

# Practical Guide to start with BIM Coordination

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An Introduction to become BIM Coordinator

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By Ignacy Lozinski

## Hey there !!!

Hey, My name is **Ignacy**, the author of this guide. Since you are reading those words, it means that you are to some extent interested in the topic of BIM Coordination.

I have prepared an easy-to-use manual for you that will guide you through the basic aspects of the BIM Coordinator's work. Enjoy :)

## What you will learn from this guide?

The guide was created to give you the basic knowledge about the work of a BIM Coordinator and to show you how to perform simple coordination of BIM models.

The guide will answer the following questions: What BIM Coordination is? Who the BIM Coordinator is? What are his roles and responsibilities? and what personal and professional skills should have?

## Who is this guide for?

Everyone interested in the subject of BIM Coordination, in particular professionals and students associated with the AEC industry.

## What are prerequisites?

It would be great if you have a basic understanding of **BIM** and you have basic computer skills. If you also know programs such as **Revit** or **Solibri**, it will be even easier for you to go through the manual.

## How to use this guide?

The best way to use this guide is to go through it **from A to Z**. At the beginning, I will talk a bit about who actually the BIM Coordinator is and what roles and responsibilities has. Then we will conduct multidisciplinary coordination step by step.

Each step will contain a theoretical part and a practical one in the form of homework. I encourage you to follow what I do and then do the assigned work. Practice makes perfect. Only through practice will you be able to fully understand what we are doing.

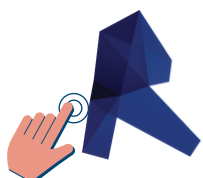
You may run into problems along the way, try to solve them by yourself, searching solutions on the Internet. The ability to find answers on the web will be useful in the further work of the BIM Coordinator. However, if there is something you cannot understand, feel free to write to me at:

**[ignacy.lozinski@bimcorner.com](mailto:ignacy.lozinski@bimcorner.com)** and I will try to help you.

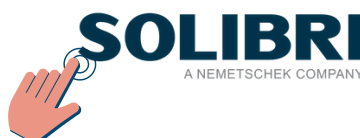
## What tools will I need?

We will use several tools in the guide. Each of them has a free trial version available for 30 days. To download the program, please register on the producer's website. The list of tools with links is provided below, click on the logo:

**Autodesk Revit 2020+**



**Solibri Office**



**BIMCollab**






# Who will teach you ?



My name is **Ignacy Łoziński**. I am a co-founder of BIM Corner blog, I specialize in BIM management, BIM coordination, and development of smart design solutions. Huge fan of doing more with less effort using Building Information Modeling.

During my career, I worked on several pioneer projects using BIM technology. Thanks to this, I gained knowledge about modeling, management of building information, multi-disciplinary coordination, and the creation of BIM implementation strategies for multimillion-dollar projects.

In addition to BIM, I'm very interested in programming and application of new technologies in AEC sector – especially automation and VR-AR. Below, a few projects I was involved in:

-  **E39 Kristiansand - Mandal** - BIM Developer - project won prestigious international price **AEC Excellence Awards** in 2020 - [LINK](#)
-  **Tønsbergprosjektet** (Norway) - BIM Collaboration Lead - first IPD project in Norway - won **buildingSmart International Award**. - [LINK](#)
-  **Campus Ås** (Norway) - BIM Coordinator - one of the biggest building project in Norway. - [LINK](#)

## Do you want to contact me ?

Write me a message:

[ignacy.lozinski@bimcorner.com](mailto:ignacy.lozinski@bimcorner.com)

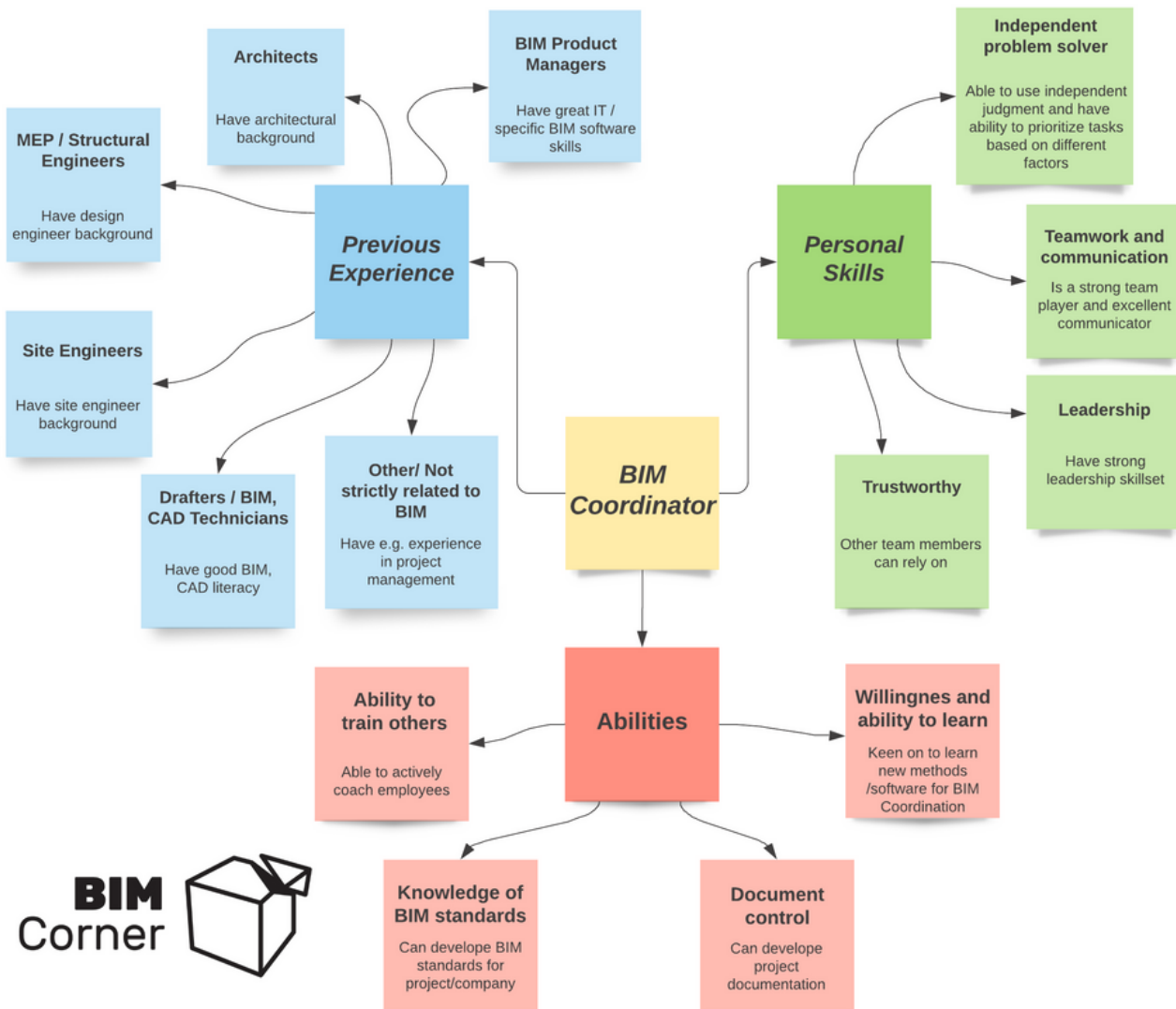
Find me on LinkedIn:



# Who can become a BIM Coordinator?

BIM Coordinator is a fairly “fresh” profession with no predefined framework and no established path as to how you may become one of them. It is a position for people who like learning new things, are not afraid of challenges and are consistent in their actions. Coordination itself is primarily about working with people, precisely for people. You will then be the one to create concepts for implementing BIM on a project, you will be the one to explain to others how your BIM strategy works and you will also be the one to expect them to meet the specific requirements of the ordering party.

Below I present a map of personal and professional skills of good BIM Coordinators:



# BIM Coordinator roles and responsibilities



To simplify the understanding of the topic, I divided the work of BIM Coordinator into 4 main roles, which, depending on the advancement of the project and the nature of the workplace. The first letters of these BIM Coordinator roles are arranged into an **EPIC** abbreviation, which is easy to remember.



## ROLE - EDUCATOR

Since BIM technology is developing at a very fast pace, it is not easy to keep up with new working methods and tools. It is necessary to have a person who will take over the role of an educator in the project and will be the technical support for others. BIM Coordinator is exactly one of them.

### RESPONSIBILITIES AS AN EDUCATOR:

- Supporting the tender team and clarification of the ordering party's BIM requirements - tender phase,
- Explaining how BIM will be implemented in the project to the project team - preliminary phase,
- Coordination of training courses for the project group,
- Co-creation of knowledge exchange places concerning tools and working methods with BIM in the company,
- Organization of the meetings to exchange experiences in working with the technology between the members of the project team,
- Personal support for designers in working with models,
- Teaching designers new working methods and automation of repetitive tasks.

## ROLE - PLANNER

Planning, analyzing requirements and developing a strategy for applying BIM is the key responsibility of BIM Coordinator. The tasks related to it mainly concern the tender phase or the initial design phase, where the implementation plan of BIM has not been established yet. The drawn up documents, knowing the tender requirements, describe in detail how the customer's ambitions should be met. One of these documents is the BEP - BIM Execution Plan.



## RESPONSIBILITIES AS A PLANNER:

- Planning an offer which satisfies the client's BIM ambition (EIR) with a tender team,
- Creating internal BIM standards used in the office / organization,
- Co-creating a BIM implementation plan for a project – creating BEP – (BIM Execution Plan)
- Planning procedures:
  - related to the operation of coordination software,
  - to conduct disciplinary and multidisciplinary checks
  - to conduct coordination meetings.

## ROLE - INNOVATOR

Although the construction industry is still one of the least technologically innovative, the area related to the application of Building Information Modeling is an exception to the rule. I have observed the ongoing changes in BIM quite closely, and I have seen how rapidly it is developing. New workflow methodologies and new approaches to modeling, coordinating and managing modeled information tools are emerging.



As you work on a project, you don't always have time to "grasp" it all. And here, the BIM Coordinator comes to the rescue. They are one of the **main catalysts of innovation in the project**. Keeping up to date with the latest developments, they can arrange the BIM implementation strategy in such a way as to apply the available technology most effectively. Innovations may support project teams in their work, speeding up the design process or adding a whole new value.

