business entity.

Note: In the **New** window, if you see both the **Business Entity** option and **Subject Area** option, ask the MDM administrator which one to use. The **Business Entity** option opens an entity tab while the **Subject Area** option opens the **Data** tab.

The MDM administrator defines the business entities, including the data and structure. The administrator also designs the layout of the record view that opens when you create a record. Your application can have one or more record views.

You might see the following panels in your record view when you create a record:

Record Details panel

The main panel in the record view is the data entry form. Required fields have a red line.

Similar Records panel

If the record view contains the **Similar Records** panel, as you enter data in required fields, Data Director generates a list of similar records for your review. Review the similar records before finishing the form. If you find the record already exists, you can edit the existing record instead of adding a new record. If you are uncertain whether a similar record is the same record that you want to add, continue adding the new record. If you add a duplicate record, Data Director can find and consolidate matching records for you.

DaaS Providers panel

If the record view contains the **DaaS Providers** panel, you can specify some basic information, such as the display name, and send the information in a request to a DaaS provider. The DaaS provider searches its database and returns a list of matching records. You can preview the data for each record. You can compare two or more records and specify which of the records you want to use to create the record.

Data Validation in the Business Entity View

When a user adds or changes data in the **Business Entity** view, Data Director checks the data against metadata and, optionally, validation rules. The metadata defines the expected format for the data, such as the data type or the number of characters permitted. The validation rules are cleanse rules or Informatica Data Quality rules.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Validation processes run at the field level, section level, and entity level:

- **Field level.** When you add or edit data in a field in the **Business Entity** view, a client-side validation process verifies that the data satisfies the metadata. For example, when you enter a date in a Date field and then navigate away from the field, the process verifies that you entered the date in the expected date format.
- **Section level.** When you apply all changes in a section in the **Business Entity** view, a client-side validation process verifies that all data satisfies the metadata and that the required fields contain data.
- **Entity level.** When you save a record in the **Business Entity** view, a server-side validation process verifies that data satisfies the metadata, the cleanse validation rules, and the Informatica Data Quality rules.

If user input does not satisfy the metadata or the validation rules, you see messages about the problems with the data.

Adding a Person Scenario

You are an insurance agent for a large insurance company. You have a new customer, Anthony Lomax, on the phone. You want to add Mr. Lomax as a record.

To add Anthony Lomax, you perform the following steps:

1. In the navigation bar, click **New**. Select **Person** as the business entity type, and then click **OK**.
2. In the **Last Name** field, you type Lomax. In the **First Name** field, you type Anthony.
3. In the Similar Records panel, you see a potential duplicate, so you open the similar record.
4. You confirm with Mr. Lomax that he is not the same person as the existing Anthony Lomax, and then close the similar record.
5. You finish adding Mr. Lomax's information in the form.

Adding an Organization Scenario

You are with the marketing department of a company. You have a new customer, Time Warner which is an organization. You want to add Time Warner as an Organization business entity record.

To add Time Warner, you perform the following steps:

1. In the navigation bar, click **New**. Select **Organization** as the business entity type, and then click **OK**.
2. Fill In the required fields for the DaaS provider. In the **Display Name** field, type Time Warner. The **Display Name** field is a required field.
3. Select the DaaS provider and click **Go**.

4. Review the search results that the DaaS provider returns. You compare two or more records in the search results.
5. Select the records that are a potential match and click **Use this** to create the record.
6. If you do not find any potential matches, you close the search results, add data in the data entry form and click **Save** to create the record.

Adding a Record

To add a record that uses the business entity model, start from the **New** tab in the navigation bar and select the type of business entity.

1. In the navigation bar, click **New**. In the **New** window, select a business entity type, and then click **OK**.

An entity tab opens and displays the data entry form for the business entity. A red line on a field indicates a required field.

2. For each required field in the form, click the field, and type a value.

Note: You can use the following conventions when adding text:

- Type the complete search string or the search string with the asterisk wildcard character (*) for the record that you want to find. You can use the wildcard character at the end of the search string or in between the search string. For example, if you want to search for John, you can specify Jo* or J*n.
- If the search is configured to suggest search strings, type a few characters of the search string, and select one of the suggested values as the search string.

Note: The values are suggested when you search within a single business entity type.

If the search string includes any of the following special characters: +, -, &, |, !, (, {, [, ^, ", ~, ?, :, \. If you do not add a backslash as a prefix to each special character, the search might return no results or incorrect results. For example, if you want to search for AT&T, the search string must be AT\&T.

The following image shows a sample data entry form for a Person business entity. The required fields are filled in.

1 Navigation menu

2 Required field indicator

3 Changed field indicator

3. If the **Similar Records** panel contains a list of similar records, review them.
 - a. In the **Similar Records** panel, click the information icon beside the name of a record.

- b. Check the other data values to see if the record is the same as the one you are adding.
 - If it is the same record, click **Use this record**. When prompted for confirmation, click **Yes, proceed**. The work-in-progress record is discarded and the tab closes. The selected record opens in an entity tab. You can edit data as required.
 - If it is not the same record, click **Close**.
 - To review child records for the previewed record without discarding the work-in-progress entity, click **View Business Entity**. The previewed record opens in an entity tab.
 - c. Review other similar records in the same way.
 - d. If a record does not exist, return to the tab containing the work-in-progress record.
4. In the data entry form, add data in the optional fields.
 - a. Fill in the fields.
 - b. Optionally, add an image. Type a valid URL in the image field.

Note: For best results, use an image that is a maximum of 200 x 200 pixels. For images, the MDM Hub stores the URL, not the file. If the location of the file changes, you must update the URL.
 - c. Click the **Apply** icon.
 5. If the data entry form includes sections for child records, add child records to the sections.
 - a. In the navigation menu, click a section name, such as **Address** or **Phone**.
The view scrolls to the selected section.
 - b. Click the **Create Child Record** icon.
Fields appear where you can enter data.
 - c. You can switch between a table view and a form view of the fields. Click the **Form** icon or the **Table** icon.
 - d. Fill in the fields.

The following image shows a sample **Phone** section in the form view:

▼ PhoneNumbers (1)

Do Not Call Ind:	Y	Phone Number:	647-555-1234	Phone Type:	HOME
Phone Ext Number:	222	Phone Country Cd:	1		

1 **Table** icon. Click to view the fields within a table.

2 **Form** icon. Click to view the fields within a form.

3 **Create Child Record** icon. Click to add a child record to the selected record.

- e. Click the **Apply** icon.
6. After you finish adding data, click **Save**.

A message confirms that the record was created successfully. If your user role permits you to save data without a review, the application saves the record to the MDM Hub Store as an active record. Otherwise, the application saves the record as a pending record and initiates the review process associated with your role.

Adding a Record with Data from DaaS Provider

When you have Data as a Service (DaaS) integrated with the MDM Hub and configured for a business entity, the DaaS Providers panel lists the DaaS providers. Use the data provided by a DaaS provider to add your record. To add a record, start from the **New** tab and select the type of business entity.

1. In the navigation bar, click **New**. In the **New** window, select a business entity type, and then click **OK**.
2. Fill in the required fields for the DaaS provider.
For example, in the **Display Name** field, type *Time Warner*.
3. Move your cursor out of the **Display Name** field.
You can now select a DaaS provider.
4. In the **DaaS Provider** panel, request information about the record from a DaaS service provider.
 - a. Select the DaaS provider you want to use, and then click **Go**.
The DaaS provider returns the search results based on the display name of the organization.
 - b. Investigate if a record in the search result is the one you want to add.
 1. Select the record and click **Preview**.
 2. If the data values do not match the record that you want to add, click **Go back**.
 3. Review all records in the same way.
 - c. Optionally, if you want to compare two or more records, select the records, and then click **Compare**.
The **Compare** page displays the data from the selected records.
5. Based on the result of the previous step, perform one of the following actions:
 - To add the data from the DaaS provider, select one or more entities from the search results or from the Compare page, and then click **Use this**. All entities are merged to form a single record. Continue with this record.
 - If the DaaS provider does not return results that match the entity you want to create, return to the tab containing the work-in-progress record, fill in the details, and click **Save**.

CHAPTER 4

Finding Records

This chapter includes the following topics:

- [Finding Records Overview, 35](#)
- [Using the Search Box to Find Records, 37](#)
- [Using Queries to Find Records, 41](#)
- [Managing Queries, 45](#)
- [Migrating and Sharing Saved Queries, 47](#)

Finding Records Overview

To find a record, you can either enter a search text in a search box or use a query form. The search results show the most important details of the records. You can see more details by opening the records.

You can use the search box to search and filter records. However, to repeatedly perform the same search and filter operation, it is efficient to create and save a query.

Use the search box to perform a full-text search. Use a search query, which is a search form, to specify a criteria for your search.

When you use queries, you can search within a specific business entity for which the query is created. Whereas, when you use the search box, depending on your environment, in addition to searching within a business entity, you might be able to search across all business entities.

Note: The search options that you see depend on what was configured by the MDM administrator. You must have the required privileges for the business entities within which you want to search for records.

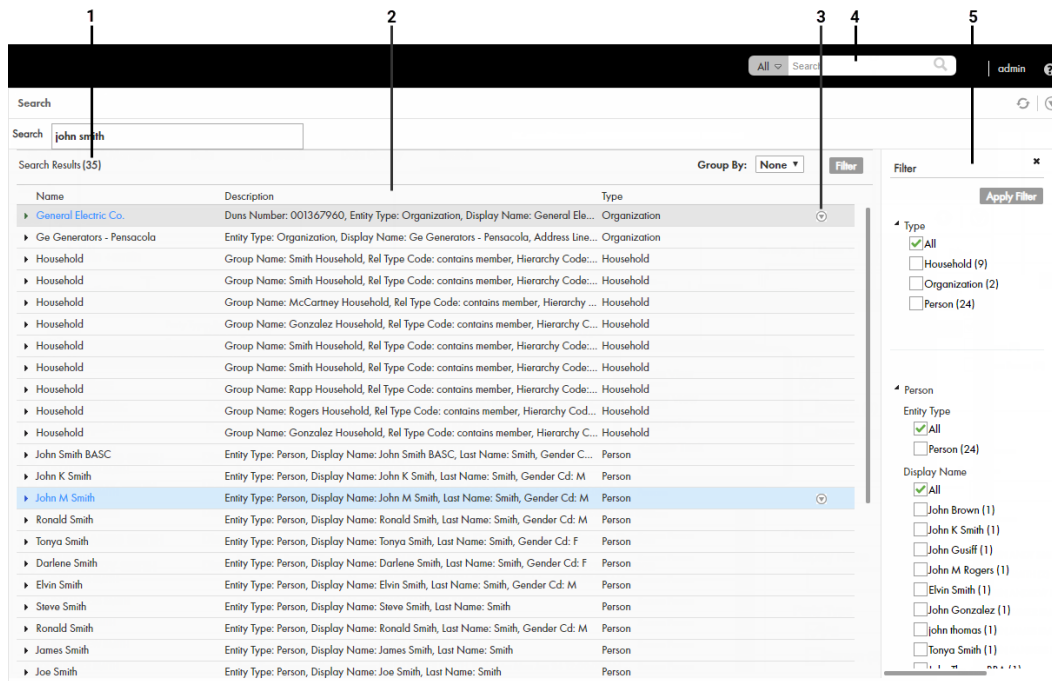
Search Page

When you perform a search from the **Search** box in the application header, the **Search** page appears in the **Search** tab. A search returns a list of records that satisfy the search criteria.

Use the **Search** page to review the search results. You can expand a record in a search result to view the summary of record details. To refine the search results, you can use filters.

You can group the records that appear in search results based on the business entity types. If you group records, you can look for records in the relevant business entity type groups.

The following image shows a sample **Search** page:



1. Results total
2. Search Results panel
3. Actions menu
4. Search box
5. Filter panel

The **Search** page includes the following sections:

Results total

Displays the total number of results found based on the search string that you enter in the **Search** box.

Search Results panel

Displays the total number of results found and lists the records that are part of the search results. You can group the records listed in the search results by business entity type.

Actions menu

Displays actions that you can perform on the record. For example, you can open the record in a view, such as the **Business Entity** view, or you can create a task for the entity.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Filter panel

Displays the filter criteria to filter the search results. Use filters to refine the search results based on the filter criteria that you select or enter a value for. You can hide the **Filter** panel if you do not need to filter the search results.

Filter criteria

Filter properties that you can select or enter a value for to refine search results.

Queries Page

Use the **Queries** page to create and run queries. A query returns a list of records that satisfy the criteria that you specify.

To open the **Queries** page, click the **Queries** tab. If you have a default query, the default query opens. If not, the **Saved Queries** panel appears, and you can create a query or select a saved query.

After you run a query, the **Search Results** panel lists the records that satisfy the search criteria.

The following table describes the user interface elements of the **Queries** page:

User interface element	Description
Query panel	Lists the saved queries or the query that is open. The query that you create appears in the query panel.
Run	Runs the query that is open.
Save	Saves a query.
Back to Saved Queries	Displays the saved queries in the Saved Queries panel.
Query Results panel	Lists the records that satisfy the query criteria.

Using the Search Box to Find Records

You can use the search box to perform a full-text search. You might want to search for records that you want to view, edit, or delete.

Your Data Director application might be configured to use search with Solr or Elasticsearch. When your application is configured to use Elasticsearch, at a time, you can search for records within a single business entity. This is different from search with Solr, where you could either search across all the business entities or within a specific business entity.

Finding Records in an Elasticsearch Environment

Use the search box to find a record.

1. In the **Search** box, select a type of business entity from the list.

Tip: The Search list contains the types of business entities that you have permission to view. If the list is empty, contact your MDM administrator to request permission.

2. In the **Search** box, perform one of the following tasks:

- Type the complete search string or the search string with the asterisk wildcard character (*) for the record that you want to find. You can use the wildcard character at the end of the search string or in between the search string. For example, if you want to search for John, you can specify Jo* or J*n.
- If the search is configured to suggest search strings, type a few characters of the search string, and select one of the suggested values as the search string.

Note: The values are suggested when you search within a single business entity type.

If the search results must contain the words in the search string, add the + operator before each search word.

3. Click the **Search** icon.

The search results appear in the **Search Results** panel.

4. To refine the search results, you can apply filters.

Finding Records in a Solr Environment

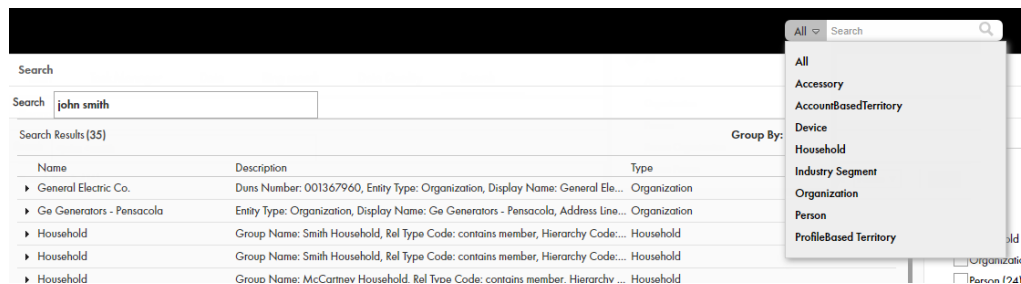
Use the search box to find a record.

1. Optionally, in the **Search** box, select a type of business entity from the list.

By default, **All** is selected, and Data Director searches within all the business entity types. Also, you can select a specific business entity within which you want to search for records.

Tip: The Search list contains the types of business entities that you have permission to view. If the list is empty, contact your MDM administrator to request permission.

The following image shows the business entity type list:



2. In the **Search** box, perform one of the following tasks:

- Type the complete search string or the search string with the asterisk wildcard character (*) for the record that you want to find. You can use the wildcard character at the end of the search string or in between the search string. For example, if you want to search for John, you can specify Jo* or J*n.
- If the search is configured to suggest search strings, type a few characters of the search string, and select one of the suggested values as the search string.

Note: The values are suggested when you search within a single business entity type.

If the search results must contain the words in the search string, add the + operator before each search word.

If the search string includes any of the following special characters, add a backslash as a prefix to the special character: +, -, &, |, !, (,), {, }, [, ^, ", ~, ?, :, \. If you do not add a backslash as a prefix to each special character, the search might return no results or incorrect results. For example, if you want to search for AT&T, the search string must be AT\&T.

If you want to search for a negative value, type the value in the search string without the minus character. For example, if you want to search for -5000, the search string must be 5000.

If you want to search a date, use a simple date format, such as <Month> <DD> <YYYY>, in any order and do not use a date format, such as <YYYY>-<MM>-<DD> or YYYY-MM-DDThh:mmTZD. For example, use November 20 2014 or 2014 Nov 20 as the search string.

The following image shows the **Search** box with the search string, John Smith:



- Click the **Search** icon.

The following image shows the search results in the **Search** page:

Name	Description	Type
▶ JOHN SMITH	Party Type: Person, Display Name: JOHN SMITH	Persons
▶ JOHN SMITH	Party Type: Person, Display Name: JOHN SMITH	Persons
▶ JOHN XAVIER SMITH	Tax ID: 924234265, Party Type: Person, Display Name: JOHN XAVIER SMITH, Generation Sufi...	Persons
▶ JOHN SANDERS SMITH	Party Type: Person, Display Name: JOHN SANDERS SMITH	Persons
▶ JOHN ANDY SMITH	Party Type: Person, Display Name: JOHN ANDY SMITH	Persons
▶ JOHN ANDREW SMITH	Party Type: Person, Display Name: JOHN ANDREW SMITH	Persons
▶ JOHN XAVIER SMITH	Party Type: Person, Display Name: JOHN XAVIER SMITH, Birthdate: Mon Jun 24 12:00:00 AM ...	Persons
▶ JOHN JAMES SMITH	Party Type: Person, Display Name: JOHN JAMES SMITH	Persons
▶ JOHN SMITH	Party Type: Person, Display Name: JOHN SMITH	Secure Person
▶ JOHN SMITH	Party Type: Person, Display Name: JOHN SMITH	Secure Person
▶ JOHN XAVIER SMITH	Party Type: Person, Display Name: JOHN XAVIER SMITH, Birthdate: Wed Apr 20 07:00:00 AM...	Secure Person
▶ JOHN SANDERS SMITH	Party Type: Person, Display Name: JOHN SANDERS SMITH	Secure Person
▶ JOHN ANDY SMITH	Party Type: Person, Display Name: JOHN ANDY SMITH	Secure Person
▶ JOHN ANDREW SMITH	Party Type: Person, Display Name: JOHN ANDREW SMITH	Secure Person
▶ JOHN XAVIER SMITH	Party Type: Person, Display Name: JOHN XAVIER SMITH, Birthdate: Mon Jun 24 12:00:00 AM ...	Secure Person
▶ JOHN JAMES SMITH	Party Type: Person, Display Name: JOHN JAMES SMITH	Secure Person

Note: A search request does not return a rounded float value that the Entity 360 view displays when you search for the rounded value.

- Optionally, you can group the records that appear in search results based on the business entity types.

The search results are sorted and moved to the relevant business entity type groups.

The following image shows search results in the Person business entity type groups, and search results in the Secure Person business entity type group:

Name	Description	Type
▶ Persons (8)		
▶ Secure Person (8)		

- To find the record that you are searching for, expand the business entity type under which you expect to find the record.

The business entity type expands to show all the records that appear in the search result and belong to the business entity type.

The following image shows the expanded results for the Person business entity type:

Name	Description	Type
▼ Persons (8)		
▶ JOHN SMITH	Party Type: Person, Display Name: JOHN SMITH	Persons
▶ JOHN SMITH	Party Type: Person, Display Name: JOHN SMITH	Persons
▶ JOHN XAVIER SMITH	Tax ID: 924234265, Party Type: Person, Display Name: JOHN XAVIER SMITH, Generation Sufi...	Persons
▶ JOHN SANDERS SMITH	Party Type: Person, Display Name: JOHN SANDERS SMITH	Persons
▶ JOHN ANDY SMITH	Party Type: Person, Display Name: JOHN ANDY SMITH	Persons
▶ JOHN ANDREW SMITH	Party Type: Person, Display Name: JOHN ANDREW SMITH	Persons
▶ JOHN XAVIER SMITH	Party Type: Person, Display Name: JOHN XAVIER SMITH, Birthdate: Mon Jun 24 12:00:00 AM ...	Persons
▶ JOHN JAMES SMITH	Party Type: Person, Display Name: JOHN JAMES SMITH	Persons
▶ Secure Person (8)		

Filtering Records

After you perform a search, you can refine the search results by using filters. For example, you can refine the search results for John Smith by filtering the results by the city name, Toronto.

1. Perform a search.

The search results appear in the **Search Results** panel in the **Search** page.

2. In the **Filter** panel, select or enter a value for the filter criteria that you require.

Note: For a date and time field, you can specify the date in the filter, but not the time. The filter uses the default time as 00:00:00 UTC. Some numeric filters might appear in the scientific notation, even though the search results display the values in the decimal notation. For example, the filter might display 10544444.6 as 1.05444446E7.

3. Click **Apply**.

The search results contain only the records that match the filters that you applied.

4. To clear all the filter criteria, click **Clear All**.

Viewing and Opening a Record in an Elasticsearch Environment

You can preview a record that appears in the **Search Results** panel of the **Search** page. To ensure that you open the record that you want, review the details for the record before you open it. You can open a record in the **Business Entity** view, or any record view.

1. From the **Search Results** panel, select the record that you want to open.

Note: A description with the prefix [Pending] means that the record has pending changes that are not yet approved. You can open the record, but you cannot make further changes until the review and approval process ends.

2. To verify that you have the correct record, click the **Show Preview** icon.

The **Record Preview** displays the record details.

3. To open the record, click the **Open in a new window** icon.

The record opens in the **Business Entity** view. You can view and edit the record that is open.

4. If you want to open the record in any other view, from the **View** list, select a record view.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

The following views might be available in the Data Director application:

View	Description
Cross-reference Records	View the records that contribute to the best version of the truth of a record. You can unmerge a record that was merged with another record.
Matching Records	View the records that match the record that you opened. You can identify and resolve duplicate records.
Hierarchy	View a diagram that shows how a record is related to other records. You can add, edit, and delete related records and relationships for the selected records.
History	View data changes over the lifespan of the record. You can identify the data events that changed the data.

The record opens in the view that you select.

Viewing and Opening a Record in a Solr Environment

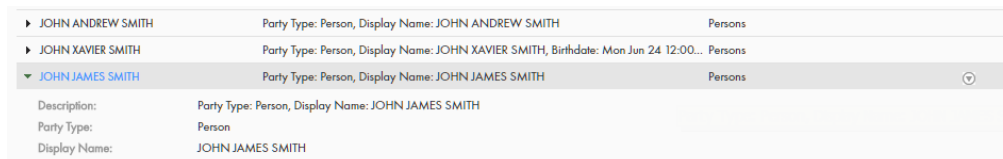
You can view the summary of record details in the **Search Results** panel in the **Search** page. To ensure that you open the record that you want, review the details for the record before you open it. You can open a record in the **Business Entity** view, the **Data** view, or the **Hierarchy** view.

1. From the **Search Results** panel, select the record that you want to open.

Note: A description with the prefix [Pending] means that the record has pending changes that are not yet approved. You can open the record, but you cannot make further changes until the review and approval process ends.

2. To verify that you have the correct record, expand the entry to display a few details about the record.

The following image shows the expanded entry for John James Smith:



▶ JOHN ANDREW SMITH	Party Type: Person, Display Name: JOHN ANDREW SMITH	Persons
▶ JOHN XAVIER SMITH	Party Type: Person, Display Name: JOHN XAVIER SMITH, Birthdate: Mon Jun 24 12:00...	Persons
▼ JOHN JAMES SMITH	Party Type: Person, Display Name: JOHN JAMES SMITH	Persons
Description:	Party Type: Person, Display Name: JOHN JAMES SMITH	
Party Type:	Person	
Display Name:	JOHN JAMES SMITH	

3. Open the record.

- To open the record in the **Business Entity** view, click the record name.
- Alternatively, click the **Actions** menu at the end of the row and select a record view.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

The following table describes some of the views that might be available from the **Actions** menu:

View	Description
Data	View and edit the record, which is based on the subject area model, in the Data view.
Business Entity	View and edit the record, which is based on the business entity model, in context with other sources of information about the record.
Hierarchy	View a diagram of the relationships for the record.

4. If prompted, specify the effective period that you want to investigate.

The record opens.

