Honeywell

THE POWER OF **CONNECTED**

Operational Intelligence

Enterprise Asset Management Solution

.

User Guide

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For patent information, refer to www.hsmpats.com.

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Customer Support

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To search our knowledge base for a solution or to log in to the Technical Support portal and report a problem, go to www.hsmcontactsupport.com.

For our latest contact information, see www.honeywellaidc.com/locations.

1 GETTING STARTED

Introduction

Operational Intelligence from Honeywell is a vendor-independent enterprise asset management solution that helps you optimize utilization, spare pool management and the RMA process for all your mobile devices, across all your locations, throughout the lifecycle.

Use the Honeywell Operational Intelligence portal to:

- Capture and fully analyze your entire device inventory.
- Collect and evaluate all generated data on your device inventory.
- Continuously optimize device usage.

This approach enables you to optimize your workflow, minimize downtimes and significantly reduce your total cost of ownership.

For information about Operational Intelligence licensing, please contact Honeywell Sales.

Note: *This user guide assumes that Operational Intelligence has already been implemented by Honeywell.*

Signing In

Contact your local admin to request access.

Go to the login page, enter your username (your e-mail address) and the password that was provided in the invitation e-mail.

Note: *Your account will be blocked temporarily for a few minutes if you enter an incorrect password.*

If you have forgotten your password, click **Forgot password?** and follow the instructions to reset your password. An email will then be sent to you with a new password.

Navigation

Your ability to view and modify data in Operational Intelligence is determined by your assigned user role. for more information.

Site Structure

Most screens follow the same basic structure: a search dialogue at the top, a table view on the lower left, and a detail view on the lower right.

In the upper navigation bar, you can access your profile, change your password, view release notes and log off from the portal by clicking the down arrow next to your user name.

You can access the Processing List by clicking the menu icon ☰ (see).

On the left side you find an expandable navigation bar for the main menus. You can expand the menu by opening the respective sub menus for **Device configuration** and **Admin** or by clicking the arrow at the bottom of the navigation bar.
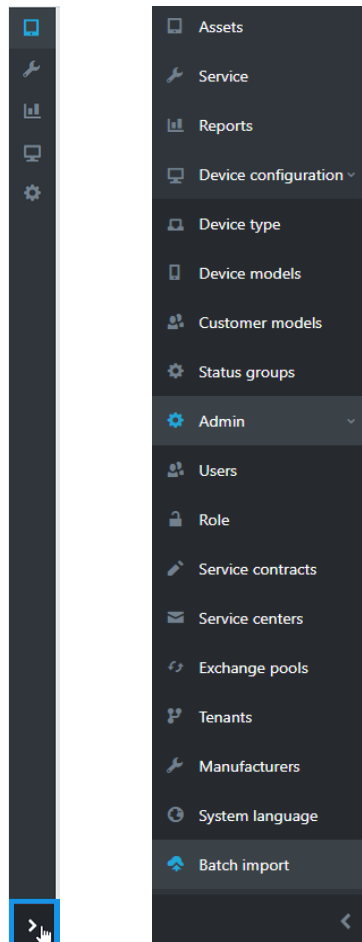
The search dialogue is in the upper part of the screen. For more information, see Searching on page 3.

The lower left side of the screen contains a customizable table view for the search results. You can show, hide or rearrange columns. To add an entry, click the **+** button in the upper right corner of the table view.

The detail view on the lower right side contains information about and available operations for the selected item in the table view.

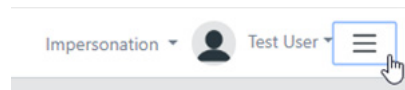A table view's contents can saved as a .csv or .xlsx document by clicking **Export Table** at the bottom of the window.

Using the Processing List

The Processing List allows you to edit assets, service processes (RMAs) and users. You can edit multiple rows at once.

Toggle the Processing List on or off by clicking on the menu icon in the upper right corner.

