



MOBOTIX CREATOR

User Instructions

Version 01: May 2020

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Welcome to MOBOTIX Creator

MOBOTIX leverages AI and cutting-edge technology to help you design and sell building systems with far greater speed, efficiency and levels of optimization than ever before.

Unlike traditional object-oriented design software in which a designer needs to first select device models and locations before simulating coverage, our software is built on a unique target-based design approach. Simply graphically input your coverage targets in terms of pixel density along with any other requirements you may have. Our AI-engine will find the optimal device models and locations, and in addition, automatically generate NAS recorders, wiring diagrams, networking infrastructure and other auxiliary infrastructure.

Account Setup

In order to get your account up and running, please refer to these steps:

1. Welcome Email

After registering with MOBOTIX Creator, you will receive an email inviting you to confirm your account creation and create a password.

2. My Profile

Your profile can be accessed by selecting the My Profile drop-down on the Users icon on the left-hand sidebar. Only a parent user within an organization can modify a user's email address, department and permissions.

3. Password

A user can change their password by selecting the password field in the My Profile page or reset their password by clicking on Forgot My Password on the login screen.

4. Permissions

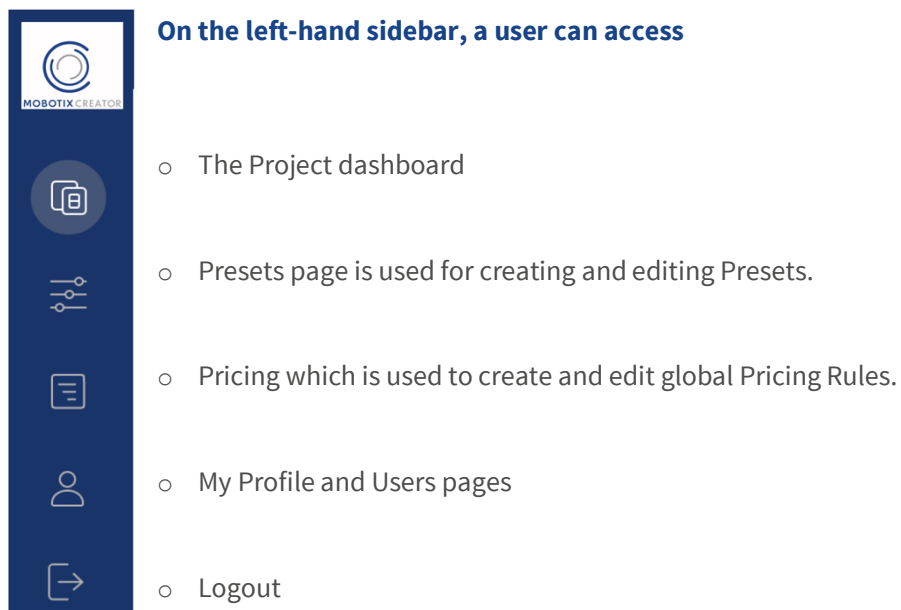
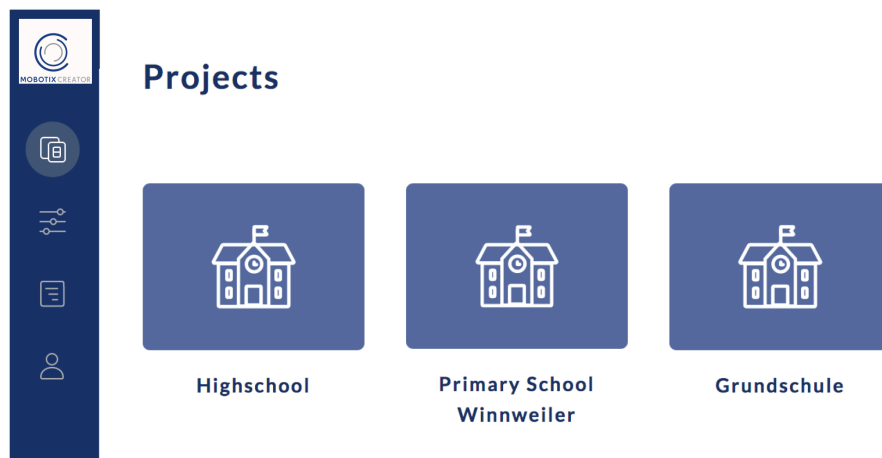
A user can view their Permissions under My Profile page. Permissions are inherited from parent users and define editing and viewing capabilities of the following:

- View Users
- Edit Users
- View Projects
- Edit Projects
- View Pricing
- Edit Pricing
- View Designs
- Edit Designs

Navigating Around MOBOTIX Creator

User Interface Overview

The default homepage is the Projects dashboard which lists all the projects a user has created. Clicking on a project which will bring the user to the Project View page where a user can view project details, upload architectural files, create custom pricing schemes for the project, and generate new VSS designs.



Quick Start Demo & General Process Overview

The MOBOTIX Creator process requires 2 inputs:

1. Upload of your base architectural drawing in CAD (DWG) or BIM (RVT) format.
2. Application of your coverage targets to the floorplan using Presets.

And generates 2 outputs:

1. A floorplan with optimized camera & lens selection and locations + schematic wiring diagram
2. Bill of material including all cameras, lenses, estimated NAS storage, estimated wiring and network infrastructure.

What is a Preset?

A **Preset** structures your design practices and allows you define pixel density targets, device preference and other parameters. Presets are applied to rooms and/or areas of interest and when you generate a design our AI-engine will search for the best design solution conforming to each preset. Presets are shared across all projects and can be categorized by name, project type, area type and clients.

Projects

Intro

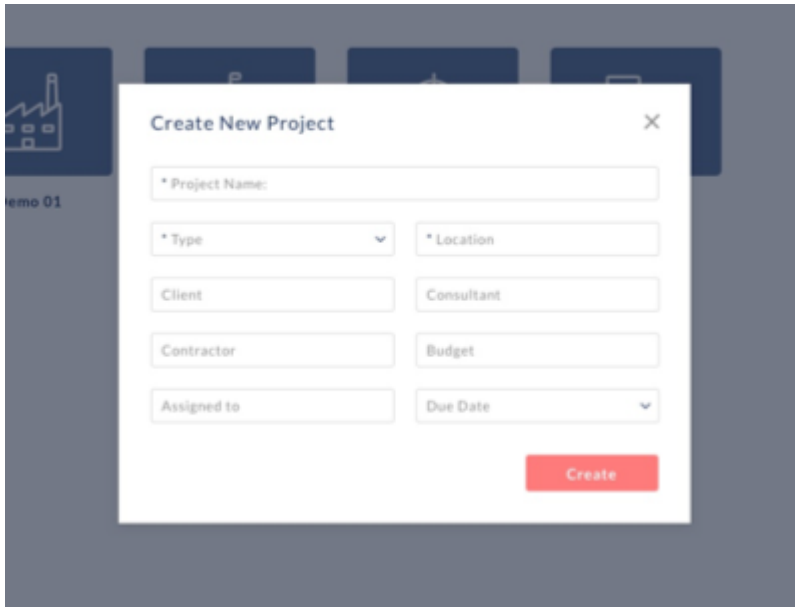
MOBOTIX Creator organizes your work by projects where you upload your base architectural files, set pricing rules and create Designs.

