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How Project Navigator Can Help You Navigate Your Project

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Learning Objectives

- What does Project Navigator do?
- Learn about how sheets, constructs, and views can help productivity
- Learn about streamlining projects
- Learn how to create 3D renders from Project Navigator

Description

This class will walk through all aspects of Project Navigator within AutoCAD Architecture software. We'll cover the differences between using Project Navigator versus the Sheet Set Manager; how different aspects of Project Navigator will help create a more efficient workflow; how to use Project Navigator to create a more comprehensive project; and how to take those projects and create 3D renderings.

Speakers

Tiana Dame studied Mechanical Engineering in college and started out her career as a designer and then became a liaison between designers and machinists in the Aerospace field. Using CAD software became part of her day to day and began to gather expertise in AutoCAD and Inventor. Then she made the decision to go from user to supporting the products she knew so well. Since joining Autodesk as a Technical Support Specialist, she has added more products to her list of expertise, with major focus on AutoCAD Architecture and MEP.

Dominique Spicher started out working as an architect for several years in Germany. After working on many projects and competitions and gaining experience of the many areas of the building industry, transitioning from a user to the software development side as a Technical Support Specialist for CAD software came natural in 2012. Since then he has been supporting various different CAD applications throughout the following years and is now part of the team supporting AutoCAD with a focus on AutoCAD Architecture and MEP.

Introduction

Architects and designers are usually working on multiple projects on a day to day basis, and each project has very detailed components. Often times, all of these very detailed projects also have teams working on every part, which can lead to disorganization. Autodesk's software offers many ways to organize your projects so that they are manageable. The design software that each team member uses can determine whether this process is seamless, or full of errors. Within AutoCAD Architecture you and your team can create streamline projects using Project Navigator and all of its components.

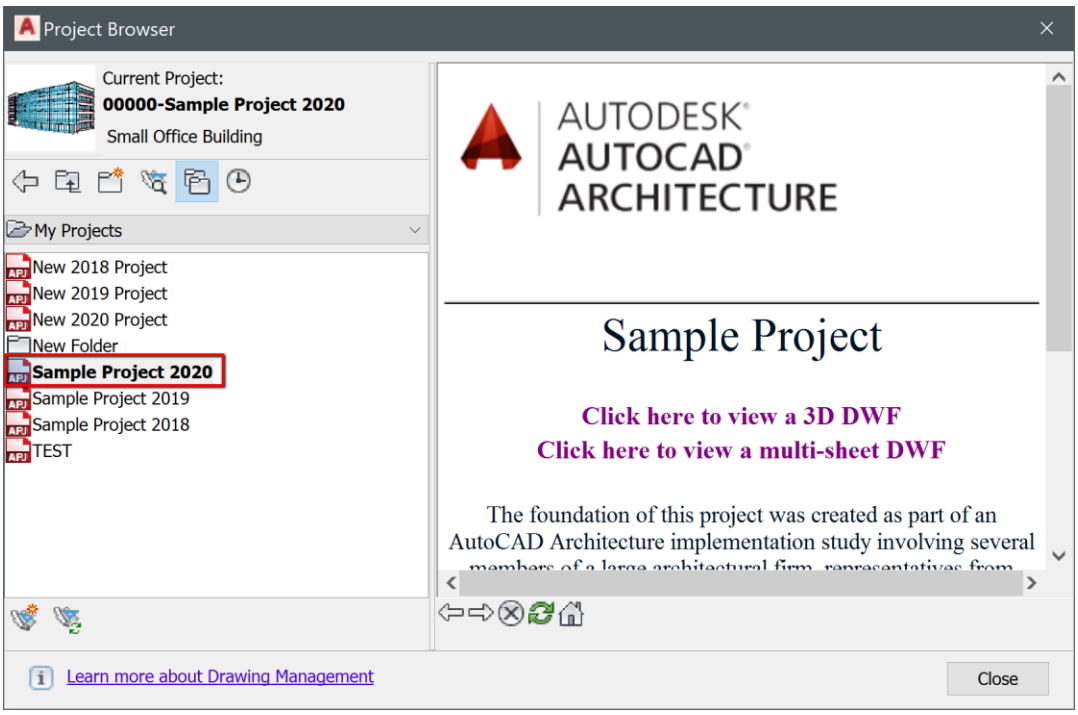
The example in this class is a Small Office project – which was created with AutoCAD Architecture and utilizes all of the components within Project Navigator. We will walk through the starting of a project to rendering straight from AutoCAD Architecture.

