



Manifest Client Portal User Guide

Accessing your Client Web Portal

YOUR UNIQUE DOMAIN

Each Manifest instance has an assigned domain. You will need your domain and individual credentials to access any Manifest application, including the Client Web Portal.

CLIENT WEB PORTAL

The Client Web Portal is where you can create locations, asset classes, register assets (and access their asset tag codes), view / edit templates, provision users and permissions, and more.



Manifest Support Team is responsible for provisioning a unique domain to newly licensed partners and customers.



Number of licenses and license expiration date will be configured at this time.



When a domain is first deployed, the assigned Administrator will be issued an email prompting them to set their user password and access the Manifest Client Portal. It is the Administrator's responsibility to provision the licensed user accounts and assign permissions accordingly.



Once an administrator adds a new user and assigned role/permissions – the user will receive a system generated email prompting them to set up their password (and if required by the Admin, 2FA)

Domain Provisioning & Deployment

Receiving your Credentials

When your Client Administrator creates your user, you will receive an email containing:

- A link to set your password
- Your unique Manifest domain
- URL to your Client Web Portal

Please save these credentials. You will need them to access your Manifest instance on all applications.

Depending on the security settings set by your Administrator, you may be required to enable Two-Factor-Authentication. Administrators can also create settings for:

- Session Timeout
- Password Strength
- Password expirations (where you need to reset within a set timeframe)

Welcome to Manifest!



manifest@taqtiletest.com

Today, 10:11 AM

Kirsten Austin ▾



Reply all ▾



Action Items



Welcome to Manifest!

You have been added as a new user to Manifest.

Please follow this URL to create your password (the link will be valid for 72 hours):

<https://taqtiletest.taqmanifest.com/rest/reset-password/3d0db120f5f62cb63651ce5ab1260bc819f2b286>

Below is your domain and the URL to your Client Web Portal. After setting your password, you will be able to login to the application and portal using your email address and password.

Domain: taqtiletest

Client Web Portal: <https://taqtiletest.taqmanifest.com>

Questions or Support Needs: Please contact your Manifest administrator or Manifest Support at manifestsupport@taqtile.com.

User personal info

First Name*

Last Name*

Title

Avatar

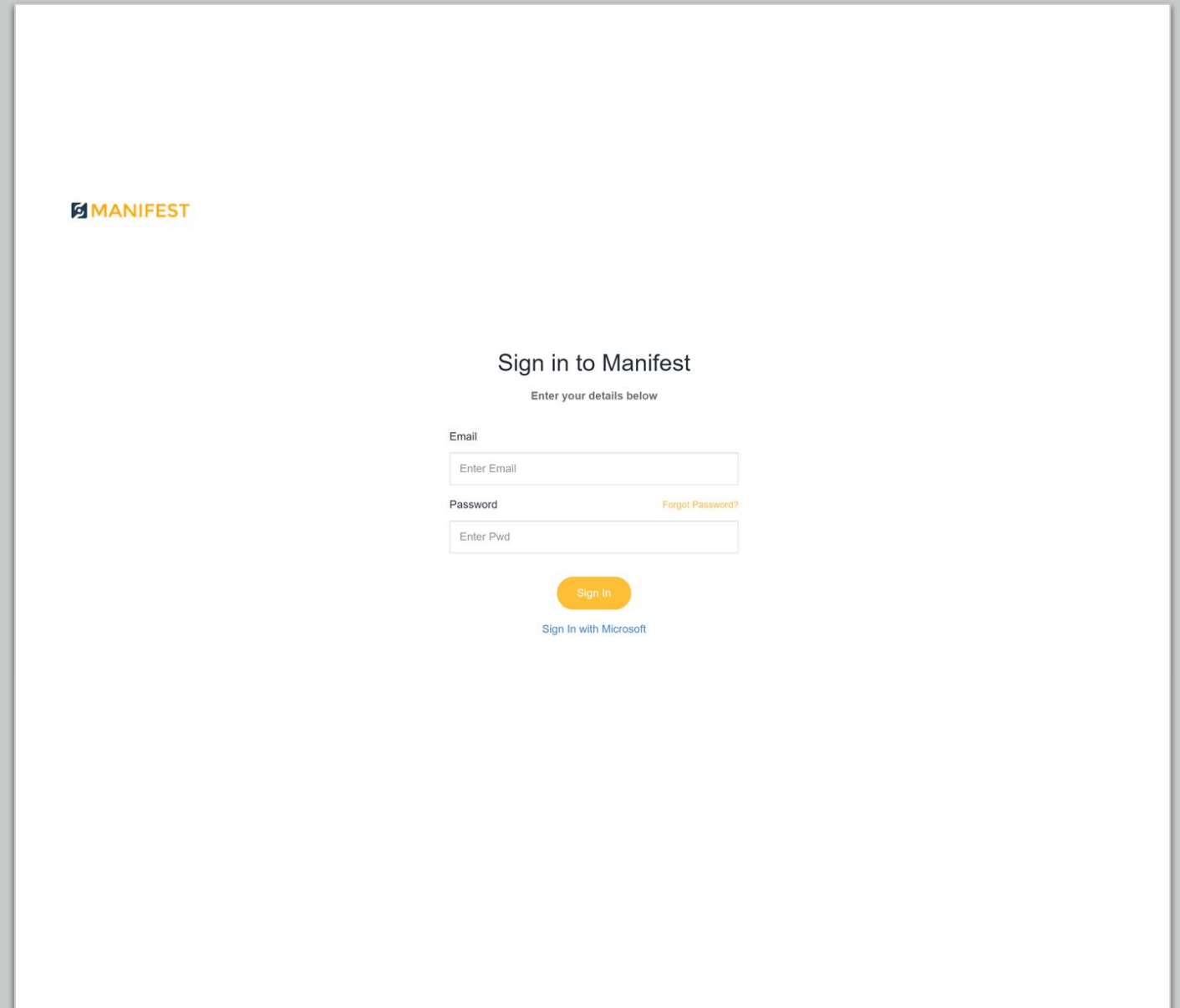
[Change password](#)

User Personal Info

- When you first create your password, you will be prompted to update your User Personal Information. You can also access this options by selecting the avatar icon in the top right corner of the header.
- You may also upload a personal avatar file or change your password.

Login

- Enter your email and password to login to your Client Web Portal. If your client is configured for Active Directory login, you may sign-in with your Microsoft User Account.
- If you forgot your password, select the Forgot Password link to enter your email address and you will be sent a link sent to reset your password.



Menu Options

Tap the hamburger icon to either collapse or expand the menu and labels.

