

# Cleaning Revit Projects Best Practices – An Overview



*Learn to take advantage of the many tools from CTC Software to save countless hours, reduce the design costs associated with slow and heavy files and minimize the number of headaches caused by unnecessary Revit issues.*

# Issue

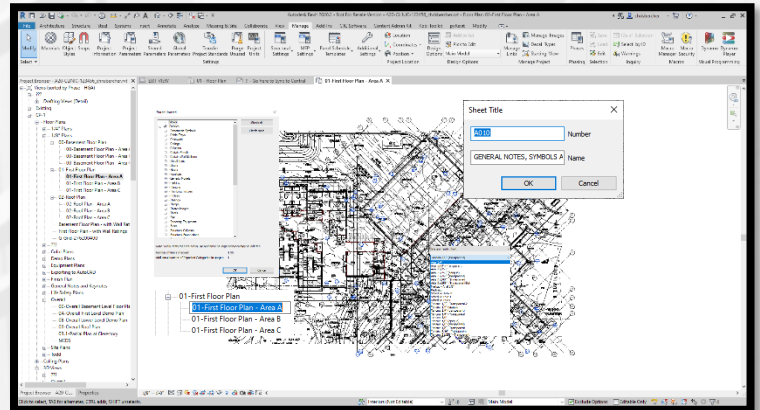
Revit® project model maintenance can be disruptive to project teams. Also, this maintenance can be very time consuming to manually do on a regular basis. Instead of manually tracking issues and manually fixing common problems, CTC proposes that your team leverage tools to help automate the model maintenance cycle. There are several tools across the entire CTC product line that help with the arduous task of managing and maintaining Revit projects.

In this document, we will go over some of the issues and explain what tools from CTC can assist with those efforts and create a sustainable workflow.

## Typical Workflow

Traditional project maintenance techniques in Revit are cumbersome at best when it comes to configuration and management on multiple projects. These are especially challenging if changes are made after projects have already begun and even more so after many years.

The typical workflow for cleaning and maintaining projects without any third-party tools can be a very slow and tedious process. Start by opening the Revit model with an audit, this alone can take up to 30 selectively removing the families and types that no longer need to be available at that time. Next, make sure elements are placed on the correct worksets, verifying the view templates are configured and applied appropriately, any linked model is located and shown graphically in accordance with company standards. Next, the families being used need to be company-approved families. Reviewing each family and replacing the ones that are not approved with the ones that are. Then annotations need to be checked, including the text and dimensions and symbols that are found in nearly every corner of the project. New text and dimension styles should get created, as outdated styles are brought in all the time. Keeping track of them and clearing them out to maintain graphical consistency should happen on a regular basis. Then there are the view and sheet names that frequently need to be updated so that sheets are labeled and printed correctly. What happens if an AutoCAD® file gets exploded inside of the project? How much time will it take to clean that up?



But what if there were tools available for Revit that collected data about the model to be reviewed without having to open a single Revit file? What if there were tools that allowed for mass cleanup of foreign elements, mass renaming of views and sheets, tools for replacing content with company approved items? Thankfully, there are tools out there to help in these efforts!

- **Project standards can be difficult to administer**
- **Most of Revit's standards are simple but tedious to configure**
- **Revit has little to no tools for enforcing standards**
- **Tracking and managing standards over time can be difficult and time consuming**



The tools used to assist with the cleanup and updating of the Revit models are available from CTC Software. The BIM Project Suite, BIM Manager Suite, and BIM Batch Suite have utilities that can help with different tasks that need to be accomplished.

From the BIM Manager Suite, *Project Cleaner*, *Type Swapper*, *Import & Link Manager*, *Dimension Checker* and *Schedule Parameter Resolver* can be used to assist in the cleanup and maintenance of Revit projects.