How to Start a Project

Project Browser

In order to utilize everything Project Navigator has to offer you have to first create a project.

1. Upon opening AutoCAD Architecture you will see the option to Open Project, select that option.
2. You will then see a dialog box appear that is known as the Project Browser. The project browser does just as its name suggests, it allows you to browse your projects.
3. Within the Project Browser there is a New Project icon in the lower left hand corner or the dialog box, click on that.
4. From here you are prompted to add a Project Number, Name and Description. It would be best to create a project with an ID and Name that would allow others on your team to be able to easily recognize.
5. Once the Project is created you will see an APJ file appear with your Project name appear in the dialog box. If you select the project and then right click you will see the option to Set Project Current, select that and the project will then appear in bold. One the project you need is in bold you can close the Project Browser.



AUTOCAD ARCHITECTURE PROJECT BROWSER

Now for this class we are using a project that is already created, so you can skip the above steps if that is your case and go right to step 5, where you just want to make sure the project you are using is Set Current. Once you have either an existing or new project set current you will have access to the Project Navigator.

What does Project Navigator Do?

Overview

Project Navigator is not a clever name for this tool, it does exactly as it says, allows you to navigate your projects with ease. It is broken down into Project, Constructs, Views and Sheets. Which in this portion of the class we will go into detail about what each one of these sections are and how they can help you organize your project.

Project

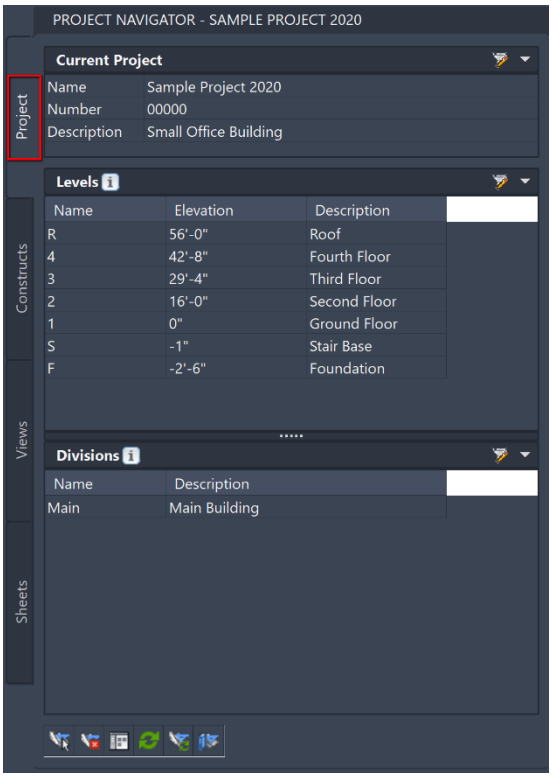
The Project subset in Project Navigator is the most straight forward. It is the overview of your project. It contains, the ID, Name and description you gave when you created the project. It also has the Levels and Divisions sections where you can list how many levels you may have.

Levels, are how many floors are within a building. In this class example there are 4 working floors of the office, and then a level for the foundation is assigned and a level for the stair wells. Levels will show the elevation and description of each floor that is assigned for the project.

Divisions represent wings or plan areas within a building. Divisions do not need to be assigned, they are there if the project needs defined wings or plan areas. Divisions often times are the

Main Building, which would leave out the foundation and roof, etc. and only focus on the area that is considered the “working” or “livable” areas.