Using Queries to Find Records

Use a search query, when you want to repeatedly perform the same search and filter operation. When you use search queries, you specify a criteria for your search. You might want to use queries to find records that you want to view, edit, or delete.

To create and manage queries, use the **Queries** page. You can create a query to search for records based on a specific business entity. To reuse the query that you create, save the query. If you use a query frequently, you can set it as the default query.

When you create a query with a lookup field that is dependent on other lookup fields, these other lookup fields are automatically included in the query. For example, the City lookup field is dependent on the State and Country lookup fields. When you create a query to include only the City lookup field, the State and Country lookup fields are automatically included in the query.

Types of Queries

You can use a basic or an extended query.

If a basic query does not return the results you are looking for, use an extended query. An extended query can find records that are missed by the basic query.

Basic Queries

Basic queries use simple text comparisons to find records that contain the query values. You can use text and the wildcard character (*) to query values.

The wildcard characters are special search symbols that you can use in basic queries to specify a text pattern instead of specific characters. You can use the asterisk (*) wildcard character to increase your chances of finding the records that you want. The wildcard characters are useful when you do not know the exact text or want to search for similar text.

The following table lists example search strings and explains how they function:

Example Query String	Query Behavior
John Smith	Queries for records that contain John, Smith, or any variations of John or Smith as a field value.
"John Smith"	Queries for records that contain John Smith or any variations of John Smith as a field value.
John*	Queries for records that contain a value that starts with John. For example, Johnson or Johnny.
Jo*n	Queries for records that start with Jo and end with n. For example, Johansson or Jordan.
*	Returns all the records.

Note: Basic query is not case sensitive in Microsoft SQL Server environments.

Extended Queries

Extended queries use matching logic and match-enabled attributes to find records that contain the query values. You must enable a match rule set to use with extended queries.

Extended query results include fuzzy matches, which are more reliable. Fuzzy matches take into account spelling variations, and other differences to ensure that matching data that are not identical are not missed. For example, an extended query can match variations of the word "Street", such as "St." and "St".

Note: The extended queries use match rule sets. If an MDM administrator edits or deletes a match rule set from the Hub Console, the related queries are deleted from the Data Director application.

When you use extended queries, ensure that the following conditions are met:

- The business entity has match-enabled attributes.

- The match rule set used by the query is configured by the MDM administrator to use the **Enable Search by Rules** option in the Hub Console.

Creating a Query

You can create a query to search for records within a specific business entity. You are the owner of the queries that you create.

1. In the navigation bar, click **Queries**.
2. In the **Saved Queries** panel, click the **Add** icon.
The **New Query** dialog box appears.
3. From the **Business Entity** list, select the business entity within which you want to perform the search.
4. Select a query type.

Query Type	Description
Basic	Uses simple text comparisons to find records that contain the query values.
Extended	Uses matching logic and match-enabled attributes to find records that contain the query values.

5. If you selected the extended query type, from the **Match Rule Set** list, select a match rule set.
Select the **Default** match rule set only when a suitable match rule set does not appear in the list. A match rule is generated based on the values that you specify.
The fields available for the selected match rule set appear.
6. Select the fields that you want to include as the search criteria for the query.
The fields that you selected appear in the **Selected Fields** section.
7. In the **Selected Fields** section, drag to rearrange the sequence of the fields.
The fields appear in the query form in the sequence that you set.
8. Specify the search results options.
 - a. If you want the query to be case sensitive, enable the **Case sensitive** option.
 - b. If you want the search results sorted, from the **Sort By** list, select a field name by which you want the search results sorted.
 - c. Select the sort order of the query to be ascending or descending.
9. Click **OK**.
The query is created and opens on the Queries page.
10. To save the query for reuse, click **Save**.
The **Save Query** dialog box appears.
11. Enter a query name and description.
12. If you want to use the query as a default query, enable **Set as my default**.
The default query is the query that appears when you open the **Queries** tab.
13. If you want to share the query with other users, enable **Share with all**.
By default, you own the query that you create. Other users cannot edit the queries that you own.
14. Click **Save**.
The query is saved and appears on the **Saved Queries** panel.

You can run the query that you created, or save the query and run it when needed.

Running a Query

You can run a query to find records. To run a query that is not saved, enter the search criteria, and then run the query. To run a saved query, first, open the query.

1. In the **Saved Queries** panel, open the query that you want to run.
 - a. If a default query is open, but you want to run a saved query, click the **Back** icon to navigate to the **Saved Queries** page.
 - b. Expand the business entity to which the query belongs.
 - c. Click the query name.

The query form appears.

2. Enter the search criteria for the record that you want to find.
3. Click **Run**.

The query results appear in the **Search Results** panel.

Viewing Query Results

After you run a query, you can view the query results that appear in the **Search Results** panel.

You can open records from the **Search Results** panel. Before you open a record, you can preview the record. The preview appears in the **Record Preview** window.

The **Record Preview** and the **Business Entity** view can display the parent records and up to ten levels of child records. The top two child record levels are expanded. To view the child record levels that are deeper, expand the record levels.

You can customize the results to view only the fields that are significant to your purpose. Also, you can export the results to a CSV file.

Opening Records from Query Results

After you run a query to find records, you can open the records from the **Search Results** panel.

1. From the **Search Results** panel, select a record, and click the **Open in a new window** icon.

The record opens in the **Business Entity** view. You can view and edit the record.
2. If you want to view other information about the record, from the **View** list, select a record view.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

The following views might be available:

View	Description
Cross-reference Records	Displays the records that contribute to the best version of the truth of a record. You can unmerge a record that was merged with another record.
Matching Records	Displays the records that match the record that you opened. You can identify and resolve duplicate records.
Hierarchy	Displays a diagram that shows how a record is related to other records. You can add, edit, and delete related records and relationships for the selected records.

View	Description
History	Displays data changes over the lifespan of the record. You can identify the data events that changed the data.

The record opens in the selected view.

Customizing Query Results

You can customize the query results that appear in the **Search Results** panel to include only the fields that you want to view.

1. From the **Search Results** panel, click the **Settings** icon.
The **Customize Query Columns** dialog box appears.
2. Select the fields that you want to display in the **Search Results** panel.
3. Optionally, change the order in which you want the fields to appear in the search results.
4. Click **OK**.
The **Customize Query Columns** dialog box closes. The query results include only the fields that you selected.

Exporting Query Results

If you want to view the query results in a CSV file, export the query results to a CSV file.

- ▶ Export the query results to a CSV file.
 - To export all the fields, including the fields that do not appear on the **Search Results** panel, click **Actions > Export All Fields**.
 - To export only the fields that appear on the **Search Results** panel, click **Actions > Export Current Fields**.

Note: Before you export the query results, you can customize the results that appear on the **Search Results** panel to include only the fields that you want to export.

Managing Queries

After you save queries, you might want to modify a query or delete a query that you do not need.

To manage queries, you can perform the following tasks:

- Edit a saved query.
- Delete a saved query.
- Save an existing query as a new query.

Note: The extended queries use match rule sets. If an MDM administrator edits or deletes a match rule set from the Hub Console, the related queries are deleted from the Data Director application.

Editing a Saved Query

Use the **Saved Queries** panel to edit queries. You can edit any query that you own. You own the queries that you create or import into your environment.

1. In the **Saved Queries** panel, expand the business entity, and click the query.
The query opens.
2. Click **Actions > Edit Query**.
The **Edit Query** dialog box appears.
3. Edit the query as required.
You can make the following changes to the query:
 - Add fields.
 - Remove fields.
 - Enable the query to be case-sensitive.
 - Select a field name by which the query result must be sorted.
 - Set the sort order to ascending or descending.
4. Click **OK**.
The query is updated. You can save or run the query.
5. Save or run the query.

Deleting a Saved Query

For each business entity, you can delete the queries that you own.

1. In the **Saved Queries** panel, expand the business entity.
2. Select the query, and then click **Actions > Delete**.
The delete confirmation dialog box appears.
3. To delete the query, click **Yes**.
The query is deleted.

Saving an Existing Query as a New Query

Instead of starting from scratch, you can use an existing query to create more queries. You can either select or open an existing query, and then save the it as a new query.

1. In the **Saved Queries** panel, select the query that you want to save as a new query.
2. Click **Actions > Save As**.
The **Save As** dialog box appears.
3. Enter a unique name and description for the query.
4. Optionally, enable any of the following query options:
 - Set as my default. The query becomes the default query.
 - Share with all. The query is shared with other users.
5. Click **Save**.
A copy of the query is saved with the new name, and the query opens.

6. Optionally, modify the new query.

- a. Click **Actions > Edit**.
- b. Edit the query as required.

You can make the following changes to the query:

- Add fields.
- Remove fields.
- Enable the query to be case-sensitive.
- Select a field name by which the query result must be sorted.
- Set the sort order to ascending or descending.

- c. Click **OK**.

The query is saved with the changes.

Migrating and Sharing Saved Queries

When an MDM administrator migrates a Data Director configuration from one environment to another, the saved queries are not migrated. You need to export the queries from the source Data Director application and then import the queries into the target Data Director application.

You can migrate all the saved queries in the application or migrate individual saved queries. When you migrate queries, if the target application contains queries that have the same names as the queries in the source application, the queries are renamed. For example, if a query with the name `PersonQuery` already exists in the target environment, the query is renamed to `PersonQuery 1`.

Also, you can share the saved queries with other users, who can import the queries into their application. You are the owner of the queries that you import into your application.

Migrating and Sharing all the Saved Queries

To migrate all the saved queries, export the queries from the source Data Director application and then import the queries into the target Data Director application. Also, you can share all the saved queries with other users, who can import the queries into their environment.

1. From the **Saved Queries** panel header, click the **Export** icon.

A `Queries.json` file, which contains all the saved queries, is downloaded to the default download location.

2. Import the JSON file into the target application.
 - a. Copy the downloaded JSON file to an accessible location in the target application environment.
 - b. From the **Saved Queries** panel header, click the **Import** icon.
 - c. Locate and import the queries JSON file.

All the saved queries are migrated to the target environment.

Migrating and Sharing a Single Saved Query

To migrate a saved query, export the query from the source Data Director application and then import the query into the target Data Director application.

1. From the source application, export the query that you want to migrate.
 - a. In the **Saved Queries** panel, expand the business entity to which the query to export belongs.
 - b. Select the query, and click **Actions > Export**.
A `Queries.json` file, which contains the saved query, is downloaded to the default download location.
2. Import the JSON file into the target application.
 - a. Copy the JSON file to an accessible location in the target application environment.
 - b. In the target application, from the **Saved Queries** panel header, click the **Import** icon.
 - c. Locate and import the JSON file.

The saved query is migrated to the target environment.

CHAPTER 5

Editing Records

This chapter includes the following topics:

- [Editing Records Overview, 49](#)
- [Scenario for Editing a Record, 49](#)
- [Editing a Record, 50](#)
- [Adding and Editing Related Records, 51](#)
- [Deleting a Record, 54](#)

Editing Records Overview

You might want to add or make changes to the information in a record. To make changes to a record, search for the record, and open the record in the **Business Entity** view.

If your user role permits it, you can edit the data or delete the record. When you save changes, based on your user role, a review process might be initiated. In this case, Data Director saves the requested changes in a pending record until the review process ends. If the review ends in an approval, Data Director applies the change from the pending record to the active records.

Scenario for Editing a Record

A customer named John Smith reports that he did not receive the product that you mailed to him. You want to check his address, correct errors, and redirect the product to the correct address.

You find the record for John Smith, which you select and open to view the address. You find that the address has an incorrect postal code. After you correct the address, you close and save the record. You ensure that you resend the product to the correct address.

Editing a Record

If your user role includes the edit permission, you can edit a record in the active state.

Note: You cannot edit a record that is in the pending state because the record has changes that are pending approval. You must wait until the review and approval process ends.

1. From the **Search Results** panel of the **Search** page, open the record that you want to edit.
The record opens in a record view.
2. If the view is not your preferred view for editing, you can select a different view from the View list.
3. Click **Edit**.

Tip: If the button is disabled, either you do not have permission to edit the record or the record has changes that are pending approval.

The following image shows the record for John James Smith in edit mode:

Person: SMITH, JAMES View: Account Summary

Quickly scroll to:

- Person
- Emails
- PhoneNumbers
- Addresses
- Person Details

Overview

Party Type: Person Middle Name: First Name: JAMES
Last Name: SMITH Birthdate: Gender Cd:
Display Name: JAMES SMITH

▼ Emails (1)

Is Valid Ind	Opt In Ind	Electronic Address	Electronic Address Type
Y		james_smith@nowhere.com	EMAIL

▼ PhoneNumbers (2)

Do Not Call Ind	Phone Ext Number	Phone Number	Phone Country Cd	Phone Type
		(941)756-1291	1	FAX
		(856)742-1865	1	BUSINESS

▼ Addresses (2)

Address Type
BILLING
LEGAL

▶ Person Details (0)

Save Cancel

4. Edit the data in the root record as required.
 - a. Click anywhere in the top section.
The section becomes editable.
 - b. Edit the data.
5. Edit the data in child records as required.
 - a. Expand the child section.
 - b. Click the **Edit** icon.
The section becomes editable.
 - c. Edit the data.
 - d. Click the **Apply** icon.
6. Click **Save**.

If your user role permits you to save data without a review, the application saves the record to the MDM Hub Store as active records. Otherwise, the application saves the record as a pending record and initiates the review process associated with your role.

Adding and Editing Related Records

Business entity relationships describe the affiliation between two entities. The MDM Hub supports one-to-many and many-to-many relationships between business entities, in addition to hierarchical relationships between records in the same business entity. You can add, view, edit, and manage relationships between a business entity and the records related to the business entity.

In the Related Records panel, you can see the business entities that you have permission to view. To create relationships between different types of business entities, your user role must include the edit permission for both types of business entities.

When a relationship exists between two entities, you can add related records to a business entity. For example, `Organization employs Person` is a relationship that exists between the Organization and Person business entities. You can add Person records or employees as related records to the Organization. The Related Records panel lists the business entities that are directly related to the business entity that is open in the Business Entity view.

Note: If you do not see the Related Records panel when you edit a business entity, contact the MDM administrator.

Scenario for Adding and Editing Related Records

A relationship is configured between the Organization and the Person business entity types, such that an organization employs persons. You have an organization, Informatica, to which you want to add the employees. John Smith is an employee of Informatica.

You search for the record for Informatica. You open the record. You search for the record for John Smith. You add John Smith as a related record to Informatica. After an appraisal, John Smith has a different job title and salary. You must update the relationship details to reflect the change. You open the record for Informatica and select the relationship between Informatica and John Smith. You update the relationship details.

Adding a Related Record

When a record has relationships configured, you can add related records to records. Search for and open the record in the **Business Entity** view. Search for the related record that you want to add as a related record and add the record in the **Related Records** panel.

Note: The **Related Records** panel must be present in the **Business Entity** view. To create relationships between different types of business entities, your user role must include the edit permission for both types of business entities.

1. From the **Search Results** panel in the **Search** page, select the record to which you want to add the related records.
2. Open the record.

The **Related Records** panel displays the records that are directly related to the record you open. There might be more than one **Related Records** panel.

3. In the **Related Records** panel, click **New**.
The **Relationships** dialog box opens.
4. Select the relationship type.
5. In the **Search** box, type the complete search string or the search string with the asterisk wildcard character (*) for the record that you want to find.
6. Click **Search**.

The following image shows the search results and the filter panel:

The screenshot shows the 'Relationships' search interface. At the top, there is a search bar with 'Organizatio' in the dropdown and 'A*' in the input field. A 'Search' button is visible. Below the search bar, the 'Search Results (84)' panel displays a table with columns 'Name', 'Description', and 'Type'. The table lists several person records, each with a checkmark and a plus icon. The 'Filters' panel on the right has an 'Apply Filter' button and two sections: 'Party Type' with a radio button for 'Person (84)', and 'Display Name' with a list of names and checkboxes, including 'AADA HARDY (1)' and 'ADAM GRAY (1)'.

7. In the **Filters** panel, select a value for the filter criteria that you require.
8. Click **Apply Filter**.

The revised search results appear in the **Search Results** panel based on the filters you set.

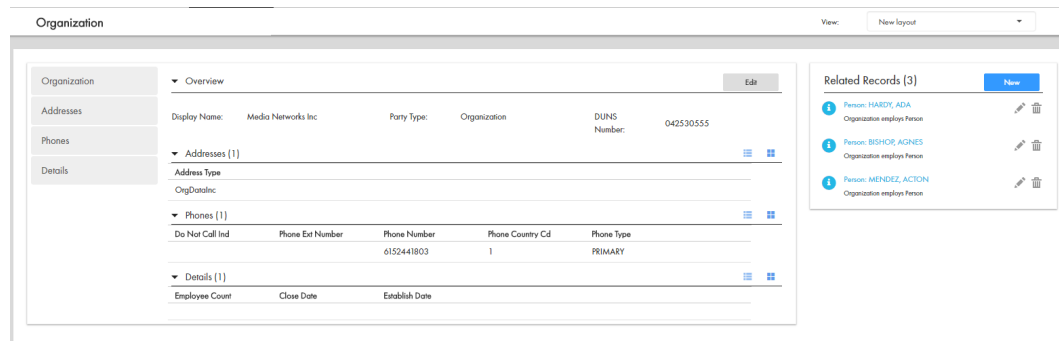
The following image shows the filtered records:

The screenshot shows the 'Relationships' search interface after filtering. The search bar now has 'A*' highlighted in yellow. The 'Search Results (2)' panel displays a table with two records: 'Person: GRAY, ADA...' and 'Person: HARDY, ADA...'. The 'Filters' panel on the right has the 'Apply Filter' button highlighted in blue. In the 'Display Name' section, the checkboxes for 'ADA HARDY (1)' and 'ADAM GRAY (1)' are checked.

9. Select the record that you want to add as related record and click **Select**.
10. If the relationship has additional attributes, specify the additional attributes.
For example, for a PersonOwnsAutomobile relationship, you might have to specify the mileage and price.
11. Click **Apply**.

The record is added as related record and appear in the **Related Records** panel.

The following image shows the related records in the **Related Records** panel:



Viewing Related Records

You can view the related records in the **Related Records** panel. Each related record in the component is a link that you can open in the **Business Entity** view.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

1. From the **Search Results** panel in the **Search** page, select the record.
2. Open the record.

The related records are listed in the **Related Records** panel.

Deleting a Related Record

You can delete the relationship between a record and a related record. Search for the record and then delete the related record in the **Related Records** panel.

1. From the **Search Results** panel in the **Search** page, select the record that you want to edit.
2. Open the record.

The **Related Records** panel displays the records that are directly related to the record you open. There might be more than one **Related Records** panel.

3. Select the related record that you want to delete, and then click the **Delete** icon.

A confirmation box appears.

4. Click **Yes**.

Data Director deletes the relationship between the record and the related record and no longer displays the related record in the **Related Records** panel.

Editing the Relationship Details

You can edit the details of the relationship between a record and the related record. You can edit the additional attributes associated with the relationship. Search for the record and edit the relationship from the **Related Records** panel.

1. From the **Search Results** panel in the **Search** page, select the record that you want to edit.
2. Open the record.

The **Related Records** panel displays the records that are directly related to the record you open. There might be more than one **Related Records** panel.

3. In the **Related Records** panel, select the related record that you want to edit, and then click the **Edit** icon.
4. Edit the additional attributes, and then click **Apply**.

For example, assume that job title and salary are two attributes associated with the OrganizationEmploysPerson relationship. After an appraisal, you might edit the job title and salary for that Person record to reflect the changes.

Deleting a Record

If your user role includes the delete permission, you can delete records in the active state. You cannot delete a record that is in the pending state because the record is part of a workflow and is pending approval.

1. From the **Search Results** panel in the **Search** page, select the record that you want to delete.
2. Open the record.
3. Click **Actions > Delete**.

A confirmation box appears.

4. Click **Yes**.

Data Director marks the record as deleted and no longer displays the record, but does not remove the record from the database.

CHAPTER 6

Resolving Duplicate Records

This chapter includes the following topics:

- [Resolving Duplicate Records Overview, 55](#)
- [Scenario for Duplicate Records, 59](#)
- [Resolving Duplicate Records, 59](#)
- [Resolving Duplicate Child Records in a Single Record, 63](#)

Resolving Duplicate Records Overview

Your organization might have data that originates in multiple systems, resulting in duplicate, hard to merge records. To resolve the duplicate records, you can use the **Matching Records** view in Data Director. You can identify the duplicates, and merge the best version of the data into a single master record.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

When you merge duplicate records, you can preview what the merged record would look like. If you are satisfied with the preview, you can merge the records.

You must have the required privileges to view and merge the records. You can see only the business entities for which you have the required privileges. To request additional role privileges, contact your MDM administrator.

Matching Records View

You can resolve duplicate records by using the basic **Matching Records** view or the advanced **Matching Records** view. Your application might have one or both the **Matching Records** views configured.

Basic Matching Records View

You can use the basic **Matching Records** view to merge only the duplicate parent records.

The following image shows a sample basic **Matching Records** view:

Record Type	1018244	1038244	1038245	Merge Preview
	Target Record	Matched: [DL] [R] (83)	Manually Added	1 Candidates
First Name	JOHN 89.74	JANE 89.78	JON 89.78	JOHN
Last Name	SMITH 89.74	SMITH 89.78	SMITH 89.78	SMITH
Birthdate	1975-06-10 00:00:00	1979-01-23 00:00:00	1975-06-10 00:00:00	1975-06-10 00:00:00
Gender Code	MALE 89.74	FEMALE 89.78	MALE 89.78	MALE
▼ Bill address	[1 / 2]	[1 / 1]	[1 / 1]	[1 / 3]
Address Line1	1 KING STREET	1 KING STREET	125 QUEEN STREET	1 KING STREET
City Name	TORONTO	TORONTO	TORONTO	TORONTO
Postal Cd	M5J 1 P9	M5J 1 P9	M5A 1C7	M5J 1 P9
State Cd	ONTARIO	ONTARIO	ONTARIO	ONTARIO
Country Code	Canada	Canada	Canada	Canada
▼ Telephones	[1 / 2]	[1 / 1]	[1 / 1]	[1 / 3]
Phone Number	800-555-0147 0	800-555-0183 0	800-555-0147 0	800-555-0147
▼ Email	[1 / 1]	[1 / 1]	[1 / 1]	[1 / 2]
Electronic Address	smith@gmail.com	jane@gmail.com	smith@gmail.com	smith@gmail.com

Advanced Matching Records View

You can use the advanced **Matching Records** view to merge the duplicate parent and child records.

The following image shows a sample advanced **Matching Records** view that is displaying the parent-level records:

Record ID	1018244	1038245	1038244
Match Rule (Score)	N/A	N/A	[DL] [R] (83)
Last Updated On	2018-08-21 14:52:46	2018-08-21 15:11:00	2018-08-21 14:52:46
Record State	Active	Active	Active
First Name	JOHN	JOHN 89.96	JANE 90
Last Name	SMITH	SMITH 89.96	SMITH 90
Birthdate	1975-06-10 00:00:00	1975-06-10 00:00:00	1979-01-23 00:00:00
Gender Code	MALE	MALE 89.96	MALE 90 FEMALE

The following image shows a sample advanced **Matching Records** view that is displaying the child-level records:

Parent Record ID	120962	120963	140963
Last Updated On	2018-08-20 16:31:50	2018-08-20 16:37:47	2018-08-21 14:41:54
Record State	Active	Active	Active
Phone Number	800-555-0147	800-555-0147 0	800-555-0147 0

Matching Records and Match Rules

Data Director depends on match rules to determine the matching records. An MDM administrator configures match rules based on the data characteristics and the requirements for matching and merging records.

The match rules determine whether the matching records have identical values or similar values. Also, match rules determine the records that are automatically merged and the records that appear on the **Matching Records** view.

For example, consider a match rule that is based on addresses. Based on the match rule, John Smith and Jane Smith are identified as matching records, because they share the same address. Though their address is the same, they are unique people. Their records are not duplicates and must not be merged.

The records that appear on the **Matching Records** view have a match score associated with them. The match scores are based on the match rules. A high match score indicates that the record is a close match. A low match score indicates that the record is a distant match.

Note: When a match job runs, the matching records are identified. If a match job was not run recently, the **Matching Records** view might not contain all the possible matches. If you upgrade from an earlier version, the match scores are set to null for the existing matching records. The match scores are displayed only for the new matches.

For more information about match rules, see the *Multidomain MDM Configuration Guide*.

