Stretch Master Data Management

Complete User Documentation

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1. Overview

Stretch Master Data Management Overview

Stretch Master Data Management is a centralized Master Data Management platform that enables your organization to maintain a single source of truth for business data.

Purpose

This system serves as your master data repository, providing a controlled environment for managing critical business Entities such as Accounts, Budgets, Targets, and more. It enables authorized users to:

- View and edit data through an intuitive web interface
- Track changes over time with full audit history
- Export data for reporting and analysis
- Ingest data from external systems through automated pipelines

User Roles

The system supports two user roles:

ADMIN	END-USER
• Create and configure Models, Entities, and attributes • Manage user access and permissions • Import bulk structure definitions • View activity logs and system configuration	• View and edit data in Entities they have access to • Use the Timemachine to view historical data • Review and accept data from external ingestion • Export data to Excel for analysis

Getting Started

When you first log in, you'll complete a brief onboarding process to set up your profile. After that:

- End users: Navigate to *Models & Entities* to access your data
- Administrators: Start by creating Models and Entities, then grant user access via *User Management*

Application Navigation

The system provides different navigation options based on your role.

ADMIN Pages

- **Home** — Dashboard with system totals, recently configured Entities, latest activity, and quick actions
- **Models & Entities** — Create and configure Models, Entities, and attributes
- **User Management** — Add users, grant and revoke access to Entities
- **Import** — Bulk import Models, Entities, and attributes from Excel templates

- **Activity & Logs** — View system activity logs and audit trail
- **Docs & Help** — This documentation
- **Settings** — Log level, debug mode, system configuration, and about information

END-USER Pages

- **Home** — Dashboard showing your access levels, available Entities, and quick actions
- **Models & Entities** — Browse Models and work with Entity data
- **Docs & Help** — This documentation
- **Settings** — Personal information, log level, and about information

Using the Home Page

The Home page is your starting point:

For End Users:

- View Entities you have access to at a glance
- See access metrics (Models, Entities, attributes)
- Quick-navigate to frequently used Entities
- Access documentation and help resources

For Administrators:

- Monitor system totals and health
- See recently configured Entities
- View latest system activity
- Quick actions: Manage users, create new Models/Entities, start imports

Bookmarking & Sharing

You can bookmark or share direct links to specific Entities:

To bookmark an Entity:

1. Navigate to the Entity you want to save
2. Use your browser's bookmark feature (Ctrl+D / Cmd+D)
3. The URL contains the Entity ID for direct access

To share with colleagues:

1. Copy the URL from your browser's address bar
2. Send the link to your colleague
3. They will be taken directly to that Entity (if they have access)

Note: Users without access to the Entity will see an access denied message.

Run as End-User Toggle

Administrators can toggle *Run as End-User* in the user menu (bottom of sidebar) to experience the application from an end-user perspective. This is useful for:

- Testing end-user workflows
- Verifying what users will see
- Troubleshooting access issues

2. Core Concepts

Understanding the data hierarchy and access model of Stretch Master Data Management.

Data Hierarchy

The system organizes data in a three-level hierarchy:

Models	→	Entities	→	Attributes
Business domains (Finance, HR, Sales)		Data tables (Customers, Products)		Data fields (String, Integer, Boolean)

Models

Models are the top-level organizational containers that group related Entities together.

- Represent business domains (e.g., Finance, HR, Sales, Products)
- Created and managed by ADMIN users
- Contain one or more Entities
- Help organize data by function or department

Entities

Entities are the data tables that store your business information.

- Belong to exactly one parent Model
- Contain records (rows) and attributes (columns)
- Examples: Customers, Products, Accounts, Employees
- Access is granted at this level — users either have full access to an Entity or no access
- Created by ADMIN; data managed by END-USER

Attributes

Attributes are the individual data fields (columns) within an Entity.

- Have defined data types: STRING, INTEGER, FLOAT, BOOLEAN, CATEGORY
- Can include descriptions and default values
- Some attributes are marked as primary keys (■) and cannot be edited
- Defined by ADMIN when configuring Entities

Access Control

Access is managed at the Entity level:

- Users are granted access to specific Entities by administrators
- Having access means you can view and edit all records in that Entity

- You may have access to multiple Entities across different Models
- Your accessible Entities appear in the Home dashboard and navigation
- Administrators manage permissions via the User Management page

3. Working with Data

Complete guide to viewing, editing, searching, and exporting Entity data.

Accessing Data

To view Entity data:

1. Navigate to *Models & Entities* from the sidebar
2. Browse Models or use the Entity Overview
3. Click on an Entity to open it
4. The Data tab displays your records

You can also access Entities directly from the Home dashboard.