## RESPONSIBILITIES AS AN INNOVATOR:

- Selecting and implementing solutions to automate repetitive tasks:
  - using parametric design tools such as Dynamo or Grasshopper
  - new plugins for existing programs, e.g. RVT Tools to automate the export of IFC files
  - using Robot Processing Automation technology – RPA
- Participating in conferences and industry events for educational purposes and being familiar with the latest developments in the industry,
- Testing new solutions/methodologies/concepts on pilot projects:
  - drawing-less designing,
  - applying the VDC, ICE, Last Planner methodologies,

## ROLE - COORDINATOR:

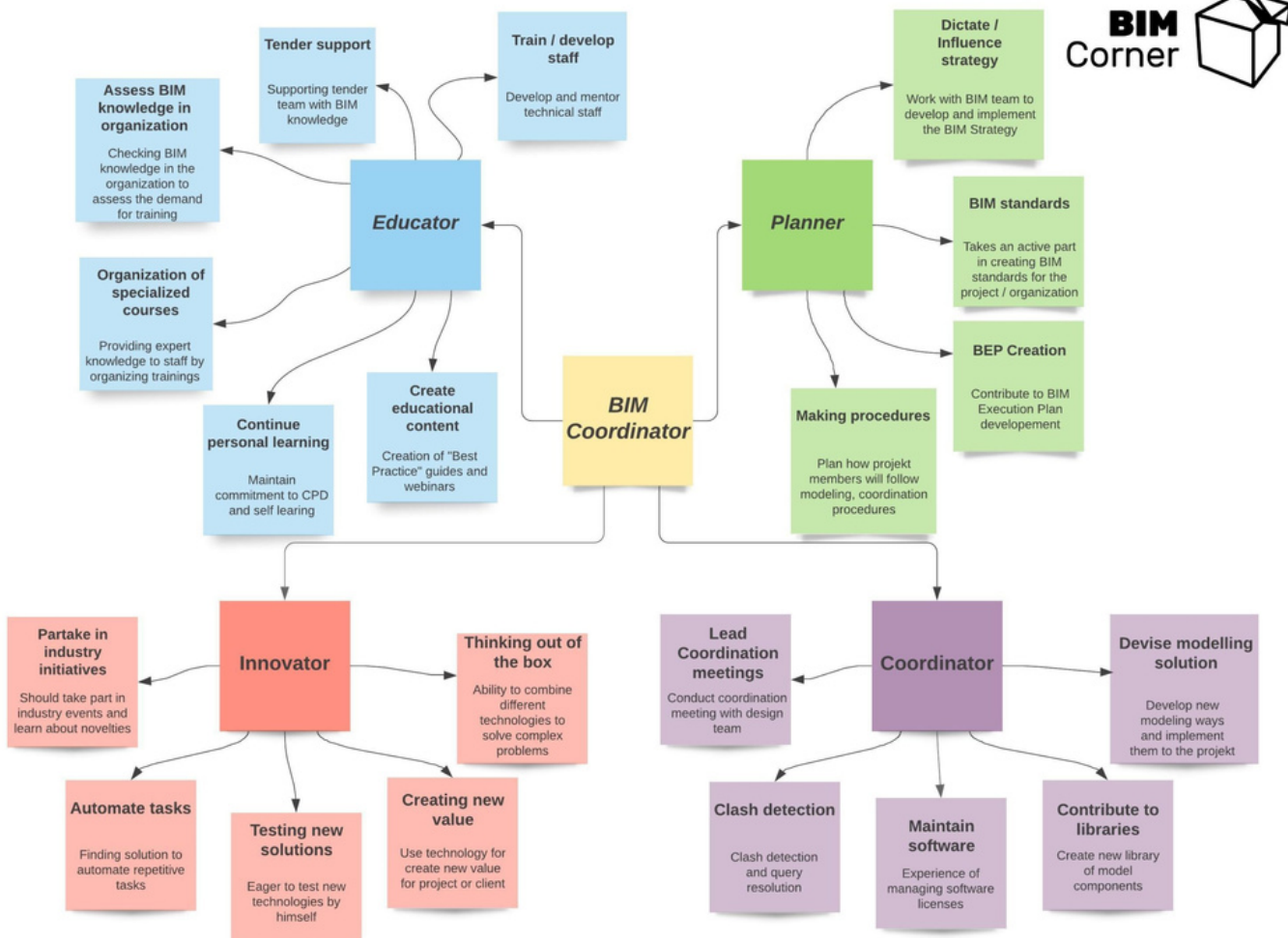
Of all four, this role is the most significant, and the name of the position itself comes from this role. Coordination duties may include many tasks, which often depend on the type of project you are working on. The most common are model geometry checks, collision searches and reporting to the relevant team members. However, it is only a small part of the overall picture



## RESPONSIBILITIES AS A COORDINATOR:

- assigning discovered geometric collisions to appropriate persons responsible for a given model,
- grouping and logical naming of collisions for easier identification,
- view collision reports with relevant project team members,
- update collision reports and sending them to the project management,
- verifying if the information implemented in the model is correct,
- verifying if all exported data from the model are complete and accurate,
- ensure that the model parameters are compliant with the BEP,
- initial configuration of 3D models in modeling programs (e.g: Revit, Tekla, ArchiCAD, Allplan, etc.),
- configuring models for all disciplines to ensure that the correct coordinate system is used and models are matched,
- creating and adjusting design templates in modeling tools,
- creating solutions to improve the workflow with models,
- creating element families or an internal element library within the project,
- establishing an agenda for regular coordination meetings.

### E.P.I.C roles and responsibilities of BIM Coordinator



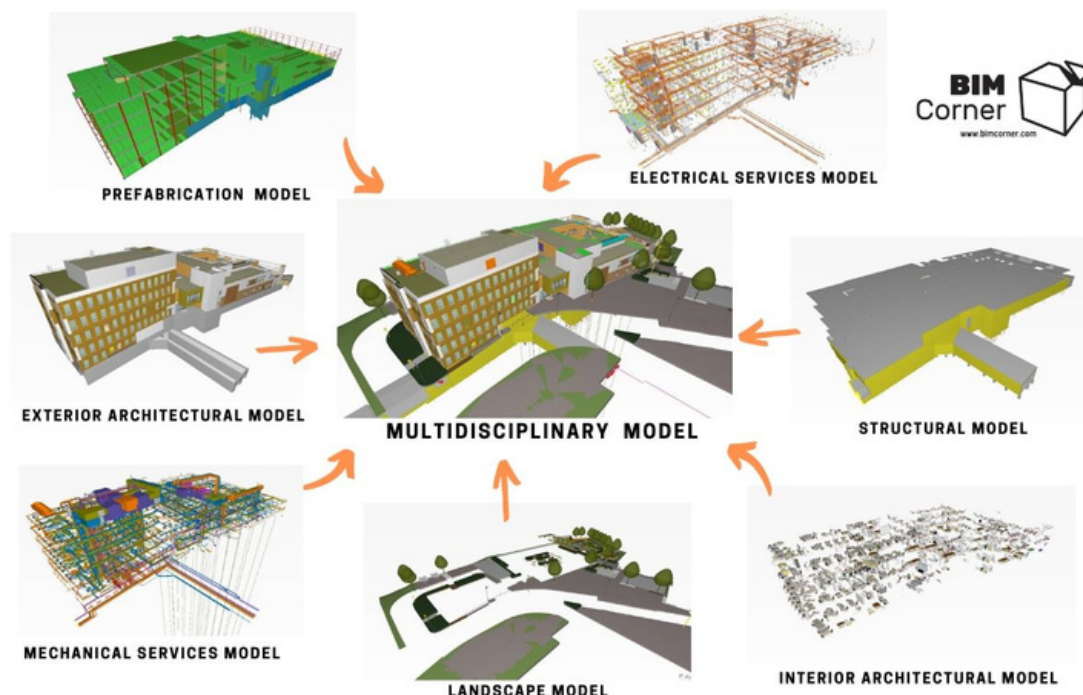
BIM Coordinator roles and responsibilities mind map



# What is actually BIM Coordination?

In short, multidisciplinary BIM coordination is a process that involves combining models of several disciplines (for instance, architecture model, ventilation systems, electrical systems, prefabrication model) and checking whether there are collisions between these models.

Multidisciplinary BIM coordination also includes checking the accuracy of the information contained in the models, sending collision reports, creating lists of model elements, and conducting coordination meetings.



***Multidisciplinary model consists of models from many different disciplines***

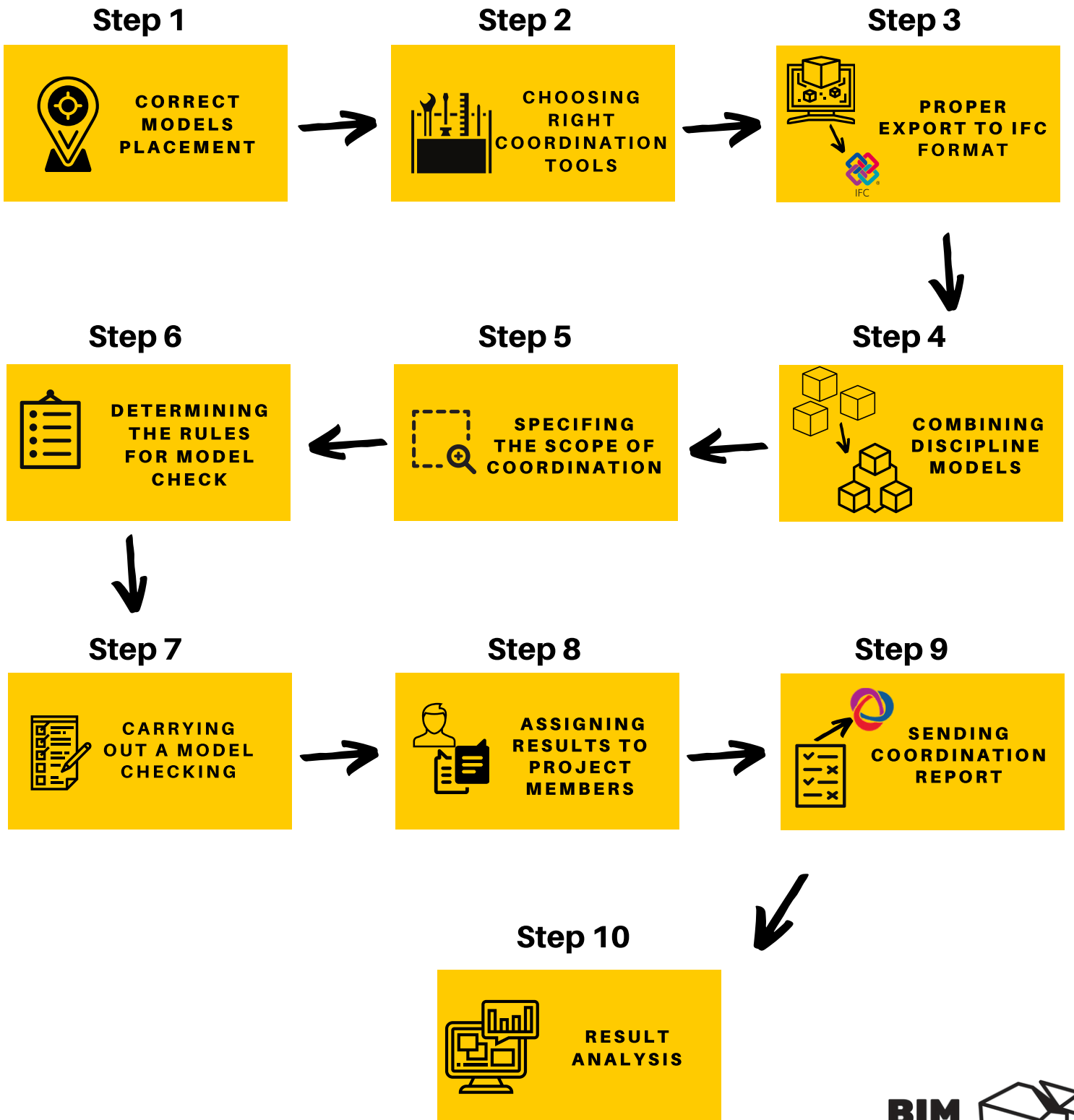
In this guide, we will focus on the most common form of BIM coordination, namely model collision checking. But what collisions are we talking about here? Let me explain using this simple example:

A structural engineer models the load-bearing wall, and the HVAC engineer creates the air conditioning system. In certain places, the air conditioning ducts run through the load-bearing wall. Here a collision occurs and must be reported to the design team.

At a first glance everything looks easy, isn't it? It seems like it, but there are a few steps worth remembering to ensure that the whole process, starting from detecting the collision, through communicating it, to solving the problem, runs smoothly. The steps are as follows:

# Steps to conduct simple BIM Coordination




We will break down our BIM coordination process into 10 practical steps. Each of the steps will be explained thoroughly. After the theoretical part, you will receive a homework assignment to do on a given subject. Try to do the work by yourself - remember practice makes perfect - only through practice will you fully grasp the topic.



## Exercise files:









During the practical exercises, we will use 3 models -

**ARCHITECTURAL**, **STRUCTURAL** and **MECHANICAL** (HVAC).

-  Sample\_project - ARCHITECTURAL
-  Sample\_project - MECHANICAL
-  Sample\_project - STRUCTURAL

I have prepared an exercise file to guide you through the coordination process. Download it to your hard drive and unpack it.