Add Project

1. From the Project dashboard, click on New Project in the top right-hand corner in order to create a new project.



2. Fill in the details in the pop-up



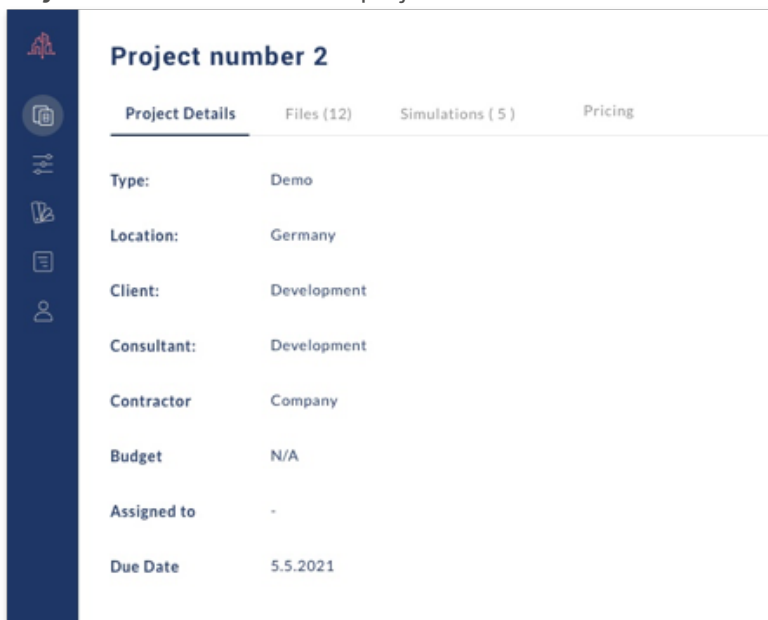
The screenshot shows a 'Create New Project' modal form. It contains the following fields: a text input for 'Project Name', a dropdown for 'Type', a text input for 'Location', text inputs for 'Client' and 'Contractor', text inputs for 'Consultant' and 'Budget', a text input for 'Assigned to', and a dropdown for 'Due Date'. A red 'Create' button is at the bottom right.

Project View

Once a Project has been created, click on its tile in the dashboard to view its details.

Project Tabs

1. **Project Details:** View and edit project metadata.



The screenshot shows the 'Project number 2' details view. It features a sidebar with navigation icons and a main content area with tabs for 'Project Details', 'Files (12)', 'Simulations (5)', and 'Pricing'. The 'Project Details' tab is active, displaying a list of project metadata.

Project number 2	
Type:	Demo
Location:	Germany
Client:	Development
Consultant:	Development
Contractor	Company
Budget	N/A
Assigned to	-
Due Date	5.5.2021

2. **Files:** Upload the project base architectural files in CAD (DWG) or BIM (RVT) format.

Project number 2

Project Details | **Files (12)** | Simulations (5) | Pricing

All Items | Search | Upload file

Processed file

15E-101-3	File_Name.dwg	
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Source files

15E-101-3	File_Name.dwg	
Process file Test 1	File_Name.site	

3. **Designs:** Create VSS Designs

Project number 2

Project Details | Files (12) | **Simulations (5)** | Pricing

All Items | Search | 1 Failed simulation x | New Simulation

15E-101-3	File_Name.dwg	
Test 1	File_Name.site	
Test 2	File_Name.site	
15E-106-2	File_Name.dwg	

4. **Pricing:** Create Custom Pricing Rules for the project which override any Global Pricing Pricing Rules you may have created.

Project number 2

Project Details | Files (12) | Simulations (5) | **Pricing**

All Items | Search | New Rule

Pricing for Project 01

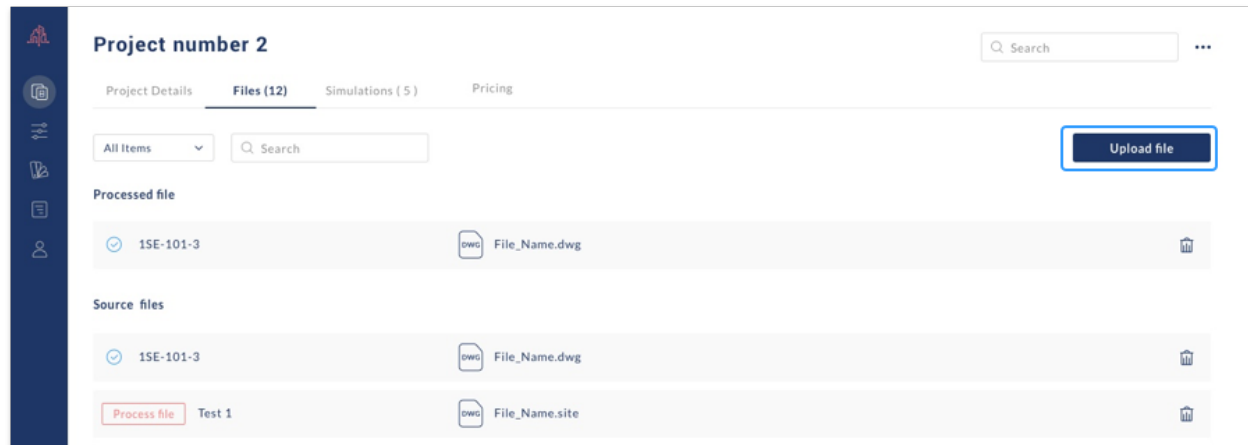
Camera	Manufacturer	Indoor Cameras	Model 12	Model 56789dscdsc...	Hardware	Labor	
		Access Control	Family 12		MSRP Discount	10%	Cost 250\$
		Optics	Blockflex 6MP		Margins	25%	Margin 12%