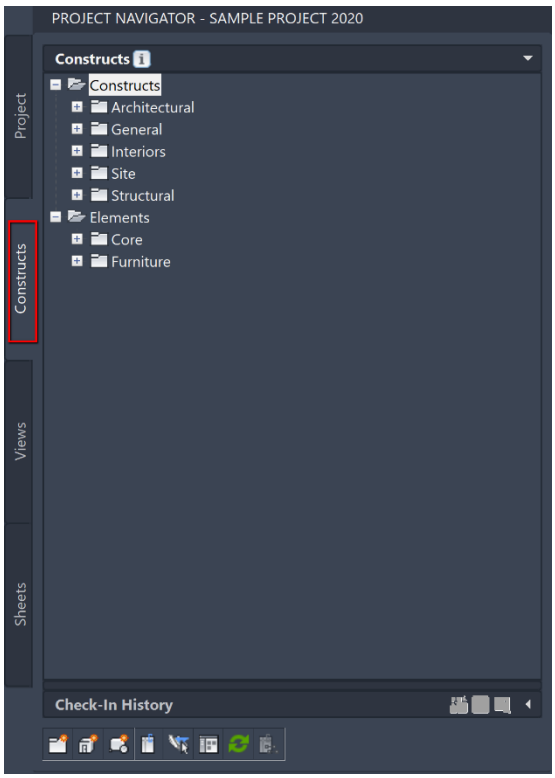
These are the properties that are displayed within the Project tab within Project Navigator, however if you choose to edit any of the other project properties you can do so from this tab as well. In the upper right hand corner of the Project palette is the Edit Properties icon. Here you are able to edit many project properties. You also have the icons to edit the Levels and Division properties on the right hand side of each subsection. Overall, the Project tab is where you can make higher level changes to the project as a whole.



PROJECT NAVIGATOR: PROJECT TAB

Construct

Constructs are the most detail oriented, and arguably important, part of Project Navigator. They represent the various specifically build components of the building. Usually multiple constructs are assigned to each level and contain the fully built objects, such as doors, windows, spaces, etc. In this class we will have our project broken down into Architectural, General, Interiors, Site and Structural constructs.

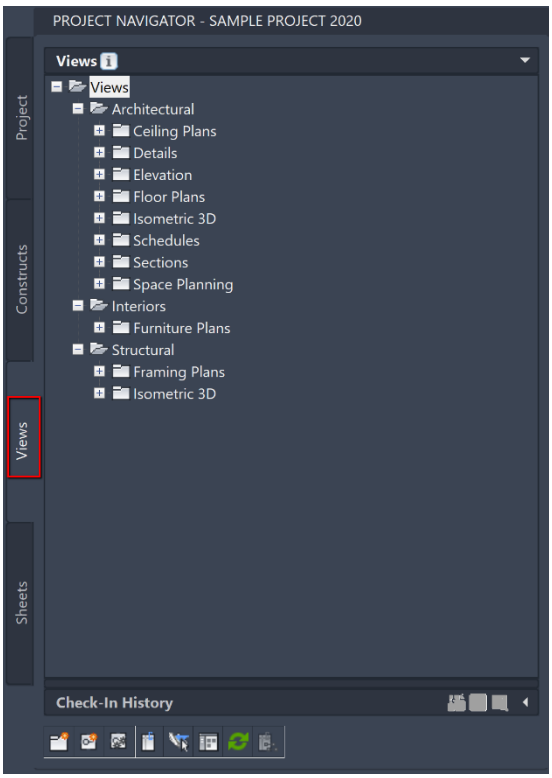


PROJECT NAVIGATOR: CONSTRUCTS TAB

Now there are elements that are referenced by constructs within the project and are comparable to blocks, however they specifically hold objects that repeat within the building. In this class we will not be diving into elements but it is important to note that these elements are reference by constructs within projects.

