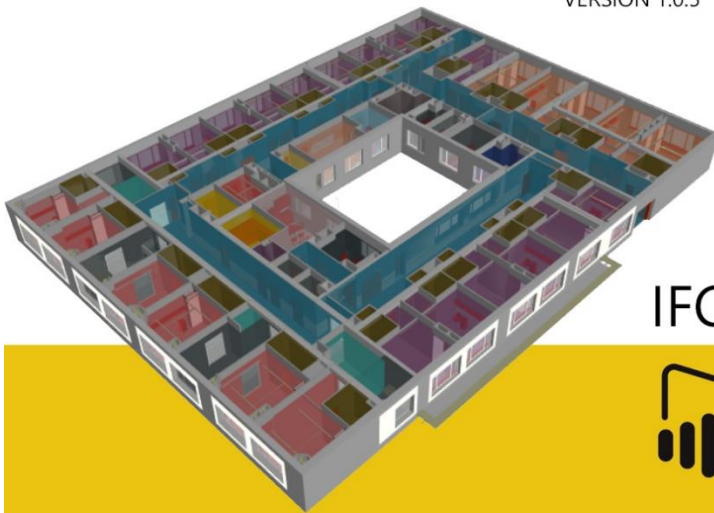


**V**CAD  
**USER MANUAL**  
VERSION 1.0.5



IFC CUSTOM VISUAL



**Power BI**

**This manual has the purpose of describing the functionalities of the BIM Services platform.**

The manual will describe all the procedures, from the registration on the platform to the use of the Vcad custom visual. Vcad is the first custom visual for Power BI capable of extracting data from an .ifc file, importing it into Power BI and linking the data to the model. Vcad enables the interaction of the elements of the model with the data from the .ifc file, an overview of spaces and intended use, as well as the extraction of geometric and volumetric data.



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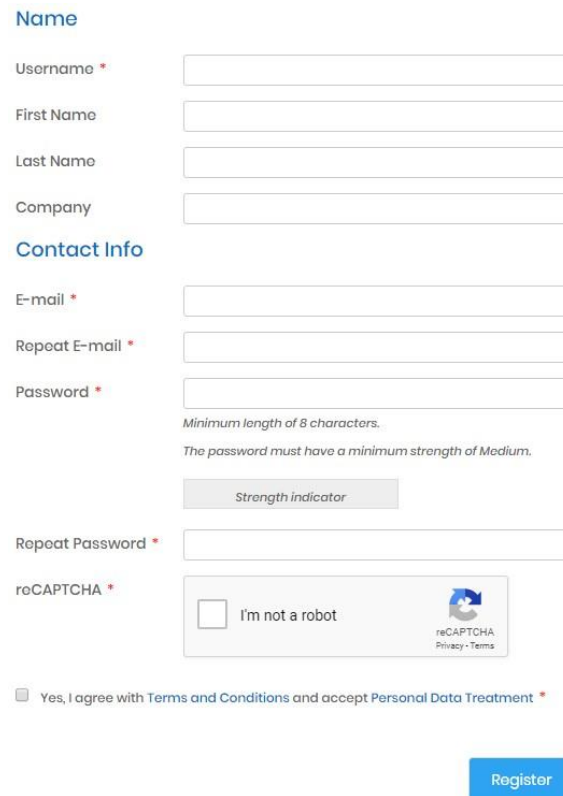
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## SETTING UP

### SUBSCRIBE

- 1) Go to <https://www.bimservices.it/subscribe>
- 2) Fill out the form and press the **REGISTER** button



The registration form is divided into two main sections: 'Name' and 'Contact Info'. The 'Name' section includes fields for Username, First Name, Last Name, and Company. The 'Contact Info' section includes fields for E-mail, Repeat E-mail, Password, and Repeat Password. Below the Password field, there are two lines of text: 'Minimum length of 8 characters.' and 'The password must have a minimum strength of Medium.' followed by a 'Strength indicator' button. Below the Repeat Password field, there is a reCAPTCHA section with a checkbox labeled 'I'm not a robot' and a reCAPTCHA logo. At the bottom of the form, there is a checkbox labeled 'Yes, I agree with Terms and Conditions and accept Personal Data Treatment' and a blue 'Register' button.