Expanded Menu View

MANIFEST

MAIN

- Locations
- Asset Classes
- Assets
- Templates
- Jobs
- Jobs History
- Meters
- Meter Requirements
- Meter Units
- Measurements
- Users
- Vumark Guides Management

Add new location

Demo Land

| | | | |
|----------------|--------------------------------------|------------------|--|
| Id: | 4 | Description: | Selection of canned demo options and templates for training and demos. |
| Location Name: | Demo Land | Position: | |
| Address: | 107 Spring Street, Seattle, WA 98104 | Model Rotation: | [0,0,0] |
| Latitude: | 47.60494 | Model Scale: | 1 |
| Longitude: | -122.33762 | Associated File: | Add Files |

Child locations + [Add new child location](#) [Edit](#) [Delete](#)

Demo Refinery

| | | | |
|----------------|--|------------------|---|
| Id: | 1 | Description: | Wilmington California Central Plant. |
| Location Name: | Demo Refinery | Position: | |
| Address: | 2402 East Anaheim Wilmington, California 90744 | Model Rotation: | [0,0,0] |
| Latitude: | 38.047985 | Model Scale: | 0.0075 |
| Longitude: | -122.259418 | Associated File: | Refinery Model.obj ✖ |

[Add Files](#)

Collapsed Menu View

MANIFEST

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Child locations + [Add new child location](#) [Edit](#) [Delete](#)

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[Add Files](#)

Client Settings

Client settings

Client Name: Test

Prevent Re-use of User ID for set length of time: 0 Days, 0 Hours, 0 Minutes

Session timeout:

Enable 2FA:

Printed QR Code Size: 56 mm

Password security rules

Force to Reset Password:

Minimum Password Length: 0

Minimum Change Of Characters: 0

Number Of Old Passwords To Compare With: 0

At Least One Number:

At Least One Lowercase:

At Least One Uppercase:

Admins can access the Client Settings via the gear icon in the upper-right corner of the Client Web Portal. Through settings the admin can:

- Change the Client Name
- Prevent re-use of a User ID for a set length of time
- Force a session timeout (this would force a user to log back in after a session was idle for a set length of time in the application or Client Web Portal)
- Enable 2FA (this enabled 2FA at the client level, and can then be managed for each individual user. Forcing 2FA for a user would require users to set-up 2FA through Google Authenticator, or similar app, and then enter a 6-digit code each time they login to any of the Manifest applications or the Client Web Portal)
- Set the global sizing for the printed QR Codes (defaults to recommended 56mm square)
- Create password security rules to force specific password strength and rules for all users.

Users

Visit the User screen to view what users have been provisioned, what permissions each has, and to monitor your license allotment.

Additional actions available:

- Add new user
- Delete user
- Edit user
- Reset user's password (will issue an email to the user with a link to reset.)
- Enable 2FA (this must first be set at the domain level under “Settings”, and then can be enabled on an individual user level)

The screenshot shows the MANIFEST application's 'Users' management screen. The top navigation bar includes the MANIFEST logo, a search bar, and a 'Sign out' button. A sidebar on the left lists various system components, with 'Users' selected. The main content area features a green 'Add new user' button and a table of existing users. The table has columns for 'Id', 'User', 'Roles', and 'Actions'. One user is listed with the email 'manifestsupport@taqtile.com' and roles of 'admin', 'inspector', 'author', 'operator', and 'viewer'. The 'Actions' column for this user contains icons for edit, lock, and delete. In the top right corner of the main area, it states 'Licensed users included: 10, Remaining: 10'.

| Id | User | Roles | Actions |
|----|-----------------------------|--|---------|
| 1 | manifestsupport@taqtile.com | admin inspector author operator viewer | |

Create or Edit a User

Create new user

Email*

First Name

Last Name

Title

Description

Avatar

| ADMIN | INSPECTOR | AUTHOR | OPERATOR | VIEWER |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

* These fields are required

- To create a new user, select “Add new user”
- Add email (required) and First, Last, Title info if available.
- Select appropriate roles/permissions for the user. (see permissions grid next side)
- Select “Create” and a system generated email will be sent to the user including:
 - A link to set their password
 - The unique Manifest domain
 - URL to the Client Web Portal

Note: all Manifest users MUST be provisioned in Manifest, even if they are using Active Directory to login.

User Roles & Permissions

| Area | Permission | Admin | Inspector | Author | Operator | Viewer |
|----------------|-------------------------------|-------|----------------------|--------|----------|--------|
| Locations | View Locations | Yes | Yes | Yes | Yes | Yes |
| Locations | Add/Edit Locations | Yes | No | Yes | No | No |
| Locations | Delete Locations | Yes | No | No | No | No |
| Asset Classes | View Asset Classes | Yes | Yes | Yes | Yes | Yes |
| Asset Classes | Add/Edit Asset Classes | Yes | No | Yes | No | No |
| Asset Classes | Delete Asset Classes | Yes | No | No | No | No |
| Asset | View Assets | Yes | Yes | Yes | Yes | Yes |
| Asset | Add/Edit Assets | Yes | No | Yes | No | No |
| Asset | Delete Assets | Yes | No | No | No | No |
| Asset | Asset Tags (Download & Print) | Yes | Yes | Yes | Yes | Yes |
| Meters | View Meters | Yes | Yes | Yes | Yes | Yes |
| Meters | Add/Edit/Delete Meters | Yes | No | No | No | No |
| Meters | Edit Meter Position | Yes | No | Yes | No | No |
| Measurements | View Measurements | Yes | Yes | Yes | Yes | Yes |
| Measurements | Add/Edit/Delete Measurements | Yes | No | No | No | No |
| Jobs | Job Board | Yes | Inspector Board Only | No | Yes | No |
| Jobs | Create Jobs | Yes | Yes | No | Yes | No |
| Jobs | Perform Jobs | Yes | Inspector Jobs Only | No | Yes | No |
| Jobs | Self Assign Jobs | Yes | Inspector Jobs Only | No | Yes | No |
| Jobs | Assign Jobs to Others | Yes | No | No | No | No |
| Jobs | Delete Jobs | Yes | No | No | No | No |
| Templates | View Templates | Yes | Yes | Yes | Yes | Yes |
| Templates | Create Templates | Yes | No | Yes | No | No |
| Templates | Edit Templates | Yes | No | Yes | No | No |
| Templates | Delete Templates | Yes | No | No | No | No |
| Users/Settings | Create Users | Yes | No | No | No | No |
| Users/Settings | Assign User Roles | Yes | No | No | No | No |
| Users/Settings | Delete Users | Yes | No | No | No | No |
| Users/Settings | View Client Settings | Yes | No | No | No | No |
| Users/Settings | Edit Client Settings | Yes | No | No | No | No |



Locations

Visit the location screen to view locations that have been created along with associated child locations and data. Additional actions available:

- Add new location
- Delete location
- Edit location
- Upload / Delete 3D model files
- View / Add / Edit Child Locations

Child locations are sub-locations to the Parent. An example of this might be configuring a location site to be the “Parent” and then buildings within that site to be “Children”. **To View Child Locations, select the arrow icon to expand the view.**

The screenshot displays a web application interface for managing locations. At the top, there is a dark blue navigation bar with a search bar, a user profile icon, a settings gear, and a 'Sign out' button. Below the navigation bar, a green button labeled 'Add new location' is visible. The main content area shows a location card for 'California Refinery'. The card contains a table of details:

| | | | |
|----------------|-------------------------------------|------------------|--|
| Id: | 1 | Description: | This is a demo location. |
| Location Name: | California Refinery | Position: | |
| Address: | 1290 San Pablo Ave, Rodeo, CA 94572 | Model Rotation: | [-0.078639879822731,-0.917386114597321,-0.316792994737625] |
| Latitude: | 38.047985 | Model Scale: | 1 |
| Longitude: | -122.259418 | Associated File: | Refinery.obj  Refinery.mtl  |

Below the details table, there is a section for 'Child locations' with a dropdown arrow icon. At the bottom of this section, there are three buttons: 'Add new child location' (green), 'Edit' (blue), and 'Delete' (red).