Best Version Of the Truth and Trust Scores

Best version of the truth is the result of merging the most trustworthy field values from the duplicate records. Data Director uses trust scores to evaluate and determine the most trustworthy field values. When you prepare to merge duplicate records, you can finalize the best version of the truth.

You can finalize the best version of the truth by promoting or overriding the values in the **Merge Preview** column with values that you think are correct. For the values that you override to take effect, the MDM administrator must have configured trust for the Admin system. When you merge records, if child-level records with values that you override are also being merged, an additional cross-reference record, which is called an edit record might be created or updated. An edit record is created or updated when you override values in the **Merge Preview** column. The edit record contains only the field values that you override.

To identify an edit record, look for the following field values:

- Source system. The value is `Admin`.
- Source primary key. The value is generated by the MDM Hub and is the same as the Record ID or has the format `SYS:<number>`.

If trust is configured for your environment, the records that appear on the **Matching Records** view have trust scores associated with the fields for which trust is enabled. Trust scores are a measure of the relative trustworthiness associated with field values based on their source system, change history, and other business rules. Trust scores range from zero to 100. A field value with a higher trust score is more trustworthy than a field value with a lower trust score.

For more information about the best version of the truth and trust scores, see the *Multidomain MDM Configuration Guide*.

Merging Duplicate Records

To resolve duplicates, you merge the records that you identify as duplicates. When you merge duplicate records, a single master record is created.

The records that you want to merge consist of a parent record level and might consist of multiple child record levels. The child records can have a one-to-one or a one-to-many relationship with the parent record. For example, John Smith's record consists of name, date of birth, and gender details at the parent record level. The child record level includes addresses, email, and phone numbers.

Note: IDD application developers define the parent-to-child relationships when they define the structure of a business entity.

When you merge records, the duplicate parent records merge into a single parent record. If the records to merge have child records, you need to identify your scenario and act accordingly.

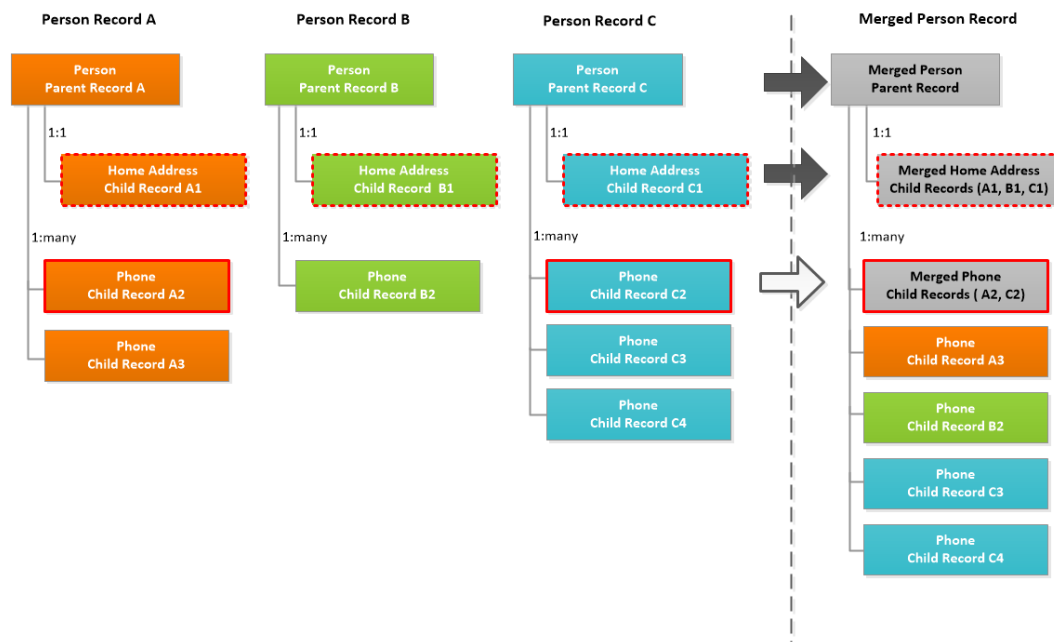
The following table describes the child record scenarios, the related actions, and the results of each action:

Child Record Scenario	Action	Result
Duplicate child records with one-to-one relationship	Automatic merge.	The one-to-one child records from each parent record automatically become the child record of the merged parent record.
Some duplicate child records with one-to-many relationship	Select duplicate child records to merge.	The duplicate child records merge to become the child record of the merged parent record. The child records that are not selected become the child records of the merged parent record.
Unique child records with one-to-many relationship	Automatic inheritance.	The child records from each of the parent records become the child records of the merged parent record.

Example

Let's consider merging three duplicate records, where each record has a parent-level with name, date of birth, and gender details. The child record level includes the home address and phone numbers.

The following image shows how the three person records are merged:



Scenario for Duplicate Records

You work for an insurance organization. A customer, Paula Laine, calls to review her home insurance policy. You ask Ms. Laine for her policy number, and enter the policy number in the **Search** box.

In the search results, you select the record that contains the policy number, and open the record in the **Business Entity** view. You confirm a few personal details and then answer Ms. Laine's questions about her policy.

After you answer her questions, you ask Ms. Laine if she has any other policies. Ms. Laine tells you that she has an automobile policy registered with a subsidiary of your organization. You enter the automobile policy number in the **Search** box, and the search returns the record that contains the automobile policy. You verify that the personal data matches the data in the other record.

After you end the conversation, you open the record that contains the home policy in the **Matching Records** view. From the similar records, you select the entity that contains the automobile policy. You click **Preview** and verify that both policies appear in the Policies section. In addition, you can see that the merged record is more complete overall, with data such as Ms. Laine's middle name and her mobile phone number coming from different source records. When you are satisfied that the merge preview represents the best version of the truth, you start the merge process.

Resolving Duplicate Records

Use the **Matching Records** view to identify duplicate records. You can resolve the duplicate records by merging them. To merge records, your user role must include the merge permission.

You can resolve the duplicate records by using the basic **Matching Records** view or the advanced **Matching Records** view. Use the basic **Matching Records** view when you want to merge only the duplicate parent

records. To merge the duplicate parent and child records, use the advanced **Matching Records** view. Your application might have one or both the **Matching Records** views configured.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

By Using the Basic Matching Records View

To resolve duplicate records using the basic **Matching Records** view, perform the following tasks:

1. Identify duplicate parent records.
2. Finalize the best version of the truth for parent records.
3. If child records exist, identify duplicate child records.
4. Finalize the best version of the truth for child records.
5. Merge duplicate records.

By Using the Advanced Matching Records View

To resolve duplicate records using the advanced **Matching Records** view, perform the following tasks:

1. Identify duplicate parent records.
2. Finalize the best version of the truth for parent records.
3. Merge duplicate records.

Identifying Duplicate Parent Records

To identify duplicate records, open the target record in the **Matching Records** view. The target record appears along with the matching records in the **Matching Records** view. Start by identifying duplicates at the parent record level.

1. Open the target record, and then, from the **View** list, select the name of the **Matching Records** view.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

The matching records appear in the **Matching Records** view.

2. For the advanced **Matching Records** view only. Optionally, view only the records that satisfy a specific match rule.
 - a. Click the **Filter** tab.
 - b. Select **Specify a match rule**.
 - c. Click in the field and select the match rule from the list.
3. If duplicate records that you want to merge with the target record are missing in the **Matching Records** view, manually add the records.

If you use queries to find records that you want to add, the queries must be created before you perform this step.

- a. Click **Add Candidate**.

The search user interface appears.

- b. Find and select the records that you want to add.
- c. Click **Select**.

The records are added to the **Matching Records** view.

4. Optionally, to show more information that might be helpful in determining duplicates, click **Show**, and select the options.

Option	Description
System fields	Displays system fields. This option is not available in the basic Matching Records view.
Selected records	Displays only the records that you select for merging. This option is not available in the basic Matching Records view.
Trust scores	Displays trust scores for all the trust-enabled fields. Trust settings are managed by the MDM administrator.

5. Identify the duplicate records that you want to merge with the target record.
 - a. Compare the data of each matching record with the target record.
 - b. Select the duplicate records.

Note: You cannot select records if your user role does not include permission to merge the records. To request changes to your role privileges, contact your MDM administrator.

The **Merge Preview** column shows the result of merging the records.
6. Optionally, remove records that you do not want to merge or are not duplicates.
 - a. To remove a manually added record from the **Matching Records** view, from the **Actions** menu of the record, click **Remove Candidate**.
 - b. To remove a system matched record from the **Matching Records** view and dissociate it as a match of the target record, from the **Actions** menu of the record, click **Not a match**.

When you dissociate a matching record, the record does not automatically match again.

Finalizing the Best Version Of the Truth

After you identify the duplicate records that you want to merge, finalize the best version of the truth. The **Merge Preview** column in the **Matching Records** view displays the best version of the truth based on the trust scores. You can finalize the best version of the truth by promoting or overriding the values in the **Merge Preview** column with values that you think are correct.

1. Review the values in the **Merge Preview** column.
2. If an incorrect value is displayed in the **Merge Preview** column, review the values for the field in the matching records, and perform one of the following actions:

Action	Description
Click the correct value	The correct value appears in the Merge Preview column. Data Director promotes the correct value over the incorrect value.
Enter the correct value in the Merge Preview column	Data Director overrides the incorrect value with the value that you enter in the Merge Preview column. Note: You can only edit fields for which you have edit privileges.

Identifying Duplicate Child Records

If you use the advanced **Matching Records** view, you can identify the duplicate child records by reviewing the child records and their descendant records in the **Matching Records** view. Select a target child record with

which you compare the child records of other parent records. Select the duplicate child records that you want to merge.

Note: As you work with the child records, you might find data that makes you decide that a parent record is not a duplicate. You can return to the record overview and clear the check box for that parent record. The data in the **Merge Preview** column is refreshed.

1. In the **Navigate** panel, expand a node and select a child record as the target record.
The target child record appears next to the Merge Preview column. The remaining child records appear in the other columns.
Tip: If the record shows a pending status, the record cannot be merged with other records.
2. Select the duplicate child records that you want to merge with the target child record.
Tip: If the record shows a pending status, you cannot select the record to merge with other records.
The **Merge Preview** column shows the result of merging the target child record with the duplicate child records.
3. If the target child record can be further expanded, then expand the record and select the node that is exposed.
All the fields of the child records are displayed.
4. Repeat the process on the remaining child records. Optionally, you can perform the same process on descendant records.
5. Click **Merge**.
6. In the **Merge Duplicates** dialog box, confirm the merge.
A manual merge request is saved in an internal change list.

Merging Duplicate Records

After you identify the duplicate records and finalize the best version of the truth, you can merge the duplicate records.

1. Optionally, preview the result of merging the records.
 - a. Click **Preview**.
The **Record Preview** appears.
 - b. Review the record.
 - c. To return to the **Matching Records** view, click **Back**.
2. Merge the duplicate records manually or queue the duplicate records for an Automerge job.
 - To manually merge the duplicate records, click **Merge**.

Based on your user role privileges, one of the following actions occur:

User Role Privilege	Result
Requires a review process to merge records	The duplicate records that you selected go through the merge review workflow. The records remain in the active state, but the records are merged only after the merge proposal is approved.
Does not require a review process to merge records	The duplicate records that you selected are merged into a single record and remain in the active state.

- To automatically merge the duplicate records, click the **Actions** menu, and then click **Queue for Merge**.

The records are queued for merge, and the records merge when the Automerge job runs. The Automerge job is run by the MDM administrator.

Note: If your user role does not have the privileges to merge records, the **Queue for Merge** menu item is not available.

RELATED TOPICS:

- [“Establish the Best Version of the Truth” on page 66](#)
- [“Identifying Duplicate Parent Records” on page 60](#)

Resolving Duplicate Child Records in a Single Record

To resolve duplicate child records within a single record, open the record in the **Matching Records** view. Do not select any other records.

1. Open the record that has duplicate child records, and then, from the **View** list, select the name of the **Matching Records** view.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

The record appears in the **Matching Records** view.

2. In the **Navigate** panel, expand a node and select a child record as the target record.

The target child record appears next to the **Merge Preview** column. The remaining child records appear in the other columns.

3. Select the duplicate child records that you want to merge with the target child record.

The **Merge Preview** column shows the result of merging the target child record with the duplicate child records. The most trustworthy field values are highlighted. The highlighted values appear in the Merge Preview column.

4. Review the values in the **Merge Preview** column.

5. If an incorrect value is displayed in the **Merge Preview** column, review the values for the field in the matching records, and perform one of the following actions:

Action	Description
Click the correct value	The correct value appears in the Merge Preview column. Data Director promotes the correct value over the incorrect value.
Enter the correct value in the Merge Preview column	Data Director overrides the incorrect value with the value that you enter in the Merge Preview column. Note: You can only edit fields for which you have edit privileges.

6. Repeat the process on the remaining child records. Optionally, you can perform the same process on descendant records.
7. Merge the duplicate records manually or queue the duplicate records for an Automerge job.

- To manually merge the duplicate records, click **Merge**.

Based on your user role privileges, one of the following actions occur:

User Role Type	Outcome
Requires a review process to merge records	The duplicate records that you selected go through the merge review workflow. The records remain in the active state, but the records are merged only after the merge proposal is approved.
Does not require a review process to merge records	The duplicate records that you selected are merged into a single record and remain in the active state.

- To automatically merge the duplicate child records, click the **Actions** menu, and then click **Queue for Merge**.

The child records are queued for merge, and the records merge when the Automerge job runs. The Automerge job is run by the MDM administrator.

Note: If your user role does not have the privileges to merge records, the **Queue for Merge** menu item is not available.

CHAPTER 7

Establishing the Best Version of the Truth

This chapter includes the following topics:

- [Master Records and the Best Version of the Truth, 65](#)
- [Scenario, 65](#)
- [Establish the Best Version of the Truth, 66](#)
- [Unmerge Cross-reference Records, 67](#)

Master Records and the Best Version of the Truth

Master records in the MDM Hub maintain the best version of the truth. The MDM Hub consolidates the most trustworthy data from several source systems into each master record to achieve the best version of the truth.

The MDM Hub stores source data in cross-reference records. In the **Cross-reference Records** view, a data steward can examine these cross-reference records and investigate which source data contributes to the master record. Data stewards can then make adjustments to how source data is consolidated to ensure that the master record represents the best version of the truth.

The MDM Hub calculates a trust score for the fields in the cross-reference records. The trust calculation is based on settings and rules that are established by an administrator. For more information about configuring the rules that govern trust score calculations, see the *Multidomain MDM Configuration Guide*.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Scenario

A data steward investigates why customer data in a master record does not represent the best version of the truth.

The phone number for a customer has recently changed to 555-5555. None of the cross-reference records contain this phone number, so the data steward selects the phone number field in the master record and enters the correct phone number.

A master record for a customer record shows the middle name of a customer as 'Stacy'. In fact, the correct spelling of the middle name is 'Stacey'. The data steward sees that a cross-reference record contains the correct spelling but does not contribute to the master record. The data steward selects the field with the correct spelling as the contributor to the master record.

The master record that represents Joe Smith actually contains two cross-reference records that represent customers who are not Joe Smith. The data steward unmerges these two mismatched cross-reference records from the master record representing Joe Smith. Master records are created from the unmerged cross-reference records.

Establish the Best Version of the Truth

Data stewards can use the **Cross-reference Records** view to examine the composition of the master record. Data stewards can then make adjustments to ensure the master record genuinely represents the best version of the truth.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

If the most trusted fields do not contain the best data, a data steward can perform the following actions to establish the best version of the truth:

Action	Description	How-to
Enter the correct value	If the correct value does not exist in any cross-reference record, a data steward can enter the correct value in the master record.	Click the incorrect value in the Master Record column, and then enter the correct value. Press Enter, and then click Save.
Select the correct contributing field	If the field with the highest trust score does not contain the best version of the truth, a data steward can select the field that does contain the correct data to contribute the data to the master record.	Click the field that contains the correct data. Click Save
Remove mismatched source data	If a cross-reference record should not be associated with a particular master record, a data steward can unmerge the cross-reference record. A new master record is created from the unmerged cross-reference record.	Select the checkbox for the cross-reference records that contain the mismatched data, and then click Unmerge . For more information about unmerging, see "Unmerge Cross-reference Records" on page 67 .

The following image shows the ways in which data stewards can establish the best version of the truth:

Source primary key	Master Record	SFA	Admin
Last updated on	35174034284	2008-08-12 02:15:02	329
Record state	Active	Active	2016-08-29 06:34:37
Party Type:	Person	Person	Person
Last Name:	JOSHI	JOSHI	JOSHI
Display Name:	ALOK JOSHI	ALOK JOSHI	ALOK E JOSHI
Middle Name:	Emi		E
Birthdate:	2016-08-05 16:33:35		2016-08-05 16:33:35
First Name:	ALOK	ALOK	ALOK

1. Enter the correct value
2. Select the correct contributing field
3. Select a cross-reference record to unmerge

Unmerge Cross-reference Records

If a cross-reference record should not be associated with a particular master record, a data steward can unmerge the cross-reference record. A new master records is created from the unmerged cross-reference record.

The following illustration shows the unmerge behaviour when a cross-reference record is unmerged from a master record that is comprised of five cross-reference records:



CHAPTER 8

Investigating Data Changes

This chapter includes the following topics:

- [Investigating Data Changes Overview, 68](#)
- [Investigating Data Changes Scenario, 68](#)
- [Comparing Data Before and After Events, 69](#)

Investigating Data Changes Overview

You can compare the best version of the truth at different moments in time for a particular record. If you suspect that the data in the record has changed inappropriately, you can use the **History** view to identify the data event that caused the data change.

The **History** view displays a chronology of data changes over the lifespan of the record. You can view the data that existed in the record at any point in time in the chronology. View the data before a data event and after a data event to determine if the event caused the inappropriate data change. A data event is any action that changes the data in a record, such as an edit or a merge operation.

Investigating Data Changes Scenario

A customer reports that he recently changed his email address and he wants to confirm that you have his current contact details. You look in the **History** view for the record that represents this customer.

The customer stated that he changed his address in October of the current year, so you look for data events in the **History** view chronology that occurred around that time. You see that multiple data events occurred in October for the record that represents the customer. You navigate to the Email child record and compare the data before and after the data events. You see that the new email address for the customer was added. After further investigation, you see that the middle name of the customer was added.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Comparing Data Before and After Events

Use the **History** view to compare changes to master data.

1. With the record open, from the **View** list, select **History**.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

The **History** view opens. Changes to the record appear on the timeline.

2. Optionally, select filters to show or hide different types of events.
3. Optionally, select a time unit to group data events. To do this, click **Options** and choose a different timescale. For example, select **M** to select a monthly timescale.

The following image shows data events grouped under the month of October:

SMITH,JOHN View: History

> History

Options

From: 2016-01-01 03:00 To: 2016-10-05 15:52

2017-01-01 03:00 AM

Oct 5, 2016 3:52:04 PM
Details
Updated by: admin

Oct 5, 2016 3:51:40 PM
Details
Updated by: admin

Oct 5, 2016 3:51:40 PM
Email

Oct 5, 2016 3:52:04 PM
Email
Updated by: admin

Email Oct 5, 2016 Base object event

	Before	After
Consolidation Ind:	4	4
Created by:	admin	admin
Updated By:	admin	admin
Last updated on:	2016-10-05T12:31:40.903-07...	2016-10-05T12:52:04.802...
Last Rowid System:	SYSO	SYSO
Hub State Ind:	1	1
Rowid Object:	140881	140881
Created on:	2016-10-05T12:50:55.819-07...	2016-10-05T12:50:55.819...
Electronic Address:	jsmith@example.com	jxsmith88@example.com

4. Click the event labeled **Email**.

The event details panel shows the record details before and after the event and the time when the record was updated. In this example, the email address has changed from `jsmith@example.com` to `jxsmith88@example.com`.

5. Click the event labeled **SMITH, JOHN**.

The following image shows that the display name of the record changed from John Smith to John Xavier

SMITH,JOHN View: History

> History

From: 2016-01-01 03:00 To: 2016-10-05 15:52

2017-01-01 03:00 AM

Oct 5, 2016 3:52:04 PM
Details
Updated by: admin

Oct 5, 2016 3:51:40 PM
Details
Updated by: admin

Oct 5, 2016 3:52:04 PM
Email
Updated by: admin

Oct 5, 2016 3:51:40 PM
Email

Email Oct 5, 2016 Base object event

	Before	After
Consolidation Id:	4	4
Created by:	admin	admin
Updated By:	admin	admin
Last updated on:	2016-10-05T12:51:40.903-07...	2016-10-05T12:52:04.802...
Last Rowid System:	SYS0	SYS0
Hub State Id:	1	1
Rowid Object:	140881	140881
Created on:	2016-10-05T12:50:55.819-07...	2016-10-05T12:50:55.819...
Electronic Address:	jsmith@example.com	jsmith@example.com

Smith.

CHAPTER 9

Investigating Data Change Events for Effective Periods

This chapter includes the following topics:

- [Investigating Data Change Events for Effective Periods Overview, 71](#)
- [Investigating Data Change Events Scenario, 71](#)
- [Viewing Data Change Events, 72](#)
- [Adding Data Change Events, 73](#)
- [Removing Data Change Events, 73](#)

Investigating Data Change Events for Effective Periods Overview

A data change event is a change to data such as marital status, address, and phone number that is effective for a time period. Records can have multiple data change events. Use the **Timeline** view to investigate data change events of records.

The changes to data result in new effective periods or updates to an existing or a future effective period. You can use the **Timeline** view to view changes to data over a period of time. Also, you can add and remove data change events to and from the timeline. To manage the data change events, use the **Business Entity** view or the **Data** view.

Note: The **Timeline** view is available only to customers who upgraded from the subject area model to the business entity model. If timeline is enabled for base objects in the MDM Hub Store, the **Timeline** view is available for business entities that belong to the base objects.

Investigating Data Change Events Scenario

Your organization wants to renew and also offer a new insurance package to Alex Sam. To offer a suitable package, you need to investigate the data change events for the record for Alex Sam.

You open the record for Alex Sam in the Timeline view. You specify a specific point in time for which you want to view the data change events for Alex Sam. The data change events that occurred up to the date you specify appear in the Timeline view. You select data change events and view the details. You find that in the

past, Alex Sam was single and went by the name Alex Johns. You now have the information that will help you offer a suitable insurance package that will benefit Alex and the organization.

Viewing Data Change Events

You can view the data change events for a record in the **Timeline** view.

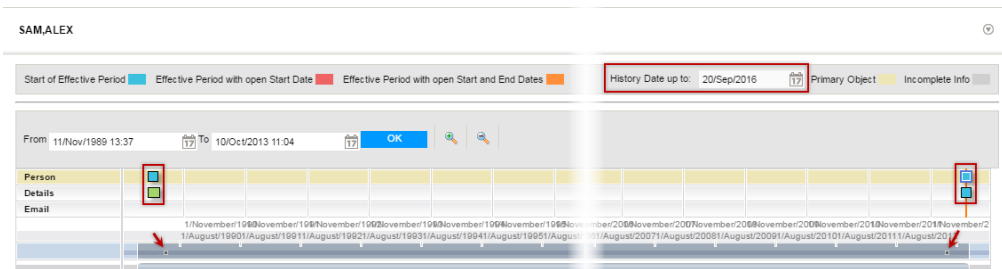
1. Open a record.
2. From the View list, click **Timeline**.

The record opens in the **Timeline** view. The data change events of the record that occur up to the current date appear in the view.

3. Optionally, to identify the data change events that occurred up to a specific point in time other than the current date, use the calendar in the **History date up to** field to select a date.

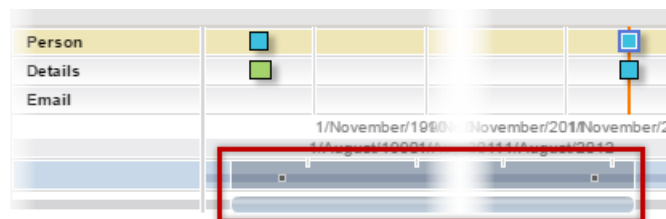
The data change events that occur up to the specified point in time for the record appear.

The following image shows the data change events that occurred up to September 20, 2016 for the record, Alex Sam:



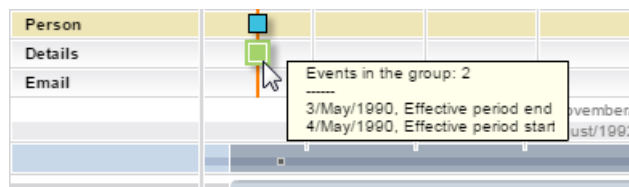
4. To move into view the portion of the timeline that has the data change events that you want to inspect, enter a date range or use the slider.