Views

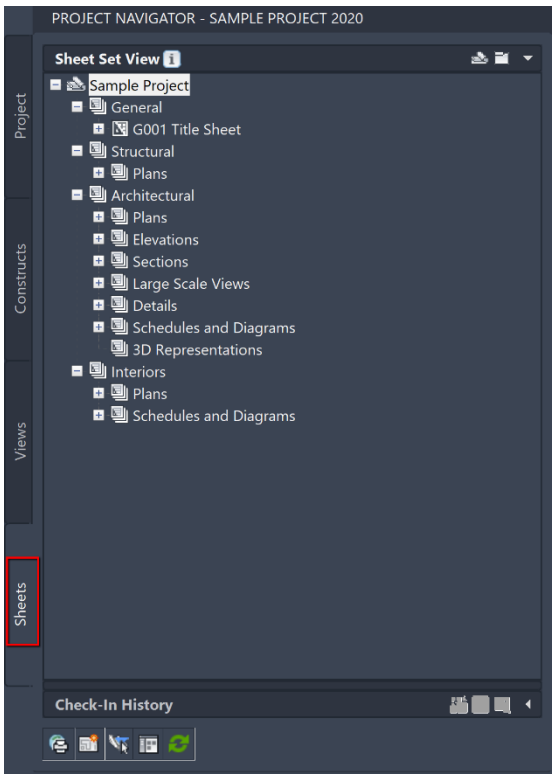
Views reference your constructs but often include specific notes, tags, dimensions and other annotations. Views often times get drag and dropped to create sheets. Overall your Views are where your floor plans begin to come together. Your Views have the most data within them, as they hold the data from your constructs, as well as, all of the annotation needed. Views also are the home to any schedules or spaces you assign, as well as, any and all tables with the project.



PROJECT NAVIGATOR: VIEWS TAB

Sheets

The Sheets tab within Project Navigator is where your sheet sets are kept. Now, a sheet set is an organized collection of sheet files, created from several drawing files and can be published, transmitted, and archived as a package. Some may know the Sheet Set Manager that is within AutoCAD poducts, this is similar to that, we will get into the details later in the course. However, what is important to take away from this is that the sheet sets allow you to easily share projects. Sheer sets allows any changes made to the sheet properties, sheet set properties and callouts be automatically updated across the sheets in the set.



PROJECT NAVIGATOR: SHEETS TAB

Most often we see sheets containing views that have been created and brought onto the sheet. It is used mostly for plotting and sharing the projects. For instance and entire sheet set could be plotted to PDF to be shared with teammates who may not have access to AutoCAD but need to see the plans.

Wrap Up

Now that we have the basics down and have a better overall understanding to what the Project Navigator can do for our projects, lets get into the bulk of the class, which really focuses on how this tool can be used to streamline and organize your projects.

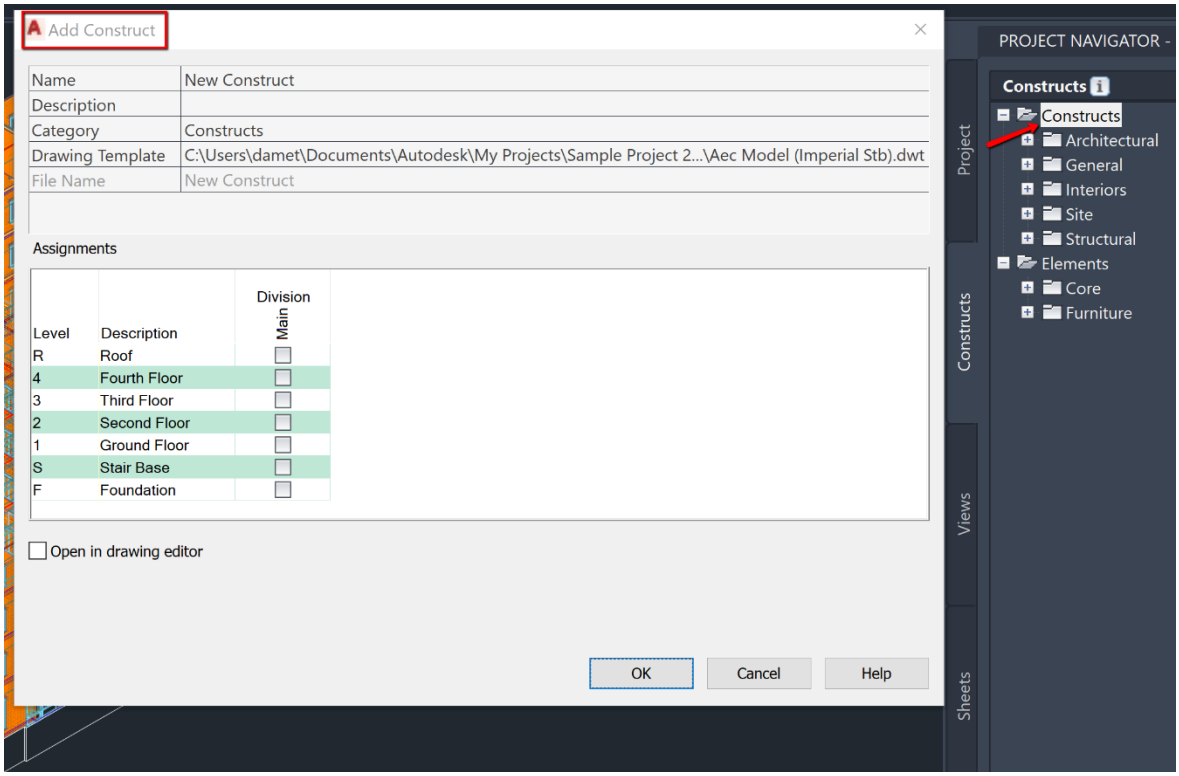
How can Constructs, Views and Sheets improve organization?