Access the available categories by switching between the tabs in the Processing List.
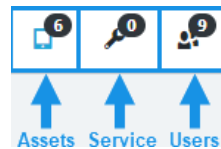
You can add items from one of the supported categories to the Processing List by marking the check boxes of the desired rows in the table view. These entries will then display in the associated tab of the Processing List.

You can also add serial numbers or RMAs to the Processing List by typing them directly into the Processing List text box or by scanning them while the text box is selected. Confirm your input by clicking **Add**.

Remove any undesired entries from the Processing List by clicking the **x** next to the entry in the Processing List.

To see all available operations for the selected Processing List, click the upward facing arrow .

Searching

Available search parameters will differ based on which item is selected in the navigation bar. You can minimize the search dialogue by clicking the up arrow in the right corner.

For most search fields, you can alternate between the search modes "=" (equals) and ".Az." (contains). You can either select a value from the drop-down box or type a value. You must press Enter after every typed value.

Saving a Search Filter

To save a set of search parameters as a filter preset:

1. Enter the appropriate search parameters, then click ▤ at the top right of the search dialogue.

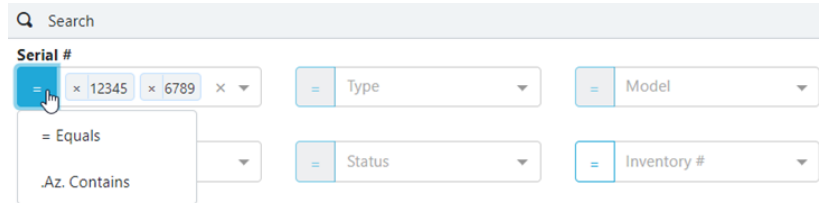2. Under **Create new filter**, define a name for the filter preset, then click **Save**.

Loading or Deleting a Search Filter

1. Click ▤ at the top right of the search dialogue.

2. Select the desired filter preset, then click **Load**.
   or
   To delete the filter, click the recycle bin icon.

Reordering or Hiding Search Filters

1. Click ⤬ at the top right of the search dialogue.

2. To reorganize parameters, drag and drop them into the desired order.

3. To hide a parameter, click the check box beside it.

4. Scroll down and click **Save**.

Working with Impersonations

Operational Intelligence allows you to limit the data displayed to that of a chosen tenant by using an impersonation.

Note: *The impersonation function does not mask user credentials. Impersonation filters all displayed data to that of a single tenant. The availability of the impersonation function depends on the user's assigned role. (See "User Management" on page 19.)*

To impersonate a tenant:

1. Click on the drop-down arrow between **Impersonation** and your profile picture in the upper right of the screen.

2. Select a tenant from the drop-down list.

If an impersonation is active, you will see the impersonated tenant's name next to your profile picture.

You can reset the active impersonation by expanding the impersonation drop-down menu and then selecting **Reset impersonation**.

Connected Devices

Assets do not need to be connected in order for Operational Intelligence to manage them. However, some features such as battery and GPS data require that assets be connected via the device onboarding procedure. Honeywell will work with you during implementation to onboard existing devices. If Operational Intelligence has already been implemented and you want to connect new devices, please contact Honeywell Support. For more information, refer to *Operational Intelligence Onboarding for Mobile Computers Implementation Guide*.

Security Considerations for Devices Connecting to Honeywell Operational Intelligence

One of the common weaknesses of system management as reported by Open Web Application Security Project (OWASP) is "not keeping software up to date." It is critical to keep the latest patches and software versions on all operating systems that support components of your Honeywell solution.

Ensure you have the latest security fixes and patches on all devices connecting to Honeywell Operational intelligence including those that may connect to your management portal.

Note that your Honeywell solution may require specific versions and/or updates of third-party software. Refer to documentation and release notes for the solution components.

Honeywell recommends that you set the minimum level of privilege for all external accounts and enforce a strong password policy.

