

Please Note: If you're new to Revit, you may be interested in my "[Beginner's Guide to Revit Architecture](#)" **84 part video tutorial training course**

. The course is 100% free with no catches or exclusions. You don't even need to sign-up. Just enjoy the course and drop me line if you found it useful. The [full course itinerary can be viewed here](#)

In this article we will look at Phases within Revit. We will look at what Phases are, when it is appropriate to use them and exactly how they are used. As always on [revit.biz](#) all this will be undertaken by a thorough explanation and a step-by-step example.

So what are Phases?

Within Revit, Phases are distinct, separate time periods (or “milestones”) within the life of the project. They can represent either the time periods themselves or the status of the project at specified points in time. There must always be at least one phase in a project. By default a new Revit project comes with two phases already created. These are named “Existing” and “New Construction”. You can rename these to anything you like, as well as add any number of additional phases.

When would you use phases?

So why would you use phases? Below are some of the more obvious reasons why you need to use Phases in your project:-

- You have an existing building that you are refurbishing (or extending). Consequently you need to show the building before AND after the refurbishment takes place.
- You need to show a development that is to be delivered in phases. Consequently you need a sequence of drawings to represent the project at every distinct phase.
- You would like to use Revit to help forecast expenditure over the life of the project.

The most common use of Phases is for the classic “Before & After” (or “Existing & Proposed”) scenarios. If you want to show your (existing) building as it is now and how it is proposed to be when you have finished work on it.

With 2D “dumb CAD” programmes, often the easiest way to achieve the above is to draught out the “as existing” layouts, make a copy of them and then re-work these copies to represent the proposed. This has a number of disadvantages- not least the fact that you unnecessarily increase the overall file size by duplicating many of the lines and symbols which are not going to change (ie they will be the same in the existing and the proposed layouts) .

The whole ethos behind “Building Information Modelling Systems” such as Revit is to have as little duplication of data as possible. This is something that I will be stating over and over again on Revit Zone, so get used to it! If there’s only one model, then you have eradicated the possibility for someone to be working on an out-of-date version.

So how does Revit handle Phases?

Virtually every component that you create and place in your model has parameters that tell Revit how that particular component relates to each Phase. The easiest way to think about Phases in Revit is to break down the concept into three separate chunks:-

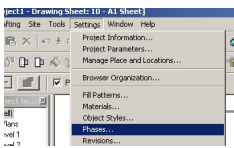
1) Defining your Phases

Before you do anything else you need to set up your Phases. It is far easier to do this right at the outset rather than creating them retrospectively. So go ahead and think about what Phases you are going to want to show within your Revit model.

If you are working on a completely new build project on a “clean” site, you may just wish to use a single Phase (ie called “Proposed” for example). If you have an existing building that you are going to add an extension onto, you may want to have two Phases- “Existing” and “Proposed”. This will then allow you to show you existing building as it is now and also as it will be after you have added the extension.

As with most things in life it is far easier to learn something by actually doing it, rather than just reading about it. So we will work through a very simple example which will hopefully convey to you the use of Phases in practise.

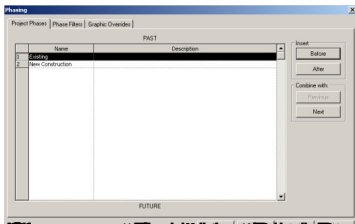
So launch Revit on your PC and start a new, blank project. As we stated above, the first thing we need to do is define our two Phases. You will find the main Phasing control panel by clicking Phases... listed under the Settings pull-down menu.



When the Phasing control panel opens you will notice two things:-

a) that there is already two phases created for you. They are named Existing and New Construction. And....

b) That there are three tabs named Project Phases, Phase Filters and Graphic Overrides. In this article we are only interested in the first tab. The other two tabs are related to the more-advanced use of Phases and will be subject to a separate article.



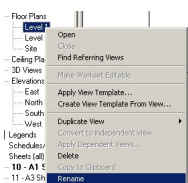
2) Setting your Views to show the appropriate Phase

The next thing that we are going to do is create a separate View for the Existing and Proposed phases. It is very important to set these up now BEFORE you start adding model elements.