Create a new location

At least one location must exist in your application. This will be required to view the Job Board, generate assets, and create jobs. Locations are 'work sites' where you would manage assets and jobs

- Creating a new location requires location name, address, latitude / longitude, and description.
- To create a new location, select "Add new location"
- Once you have created a location, you can associate a 3D model of that location by selecting "Add file" under "Associated file"
- You will be prompted to Upload a 3D (obj) file and name it, along with an optional Material (mtl) file.
- Model Rotation and Model Scale will relate to how that 3D model is positioned in the application.
- Select "Add child location" to add Child Locations.

Create new location

Location Name*

Address*

Latitude*

Longitude*

Description

Associated File Obj

Associated File Mtl

Model Rotation*

Position

Model Scale*

* These fields are required

Asset Classes

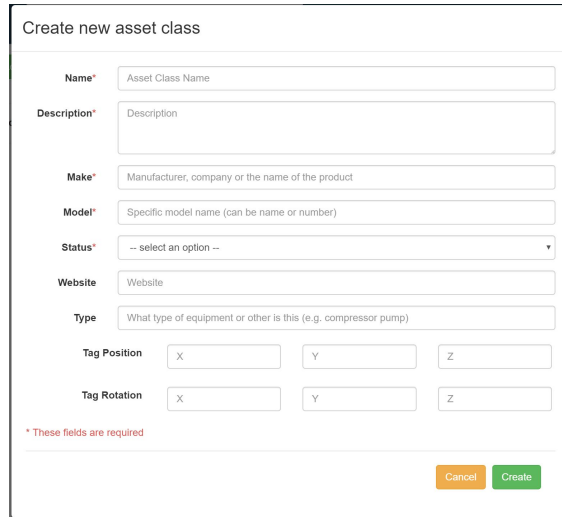
An asset class would be product or equipment that your company would like to author procedures over. It would include a make and model vs. an asset which would have a unique serial number and live under the Asset Class level. Asset classes MUST be created through the client portal and is required to create assets. Visit the Asset Class screen to:

- Add new asset class
- Delete asset class
- Edit asset class
- Upload / Delete 3D model files
- Upload / Delete PDF Documents associated to Asset Class
- Upload / Delete Thumbnail Image for Asset Class

The screenshot displays the MANIFEST web application interface. At the top, there is a dark blue header with the MANIFEST logo, a search bar, and a 'Sign out' button. Below the header, a sidebar on the left lists navigation options: MAIN, Locations, Asset Classes (selected), Assets, Templates, Jobs, and Jobs History. The main content area features a green 'Add new asset class' button and a table with the following data:

| Id | Name | Status | Last Modified | Actions |
|-----|------------------------------|--------|---------------|---------|
| > 1 | Ebara 3 Series PVC | Active | 10/18/18 | |
| > 2 | Gardner Denver Drilling Pump | Active | 10/10/18 | |
| > 3 | Ebara 3 Series | Active | 11/29/18 | |

Create a new asset class



The screenshot shows a web form titled "Create new asset class". The form contains the following fields:

- Name***: A text input field with the placeholder "Asset Class Name".
- Description***: A text area with the placeholder "Description".
- Make***: A text input field with the placeholder "Manufacturer, company or the name of the product".
- Model***: A text input field with the placeholder "Specific model name (can be name or number)".
- Status***: A dropdown menu with the placeholder "-- select an option --".
- Website**: A text input field with the placeholder "Website".
- Type**: A text input field with the placeholder "What type of equipment or other is this (e.g. compressor pump)".
- Tag Position**: Three text input fields labeled "X", "Y", and "Z".
- Tag Rotation**: Three text input fields labeled "X", "Y", and "Z".

At the bottom left of the form, there is a red asterisk and the text "* These fields are required". At the bottom right, there are two buttons: "Cancel" (orange) and "Create" (green).

- To add a new asset class, select “Add new asset class”
- You will be prompted for the following information:
 - **Name:** Product name or internal reference. This is displayed and searchable through the application.
 - **Description:** Displayed in the app under the asset class.
 - **Make:** Manufacturer, company, or name of product. It is displayed within the app under the asset class.
 - **Model:** Specific model name for this asset class. It is displayed within the app under the asset class.
 - **Status:** Active / Inactive
 - **Website:** Optional. App will link to this URL.
 - **Type:** any further internal information about this asset
 - **Tag Position and Rotation:** Refers to the asset tag placement and should be set via the 3D application but could be manually adjusted here.

View/ Manage Asset Classes

- To view Asset Class details, select the > icon in the first column to expand the details view.
- From this view you can see the asset class details as well as add, delete, or download files for Thumbnail and Documents.
- To upload a thumbnail image, which will be displayed to users within the application for the asset class and all associated assets, select “Add file” under Thumbnail Image. There is a limit of 1 image per asset class.
- To upload a Document, select “Add file” under Documents/Manuals. There is no limit to the number of manuals that can be uploaded.

The screenshot displays a web interface for managing asset classes. At the top, there is a green button labeled "Add new asset class". Below it is a table with columns: Id, Name, Status, Last Modified, and Actions. The first row shows an expanded asset class with Id 1, Name "Ebara 3 Series PVC", Status "Active", and Last Modified "10/18/18". The expanded view shows details for the asset class:

- Make:** Ebara
- Model:** 3D Series
- Description:** Ebara Centrifugal Pump 3 Series. This pump is used with a PVC pump prototype.
- Website:** http://www.ebara.it/php/eng/prodotti_scheda/id_104_categoria_centrifugal-pumps-close-coupled-and-standardized_prodotto_3-3l-4poles.html

On the right side of the expanded view, there are two sections:

- Thumbnail Image:** Shows a file named "Ebara Pump.jpg" with a delete icon (red X).
- Documents/Manuals:** Shows a list of files: "Manual.pdf", "Taqtile Manifest.pdf", "EB Gate - Hydroptic Skid SOP.PDF", "EBARA-DataBook_3DSERIES_5...", and "Getting started with OneDrive.pdf". Each file has a delete icon (red X).

At the bottom right of the expanded view, there is a blue button labeled "Add file".

Add 3D Models to an Asset Class

After creating an Asset Class, you can “Add a 3D Model” by first creating the 3D model name and settings.