The following image shows a portion of the timeline with data change events and the corresponding slider adjustment:



5. To view the details of the data change events, move the pointer over the squares.

The following image shows the details of two data change events:



4. To remove a data change event, right-click the event, and then click **Remove record from timeline**.
The data change event is removed from the timeline.

Part II: Data Director with Subject Areas

This part contains the following chapters:

- [Adding Subject Area Records, 76](#)
- [Investigating Data Changes in the History View \(Legacy\), 79](#)
- [Merging Records in the Matches View, 84](#)
- [Unmerging Records in the XREF View, 90](#)
- [Search Queries from the Data Tab, 96](#)
- [Working with Records in the Data Tab, 107](#)
- [Investigating Timeline Data in the Effective Periods View, 114](#)
- [Importing Data, 118](#)

CHAPTER 10

Adding Subject Area Records

This chapter includes the following topics:

- [Adding Records in the Data View Overview, 76](#)
- [Creating Records in the Data View, 77](#)

Adding Records in the Data View Overview

To create records based on a subject area, use the **New** tab with the **Subject Area** option and select a subject area.

Note: To use the **New** tab, your user role must include the Create permission for subject areas.

Note: In the **New** window, if you see both the **Business Entity** option and **Subject Area** option, ask the MDM administrator which one to use. The **Business Entity** option opens an entity tab while the **Subject Area** option opens the **Data** tab.

Example of Adding Subject Areas in the Data View

You are an insurance agent for a large insurance company. You have a new customer, Anthony Lomax, on the phone. You want to add Mr. Lomax to the database.

To add Anthony Lomax, you perform the following steps:

1. You check for an existing record by running a search. The search returns no results.
2. In the navigation bar, click **New**. In the **New** window, select **Person** as the subject area.
3. In the Data view, you type in Mr. Lomax's information in the form.

Creating Records in the Data View

To add a record based on a subject area, start from the **New** tab and select the subject area. The MDM administrator defines the subject areas and the types of data that you need to enter for the subject area.

1. In the navigation bar, click **New**. In the **New** window, select a subject area.
For example, the application for an insurance company defines a Person subject area within a Customer subject area group. To add Anthony Lomax as a customer, a business user clicks **New** and then selects **Customer > Person**.

The **Data** tab contains a **New Person** tab with an empty data entry form. A field name with a red asterisk indicates a required field.

2. For each required field, click the field and type the value.
3. For each optional field for which you have data, click the field and type the value.
4. Optionally, type the URL to an image file in the **image_url** field. For best results, link to an image that is a maximum of 200 x 200 pixels.

Note: For images, the MDM Hub stores the URL, not the file. If the location of the file changes, you must update the URL.

The following image shows some data for a record:

The screenshot shows the 'New Person' data entry form. The 'Data' tab is selected in the navigation bar. The form contains the following fields and values:

Field Name	Value
image_url	http://abc.com/images/lomax_anthony.png
Middle Name	
Generation Suffix Cd	X
Gender Cd	
Preferred Phone	
Fboat_fld	
Address	
Marital Status	SEPARATEC
Birth State	
Criminal Record	No
Ethnicity Type	
Primary Language	English
Remarks	
Name Prefix Cd	
Last Name *	Lomax
Birthdate	10/Aug/1965
Tax ID	
Int_fld	
First Name *	Anthony
Display Name	
Bood_fld	
Nickname	Tony
Birth Last Name	Lomax
Birth Country Cd	
Death Date	
Is Employee Ind	
Eff Start Date	3/Jul/2015 12:00
Eff End Date	
Job Title	Manager
Birth City	
Birth Postal Cd	
Education Level Cd	
Is VIP Ind	
Eff End Date	

5. Click **Apply**.
The application validates the data. If there are errors, correct them.
6. Add data to sections in the **Data** view.
 - a. Expand a section, such as **Address** or **Telephones**.
 - b. Click the **Add** icon.
 - c. Fill in the fields.

The following image shows the **Telephones** section:

The screenshot shows a web-based form for adding a telephone record. At the top, there is a yellow banner with an information icon and the text "This entity has been created but it is not saved!". Below this, the form fields are as follows:

Field Name	Value
Phone Country Cd	
Phone Number	555-1234
Phone Ext Number	1212
Is Valid Ind	<input checked="" type="checkbox"/> Enable
Eff Start Date	10/Aug/2015 12:00
Eff End Date	
Do Not Call Ind	
Phone Type	HOME

At the bottom of the form, it says "Record 1 of 1" with navigation arrows. A blue "Apply" button is located in the top right corner of the form area.

- d. Click **Apply**.
7. If you need to change the value of a field, click the **Edit** icon, edit the fields, and click **Apply**.
8. After you finish adding data, save the data.
 - If your user role permits you to save data without a review, click **Save**. The application saves the record to the MDM Hub Store in active records.
 - Otherwise, click **Send for Approval**. In the **Create Task** dialog box, review the task details, edit the details as required, and click **OK**. The application saves the record in pending records and initiates a review process.

CHAPTER 11

Investigating Data Changes in the History View (Legacy)

This chapter includes the following topics:

- [Investigating Data Changes Overview, 79](#)
- [Opening the History View, 80](#)
- [Viewing Data Events in the History View Chronology, 80](#)
- [Comparing Data Before and After Data Events, 81](#)

Investigating Data Changes Overview

You can compare the best version of the truth at different moments in time for a particular record. If you suspect that the data in the record has changed inappropriately, you can use the **History** view to identify the data event that caused the data change.

The **History** view displays a chronology of data changes over the lifespan of the record. You can view the data that existed in the record at any point in time in the chronology. View the data before a data event and after a data event to determine if the event caused the inappropriate data change. A data event is any action that changes the data in a record, such as an edit or a merge operation.

Scenario for Investigating Data Changes

A customer reports that they recently began receiving electricity bills for a property that does not belong to them. You suspect that the record that represents this customer was updated inappropriately. You look in the **History** view for the customer to determine which data event caused the problem.

The customer stated that the billing issue started in June of the current year, so you look for data events in the **History** view chronology that occurred around that time. You see that the record was merged in June. You compare the data before the merge and after the merge. A record for customer Joe Smith was merged with a record for customer John Smith. These records should be two distinct records because they represent two different customers.

Opening the History View

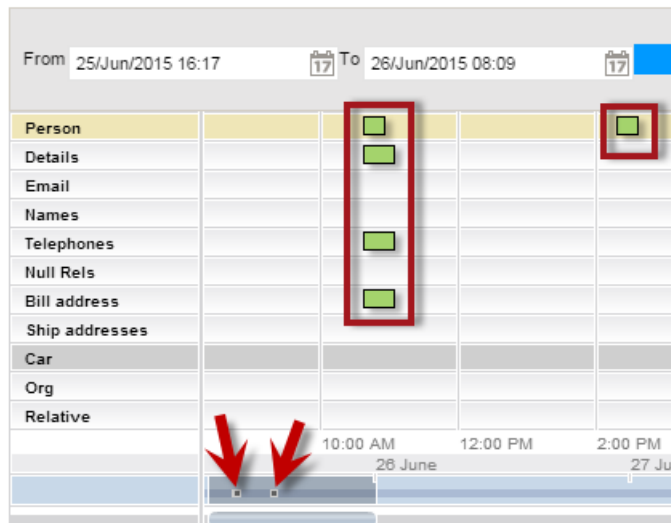
Use the **History** view to investigate changes to master data.

- ▶ To open a record in the **History** view, perform one of the following actions:
 - In a **Search** tab that displays search results, select a record. Click **Actions > History**.
 - Open a record and click the **History** icon.
- The **History** view opens. Changes to the record appear on the timeline.

Viewing Data Events in the History View Chronology

Data events appear on the chronology as squares. Identify when data events occurred, and then use the slider to move the relevant portion of the chronology into view.

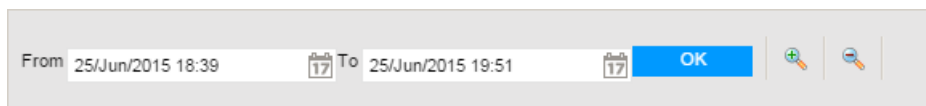
1. Identify the data events that have occurred over the lifespan of the record.
On the chronology slider, data events appear as black squares.



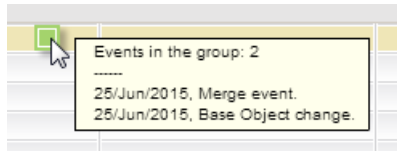
2. Move the scroll box to bring the data event you want to inspect into view.



3. Enter a date range or zoom in or out to adjust the **History** view to a convenient time scale.



4. Move the pointer over the squares to view the details of the data event.

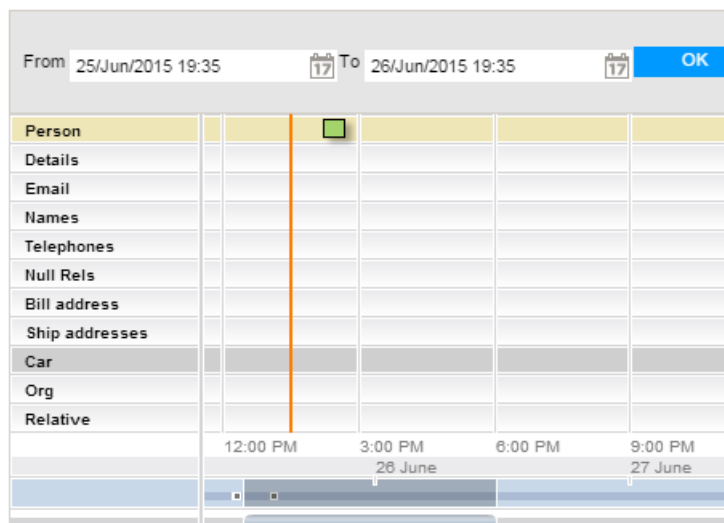


Comparing Data Before and After Data Events

You can view the best version of the truth for a record at a specific points in time, and then compare the differences. View the data before and after a data event to determine how the data event affected the data in the record.

1. To view the data as it existed before a data event, position your pointer in the chronology to the left of the data event, right-click, and click **View Entity Details**.

An orange line appears in the chronology to indicate the point in the chronology for which you are viewing data.



2. Below the chronology, examine the record data for that point in time.

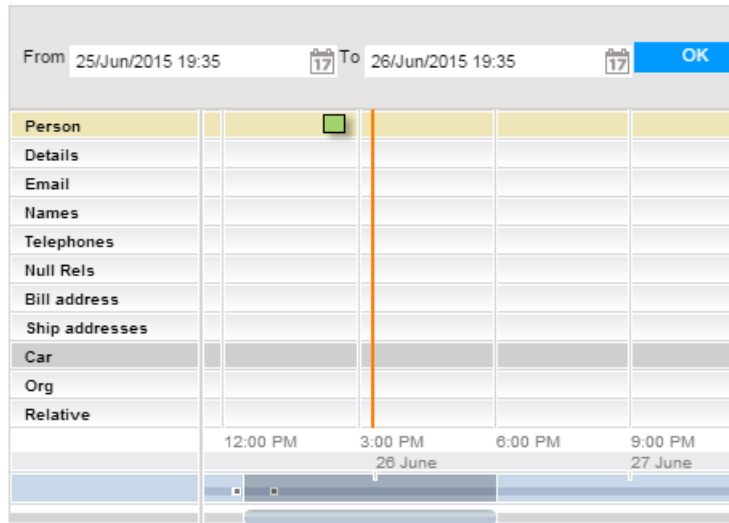
The date for which the data is effective appears in the top leftmost side of the view.

History: 25/Jun/2015 21:32:07

SMITH,JOE		Names	Telephones	Relationships	Bill address
Name Prefix Cd	MR			First Name	JOE
Last Name	SMITH				
Generation Suffix Cd				Birthdate	25/Jun/2015
Gender Cd				Tax ID	
Preferred Phone	555 (444-4444)			Int_flg	
Float_flg					
Address	10 MILL STREET,			Nickname	
Marital Status	MARRIED			Birth Last Name	

3. To view the data in a record as the data existed after a data event, right-click the chronology to the right of the data event. Click **View Entity Details**.

An orange line appears in the chronology to indicate the point in the chronology for which you are viewing data.



History: 25/Jun/2015 23:20.49

SMITH,JOHN		Names	Telephones	Relationships	Bill address
Name Prefix Cd	MR			First Name	JOHN
Last Name	SMITH			Birthdate	14/Jun/1962
Generation Suffix Cd				Tax ID	
Gender Cd	MALE			Int_fld	
Preferred Phone	555 (111-1111)			Float_fld	
Address	10 MILL STREET,			Nickname	
Marital Status	MARRIED			Birth Last Name	

The **History** view displays the record data for that date below the chronology.

4. Examine the record data for that point in time and note any differences from the data that existed before the data event.

CHAPTER 12

Merging Records in the Matches View

This chapter includes the following topics:

- [Merging Records Overview, 84](#)
- [Opening the Match Merge Comparison View, 86](#)
- [Selecting Merge Candidates, 86](#)
- [Overriding the Merge Preview Results, 87](#)
- [Sending a Merge Proposal for Review, 88](#)

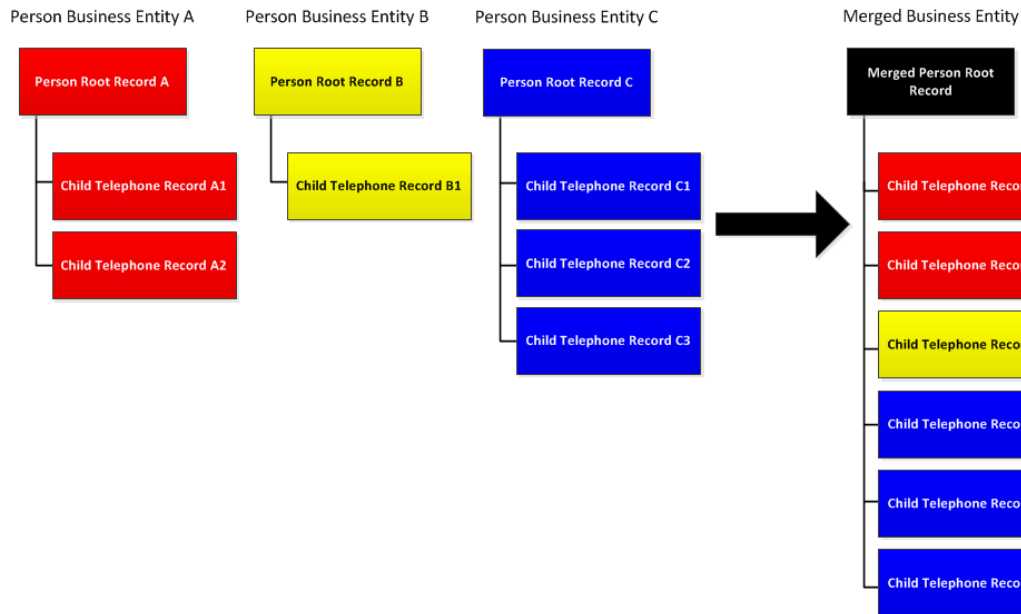
Merging Records Overview

You can merge two or more records that contain data for the same record, such as a customer, into a single consolidated record. The record that results from the merge represents the best version of the truth for that record.

Before you merge similar records, you can view the matches for the record in the **Matches** view. When you open a record in the **Matches** view, the SearchMatch API searches for matching records based on the match columns and rule definitions. The IDD application displays the matching record that the SearchMatch API retrieves and the matching record from the matches table.

When you merge record, the root records of the record are consolidated into a single root record. The child records from each of the root records become child records of the merged root record.

The following image shows the effect of a merge on the root records and child records:



You can open a record in the **Match Merge Comparison** view. You can view similar records that are potential matches. You can then select records that are potential matches as merge candidates. You can preview the result of a merge between the record and the merge candidates that you select.

If you want to change the winning field value, select a winning field from a different record or manually enter a new value for a field. After you are satisfied that the values in the Merge Preview column are the most correct, you can send the proposed merge for approval.

Example of Merging Records

You are on the phone with a customer. When you open the record, you see similar records that potentially represent the same customer. You select potential matches as merge candidates, and then preview the result of the merge.

The merge preview looks good, except that you confirm with the customer that the following values are incorrect:

- The records contain two different birth dates for the customer: 23 June 1970 and 19 June 1970. Informatica Data Director selects 23 June 1970 as the correct birthday, but the customer's birthday is 19 June 1970. You manually select 19 June 1970 as the correct birth date.
- The customer mentions that the spelling of the first name that you have on file is incorrect. You override the merge result for the first name and manually enter the correct spelling.

After you are satisfied that the merge preview represents the best version of the truth, you send the proposed merge for review.

Opening the Match Merge Comparison View

Use the **Match Merge Comparison** view to investigate records with similar data.

- ▶ To open a record in the **Match Merge Comparison** view, perform one of the following actions:
 - In a **Search** tab that displays search results, select two or more records. Click **Actions > Compare**.
 - Open a record and click the **Matches** icon.

The **Match Merge Comparison** view opens. Potential matches for the record appear with a merge preview.

Selecting Merge Candidates

You can use the **Match Merge Comparison** view to see if Data Director has identified any records that potentially match another record. You can then select the potential matches as merge candidates.

The **Match Merge Comparison** view displays the values for the record to which you are comparing in the left hand column. Any records that are potential matches appear in columns to the right of the current record. The merge preview shows the values for the record that would result if you merged the current record with any records that you have selected as merge candidates. When the **Match Merge Comparison** view first appears, the potential matches are not selected as merge candidates.

1. In the **Match Merge Comparison** view, review the values in the potential matches.
2. Select the check box for each record that you determine is a duplicate of the current record.

	JOSHI,ALOK	<input checked="" type="checkbox"/> 1. JOSHI,ALOK Match Score: 100
General	current record	IDL_12
Name Prefix Cd	DR	DR
First Name *	ALOK	ALOK
Middle Name		E
Last Name *	JOSHI	JOSHI

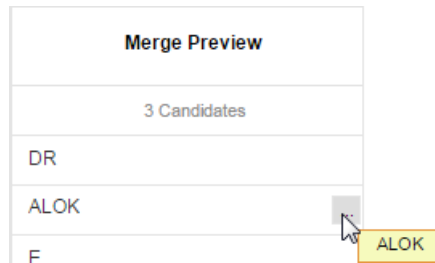
The Merge Preview column displays the record that would result from a merge of the current record and the records that you selected as merge candidates. The highlighted fields contribute data to the preview of the merged record.

	JOSHI,ALOK	<input checked="" type="checkbox"/> 1. JOSHI,ALOK Match Score: 100	<input checked="" type="checkbox"/> 2. JOSHI,ALOK Match Score: 100	<input checked="" type="checkbox"/> 3. JOSHI,ALOK Match Score: 100	Merge Preview
General	current record	IDL_12	IDL_12	IDL_12	3 Candidates
Name Prefix Cd	DR	DR			DR
First Name *	ALOK	ALOK	ALOK	ALOK	ALOK
Middle Name		E			E
Last Name *	JOSHI	JOSHI	JOSHI	JOSHI	JOSHI
Generation Suffix Cd					
Birthdate			19/Jun/2015		19/Jun/2015
Gender Cd	FEMALE	FEMALE	FEMALE		FEMALE
Tax ID					
Display Name	ALOK JOSHI	ALOK JOSHI	ALOK JOSHI	ALOK JOSHI	ALOK JOSHI
Preferred Phone	555 (666-6666)		555 (444-4444)		555 (444-4444)

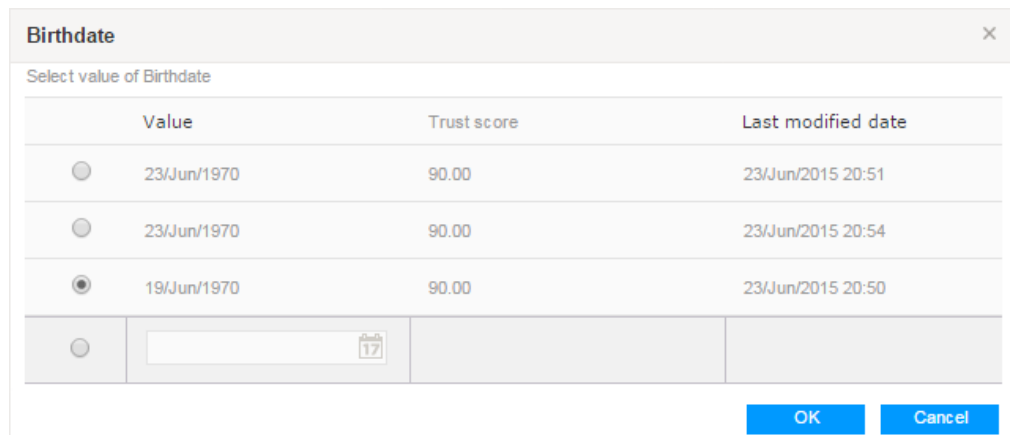
Overriding the Merge Preview Results

Informatica Data Director determines which field contains the best version of the truth based on the trust score of the field. The field with the highest trust score is considered the most trustworthy. The trust calculations are configured in the MDM Hub Console. You can manually select or enter a value to override the trust calculation.

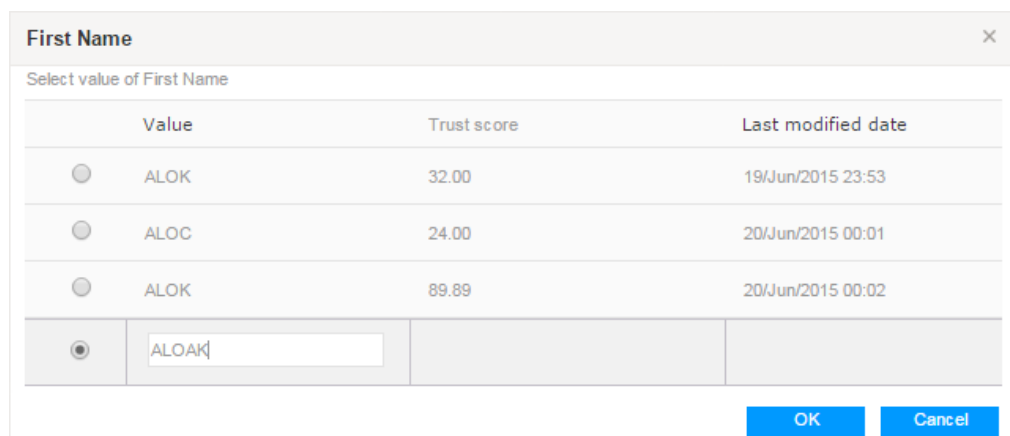
1. In the Merge Preview column, move the pointer over the right-side of a field to reveal the **Trust Override** button.



2. Click the **Trust Override** button.
A dialog box opens. The name of the field appears in the title bar of the dialog box.
3. To choose the value that is the most trustworthy, select the value.



4. To enter a new value, select the empty field, and then enter the new value.



5. Click **OK**.

The values you selected and entered are considered to be the most trustworthy and appear in the preview of the merged record.

Sending a Merge Proposal for Review

After you are satisfied with the merge results that appear in the Merge Preview column, you can send the merge proposal for review.

1. Ensure you are satisfied with the results in the Merge Preview column.
2. Click **Actions > Create Merge Task**.
3. In the **Title** field, enter a meaningful title for the merge task.

For example, enter Merge A. Joshi.

File Name	Attached By	Date Attached
castor.properties	admin	15/Mar/2018

4. Change any default task attributes.
5. Optionally, add comments or attachments for the task reviewer.

Note: The **File Attachments** section is available only if your IDD global properties are configured to enable attachments for tasks. For more information, see the *Multidomain MDM Data Director Implementation Guide*.

6. Click **OK**.

A merge review process begins.