**Name**

Username \*  
First Name  
Last Name  
Company

**Contact Info**

E-mail \*  
Repeat E-mail \*  
Password \*  
Minimum length of 8 characters.  
The password must have a minimum strength of Medium.  
Strength indicator  
Repeat Password \*  
reCAPTCHA \*  
☐ I'm not a robot  
reCAPTCHA  
Privacy - Terms

☐ Yes, I agree with Terms and Conditions and accept Personal Data Treatment \*

Register

- 3) Once you have registered, you will receive a confirmation e-mail, click on the link to confirm your identity, after which you will be able to **LOGIN**.

### LOGIN

- 1) Go to <https://www.bimservices.it/login/>
- 2) Insert the username and password you had chosen during registration and click on **LOGIN**.



The login form is located on the right side of the page. It includes fields for Username and Password, a 'Remember Me' checkbox, and a blue 'Log In' button. To the left of the login form is a blue banner for 'VCAD CUSTOM VISUAL'. The banner contains the text 'YOUR IFC MODELS IN POWER BI', a Power BI logo, and a description: 'The Vcad custom visual enables users to import IFC files into Power BI.' Below the description is a button labeled 'EXAMPLES'.

**VCAD CUSTOM VISUAL**  
YOUR IFC MODELS IN POWER BI  
Power BI  
The Vcad custom visual enables users to import IFC files into Power BI.  
EXAMPLES

Username  
Password  
☐ Remember Me  
Log In



## STARTING

After your first **LOGIN** on the website, to start using Vcad, you will have to select a subscription plan. Here are the available plans.

Level	Price	
20 SLOTS	€599.00 per Month.	Select
10 SLOTS	€349.00 per Month.	Select
5 SLOTS	€199.00 per Month.	Select
1 SLOT	€49.00 per Month.	Select
FREE 10DAYS	<b>Free</b> By choosing the FREE 10DAYS account you will have one slot for uploading your IFC files. The FREE 10DAYS plan will expire in ten days. You will be able to activate the FREE 10DAYS account only one time.	Select

If none of the listed subscription plans is sufficient for your needs, you may request a personalized subscription plan through the form at this link <https://www.bimservices.it/plan-request-no-user/>

## SUBSCRIPTION PLANS

- 1) Select the subscription plan of your choosing and press the **SELECT** button.
- 2) Select a payment method. The available payment methods are PayPal or Credit Card. The payment method will be used for automatic recurring payments unless the account has been previously canceled.

### Choose Your Payment Method

☒ Check Out with a Credit Card Here ☐ Check Out with PayPal

- 3) Insert your billing information. The listed prices are to be considered before tax, for European clients there will be the addition of a 22% tax.
- 4) Accept the **TERMS AND CONDITIONS** of Vcad and click on the **SUBMIT AND CHECKOUT** button to complete the purchase.

## MY ACCOUNT

The **MY ACCOUNT** page is the personal page that every user has access to and contains all the information regarding the subscription plan currently in use. The side **MENU** will allow the user to access the Vcad control panel, send a customer case ticket for help or requesting a personalized subscription plan.



## VCAD FILE MANAGER

### USAGE

After having logging in and selecting a subscription plan, the user will have access to the Vcad file manager at this link <https://www.bimservices.it/vcad-file-manager/>