Overview

We have descried what exactly these constructs, views and sheets are, but knowing what they are and knowing how to utilize their tools well are two different conversations. In this class we will be demonstrating how these tools can be used together for an organized project.

Creating Constructs and How to Use Them

Now creating constructs within the Project Navigator is pretty straight forward. Within Project Navigator to add a construct you just have to select Construct and then right-click and you will see the Add Construct dialog box appear.



ADD CONSTRUCT FROM PROJECT NAVIGATION

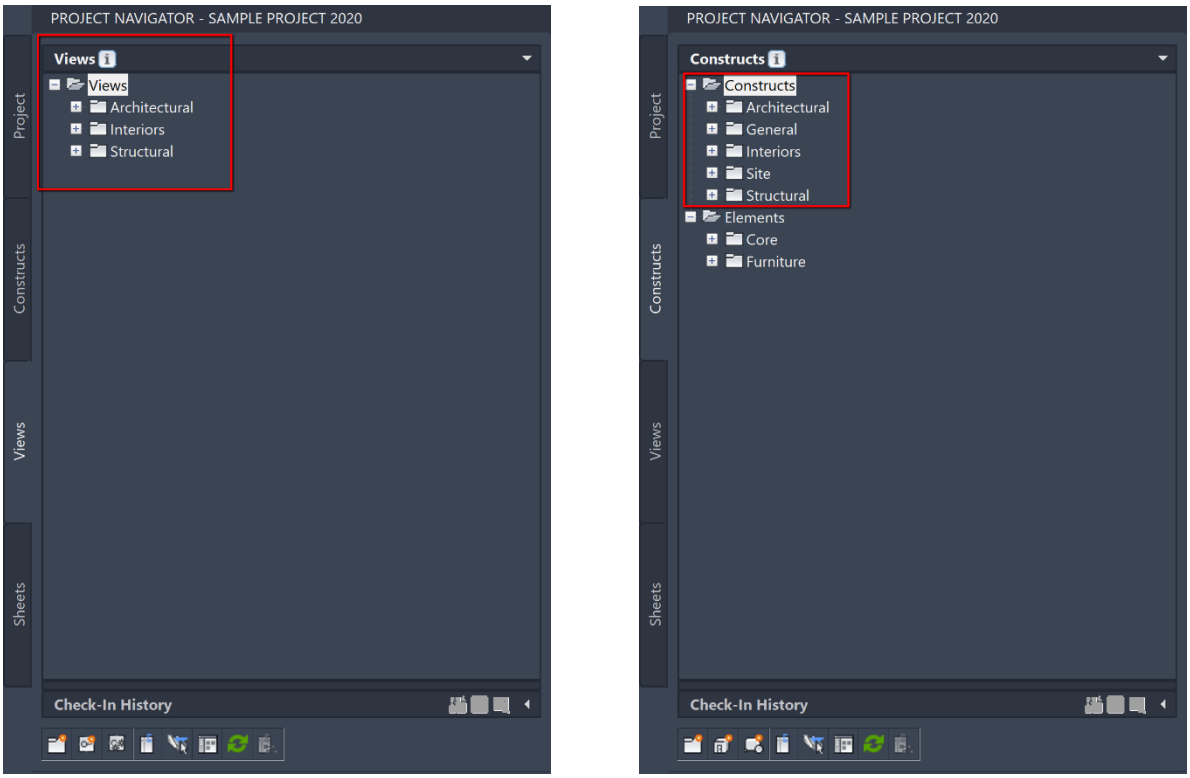
One of the most important sections that must be added here is the Drawing Template. If you have customer templates to use, they must be pathed correctly here in order for it to reflect in your construct. Once the construct is created you have a new drawing ready to have added whatever your project requires.