CHAPTER 13

Unmerging Records in the XREF View

This chapter includes the following topics:

- [Unmerging Records Overview, 90](#)
- [Opening the XREF View, 93](#)
- [Sending an Unmerge Proposal for Review, 94](#)

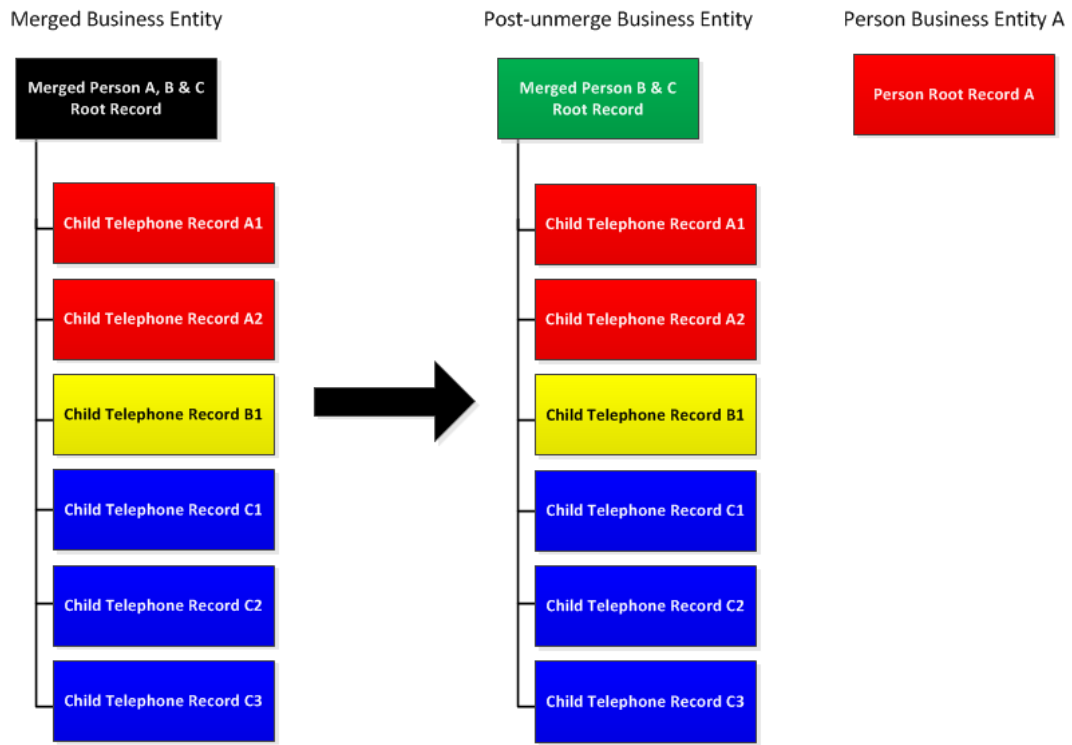
Unmerging Records Overview

You can unmerge a record that was merged with another record. Use the **XREF** view to see the records that contribute to the best version of the truth for a record. If you identify a cross-reference record that should not be merged with the record, you can unmerge the record if you have permission or you can create an unmerge task. You can unmerge the cross-reference record only or you can unmerge the cross-reference record with lineage.

When you unmerge the cross-reference record only, the child records that were associated with the cross-reference record you unmerge continue to be associated with the merged record.

The following image shows the result when you unmerge the cross-reference record only:

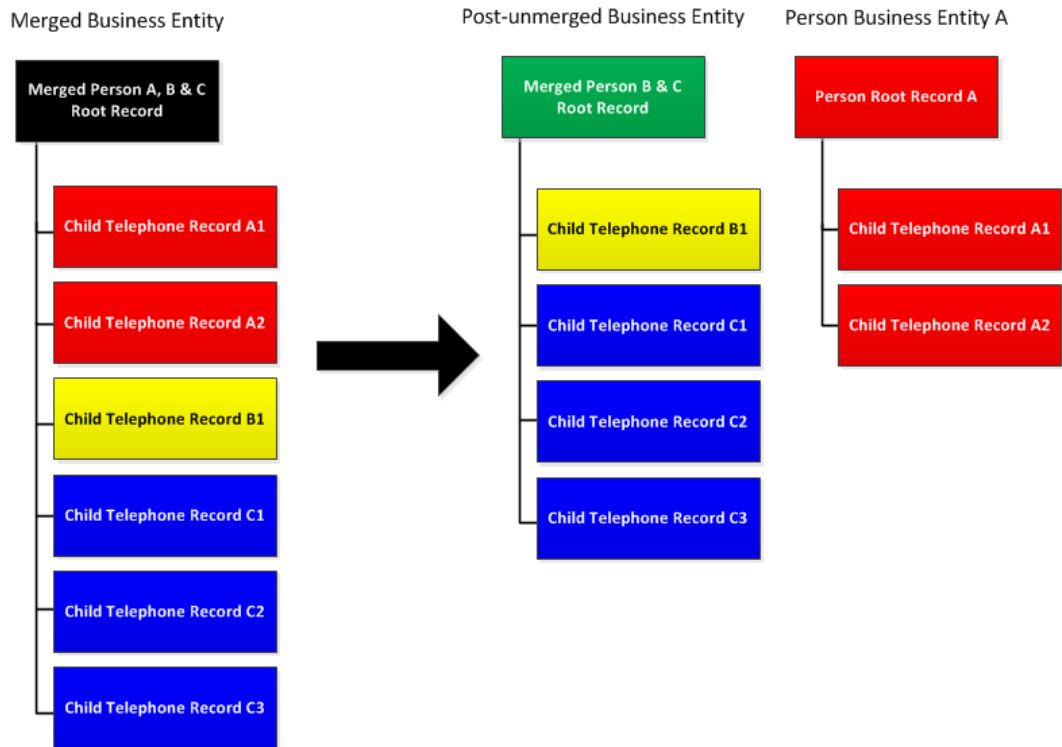
Unmerge Cross-reference Only



When you unmerge the cross-reference record with lineage, the child records are associated with the unmerged record, just as they were before the merge.

The following image shows the result when you unmerge the cross-reference with lineage:

Unmerge Cross-reference with Lineage



You can unmerge record in the **XREF** view. The cross-reference view shows the best version of the truth for the record and the cross-reference records that have merged with the record. The cross-reference records are organized by the source system from which they originated. The highlighted fields show which values contribute to the best version of the truth. You can select a cross-reference record and create an unmerge task for the record to be unmerged from the record.

The following image shows the **XREF** view:

SMITH,JOHN

Save Cancel

SMITH,JOHN Details

Name Prefix Cd: MR
 First Name: JOHN
 Middle Name:
 Last Name: SMITH
 Generation Suffix Cd:
 Birthdate: 14/Jun/1962
 Gender Cd: MALE
 Tax ID:
 Display Name: JOHN SMITH
 Preferred Phone: 555 (111-1111)
 Int_flg:
 Bool_flg:
 Float_flg:
 Source Systems: Show only records with trusted values Show pending cross-references [Expand All](#) [Collapse All](#)
 Source System: Admin
 Customize Table

PKEY_SRC_OBJECT	Name Prefix	First Name	Last Name	Birthdate	Gender Cd
6616000044000		JOHN	SMITH	14/Jun/1962	MALE
6616000037000	MR	JOE	SMITH	25/Jun/2015	

1. Best version of the truth
2. Contributing cross-reference records

Example of Unmerging Record

You realize that two records should not be merged into a single record. You want to undo the merge operation.

You look at the record in the **XREF** view to see which cross-reference records should be unmerged. One cross-reference record represents Joe Smith and the other cross-reference record represents John Smith. The child record contains address information that applies to Joe Smith. You create an unmerge task and recommend to the task reviewer that the cross-reference record be unmerged with lineage. Unmerge with lineage associates the appropriate address records with the unmerged record.

Opening the XREF View

Use the **XREF** view to unmerge merged records. You can also view the source systems and pending cross-reference records.

- ▶ To open a record in the **XREF** view, open a record and click the **XREF** icon.
 The **XREF** view opens. Fields display the master data for the selected record. The source systems connected to the record appear below the fields.

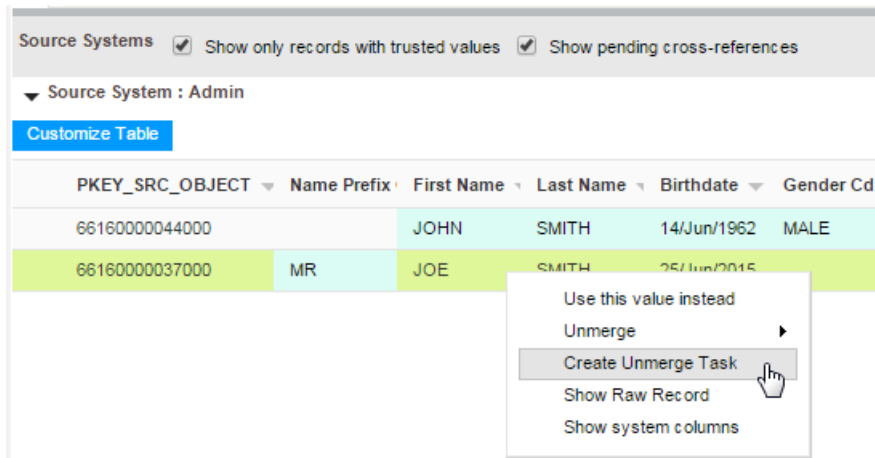
Sending an Unmerge Proposal for Review

Use the **XREF** view to examine the cross-reference records that are consolidated into a record. You can select a cross-reference record to unmerge.

1. View the record in the **XREF** view.
2. Examine the cross-reference records in the lower half of the view. Identify the cross-reference record to unmerge.

You can click the **Details** tab to view child record data.

3. Right-click the cross-reference record and select **Create Unmerge Task**.



The **Create Task** dialog box opens.

4. In the **Title** field, enter a meaningful title for the merge task.

For example, enter Unmerge Joe Smith from John Smith.

Create Task

Title
Unmerge Joe Smith from John Smith

Priority Normal **Due Date** 22/Mar/2018

Type Unmerge **Subject Area** Person

Assign To
(Auto assign)

File Attachments

File Name	Attached By	Date Attached	
castor.properties	admin	15/Mar/2018	

Attach a File

Add Comments
I recommend an unmerge with lineage.

5. Change any default task attributes.
6. Optionally, add comments or attachments for the task reviewer.

Note: The **File Attachments** section is available only if your IDD global properties are configured to enable attachments for tasks. For more information, see the *Multidomain MDM Data Director Implementation Guide*.

7. Click **OK**.

An unmerge review process begins.

CHAPTER 14

Search Queries from the Data Tab

This chapter includes the following topics:

- [Search Queries from the Data Tab Overview, 96](#)
- [Types of Searches, 96](#)
- [Basic and Extended Search Queries, 97](#)
- [Advanced Search Queries, 99](#)
- [Search Results, 102](#)
- [Saved Search Queries, 103](#)

Search Queries from the Data Tab Overview

Use the **Search Form** to run a search query in the **Data** tab. When you run a query, a search tab opens with the search results. Each search tab is labeled by the search query name, so that you can distinguish each search action. You can open multiple search tabs to perform different types of data search within subject areas and across subject area groups.

You can search using any of the following search types: Basic, Extended, and Advanced. The current search criteria is displayed at the top of your search results for easy reference. If you use a query frequently, consider setting this as your default query. Depending on your environment, in addition to searching with a subject area, you might be able to search across all subject areas within a subject area group.

Types of Searches

In the **Data** tab, you can perform the following types of searches:

- Basic Search. Search text, with or without a wildcard.
- Extended Search. Search match-enabled attributes. Supports fuzzy logic matching.
- Advanced Search. Search using a query statement.

Basic Search

Basic Search uses simple text comparisons to retrieve data based on your search criteria. Basic Search is case sensitive, so you must be careful to use uppercase letters and lowercase letters in the way you expect

them to appear in the master data. You can use a wildcard character in place of a character that could be either uppercase or lowercase. Example: %supplies.

Note: Basic Search is not case sensitive in Microsoft SQL Server environments.

Consider using a Basic Search in the following circumstances:

- You can get reliable results by providing exact text matches and wildcard patterns (or lookup values) in your search criteria.
- You need to search on all available attributes.

Extended Search

Extended Search uses matching logic and match-enabled attributes to search for records. Extended Search is not case sensitive.

Consider using an Extended Search in the following circumstances:

- You want to expand your search because you did not get the expected results from a Basic Search.
- You want to search using fuzzy logic, which can make reliable matches by taking into account spelling variations, possible misspellings, and other differences that can make matching data non-identical. For example, using fuzzy logic, you can match on variations of the word "Street", such as "St." or "St".

If you use Extended Search, note the following restrictions:

- Fewer attributes might be available to search on. For Extended Search, you can search only on attributes that are configured as match-enabled attributes. On the Search tab, attributes that are not match-enabled are unavailable (grayed out) for search.
- If Extended Search is not available (grayed out) on the **Search** tab, it means that the selected subject area or subject area group does not have an available match-enabled attribute.
- On the **Search** tab, one attribute (identified by an asterisk) is always required.

Note:

- To optimize results and performance, you must define extended searches appropriately.
- When running an Extended Search, you can view the match score for the searched query. You can use the match score to determine how proximate the search result is when compared to the searched query. The maximum value for a match score is 100.

Advanced Search

Use the **Advanced Query Builder** to construct complex query statements.

Basic and Extended Search Queries

You can easily switch between constructing a Basic Search or an Extended Search query.

Wildcards in Basic Search

In your search criteria for Basic Search, wildcards are special search symbols that allow you to specify a text pattern instead of specific characters. You would use wildcards to increase your chances of finding the data you want, particularly if you did not know the exact text or were searching for text that is very similar.

Note: Wildcards are used in Basic Search only. They are not needed in Extended Search because searching is fuzzy by default.

IDD allows you to use two different wildcard characters

- asterisk (*)
- percent sign (%)

Their usage and effect on search is identical. These characters are interchangeable, so you can use either one.

You can use wildcards in two different ways:

Wildcard Represents	Description
Placeholder for all characters to the end	The search looks for the characters to the left of the wildcard, and accepts any characters thereafter. For example, if you specified the following search criteria for First Name: Mar* or Mar% IDD could return results for: Mary, Mark, Marilyn, Marty
Placeholder for a single character	The search accepts any single character in the position of the wildcard. For example, if you specified the following search criteria for First Name: T*m or T%m IDD could return results for: Tim, Tom

Tip: When using wildcards in Basic Search, make sure that you have positioned the wildcard character correctly. Incorrect placement can yield unexpected search results.

Specify Search Criteria

After you have an open query on the **Search** tab, you can specify the search criteria that describes the data you are looking for.

- You must specify search criteria for any required attribute, which is indicated by an asterisk (*).
- If Extended Search is not available (grayed out), it means that the selected subject area does not have available match-enabled attributes.
- If you select Extended Search, only match-enabled attributes will be available. Unavailable attributes are grayed out. You will not be able to specify search criteria for unavailable attributes.
- For Basic Search, you can use wildcards to specify text patterns for searching.
- If a selected attribute is configured as a lookup (for example, a list of countries), you will see a drop-down list of values to search on.

Note:

- For a timeline-enabled primary object, you can perform a search query for an effective date by specifying the search criteria and the effective date in the **Search** workspace.

- If you are performing a search for a timeline-enabled record and if the effective period is blank, the data in the search result is based either on the current effective date or from the base object value.
- To clear the search criteria, select **Reset** from the **Actions** menu. To clear the selection in a drop-down list, click DELETE or BACKSPACE.

Creating Basic or Extended Queries

To create a query, open the **Search Form**.

1. To open the **Search Form**, in the navigation bar, click **Data**.
2. If the **Search Form** is not visible, click **Search Form**.
3. From the **Actions** menu, click **New > Standard** for Basic and Extended queries.
4. In the **Query Builder** window, select the subject area or subject area group through which you want to search.
5. Expand the **Available Attributes** list and select the attributes that you want to include as search criteria for this query.

Based on how the application developer configured Informatica Data Director, you can search for data that is outside the selected subject area or subject area group, such as cross-reference data or other subject areas.

6. In the **Added Attributes** list, rearrange the sequence of the attributes so that they appear in the order you want in the search query screen.
7. If available, select the attribute by which you want the results table sorted, and specify a sort order of ascending or descending.
8. Click **OK**.
The query appears in the **Search** tab.
9. To use the query again, save the query before you build or open another query.

Advanced Search Queries

Use the **Advanced Query Builder** to construct complex queries using free form query text. Advanced Search provides capabilities for specify search conditions that go beyond the capabilities of standard (basic and extended) queries. Advanced search criteria are used in the query's SQL WHERE clause.

Advanced Search uses SQL syntax and supports:

- Logical operators - AND/OR/NOT
- EXIST, NOT EXISTS, and COUNT conditions
- Comparisons operators range comparison (=, >, <, >=, <=, BETWEEN)

Be sure to validate your query syntax. You cannot save a query with invalid syntax.

Logical Operators

Use logical operators when a search query contains multiple conditions.

The following table describes the operators that you can use and provides an example for each operator:

Operator	Description	Example
AND	Evaluates two conditional expressions and: <ul style="list-style-type: none">- Returns TRUE if both conditions are TRUE.- Returns FALSE if either condition is FALSE- Otherwise returns UNKNOWN.	<pre>MATCH_PATH_COMPONENT.C_MT_ADDRESS CITY_NAME = 'New York' AND COLUMN.C_PARTY ORGANIZATION_NAME = 'Informatica LLC'</pre>
OR	Evaluates two conditional expressions and: <ul style="list-style-type: none">- Returns TRUE if either condition is TRUE.- Returns FALSE if both conditions are FALSE.- Otherwise, returns UNKNOWN.	<pre>MATCH_PATH_COMPONENT.C_MT_ADDRESS CITY_NAME = 'London' OR MATCH_PATH_COMPONENT.C_MT_ADDRESS CITY_NAME = 'Paris'</pre>
NOT	Negates the conditional expression that follows. <ul style="list-style-type: none">- Returns TRUE if the following condition is FALSE.- Returns FALSE if the following condition is TRUE.- If it is UNKNOWN, it remains UNKNOWN.	<pre>MATCH_PATH_COMPONENT.C_MT_ADDRESS COUNTRY_CODE = 'USA' and NOT MATCH_PATH_COMPONENT.C_MT_ADDRESS CITY_NAME = 'Los Angeles'</pre>

Conditional Operators

Use conditional operators to restrict your search results based on a supported condition.

The following table describes the operators that you can use and provides an example for each operator:

Operator	Description	Example
EXISTS	Returns true if at least one row meets the specified condition in the subquery. NOT EXISTS is also a valid construct.	<pre>EXISTS (C_MT_PERSON_DETAILS, MATCH_PATH_COMPONENT.C_MT_PERSON_DETAILS BIRTH_CITY = 'NEW YORK')</pre>
COUNT	Returns the number of rows that meet the specified condition.	<pre>COUNT (C_MT_ADDRESS, MATCH_PATH_COMPONENT.C_MT_PARTY_ADDRESS_REL ADDRESS_TYPE = 'Shipping')</pre>

Comparison Operators

Use comparison operators when you want to restrict the search results based on the values for the attribute you search on.

The following table describes the operators that you can use and provides an example for each operator:

Operator	Description	Example
=	equals	<code>MATCH_PATH_COMPONENT.C_MT_CUSTOMER ACCOUNT_CD = '123456879'</code>
>	greater than	<code>MATCH_PATH_COMPONENT.C_MT_ADDRESS POSTAL_CD > 42000</code>
<	less than	<code>MATCH_PATH_COMPONENT.C_MT_ADDRESS POSTAL_CD < 30000</code>
>=	greater than or equals	<code>MATCH_PATH_COMPONENT.C_MT_CUSTOMER SALES >= 1000000</code>
<=	less than or equals	<code>MATCH_PATH_COMPONENT.C_MT_CUSTOMER SALES <= 1000000</code>
BETWEEN	between two values (inclusive)	<code>MATCH_PATH_COMPONENT.C_MT_ADDRESS POSTAL_CD BETWEEN 94000 AND 96000</code>

Date Syntax in Advanced Search Queries

You must use the correct syntax to ensure a query returns the expected results when the query contains date system columns.

All date system columns, such as the `CREATE_DATE` column, have a granularity of milliseconds. If you use the '=' comparison operator in a query, you must specify the date to a granularity of milliseconds.

For example, the following query does not return results for records created on August 23, 2013 because it does not specify a date with a granularity of milliseconds:

```
Person.CREATE_DATE = '23/Aug/2013'
```

To run a query for a specific date without specifying a granularity of milliseconds, you can run a query on a range for that date.

For example, the following query returns records created on August 23, 2013:

```
Person.Create Date >= '23/Aug/2013' AND Person.Create Date < '24/Aug/2013'
```

Creating Advanced Search Queries

To create an advance query, use the **Advanced Query Builder**.

1. In the navigation bar, click **Data**.
In the **Data** tab, a new tab opens with the **Search Form** displayed.
2. From the **Actions** menu, select **New > Advanced**.
The **Advanced Query Builder - New Query** dialog box opens.
3. Select the subject area that you want to search from the **Subject Area** list.
4. Select the attributes that you want to include in the search from the **Available Attributes** field.
 - To include a count for the attribute in your results, click **Insert COUNT**.

- To check for the existence of data, click **Insert EXISTS**.

When you select an attribute, the attribute appears in the **Query Filter Criteria** field.

5. Add logical operators, conditional operators, and comparison operators to the query as required.
6. Optionally, select a sort option from the **Sort Results By** list and select an ascending or descending sort order.
7. Optionally, enable **Case Insensitive** search.
8. To verify the query syntax, click **Validate Query**.
 - If the query contains syntax errors, the **Query Validation Error** dialog box opens with a description of the syntax errors. Click **Close**, correct all syntax errors, and then revalidate the query.
 - If the query does not contain syntax errors, a message confirms that the query is valid. Click **Close**.
9. Click **OK**. IDD revalidates the query to ensure no query syntax errors exist.

If IDD does not detect syntax errors, a search tab opens in the **Data** tab.

If IDD detects syntax errors, the **Query Validation Error** dialog box opens. Resolve the query issues and then click **OK** again.
10. Click **Run Search**.

The query results appear in the **Search** tab.

Example of an Advanced Search Query

```
COLUMN.C_PARTY|LAST_NAME like 'H%'
MATCH_PATH_COMPONENT.C_MT_PERSON_DETAILS|REMARKS is not NULL
COLUMN.C_PARTY|GENDER_CD = 'M'
```

Search Results

After you run a search, the search results appear in a search tab. You can open a business entity from the search results. You can also export search results.

Opening Records from Search Results

To investigate a record, you can select it from the search results and open the record in the **Data** tab. You search by using the search form in the **Data** tab, by clicking **Queries**, or by using the **Search** box in the header.

When you open a record that is timeline-enabled, specify an effective period for which to view the record. The default value in the field for the effective date is the current date. If you leave the effective date field empty, all the record versions are opened.

1. Search for the record.
2. In the search results, select the record.
3. Open the record in one of the following views:

View	Description
Data	To view and edit the record, click Open .

View	Description
Matches	To compare the record with potentially duplicate records, click Actions > Compare .
Hierarchy	To view a diagram of the relationships between records, click Open Hierarchy .
Business Entity	To view and edit the record in context with other sources of information about the record, click Entity View .

- If prompted, specify the effective period that you want to investigate.
The record opens in the view.

RELATED TOPICS:

- [“Resolving Duplicate Records” on page 55](#)

Exporting Search Results

If available in your environment, you can export all or selected search results to a CSV file.

- To export all results, click **Actions > Export > All Results**.
- To export some of the results, press the **Ctrl** key and click the records. Click **Actions > Export > Selected Results**.

Saved Search Queries

Consider saving the search queries that you expect to reuse.

To run a query, you must first open it so that it appears in the search form. You can open any available query in the list of saved queries. Available queries are queries that you have created, in addition to queries that others have made public.

You must have read privileges on the columns in the query, read privileges on the subject area, and read privileges on the package that is configured as the search package in the configuration manager tool for the subject area.

Saving Search Queries

To save a query so you can use it again, save it in the query builder. When you save a query, Informatica Data Director recognizes you as the owner of the query.

- On the Search tab, select **Save** from the **Actions** menu. If you want to save it under a different name, click **Save As** instead.
- In the Save window, you can specify a different query name.
- Indicate whether you want to make this your default query.
- Depending on your environment and role, you might have the option to mark this query as Public, which allows others to use it as well.
- Click **Save**.

Running Saved Search Queries

You run saved search queries from the **Search Form**.

1. At the top of the **Search Form**, select **Saved Queries**.
2. Select a saved query or use the default query.
3. Click **Open Query**.
4. Enter values in the fields if required for your search.
5. Click **Run Search**.

The search results appear.

Viewing Details About Saved Queries

You can view query details, such as creation date and owner.