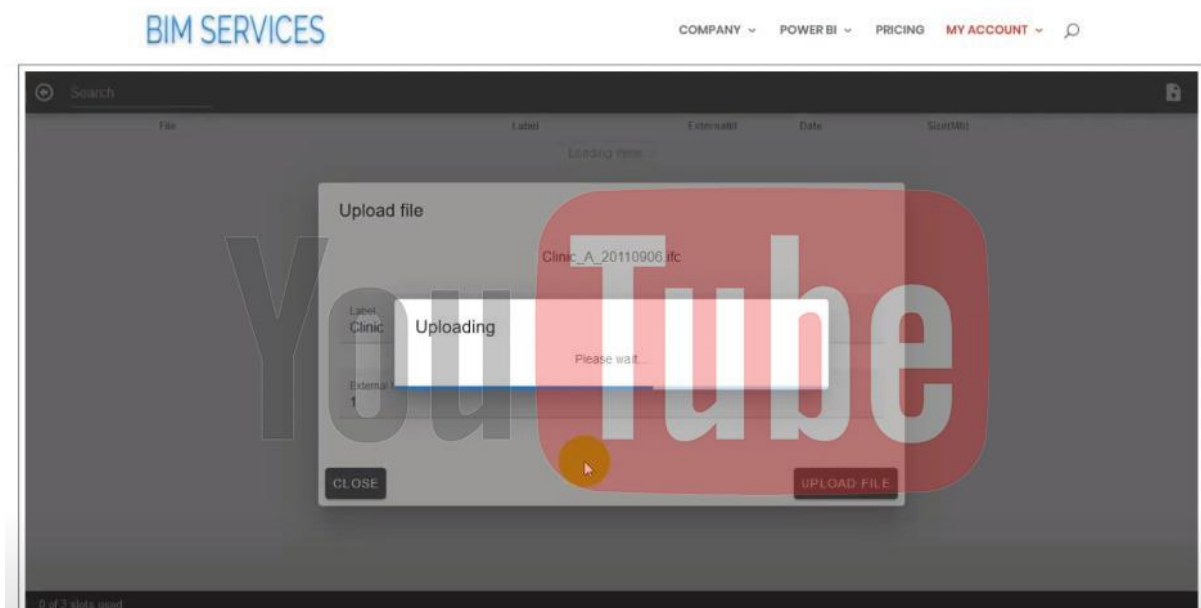
The user will have a set number of available slots where they may upload their .ifc files. The following image explains what a slot is and how to use the Vcad file manager.

The screenshot shows the Vcad File Manager interface. At the top, there's a 'PREVIEW' section with a search bar and an 'UPLOAD' button. Below it is a table listing files with columns: File, Label, Externalid, Date, and Size (KB). The table contains 10 rows of data. To the right of the table, there are several informational boxes:

- What is a slot?**  
A slot is where you will upload your IFC file. The available number of slots will vary depending on the type of subscription you choose.
- How many files per slot can I use?**  
A slot can house a single IFC file. Each file you upload and process through the Vcad custom visual can be used to create unlimited reports.
- What operations can be done for every slot?**  
The Vcad custom visual will allow you to manage your IFC files from Power BI. **Once you have uploaded an IFC file it will be processed.** Wait for the process to be over. Then you can simply select it and you will view the model in your Power BI report.
- What happens if I delete a file from a slot?**  
Once you remove an IFC file from the custom visual all the reports that were using it will stop working.





Below the table, there's a 'PREVIEW' section with a 3D model of a building. To the right of the model, there are four buttons: 'PREMADE TEMPLATES', 'CENTER GEOMETRY', 'IFC UPLOADED FILE', 'JSON DATA FILE', and 'UPDATE IFC FILE'. Arrows point from these buttons to the 'UPLOAD' button in the top right corner of the interface.

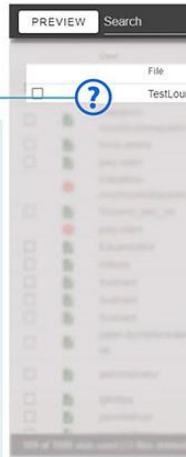
Click on the following image to see a video explaining the registration process, the upload of an .ifc file and access to the file preview.





**CHECK THE FILE STATUS**

-  **THE FILE IS WAITING TO BE PROCESSED**  
After uploading the file, the file must be processed by the Vcad service.
-  **THE FILE IS PROCESSING**  
The duration of the conversion process depends on the file size.
-  **THE FILE IS READY TO BE USED**  
The conversion process has ended. Click on the PREVIEW button to view it and download the templates.
-  **OOPS, SOMETHING WENT WRONG**  
If an error occurs during the conversion process, write to us, we will give you the necessary assistance.



Once the user has uploaded the .ifc file in Vcad, they will need to wait for the file to be processed before they can check the preview and download a template.


In the side image are listed the various stages of file processing.