Drawing Upload & Management

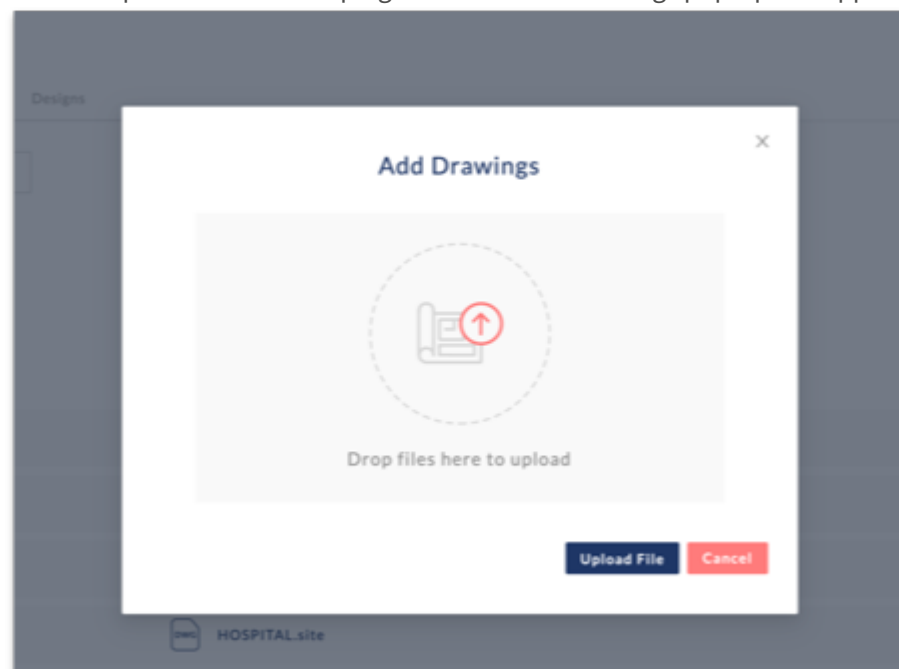
After creating a project, the next step is to upload your base architectural files in CAD (DWG) or BIM (RVT) format.

Upload Steps

1. Select the Files Tab



2. Click on Upload File in the top right and the Add Drawings pop-up will appear



3. Drag & Drop your files or click on the drawing Icons to select your file
4. Click on Upload

Master File

All uploaded and converted files in a project are merged and aggregated inside a master file called default.site. When creating a design, you can either select an individual file or use the master default file.

BIM Important Notes

Please upload Revit files 2018 or later with a maximum file size of 1GB. The conversion process is dependent on the file size and complexity and generally takes 10 - 30 minutes. A checkmark will appear next to the file once the conversion is complete and the file is ready to use.

CAD Important Notes

CAD conversion is offered in Beta release and currently supports DWG files that were originally drawn in Autodesk. During the Beta, conversion will be offered Mon-Fri between 9:00 - 17:00 CET. A checkmark will appear next to the file once the conversion is complete and the file is ready to use. In addition, you will receive a notification email.

The conversion process is designed to extract rooms from DWG files and is not suitable for areas without clearly defined rooms such as outdoor areas and factory floors. In these cases, support for upload of image files will be shortly available and will allow users to define their own zones of interest.

Please note that PDF imports into DWG will not pass the conversion process, and DWG files must be native CAD files containing layers and blocks.

Add a Design

Once your drawings have been uploaded and converted, the next step is to create a VSS Design.

1. Click on the Design tab
2. Click on New Design
3. Select your base architectural file and enter your design name

Cloning a Design

To clone a Design click on the clone button (on the far right-hand side of a Design's information row) while in the Design Tab of a project.

Designer Toolbars & General Navigation

Intro

The Designer page is divided into the following main sections:

1. Presets

This is a list on the top lefthand sidebar of all created Presets which are applied to the floorplan.

2. Cameras

This list on the lefthand sidebar allows users to select specific camera models to be manually added to the floorplan.

3. Designer Toolbar



These tools allow a user to apply to Presets to rooms, specific Areas of Interest (AOI), add specific camera models to the floorplan, define advanced requirements and generate wiring diagrams.

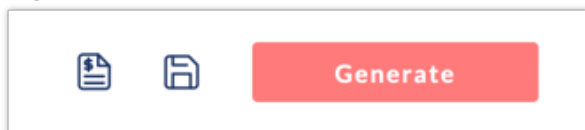
4. The Project Navigator



These tools allow the user to select different levels in a project, turn views on/off (i.e. turning CAD underlay, presets requirements, coverage gradient, and wiring on/off) and switch from 3D to 2D mode.

To pan and tilt the model in 3D view, press and hold the right mouse button and move your mouse.

5. Top Tool Bar



These tools allow a user to generate VSS designs, commercial proposals and save their work.

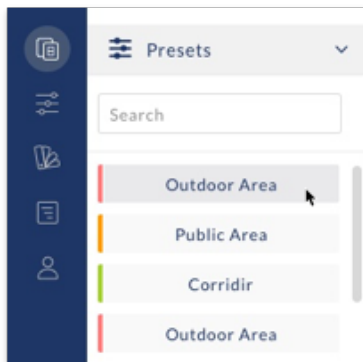
Applying Presets, Room Requirements & Areas of Interest to a Design


Intro

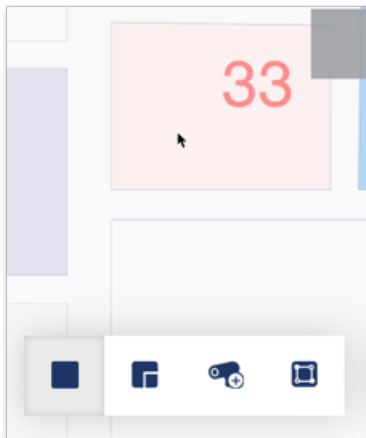
Once an architectural file has been uploaded and a Design has been created, the next step is to apply presets to the floorplan. Presets can be applied to an entire room or to specific areas of interests.

Apply a Preset to an Entire Room

1. Select a Preset from the lefthand sidebar.



2. By default the Room tool  will be activated. Click on a room and apply the preset. The room will colorize in the color associated with the preset.



Note: Presets can only be added to rooms extracted during the BIM or CAD conversion process or to manually drawn rooms. Rooms on a floorplan are colorized in a light blue color while any spaces without an identified room are colorized in white.

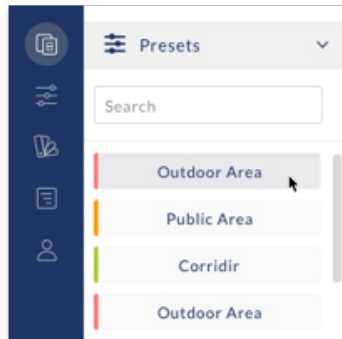
Room Tool

The preset will continue to be applied to any rooms that are clicked on until the Room tool is deselected.