1. At the top of the **Search Form**, select **Saved Queries**.
2. Pause over a query.
A popup window displays information about the query.

Setting Your Default Query

The default query is the query that appears when you open a Search tab. Usually, the default query is the query that you expect to use most frequently in your job. Each user can set their own default query.

By default, no default query is defined. You must explicitly designate the saved query that you want to use. You can change the default query later if you find that you are using another query more frequently.

1. At the top of the **Search Form**, select **Saved Queries**.
2. Select the query that you want to designate as the default query.
3. From the **Actions** menu, click **Set As Default**.
The query name changes to a bold font.

Renaming Saved Queries

If you created a saved query, you can change the name of the query.

1. At the top of the **Search Form**, select **Saved Queries**.
2. Right-click the query name, and then click **Rename**.
3. Type a different name.
4. Click **Save**

Editing Saved Queries

To change a query that you created, you can edit it and save the changes. You cannot edit queries that you do not own.

1. Open the query that you want to edit.
2. From the **Actions** menu in the search form, click **Edit**.
3. In the **Query Builder** window, make the changes you want.

4. Click **OK**.
5. Save your changes.

Deleting Saved Queries

It is a best practice to delete queries you no longer need. You must be the creator of the query to be able to delete it.

1. At the top of the **Search Form**, select **Saved Queries**.
2. Right-click the query name, and then click **Delete Query**.

Sharing Saved Queries

You can share queries with colleagues by making the queries public or by sharing a bookmark link.

Making Saved Queries Public

Any Informatica Data Director user can use saved public queries. Only the owner can change their public queries.

1. In the **Search Form**, select **Saved Queries**.
2. Right-click the saved query, and then click **Mark as Public / Private**.
3. To ensure that the query is public, pause on the query. In the popup window, verify that the **Visibility** setting is set to **Public**.

Sharing Query Bookmarks

To share a specific query with colleagues, copy the bookmark link and paste it in a text or email. When the user follows the bookmark link, the Informatica Data Director opens, prompts the user to log in, and then displays the bookmarked search query.

1. In the Search Form, open the query you want to share.
2. From the **Actions** menu, click **Show Bookmark**.
3. Copy the bookmark link. Share the link with another user.
The user can follow the link to view the query.

Exporting Saved Queries

When you migrate an Informatica Data Director configuration from one environment to another, the saved search queries are not migrated. You can export the saved queries to the target environment if you need to use them.

1. Open the Search Form, and then select **Saved Queries**.
2. Right-click the query that you want to export, and then click **Export Queries**.

The query XML file is downloaded to your browser's default download location.

Importing Saved Queries

When you migrate an Informatica Data Director configuration from one environment to another, the saved search queries are not migrated. You can import the saved queries from the source to the target environment.

If a query has the same name as the query that is being imported and is owned by the same user, the import process overwrites the query. If a query has the same name as the query that is being imported but is a public query that is owned by another user, the import process creates a version of the query with the same name for the user that imports the query.

If a query has errors, the import process ignores the queries. When queries are ignored, the message Some of the queries were not imported appears. To view the errors, check the Hub server log files.

1. At the top of the **Search Form**, select **Saved Queries**.
2. Right-click in the **Search Form**, and then click **Import Queries**.
3. In the **Import Queries** dialog box, click **Browse**. Select the XML file that contains the saved queries.
4. Click **Import**.

CHAPTER 15

Working with Records in the Data Tab

This chapter includes the following topics:

- [Working with Records in the Data Tab Overview, 107](#)
- [Opening Records from Search Results, 108](#)
- [Creating Filters for Child Records, 109](#)
- [Switching Between Form and Table View, 110](#)
- [Viewing System Columns, 110](#)
- [Copying a Record, 110](#)
- [Editing Data In Records, 111](#)
- [Editing Effective Periods, 111](#)
- [Adding an Effective Period, 112](#)
- [Display Aggregated Period for Timeline-Enabled Record, 112](#)
- [Investigating a Record, 112](#)
- [Deleting a Record, 113](#)

Working with Records in the Data Tab Overview

Use the **Data** tab to investigate records.

From the **Data** view in the **Data** tab, you can review and edit records. You can also use the left navigation icons to view the history of a record, its cross-reference records, and possible merge candidates.

You can use the **Search Form** in the **Data** view to find records. For more information about searching from the **Data** tab, see [“Search Queries from the Data Tab Overview” on page 96](#).

Pending Records in the Data Tab

A pending record contains data that is pending approval.

In the Data tab, pending records are treated in the following ways:

- In search results, records with pending records appear in the results.

- In the **Data** view, when you open a newly created record that is pending approval, the view contains the pending data in the parent record and all its child records.
- In the **Data** view, when you open a record with pending changes to the parent record, the view contains the approved data, not the pending changes.
- In the **Data** view, when you open a record with pending changes to child records, the view contains the approved data, not the pending changes.
- In the **Data** view, when you open a record with new pending child records, the view does not contain the new pending child records.

Opening Records from Search Results

To investigate a record, you can select it from the search results and open the record in the **Data** tab. You search by using the search form in the **Data** tab, by clicking **Queries**, or by using the **Search** box in the header.

When you open a record that is timeline-enabled, specify an effective period for which to view the record. The default value in the field for the effective date is the current date. If you leave the effective date field empty, all the record versions are opened.

1. Search for the record.
2. In the search results, select the record.
3. Open the record in one of the following views:

View	Description
Data	To view and edit the record, click Open .
Matches	To compare the record with potentially duplicate records, click Actions > Compare .
Hierarchy	To view a diagram of the relationships between records, click Open Hierarchy .
Business Entity	To view and edit the record in context with other sources of information about the record, click Entity View .

4. If prompted, specify the effective period that you want to investigate.
The record opens in the view.

RELATED TOPICS:

- [“Resolving Duplicate Records” on page 55](#)

Creating Filters for Child Records

In the child tab, if there are multiple child records, you can filter the child records based on the column name and its values to view only a specific (or subset) of entries. All the filters created in the data view are only temporary for that session, when the record is closed, you will lose all the created filters.

Filtering option is only available for One:Many and Many:Many child relationships. Also, if multiple filter conditions are applied, the result contains all the records that satisfy the AND condition and if multiple conditions are set for the same column, the result contains all the records that satisfy the OR condition.

1. In the **Data** view, click the child tab and click the **Filter** button.

The **Filter** dialog box appears.

2. In the **Column** drop-down list, select a column value.

Note:

- Only column names of strings and numbers data types are supported for display in the **Column** drop-down list.
- Lookup values are not displayed in the **Column** drop-down list.

3. Select one of the following filter conditions from the drop-down list:

Available for Data Type	Condition	Description
Strings and Numbers	=	Column value must be equal to the filter criteria
Strings and Numbers	!=	Column value must not be equal to the filter criteria
Numbers	>	Column value must be greater than the filter criteria
Numbers	<	Column value must be lesser than the filter criteria
Numbers	>=	Column value must be greater than or equal to the filter criteria
Numbers	<=	Column value must be lesser than or equal to the filter criteria
Strings and Numbers	Is NULL	Column value must be null for inclusion in the filter results
Strings and Numbers	Is not NULL	Column value must not be null for inclusion in the filter results
Strings	Starts with	Column value must start with the filter criteria
Strings	Ends with	Column value must end with the filter criteria
Strings	Contains	Column value must contain the filter criteria
Numbers	Between	Column value must be between the filter criteria

4. In the **Value** field, enter a filter criteria.

5. If you want to create an additional filter condition, click the add button (green plus button).
Note: If you want to delete a filter condition, click the delete button (red cross button).
6. Click **Apply**.
Note: If you want to clear filter, click the **Clear Filter** button.

Switching Between Form and Table View

In certain cases, you can switch between two different views of data:

- *Form View* shows a single record, with the record attributes displayed vertically, like a paper form. Click **Switch to Form View** if you want to isolate your investigation to a single record.
- *Table View* shows a list of records (one or more) in a tabular form. Each row in the table represents a separate record. Click **Switch to Table View** to see a summary list of all the associated records.

Note:

- For subject area children, the default view (form or table) may vary depending on how your IDD is configured.
- For the selected child record, only associated grandchild records are displayed either in form or table view.

Viewing System Columns

To view system columns for the record that appears in the **Data** view, select **System Columns** from the **Actions** menu. Data Director opens a window that displays the system column details.

You can view system columns to view record metadata, such as the date on which the record was created, who created the record, and the row ID.

Copying a Record

You can copy a parent record and some of its children to create a record that is similar to an existing record. You cannot copy a timeline-enabled record.

1. In the **Data** tab, open the record in the **Data** view.
2. Click **Actions > Copy**.
3. In the new record window, change the attribute data you want.
4. Select **Save** or **Send for Approval**, as applicable.

Editing Data In Records

You can edit data in a record. When you edit data, you cannot change the effective period for the record.

1. Open a record for which you want to edit the data.
You cannot edit a record that is in the pending state because it is part of a workflow and is pending approval.
2. Click **Actions > Edit Data**.
3. Edit the data.
4. Click **Apply**.
The fields that you edit appear highlighted.
5. Click **Save**.
Data Director writes the changes to the database.

Editing Effective Periods

To correct an incorrect effective period, edit the effective period of the record. You can edit the effective periods for records for which you track data change events. When you edit the effective period for a record, Data Director saves the record with the changed effective period.

1. Open the record version for which you want to edit the effective period.
You cannot edit a record that is in the pending state because it is part of a workflow and is pending approval.
 - a. Open the record that has the effective period that you want to edit.
 - b. Click the **Show Effective Periods** link for the record.
 - c. In the **Effective Date** field, use the date chooser to select a date that is within the effective period that you want to edit.
 - d. Click **Apply**.
The record version that is valid for the effective period that you want to edit opens.
2. Click **Actions > Edit Period Dates**.
3. In the **Edit Effective Period** date fields, use the date chooser to select the correct start date and end date of the effective period.
4. Select the primary and child records that you want to include in the record version that you update.
5. Click **Save**.
Data Director saves the record version with the updated effective period.

Adding an Effective Period

You can add a record version that is applicable for a new effective period. The effective period that you add must be adjacent to the existing effective period. You can add effective periods to records for which you track data change events.

1. Open a record for which you want to add an effective period.
2. Select the record version that you want to copy to the new effective period.
3. Click **Actions > Create New Period**.
4. In the **Create New Effective Period** date fields, use the date chooser to select the effective start and end dates.
5. Select the primary and child records that you want to include in the new record version.
6. Click **Save**.

Data Director creates a new record version with the effective period that you specify.

Display Aggregated Period for Timeline-Enabled Record

For a timeline-enabled record, you can click the link **Show Effective Periods** to view the calculated aggregated period of effective periods for the record. Aggregated period is the time period where the data of the record does not change for any of the object (parent, children, and grandchildren). It is the intersection of all the effective periods for the record.

For example, if you save the effective period for the parent record for a time period 01-May-2012 to 31-May-2012 and then you save the effective period of the child record of the same record for a time period 01-May 2012 to 15-May-2012. The aggregated period for the record as on 01-May-2012 is 01-May 2012 to 15-May-2012.

Note:

- The link **Show Effective Periods** is available after the **Save** operation is completed.
- In the Data view, after you click the link **Show Effective Periods**, you can view the effective start date and effective end date of the object (parent, children, and grandchildren).
- The aggregated period displayed for the record is directly related to the date selected in the **Effective Date** field.

Investigating a Record

In the **Data** tab, you can change your view of the record. You can view the history of a record, its cross-reference records, its possible merge candidates, and a diagram of related records.

1. Open the record in the **Data** view.
2. If prompted, specify the effective period that you want to investigate.
3. Based on your investigation path, select one of the following views:

- To view and edit the record, click the **Data** icon. The **Data** view opens.
- To view pending changes, click the **XREF** icon. The **XREF** view opens.
- To view a history of changes to the record, click the **History** icon. The **History** view opens.
- To compare the record with potentially duplicate record, click the **Matches** icon. The **Match Merge Comparison** view opens.
- To view a diagram of the relationships within and between records, click the **Open Hierarchy** button. The **Hierarchy** view opens.
- To view and edit the record in context with other sources of information about the record, click the **Entity View** button. An entity tab opens. The tab displays the name of the record.

Deleting a Record

You can delete a record that you want to remove. To delete the record displayed in the **Data** view, select **Delete** from the **Actions** menu.

Data Director marks the record as deleted and no longer displays the record, but does not remove the record from the database. When you delete a parent record, Data Director does not mark the child records as deleted. When you delete a timeline-enabled record, Data Director marks the record as deleted for all the effective periods.

CHAPTER 16

Investigating Timeline Data in the Effective Periods View

This chapter includes the following topics:

- [Investigating Data Change Events for Effective Periods Overview, 114](#)
- [Opening the Effective Periods View, 115](#)
- [Viewing Data Change Events, 115](#)
- [Adding Data Change Events, 116](#)
- [Removing Data Change Events, 117](#)

Investigating Data Change Events for Effective Periods Overview

A data change event is a change to data such as marital status, address, and phone number that is effective for a time period. Records can have multiple data change events. Use the **Effective Periods** view to investigate data change events of records.

The changes to data result in new effective periods or updates to an existing or a future effective period. You can use the **Effective Periods** view to view changes to data over a period of time. Also, you can add and remove data change events to and from the timeline. To manage the data change events, use the **Data** view.

Note: If timeline is enabled for base objects in the MDM Hub Store, the **Effective Periods** view is available for those base objects.

Example of Viewing Data Change Events

Your organization wants to renew and also offer a new insurance package to Alex Sam. To offer a suitable package, you need to investigate the data change events for the business entity Alex Sam.

You open the business entity for Alex Sam in the Effective Periods view. You specify a specific point in time for which you want to view the data change events for Alex Sam. The data change events that occurred up to the date you specify appear in the view. You select data change events and view the details. You find that in the past, Alex Sam was single and went by the name Alex Johns. You now have the information that will help you offer a suitable insurance package that will benefit Alex and the organization.

Opening the Effective Periods View

Use the **Effective Periods** view to investigate data with effective dates.

Note: This view is available only if your administrator enabled the timeline feature.

- ▶ To open a record in the **Effective Periods** view, perform one of the following actions:
 - In a **Search** tab that displays search results, select a record. Click **Actions** > **Show for Effective Date**.
 - Open a record and click the **Effective Periods** icon.
- The **Effective Periods** view opens.

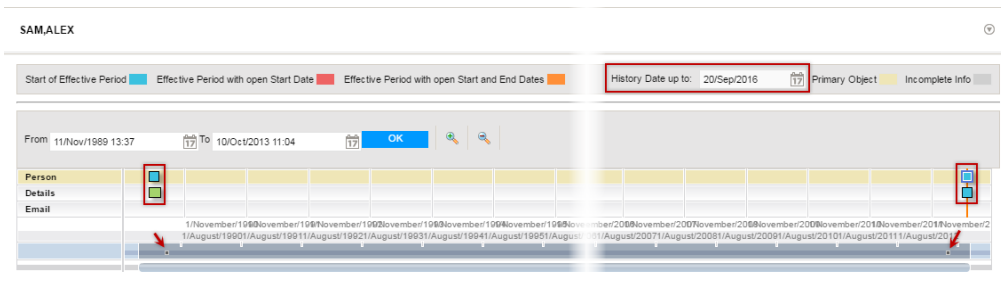
Viewing Data Change Events

You can view the data change events for a record in the **Effective Periods** view.

1. Open a record in the **Effective Periods** view.
The data change events of the record that occur up to the current date appear in the view.
2. Optionally, to identify the data change events that occurred up to a specific point in time other than the current date, use the calendar in the **History date up to** field to select a date.

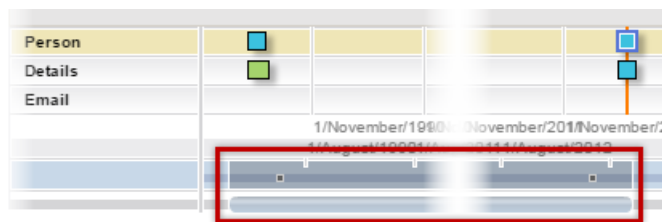
The data change events that occur up to the specified point in time for the record appear.

The following image shows the data change events that occurred up to September 20, 2016 for the record, Alex Sam:



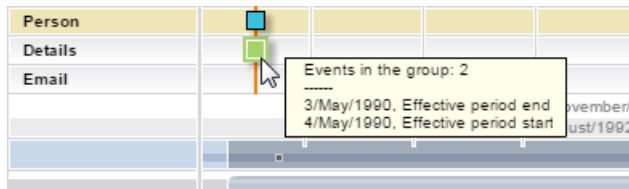
3. To move into view the portion of the timeline that has the data change events that you want to inspect, enter a date range or use the slider.

The following image shows a portion of the timeline with data change events and the corresponding slider adjustment:



4. To view the details of the data change events, move the pointer over the squares.

The following image shows the details of two data change events:



- To open a data change event, right-click the event, and then click **View details on effective date**.
The data change event opens in a tab below the timeline. The data change event contains the record details for the specified effective period.

The following image shows the data change event for Alex that is effective on May 4, 1990:

SAM,ALEX

Start of Effective Period ■ Effective Period with open Start Date ■ Effective Period with open Start and End Dates ■ History Date up to: 20/5/2011

From: 18/Apr/1960 23:30 To: 24/Dec/1991 14:56 OK

Effective date: 4/May/1990 00:00:00

JOHNS,ALEX	Names	Telephones	Relationships	Bill address	Ship addresses	Car	Org	Part of PO	Null Rel	Relative
Name Prefix Cd	MISS						First Name	ALEX		Middle Name
Last Name	JOHNS						Tax ID			
Generation Suffix Cd	X						Birthdate	7/Sep/1972		Display Name
Gender Cd	FEMALE						Int_id			ALEX JOHNS
Preferred Phone							Nickname			Job Title
Fboat_id							Birth Last Name			Birth City
Address							Birth Country Cd			Birth Postal Cd
Marital Status	SINGLE									
Birth State										

The data change event shows that Alex Sam was single and went by the name Alex Johns.

Adding Data Change Events

You can add the data change events of a child record to the timeline in the **Effective Periods** view.

- Open a record in the **Effective Periods** view.
- To view the child record, click the child record tab.
The data change events for the child record appear.
- Select the data change event that you want to add to the timeline, and then click **Add Record to Timeline**.

The data change event of the child record is added to the timeline.

Removing Data Change Events

You can remove data change events for a child record from the timeline in the **Effective Periods** view.

1. Open a record in the **Effective Periods** view.
2. Optionally, to identify the data change events that occurred up to a specific point in time other than the current date, use the calendar in the **History date up to** field to select a date.

The data change events that occur up to the specified point in time for the record appear.

3. To move into view the portion of the timeline that has the data change events that you want to inspect, enter a date range or use the slider.
4. To remove a data change event, right-click the event, and then click **Remove record from timeline**.

The data change event is removed from the timeline.

CHAPTER 17

Importing Data

This chapter includes the following topics:

- [Data Import Overview, 118](#)
- [Enabling Data Import in the MDM Hub Server, 119](#)
- [Importing the Data Import Template, 120](#)
- [Importing Source Data from a File, 120](#)

Data Import Overview

An MDM administrator can permit authorized users to import data from a source file by using Data Director. You can import up to 10,000 records from a single source file.

Note: The data import feature is available only when you use Data Director with subject areas.

You import data to perform the following tasks:

- Create multiple primary, child, and grandchild records in a single bulk operation.
- Update multiple primary, child, and grandchild records in a single bulk operation.

To import data, you need the source file and a data import template. The data import template contains import profiles that map the data in the source file to columns in base object tables.

Data Director does not perform a match for duplicates operation for the data that you import.

Source File

You import data from a source file.

You can use one of the following file formats to contain your source data:

- `.csv`. A flat file with the data separated by a delimiter, such as a comma.
- `.xlsx`. A Microsoft Excel workbook with the data organized by columns in a spreadsheet.

Data Import Template

The data import template describes how the data in a source file maps to the columns in the base object tables in the Operational Reference Store. To create a data import template, you require familiarity with the structures of both the source file and the Operational Reference Store schema.

The data import template is an XML configuration file that contains the import profiles that Data Director uses to import data. An import profile defines the mapping between the structure of the data in the source file and the user-defined columns in a base object table. You define a separate import profile for each subject area.

In an import profile, you can specify the format for date and numeric fields. To specify the format, follow the Java `SimpleDateFormat` pattern for date fields and the Java `DecimalFormat` pattern for numeric fields.

The Resource Kit includes a sample template file and a sample source file. You can find the files in the following location: `<MDM Hub installation directory>/hub/resourcekit/samples/BDD/import`

Data Import Example

For example, a data steward wants to import customer records from a Microsoft Excel spreadsheet. In the spreadsheet, column 1 contains first names and column 2 contains last names.

The Operational Reference Store contains a base object table called `C_PARTY` that has columns for the first name and the last name. The IDD application defines a Person subject area.

The data steward asks the MDM administrator to create a data import template to match the organization of the data in the source file. In the template, the developer defines an import profile for the Person subject area with the following mappings:

- Map column 1 in the source file to the `FIRST_NAME` column in the `C_PARTY` base object.
- Map column 2 in the source file to the `LAST_NAME` column in the `C_PARTY` base object.

The following code sample shows the import profile for this example:

```
<?xml version="1.0" encoding="UTF-8"?>
<DataImportTemplateConfig xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="data-import-template.xsd">
  <ImportProfile name="IMPORT_SA_PERSON" displayName="Import profile for SA Person"
    subjectArea="Person" effectivePeriodStart="6" effectivePeriodEnd="7"
    effectiveDateFormat="dd.MM.yyyy">
    <PrimaryObject>
      <Column index="1">C_PARTY|FIRST_NAME</Column>
      <Column index="2">C_PARTY|LAST_NAME</Column>
      ...
    </PrimaryObject>
  </ImportProfile>
</DataImportTemplateConfig>
```

Enabling Data Import in the MDM Hub Server

To be able to import data, the **Data Import** option must appear in the **New** window. If the option appears, you can skip this step.

If the **Data Import** menu item is missing, ask the MDM administrator to enable the `cmx.dataview.enabled=true` property in the Hub Server properties file. For more information about Hub Server properties, see the *Multidomain MDM Configuration Guide*.

1. Stop the application server that hosts the Hub Server.

2. Navigate to the following location:
`<MDM Hub installation directory>/hub/server/resources/`
3. Open the `cmxserver.properties` file and set the following property: `cmx.dataview.enabled=true`
4. Save the file.
5. Start the application server.

Importing the Data Import Template

From the IDD Configuration Manager, an MDM administrator imports the data import template into the Data Director (IDD) application. The import process validates the template.

1. Log in to the IDD Configuration Manager.
2. Select the application.
3. Click **Import > Import to existing IDD application**.
The **Import to existing IDD application** window opens.
4. From the **Configuration type** list, select **Data Import Template**.
5. Click **Browse** and select the XML file that contains the data import template.
6. Click **Import**.
The import process validates the template. The **Validation Result** window opens and displays any errors.
7. If there are validation errors, resolve the errors in the template and then re-import the template.
8. In the **Validation Result** window, click **OK**.

Importing Source Data from a File

Use the import wizard to import the data from the source file to the Operational Reference Store. Data Director uses the Services Integration Framework Put API to import the data.

Important: You cannot roll back changes after you start the import process.

1. In the navigation bar, click **New**. Select **Data Import** and the type of subject area.
Note: If you do not see the **Data Import** option, the IDD application is not configured to show the option and enable data import. Contact the MDM administrator.
The **General** page of the import wizard opens.
2. If the template contains more than one import profile, select the import profile that you want to use from the list.
3. Click **Browse** and select the source file.
4. Click **Next**.
The **Import Properties** page opens.

5. If the source file is a `.csv` file, specify the following properties:

Property	Description
Delimiters	Specify the character that represents the break between data values in the source file.
Code page	Specify the character encoding to use to interpret the data in the source file.
Text qualifier	If quotes appear around text strings, specify the type of quotes.

6. If the source file is an `.xlsx` file, from the **Worksheet name** list, select the worksheet that contains the data.
7. To control what data is imported from the source file, set the following properties:

Property	Description
Header	If you want to omit the first line or row because it contains headings rather than data, select First line is header .
Start value import at line	If you want to start the import somewhere other than the first line or row, enter the line number.

8. Review the preview of the data.
9. Click **Next**.
The **Import Progress** page opens.
10. Click **Start**.
The import process starts. When the import process ends, a message appears.
Note: For worksheets, the process attempts to import rows that contain data, rows that are empty but formatted, and rows that are empty but appear between rows that contain data. Data Director rejects the empty rows without processing them.
11. Click **Finish**.