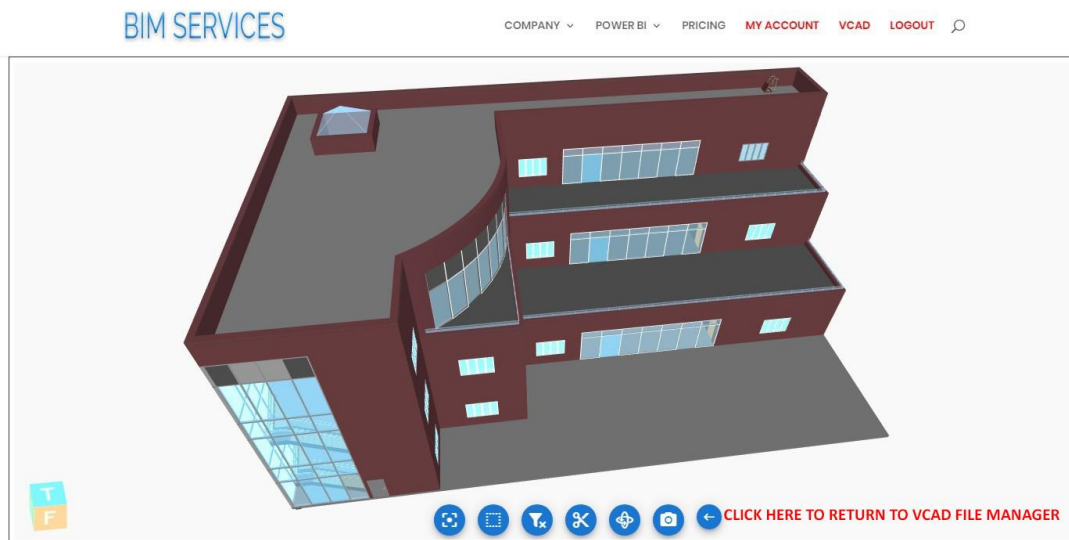
If once the processing is complete the system indicates there has been an error, the user may send a ticket to our customer service by opening this link

<https://www.bimservices.it/open-ticket/>

Once the processing is complete and the green icon is displayed next to the file, the user may access the preview of the model to view the model and then download one of the available templates.

## PREVIEW

 by clicking on the preview icon, the user may view the uploaded model. The preview is useful to verify that the extraction process completed without any problems. If the model does not appear as expected the user may send a ticket to our customer service by opening this link <https://www.bimservices.it/open-ticket/>






## CENTER GEOMETRY



Sometimes a model may not be rendered correctly do to a problem with the centering of the geometries. The user may click on the displayed icon to center the model.


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## DOWNLOAD IFC FILE



By clicking on the displayed icon the user may download the original .ifc file that was uploaded.


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## DOWNLOAD JSON FILE



By clicking on the displayed icon the user may download a Json file with the model's data extracted by Vcad, which will be available in the tables of the templates.

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## UPDATE IFC FILE



By clicking on the displayed icon the user may update the .ifc file in the slot. By doing so, the old file will be replcaed.


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## UPDATE IFC INFO



By clicking on the displayed icon the user may update the file's information, label and externalID.



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## DELETE IFC FILE



By clicking on the displayed icon the user may delete the .ifc file. The slot will become available for a new upload and the reports created with the old file will stop working.

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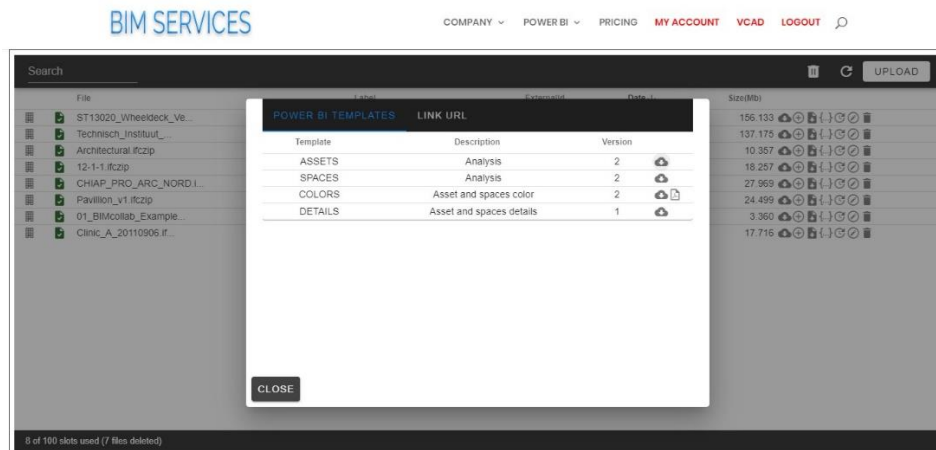


