

# Pinpointing Problems in Revit Using UNIFI's Project Analytics

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Managing projects in Revit can often feel like a game of CLUE. For example, your model sync time is lagging, and you may need to figure out what happened and who-dun-it. Was it Professor Plumber with the pipe in an outdated Revit version? Or maybe it was Colonel Construction with the unapproved conduit content.

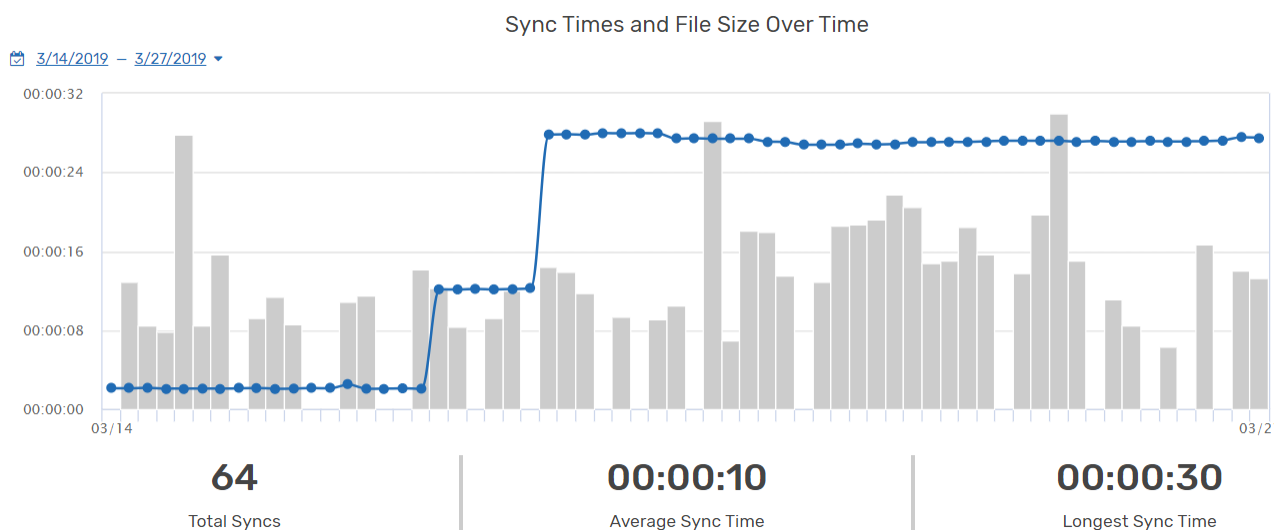
In this article, we will show you how UNIFI's Project Analytics makes it easy to do the detective work and identify what is causing your Revit project to lag.

For detailed instructions on how to do any of these tasks, please visit our [Project Analytics tutorial](#).