Part III: Hierarchies and Relationships

This part contains the following chapter:

- [Investigating Hierarchies and Relationships, 123](#)

CHAPTER 18

Investigating Hierarchies and Relationships

This chapter includes the following topics:

- [Investigating Hierarchies and Relationships Overview, 123](#)
- [Opening a Record in the Hierarchy View, 123](#)
- [Displaying Records and Relationships on the Canvas, 124](#)
- [Investigating Related Records, 129](#)
- [Changing Records and Relationships for a Record, 132](#)
- [Sharing the Hierarchy View of a Record, 135](#)
- [Troubleshooting the Hierarchy View, 136](#)

Investigating Hierarchies and Relationships Overview

A record can have relationships to other records. When the Hierarchy Manager is enabled, you can view a graph that shows how a record is related to other records.

Use the **Hierarchy** view to investigate relationships and the related records.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Opening a Record in the Hierarchy View

Use the **Hierarchy** view to examine the relationships between the open record and other records.

- ▶ To open a record in the **Hierarchy** view, perform one of the following actions:
 - In a **Search** tab search results, select a record. From the **Actions** menu, click **Hierarchy**.
 - In the record view that displays an opened record, click **Hierarchy** from the **View** list.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

- In the **Data** tab search results, select one or more records and click **Open Hierarchy**.
- In the **Data** tab, open a record and click **Open Hierarchy**.

The **Hierarchy** view opens. The selected record and the related record appear on the canvas.

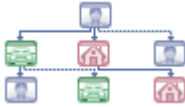




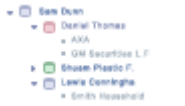
Displaying Records and Relationships on the Canvas

You can change the way that records and relationships appear on the Hierarchy canvas. You can change the layout, create and apply filters, hide or show related records, or change other canvas display options.

Selecting a Layout

Different layouts can reveal different insights into record relationships. You can customize the size and spacing in some of the layouts.

1. In the canvas, click the **Layouts** tab.
The **Layout** panel opens.
2. Click a layout icon.

Layout	Layout Name
	Hierarchy.
	Tree.
	Circular.
	Taxonomy.
	Network.
	Explorer View.

3. Click **Apply**.

The canvas displays the record relationships in the selected layout. If you can customize the layout, one or more options appear in the **Layouts** panel.

4. To customize the layout, set the layout options.

- To increase a value, move the slider to the right, and then click **Apply**.
- To decrease a value, move the slider to the left, and then click **Apply**.
- In the Network layout, you can choose whether to show spheres of influence. When selected, the **Sphere of influence** option encloses each record in a circle. The size of the circle reflects the number of direct relationships held by each record. The more direct relationships, the larger the circle.

Filtering Records and Relationships

Use filters to show or hide a set of records and relationships. For example, you might want to simplify the view so that you can focus on a particular relationship.

Defining a Filter

Use the **Filters** panel below the canvas to select filter options to apply to the canvas.

To enable a filter option, select the option check box. To disable a filter option, clear the check box. Filter options are cumulative. You can select as many or as few as you need to clarify the relationships on the canvas. In logical terms, filters are joined by the AND operator.

1. In the **Hierarchy** view, click the **Filters** tab that is located below the canvas.

The **Filters** panel opens.

2. In the **Hierarchies** section, select the check boxes for one or more types of business entities.

The filter affects all selected types of business entities.

3. Click the name of a business entity type.

The relationship filter options for the selected business entity type appear to the right. The Data Director application developer defines the list of filter options.

4. Optionally, change the relationship filter options for the record.

5. Optionally, click **General** and change the general filter options:

Option	Description
Hide unconnected entities	Hides records with no relationship to the selected record.
Show pending relationships	Shows relationships that are currently under review.

6. Optionally, click **Relationship Directions** and change the directional filter options:

Option	Description
Show Parents	Shows the parents of the selected record.
Show Children	Shows the child entities of the selected record.

Option	Description
Show Unknown	Shows records where the relationship between the records is unknown.
Show Undirected	Shows related records where the type of relationship is not specified.
Show Bidirectional	Shows related records where the direction of the relationship goes both ways.

7. Click **Apply**.

The application applies the selected filter options to the canvas.

Saving a Filter

If you expect to reuse the filter options that you applied to the canvas, save the options as a filter. After you save a filter, you can choose to make the filter the default filter whenever the selected record is displayed in the canvas.

1. In the **Filters** panel, click **Saved Filters**.
2. Type a name in the **Filter Name** field.
3. To share the filter with colleagues, select **Public**.
4. Click **Save**.

The filter options that are currently applied to the view are saved.

5. To always apply this filter with the selected record, click the **Default for Entity** button.

Applying a Saved Filter

When you apply a saved filter, the filter applies to the types of business entities selected in the filter.

1. In the **Filters** panel, click **Saved Filters**.
2. Select the filter from the **Filter Name** list.
The filter options reflect the settings in the selected filter.
3. Click **Apply**.

The canvas reflects the settings in the applied filter.

Applying a Default Hierarchy Filter

When you apply a default hierarchy filter, the filter applies to the selected business entity type.

1. In the **Filters** panel, click **Defaults**.
2. Select the filter from the **Default hierarchy** list.
The filter options reflect the settings in the selected filter.
3. Click **Apply**.

The canvas reflects the settings in the applied filter.

Deleting a Saved Filter

You can delete saved filters that you no longer use. If the filter is public, check with colleagues before you delete it.

1. In the **Filters** panel, click **Saved Filters**.
2. Select the filter from the **Filter Name** list.
The filter options reflect the settings in the selected filter.
3. Click **Delete**.

Hiding and Showing Records on the Canvas

You can hide or show selected records and records relationships on the canvas. When you hide a record in the canvas, the record relationship to the primary record remains intact, but the record relationship is not shown on the canvas.

After you hide a record, the **Hierarchy** view updates the remaining records that are related to the hidden record. In the canvas, the related records show the number of visible relationships out of the total number of relationships, and display a plus sign icon to show that some relationships are hidden. In the relationship table, the row that represents the hidden entity does not have a canvas icon.

Showing Direct and Indirect Relationships

In the **Hierarchy** view, direct and indirect relationships between records are expressed in hops. A hop is a relationship between records. A direct relationship is one hop, while an indirect relationship is more than one hop. For example, given records A, B, C, and D, the relationship A--D is one hop, A--B--D is two hops, and A--B--C--D is three hops. You can change the number of hops that appears for a selected record.

1. In the canvas, click a record.
The **Actions** menu appears.
2. Perform one of the following actions:
 - To view direct relationships, click **Actions > Fetch > One Hop**.
 - To view direct and indirect relationships, click **Actions > Fetch > Many Hops (#)**.
3. Optionally, you can change the number of hops that are shown by the **Many Hops (#)** option.
 - a. Click **Actions > Fetch > Preferences**.
 - b. In the **Show Many Hops** dialog box, set a value between 2 and 20.
 - c. Click **Execute**.
 - d. In the entity box, click the **Actions** menu.
The **Many Hops (#)** menu item reflects the value that you set.
 - e. To apply the new number of hops to the canvas, click **Fetch > Many Hops (#)**.

Hiding a Record

If the graph is complex, you can simplify the graph by hiding records that are not meaningful to your investigation. When you hide a record, the record and the record relationships are hidden. You cannot hide the primary record or a record that functions as the anchor of the graph in the canvas.

1. In the canvas, click the record.
The entity **Actions** menu appears.

2. Click **Actions > Hide > Hide Entity**.

In the canvas, the record and the record relationships are hidden.

Hiding Selected Records

Select one or more records to hide. You cannot hide the primary record or a record that functions as the anchor of the graph in the canvas.

1. In the canvas, select records by pressing the **Ctrl** key and clicking the records.
Selected records are highlighted.
2. On the toolbar, click **Actions > Hide Selected Entities**.
In the canvas, the selected records and the record relationships are hidden.

Hiding the Children of a Record

You can hide the children of a selected record. To qualify as a child record, the Direction type of the child record must be Child.

1. In the canvas, click the record.
The entity **Actions** menu appears.
2. Click **Actions > Hide > Hide Children**.
In the canvas, the children of the selected records are hidden.

Showing a Hidden Record

You can show a hidden record and the record relationships in the canvas.

1. In the canvas, click a record.
2. If the relationship table is closed, click the arrow button to open the relationship table.
The relationship table displays all records that are directly related to the selected record.
3. In the relationship table, select the hidden record that you want to show in the canvas.
4. Right-click and click **Add to Canvas**.
In the canvas, the record and the record relationships are displayed.

Showing All Hidden Record Relationships

When an entity box includes a plus sign icon in the lower left corner, the record has relationships to hidden records. You can show all the hidden records.

- ▶ To show all hidden records, click the **Show** icon in the entity box.
The hidden records and the record relationships are shown on the canvas.

Navigating the Canvas

In the canvas, you can zoom in or out on the graph, move around the graph, or move quickly to another part of the graph.

- To zoom in or out on the graph, move the slider up or down.

- To view hidden adjacent parts of the graph, use the direction arrows to move the hidden records into view.
- To navigate quickly through a large hierarchy graph, click the **Navigation** tab and click a different area of the graph. The area appears in the canvas.

Setting Canvas Options

You can set options that control the canvas.

- To increase the height of the canvas, click the **Full Screen Mode** icon. The application header and workspace bar are hidden.
- To show the canvas legend, click the **Other** tab. The legend appears on the left.
- To use simple graphics in the canvas when the number of records exceeds a threshold, click the **Other** tab, set a threshold value, and click **Apply**.

Investigating Related Records

As you investigate the relationships for the selected record, you might need to review the details for a related record or for a relationship.

You can view the following kinds of details:

- Record data
- Source systems and pending records
- System columns
- Relationship details
- Hierarchy
- History of changes

Viewing Record Data

If you need more information about a record, you can view the record data. For example, when the hierarchy contains similar records, you might want to confirm that you have the correct record before taking an action.

1. In the canvas, click a record.
The entity **Actions** menu appears.
2. Click **Actions > View > Details**.
3. In the **Entity Details** window, review the summary details.
 - If the details are sufficient to allow you to continue your work, click **Close**.
 - If you need more information about the record, click **More Details**. The record opens in a new tab. You can review all the data about the record and, if necessary, edit the data.

Viewing Source Systems and Pending Changes

You can view information about contributing source systems and pending changes for a selected record.

In the MDM Hub Store, the information is stored as cross-reference (XREF) records.

1. In the canvas, click a record.
The entity **Actions** menu appears.
2. Click **Actions > View > Cross References**.
3. In the **Cross References** dialog box, review records.
 - If the details are sufficient to allow you to continue your work, click **Cancel**.
 - If you need to make changes, edit values, and then click **Save**.

Viewing System Columns

Data stewards might be interested in viewing the values in the system columns for a selected record. For example, you can view values for the Rowid Object column and Creator column.

1. In the canvas, click a record.
The entity **Actions** menu appears.
2. Click **Actions > View > System Columns**.
3. In the **System Columns** window, review the values.
4. When you are finished, click **Close**.

Viewing and Editing Relationship Details

If you need more information about a relationship, you can view details about the relationship, such as the relationship type.

1. In the canvas, click a relationship line.
The relationship **Actions** menu appears.
2. Click **Actions > View Relationship Details**.
3. In the **Edit Relationship** dialog box, review the details about the relationship.

Option	Description
Diagram	Displays a diagram of the related records and the direction of the relationship.
Hierarchy	The type of the business entity, such as organization or household.
Relationship Type	The type of relationships that are possible between the records, such as employee or relative.
Rel Start Date	The start date of the relationship. If the date occurs in the past, the relationship is active. If the date occurs in the future, the relationship will start on the specified date. If the field is empty, a start date was not set.

Option	Description
Rel End Date	The end date of the relationship. If the date occurs in the past, the relationship has ended and is inactive. If the date occurs in the future, the relationship will end on the specified date. If the field is empty, the relationship is currently considered permanent.
Switch Entities	You can switch the order of the record to change the direction of the relationship. The Switch Entities button is enabled for some Relationship Types.
Other fields	Additional fields might appear for some Relationship Types.

- Optionally, to change the relationship details, edit options and click **Save**.

Viewing the Hierarchy for a Related Record

To view the relationships for a related record, you can open the related record in a **Hierarchy** view.

- In the canvas, click a record.
The entity **Actions** menu appears.
- Click **Actions > Open in New Tab**.
A tab opens and displays the hierarchy for the selected record.

Viewing a History of Relationship Changes

You can investigate how relationships have changed for the record that appears in the **Hierarchy** view.

- On the toolbar, click **Actions > Show History**.
- In the **Change History** window, below the timeline, drag the timeline slider to the period that you want to investigate. You can expand the period by extending the edges of the timeline slider.
A box highlights the selected time period.
- Right-click the timeline and click **Select a Date**.
- In the **Select a Date** dialog box, select a date and time, and then click **OK**.
An orange line marks the comparison date on the timeline. The left-side graph changes to reflect the graph as it looked on the selected date and time. The right-side graph continues to show the current version of the graph.
- In the **Relationships** row of the timeline, look for change boxes.
 - If the row is empty, there are no changes.
 - Otherwise, pause on a change box to see a change summary. To see details, right-click the box and click **View Event Details**. In the **Event Details** window, review changes, and then click **Close**.
- After you finish your investigation, click **Close**.
The **Change History** window closes.

Changing Records and Relationships for a Record

In the **Hierarchy** view, you can add, edit, and delete related records and relationships for the selected records. If an effective date is set, the update is valid for the selected effective date.

Adding a Record to the Canvas

To create a relationship to a record that is not on the canvas, search for the record and add it to the canvas.

1. On the toolbar, click **Add to Canvas**.
If you navigated to the **Hierarchy** view from the **View** list in an entity tab, the Smart Search dialog box opens. If you navigated to the **Hierarchy** view from the legacy Data tab, the Search dialog box opens.
2. If the **Smart Search** dialog box opens, perform the following steps:
 - a. Optionally, select the type of business entity.
 - b. Type the search term.
 - c. Click **Search**.
If the search process finds matches, the matching records appear in the search results.
 - d. Optionally, use the filters to narrow the search results.
 - e. If the record appears in the search results, select the record and click **Select**.
The record appears on the canvas.
3. If the legacy **Search** dialog box opens, perform the following steps:
 - a. Enter the search criteria.
 - b. Click **Run Search**.
 - c. If the record appears in the search results, select the record and click **Add to Canvas**.
The record appears on the canvas.
4. **Next steps.** Create a relationship between the added record and other records.

Adding a Relationship

You can create a relationship between two unrelated records as long as a relationship type exists for the business entity types.

1. Ensure that both records are visible on the canvas. You might need to use the slider to zoom out the canvas.
2. Drag and drop one entity box on top of the other entity box.
3. In the **Add Relationship** dialog box, configure the following options:

Option	Description
Diagram	Displays a diagram of the related records and the direction of the relationship.
Hierarchy	The type of the business entity, such as organization or household.
Relationship Type	The type of relationships that are possible between the records, such as employee or relative.

Option	Description
Rel Start Date	The start date of the relationship. If the date occurs in the past, the relationship is active. If the date occurs in the future, the relationship will start on the specified date. If the field is empty, a start date was not set.
Rel End Date	The end date of the relationship. If the date occurs in the past, the relationship has ended and is inactive. If the date occurs in the future, the relationship will end on the specified date. If the field is empty, the relationship is currently considered permanent.
Switch Entities	You can switch the order of the record to change the direction of the relationship. The Switch Entities button is enabled for some Relationship Types.
Other fields	Additional fields might appear for some Relationship Types.

4. Click **Save**.

In the canvas, a relationship line appears between the two records. If the relationship is directional, the line includes an arrowhead to show the direction.

Editing a Record from the Hierarchy View

As you work with related records in the **Hierarchy** view, you might find that you need to edit data.

1. In the canvas, click a record.
The entity **Actions** menu appears.
2. Click **Actions > Edit > Edit Entity**.
A tab opens and displays the record in the **Business Entity** view.
Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.
3. Edit data as required and save the changes.
4. To return to the **Hierarchy** view, click the tab that contains the **Hierarchy** view.

Finding Duplicate Records from the Hierarchy View

Data tab only. When you open the **Hierarchy** view from within the **Data** tab, you can select a record and search the master data for potential duplicates of the record.

1. In the canvas, click a record.
The entity **Actions** menu appears.
2. Click **Actions > Find > Duplicates**.
The application searches for similar records. A new tab contains the results of the search.
3. To return to the **Hierarchy** view, click the tab that contains the **Hierarchy** view.

Initiating a Merge from the Hierarchy View

While working with a graph, you might identify potential merge candidates among the related records. Or, as you investigate a related record, you might want to check for merge candidates. If you find merge candidates, you can initiate the merge from the **Hierarchy** view.

Merge candidates must be of the same type of business entity. For example, to merge customers, both records must be of type Customer.

1. If you see two records in the graph that you want to merge, initiate the merge.
 - a. In the **Hierarchy** view, ensure that both records are visible on the canvas. You might need to use the slider to zoom out the canvas.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.
 - b. Click one of the records.
 - c. Press the **Alt** key while you drag the record onto the other record. An arrow icon indicates that you can merge the records. An **X** icon indicates that you cannot merge the records.

A tab opens and displays the merge candidates. The view contains the destination record, the dragged record, and a merge preview.
2. **Data tab only.** Alternatively, you can search the master data for possible merge candidates for a selected record.
 - a. In the canvas, click a record.

The entity **Actions** menu appears.
 - b. Click **Actions > Find > Merge Candidates**.
 - c. In the **Search** window, enter search criteria, and then click **Run Search**.
 - d. In the search results, select candidates for the merge.
 - e. Click **OK**.

The view contains the record, the selected candidates, and a merge preview.
3. Review the merge preview, make changes as required, and initiate the merge.
4. To return to the **Hierarchy** view, click the tab that contains the **Hierarchy** view.

Deleting a Record from the Hierarchy View

As you work with related records in the **Hierarchy** view, you might find that you want to delete a record. When you delete a record, the record is removed from the view, and the record is marked for deletion in the MDM Hub Store. All the relationships between the deleted record and the selected record are also deleted. You cannot delete the record whose hierarchy you are viewing.

1. In the canvas, click the record that you want to delete.

The entity **Actions** menu appears.
2. Click **Actions > Edit > Delete Entity**.

The record and the record relationships are removed from the canvas and the relationship table. The record is marked for deletion in the MDM Hub Store.

Deleting a Relationship

You can delete relationships between records. You can delete the relationship immediately, or you can cause the relationship to expire with an end date.

The **End Date Relationship** option is available under the following circumstances:

- The end date is empty.
- The relationship belongs to the current source system specified for the application.
- One cross-reference record persists in the database for the current effective period where the record does not intersect with effective periods from other source systems.

You delete relationships from the canvas.

1. In the canvas, click the relationship line.
The relationship **Actions** menu appears.
2. Click **Actions**.
3. Choose how you want to delete the relationship.
 - To delete the relationship and mark it with an end date, click **End Date Relationship**. When prompted for confirmation, click **Yes**. The end date is set to the date before the selected effective date.
 - To delete the relationship from the selected effective period without adding an end date, click **Delete Relationship**.
 - To delete the relationship for all effective dates, click **Delete All Relationship Periods**.

The relationship line disappears and the relationship is deleted from both affected records.

Sharing the Hierarchy View of a Record

You can share the **Hierarchy** view of a record either as a bookmark or as an image. For example, if you want to share a graph with a colleague who has access to Data Director, share a bookmark. If you want to communicate with other colleagues, you can create an image of the graph and insert in a document or other text-based communication tool.

If you want to communicate with other colleagues, you can create an image of the graph and insert in a document or other text-based communication tool.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Sharing a Bookmark to the Hierarchy View

Data tab only. If you want to share the **Hierarchy** view of a record with other Data Director users, you can send the users a bookmark URL. The user needs to log in to Data Director.

The bookmark is a fully qualified URL. You can copy the URL to any text-based communication tool, such as email, text message, instant message, or document.

1. Open a record in the **Hierarchy** view.
2. On the toolbar, click the **Actions > Show Bookmark**.
3. In the **Bookmark URL** window, select the entire URL, right-click, and click **Copy**.
4. Click **Close**.

5. Open the target text-based communication tool, and paste the URL.

Saving an Image of the Graph

If you want to share a graph with colleagues, you can export it in JPEG format. You can then use the image in a report or in an email to interested colleagues.

The export process saves images to the browser's default directory for downloads.

1. With the record open, from the **View** list, select **Hierarchy**.

Note: The record views that appear in the **View** list depend on the Data Director configuration and your user role privileges.

2. If you want to capture a portion of the graph, display the portion of the graph in the canvas.
3. On the toolbar, click **Actions > Export to JPG**.
4. In the **Export Graph** dialog box, choose how much of the graph to capture.
 - To capture the visible portion of the graph, select **View Port**.
 - To capture the entire graph, select **Fit**. Optionally, you can change the width and height of the image by using the sliders.
5. Click **Export**.

The export process creates the image and saves the image to the downloads directory.

Troubleshooting the Hierarchy View

[The Hierarchy View does not load and an icon indicates that you need the Adobe Flash Player.](#)

When you use Data Director in Google Chrome, the Hierarchy Manager in the **Hierarchy** view does not load because Flash is disabled by default.

To enable Flash, from the **Home** page in Data Director, click the Information icon in the address bar. In the **Flash** menu, select **Allow**. Reload the page to update your settings, and then try using the **Hierarchy** view.

Note: If your MDM administrator created a custom view for this purpose, the name of the view might be different.

Part IV: Workflows and Reviews

This part contains the following chapters:

- [Participating in Review Processes, 138](#)
- [Review Processes Reference, 153](#)

CHAPTER 19

Participating in Review Processes

This chapter includes the following topics:

- [Participating in Review Processes Overview, 138](#)
- [Task Manager, 139](#)
- [Claiming Tasks, 143](#)
- [Resolving Tasks, 144](#)
- [Organizing Work on Tasks, 149](#)

Participating in Review Processes Overview

When a business user changes data in Data Director, the change might trigger a review process. A review process is an automated business process workflow that notifies business managers and data stewards when changes are ready for their review.

Note: If the Task Manager is not enabled in your application, your user role might not have permission to participate in a review process. In some cases, the review process might not be required in your environment.

The type of review process depends on how the MDM administrator configured your application and whether the default review processes are in use. By default, there are different review processes for edits, merges, and unmerges.

Example of a Review Process for Edits

The staff in the Finance department use Data Director to keep supplier banking information up to date. A supplier representative contacts a Finance staff member and requests a change to the supplier's banking information.

In the Finance department, each Data Director user credential includes one of the following user roles:

- **User.** Staff members have permission to add and change records, but the changes must go through a review process before the master data is updated.
- **Manager.** A manager is a type of business user with additional permissions. A manager reviews changes, but cannot approve changes. If a manager agrees with a change, he escalates it to a senior manager.
- **SrManger.** A senior manager is a type of manger with additional permissions. A senior manager reviews changes and has the authority to approve them.

A staff member edits the supplier data as requested by the supplier representative. The following steps describe what happens during the review process.