Apply a Preset to an Area of Interest

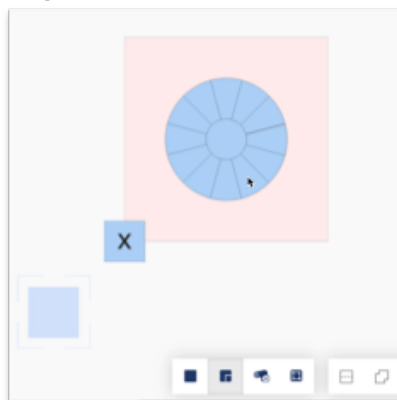
To apply a preset to a specific area within a room:

Step 1: Select a Preset from the lefthand sidebar Preset menu

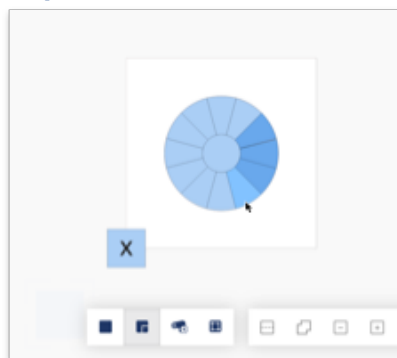


Step 2: Select the Area of Interest tool 

Step 3: Click on a room to add the area of interest



Step 4: Select the area of interest viewing direction & angle span by clicking on one of the 12 directions.

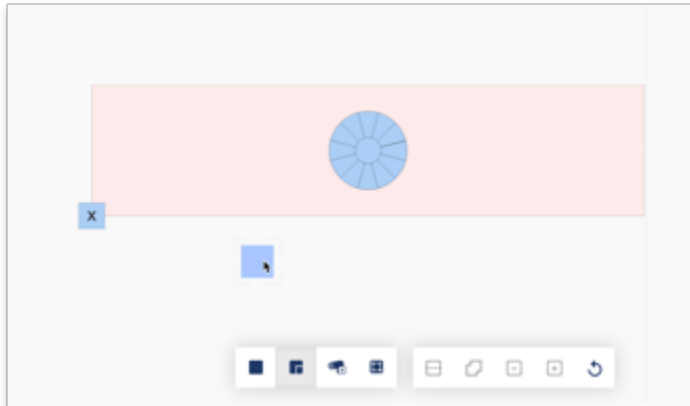


Each AOI has **12 angles** each representing a desired direction and **30 degree span** of image capture. For example, an AOI with only 1 angle activated will generate a result with a camera viewing the AOI in the direction of the selected angle and within a 30 degrees span.

An AOI with all angles activated will generate a result where a camera can view the AOI from anywhere within a 360 degree span.

To activate an angle, click on it and the color will turn blue. Please note that all AOI's need at least 1 angle activated. To view an AOI from directly overhead, click on the inner circle.

Step 5: If needed, re-size the AOI using the blue square that becomes visible when an AOI is selected.



Step 6: If needed, move the AOI to another location within the room by clicking & holding anywhere inside the AOI blue circle and dragging the AOI.

Multiple AOI's (Areas Of Interest)

More than one AOI can be added to a room and AOI's can be combined with room requirements.

AOI Tool

AOI's will continue to be added each time the floorplan is clicked until the area of interest tool is deselected.

An AOI Should Not be Moved from the Room in which it is Initially Placed

Please note that an AOI should not be moved from the room in which it is initially placed to another room on the floorplan. In such a case, it will produce an empty design generation result.

Generating a Design

Once all Presets have been applied to the floorplan, click on Generate in the top right-hand corner to initiate the generative design process.



The design generation times varies based on the complexity of the design requirements but is generally between 30 seconds to 5 minutes. Large rooms, large AOI's and/or higher pixel density requirements will take longer to generate. Results appear on a room by room basis as they are generated.

Room Results

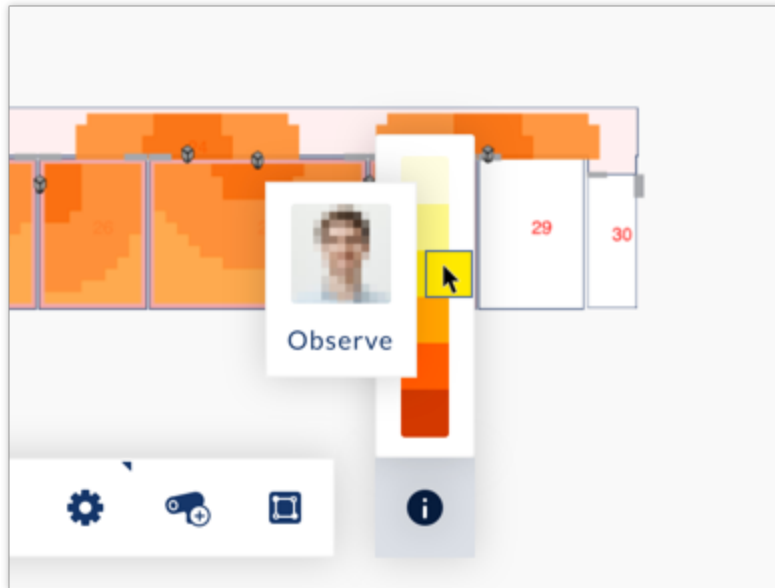
Intro

Once a design is generated, coverage and room results can be viewed, evaluated and modified.

Camera Locations & Coverage

Camera locations will be indicated by the camera symbol on the floorplan, and coverage and pixel density will be visualized according to a colour gradient. The legend of the colour gradient can be viewed within the Designer by clicking on the info button.



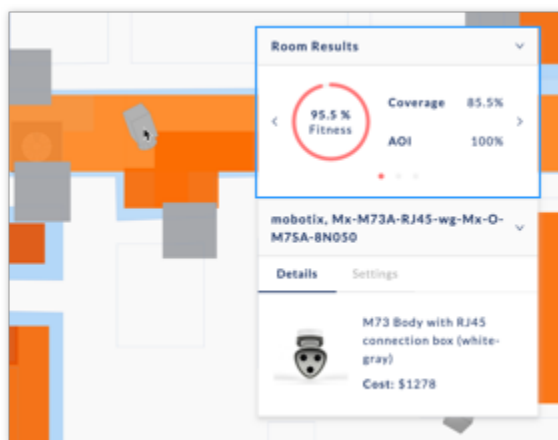


Note

Camera coverage will be visualized according to the Pixel Density target specified in each Preset and will not show coverage of any area below the specified Pixel Density even if such an area may still be visible to the camera at lower Pixel Density.