Name

-  STEP 1
-  STEP 2
-  STEP 3
-  STEP 4
-  STEP 6
-  STEP 7
-  STEP 8
-  STEP 9

Folders contain files that are needed to conduct each step. If you have a problem with your models, you can always open a proper folder and use my files as a template.

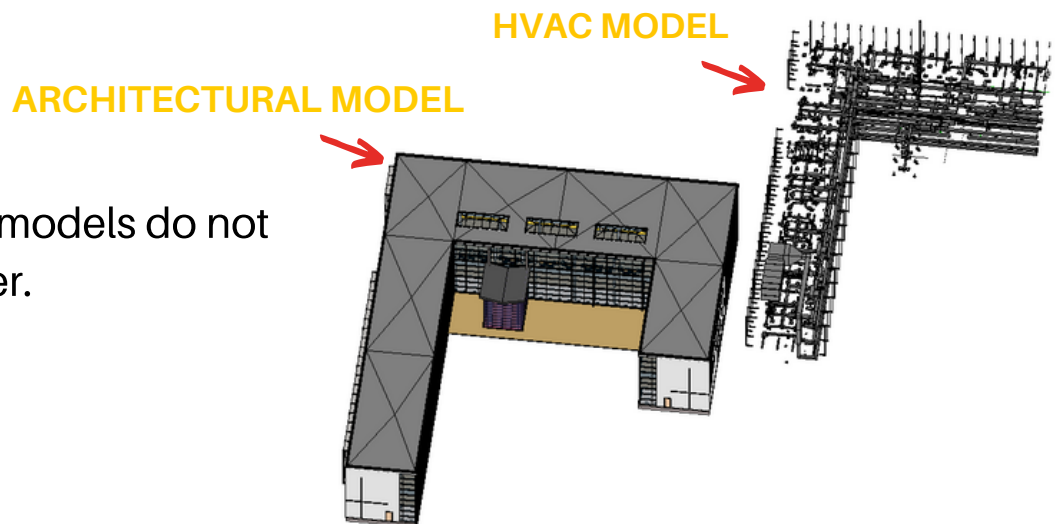
## Download exercise files



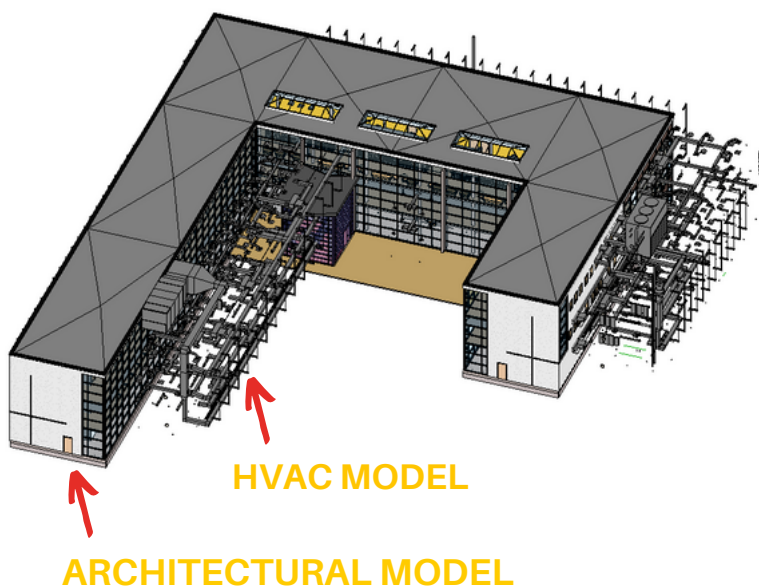


# Step 1: Proper models placement in relation to each other

To make multidisciplinary coordination work properly, the models must be set precisely to each other. More than once, I have encountered a situation where someone checked models that had completely **different coordinate systems** or **were shifted by several or even several dozen meters towards each other**. There were two effects. It was either lack of collisions (because the models did not overlap at all - **situation A**), or many nonexistent collisions to check (**situation B**). We want to avoid such situations, so we have to make sure that the models we combine have the same coordinate system and are accurately set (**situation C**).



**SITUATION A** - 2 models do not overlap each other.

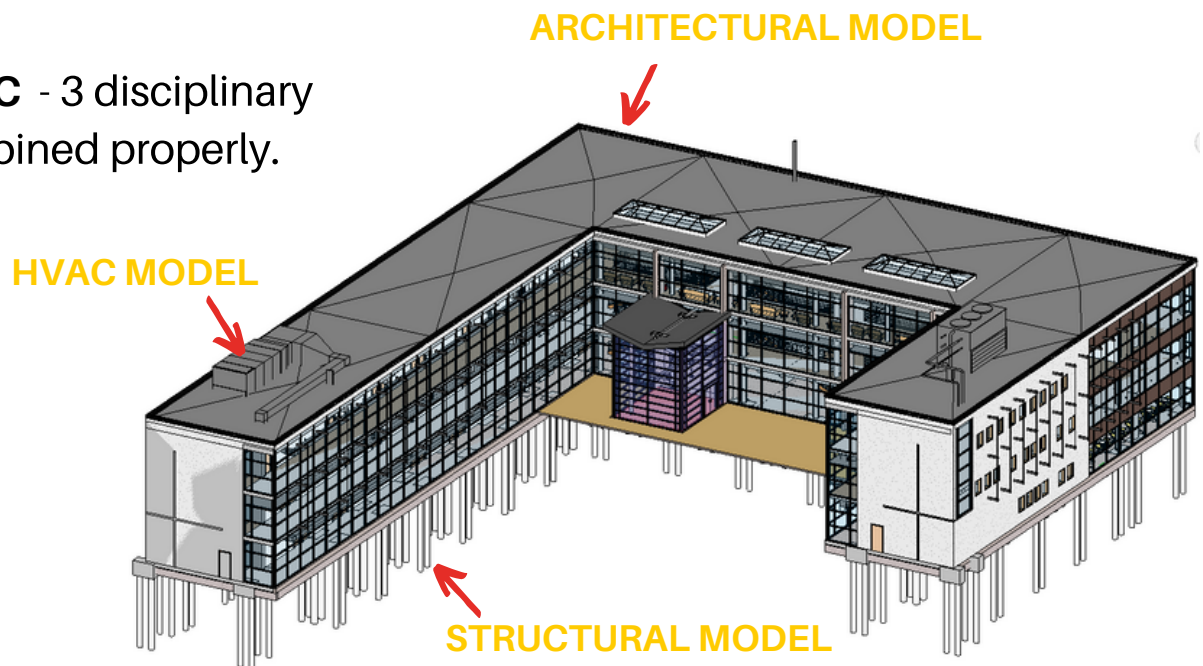


**SITUATION B** - Example of incorrectly placed models. You see that the Mechanical model is clashing with the Architectural one.



# Step 1: Proper models placement in relation to each other

**SITUATION C** - 3 disciplinary models combined properly.



There are many ways to do this, and it all depends on the program you use to combine and place your models in relation to coordinate system. A detailed description of the process itself based on one tool (for example, Revit) would be too extensive for this guide.

As a user of Autodesk Revit, I have learned that to understand how the coordinates work and how to set up models correctly in this program, you need to know a few things:

- we need to know that there are two coordinate systems in the Revit: **Internal Coordinates** and **Shared Coordinates**;
- understand what **Project Base Point** and **Survey Point** are and how they work ;
- know the difference between **True North** and **Project North**;
- know how to link models and use Worksets;



# Step 1 - Your homework

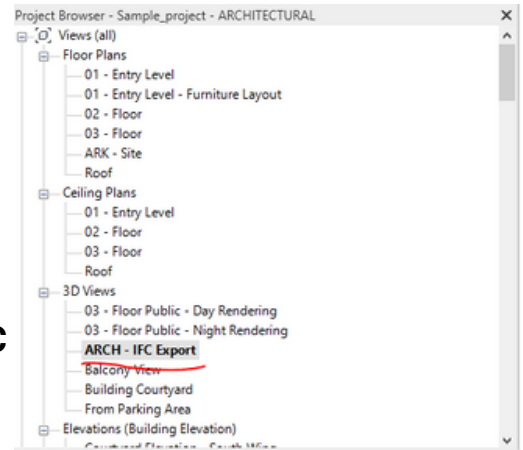
You have several tasks to do in this step.

1. First, go to Autodesk website and install a free trial version of Revit - [LINK TO FREE TRIAL](#)

Remember to install Revit 2020 or newer.

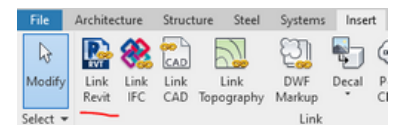
2. Go to our **Exercise Files** - > **STEP 1** and open **Sample\_project -ARCHITECTURAL.rvt** file

3. Then go to project browser and choose **ARCH - IFC Export view**



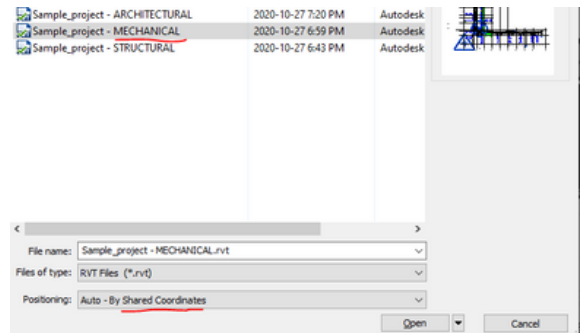
4. Next we want to link our Structural and Mechanical Revit models to check if they align correctly with the Architectural model.

5. To do so, go to **Insert tab** - > **Link Revit** and choose Mechanical model. Choose positioning by **Shared Coordinates**



6. Do the same thing with the Structural model.

7. Now your models should be positioned correctly



8. If you have a problem with this task go to **Exercise Files** - > **STEP 1** - and open a file **Sample\_project - ARCHITECTURAL\_with\_linked\_models**



## Step 2 - Selection of BIM coordination tools

Currently, there are several coordination tools on the market, and their selection depends on a few factors. To choose the right program, I recommend to start by asking ourselves 3 simple questions:

1. Are the models/documentation created in one or more programs?
2. What tool does my company currently use for multidisciplinary BIM coordination?
3. Do we already have a license for any coordination program?

We distinguish 3 groups of programs allowing conduct multidisciplinary BIM coordination:

**Modeling programs** - If you use one tool for modeling multiple disciplines, it may be an option for you. For example, **Autodesk Revit** gives you the ability to check collisions using Interface Check in the Collaborate tab.



**Common Data Environments** - A few CDE's on the market give us the possibility to conduct collision check between different models in the cloud. Trimble Connect or Autodesk BIM 360 are one of those tools.



**Dedicated BIM coordination tools** - These are programs that can create advanced model coordination. Such tools give you the most possibilities in terms of file reading, collision detection, model data validation, creating detection rules, grouping detected collisions, creating coordination reports as well as sending reports to the rest of the people involved in the project. The two best known and most commonly used programs are **Solibri Office (formerly Solibri Model Checker)** and **Navisworks Manage**.

In this guide, I will show you the steps that need to be taken to conduct coordination using **Solibri**.





## Step 2 - Your homework

Your homework in this step is easy. You just need to install Solibri on your machine. Go to [Solibri website](#), register to get free trial version, and install it on your PC. If you have already Solibri just jump to Step 3.





## Step 3 - Proper export of models to IFC format



During multidisciplinary coordination, project groups can use different modeling software. For instance, architects will use **ArchiCad**, structural engineers – **Revit**, and the prefabrication department **Tekla**. Each of this software is made by a different provider and saves the model to different file formats.

Multidisciplinary BIM coordination consists of merging the models into a collective model that will include all currently tested disciplines. So how do we put these models into one if they are created in 3 different programs?

Here the **IFC format** comes in handy. In short - **IFC** is an open standard used in construction industry to exchange data between different pieces of software. The **IFC** in BIM world is something like **PDF** in the document world.

