QARC Systems

Support Article:

Inserting a Building into the ARChetype system

Revised: 9 December 2014

The following instructional is a suggested method of inserting an existing Revit model into the ARChetype file.
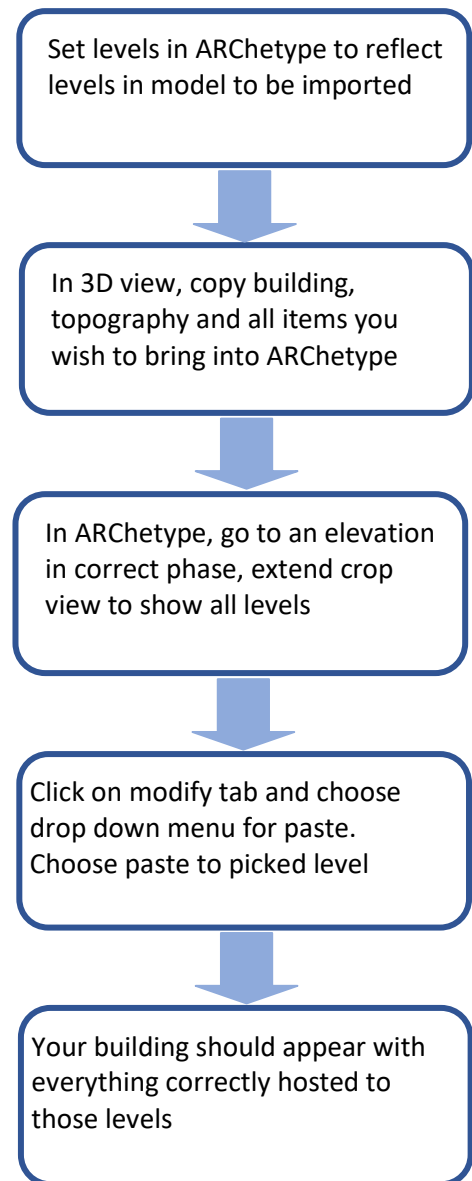
If you have an existing Revit model and wish to bring that model into your ARChetype, there are a number of issues that require some set up, prior to copying and pasting your building into ARChetype.

ARChetype has many views and plans linked to pre-determined levels. If you delete these levels, you will lose many views and settings which have been pre-set to make your workflow streamlined. Revit does not let you reassign views to new levels either. So the trick is to Copy and Paste a Revit model into ARChetype, without removing the pre-determined levels, so that the views will still operate as intended.

The graphic to the right shows the workflow procedure for achieving the model import into ARChetype.

Below, this procedure will be outlined in greater detail. But firstly prepare your ARChetype file in readiness for work ie: delete existing buildings, topography and in this case, gridlines. Save ARChetype as *YourNewProject.*

Note: This method is also applicable to transferring your previous ARC file into a new version of the ARChetype. We suggest you only do this if the project is at an early stage, as annotation items – such as text, dimensions and keynotes – will not be transferred to the new project file.

Set levels in ARChetype to reflect levels in model to be imported

In 3D view, copy building, topography and all items you wish to bring into ARChetype

In ARChetype, go to an elevation in correct phase, extend crop view to show all levels

Click on modify tab and choose drop down menu for paste. Choose paste to picked level

Your building should appear with everything correctly hosted to those levels

Set Levels in ARChetype:

Levels in *YourNewProject* (ARChetype) have to reflect the modelled building levels (*YourOldProject*). To achieve this you may need to add or remove levels, rename levels and change there dimension (AHD). There are a number of levels which must never be deleted from an ARChetype project as aspects of ARChetype rely on their existance. These levels are *roof top plate*, *Level 0*, and *Zero level*, and where existing structures are in a project, *e roof top plate* and *e Level 0.*

These levels can be renamed and their dimension adjusted but ACRhetype expects that *Zero Level* will remain at 0mAHD, *Level 0* and *e Level 0* will be located at ground level or the lowest structural level of the project, and *roof top plate* and *e roof top plate* will be the top most structural levels of the project.
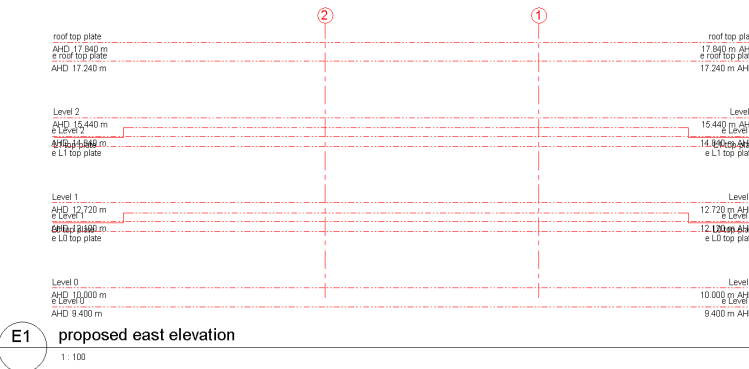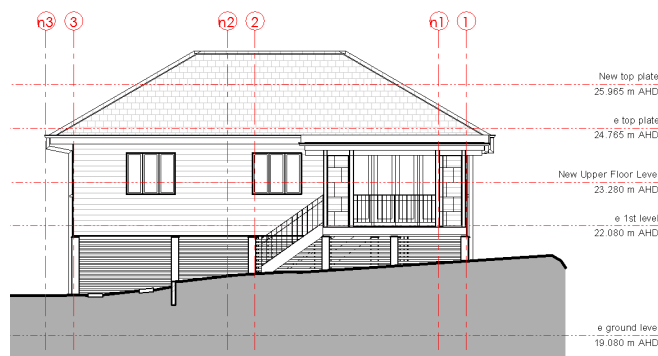