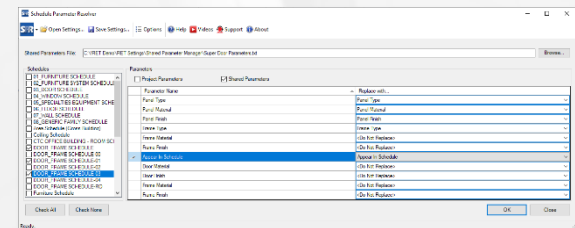
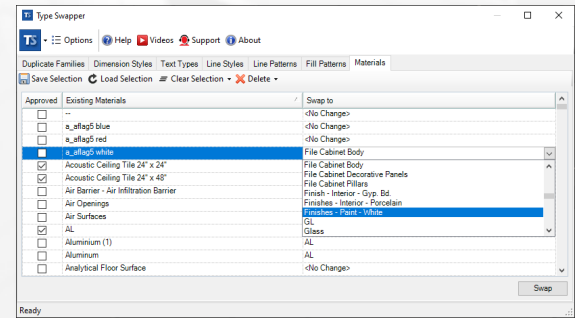
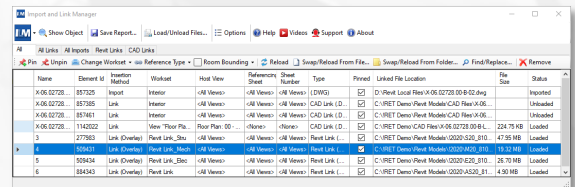
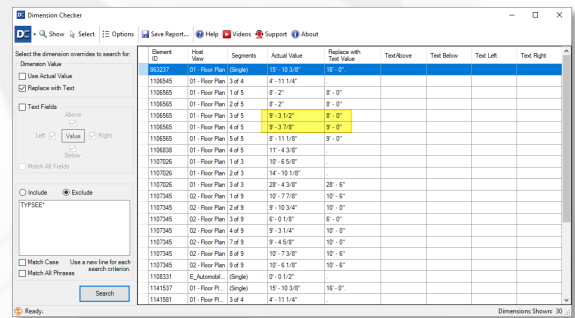
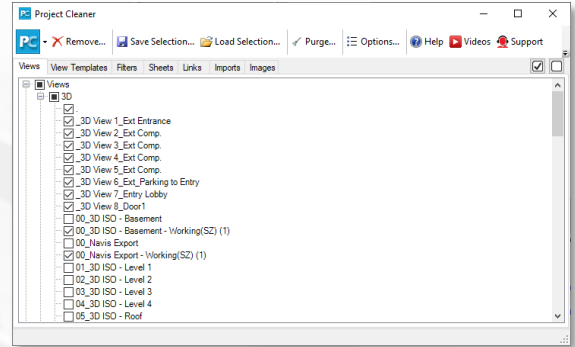
*Project Cleaner* is greater for purging out views and sheets, view templates, filters, links, and imports. This tool is good for prepping the model to be sent off to a consultant, or if the project file was received from an outside source and needs to be cleaned up prior to being referenced in the project, or for internal project file cleanup of families, links, and views.

*Dimension Checker* is excellent at discovering which dimension strings have been replaced with text and which ones are displaying fake values.

*Import & Link Manager* provides the ability to review and edit information on all files linked into the Revit file, such as the workset on which the file is placed, the view into which it has been imported, whether it is pinned or not, the file size and location. ILM can be used to change the workset, reload from a different location, and edit linked CAD properties.

*Type Swapper* is great at taking non-company approved content and replacing those instances with the approved company standard content. Supported content includes dimension and text styles, line styles and patterns, fill patterns, and materials.

*Schedule Parameter Resolver* works with the schedules and parameters in the project. If certain schedules were not available when the project began, chances are that not all the families will schedule consistently. This tool links up to your shared parameter file and makes sure that the fields in the schedule are the correct parameters from your standard shared parameter file.