Each of the abovementioned programs features a function required to export the model to IFC format. We export the models to the IFC file and then combine them into one multidisciplinary model, for example, in Solibri.



Exporting our IFC model may seem like a simple task, but it is not really true. You should be very careful about the way of doing it. Always pay attention to mapping the data from the native file to the IFC file and also what kind of 3D view we use when exporting (applies to some programs like Revit). Sometimes the objects in a view are hidden and may not be exported to IFC. Exporting IFC file properly is actually also a topic for another post. For those who would like to learn more, I have included Revit guide that will help you understand how to export correctly from native Revit to IFC file.

→ [Revit IFC Export GUIDE](#)



**Recommended read about IFC :**

→ [Everything worth knowing about the IFC format](#)



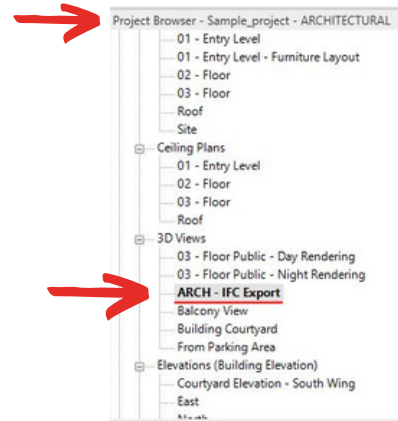
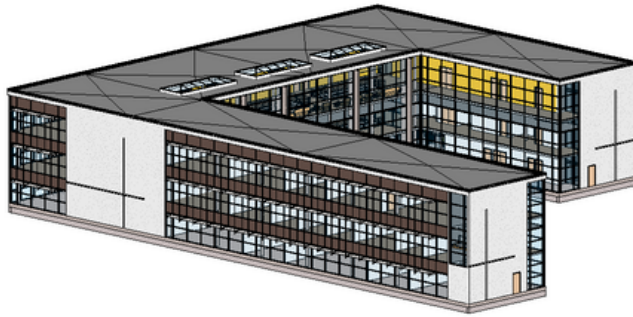


# Step 3 - Your homework

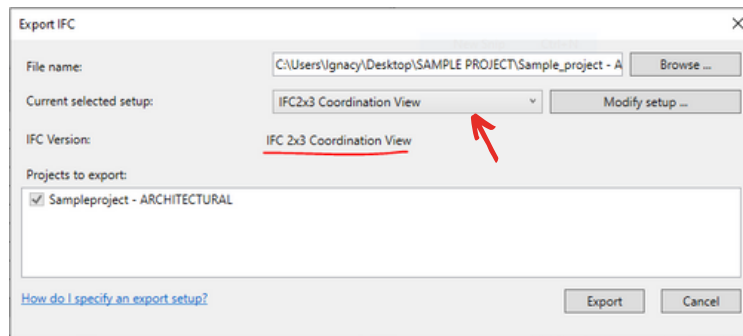
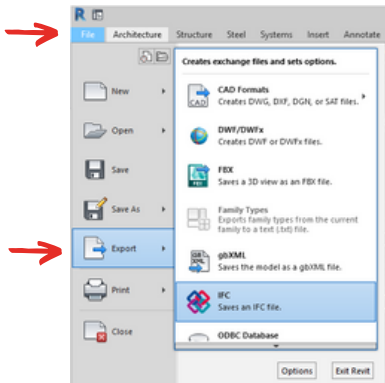


We have our Revit models properly placed between each other. Now, this is time to export Revit models into IFC format. To do this follow these steps:

1. Open ARCHITECTURAL Revit file. You can use files from the previous step or from **Excercise Files -> Step 3 -> Revit files** folder
2. In Project Browser in Revit, open 3D view called IFC export to visualize the model.



3. Next, Go to Revit **File** tab and choose **Export -> IFC**



4. For simplicity reasons use, already build in selection setup IFC2x3 Coordination View and then click **Export**. This selection IFC setup in Revit is called normally Model View Definition. If you want to know more about it check the link below.

5. Do steps 1-4 with **STRUCTURAL** and **MECHANICAL** models.

6. As a final result you should have 3 IFC files.

Name	Date modified	Type	Size
Sample_project - ARCHITECTURAL	2020-10-26 12:41 PM	IFC File	59,411 KB
Sample_project - MECHANICAL	2020-10-26 12:44 PM	IFC File	44,159 KB
Sample_project - STRUCTURAL	2020-10-26 12:44 PM	IFC File	5,957 KB

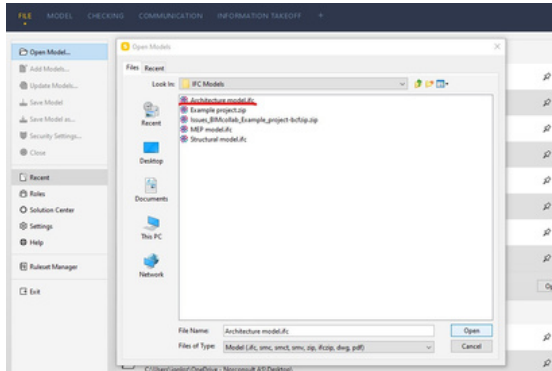
## Recommended read about Model View Definition :

 [Model View Definition](#)



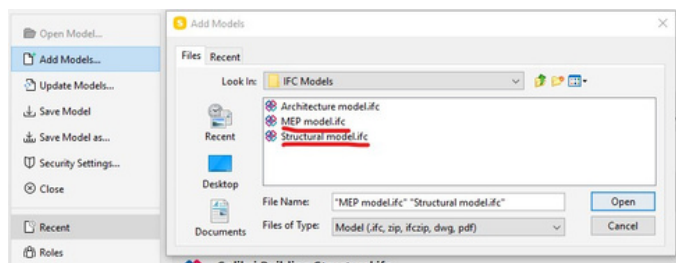
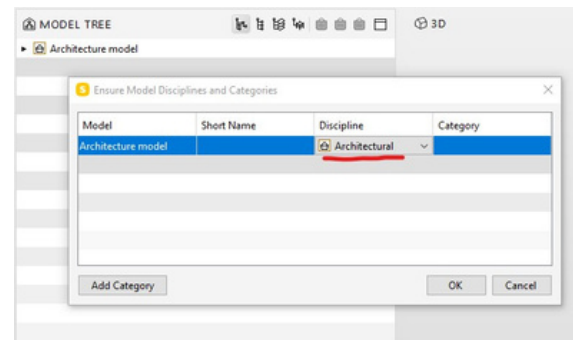
# Step 4 - Combining models into one multidisciplinary model

As we already have the IFC models, we can combine them into a single multidisciplinary model, which will be our base for BIM coordination. To illustrate better how to do it, I will use Solibri and show you an example.



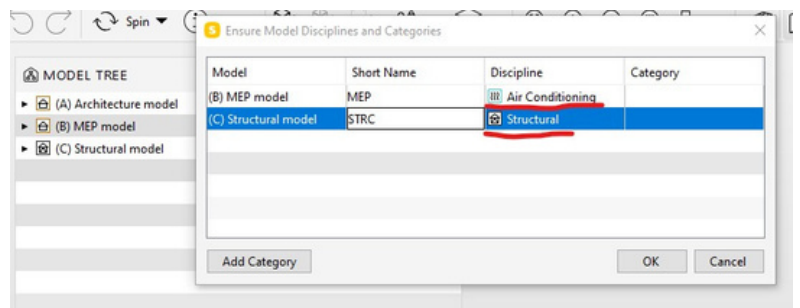
In Solibri, in the main menu, click on **File - > Open Model** and select the model we want to load. For explanation purposes, I will open the IFC file of Architecture model first.

After loading the file, we must determine the appropriate model category. In our case, we set it to Architectural.



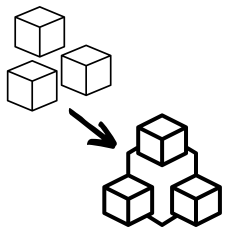
We add more models to the architecture by going to **File -> Add models**. We can select several models at once. Then you must correctly determine the model category.

After adding models, we choose proper discipline category for each model. It will help us to classify the collisions when setting the check rules, but I will tell you about it in the next steps.



Below is a link to a short video illustrating how to combine models in Solibri

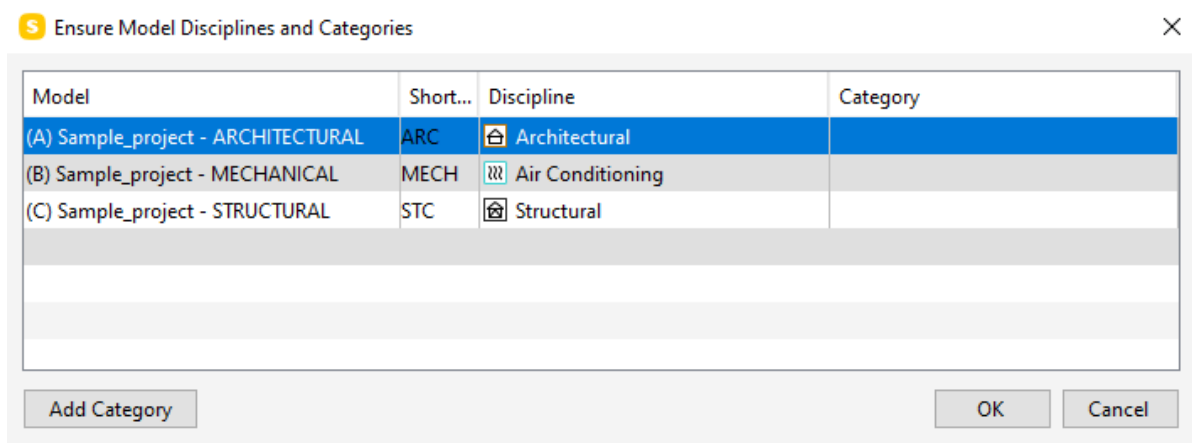




## Step 4 - Your homework

Our 3 models are already exported to IFC files. Now, it's time to combine them into one multidisciplinary model as described in the previous page.

Remember to use proper model disciplines. Check the picture below:



After merging models, save a file to Solibri .smc file.

If you are lost in any steps you can always go to our **Excercise Files** - > **Step 4** folder to find properly created file.



## Step 5 - Specifying the scope of model checking

So, our disciplinary models have been combined into one. At this point, it is worth considering the scope of our BIM coordination.

A few questions can help us with that:

- Do we only check for collisions between the models or also the correctness of information in the models?
- Are we interested in whether the modeled spaces meet the design conditions of the so-called: Space Validation?
- Are we going to check if the services are properly modeled and have appropriate distances from construction elements?
- Will the coordination also includes checking that appropriate distances between installations are maintained following the standard?

Asking ourselves the above questions at the beginning of the coordination process will help us to structure the rules we will set for our program to check (about the rules in the next step).

This will allow us to catch the anomalies between the models faster, detect collisions, design errors, missing information, and elements which fly in the air (believe me, you will meet more than once the columns or beams hanging several meters above the roof of the building).



## Step 5 - Your homework

In this guide, we will focus only on simple clash detection between Architectural and Structural models with Mechanical model.

Topics like Space Validation, information correctness, a proper distancing between elements are too extensive to present them in this manual.