ASSET MANAGEMENT

Asset Details

The Assets page is the home page displayed when you sign in to Operational Intel-ligence. From other pages, you can navigate to the Assets page by selecting **Assets** on the navigation bar on the left side of the window. Alternatively, you can click **Honeywell Operational Intelligence** in the top left corner of the screen.

To view an asset's details, click on a row in the table view. The information in the detail view is displayed across multiple tabs: a Details tab containing general infor-mation about the device, a History tab which shows a time line of events affecting the asset, a map tab displaying GPS information, a Sensor tab showing battery data, and a Documents tab which lists available documents associated with that asset (e.g., device manuals or data sheets).

Note: *The tabs available in the Asset Details view may differ between devices.*

Creating a New Asset

Note: *Device Type (see page 17), Device Model (see page 17), Customer Model (see page 18), and Location (see page 23) must be defined before a new asset can be added.*

1. Click the **+** button labeled **Create asset** in the upper right corner of the table view.
2. Fill out the asset information. Customer, Model, Serial# and Place are required fields. You must specify a customer before you will be able to select a model.
3. Click **Add Location.** A menu displays from which you can select the location using the tenant location hierarchy.
4. Click **Save** to apply the location.
5. Click **Save** to create the new asset.

Editing an Asset

You can edit the serial number, the device status, the inventory number and the asset's description on the Details tab by clicking **Edit**. Confirm your changes by clicking **Save**.

Changing Asset Location

You can change an asset's location to either a new place in the tenant hierarchy or to an exchange pool.

Single Asset

1. Select **Assets** from the navigation bar.
2. Click on the desired device in the table view.
3. Click **Change location** in the details view.
4. Select a new location from either the tenant hierarchy or the list of exchange pools.
5. The **Choose tenant** button will change to **Chose location:** followed by the new selection. Click the **Chose location** button.
6. Click **Change location**.

Multiple Assets

1. Select **Assets** from the navigation bar.
2. Specify which assets you want to change by clicking their check boxes on the table view.
3. If it is not already displayed, toggle the Processing List on by clicking the menu icon ≡ in the upper right corner.
4. On the Assets tab of the Processing List, click **Change location**.
5. Select a new location from either the tenant hierarchy or the list of exchange pools.
6. The **Choose tenant** button will change to **Chose location:** followed by the new selection. Click the **Chose location** button.
7. Click **Change location**.

Assigning Service Contracts

1. With the desired assets specified in the Asset Processing List, click .
2. Select **Assign service contract**.
3. Select a service contract from the list or use the search dialogue to find the desired contract.

4. Click **Use service contract**.

5. Click **Assign models** to confirm contract assignment.

Detaching Service Contracts

1. With the desired assets specified in the Asset Processing List, click .

2. Select **Detach service contract**.

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3 SERVICE MANAGEMENT

What is an RMA?

The abbreviation RMA stands for "Return Merchandise Authorization." The RMA process is triggered when a device with a defect needs to be replaced. There are multiple ways this process can be organized, but generally it includes sending the faulty device to a repair center while receiving an exchange device. The faulty device is repaired and will then enter the device exchange pool to be used for further RMAs.

RMAs are managed using the Service page but are created on the Assets page.

RMA Details

To view a list of RMAs, click **Service** on the navigation bar on the left. To view details for a specific RMA, click on a row in the table view. The detail view consists of three tabs: a Details tab containing general information about the RMA and associated asset, a History tab which shows a time line of RMA progress, and the Shipping Notes tab, from which you can download the shipping documents associated with the RMA.

Creating an RMA

1. Select **Assets** on the Navigation bar.
2. Search for the defective asset and select it in the table view.
3. In the first tab of the detail view of the defective asset, select the **Device defect** button.
4. After confirming that a repair of the device is necessary, you can select the fitting symptom code to describe the error. You can also leave an optional description of the error.
5. Click **Generate RMA** to create the RMA.
6. On the next screen, you can print the delivery note of the asset by clicking **Print delivery note**.