Data Toolbar

The toolbar above the data grid provides these actions:

- **Search** — Find records containing specific text across all columns
- **Filter** — Apply column-specific filters with operators (contains, equals, greater than, is empty, etc.)
- **Find & Replace** — Bulk update text values across multiple records
- **Add Records** — Insert new blank rows for data entry
- **Save Changes** — Commit your modifications to the database
- **Edit in Excel** — Download data for offline editing, then upload changes

Editing Data

To modify data:

1. Click any cell to edit its value directly
2. Primary key columns (marked with ■) are read-only
3. System columns (like RecordID) cannot be edited
4. Click *Save Changes* to commit — you'll see a summary before confirming

Tips:

- Copy-paste from Excel works directly in the grid
- Drag the corner handle of a cell to fill values down/across

Excel Integration

For bulk editing in Excel:

1. Click *Edit in Excel* to download the current dataset
2. Make changes in Excel (edit existing rows, add new rows)
3. Save the file
4. Upload it back using the upload area that appears

5. Review the validation report showing what will change
6. Confirm to apply the changes

Important limitations:

- Maximum 100,000 cells per file
- Data types must match the Entity definition

Exporting Data

To export data:

- **Full export:** Use *Edit in Excel* to download the complete dataset
- **Filtered export:** Apply filters first, then hover over the data grid and click the download icon in the top-right corner to export only visible records

Timemachine — Viewing Historical Data

The Timemachine tab allows you to see exactly how data looked on any past date. The system maintains a complete history of all changes.

To view historical data:

1. Open an Entity
2. Switch to the *Timemachine* tab
3. Select a date using the date picker
4. The data grid displays records as they existed on that date

> *You can search and filter the historical view just like current data.*

Understanding History

- Every change creates a new version of the record
- Previous versions are never deleted
- Timemachine shows a snapshot at your selected point in time
- Records that didn't exist yet won't appear
- Deleted records will appear in historical views before their deletion

Use cases:

- **Auditing:** Track what changed and when
- **Recovery:** Reference previous values if data was incorrectly modified
- **Historical reporting:** Analyze data as it existed at specific points in time

> *Timemachine is read-only. To restore previous values, manually edit current data or contact an administrator.*

4. User Management

How to add users to the system and manage their access to Entities. (ADMIN)

How Users Are Added

Users can be added to the system in two ways:

1. Auto-Provisioning (Recommended)

When someone logs in for the first time:

- The system automatically creates their user record
- They are matched by their email address from the identity provider
- They will see an access denied screen until granted access to Entities

2. Pre-Provisioning

Administrators can create user records before the user logs in:

1. Navigate to User Management from the sidebar
2. Click *Add User*
3. Fill in the user details and submit
4. When the user logs in, they are matched to this record by email

Adding a User Manually

To pre-provision a user before they log in:

1. Navigate to User Management from the sidebar
2. Click the *Add User* button

Fill in the form:

- **Username:** The user's login identifier (e.g., john.doe)
- **Email Address:** Must match their identity provider email exactly
- **Display Name:** How their name appears in the system
- **Role:** USER or ADMIN

3. Click *Create User*

Why pre-provision?

- Grant access to Entities before the user's first login
- User gets immediate access when they log in
- No waiting for admin to grant access after first login

Granting Access to Entities

To give a user access to Entities:

1. Navigate to User Management from the sidebar

2. Find the user in the Overview tab
3. Click on the user to open the access manager
4. Check the Entities they should have access to
5. Click *Save* to apply changes

> *Changes take effect immediately — the user will see their new Entities on their next page load.*

Checking User Access

To verify what a user can access:

1. Navigate to User Management
2. Switch to the *Check Access* tab
3. Select or search for a user
4. View which Entities they have access to

> *This is useful for troubleshooting access issues or auditing permissions.*

User Roles

ADMIN	USER
• Full access to all system configuration • Can create Models, Entities, and attributes • Can add users and manage permissions • Can view activity logs • Can access System Configuration in Settings	• Can view and edit data in Entities they have access to • Cannot modify system structure • Cannot manage other users • Cannot view activity logs

5. Configuration & Management

Complete guide for administrators on setting up Models, Entities, and system configuration. (ADMIN)

Creating Models

To create a new Model:

1. Navigate to *Models & Entities*
2. Go to Model Overview
3. Click *Create New*

Enter the following:

- Model name (cannot be changed later)
- Description

4. Submit to create

> *The Model is now ready for adding Entities.*

Creating Entities

To create a new Entity:

1. Navigate to *Models & Entities*

Then either:

- Go to Entity Overview and click *Create New*, or
- Open a Model and click *Add Entity*

Enter the following:

- Entity name
- Description
- Parent Model
- Configuration options

2. Submit to create

> *After creation, add attributes to define the data structure.*

Managing Attributes

To add attributes to an Entity:

1. Open the Entity (admin mode)
2. In the Table Structure tab, click *New Attribute*

Configure the attribute:

- Attribute name
- Data type (STRING, INTEGER, FLOAT, BOOLEAN, CATEGORY)
- Description
- Default value (optional)
- Is Primary Key?