**As your homework**, make yourself another cop of coffee and jump to step 6





# Step 6 - Determining the rules for the model checking

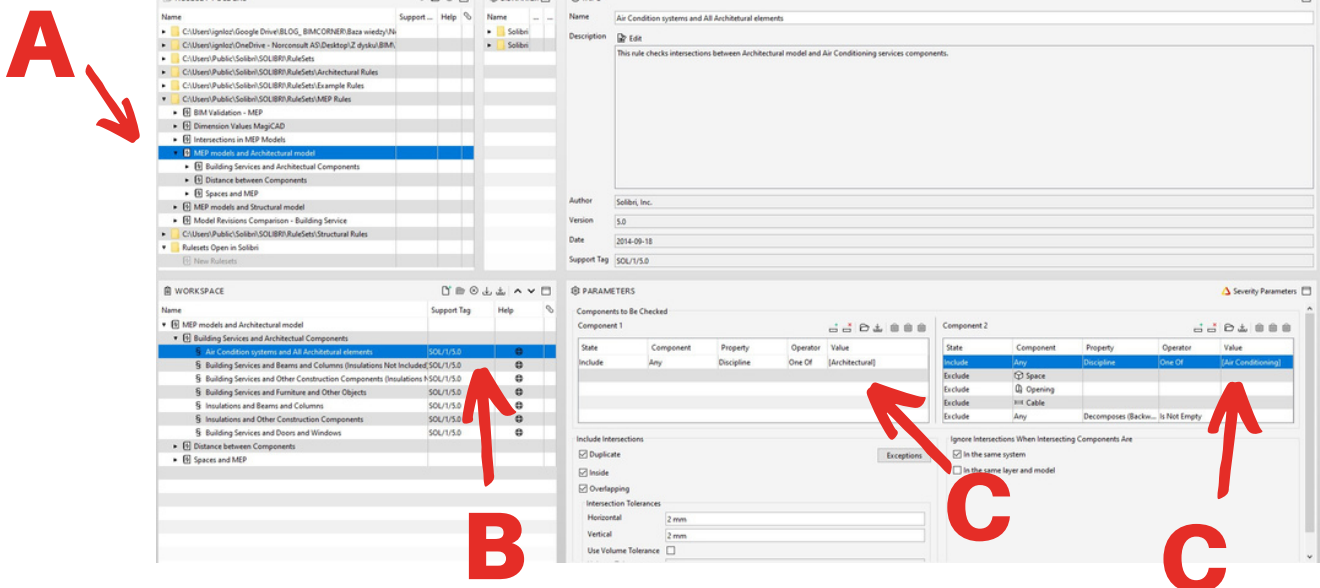
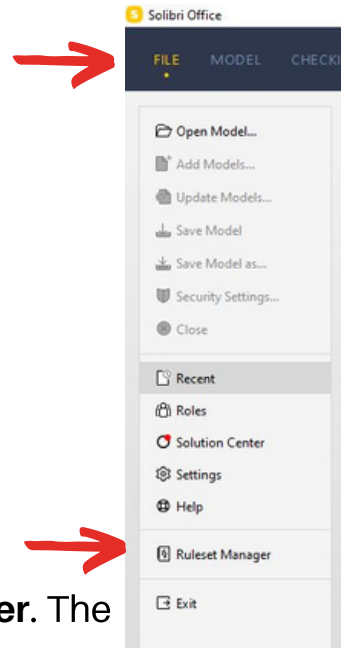
The next step that needs to be done is to create Model checking rules. **What are those?**

These are user-defined rules that specify which elements of the model are checked, and also the conditions when a given element is considered to be a reportable case (so-called: issue).

To simplify our example, let's say that we will check only clashes between the architecture model and the air conditioning model.

Let's see how it looks in Solibri. First, we go to **File - Ruleset manager**. The program already has examples of rules created by default, so we will use them.

Then, we select the appropriate rule that checks the architecture and air conditioning elements, and open it in the Workspace panel (**letter A**). Next, we select the appropriate rule (**letter B**) and look in the Properties panel which elements will be checked (letter C).



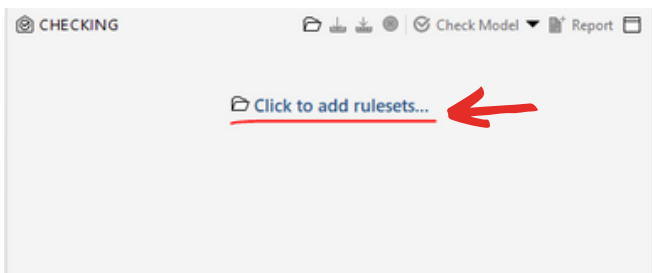
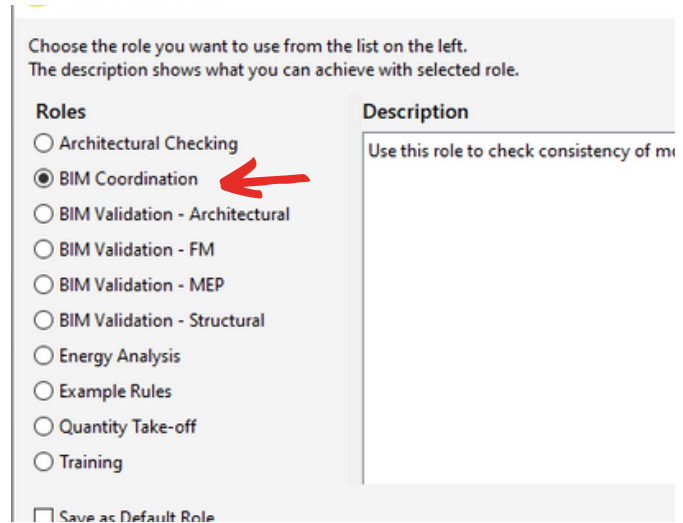
Solibri gives you great possibilities to filter, classify, and group rules in various ways so that they will check what we really need. The very subject of creating rules and checking the model is huge - below you can find a link to a short video showing how to set simple rules in Solibri.





## Step 6 - Your homework

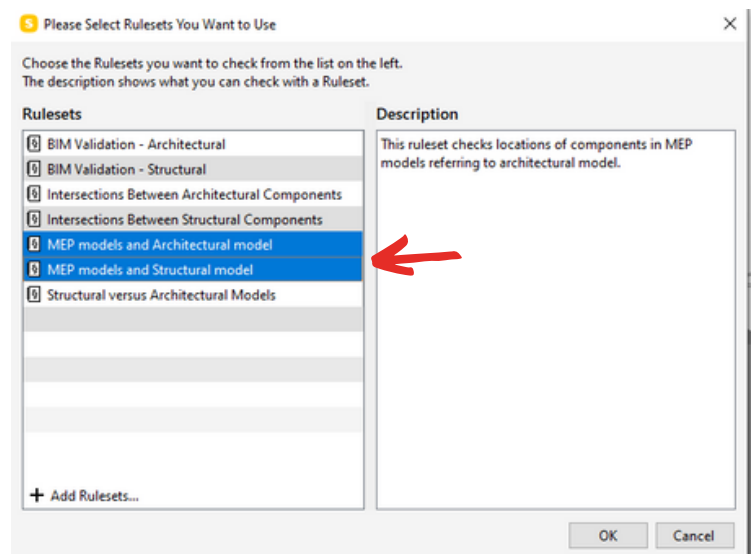
1. Please go to **Checking** tab in your Solibri file. You should see now **Choose Role** window, where we can choose what role do we have in a project. Pick BIM Coordination role, and click **Next**, Solibri will automatically suggest us a few rulesets for our further job.



2. If you can not see Choose Role window just **Click to add rulesets** button.

3. As I mentioned in step 5 we will just check clashes between Architectural and Structural models with Mechanical models. So we need to choose rulesets which check those elements.

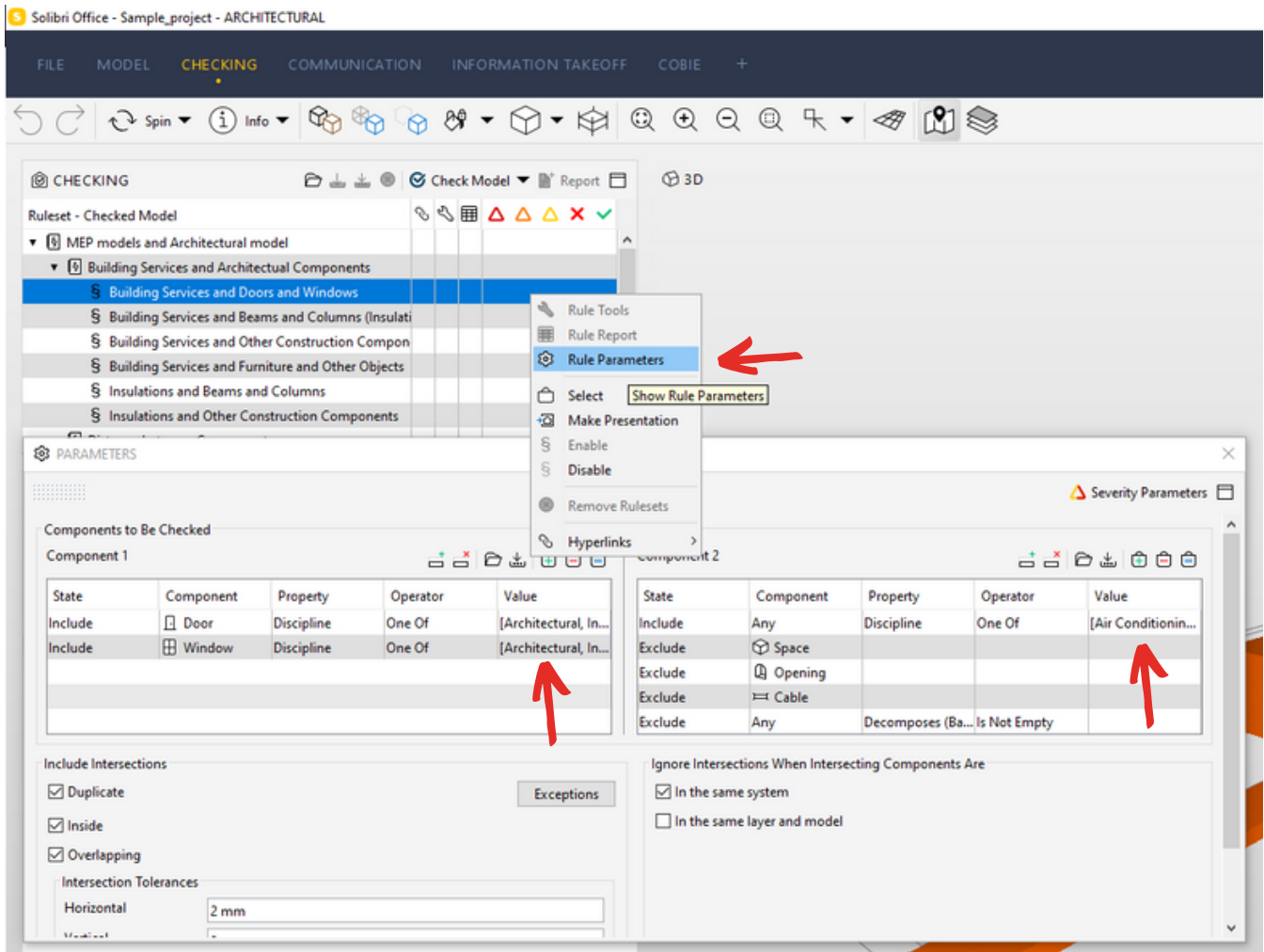
See the picture on the right and choose **highlighted rulesets** then click OK.







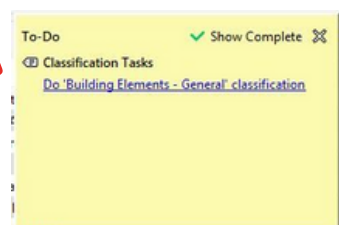
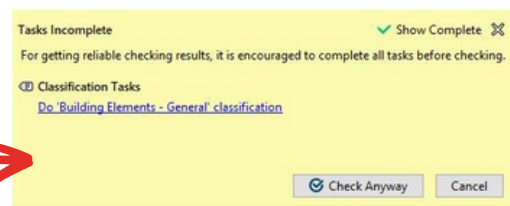
## Step 6 - Your homework

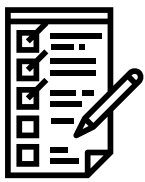


If you are interested in knowing what is inside our rules just - Choose **Mep models and Architectural model** rule and find out what type of elements will be checked. You can do so, by clicking the right mouse button (RMB) and pick **Rule Parameters**.