Updating an RMA

1. Select **Service** on the Navigation bar.

2. Search for the desired RMA and select it in the table view.

3. In the Details tab of the detail view, you have three options for updating an RMA:

   Click **Replace device** to enter the serial number of the device that will replace the defective asset.

   Click **Device received** to log in a defective device once it has been received.

   Click **Change asset** to modify the serial number of the device on the RMA.

Printing Shipping Notes

Use the Service Processing List to print shipping notes,

1. Toggle the Processing List on by clicking the menu icon ☰ in the upper right corner.

2. Click the **Service** tab.
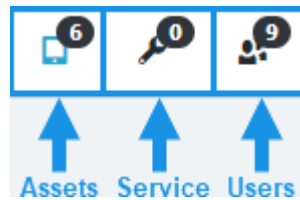
3. If either the RMA or Assets table views are active, mark the check boxes of the desired RMAs or assets in the table view to add them to the Processing List.

   You can also add to the service Processing List by typing or scanning the RMA number or serial number. Toggle between RMA number and serial number using the icons to the left of the text box.

   Note: *The text box must be selected before scanning an RMA or serial number.*

4. If necessary, remove undesired entries from the Processing List by clicking the **x** next to the entry in the Processing List.

5. Click **Create shipping note** and a pdf will download.

Batch Closing RMAs

You can close multiple RMAs at the same time using the Service Processing List. (To close a single RMA, refer to Updating an RMA.)

1. Toggle the Processing List on by clicking the menu icon ☰ .

2. Click the **Service** tab.

3. If either the RMA or Assets table views are active, mark the check boxes of the desired RMAs or affected assets in the table view to add them to the Processing List.

   You can also add to the service Processing List by typing or scanning the RMA number or serial number. Toggle between RMA number and serial number using the icons to the left of the text box.

Note: *The text box must be selected before scanning an RMA or serial number.*

4. If necessary, remove undesired entries from the Processing List by clicking the **x** next to the entry in the Processing List.

5. Click and select **Batch close RMAs**.

6. Click **Close all RMAs**.

REPORTS

Navigate to the Report page by selecting **Report** on the navigation bar on the left side of the window.

Available Reports

There are two main reports: RMA summary and Asset summary. You can also export a monthly report or a battery report. Navigate between the reports using the tabs in the upper right:

Both the RMA summary and asset summary initially display statistics for all tenants and locations you have permission to view. You can display more detail by clicking on a chart segment, location, or symptom/repair code. To return to the overall summary, click **Clear**.

You can also use the Search box to narrow report results by location.

You can further define the report results using the tabs in the lower left corner of the report view. Click the **Overview** tab to return to the summary of all results. On the **Location** tab of the asset summary, use the plus and minus keys on your keyboard to zoom in and out of the map view.

Hover your cursor over the chart. Wherever you see   you can click to focus in on that data. Click **...** for more options, including export, spotlight, or show data.

On bar chart at the bottom of the RMA summary, you can toggle between a linear and logarithmic scale, as well as specify whether you want all data, last month, or last year. You can also refine the bar by day, month, quarter, or year.

Exporting Reports

RMA/Asset Summary

1. Click **....** for more options.
2. Click **Export data**.
3. Specify whether you want summarized data or underlying data (if applicable).
4. Select a data format: .xlxs or .csv from the drop-down list.
5. Click **Export**.

Monthly Report

1. Click the **Export** tab ▦ .
2. Specify the month to be exported and the data format.
3. Click **Create report**.

Battery Report

1. Click the **Battery** tab ▬ .
2. Specify beginning and ending dates.
3. Click **Create report**.

5 DEVICE CONFIGURATION

Device configuration in Operational Intelligence is spread across the following categories:

- Device types
- Device models
- Customer models
- Status groups

You can access these tabs by using the navigation bar on the left side of the page.