## TEMPLATES

### DOWNLOAD



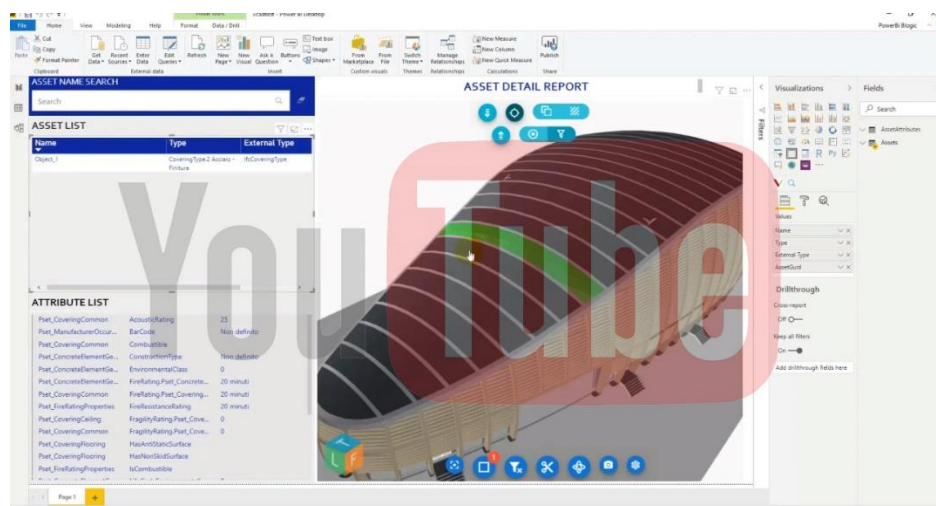
By clicking on the displayed icon the user may download one of the available Power BI templates.



Each Power BI template will contain the extracted data form the selected .ifc model as well as the Vcad custom visual already linked to the model's data. Without having to create a new Power BI report, thanks to Vcad with a few clicks there are several ready solutions focalized on the analysis of the model's spaces or assets.

The template may be altered to the user's needs and all the other tools of Power BI can be used. The template can then be saved as a .pbix file, uploaded to the user's Power BI workspace and shared with whoever.

Click on the following image for a video showing how to download a template and public hit on one's Power BI workspace.