Room Result Details

To view the performance metrics of the generated solution in a room, click on the room to open the Room Details pop-up.



The Room details will show the following metrics:

Coverage %: The amount of a room covered according to the minimum Pixel Density target specified in the room Preset.

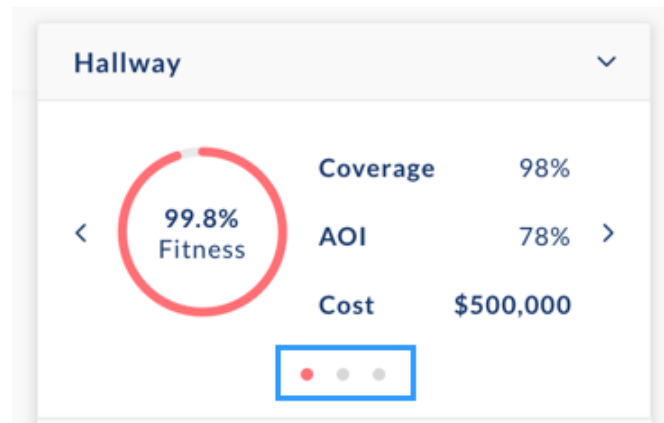
Area of Interest %: A composite score for area of interest coverage inside a room including area of interest coverage, pixel density targets as well as correct directionality and angle span. If there are no AOI's in a room, the score will be 100% by default.

Price: The total MSRP price for the cameras in the selected room according to the applicable Price Rules.

Fitness: An overall score evaluating many factors including room coverage, AOI coverage, cost and aesthetic considerations.

Results Cycling

In cases with more complex coverage requirements, more than 1 design option may be generated. To cycle between different design options in a room, click on the arrows in the Results part of the Room Details pop-up.



Device Results and Settings

Device Results

Clicking on a device will open the Device Details pop-up which includes the device image, description and price.



Manual device settings

To manually adjust a device, first select a device by clicking on it to open the Device Details Pop-Up.

Click on the Setting tab to adjust the following:

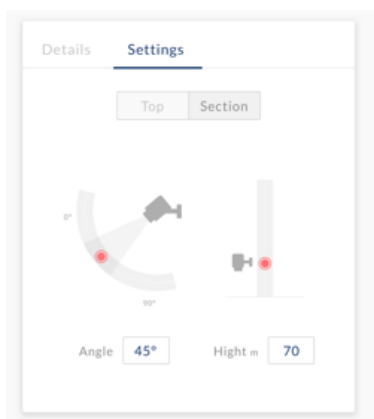
Top

- Horizontal lens rotation: Click on any point in the grey circle to adjust the rotation or enter a numeric value.
- Resolution: By default a camera's resolution is set at its maximum value and can be adjusted downwards.
- H.Fov: If a camera has a varifocal lens, the lens can be adjusted. For cameras with a fixed lens, this slider will be greyed out



Section

- Vertical lens rotation: Click on any point in the grey semi-circle to adjust the rotation or enter a numeric value.
- Camera mounting height: Click on any point in the grey wall symbol to adjust the mounting height or enter a numeric value.



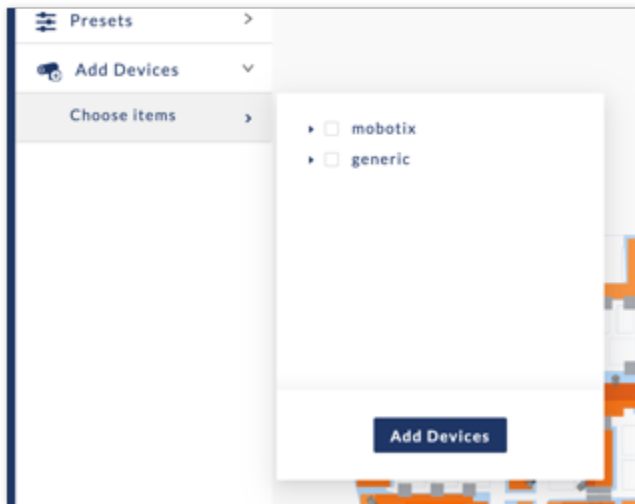
Adding and removing devices To delete a camera

First select a camera by clicking on it to open the Device Details Pop-Up.
Click on Delete Camera.

To add a camera,

Select the model to be added using the camera selector in the lefthand sidebar below Presets. Recently used cameras will be stored and displayed for your convenience.

By default, the Add Camera tool will be selected . Click on the room to which the camera is to be added.




Important

Cameras can only be added to rooms which contain a room Preset and already have results from the Generate design process. If you would like to add to a camera to a room with empty results, please first add a room Preset and click on Generate to populate the room with results.

Wiring

Intro

In order to generate schematic wiring diagrams on the floorplan:

1. Select the Wiring Tool 
2. Specify your head-end location by clicking on the desired location on the floorplan. The head-end will be represented by a blue square.
3. The wiring diagram will be generated automatically and will re-generate in the event that any camera locations are modified.


Wiring diagrams are for schematic purposes only and not suitable for execution and construction purposes. Calculated lengths are an approximation only and should be verified as per project cable trays, conduiting and site conditions.