Device Types

Device types define the general categories assets can be separated into (e.g., scanner, cable, SIM, etc.). You can customize these categories to best serve your business needs.

Select **Device Configuration>Device Type** on the navigation bar. For information about an existing device type, select the desired row in the table view to display specific information about that device type in the detail view.

To add or modify a device type, contact Technical Support (see page v).

Device Models

A device model further defines an asset within the device type it's based on.

Select **Device configuration>Device models** on the navigation bar. For information about an existing device model, select the desired row in the table view to display specific information about that model in the detail view.

To add or modify a device model, contact Technical Support (see page v).

Repair Codes

Repair codes define a specific step in the repair process. (For example, "changed display.") Repair codes are managed by the respective repair service partner.

To add or modify a repair code, contact Technical Support (see page v).

Customer Models

The customer model feature allows you to specify which models are used by a particular customer. You can assign repair centers and symptom codes and define self checks. You can also specify whether the customer model is bundled with any accessories.

Select **Device configuration>Customer models** on the navigation bar. For information about an existing customer model, select the desired row in the table view to display specific information about that model in the detail view.

To view default service and repair centers, click the **Service** tab in the detail view. To view device self checks, click the **Self check** tab.

To list available device manuals or data sheets associated with that model, click the **Documents** tab.

To add or modify a customer model, contact Technical Support (see page v).

Symptom Codes

A symptom code defines a certain error case. Symptom codes are used as an error description when creating an RMA for an asset. (For example, "display not working.")

To add or modify a symptom code, contact Technical Support (see page v).

Status Groups

When you select either a symptom or a repair code for an RMA, you can see it's assigned to a certain status group. Status groups are collections of symptom and repair codes. Symptom codes are assigned to status groups through customer models, while repair codes are assigned to status groups through device models.

To add or modify a status group, contact Technical Support (see page v).

6 ADMINISTRATION

The Admin menu allows you to manage users and user roles, service contracts, service centers, exchange pools, tenant hierarchy, and manufacturers. You can also change system language options and import batch data files.

User Management

All Operational Intelligence users are assigned a place and a role.

Place is assigned according to what data the user can access based on the tenant hierarchy rather than physical location. For example, a user who needs to move assets globally should have Place set to the top level of the tenant hierarchy rather than just the country in which they are located.

Role is assigned based on the permissions each person needs in the system to match their responsibility rather than their job title.

Creating Users

1. Navigate to **Admin>Users**.
2. Click on the **+** icon located in the upper right corner of the users table view to access the **Create user** dialogue in the detail view of the page.
3. Fill out the user information.

   First Name, **Last Name**, **E-mail**, **Place** and **Role** are required fields. Optionally, you can also enter a phone number and upload a photo.
4. To assign a location to the user, click **Add location**. This opens a menu where you can select the location using the Tenants hierarchy.
5. Apply your selection by clicking **Save**.

Editing Users

To modifying an existing user's settings:

1. Navigate to **Admin>Users.**
2. Select the desired row in the user table view.
3. Click **Edit** in the detail view.

Managing User Roles

Permissions in Operational Intelligence are managed by assigning different roles to users. Each role has a specific set of permissions.

You can navigate to the **Role** page using the navigation bar on the left side of the screen.

When selecting an existing role, the detail view shows the permissions assigned to that role.

To add or modify a user role, contact Technical Support (see page v).