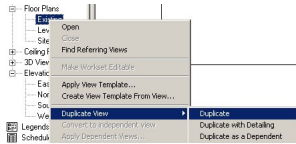
Why is it important? Well, I'll tell you: Every View you create within Revit has a Phase attributes associated with it. Views have to have these attributes- how else would we tell Revit what we wish to see in that particular View. More importantly. Whatever Phase is set for a particular View, that is the default Phase for any element / component created within that view. Let me explain that again more simply- because it is crucial that you grasp this fundamental concept:

We want a View that shows the Existing phase and we want another view to show the Proposed phase. If we add model elements while we are within the Existing View, then those elements will all have their phase parameter set to Existing by default. Likewise, If we add model elements while we are within the Proposed View, then those elements will all have their phase parameter set to Proposed by default.

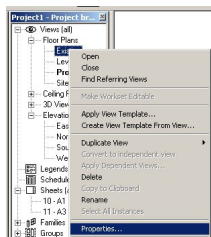
If this all sounds confusing don't worry- it will all become very clear as we work through our example. So let's rename our default Level 1 view to Existing. Use the standard method of right-clicking the view name and selecting Rename.



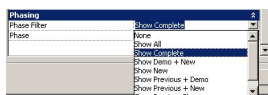
To create our Proposed view, we can use the Duplicate command to create a new View based on the Existing View. Name this new View “Proposed” (you will need to rename the View from the default name “Copy of Existing” once it is created)



So we have our two Views called Existing and Proposed. Now we need to set the Phase attributes for each view to ensure they do in fact show us only the Existing and Proposed respectively. Right click on the Existing view name and select Properties



This will bring up the Element Properties dialogue box for this particular view. If you scroll down to the bottom of the box, you will see the Phasing parameters for this view. There are two parameters: Phase Filter and Phase. The Phase Filter parameter lets us decide what we want to see in this view. If you open the drop-down selection box for this parameter you will see there is a default list of various options to choose from. Go ahead and choose “Show Complete”



By selecting “Show Complete” this view will show us the model in it’s complete state as of the Phase we set in the second parameter. The second parameter is currently set to “Proposed”.

Go ahead and change it to “Existing”

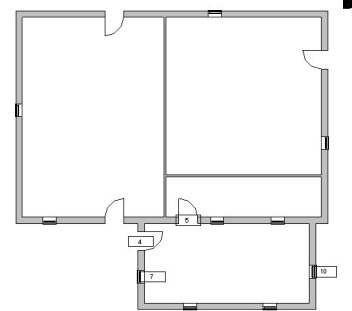
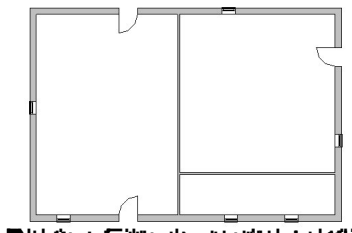
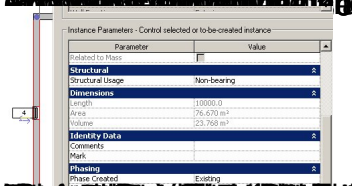
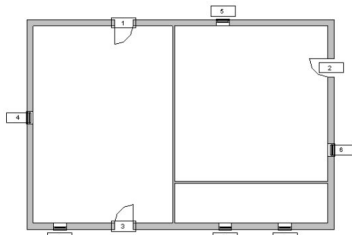


Every element that we create or place within this view will be given the phase parameter “Existing”. In other words, we are saying to Revit, everything we create within this view is to be treated as already existing. Now go through the same process again for the “Proposed” view. Set the “Phase Filter” parameter to “Show Complete” but this time set the “Phase” parameter to “Proposed”.

So for this view, every element that we create will be part of the proposed scheme. OK. So far, so good! We’ve defined our two phases. We’ve set up two Views to show the existing and proposed schemes and we’ve set the phasing parameters for each of those views to ensure that they correctly show the state of the project as defined. So let’s now create a very simple project to show how phases interact with the model elements and the Views.

3) **Setting the Phase attributes for each element / component.**

Ensure the “Existing view” is active and draw a very simple rectangular building. For the purpose of this exercise we are only going to use walls, windows and doors. That’s all we need to use to help us grasp the concept of Phases. Do not worry about which wall, window or door type you use. Do not worry about the exact dimensions of the building. Just ensure that your simple building model looks similar to the one in the image below.



Summary and Conclusion

Hopefully this article has explained the fundamentals of phasing within Revit. To summarise:-

- Decide (before you begin your model) how many phases you need and what they will be called.
- Define the Phases (in the correct order!) within the “Phasing” control panel (Settings>Phases...)
- Set up each individual view to show what you require (ie what phase do you wish to show? Do you want to see the whole project or just what is to be demolished? Etc, etc)
- Model you building, ensuring that you are in the correct view to correspond with the phase you are editing / adding to.