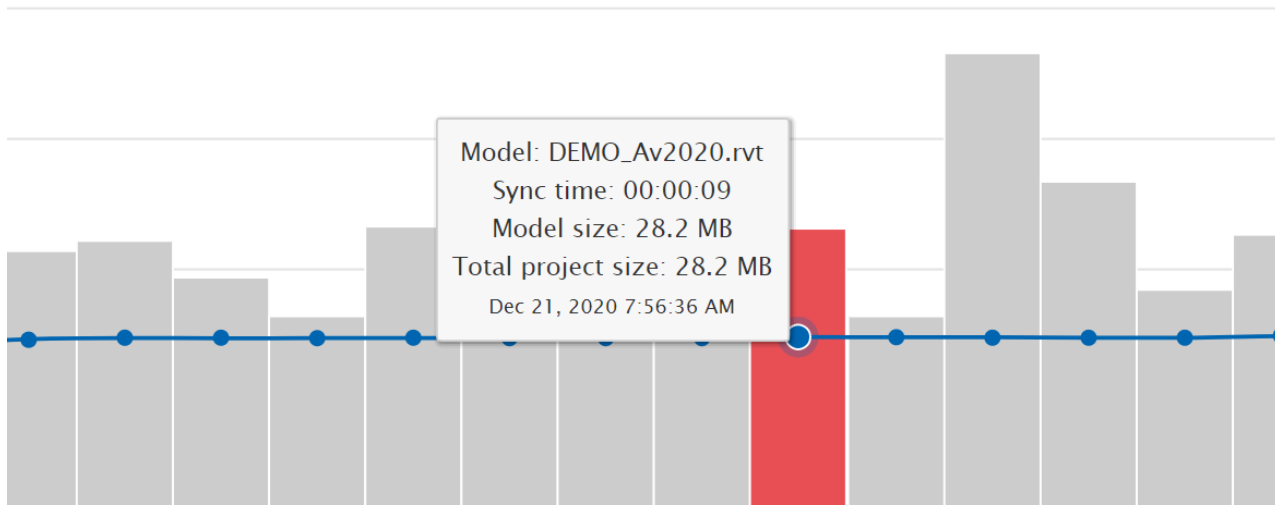
## Culprit #1: Large File Size

Once a Revit file crosses a certain threshold in file size, it can make Revit operate significantly slower than usual. One way to ensure that Revit is performing at its absolute best for you and your team is by keeping an eye on file size.

UNIFI can help you monitor file size by providing you with clear data on which models have received a significant jump in file size. You'll learn the date the jump happened, which model was upgraded, and its file size.



## Sync Times and File Size Over Time



You can then go to that specific model and view all syncs for that model, information on the users who worked on it, their Revit version, file size, sync time, date, and time. This helps you identify what caused the significant leap in file size and fix it if necessary.

### Syncs for this Model

[Show all users](#)[Show all Models](#)[Show all Revit versions](#)

User	Model	Revit Version	Size	Sync Time	Date and Time
KarenPierce@DESKTOP-2H4N4SL	<a href="#">181234_Demo Project_Arch_2018.rvt</a>	Revit 2018.3.3	60.9 MB	00:00:00	Oct 4, 2019 8:40:4
KarenPierce@DESKTOP-2H4N4SL	<a href="#">181234_Demo Project_Arch_2018.rvt</a>	Revit 2018.3.3	57.8 MB	00:00:00	Oct 2, 2019 2:05:2
KarenPierce@DESKTOP-2H4N4SL	<a href="#">181234_Demo Project_Arch_2018.rvt</a>	Revit 2018.3.3	57.7 MB	00:00:00	Sep 18, 2019 9:04
KarenPierce@DESKTOP-2H4N4SL	<a href="#">181234_Demo Project_Arch_2018.rvt</a>	Revit 2018.3.3	57.8 MB	00:00:05	Sep 18, 2019 4:54

## Culprit #2: Team Members are Using Different Versions of Revit

Another culprit for a lagging Revit project is when team members are using different minor versions of Revit. If multiple users on a project are working with different minor versions of Revit, it could cause a project to crash.

To help you identify and fix this issue, UNIFI's Project Analytics can give you information on who is using which version of Revit. You can see who is using which Revit version for a particular model and contact the appropriate person to have them upgrade their Revit installation.

### Syncs for this Model

User	Model	Revit Version	Size	Sync Time	Date and Time
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.5	19.1 MB	00:00:08	Nov 3, 2021 9:52:25 AM
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.4	27.2 MB	00:00:05	May 26, 2021 11:57:20 AM
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.4	27.0 MB	00:00:07	May 26, 2021 11:54:31 AM
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.1	26.3 MB	00:00:05	May 3, 2021 10:59:10 AM
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.3	26.3 MB	00:00:06	Mar 24, 2021 6:52:58 AM
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.3	26.3 MB	00:00:06	Mar 18, 2021 7:20:47 AM
	<a href="#">DEMO_Av2020.rvt</a>	Revit 2020.2.3	26.8 MB	00:00:08	Mar 18, 2021 6:55:55 AM