Types of Permissions

Category	Name	Permission Granted
Admin	Context switch	Impersonate customers
Asset	Asset bundling	View, edit, delete asset bundle (e.g., scanner and accessories)
	Asset deactivation	Soft delete an asset from the system
	Asset location	Relocate/move assets to other locations
	Asset management	View, edit, delete assets
	Asset view	View assets
Batch	Batch import	Access to batch import
Device	Client model management	View, edit, delete customer models
	Client model view	View customer models
	Model management	View, edit, delete models
	Model view	View models
	Service contract management	View, edit, delete service contracts
	Service contract view	View service contracts
	Type management	View, edit, delete device type
	Type view	View device type
Language	Customer language management	View, edit, delete customer-specific translation of the portal
	Language management	View, edit, delete default translation of the portal
Report	Report view	View reports

| Category	Name	Permission Granted
Service	RMA change asset	Replace an asset with a different one within an RMA (for example, if the initial asset is not broken or was incorrectly added to the RMA)
	RMA close	Close RMAs
	RMA exchange	Exchange device within an RMA
	RMA generate	Create/generate RMAs
	RMA initial check	Verify defective device when initially arrived at service center
	RMA receive device	RMA step when broken device is received
	RMA repair	Repair the broken device
	RMA send exchange	Send the exchanged device by also providing tracking number for the shipment
	RMA send repair	Send the repaired device back to the customer
	RMA verify repair	Verify repair when device is received from repair center
	RMA view	View RMAs
Tenant	Exchange pool management	View, edit, delete exchange pools
	Exchange pool view	View exchange pools
	Manufacturer management	View, edit, delete manufacturers
	Manufacturer view	View manufacturers
	Service center management	View, edit, delete service or repair centers
	Service center view	View service or repair centers
	Tenant management	View, edit, delete customer and customer locations
	Tenant view	View customer and customer locations
User	Role management	View, edit, delete roles
	Role view	View roles
	User management	View, edit, delete users
	User view	View users

Assigning Roles to Multiple Users

To assign a role to a single user, do so on the User page (see User Management on page 19.)

To assign a role to multiple users, use the User Processing List.

1. Choose a customer impersonation by clicking on the drop-down arrow between **Impersonation** and your profile picture in the upper right side of the screen.
2. Select **Admin>Users** from the navigation bar.
3. Select users by clicking their check boxes in the table view.
4. If it is not already displayed, toggle the Processing List on by clicking the menu icon ☰ in the upper right corner.

5. Click the **Users** tab icon.
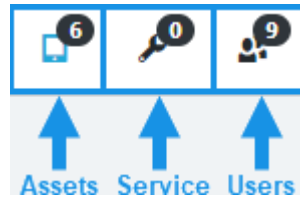
6. If necessary, remove undesired entries from the Processing List by clicking the **x** next to the entry in the Processing List.

7. Click **Assign role to users**.
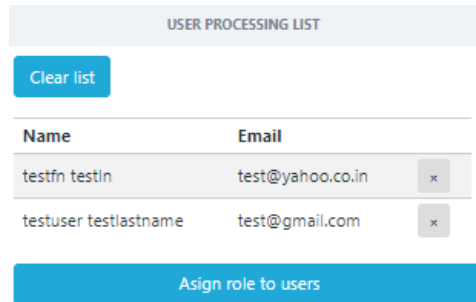
8. Select a role from the drop-down box, then click **Assign role**.

Service Contracts

For information about service contracts, including provider, and effective dates, select **Admin>Service contracts** on the navigation bar. Then select the desired row in the table view to display the details for that contract.

To add a new contract, click the + button labeled **Create contract** in the upper right corner of the table view.

To modify an existing contract, select the corresponding row in the table view then click **Edit** in the detail view.

Service Centers

For information about the repair centers you can use for returning equipment, select **Admin>Service centers** on the navigation bar. Then select the desired row in the table view to display the details for that service center.

To add or modify a service center, contact Technical Support (see page v).

Exchange Pools

Exchange pools are locations where repaired assets or extra devices are kept until needed. To display exchange pool information, select **Admin>Exchange pools** on the navigation bar. Then select the desired row in the table view to display the details for that exchange pool.

To add or modify an exchange pool, contact Technical Support (see page v).

Tenant Management

Operational Intelligence organizes customers and their respective sites into a tenant hierarchy.

The Tenants menu allows you to view and edit this structure, as well as creating new entries.

Select **Admin>Tenants** tab on the navigation bar.