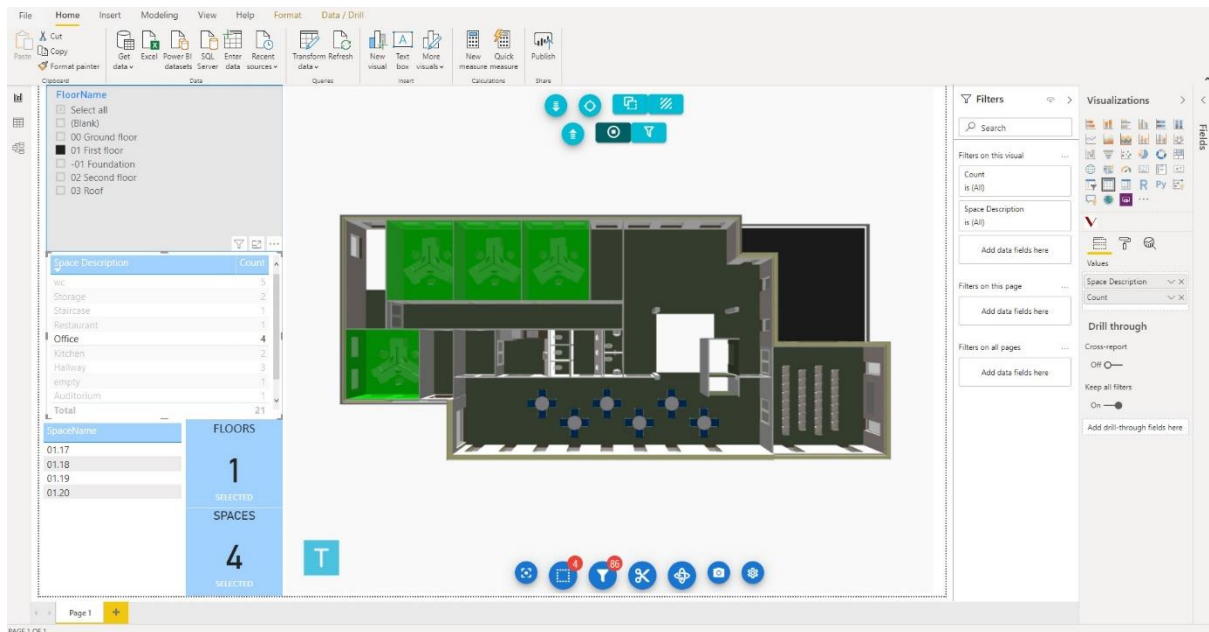




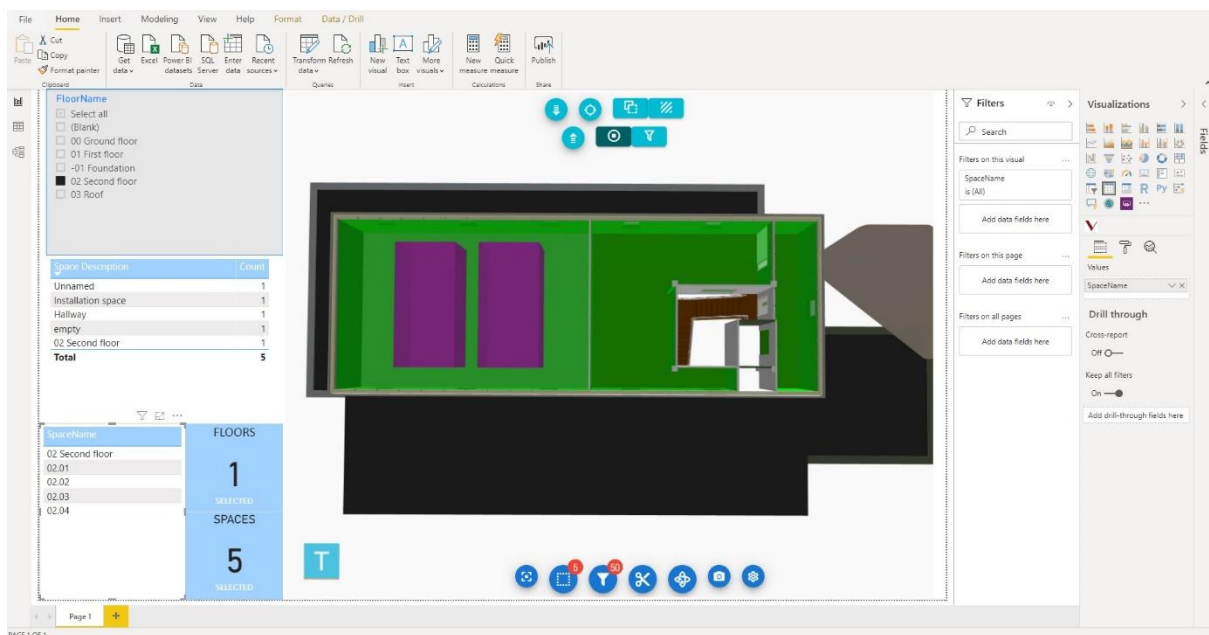


## SPACES ANALYSIS

The **SPACES ANALYSIS** template displays the Vcad custom visual, a selectable list of floors, description and names of the spaces in the .ifc file.