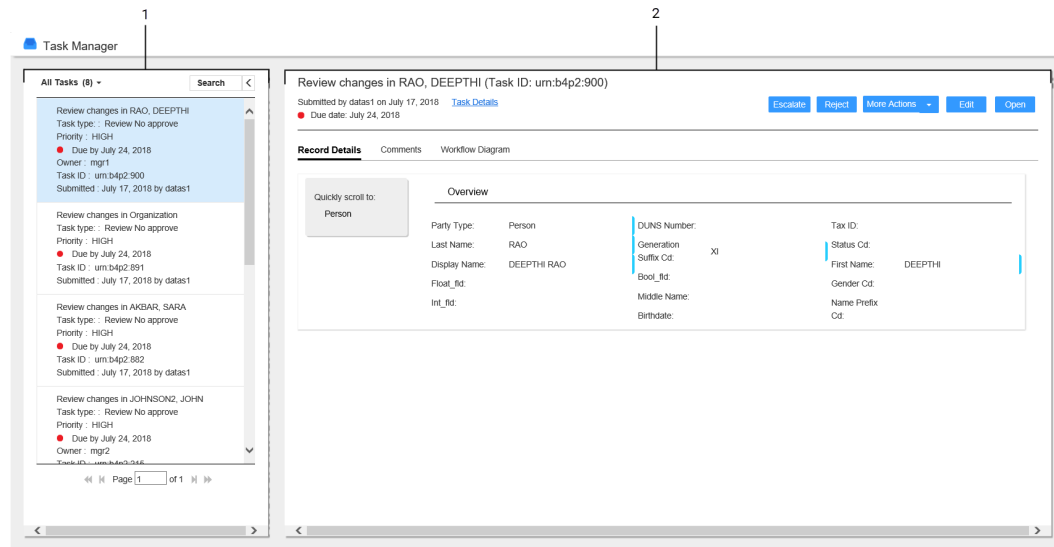
1. A staff member changes the banking information of the supplier and saves the change. In the MDM Hub Store, the state of the supplier records changes from active to pending. The proposed edit is saved in a cross-reference record. The save action initiates the review process.
2. An instance of a review process starts and begins executing activities.
3. When the review process reaches the first people activity, it generates a task notification for managers. For example, in the default review process, the first people activity is Review No Approve. All managers with the role of Manager receive a task notification in the task inbox with the task type of Review No Approve.
4. A manager claims the task. The task is assigned to the manager and the task disappears from the task inboxes of the other managers.
5. The manager opens the supplier record, reviews the edit, and agrees with the edit. The manager resolves the task by clicking Escalate.
6. The review process marks the task as complete, and follows the Escalate flow to the next activity.
7. When the review process reaches the next people activity, the process generates a task notification for senior managers. For example, in the default review process, the second people activity is Final Review. All senior managers with the role of SrManager receive a task notification in the task inbox with the task type of Final Review.
8. A senior manager claims the task. The task is assigned to the senior manager and the task disappears from the task inboxes of the other senior managers.
9. The senior manager opens the supplier record, reviews the edit, and agrees with the edit. The senior manager resolves the task by clicking Approve.
10. The review process marks the task as complete, and follows the Approve flow. The review process notifies the MDM Hub that the change is approved, and then the review process ends. The MDM Hub changes the banking information in the supplier banking record. The supplier records change to the active state.

Task Manager

Use the Task Manager to organize, claim, and resolve tasks that are generated by review processes.

To go to the Task Manager, in the navigation bar, click **Task Manager**. Alternatively, you can click the title of a task from the task inbox in the **Home** page. In this case, the Task Manager displays the selected task and its associated record.

The following image shows the Task Manager with a task selected:



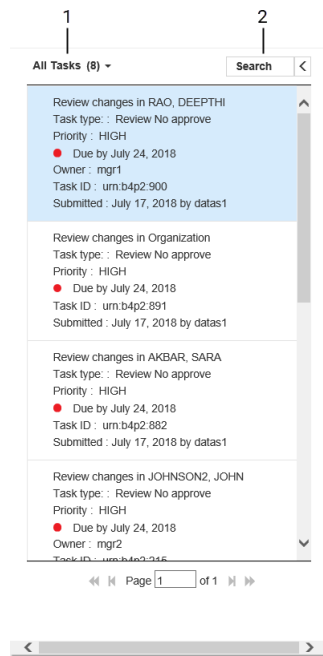
1. Task panel
2. Review panel

Task Panel

The task panel lists the details of the tasks. You can use the predefined filters to select the type of tasks that you want to view in the task panel.

When you open the Task Manager from the navigation bar, the task panel displays all the tasks. When you open a task from the task inbox of the **Home** page, the task panel displays only the details of the selected task.

The following image shows the task panel of the Task Manager:



1. Quick filters
2. Search

The following table lists the user interface elements of the task panel :

User Interface Element	Description
Quick filters	Filters the tasks based on the predefined filter that you select. Use one of the following filters: <ul style="list-style-type: none"> - My Open Tasks. Shows your open tasks. - My Closed Tasks. Shows the tasks that you closed. - All Tasks. Shows all the closed, claimed, and unclaimed tasks that are assigned to your user group. - All Unclaimed Tasks. Shows all the unclaimed tasks that are assigned to your user group. - All Closed Tasks. Shows all the tasks that the users in your user group closed. - All Claimed Tasks . Shows all the tasks that the users in your user group claimed.
Search	Searches the displayed tasks for the specified text.

The following table lists the details that the task panel can display :

Task Detail	Description
Task Title	A link that displays a short description of the review task. To review the record and take action on the task, click the task title. The task opens in the Task Manager and displays the associated record in the review panel. If your role permits it, you can edit the record from this view before taking action on the task.
Type	Name of a people activity within the process.

Task Detail	Description
Priority	Priority of the task. The task priority can be Low, Normal, or High. When generating tasks, the review process assigns the same priority to all tasks of the same type.
Task Status and Due Date	<p>Status of the task and the date the task is due.</p> <p>Status of the task can be Open or Closed. When the task status is Open, you can view the record associated with the task.</p> <p>The review process calculates a default due date based on the task creation date plus a predefined time period.</p> <p>The due date of each task is prefixed with one of the following colored dots:</p> <ul style="list-style-type: none"> - Green. Indicates that the task is not overdue. - Red. Indicates that the task is overdue. - Amber. Indicates that the task will be overdue in the next 24 hours.
Owner	Name of the signed-in user.
ID	Instance ID of the review process that generated the task.
Submitted Date and Creator	Name of the user who created the task, and the date on which the user created the task.

Note: If you and your colleagues require different task details, contact your MDM administrator. The MDM administrator can update the application to display the desired details.

Review Panel

Use the review panel to review the changed record, the comments added to the task, and the workflow diagram. The content of the review panel differs based on the type of change that was made to the record.

The following image shows an edited record in the review panel:

Review changes in RAO, DEEPTHI (Task ID: urn:b4p2:900)

Submitted by datas1 on July 17, 2018 [Task Details](#)

● Due date: July 24, 2018

[Escalate](#) [Reject](#) [More Actions +](#) [Edit](#) [Open](#)

Record Details [Comments](#) [Workflow Diagram](#)

Quickly scroll to:

Person

Overview

Party Type:	Person	DUNS Number:		Tax ID:	
Last Name:	RAO	Generation:	XI	Status Cd:	
Display Name:	DEEPTHI RAO	Suffix Cd:		First Name:	DEEPTHI
Float_fid:		Bool_fid:		Gender Cd:	
Int_fid:		Middle Name:		Name Prefix Cd:	
		Birthdate:			

The following table describes the elements in the review panel:

Element	Description
Record Details	Displays the details of the record associated with the task.
Comments	Displays a list of comments added to the task.
Workflow Diagram	Displays a graphical representation of the process flow associated with the task. You can view the workflow diagram only if you have the ActiveVOS abAdmin role assigned.
Task Details	Displays the task details in edit mode.
Actions	Actions that you can perform on the task. The possible actions depend on the task definitions in the review process. Sample actions can be Approve, Reject, and Disclaim.
More Actions	Additional actions that you can perform on the task.
Edit	Opens the record in edit mode.
Open	Opens the record in a separate tab.

Claiming Tasks

Multiple users can share the same reviewer role. To work on a task, you must claim the task. This ensures that other users cannot work on the task while you work on it. Before you can claim a task, check for comments or attachments.

1. Click **Task Manager**.
The task panel contains a list of tasks.
2. In the task panel, select **All Unclaimed Tasks**.
The task panel lists all the unclaimed tasks of your user group.
3. Select a task that you want to claim.
The record appears in the review panel.
4. Optionally, review the comments and attachments.
 - a. Click the **Comments** tab, and then review the comments.
 - b. Click **Task Details**.
 - c. Download attachments in the **File Attachments** section.
 - d. Click **Cancel**.
5. To claim the task, click **Claim**.
The task panel is updated, and your user name appears in the **Owner** field of the task.

Resolving Tasks

You resolve a task by reviewing the new or changed record and then taking an action. The possible actions depend on the task definitions in the review process.

Reviewing Edited Records

When you open a task to review an edited record, the fields that contain edited values are marked.

In the MDM Hub Store, the proposed edits are contained in a cross-reference record that is set to the pending state.

1. In the task inbox of the **Home** page, click a task that is a request to review an edited record.
The record opens in the review panel of the Task Manager.
Note: If you open an unassigned task, be sure to claim it before you start work.
2. Optionally, review the comments and attachments.
 - a. Click the **Comments** tab, and then review the comments.
 - b. Click **Task Details**.
 - c. Download attachments in the **File Attachments** section.
 - d. Click **Cancel**.
3. Look for highlighted fields and decide if the edits are valid.
4. If you see a typographical error or an incorrect value for which you know the correct value, click **Edit**, and edit the field.
Note: The next step depends on whether you have enough information to resolve the task or if you think someone else should assess it.
5. To resolve the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Approve	If you agree with the edits and the task type permits you to approve changes, click Approve . The ActiveVOS® Server marks the related Final Review people activity as completed and performs the next activity in the process.
Escalate	If you agree with the edits, but the task type does not permit approval at this point in the workflow, click Escalate . The ActiveVOS Server marks the related Review No Approve people activity as completed and performs the next activity in the process.
Reject	If you disagree with the one or more edits, click Reject and type an explanation in the Comment box. The ActiveVOS Server notifies the person who edited the record. Note: If a source system updates the rejected record, the record goes through the approval process again.
<Other>	If you see other options in the menu, then your organization uses a custom business process. If the purpose of the option is not clear and your role permits access to the ActiveVOS console, you can open the process to understand the workflow. Otherwise, contact the person who created the business process.

The task is closed.

- To change the ownership of the task without resolving the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Reassign	To ask another person to review the proposed changes, click Reassign , select the user, and type an explanation in the Comment box. The task is reassigned to the selected person. Note: If this option is not available, click Task Details and select the user from the Assignee list.
Disclaim	To return the task to the pool of unassigned tasks, click Disclaim and type an explanation in the Comment box. Someone with the same role needs to take action on the task.

The task remains open, but is no longer assigned to you.

- If prompted, add comments or attachments to provide additional information about the task.
Note: Whether you are prompted and required to add a comment or attachment depends on the Data Director configuration. A red line appears to indicate required fields.

RELATED TOPICS:

- [“Claiming Tasks” on page 143](#)
- [“Task Manager” on page 139](#)

Reviewing New Records

When you open a task to review a new record, all field values in the record need to be validated. If you are one reviewer in a progressive multiple step review process, validate only the fields that you are responsible for validating.

In the MDM Hub Store, the parent record and child records are in the pending state until the new record is approved.

- In the task inbox of the **Home** page, click a task that is a request to review a new record.
The record opens in the review panel of the Task Manager.
Note: If you open an unassigned task, be sure to claim it before you start work.
- Optionally, review the comments and attachments.
 - Click the **Comments** tab, and then review the comments.
 - Click **Task Details**.
 - Download attachments in the **File Attachments** section.
 - Click **Cancel**.
- Determine if the values in the record meet your business requirements.
Note: The next step depends on whether you have enough information to resolve the task or you think someone else should assess it.

- To resolve the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Approve	If you think the record is acceptable, and the task type permits you to approve it, click Approve . The ActiveVOS Server marks the related Final Review people activity as completed and performs the next activity in the process.
Escalate	If you think the record is acceptable, but the task type does not permit approval at this point in the workflow, click Escalate . The ActiveVOS Server marks the related Review No Approve people activity as completed and performs the next activity in the process.
Reject	If you disagree with the one or more values, click Reject and type an explanation in the Comment box. The ActiveVOS Server notifies the person who added the record. Note: If a source system updates the rejected record, the record goes through the approval process again.
<Other>	If you see other options in the menu, then your organization uses a custom business process. If the purpose of the option is not clear and your role permits access to the ActiveVOS console, you can open the process to understand the workflow. Otherwise, contact the person who created the business process.

The task is closed.

- To change the ownership of the task without resolving the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Reassign	To ask another person to review the proposed changes, click Reassign , select the user, and type an explanation in the Comment box. The task is reassigned to the selected person. Note: If this option is not available, click Task Details and select the user from the Assignee list.
Disclaim	To return the task to the pool of unassigned tasks, click Disclaim and type an explanation in the Comment box. Someone with the same role needs to take action on the task.

The task remains open, but is no longer assigned to you.

- If prompted, add comments or attachments to provide additional information about the task.

Note: Whether you are prompted and required to add a comment or attachment depends on the Data Director configuration. A red line appears to indicate required fields.

RELATED TOPICS:

- [“Claiming Tasks” on page 143](#)
- [“Task Manager” on page 139](#)

Reviewing Merge Tasks

When you open a task to review a merge task, the primary record appears beside the records that are selected for the merge.

1. In the task inbox of the **Home** page, click a task that is a request to review a merge proposal.
The record opens in the review panel of the Task Manager.
Note: If you open an unassigned task, be sure to claim it before you start work.
2. Optionally, review the comments and attachments.
 - a. Click the **Comments** tab, and then review the comments.
 - b. Click **Task Details**.
 - c. Download attachments in the **File Attachments** section.
 - d. Click **Cancel**.
3. Review the merge preview and determine if the merge is valid. The fields that appear in the merge preview are highlighted.
Note: The next step depends on whether you have enough information to resolve the task or if you think someone else should assess it.
4. If required, make changes to the proposed merge task.
 - a. To change the proposed merge task, perform any of the following tasks:

Task	Procedure
Add records that you want to merge.	Click Add Candidate . You can search for records and add the records to the view.
Remove records that you do not want to merge.	From the Actions menu, select an option: <ul style="list-style-type: none"> - Remove Candidate. Removes a manually added record from the review panel. - Not a Match. Removes a system matched record from the review panel and dissociates it as a match of the target record.
Finalize the best version of the truth.	Select the field with the correct value or enter the correct value in the Merge Preview column.

- b. Click **Update**.
The merge task is updated.
5. To resolve the task, select one of the following actions:

Action	Description
Merge	If you agree with the merge proposal and the task type permits you to approve changes, click Merge . The ActiveVOS Server marks the related Merge people activity as completed and performs the next activity in the process.
Cancel	If you disagree with the merge proposal, click Cancel and type an explanation in the Comment box. The ActiveVOS Server notifies the person who proposed the merge.

Action	Description
<Other>	If you see other options in the menu, then your organization uses a custom business process. If the purpose of the option is not clear and your role permits access to the ActiveVOS console, you can open the process to understand the workflow. Otherwise, contact the person who created the business process.

The task is closed.

- To change the ownership of the task without resolving the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Reassign	To ask another person to review the proposed changes, click Reassign , select the user, and type an explanation in the Comment box. The task is reassigned to the selected person. Note: If this option is not available, click Task Details and select the user from the Assignee list.
Disclaim	To return the task to the pool of unassigned tasks, click Disclaim and type an explanation in the Comment box. Someone with the same role needs to take action on the task.

The task remains open, but is no longer assigned to you.

- If prompted, add comments or attachments to provide additional information about the task.
Note: Whether you are prompted and required to add a comment or attachment depends on the Data Director configuration. A red line appears to indicate required fields.

RELATED TOPICS:

- [“Claiming Tasks” on page 143](#)
- [“Task Manager” on page 139](#)
- [“Resolving Duplicate Records” on page 59](#)

Reviewing Unmerge Tasks

When you open a task to review an unmerge tasks, a preview shows the result of the unmerge.

- In the task inbox of the **Home** page, click a task that is a request to review an unmerge proposal.
The unmerge preview for the record appears in the review panel of the Task Manager.
Note: If you open an unassigned task, be sure to claim it before you start work.
- Optionally, review the comments and attachments.
 - Click the **Comments** tab, and then review the comments.
 - Click **Task Details**.
 - Download attachments in the **File Attachments** section.
 - Click **Cancel**.
- Review the unmerge preview and determine if the unmerge is warranted. The fields that appear in the preview are highlighted.
Note: The next step depends on whether you have enough information to resolve the task or if you think someone else should assess it.

- To resolve the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Unmerge	If you agree with the unmerge proposal and the task type permits you to approve changes, click Unmerge . The ActiveVOS Server marks the related Unmerge people activity as completed and performs the next activity in the process.
Cancel	If you disagree with the unmerge proposal, click Cancel and type an explanation in the Comment box. The ActiveVOS Server notifies the person who proposed the unmerge.
<Other>	If you see other options in the menu, then your organization uses a custom business process. If the purpose of the option is not clear and your role permits access to the ActiveVOS console, you can open the process to understand the workflow. Otherwise, contact the person who created the business process.

The task is closed.

- To change the ownership of the task without resolving the task, click an appropriate action button, or click **More Actions** and select one of the following actions:

Action	Description
Reassign	To ask another person to review the proposed changes, click Reassign , select the user, and type an explanation in the Comment box. The task is reassigned to the selected person. Note: If this option is not available, click Task Details and select the user from the Assignee list.
Disclaim	To return the task to the pool of unassigned tasks, click Disclaim and type an explanation in the Comment box. Someone with the same role needs to take action on the task.

The task remains open, but is no longer assigned to you.

- If prompted, add comments or attachments to provide additional information about the task.
Note: Whether you are prompted and required to add a comment or attachment depends on the Data Director configuration. A red line appears to indicate required fields.

RELATED TOPICS:

- [“Claiming Tasks” on page 143](#)
- [“Task Manager” on page 139](#)

Organizing Work on Tasks

When you have a long list of tasks, you can organize tasks by sorting and filtering the list, changing task properties, and assigning tasks to others.

For example, you might want to work on the tasks that have the highest priority or on the tasks that are due soonest. After you filter the list of tasks, you might find tasks that need a higher priority or that can be postponed. You can edit the task properties to better reflect the urgency within the business to resolve tasks. And, if you have the authority to assign tasks to managers, you can assign the task to a manager from the task properties.

RELATED TOPICS:

- [“Task Manager” on page 139](#)

Editing Due Date, Priority, and Other Task Properties

As you work with tasks, you might decide that some task properties need to be changed. For example, if changes are made to the record of an important client, you might want to increase the priority of the review task. Or, if you plan to be away and want to finish a set of tasks before you leave, you can change the due dates for the tasks to represent a date before your planned absence.

1. In the navigation bar, click **Task Manager**.
2. In the task panel, select the task you want to edit.
3. In the review panel, click **Task Details**.

The following image shows the **Task Details** dialog box:

The screenshot shows a dialog box titled "Edit Task: Send for Approval". It contains several input fields and sections:

- Task Title:** A text box containing "Send for Approval".
- Priority:** A dropdown menu set to "Normal".
- Due Date:** A date picker set to "2017/09/05".
- Task Type:** A button labeled "Final Review".
- Assign to:** A dropdown menu set to "Admin".
- Business Entity:** An empty text box.
- File Attachment:** A table with columns "File Name", "Creator", and "Uploaded".

File Name	Creator	Uploaded
Onboarding.pdf	jthomas	Jan 1, 2017
Bank Statment.pdf	ahasdj	
- Add Comment:** A text area with the placeholder "Type Comment".
- All Comments(1):** A list of comments showing "admin added a comment - 29/Aug/2017 16:10:37" with the text "Created task ""Send for Approval""".
- Buttons:** "Browse", "Upload", "Save", and "Cancel".

4. Edit one or more of the following fields to change the task properties:

Field	Description
Task Title	Enter a title that is more meaningful to you. A good title includes at least the name of the record and the change that initiated the review.
Priority	Select a priority that reflects the urgency within the business to resolve this change.

Field	Description
Due Date	Select a due date that reflects the urgency within the business to resolve the change.
Assignee	Reassign this task to someone else.
File Attachment	Attach files to provide additional information about the task. Attachments appear in the Task Details dialog box. Note: The File Attachment field is available only if the task supports attachments.
Add Comment	Add comments to explain edits to the task properties and to track questions and answers about the task. Comments appear in the Comments tab.
Assign Back to Pool	Return the task to the pool of unassigned tasks so that other users can claim the task. Note: The Assign Back to Pool button is available only if the task belongs to another user.

5. Click **Save**.

Assigning Your Tasks to Other Users

If the **Assignee** list is enabled in the **Edit Task** dialog box, you can reassign tasks.

Note: If you want to enable reassignments, contact your MDM administrator. The MDM administrator must implement a business process management (BPM) adapter that supports reassignments.

1. In the navigation bar, click **Task Manager**.
The task panel contains a list of your assigned tasks and all unassigned tasks.
2. In the task panel, select **My Open Tasks**.
The task panel displays all your open tasks.
3. Select the task that you want to assign to another user.
The record appears in the review panel.
4. To provide additional information about the task, click **Task Details**, and then add a comment or a file attachment.
Note: If you do not have the options for comments or attachments, contact your MDM administrator to request that they enable comments and attachments.
5. To assign the task, select the user from the **Assignee** list.
6. Click **Save**.

Assigning Tasks Back to the Pool

When a user in your user group is not available, you can send the user's tasks to the pool of unassigned tasks so that other users can claim them. The option to assign the tasks back to the pool is available only if the task belongs to another user.

1. Click **Task Manager**.
2. In the task panel, select the task that you want to send to the pool.
3. In the review panel, click **Task Details**.
4. Click **Assign Back to Pool**.

Disclaiming Tasks

If you claim or are assigned a task that you feel would be better handled by someone else, you can disclaim the task. Disclaimed tasks return to the pool of unassigned tasks.

1. Click **Task Manager**.
2. In the task panel, select an assigned task.
The record appears in the review panel
3. In the review panel, click **More Actions > Disclaim**.
4. If prompted, add comments or attachments to provide additional information about the task.

Note: Whether you are prompted and required to add a comment or attachment depends on the Data Director configuration. A red line appears to indicate required fields.

CHAPTER 20

Review Processes Reference

This chapter includes the following topics:

- [Review Processes Reference Overview, 153](#)
- [Update With Approval Workflow, 154](#)
- [One Step Approval Workflow, 154](#)
- [Two Step Approval Workflow, 155](#)
- [Merge Workflow, 155](#)
- [Unmerge Workflow, 155](#)

Review Processes Reference Overview

A review process is an automated business process. When a user adds, edits, merges, or unmerges records, the action can initiate a review process. A review process ensures that business managers or data stewards review and ultimately approve the data before it becomes master data.

Your user role determines whether a change to the master data triggers a review. For example, if your user role permits you to add or edit data but not approve changes, then when you save an edit or merge records, the action triggers a review process.

Multidomain MDM ships with the following default review processes:

- Update with Approval Workflow
- One Step Approval Workflow
- Two Step Approval Workflow
- Merge Workflow
- Unmerge Workflow

Note: If you see different process names or task types in your task inbox, someone in your organization has changed the review processes or created custom processes.

The following sections describe the purpose of each review process and identify the people activities within each process. To view an entire process, open the process in the ActiveVOS Console.

Update With Approval Workflow

In the Update With Approval Workflow process, a data steward reviews the changed entity before either canceling the update or sending the update through a two-step approval process.

The following table summarizes the people activities within the process:

People Activity	Role Assigned	Description
Update	DataSteward	A data steward reviews the update and either cancels the update or sends it through a two-step approval process.
Review No Approve	Manager	A manager reviews an update and either rejects it or sends it on for Final Review.
Final Review	SrManager	A senior manager reviews the update and either rejects it or approves it.
Notification	DataSteward	If approved, the data steward receives a notification that the update is approved.

One Step Approval Workflow

The One Step Approval Workflow process requires one senior manager to review and then approve or reject the update.

The following table summarizes the people activities within the process:

People Activity	Role Assigned	Description
Final Review	SrManager	A senior manager reviews an update and either approves it or rejects it.
Notification	DataSteward	If the update is approved, the record is flagged for promotion and the data steward is notified.
Update	DataSteward	If the update is rejected, the data steward is notified and can cancel the update.

Two Step Approval Workflow

The Two Step Approval Workflow process requires at least two business managers to participate in the review and approval process.

The following table summarizes the people activities within the process:

People Activity	Role Assigned	Description
Review No Approve	Manager	A manager reviews an update and either rejects it or escalates it to Final Review.
Final Review	SrManager	A senior manager reviews the update and either approves it or rejects it.
Notification	DataSteward	If approved, the record is flagged for promotion and the data steward is notified.
Update	DataSteward	If rejected, the data steward is notified and can cancel the update.

Merge Workflow

When you select merge candidates, you can create a task that initiates the Merge Workflow process in the ActiveVOS Server.

The following table describes the people activity within the process:

People Activity	Role Assigned	Description
Merge	DataSteward	A data steward reviews the candidates and either merges the records or cancels the action.

Unmerge Workflow

When you unmerge records, you can create a task that initiates the Unmerge Workflow process in the ActiveVOS Server.

The following table describes the people activity within the process:

People Activity	Role Assigned	Description
Unmerge	DataSteward	A data steward reviews the candidate and either unmerges the records or cancels the action.

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