Now, I have seen many projects and have worked with many customers who utilize project navigator, and the most common breakdowns are Architectural, Interiors and usually there is a General or Base construct that is simply the building outlines/boundaries.

Once you have everything created within your separate constructs, ex. Placed your walls, windows, doors, etc. You are able to move onto the next phase or step within Project Navigator.

Using Constructs to create Views

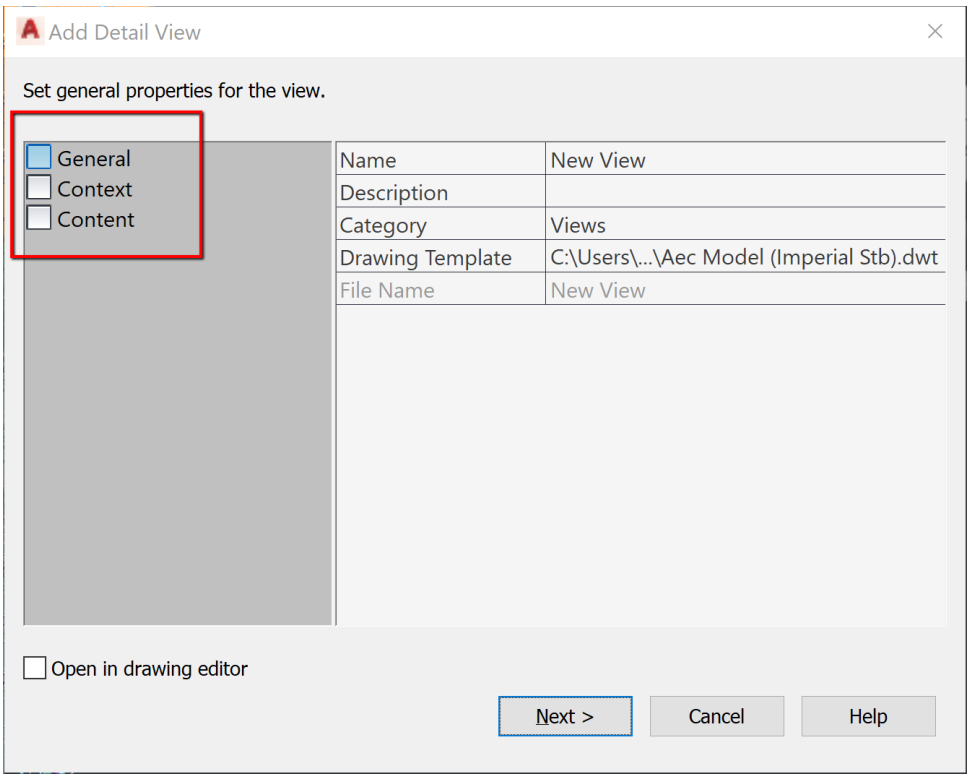
Since you have all of your constructs organized and ready to go, a good way to create your views is to mirror your thinking when you created your constructs. For example in this project we have very similar constructs to views.