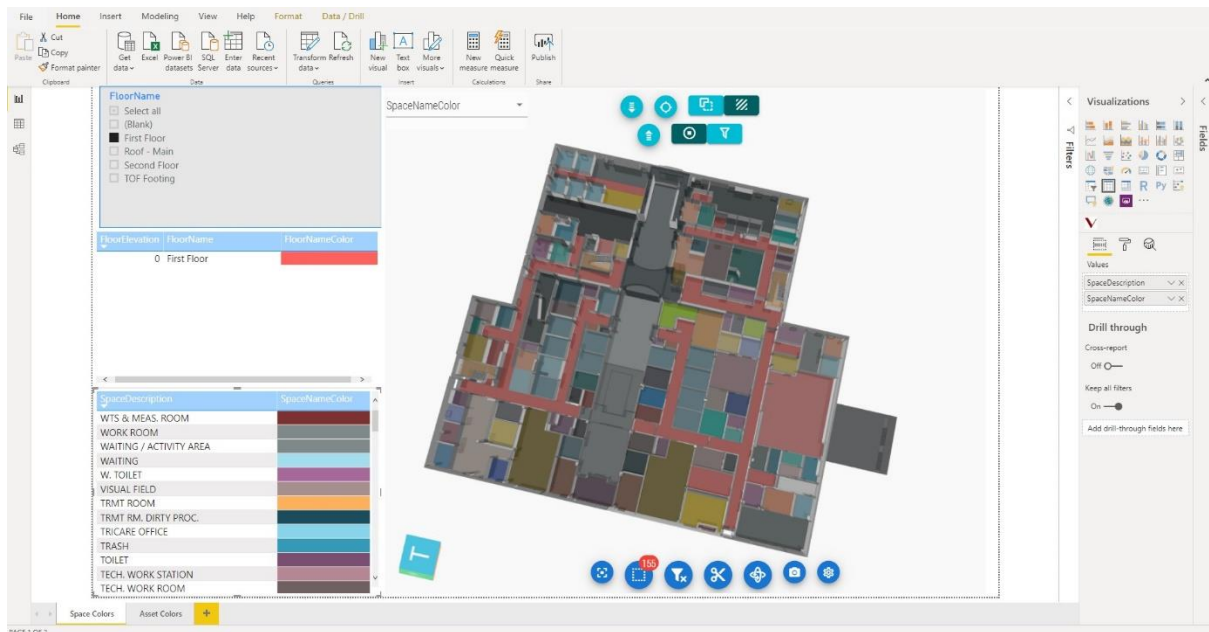
Depending on the selection in the "Floor Name" list, the model will be filtered by that floor and highlight the spaces within it. The description and name list allow the user to filter the desired spaces.



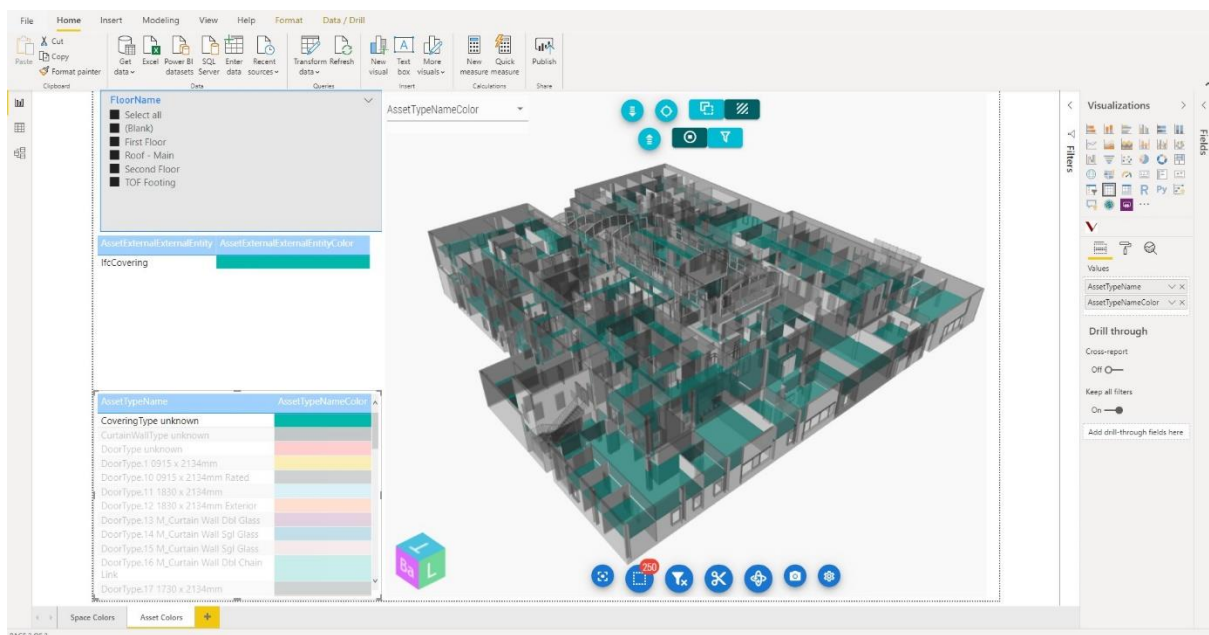


## COLORS

The **COLORS** template displays two pages, the first regarding the coloring of assets by type or name, the second regarding the coloring of spaces by description or name.