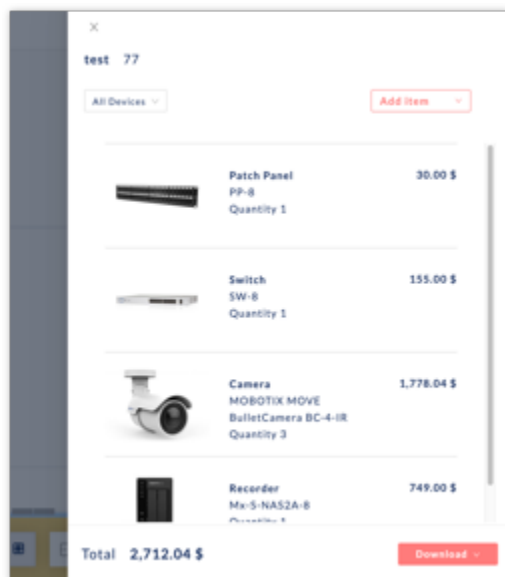
Commercial Proposal

Intro

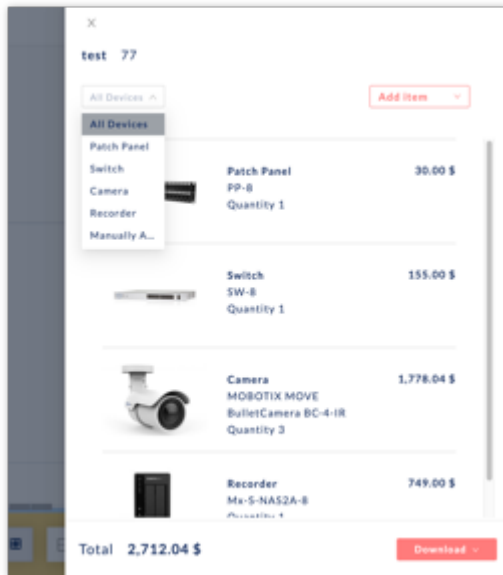
Once a Design has been generated, a Commercial Proposal reflecting the selected camera models on your layout as well as network infrastructure and NAS storage can be generated. The pricing in the Commercial Proposal is based on the Price Rules you have created.

How to generate a Commercial Proposal:

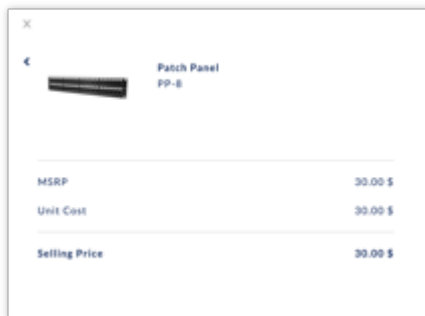
1. Select the commercial proposal icon  and the Commercial Proposal Pop-Up will appear



2. Filter through the generated devices by Device Type Families




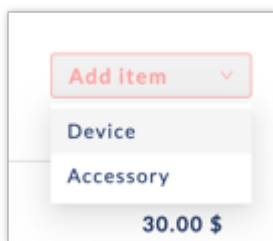
3. To view the pricing details of an item, click on the item.



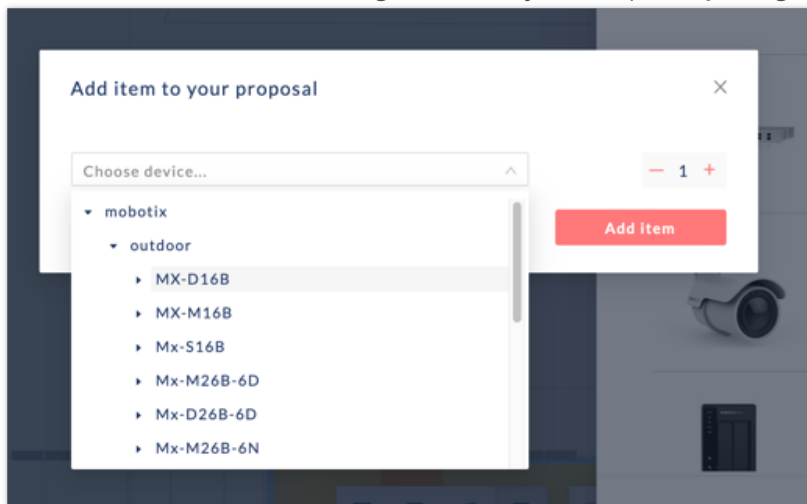
Manual Device Add to Commercial Proposal

To manually add a device or accessory

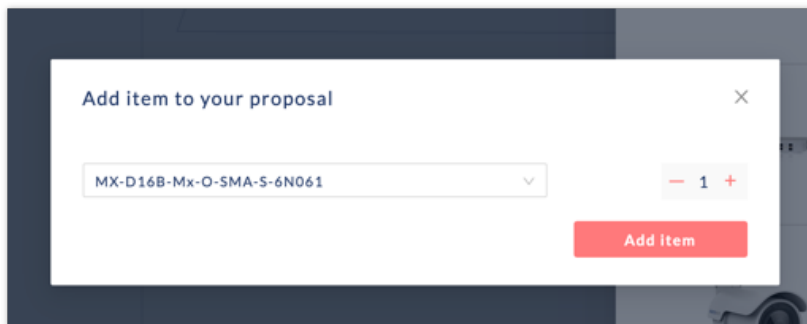
1. Open the Commercial Proposal Pop-Up by clicking on the Commercial Proposal Icon 
2. Click on Add Item and select either Device or Accessory from the drop-down menu. Select device to add a Camera or Accessory to add accessory items such as mounts, modules and interfaces.



3. Select the items from the catalog tree and adjust the quantity using the quantity selector.

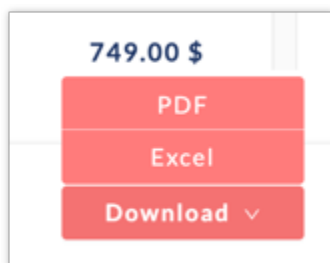


4. Click Add Items



Export Commercial Proposal

To export the Commercial Proposal, click on the Download button and from the drop down menu and select either PDF or Excel export.



- **PDF export** will generate a PDF report of the Commercial Proposal.
- **Excel export** will generate a CSV file with additional details such as short and long descriptions, MSRP, dealer discount, hardware markup, labor cost and labor markups.

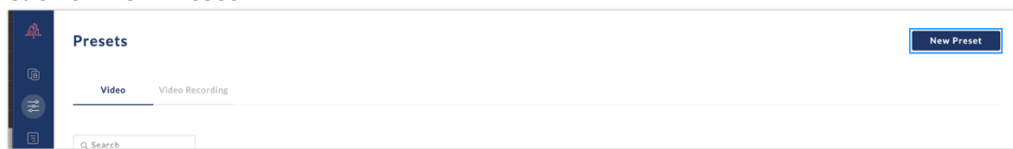
Presets

Intro

Presets define your pixel density targets and requirements for the generation of a VSS system. Presets are graphically applied to the rooms and spaces and shared across all projects.