COMPARISON OF VIEWS AND CONSTRUCTS

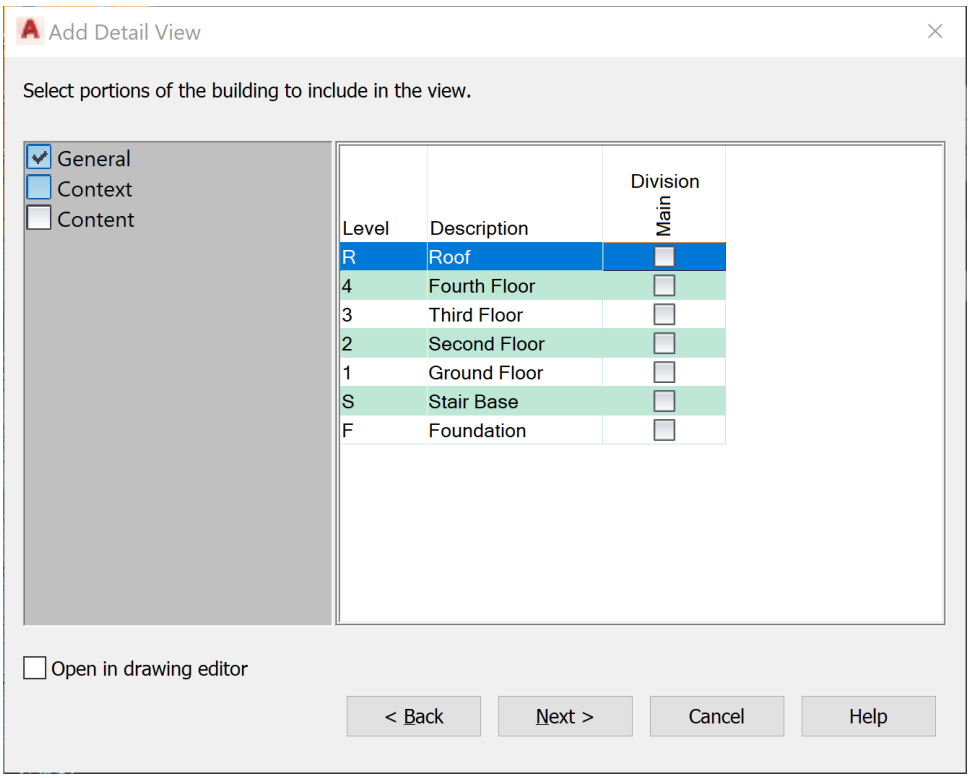
As you can see they overlap almost entirely at a higher level in the tree. The Site and General constructions are not within the views, as theses hold boundaries and outlines only and can be inserted as blocks in the project instead of dedicating full Views for these.

Now as discussed previously Views hold all of your annotative data, as well as references your constructs, so a lot of information goes into the building of these views. When adding a view you have options as to what kind of view can be created, which is based off of what you need to add. Either way you see the same dialog box below and the same information needs to be added in order for the view to be created, again make sure your template is pathing to the correct location.