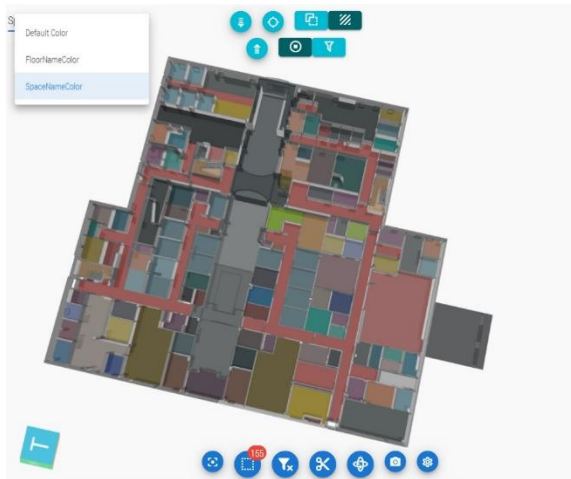


The user may select a floor and filter the spaces by name and intended use. The Vcad custom visual allows for easy identification of the desired space thanks to the use of a specific color.



As for the spaces, the Vcad custom visual allows the coloring of assets based on the type or name. The different coloring combined with Vcad's functionalities allow for easy identification of the elements of the .ifc file.





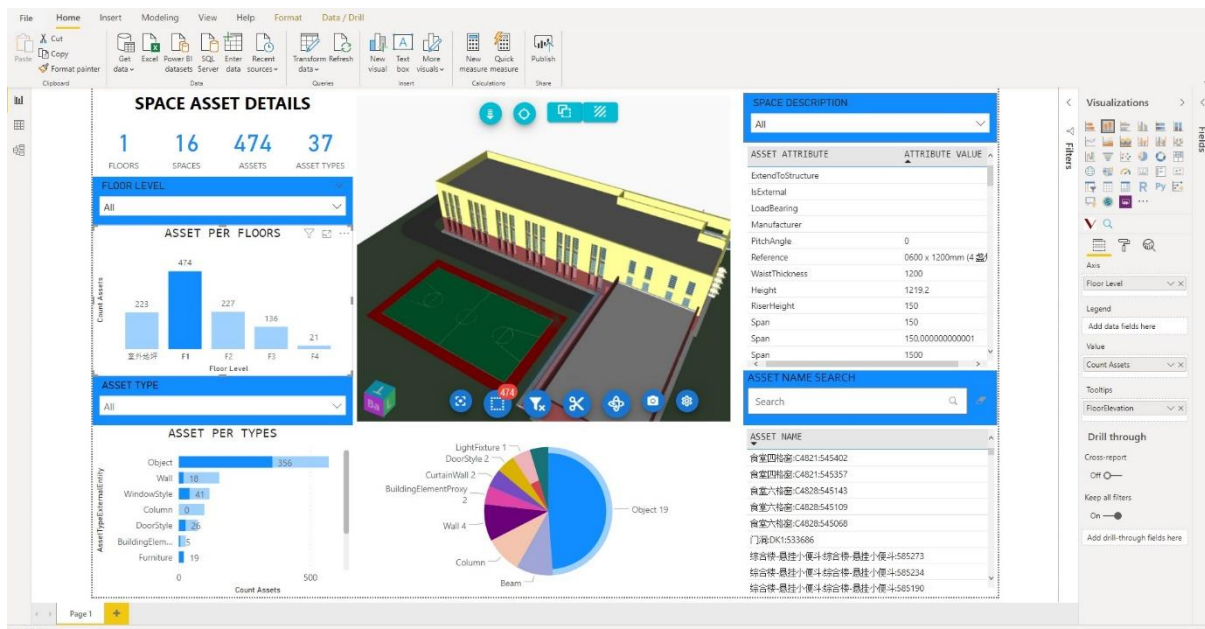
Vcad allows for different types of coloring depending on type, name, room collocation, etc. indistinctly for assets or spaces.

Using the dropdown menu, the user can set the active coloring rule to apply to the model.

It is also possible to change the default highlight color for assets and spaces.

## DETAILS

The **DETAILS** template contains the custom visual Vcad and an overview on the contents of the .ifc file focusing on the number and type of assets in as well as the number of spaces defined.



The template contains the information of the structure of the model, starting with the number of assets and their attributes. The filters defined concern the floors, the assets per floor or the assets per type of space.

The templates that can be downloaded in the Vcad file manager are like any other Power BI template. They can be modified as needed, every template will have the information of the assets, spaces and attributes as Power BI tables, so users can easily use other visuals in the report or add other data-sources not present in the model.