You see that Component 1 is coming from Architectural and Component 2 from Air Conditioning. Now you understand, why we needed to add the correct model discipline category at step 4.

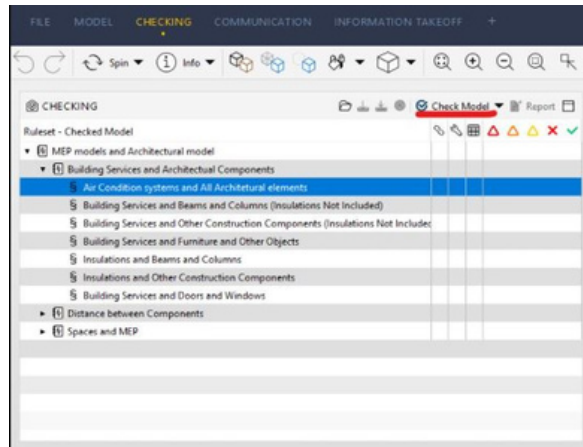
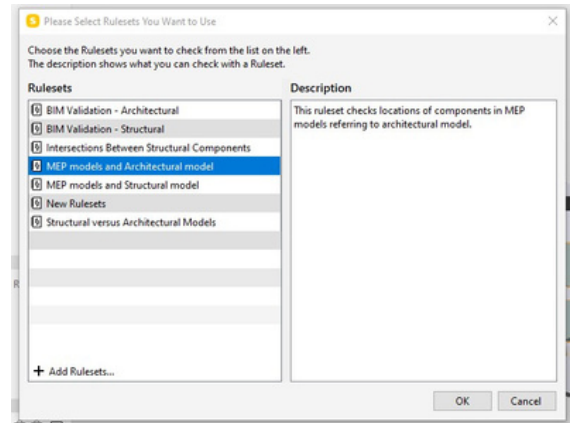
If you will get any warning windows from Solibri like those on the right, do not worry just click on X button and close them





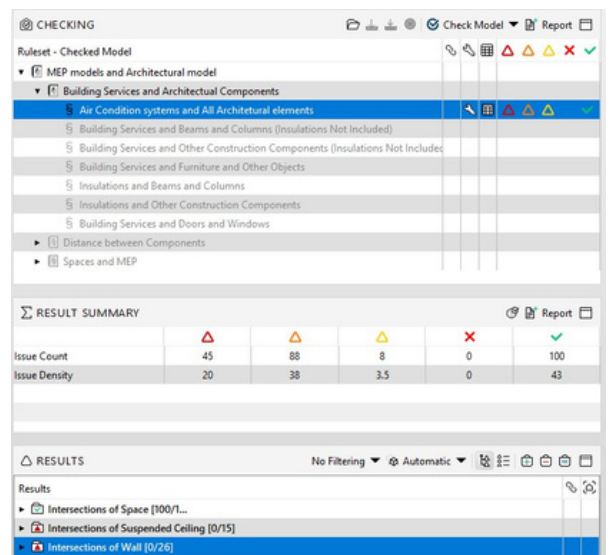
# Step 7 - Carrying out a model checking

Our model is ready for coordination. It is time to check it according to predefined rules. In Solibri, we go to the **Checking** section and open the rules we defined in the previous step.

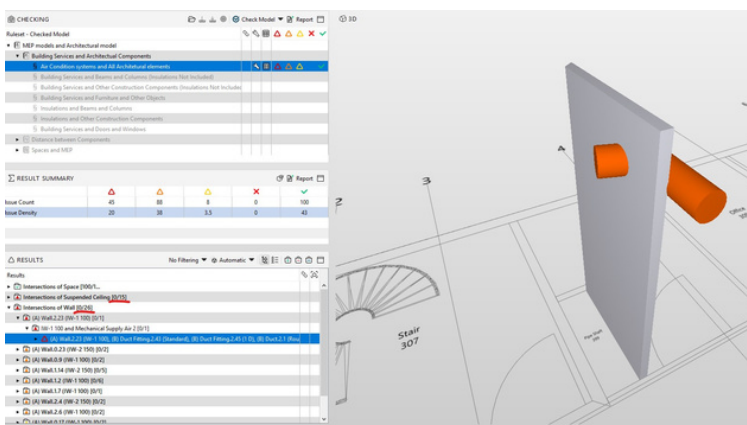


In the Checking tab we press the **Check** model button and wait for Solibri to complete the model analysis.

After checking, in the **Results panel**, we received automatically grouped issues, which the program considered as collisions.



In this example, we got 15 ventilation collisions with suspended ceiling and 26 with walls.



By pressing on individual issues, we can see where they are located.

Below is a link to a short video showing how to perform a simple collision check in Solibri.





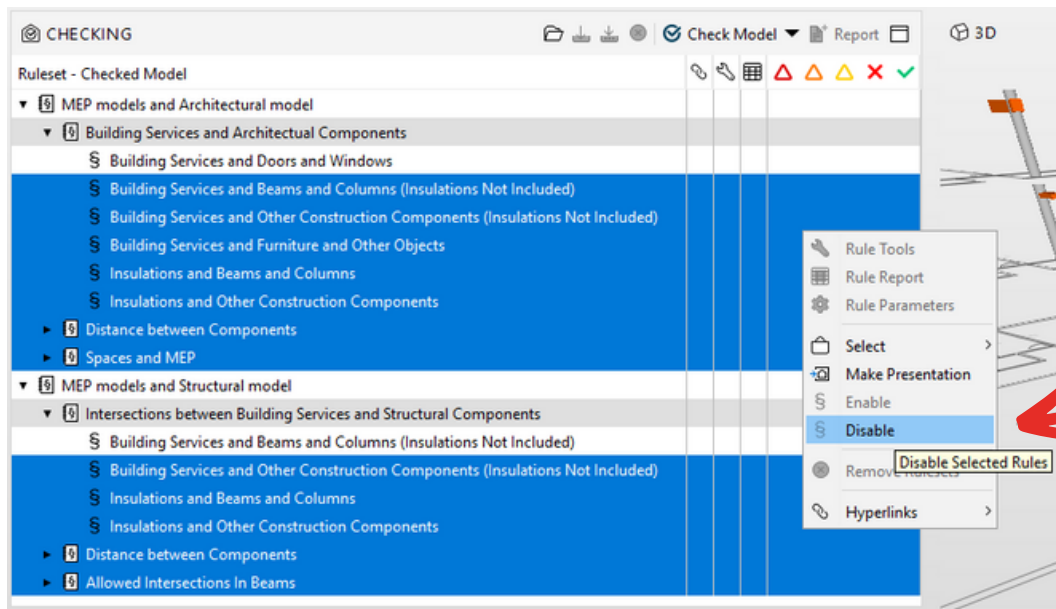
# Step 7 - Your homework

We are ready to run clash detection. For the purpose of this guide, we will choose only a few rules from our rulesets.

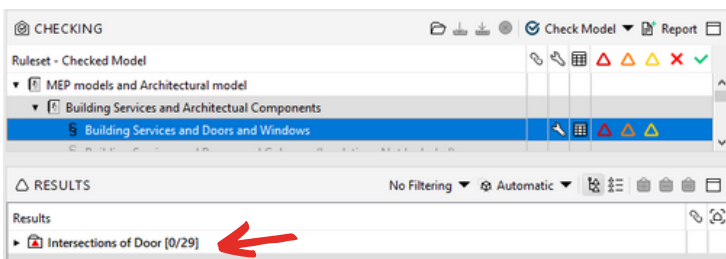
Let say that we want to check:

1. Doors and Windows from Architects with Mechanical services
2. Beams and Columns from Structural with Mechanical services.

To do so we can disable the rest of the rules from the ruleset by clicking **RMB** and choosing **Disable** (see picture below).

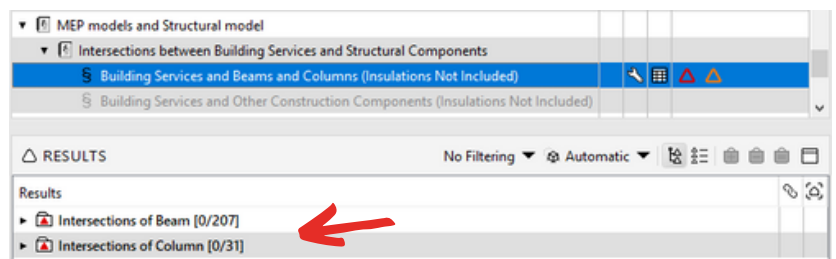


After disabling unnecessary rules we can now choose **Check model** and start clash detection. After a while, Solibri will generate for us a list of clashes for each rule. You can find those in the **Result panel**.



If you have done everything correctly you should receive **29 clashes with doors** from the Architectural vs Mechanical rule.

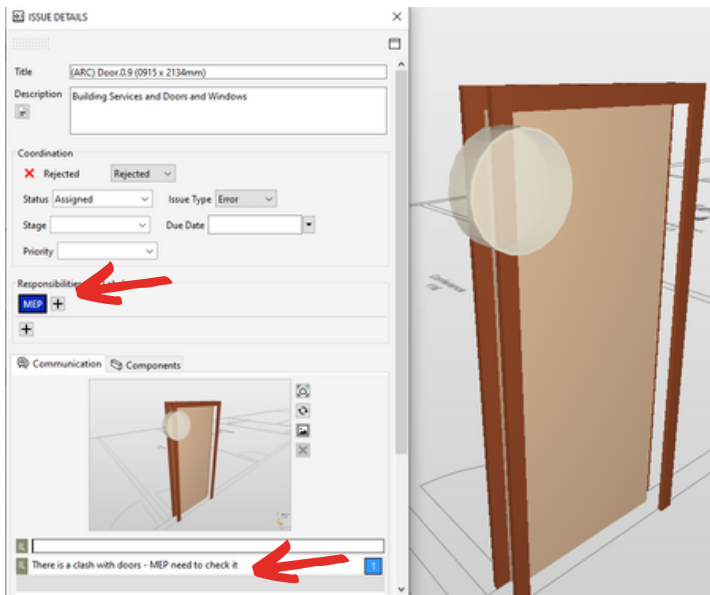
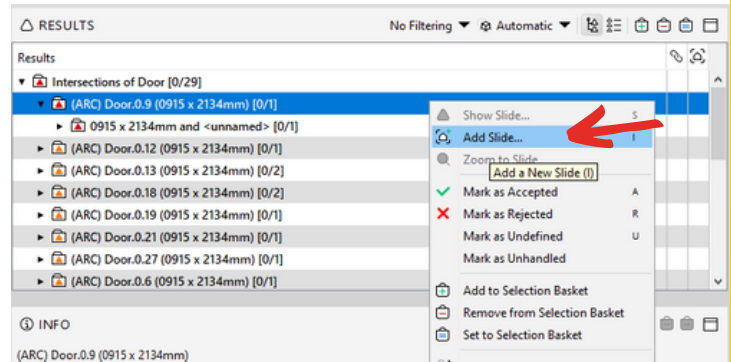
And **207** clashes with structural **beams** and **31** clashes with structural **columns**.





## Step 8 - Assigning the results of the check to the relevant project members

BIM Coordinator should check, describe, and assign each collision to the person responsible for solving the problem. In Solibri, to register a given collision, we click the right mouse button on the case and select **Add Slide** (or click the “i” keyboard shortcut).



Then, in a new window, we specify who is responsible for the collision, add the date by which the case should be clarified, set the collision status (**Assigned**), and write a **short comment** explaining the problem.

In this example, we specify that a person responsible for the model from MEP (MECHANICAL) department should look at the issue.