- Step 1: Under the Actions column, select the box for “Manage Models”
- Step 2: Select the button “Add new model”
- Step 3: Fill out requested information.
 - Model Name
 - Model Rotation (can be set in the 3D app)
 - Model Offset (see advanced 3D models slide)
 - Model Scale: Set to 1 and adjust as needed
 - Pedestal Scale: Set to .1 and adjust as needed
 - Default: Tick box of this will be the default model which should also load first.

Actions

Manage Models



Manage Asset Class Models

Add new model

There are currently no models

Cancel Save

Adding 3D Model

Name*

Model Name

Model Rotation

X

Y

Z

Model Offset

X

Y

Z

Model Scale

Model scale

Recommend using a scale of 1 unit = 1 meter. This will allow you to use a model scale of 1 when showing the 3D model after scanning the vumark.

Pedestal Scale

Pedestal scale

Pedestal scale refers to the 3D model displayed using Pedestal. We recommend scale of .1 in this mode.

Default

* These fields are required

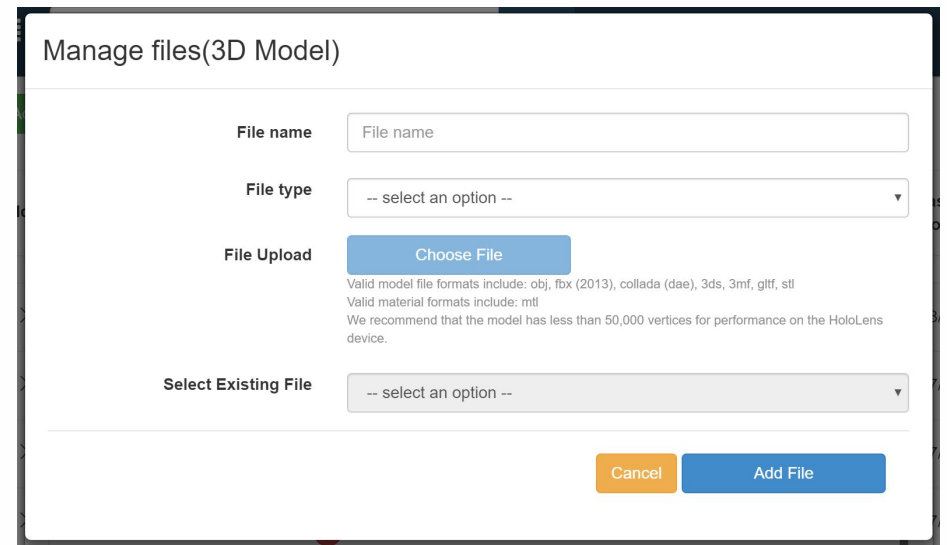
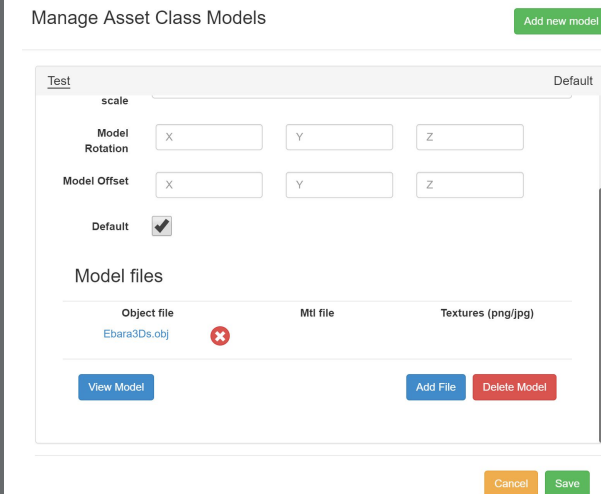
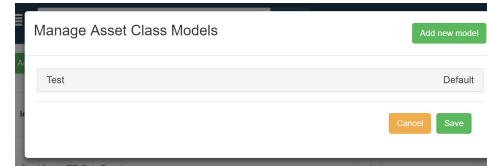
Cancel

Create

Uploading 3D Model Files

1. Under the Actions column, select the box for “Manage Models”
2. Click on the name of the 3D Model you wish to upload files to. This will expand the section to the view in the 2nd image.
3. Select Add File
4. Select the File Type
5. Choose locally stored file (this will automatically populate the file name. It is important that the file name matches the “File Name field”)
6. If you are uploading Texture files (jpg/png), you are able to multi-select files from your local drive before uploading.

Note: If you have previously uploaded a file you wish to re-use, you can choose Select Existing File.



Manage Asset Class Models Add new model

Test Default

Cancel Save

Manage Asset Class Models Add new model

Test Default

scale

Model Rotation

Model Offset

Default

Model files

| Object file | Mtl file | Textures (png/jpg) |
|--------------|----------|--------------------|
| Ebara3Ds.obj | | |

View Model Add File Delete Model

Cancel Save

Manage 3D Models

•Once you have created and uploaded 3D Model files to an asset class, the following additional actions are available:

- View Model (simple mode viewer)
- Delete Model
- Adjust scale (controls the size of the model)
- Adjust rotation (controls the rotation of the model and typically is set-up using the 3D application)
- Adjust offset (will offset the models position. Is a great tool if you want to present a 3D model and have it rotate and offset to different positions automatically in a template.)

(Note: these settings often require some trial and error.)

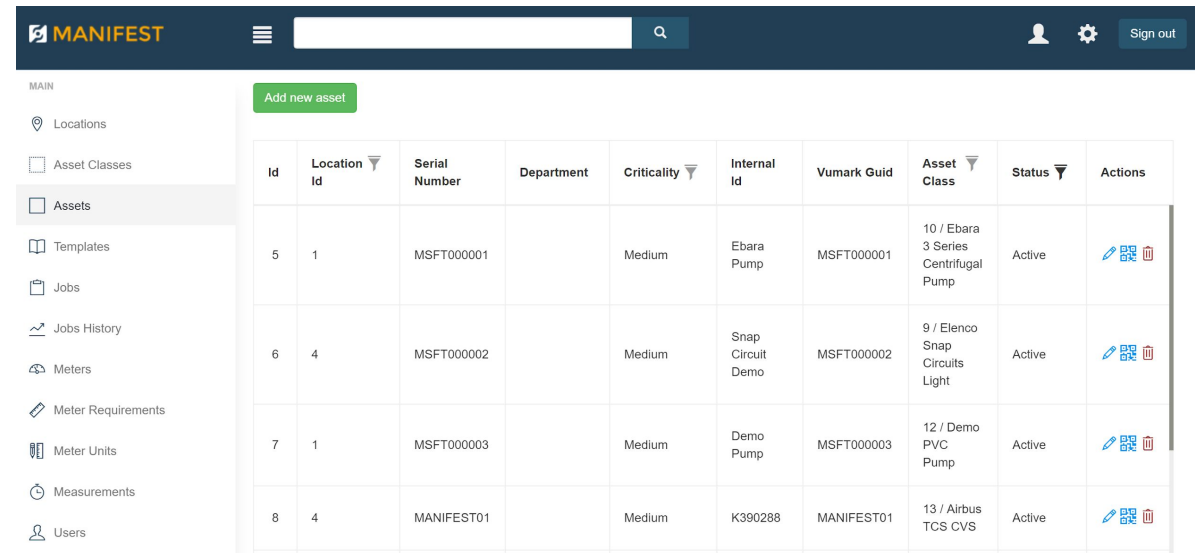
Assets

- An asset is any unique piece of equipment that you'd like to preform jobs on. Different from an asset class, an asset would contain a serial number.