Add a VSS Preset

1. Click on the Preset icon on the lefthand sidebar
2. Click on New Preset



New Preset

Details

Preset Name

Client

Project Type

Area Type

Targets

Ceiling

Mounting

Functional Requirement

Add Devices

Recording Preset

Recording Preset

Create Preset

3. Enter a Preset Name

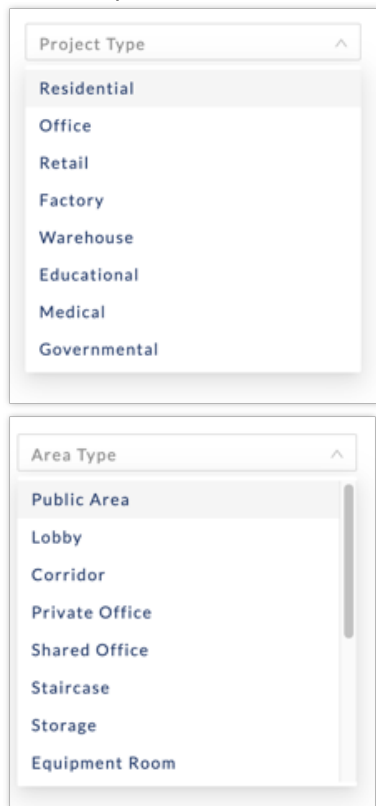
Details

de

Demo 1

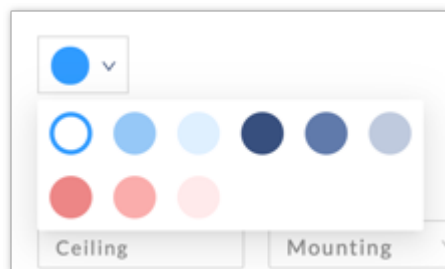
Demo 2

4. Enter Preset Metadata (Client, Project Type and Area Type) for convenient Preset categorization and search (Optional)



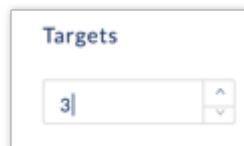
The image shows two stacked dropdown menus. The top menu is labeled 'Project Type' and has a list of options: Residential, Office, Retail, Factory, Warehouse, Educational, Medical, and Governmental. The bottom menu is labeled 'Area Type' and has a list of options: Public Area, Lobby, Corridor, Private Office, Shared Office, Staircase, Storage, and Equipment Room.

5. Select a color to be associated with the Preset



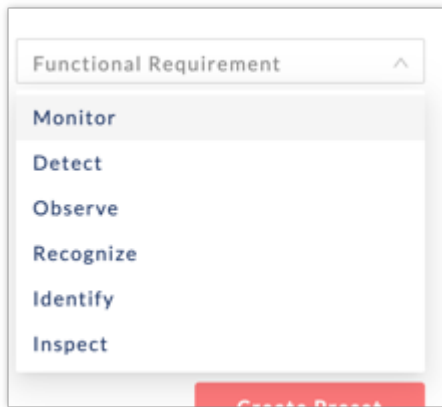
The image shows a color selection interface. At the top, there is a blue circle with a downward arrow. Below it, there are two rows of colored circles. The first row contains six circles: light blue, medium blue, dark blue, very dark blue, dark blue, and light blue. The second row contains three circles: red, light red, and very light red. Below the circles, there are two tabs: 'Ceiling' and 'Mounting'.

6. Enter the device ceiling height (Optional - if left blank will be defaulted to 3 meters)



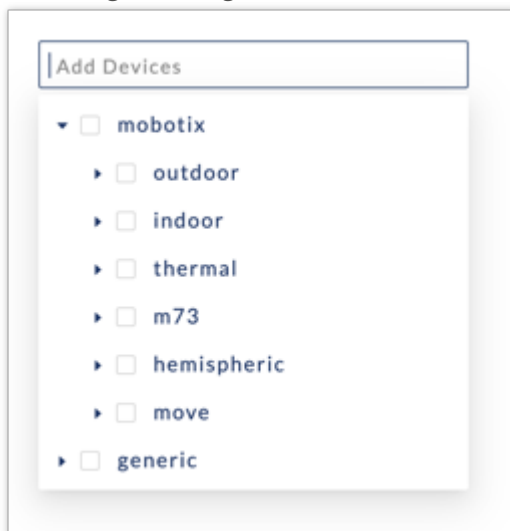
The image shows a form labeled 'Targets'. It contains a text input field with the number '3' entered. To the right of the input field is a small dropdown menu with an upward arrow.

7. Enter the Pixel Density Target



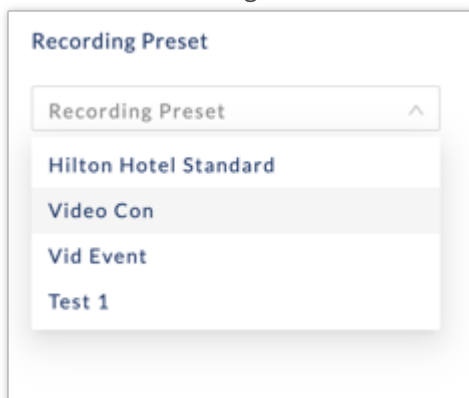
A screenshot of a web interface showing a dropdown menu for 'Functional Requirement'. The menu is open, displaying a list of options: Monitor, Detect, Observe, Recognize, Identify, and Inspect. The 'Monitor' option is currently selected and highlighted. Below the list, there is a red button labeled 'Create Preset'.

8. Add Devices (Optional). By default the entire Mobotix catalog is included. A user can use the Catalog Tree to select one or more Mobotix product families (Indoor Cameras, Outdoor Cameras, etc...), one or more models including all sub-models and lens combinations (e.g. MX-D16B), and/or one or more specific models (e.g. MX_D16-B-MX-0-SMA-6N036). The selection of Devices inside the Preset will limit the AI-engines design solution search to the specified Devices.




A screenshot of a web interface showing a dialog box titled 'Add Devices'. The dialog box contains a tree view of device categories. The root category is 'mobotix', which is expanded. Under 'mobotix', there are several sub-categories: 'outdoor', 'indoor', 'thermal', 'm73', 'hemispheric', 'move', and 'generic'. Each sub-category has a checkbox next to it, and all checkboxes are currently unchecked.

9. Associate a Recording Preset with the Preset (Optional)



A screenshot of a web interface showing a dropdown menu for 'Recording Preset'. The menu is open, displaying a list of options: Hilton Hotel Standard, Video Con, Vid Event, and Test 1. The 'Video Con' option is currently selected and highlighted.

