

REVIT IMPLEMENTATION

This one sheet is my first attempt at putting down in one place a list of Revit specific items that need to be addressed as an office migrates into Revit. I realize that each firm has it's own need and office processes that dictate the relevance and priority of each of the tasks below. This is my first run through this and I know I am bound to forget something, but here goes.

GENERAL TASKS NON TEMPLATE RELATED

Create the office Export layer settings text file

Create the office Import lineweight settings text file

Review the hardware and network in the office. As one Autodesk University speaker put it:

 If you are doing medium project your hardware should be at the leading edge

 If you are doing large projects your hardware should be at the bleeding edge

Decide if your office will use a template or a workset enabled rvt file as a starting point.

Modify the keynote file to meet the needs and predicted use of keynoting in your office (with the understanding you CAN use the keynoting function just to note your Revit project)

GENERAL TASKS: TEMPLATE RELATED

The template is the major place that work gets done.

Lineweights

Revit uses its own linewieght system for plotting. Revit uses pens 1-16. By default 1 is the smallest and 16 is the fattest line. Revit utilizes these 16 pens differently for annotation than for the model elements.

Set Annotation lineweights

Create linestyles 1-16. Assign the respective pen. Add one of each to a view, place on sheet and plot. Adjust annotation lineweights

Set model lineweights

Because Revit uses different pen weights you must set the pen weights for model elements per view scale. The easiest way to do this is to create a separate rvt file with a small (very small) building. Include walls, sections elevations, 2 floors, stairs and roof. Duplicate the floor plan and assign different scales to each of the copied views. Place these views on sheets.

Repeat with sections (create several wall and building sections at different scales all with medium detail display) place all on sheets and plot.

Adjust the model lineweights to your office standard.

Transfer project settings from this file and push your pen weights into your office standard template file.

ANNOTATION

TAGS

Find the your office standard symbol legend that you put on all your AutoCAD dwg sets, make your office tags for each symbol you see in the standard symbol legend. Either revise the tags that are in the standard template, or better, open them up, save as them and add your office initials to the family names so you can tell them apart.

You may need to create a shared parameters file for the room schedule and tag, but there are other ways to do this.

Remember to go to Settings > Annotations > Loaded tags and set your office standard tag in this dialog box so that it will be used by default.

Other

Fill patterns

Revit provides a very limited amount of fill patterns with the standard templates. Revit can read ACAD PAT files with a little modification. Find your office acad hatch patterns and modify to create Revit fill patterns (Drafting and Model). Create new detail view or legend view, add 1 of each (you will have to create a new filled region type for each), place view on sheet and plot. Verify shaded grays are plotted correctly. Create colored fill patterns and verify plotting.

Once you have the bugs worked out, just keep the detail (or legend) view in your office template as a reference for newer users to look at.

Ok now I am getting carried away, this is supposed to be a checklist...

View marks

Create a section mark that looks like your office wants

Create an elevation mark that your office can live with

Modify the detail tag so that it does not use the SIM by default (this is pure opinion on my part, I don't like the functionality of this little piece)

View Titles

Create viewport types and modify the settings to enable users to pick a viewport that has a title and one that does not have a title, or set up per office standards

Leader Arrows

Settings > Annotation > Arrowhead

Verify the leader type that your office uses exists, if not create it if you can, otherwise adopt/ adapt one of the provided

Text

Create the standard text styles that your office will use

Revit uses windows installed fonts not shx files

For each text type that you create, verify the leader is set to your arrow type

Dimensions

Same as above, note the "tick Mark" really is the same as the leader arrow you set in the text and reviewed or created with Settings > Annotation > Arrowhead

SCHEDULES

Final Schedules

If your office uses them, create final schedules; those that will be used in the final construction documents.

Working Schedules

Even if your office does not use schedules in the traditional sense:

Create a final drawing list that will be place on your cover or general sheet

Create working schedules; those that sole purpose is to enable users to accurately enter data in tabular format rather than having to hunt around the project and modifying element properties directly. This includes a working sheet schedule (drawing list)

VIEWS / SHEETS

Create the Typical Levels

For the building types for your office, create the levels common to most buildings.

Also open the 4 standard elevations, move the level marks (2D control) so that they don't encroach across the entire view.

Create Views

Again, review the standard sets of drawings your office produces. Create the standard views that will be used on every project.

If your office does primarily tenant improvement and remodels, then by all means create the views necessary to work with Revit phasing (views for existing, demolished and new construction) for each level...and don't forget the RCP and the Schedules...

Create View Templates

Review typical set of office drawings. Create a view template turning visibility on or off for each of the model and annotation objects as needed.

Create the Office Title blocks

Hehehe... yea do it, I could write a 10 page paper on this topic alone, but I am not going to here. Load em into the template.

(I will note here that you may not want to load all sizes into your template. If you only have 1 title block family loaded into your project file, loading a completely different size using the same family name will redefine ALL your title blocks at one time for ALL sheets created in the project ;-)

Which leads us to...

Create a minimal Standard set of sheets

Create a standard set of sheets but do not get carried away with it. It takes about the same amount of time to scroll through an extensive list of pre-existing sheets deleting them as it does to create them.

Organize your Views and Sheets

Use the working sheet list noted above to add parameters to the sheets to help organize them

Use the Settings > Browser Organization to sort the sheets into order using the parameters established in the working sheet list schedule

FAMILIES

RFA files

I am not a fan of creating and loading a bunch of families into the office project template. All users should have the complete ability to load families. If not, fire em. Most users should be able to create simple families on the fly. This is just a part of working with Revit.

However as part of the setting up of an office you should have your commonly used families in an office standard library ready to go before you task your staff with using Revit. If you do 30 health clubs a year including the specifying of the equipment, then

take the type to create at least 2D place holders for a treadmill, stair climber, weight rack etc.

System Families

Along those same lines, I disagree with creating a bunch of stair, railing, roof and floor types within the office standard file.

For Stair, Railings, Roofs and floors, keep these in a separate Revit file that everyone has access to, Train users to open this file, copy and paste the element with the definition they need into their current working project.

Wall types are the exception. If your office has standard wall types established and a naming system in place for those wall types then it makes sense to set these up in the office standard template. If you do this, then by all means create a wall type legend that annotates and explains these wall types to the users. This may not ever be placed on a sheet but will act as a reminder to anyone who works on the project which wall types are which.

As the project gets to a point that you are purging out unused families, remember to remove the unused wall types from the legend so that they may be deleted also.

Oops here I go again, expounding... if I keep this up this will be my first 20 page one sheet.

Final notes

OK I am at page 5 of my "one sheet" and done with this round of this document. I am positive I am forgetting something. I will leave you with this thought. Leave tracks in your office template to alert the user as to why you creating the elements that are in the template. For example, if you created duplicate views for each level (Level 1 code, Level 1 existing, Level 1 new work, Level 1 annotation plan, Level 1 dimension plan) put a piece of text into each of these views that explains to newer users why the plan view exists and what to do in this view (ie in the existing view "This view is specifically created to draw the existing building in a remodel project. Do not use this view unless you are familiar with revit phasing. Delete this view if you are creating an entirely new building") or something to that effect.

Ok done for now, email me if you run across what I am forgetting at the moment

Thanks

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