- When creating an asset, you will be required to assign it an asset tag ID that will be used to generate a unique QR code for the asset.

- The Asset Tag / QR Code should be printed and placed on the asset. The tag placement must be consistent for all assets of any specific asset class. All 3D content is placed respective to tag. The unique tag also stores data for that asset: work orders, jobs, job history, meter readings, etc..

- All authored templates, documents/manuals, 3D models, are created and managed at the asset class level; whereas job history, jobs, and meter measurements are managed at the asset level.



The screenshot displays the MANIFEST web application interface. At the top, there is a dark blue header with the MANIFEST logo, a search bar, and a 'Sign out' button. A left sidebar contains a navigation menu with options: Locations, Asset Classes, Assets (highlighted), Templates, Jobs, Jobs History, Meters, Meter Requirements, Meter Units, Measurements, and Users. A green 'Add new asset' button is positioned above the main table. The table lists four assets with columns for Id, Location Id, Serial Number, Department, Criticality, Internal Id, Vumark Guid, Asset Class, Status, and Actions.

| Id | Location Id | Serial Number | Department | Criticality | Internal Id | Vumark Guid | Asset Class | Status | Actions |
|----|-------------|---------------|------------|-------------|-------------------|-------------|--------------------------------------|--------|---|
| 5 | 1 | MSFT000001 | | Medium | Ebara Pump | MSFT000001 | 10 / Ebara 3 Series Centrifugal Pump | Active |    |
| 6 | 4 | MSFT000002 | | Medium | Snap Circuit Demo | MSFT000002 | 9 / Elenco Snap Circuits Light | Active |    |
| 7 | 1 | MSFT000003 | | Medium | Demo Pump | MSFT000003 | 12 / Demo PVC Pump | Active |    |
| 8 | 4 | MANIFEST01 | | Medium | K390288 | MANIFEST01 | 13 / Airbus TCS CVS | Active |    |

Create a new asset

Create new asset

(!) Before creating an asset, please be sure both the asset location and asset class have already been created

| | |
|----------------|---|
| Serial Number* | <input type="text" value="SerialNumber"/> |
| Internal Id | <input type="text" value="Internal reference, if applicable"/> |
| Department | <input type="text" value="Internal department reference, if applicable"/> |
| Criticality* | <input type="text" value="-- select an option --"/> |
| Status* | <input type="text" value="-- select an option --"/> |
| Location* | <input type="text" value="-- select an option --"/> |
| Asset Class* | <input type="text" value="-- select an option --"/> |
| Asset Tag Id* | <input type="text" value="This value will be used to create a unique QR code"/> |

* These fields are required

Before creating a new asset, be sure you have already created the respective asset class and location for that asset, then:

- Select “Add new asset”
- You will be prompted for the following information:
 - Serial Number: asset serial number
 - Internal ID: optional if there is an internal reference or ID
 - Department: optional if relevant
 - Criticality: level of criticality for this asset
 - Status: status for this asset (can be updated and managed as status changes)
 - Location: which location this asset is located.
 - Asset Class: Select specified asset class.
 - Asset Tag Id: a unique ID you assign to generate the QR code (can be arbitrary number system or can use your own asset tag system)

Managing Assets

- Use the Action notes in the right column to manage assets: Edit, Print QR code, or Delete.
- Access and print the QR code by selecting the QR code icon.
 - **NOTE:** QR code size settings are a global setting managed by the Admin in the Client Settings. We recommend a minimum 56mm square but this can be adjusted – it should be set and applied before QR codes are printed.
 - Printing the QR code will ensure the correct size dimensions are set.
- To edit an existing Asset select the pencil icon and you may update any associated data.

Actions



Print QR

Download QR



MSFT000001

Update asset

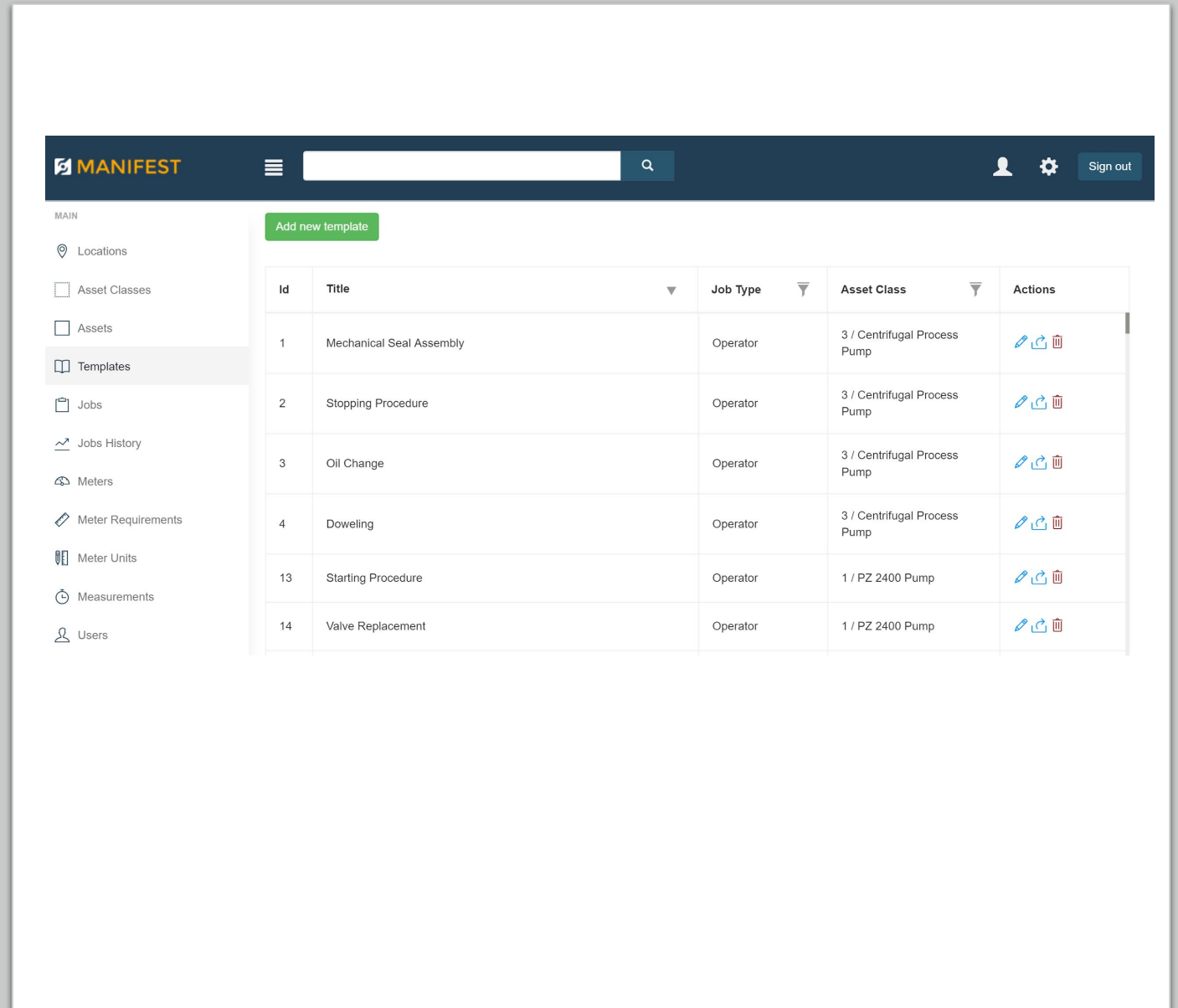
| | | |
|---------------|--|-----|
| Serial Number | MSFT000001 | ✕ |
| Internal Id | Ebara Pump | ✕ |
| Department | Internal department reference, if applicable | |
| Criticality | Medium | ✕ ▾ |
| Status | Active | ✕ ▾ |
| Location | Demo Refinery | ✕ ▾ |
| Asset Class | Ebara 3 Series Centrifugal Pump | ✕ ▾ |
| Asset Tag Id | MSFT000001 | ✕ |