3. Submit to add the attribute

To remove an attribute:

1. Find the attribute in the table
2. Check the delete checkbox
3. Save changes

> ■■ **Warning:** Removing an attribute permanently deletes that column's data.

Editing Existing Entities

Renaming an attribute:

1. Open the Entity in admin mode
2. Go to Table Structure tab
3. Click on the attribute name to edit it
4. Enter the new name and save

> *The system will track this as a rename operation.*

Changing attribute properties:

1. Click on the attribute row
2. Modify description, default value, or other properties
3. Save changes

> *After modifying attributes, you must synchronize the database. See Database Synchronization below.*

Database Synchronization

When you add, rename, or remove attributes, the database schema must be updated to match.

How it works:

1. After saving attribute changes, you'll see a sync notification
2. Click *Manage Objects* to view pending changes

The dialog shows what needs to be synchronized:

- New columns to add
- Columns to rename
- Columns to remove

3. Click *Sync* to apply changes to the database

When synchronization is needed:

- Adding new attributes
- Renaming existing attributes
- Removing attributes
- Changing attribute data types

If sync fails:

- Check the Activity Logs for error details
- Verify database permissions
- Ensure no conflicting operations are in progress

Bulk Import

To import multiple Models, Entities, and attributes at once:

1. Navigate to *Import* from the sidebar

Follow the 6-step wizard:

- **Step 1:** Download the Excel template
- **Step 2:** Upload your completed template
- **Step 3:** Review and validate
- **Step 4:** Create metadata
- **Step 5:** Materialize database objects
- **Step 6:** (Optional) Upload initial data

> *Delta Import: Toggle Delta Import to extend existing structures instead of treating duplicates as conflicts.*

Activity Logs

To view system activity:

1. Navigate to *Activity & Logs*
2. View log entries with timestamp, level, user, and action

Filter by:

- Log file (current or archived)
- Level (DEBUG, INFO, WARNING, ERROR, CRITICAL)
- Time range
- User
- Search text

3. Export filtered logs by hovering over the table and clicking the download icon

> *Log files are stored daily with format app_YYYYMMDD.log.*

6. Data Ingestion

How to enable and use data ingestion from external systems.

Overview

Data Ingestion allows external systems to submit data to Entities through a controlled landing zone. This enables automated data pipelines while maintaining data quality through a review process.

The workflow:

1. ADMIN enables ingestion for an Entity
2. External systems submit JSON data to the landing table
3. END-USER reviews data in the Mapping tab
4. End users accept, reject, or modify incoming records
5. Accepted records are added to the Entity

Enabling Ingestion (ADMIN)

To enable ingestion for an Entity:

1. Open the Entity in admin mode
2. Go to the Configuration tab
3. Click *Ingestion & Mapping* in the left menu
4. Toggle *Enable ingestion?* to ON
5. Click Save

What happens when you enable ingestion:

- The system creates a landing table for incoming data
- A development landing table is also created for testing
- End users will see a Mapping tab when they open the Entity
- The Configuration tab will display SQL examples and guidelines for data integrators

Ingestion Guide (ADMIN)

After enabling ingestion, view the detailed guide:

1. Go to Configuration > Ingestion & Mapping
2. View three tabs of information:
    - **Overview:** Landing table paths, attribute reference, primary key requirements
    - **SQL Examples:** Copy-paste ready SQL for your database (Snowflake/PostgreSQL)
    - **Guidelines:** Data type requirements and troubleshooting tips

Share this information with your data integration team or ETL developers.

Using the Mapping Tab (END-USER)

When ingestion is enabled and data has landed:

1. Open the Entity and go to the Mapping tab
2. Review the pending records

For each record, you can:

- **Accept:** Add the record to the Entity
- **Reject:** Discard the incoming record
- **Edit:** Modify values before accepting

3. Handle any conflicts with existing records
4. Confirm your decisions

Use Analyze from Landing Dev to review test data before production.