ARChetype (YourNewProject) pre-set levels:

roof top plate	*e roof top plate*
Level 2	*e Level 2*
L1 top plate	*e L1 top plate*
Level 1	*e Level 1*
L0 top plate	*e L0 top plate*
Level 0	*e Level 0*
Zero Level	

Note: Zero Level not visible in figure

Modelled building levels (in YourOldProject):

New top plate	*e top plate*
New Upper Floor Level	*e 1st level*
Zero Level	*e ground level*

Note: Zero Level not visible in figure

In *YourNewProject* (the 'save as' of ARChetype file to *YourNewProject* first), go to an elevation or section and remove the unwanted levels. In this case we will choose *Level 2, L1 top plate, L0 top plate*, e *Level 2, e L1 top plate and e L0 top plate*. A warning window may appear advising that various views are to be deleted – press OK as you will not need the views that are being deleted.

In *YourNewProject* rename levels to reflect modelled building levels in your original file, which we'll call *YourOldProject*. Level names can exactly match the level names in the *YourOldProject* file, although you could give them different names, replicating the level names reduces confusion.

In this example we will rename as follows:

roof top plate	becomes	*New top plate*	
Level 1	becomes	*New Upper Floor Level*	
Level 0	becomes	*New Ground Level*	(this level does not exist in *YourOldProject* but as it is important to retain *Level 0* we can rename it to *New Ground Level*)
e roof top plate	becomes	*e top plate*	
e Level 1	becomes	*e 1st level*	
e Level 0	becomes	*e ground level*	
Zero Level	unchanged		

Now the levels in *YourNewProject* have to be set to exactly the same AHD or height level as the *YourOldProject* file.

New top plate	New top plate
AHD 25.965 m	25.965 m AHD
e top plate	e top plate
AHD 24.765 m	24.765 m AHD
New Upper Floor Level	New Upper Floor Level
AHD 23.280 m	23.280 m AHD
e 1 st level	e 1 st level
AHD 22.080 m	22.080 m AHD
e ground level	e ground level
AHD 19.080 m	19.080 m AHD

Renamed and repositioned YourNewProject (ARChetype) levels

Copy and Paste Building

In the *YourOldProject* file, go to a 3D view of the building and highlight everything you wish to copy and bring into the *YourNewProject* file. Anything that is hosted to surface will be out of place in the *YourNewProject* file if you do not bring in the topography. Make sure you reveal hidden elements to collect those items if you need them as well. If you wish to bring in Grids, go to a view where they are displayed and collect them as well. (Remember to hold down Ctrl as you select multiple items). Once you have it all highlighted (looking blue), CopyToClipboard.

Open an elevation view in *YourNewProject* and extend the crop views to reveal all levels. Ensure you are in the correct phase (existing or new construction). Click on *Modify* tab and choose drop down menu for *Paste*. Choose *Aligned to Picked Level* or *Aligned to Selected Level*.
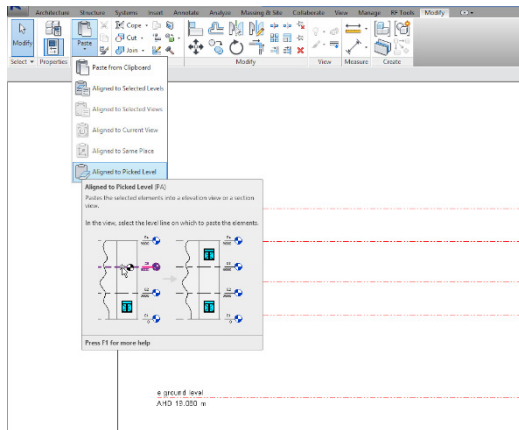
Pick or select the lowest level to which elements of your incoming model are associated. This will usually be the lowest level other than *Zero Level* or, if you have placed something such as a survey on *Zero Level* then you should choose *Zero Level.*

If you choose the wrong level, *undo* the paste and try again with the correct level.

Your building should arrive in *YourNewProject* at the correct levels with all elements and families hosted to the correct levels!

If you cannot find your building, check the 3D views in different phases, uncheck crop views and section boxes in properties and *zoom all* (ZA). Your building should appear and you can move it closer to the project base point where all views in ARChetype are located.