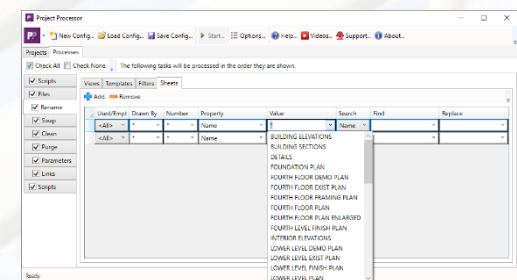
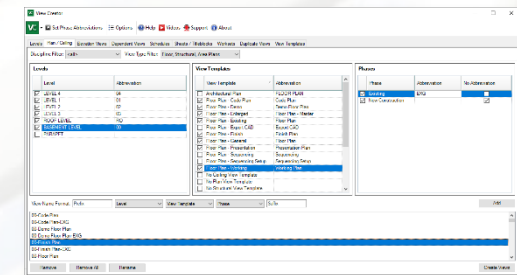
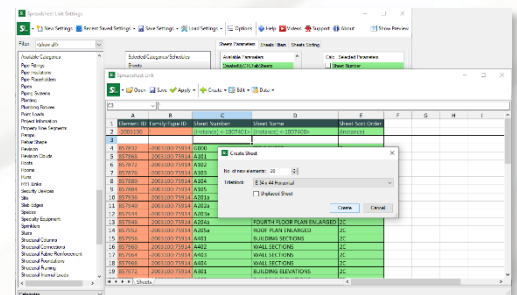
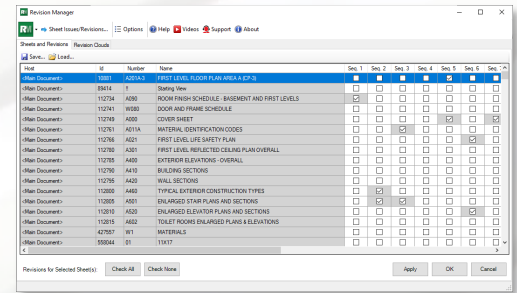
From the BIM Project Suite, *Revision Manager*, *Spreadsheet Link*, and *View Creator*, in addition to *Model Compare*, are all tools that can help with cleaning up projects and maintaining standards.

The *Revision Manager* tool allows for a quick review of where revision clouds have been drawn, and to quickly make sure that the correct revisions are marked on the appropriate sheets.

The *Spreadsheet Link* tool offers many different workflows, but specifically for the purpose of project maintenance this tool can be used to update all views and sheets for proper naming conventions, title casing or all caps, sheet creation with automatic names and numbers, even based on settings for specific clients or when working with specific consultants.

The *View Creator* tool not only helps tremendously when starting new projects to make sure that all the views that are needed follow proper naming conventions, but also to make sure they have the correct view templates applied, along with proper phase settings. *View Creator* can also be used for creating 3D views to help with the coordination effort, or to simply make sure that model elements are placed on the proper worksets.

Last, but certainly not least, is a tool from the BIM Batch Suite, the *Project Processor*. This tool allows for the processing of many of the features that were mentioned for the previous tools in other suites, like replacing families with *Type Swapper*, or renaming views and sheets with *Spreadsheet Link*, or managing links with *Import & Link Manager*. *Project Processor* can also open projects with an audit, which is great for regular health checks, as well as open the file detached from central prior to running the other tasks, in case the model is being sent out or has just been received. Additional scripts can be added that allow the files to be uploaded to, or downloaded from, an FTP site. *Project Processor* also allows all these processes to be run on multiple files sequentially, in case it is not desirable to process them one at a time.



## End Results

With all the tools available in the CTC Software product catalog, the number of tasks that can be enhanced will instantly provide cleaner, healthier and happier Revit projects, which leads to happier BIM managers and Revit project team members. Being able to review the Revit model data without having to open each one of the Revit files by itself will make managing Revit a less arduous and tedious task. Factor in the other tools available, and the automation capabilities and various templates and settings that can be applied, and you will discover that maintaining company standards is now something that can be done much more easily.



## Savings/Benefits

The amount of time saved from not having to open each Revit file individually just to see what is wrong will amaze you. Additionally, the fact that family edits can be made to the file, graphic standards deployed and basic health checks administered, continue to make the CTC Software products for Revit some of the most efficient and cost-effective utilities available in the world to BIM managers, and their companies.



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