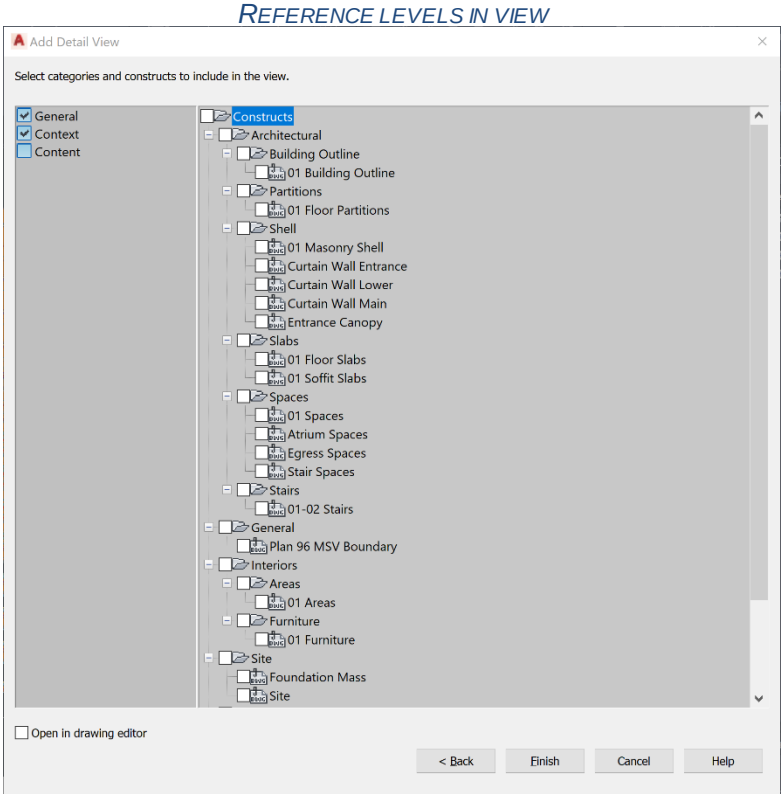


ADD A VIEW DIALOG

To get to this dialog box you need to select View in the Project Navigator and right click, you will see the option to Add New Drawing or Add New Category, if you add a new category you will be adding a sub-view to the tree instead of the hierarchy of the views. Once you fill out this first part of the Add View Dialog box is where you are able to reference what Level you are working on and then you will see your list of Constructs that you are able to reference.



REFERENCE LEVELS IN VIEW

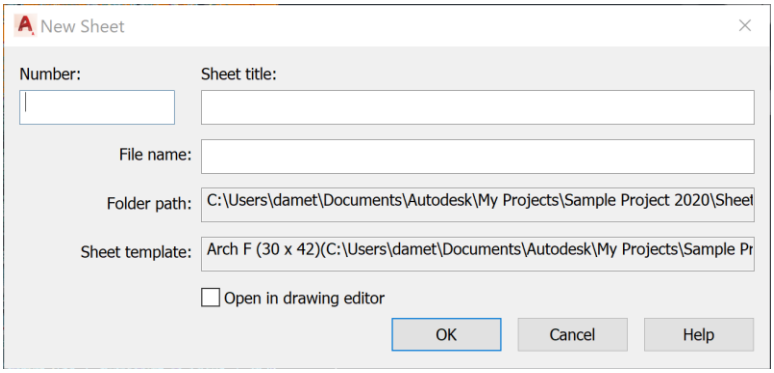


REFERENCE CONSTRUCTS TO ADD VIEW

Now once you have all of your Views set up, and referencing the levels and constructs needed in Project Navigator you can then add what you need in order to finish your floor plan, annotations, callouts, schedules, tables, etc. Once you have everything you need to complete your floor plan added to the views it is nearing the time where you want to transmit your project.

Using Views to Create Sheets

The same steps are taken when first setting up your sheets, you will need to select Sheets, right click and New. This will bring you to the New Sheet dialog box where you will need to fill out your data. Now the sections within your sheets should match your Views as far as labeling goes in order to keep the project organized.



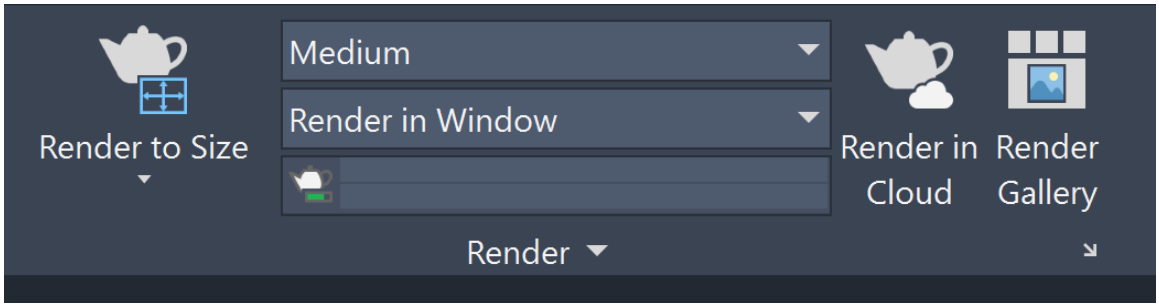
NEW SHEET DIALOG BOX

In order to create the sheets to be the best representation of your project, dragging them from your Views onto your Sheets is the best way to ensure consistency

Once the sheets are created you can publish the sheets in many different forms to be shared out to teams, internal or externals.

Rendering your Project to 3D

Once you have all of your Constructs, Views and Sheets all set and ready you can create your 3D View and then render it to the cloud where you will be able to see your project in true 3D. The Render tab is located on your Ribbon and has all of the settings needed to send the render to the cloud.



Concluding

Now that we have gone through how to streamline your project you are able to use Project Navigator to navigate your project. Happy designing!