Cancel Update



















Templates

Templates are step-by-step job checklists that can be performed over an area or piece of equipment.

- Templates can be authored solely in the HoloLens application while a user performs their work, OR pre-authored in the Client Web Portal where the author then manages the 3D authoring (placing of 3D step markers, lines and content) wearing the HoloLens.
- Available functions:
 - View templates and notes
 - Add new template
 - Edit existing template
 - Copy existing template
 - Delete template



The screenshot displays the MANIFEST web portal interface. At the top, there is a dark blue header with the MANIFEST logo, a search bar, and a 'Sign out' button. A left sidebar contains a navigation menu with options: Locations, Asset Classes, Assets, Templates (highlighted), Jobs, Jobs History, Meters, Meter Requirements, Meter Units, Measurements, and Users. The main content area features a green 'Add new template' button and a table of existing templates.

| Id | Title | Job Type | Asset Class | Actions |
|----|--------------------------|----------|------------------------------|---|
| 1 | Mechanical Seal Assembly | Operator | 3 / Centrifugal Process Pump |    |
| 2 | Stopping Procedure | Operator | 3 / Centrifugal Process Pump |    |
| 3 | Oil Change | Operator | 3 / Centrifugal Process Pump |    |
| 4 | Doweling | Operator | 3 / Centrifugal Process Pump |    |
| 13 | Starting Procedure | Operator | 1 / PZ 2400 Pump |    |
| 14 | Valve Replacement | Operator | 1 / PZ 2400 Pump |    |

Create a new job template

Create new job template

Title:

Job Type:

Asset class ID (by name):



- select an option --
- 9 / Elenco Snap Circuits Light
- 10 / Ebara 3 Series Centrifugal Pump
- 12 / Demo PVC Pump
- 14 / Airbus TCS CVS
- 15 / Microsoft HoloLens
- 16 / Mark VI Patrol Boat
- 17 / Main Switch Panel
- 18 / Boeing 737NG Replica

Before creating a new template, be sure you have already created the respective asset class, then:

- Select “Add a new job template”
- You will be prompted for the following information:
 - Title: This will display as the Template title in the list of Templates and the job title for any jobs created from this template.
 - Job Type: This could be an Operator or Inspector template. (Inspection templates are handled through a separate workflow.)
- Asset Class: Required for Operator job types.




Job Step Authoring

- Once you create a template, it will default to a prompt for the first step. To add additional steps, select the green button “Add new step”.
- To add step notes, under Actions select the “Manage Notes” icon. Note icons will appear in the Notes column to indicate the note types associated with each step.
- To view the notes, select the > icon to expand the section to reveal the note content for each step.
- To reorder the steps, simply drag and drop the steps.
- To delete a step, select the trash can.
- Add Meter Requirements to any step by selecting Meter Requirements under “Actions”.
- Don’t forget to select “Update” to save all changes.



| STEP# | STEP TITLE | HIGHLIGHTS | NOTES | METER REQUIREMENTS | ACTIONS |
|-------|------------|------------|-------|--------------------|---|
| > 1 | | + | | |   |



ACTIONS



Manage notes

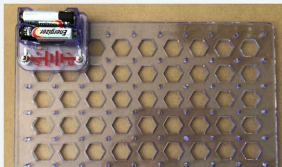
3 Place the first B1 battery holder so it snaps into positions B1 and B3. Batte ✕

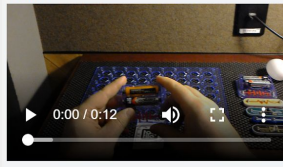
Line  

Line  

Marker  

+

Photo 

Video 

Step Note Specifications

- **Step Title / Description:** 40-character limit
- **Text Note(s): [350-character limit]** Notes that can further describe or provide instruction for this step.
- **Audio Note(s): [.wav format]** Voice Notes to further describe the step or instruct the user.
- **Video Note(s): [.mp4 format]** Videos that can be added to further demonstrate the step. Multiple can be added.
- **Image Note(s): [.png, .jpg, .jpeg]** Image notes can be added further demonstrate the step through photos. Multiple can be added.
- **Bookmark(s) [.pdf]** Bookmarks are notes that bookmark a specific page in a PDF file. This can be useful for schematics, show useful info in brochures or manuals, etc. Please indicate the PDF and the page you want bookmarked.
- **Pen Note(s):** Pen note is a 3D ink drawing around a specific area. If you would like this - please indicate where the pen should be drawn.
- **Action Note(s):** Action Notes allow you to add an automatic action to your step. Currently, the action note type available is for 3D Model.

Step Note Best Practices

When notes are authored outside of the HoloLens and uploaded via the Client Web Portal, please be mindful of the below specifications and best practices for best results.

- See previous slide for accepted file formats for each note type.
- Videos and Image Notes should be taken in landscape mode. Optimal specs:
 - 720p
 - 1280x720 pixels
 - Aspect Ratio 16:9
- If you are recording audio or video using a device other than the HoloLens, be sure the speaker speaks 'loud and clear' directly into the mic for best results.
- If preparing content outside the HoloLens, below are tips to enhance your content:
 - Add audio narrations and/or captions to videos
 - Take PPT slideshows and convert into videos with narrations and captions.
 - Create eye catching note call outs through tools like PPT that can be uploaded as Image Notes. Great for warnings and alerts!
- Try to keep content succinct and non-repetitive to optimize the experience and efficiency of the User / Operator.