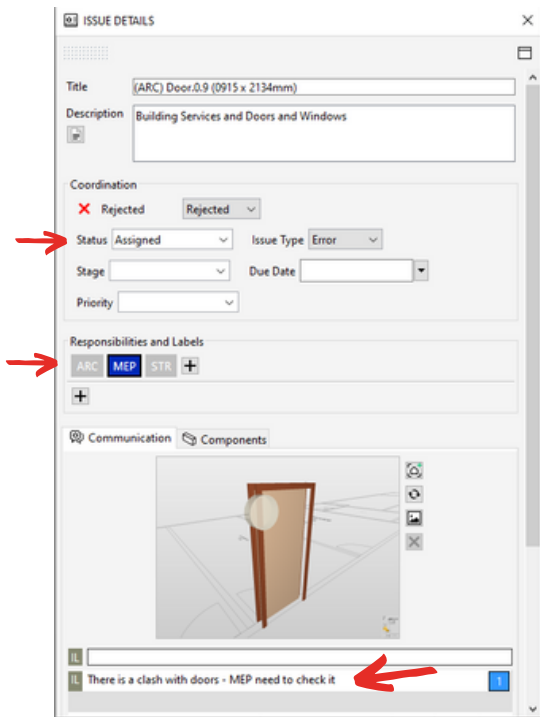


**TIP** - From my experience, I recommend assigning clash issues to one person rather than the whole department or a group of people. It reduces the possibility of misunderstanding, shifting responsibility to someone else, and long waiting time for the problem to be resolved.



## Step 8 - Your homework

As a result of Step 7, we have a lot of issues to check. Let's choose only a couple of those and assign it to different responsible parties. Follow the steps below:



1. Choose 5 different door clashes and make a slide for each one of it.
2. Write a comment, set status to **Assigned** and add responsible party. You can add Responsible parties like ARC, STR, MEP using + button
3. Then do the same with beam and column clashes. Find 5 clashes for each, add slides, comments, change status and choose responsible parties.
4. At the end of this task you should have 15 slides that describe 15 issues.

5 between architectural doors and mechanical services  
5 between structural columns and mechanical services  
5 between structural beams and mechanical services.

If you are lost in any steps you can always go to our **Exercise Files** - > **Step 8** folder to find out how I have done it.



## Step 9 - Sending BIM coordination reports using BCF format



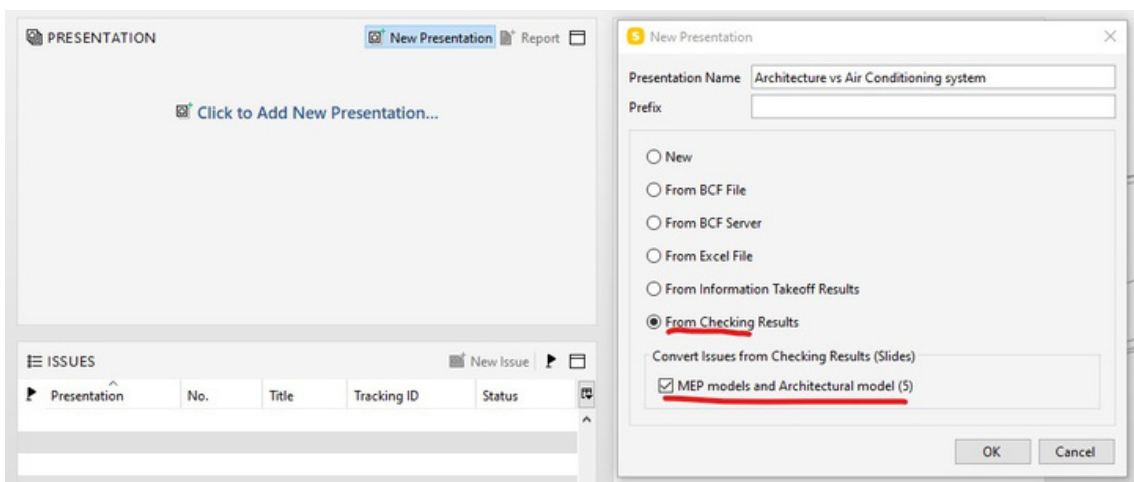
So let's assume that we went through all the collisions we received in the **Checking** panel. We assigned them to particular people. Now we need to somehow communicate to the relevant team members that collisions are waiting for them to be solved. **How do we do that?** For this purpose, we use reports as a **BCF file**.

### What is BCF ?

In short - BCF (BIM Collaboration Format) is another open standard used in the construction industry. It allows communication around models. It allows you to send markup models, comments, tasks, attachments, screenshots from the model presenting the problem between all project members - for a more detailed explanation go to the recommended read below.

Sending BCF report in Solibri is quite a simple operation:

1. Enter the **Communication** section and create a presentation in the **Presentation** panel.
2. Press the New Presentation button. Name the presentation to suggest what kind of cases it contains (in our case, Architecture versus Air Conditioning). Then choose **From Checking Results**.



### Recommended read about BCF:

 [BIM Collaboration Format - Whatsapp of BIM](#)



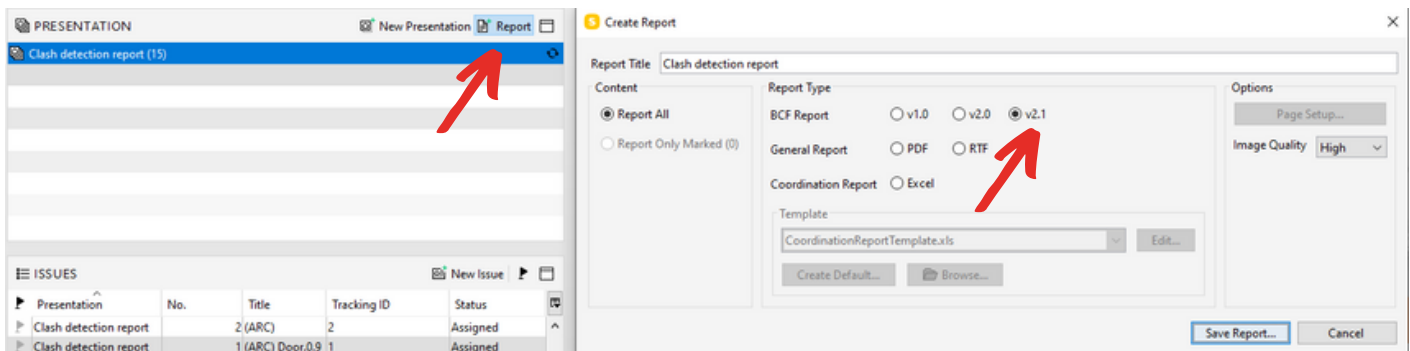


## Step 9 - Sending BIM coordination reports using BCF format



3. The presentation prepared in such a way can be sent as a report by clicking on the Report button.

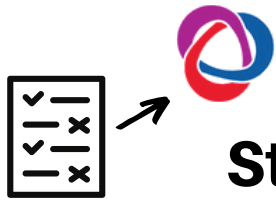
4. Here we can choose the form of the collision report. We can export it to Excel, create a PDF, or send it in the open BCF (BIM collaboration format)



I am a huge fan of using 3rd party so-called issue managers or issue trackers. These are programs that allow us to keep all project issues in one database accessible for each of the project team members. Usually, these are web-based solutions with a desktop version. Such software makes collision management on a project much easier and intuitive.

The most popular issue managers are: **BIMcollab**, **BIM Track**, and **Revizto**. In further steps, we will use **BIMcollab** to manage our issues. If you do not have a free BIMcollab account yet, click on the link below and create it. We will need it for our homework.

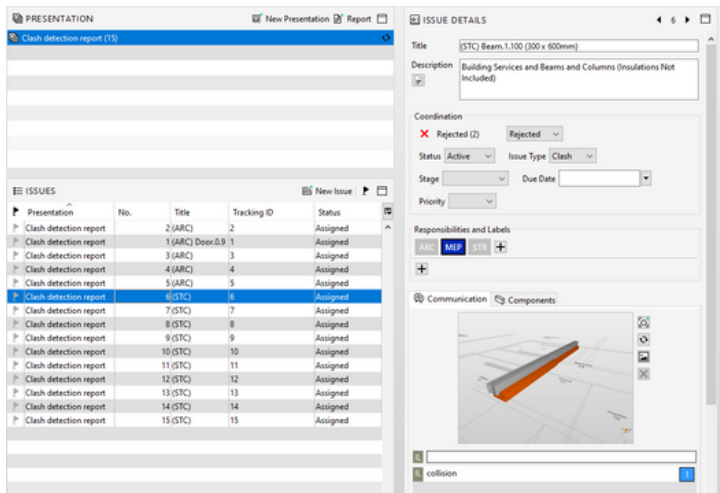
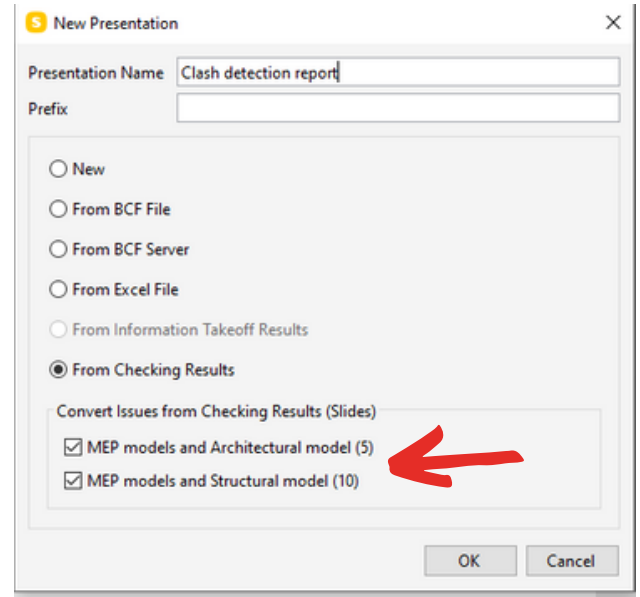




## Step 9 - Your homework

So our job in this step is to create a report from our clash detection and save it into BCF file. As I mentioned in the previous pages - To do this in Solibri you need first to create a **new presentation**.

Name it whatever you want. I called it "**Clash detection report**". Issues will come from our checking results from previous steps (5 issues ARC vs MEP and 10 issues STR vs MEP). Then we click OK.



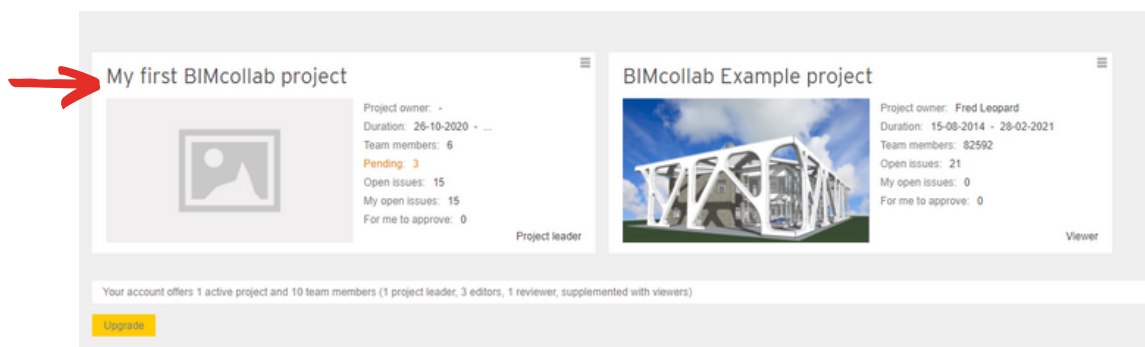
Now, our presentation is ready and has 15 issues. You can click each of them and check details in **Issue Details** panel.

OK. We are ready to make a BCF report. As explained on the previous page, click **Report** button, choose BCF 2.1 report type and click **Save Report**.

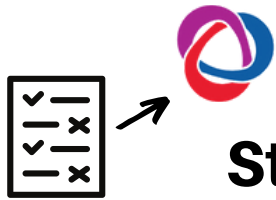
If you are lost in any steps of this lesson visit **Exercise Files - STEP 9** where you will find Solibri file and BCF report.