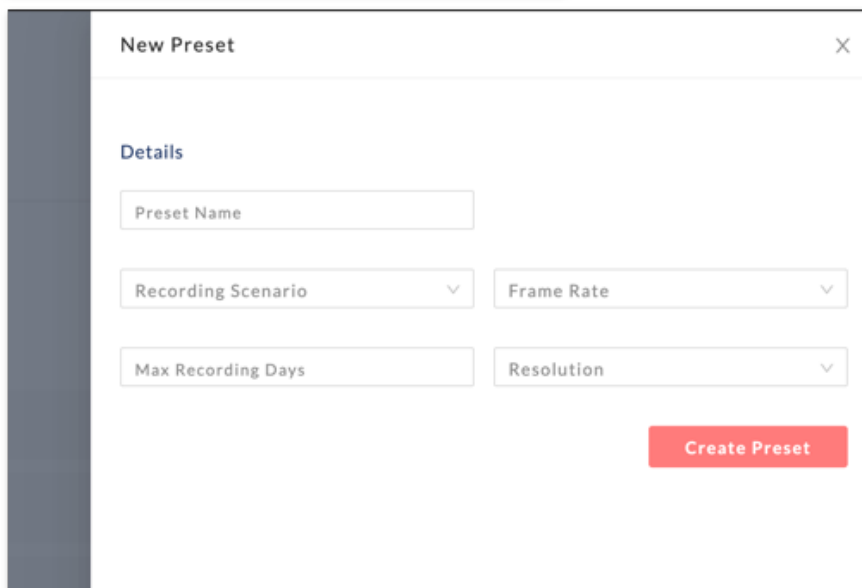
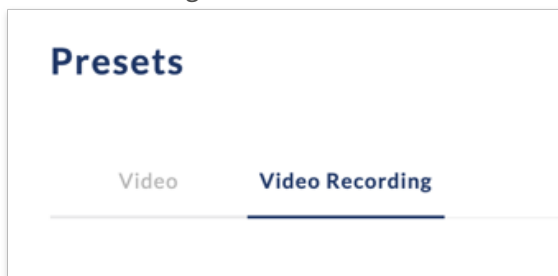
To edit or delete a Preset, hover over the right-hand side of the Preset row and select the edit or delete icons.

Name	Client	Project Type	Area Type	
Indoor Observe Move Series			Lobby	 

Add a Recording Preset

In order to add a Recording Preset:

1. Click on the Preset icon  on the lefthand sidebar
2. Select Recording Preset Tab

A screenshot of the 'New Preset' form. The form has a title bar with 'New Preset' and a close button (X). Below the title bar, there is a section titled 'Details'. Inside this section, there are four input fields: 'Preset Name' (a text box), 'Recording Scenario' (a dropdown menu), 'Frame Rate' (a dropdown menu), and 'Max Recording Days' (a text box). To the right of 'Max Recording Days' is another dropdown menu labeled 'Resolution'. At the bottom right of the form is a red button labeled 'Create Preset'.

3. Enter a Name for the Recording Preset

Details

4. Select the Recording Type: Continuous, Continuous Event Controlled, Snapshot Event Controlled.

Recording Scenario ^

Continuous

Event

Continuous Event Controlled

Snapshot

5. Select the Frames Per Second

Frame Rate ^

1 Fps

4 Fps

8 Fps

12 Fps

16 Fps

20 Fps

25 Fps

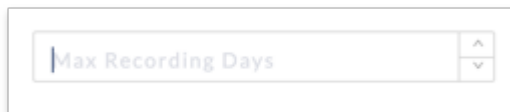
6. Select the recording Resolution



A dropdown menu titled "Resolution" with an upward arrow icon. The menu is open, showing a list of resolution options. The first option, "CIF (320x240)", is highlighted with a grey background. The other options are listed below it.

Resolution
CIF (320x240)
VGA (640x480)
XGA (1024x768)
HD (1280x720)
Mega (1280x960)
Full HD (1920x1080)
5MP (2592x1944)
6MP (3072x2048)

7. Specify the # of days for recordings to be stored



An input field with the placeholder text "Max Recording Days". To the right of the text is a small control with an upward arrow and a downward arrow, indicating a range or selection.

The parameters specified in Recording Presets will be used to calculate the NAS Storage in a Project's Commercial Proposal. **These are approximate values only** and for detailed recording calculations, please use the MOBOTIX Storage Calculator available at <https://www.mobotix.com/en/support/tools/storage-requirements-planner>

Pricing Rules

Intro

Two Types of Pricing Rules can be added to define hardware and labour costs and markups: Global Pricing Rules which apply to all Projects, and Project Pricing Rules which only apply to specific Projects.

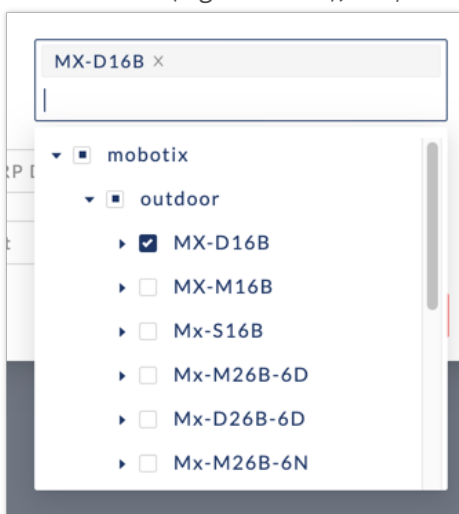
Global Pricing Rules

1. Click on the Pricing icon  on the lefthand sidebar.
2. Click on New Rule



3. Enter Rule Name

4. Select which devices to be included in the pricing rule. First, select the device category (e.g. camera, lens, etc..) and then use the Catalog Tree to select one or more Mobotix product families (Indoor Cameras, Outdoor Cameras, etc..), one or more models including all sub-models and lens combinations (e.g. MX-D16B), and/or one or more specific models (e.g MX-D16-B-MX-0-SMA-6N036).



5. Enter the dealer discount from MOBOTIX MSRP pricing

Hardware	<input type="text" value="-3"/>	%	<input type="text" value="3"/>	%
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6. Enter the desired hardware markup
7. Enter a labor cost (fixed price per item in the Rule)

Labor Cost	<input type="text" value="3"/>	\$	<input type="text" value="4"/>	%
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8. Enter a labor markup.
9. Click on Create Pricing

To edit or delete an existing rule, click on the edit or delete icons

Pricing for 3						Edit
Mobotix	Camera	outdoor	MX-M16B	Hardware	Labor	
				Discount 6%	Cost 5\$	
				Margin 10%	Margin 5%	

Project Based Pricing Rules

Same as above but create rule from within Project View by clicking on Pricing tab.

Example Project

Project DetailsFilesDesignsPricing

All Items

Search

You don't have any pricing rules in this project. Please add a pricing rule.

If a device appears in more than one rule, the more specific rule take priority (e.g. a rule specifically for the MX-D16-B override a rule for all Outdoor Cameras). Likewise, Project Pricing Rules takes precedence over Global Pricing Rules.

All Pricing is in Euros according to the current MOBOTIX price list. Please verify all pricing before submitting any proposals.