JSON Payload Format

External systems insert JSON payloads into the landing table:

```
{"PrimaryKeyField": "value1", "AttributeName": "value2"}
```

Data Type Examples:

- Text: `"CustomerName": "Acme Corp"`
- Numbers: `"Quantity": 100`
- Booleans: `"IsActive": true`
- Dates: `"StartDate": "2024-01-15"`

Requirements:

- All primary key fields must be included
- Attribute names must match exactly (case-sensitive)
- Use appropriate data types for each field

7. Data Exposure

Understanding the data exposure settings and how they work with external services.

Overview

Data Exposure allows you to mark Entities for external consumption by downstream systems.

> ■■ **Warning:** Stretch Master Data Management does not expose data by itself. The exposure settings in this system only configure flags and destinations — they serve as a lookup table for external services. Actual data exposure must be implemented through a custom extension to the service layer. If your organization has data exposure configured, consult your system administrator for details.

How Exposure Works

The exposure feature provides:

- A flag indicating whether an Entity should be exposed
- A destination specifying where or how the data should be exposed

What the system stores:

- Enable/disable exposure toggle per Entity
- Selected exposure domain/destination

What the system does NOT do:

- Does not automatically push data anywhere
- Does not create APIs or endpoints
- Does not sync data to external systems

> *A separate service must read these settings and implement the actual data exposure.*

Configuring Exposure (ADMIN)

To configure exposure settings for an Entity:

1. Open the Entity in admin mode
2. Go to the Configuration tab
3. Click *Expose data* in the left menu
4. Toggle *Enable exposure?* to ON
5. Select a destination domain from the dropdown
6. Click Save

Prerequisites:

- The Entity must have attributes defined
- The database table must be materialized
- Exposure must be enabled globally in your system

When Exposure Is Disabled

If you see *"Exposing data is disabled globally, or not configured"*:

- Global exposure has not been enabled for your system
- No service layer extension has been configured
- Contact your system administrator to enable this feature

> *This is expected if your organization does not use external data exposure.*

Requesting Changes

If your system already exposes data and you need changes:

- **To expose a new Entity:** Configure it in the Expose data section
- **To change exposure destination:** Update the destination in Configuration
- **To stop exposing data:** Disable the exposure toggle and save

> *Changes to exposure settings may require service restarts or propagation time depending on your organization's setup. Always coordinate with your system administrator when making exposure changes.*

8. Troubleshooting Guide

Solutions for common issues you might encounter.

Access Issues

If you cannot access an Entity:

- Ensure you've completed onboarding after first login
- Verify you've been granted access to that Entity
- Try refreshing your browser
- Check if your session has expired (re-login)
- Contact your administrator to confirm permissions

> *Administrators can verify access via User Management > Check Access.*

Data Not Saving

If changes aren't being saved:

- Look for validation error messages
- Ensure you clicked *Save Changes*
- Check that data types are correct
- For large changes, try saving in smaller batches
- Verify you have edit permissions

Excel Import Errors

Common Excel import issues:

- **Invalid data types:** Ensure dates, numbers match expected formats
- **Missing required fields:** Check all mandatory fields have values
- **File too large:** Stay under 100,000 cells per file
- **Hidden formatting:** Try saving as CSV then back to Excel

Database Sync Issues (ADMIN)

If synchronization fails:

- Verify you have admin permissions
- Open the Entity and click *Manage Objects*
- Check which objects need syncing
- Review error messages in Activity Logs
- Contact your database administrator if issues persist

Performance Issues

If the system is slow:

- Apply filters to reduce data volume
- Check your network connection
- Close unused browser tabs
- Clear browser cache
- Try a different browser (Chrome, Firefox, Edge recommended)

Reporting Issues

When reporting problems:

- Note the exact time of the error
- Capture screenshots of error messages
- Document what you were doing before the error
- Note which Entity you were working with
- Go to Settings > About to submit a bug report

You can also temporarily enable DEBUG logging in Settings to capture more detail.

9. Settings & Configuration

Available settings for both administrators and end users.

My Information

Available to all users:

- View and update your display name
- See your username and email
- Review your account details

Log Level

Available to all users:

- Temporarily change the logging verbosity for your session
- Options: DEBUG (most detail), INFO, WARNING, ERROR, CRITICAL (least detail)
- Useful for troubleshooting — set to DEBUG to capture detailed information
- Changes only affect your current session

Debug Mode (ADMIN)

Admin-only setting:

- Enable debug mode for advanced troubleshooting
- Shows additional system information in the interface
- Useful when diagnosing complex issues

System Configuration (ADMIN)

Admin-only setting:

- Configure system-wide display names and labels
- Manage documentation settings
- View and modify system parameters

About

Available to all users:

- View system version information
- Access feedback submission
- Send bug reports or feature requests to the developer

Feedback goes to Stretch Qonnect (the software developer), not your system administrators.