Our next task is to import our BCF report into BIMcollab. If you do not have free BIMcollab account yet, [click on the link](#) and create it.

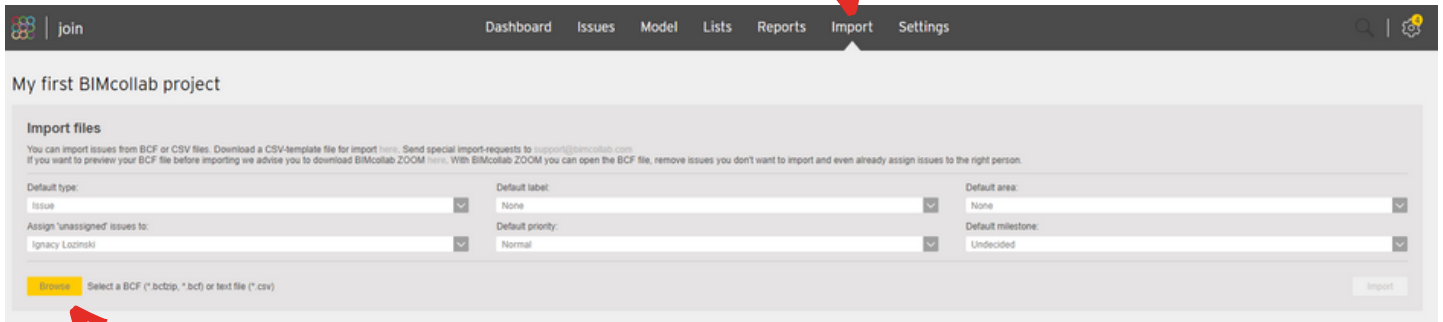
When you log in to your free account you should see 2 test projects (as in the picture below). We will import BCF report to **My first BIMcollab project**, so click on that one.







# Step 9 - Your homework



Then choose **Import** tab and click on **Browse** button. Find a BCF report you have just created in Solibri and **Import** it.

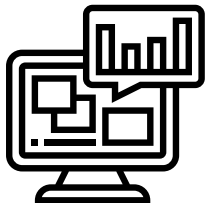
If you have done everything correctly you should see in the Import history that something like that:

Date-Time	Filename	Uploaded by	Info
27-10-2020 10:23	Clash Report.bcf	Ignacy Lozinski	File import successful. Issues created: 0, Issues merged: 15.

Now, go to **Issues** tab to see all your issues from Solibri.

Snapshot	No.	Title	Created by	Modified	Assigned to	Area	Milestone	Deadline	Labels	Priority	Type	Status
	1	My first issue	Ignacy Lozinski	27-10-2020	Ignacy Lozinski	Model	Undecided			Normal	Issue	Closed
	2	(ARC) Door.0.9 (0915 x 2134mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Architecture	Normal	Clash	Active
	3	(ARC) Door.0.18 (0915 x 2134mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	4	(ARC) Door.0.21 (0915 x 2134mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	5	(ARC) Door.1.8.1 (M_Curtain Wall Sgl Glass)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	6	(ARC) Door.2.28 (0915 x 2134mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Architecture	Normal	Clash	Active
	7	(STC) Beam.1.100 (300 x 600mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	8	(STC) Beam.1.112 (300 x 600mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Structure	Normal	Clash	Active
	9	(STC) Beam.1.14 (400 x 800mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	10	(STC) Beam.1.18 (800 x 900)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	11	(STC) Beam.1.20 (400 x 800mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Structure	Normal	Clash	Active
	12	(STC) Column.0.29 (450mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	13	(STC) Column.0.37 (450mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Structure	Normal	Clash	Active
	14	(STC) Column.0.51 (450mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active
	15	(STC) Column.1.8 (450mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Structure	Normal	Clash	Active
	16	(STC) Column.0.40 (450mm)	Ignacy Lozinski	27-10-2020	Ignacy Lozinski		Undecided		Mechanical	Normal	Clash	Active

That's all for this step.



# Step 10 - Coordination results analysis

BIM is not only about creating data but also about analyzing it and planning appropriate actions based on the information received. In the case of BIM coordination reports, it is extremely important to carry out such analysis. It will help us find out which part of the project contains the greatest number of collisions, which discipline has the most cases to solve, and what is important we learn about the general condition of the disciplinary models.

For example: If we know that level 2 contains the largest number of collisions and the Mechanical department is responsible for the majority of them, it gives us a clear signal - "We need to talk to the head of this department and figure out where the problem is."

Report analysis can be carried out in various ways. For example, we can use **Excel** or **Microsoft Power BI**. As I have mentioned before, I like the **BIMcollab** tool, which besides keeping all reported issues in one place gives me also the possibility to visualize reports.



Example of issues report diagrams in BIM Collab

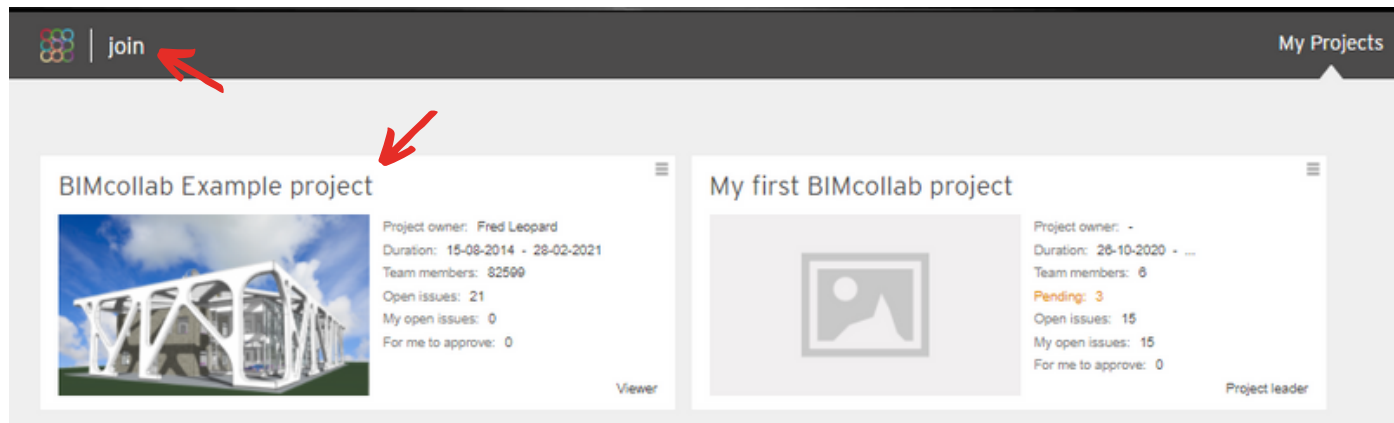


## Step 10 - Your homework

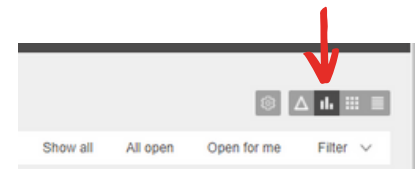
Unfortunately, we do not have much data to analyze since our clash report do not contain data like **project milestones, team members, type of clashes, clash priority or area where clash occur** - (I especially did not want the guide to be too complicated, so I omitted this information).

But we can look at another project in BIMcollab which have some interesting information about its issues.

In BIMcollab - Click **join** button in the upper - left corner and choose **BIMcollab Example project**



In the Issue tab, there is a button **show graph** on the right side. Click on it. Now you will see various graphs below.



Go through those graphs. They are giving valuable insights into the model condition of each discipline and area of the project.

What project area has the most issues?

Who is responsible for most of them?

Do you know the answer?



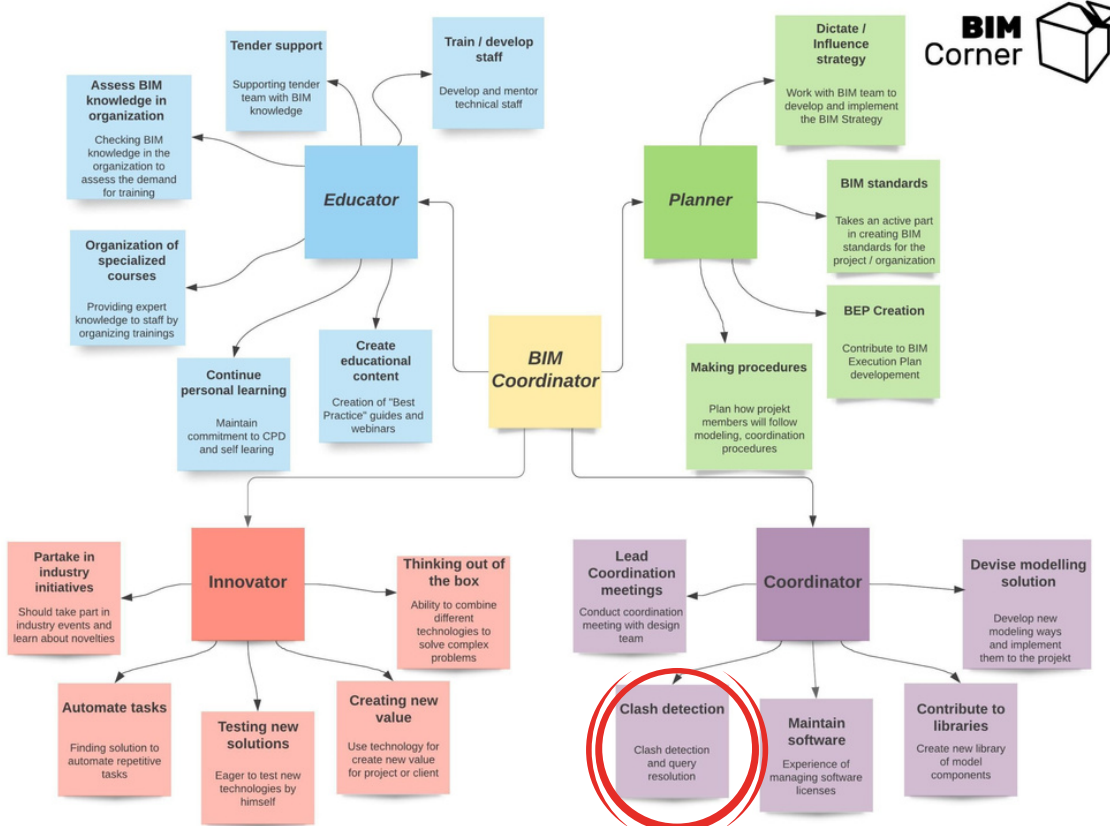
# And what next ? .....

In this guide, we saw only a small fragment of BIM Coordinator work. This job isn't just about clash detection. It is much much more. In the mind map below, which I have already presented before, you can clearly see that there is still a lot to learn.

However, I encourage you to take up this challenge and become interested in this profession. Why? There are several reasons:

- 👉 1. In the coming years (2020) there will be an increasing demand for BIM specialists, especially in managerial positions. BIM Coordinator, apart from good earnings, is a very stable job,
- 👉 2. Working daily with new technologies used in construction,
- 👉 3. It is a demanding but extremely rewarding job.

*E.P.I.C roles and responsibilities of BIM Coordinator*



# "Become BIM Coordinator" course

If you are interested in the subject of BIM Coordination or the BIM Coordinator job itself, you should know that I am building an online course.

The course aims to help people like you learn the secrets of this profession in-depth. **My goal is to give you the necessary knowledge to become a BIM Coordinator.**



Have a little  
knowledge about BIM  
Coordination

**"Become BIM  
Coordinator" course**

I work as a BIM  
Coordinator

## Are you Interested ?

Just send me a short message like: **"Hi Ignacy, I am interested in BIM Coordination course, please send me more details about it."** to my email:

**[ignacy.lozinski@bimcorner.com](mailto:ignacy.lozinski@bimcorner.com)**

Or send me a message on LinkedIn



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**By Ignacy Lozinski**