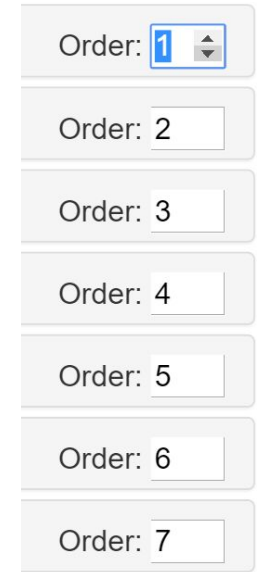
Job Step Notes

•Once you select “Manage Notes”, a modal will appear (see image 1).

•To add step notes, select “Add new note”. See image 3 for the modal that will appear when adding a new note. You will be prompted to enter:

- Title: This is not displayed to user but is the note title label for internal reference.
- Type: Select the note type. Additional fields will be populated depending on what note type you’ve selected.
 - Text will prompt you to enter a text note
 - Bookmark will prompt you to enter the pg number and document
 - Video / Image / Audio will prompt you to upload the respective file.
 - Action note will prompt you for respective file to associate
 - Pen notes can only be authored in HoloLens

•Change the order the Note Types are displayed in the UI by using the up / down arrows to swap positions. This can be done on the Note level to control what order the notes are displayed.
















Title

Type ✕ ▾

Page

Select existing file ▾



| HIGHLIGHTS |
|---|
| Marker    |
| Marker    |
| Line   Line   Marker    |

Add Template Highlight

Type*

Position

Rotation

3D Step Highlights

3D Markers and Step Line Leaders are best authored using the HoloLens. However, there are a few tools we've made available in the Client Web Portal.

- To Add a 3D Marker or Line Leader, simply select the + icon in the Highlights column. This is especially useful if you have authored a step in the HoloLens and wish to update additional steps to those same position / rotation coordinates.
 - Enter the Type as Line or Marker
 - Enter the Position and Rotation coordinates accordingly.
- You can also delete step markers and line leaders via the web portal by selecting the trash can icon.

Meter Requirements

If you have meters set up for an asset class, you can author meter requirements within the job step sequence to control a user from proceeding unless specific meter requirements are met.

- To Add a Meter Requirement, select “Meter Requirements” under action notes and then select “Add new requirement”.
 - Enter the value required
 - Evaluation Type will allow you to indicate if the value must be less than, equal to, or greater than
 - Then select the Meter ID
- You can have more than 1 meter created for a step.

Manage requirements Add new requirement

There are no meter requirements

Cancel Apply

Create new meter requirements

Value*

Evaluation Type*

Meter Id

* These fields are required

Cancel Create

Meter Units

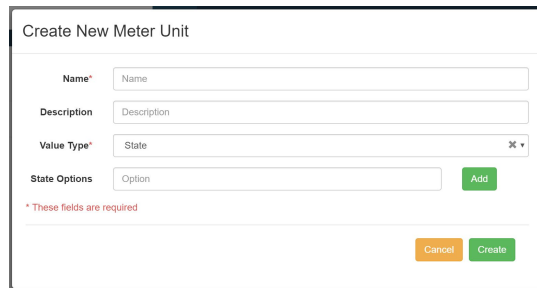
Whether you are manually creating meters to simulate meter sensor data or managing a live integration with IoT data – Units will represent the possible unit types sensor data is reporting.

A Unit must exist before a Meter can be created.

The screenshot displays the MANIFEST web application interface. At the top, there is a dark blue header with the MANIFEST logo, a search bar, and user profile icons. A left sidebar contains navigation options: Locations, Asset Classes, Assets, Templates, Jobs, Jobs History, Meters, Meter Requirements, and Meter Units (which is highlighted). The main content area features a green 'Add New Unit' button and a table with the following data:

| Id | Name | Description | Value Type | State Options | Actions |
|----|---------------------|------------------------|------------|---------------|---------|
| 1 | RPM | Revolutions per Minute | Numeric | | |
| 2 | Temperature Celcius | Celsius | Numeric | | |
| 3 | Percentage | % open or closed | Numeric | | |
| 4 | Status | State of Door | Text | | |

Create a new meter unit



The screenshot shows a web form titled "Create New Meter Unit". It contains the following fields and controls:

- Name***: A text input field with the placeholder text "Name".
- Description**: A text input field with the placeholder text "Description".
- Value Type***: A dropdown menu currently showing "State" and a close icon (X).
- State Options**: A text input field with the placeholder text "Option" and a green "Add" button to its right.

Below the fields, there is a red asterisk and the text "* These fields are required". At the bottom right of the form, there are two buttons: an orange "Cancel" button and a green "Create" button.

To create a new meter unit

- Select “Add new meter unit”
- You will be prompted for the following information:
 - Name: Unit label
 - Description: Optional description for the unit
 - Value Type: Options include Numeric, Text, or State (where you can define possible static values)
 - State Options: Required if the value type is “State”. Create the possible values for this Meter Unit type.

Meters

Meters are created at the asset class level and represent any meter / sensor types you would have on assets of this asset class type.

Once you create meters, you can then consume or create measurement data at the asset level.

The screenshot shows the MANIFEST web application interface. The top navigation bar includes the MANIFEST logo, a search bar, and a 'Sign out' button. The left sidebar lists navigation options: MAIN, Locations, Asset Classes, Assets, Templates, Jobs, Jobs History, Meters (highlighted), Meter Requirements, and Meter Units. The main content area features a green 'Add new meter' button and a table of meters.

| Id | Asset Class | Meter Name | Description | Unit Name | Unit Description | Minimum tolerance | Maximum tolerance | Position | Rotation | Actions |
|----|-------------|------------------------|--|-----------|--|-------------------|-------------------|-------------------|-----------------------|---------|
| 1 | | Temperature | Temperature measured in Farenheight | F | Temperature measured in Farenheight | | | -0.21, 0.04, 0.32 | 83.36, 313.63, 314.05 | |
| 2 | | Revolutions Per Minute | Revolutions Per Minute. (should add tolerances for this asset) | RPM | Revolutions Per Minute. (should add tolerances for this asset) | | | 0.24, 0.05, 0.09 | 82.25, 102.04, 100.94 | |
| | | | Revolutions Per Minute. | | Revolutions Per Minute. | | | | 84.88, | |

Create a new meter

Before creating a new meter, be sure you have already created the respective asset class:

- Select “Add new meter”
- You will be prompted for the following information:
 - Meter Name: this is displayed in the UI for all meters
 - Description: describes the meter type and is displayed in the UI
 - Unit Name: this is populated from unit types created under Meter Units
 - Unit Description: will auto populate
 - Asset Class ID: related to a specific asset class.
 - Minimum tolerance: min tolerance value for range of acceptable readings
 - Maximum tolerance: max tolerance value for range of acceptable readings

Meter Position can be set using the 3D application.