Tenant Hierarchy

Tenants are organized in a hierarchical system, visualized by a tree view. The customer (tenant) is located at the top of the structure, with its associated sites as nodes below. This hierarchy allows the creation of multiple levels of organizational structures, for example to organize sites by their physical locations within a country.
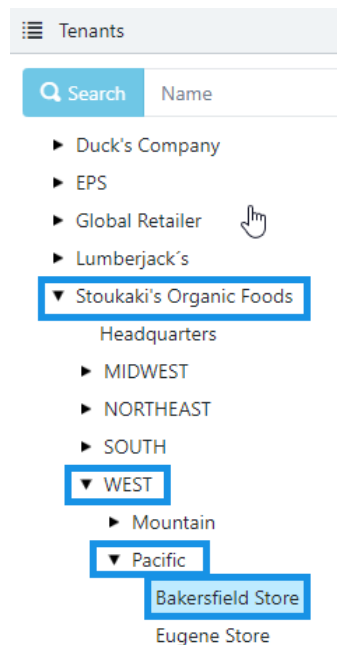
You can view the properties of a tenant by selecting it in the tree view structure. The details for the selected tenant can be found in the detail view of the page. You can modify the tenant's details by clicking **Edit** in the detail view.

Creating Tenants

1. Click the **+** icon labeled **Create Tenants** in the upper right corner of the tree view.
2. Fill out the tenant's information.
3. Click **Save**.
4. If the newly created tenant is not immediately visible, reload the page by pressing F5 or clicking the reload icon on your browser.

Manufacturers

Click **Admin>Manufacturers** on the navigation bar, then select the desired row in the table view to display the details for that manufacturer.

To add or modify a manufacturer, contact Technical Support (see page v).

System Language

The system language feature allows the customization of certain field and term translations. To view these translations, select **Admin>System Language** on the navigation bar. To change a translation, contact Technical Support (see page v).

Batch Import

The batch import feature allows you to import bulk data in a single step.

The categories for which you can execute a batch import are:

- Assets
- Users
- Service contract (assignment)
- Battery data

The steps for importing are roughly the same for all types of data.

1. Select **Admin>Batch Import** on the navigation bar.

2. Navigate to either the **Asset data, Users, Service contract** or **Battery data** import tab.
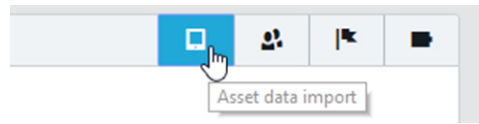
3. For asset, service contract, or battery data imports, specify a model. For user import, specify a role.

4. Select a template to fill with the data. The template is available as .xlsx (Microsoft Excel) or .csv file. You will have to download a template and save it locally before you can fill it out.

   Both file types can be opened and edited using Microsoft Excel.

5. Open and fill out the template document. The column titles will differ between import type (e.g., asset, user, etc.)

Column	Description
SerialNumber	Text field, max 50 characters.
AlternativeNumber	Text field, max 50 characters.
IsPeakDevice	Valid entries: 0 or 1
SoftwareVersionNumber	Text field, max 50 character, must match the existing software version within the customer model definition.
ContractNumber	Text field, max 50 character, must match existing service contract within the system.
Location	Text field, max 256 character, must match existing location name.
ParentLocation	Text field, max 256 character, must match existing location name and be defined as a parent of the location provided in the previous field.
FirstName	Text field, required, max 90 characters
LastName	Text field, required, max 90 characters
Email	Text field, required, max 90 characters

6. Save the document locally.

7. Upload the template using the **Choose file** button and selecting the file.

8. Check the validity of the data that you want to import by clicking **Check items** in the lower right corner of the page. This step will determine whether there are any missing or incorrect values in the uploaded file or if the file contains assets that already exist.

9. If the operation was completed successfully, you will see a list of the items you are importing.

10. Execute the import by clicking **Upload data**.

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