Create new meter

Unit Id*

Meter Name*

Description*

Asset Class Id*

Minimum tolerance

Maximum tolerance*

Meter Position

Meter Rotation

* These fields are required

Measurement

S

Measurements represent any meter readings (manually input or consumed by sensors) for an asset.

An admin can set the tolerance levels and if the reading goes outside the tolerance range, an alert will be triggered and displayed in the application. An operator can then acknowledge and address any issues.

The screenshot displays the MANIFEST application interface. At the top, there is a dark blue header with the MANIFEST logo, a search bar, and a 'Sign out' button. Below the header, a sidebar on the left lists navigation options: Locations, Asset Classes, Assets, Templates, Jobs, Jobs History, Meters, Meter Requirements, Meter Units, and Measurements (which is highlighted). The main content area features a green 'Add new measurement' button and a table with the following data:

| Id | Meter | Asset | Value | Minimum tolerance | Maximum tolerance | Modifying Date | Acknowledged | Actions |
|----|----------------------------|----------------|-------|-------------------|-------------------|----------------|-------------------------------------|---------|
| 1 | 1 / Temperature | 2 / MSFT000001 | 105 | | | 09/17/18 | <input checked="" type="checkbox"/> | |
| 2 | 3 / Revolutions Per Minute | 2 / MSFT000001 | 1020 | 500 | 1000 | 09/07/17 | <input checked="" type="checkbox"/> | |
| 3 | 4 / Temperature in Celcius | 6 | 47 | 15 | 58 | 09/05/17 | <input type="checkbox"/> | |
| 5 | 3 / Revolutions Per Minute | 6 | 800 | 500 | 1000 | 09/05/17 | <input type="checkbox"/> | |

Create a new measurement

To create a new measurement

- Select “Add new measurement”
- You will be prompted for the following information:
 - Asset Class Id: Select specified asset class.
 - Meter Id: Select specified, previously created meter ID
 - Asset Id: Select the ID number for the asset (this is a Manifest generated ID value you can refer to on the Assets screen)
 - Value: Enter value that should be displayed for this meter on this specific asset.

Create new measurement

| | | |
|----------------|------------------------------|-----|
| Asset Class Id | 3 / Centrifugal Process Pump | x v |
| Meter Id | Revolutions Per Minute | x v |
| Asset Id | 2 | x v |
| Value | Value | |

How to Procure a 3D Model

There are a variety of ways to obtain a 3D model for your assets. Please work with your Project Manager to discuss your pipeline so we might discuss the best path for your use-case. For reference, we've included possible options below:

1. Use sites like TurboSquid to find 3D models for your project in a vast online catalog of cars, people, textures, architectural models and more.
2. Contact the Manufacturer to procure available models for equipment
3. Leverage 3D scanners to scan your equipment to generate models. Note that you may still require the assistance of a 3D designer to clean up and/or improve upon your results.
4. Have a professional 3D designer hand-model a 3D model for you. Please refer your design resource to the specifications guidelines to make sure the model is optimized for use in Manifest.
5. Taqtile does offer 3D modeling support. Please ask your Account Manager for more information on utilizing these services.

Remember that models are not absolutely necessary if your primary use-cases for Manifest involve work being authored and performed in front of physical objects.

3D Model File Support

- **Valid model file formats include:** obj, fbx (ASCII 2013), collada (dae), 3ds, 3mf, gltf, stl
- **Valid material formats include:** mtl
 - Files with no associated materials, will appear as a grey model
 - Files with associated MTL file containing colors for objects, will appear as the defined colors in the material (MTL) file
 - Files with colors associated to vertices (a feature of meshlab and 3D Builder), will appear as a limited subset of the colors (reduced for performance on device)
- **Recommended Specifications:**
 - Limit to 50,000 vertices or less
 - Limit to 10 materials or less (each one is a draw call)
 - Limit to 5 textures

Guidelines on Generating 3D Models to be HoloLens Ready

- When creating and exporting your model file, we recommend that you target the number of vertices around 50,000. The system will handle larger vert counts but you may see degraded performance and long loading times as the file is downloaded and processed to be displayed.
- To minimize the vertices, remove all model geometry that is unimportant and not visible to the user (e.g. nuts, bolts, back surfaces, inside walls, etc.)
- Materials should be limited to less than 20-30 individual colors. When a model is generated from a 3D scanner or a point cloud data source (such as with Skanect data loaded into MeshLab) and the colors are stored by vertex, the color space will be automatically reduced when the model is loaded for performance reasons.
- Materials should include no more than 10 materials because each one is a draw call. 20-30 draw calls at a time will help the HoloLens experience run smooth with no lag. The Manifest UI is included in those draw calls.
- Textures should include no more than 5 textures per model. The fewer the better. Texture sizes must be kept to 2048 x 2048 or smaller (1024, 512, 256, etc). Avoid using transparent textures or materials. Transparent elements cause extra draw calls and may not render in the intended way. Avoid using black or very dark colors. Very dark colors don't show up well on the HoloLens and can become invisible. Also avoid very thin objects, graphics, and text. The resolution of the HoloLens isn't high enough to display thin graphics and they will look broken up or jittery as the user moves their head around.
- Try to keep the number objects within a file to the fewest amount possible. Combining all the meshes into one object creates less draw calls which allows the HL to run smoother.

3D Model Set-up

Pedestal vs. Scale Model

There are 2 types of 3D models that can be accessed through the Manifest. The Pedestal Model is rendered on a platter and intended to be a scaled down version of the asset. The Scale Model is meant for a full-scale version of the actual asset.

Uploading a 3D Model to Manifest

Once you have a 3D model for your asset class and have validated that it meets the recommended specifications for being “HoloLens Ready” – you will need to upload it through your Client Web Portal under its respective Asset Class. For instructions please refer to the slide under Asset Classes for how to: “Add 3D Models to an Asset Class”

Setting Model Scale

When you upload your 3D model, you will be prompted to set the scale. This can be done when the asset class is created, or you can return to this option later through “edit”.

If the Model is a scale of 1 unit to 1 meter, it is suggested that the model scale be 1 (so it renders as full size) and Pedestal Scale as .1. These may need to be manually adjusted a few times as you see how it renders in the application.

Setting up a 3D Model

After your 3D model file(s) are uploaded to your Manifest instance – you must finalize the set-up using the HoloLens application. Using the Manifest for HoloLens **Set-up tools, you will be able to:**

- Validate the scale was set appropriately via the portal (this often takes some trial and error)
- Adjust the rotation and position of the 3D model.
- Place the asset tag on the digital twin to align to the corresponding location you selected on the physical asset. This will ensure all 3D content lines up in the same place whether you are viewing the digital twin or the real asset.

See the Manifest User Guide for a tools and overview of how to set up the 3D Model in the HoloLens application.

ABOUT THIS GUIDE

This is a beginners guide to the Manifest Client Web Portal. We will continually be updating and expanding upon this guide so continue to check the download link occasionally for updates.

- **Last Updated:** Feb 4, 2019
- **Support:** manifestsupport@taqtile.com
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