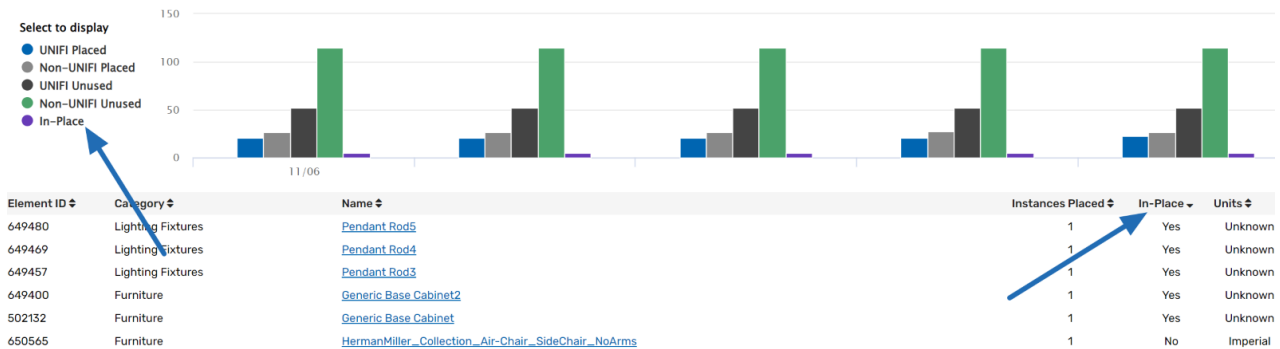
## Culprit #3: In-Place Families

One problem you will want to tend to immediately in a project is the overuse of in-place families. These should be used sparingly, but due to their ease of use, rampant placement of in-place families is a common pitfall among Revit users.

Not only are in-place families larger in file size than properly built Revit families, but they also make an entirely new entity of themselves each time they are copied (rather than referencing the information from the first instance).

To fix this, you'll want to identify these in a project and replace them with Revit families.

UNIFI can help you do this by giving you a breakdown of the types of families in your project. You can also see a breakdown of each element and whether it is an in-place family.



## Culprit #4: CAD Imports

CAD imports can also cause some serious problems in a project. A user should never have CAD imports in a file. There may be certain situations when a user might be converting CAD details into Revit, but all of that should be done in a separate file to avoid corruption with line styles or other components.

UNIFI helps list these out for you so that you can quickly find them in a project and remove them.

Overview	Content	Compare Changes
Type of content:	CAD Imports (7) ▼	
Element ID ▾	Name ▲	
621377	23 3314-10 Guy Wire Roof Connection [Non-Standard].dwg	
629656	23 3314-10 Guy Wire Roof Connection [Non-Standard].dwg	
636717	23 3314-10 Guy Wire Roof Connection [Non-Standard].dwg	
621424	23 3314-10 Guy Wire Roof Connection [Non-Standard].dwg (2)	
629703	23 3314-10 Guy Wire Roof Connection [Non-Standard].dwg (2)	
636764	23 3314-10 Guy Wire Roof Connection [Non-Standard].dwg (2)	
455688	Civil_SitePlan_20190523.dwg	

## Culprit #5: Improper Import of Images

Improper import techniques and the use of images can wreak havoc on file size and performance. To keep this from happening, you'll want to find any images that may be imported multiple times or are no longer in use.

If you see an image frequently placed in a project, then it might be beneficial to make it a part of a Revit family so that the image can be taken out of the main model.

In UNIFI, you can see all of your images in a project and the number of instances placed to determine whether you need to make adjustments.

Overview	Content	Compare Changes
Type of content:	Images (16) ▼	
Element ID ▾	Name ▲	
1357310	DJI_0506.JPG	
1356199	DJI_0515.JPG	
1355992	DJI_0516.JPG	
1355989	DJI_0519.JPG	
1233896	house footprint.jpg	

## Culprit #6: Plan Regions Not Created as Dependent Views

A best practice that tends to get missed with Revit 101 classes is that views with required plan regions should be created as dependent views. If the plan region updates, all views are properly updated. If plan regions are instead copied from view to view, any updates within the plan region are not carried forward to the copied views.

UNIFI can help you see exactly where plan regions may exist in a project so that you can address those immediately.

Overview

Content

Compare Changes

Type of content:

Plan Regions (2)

View Name ^

CONSTRUCTION PLAN - LEVEL 02

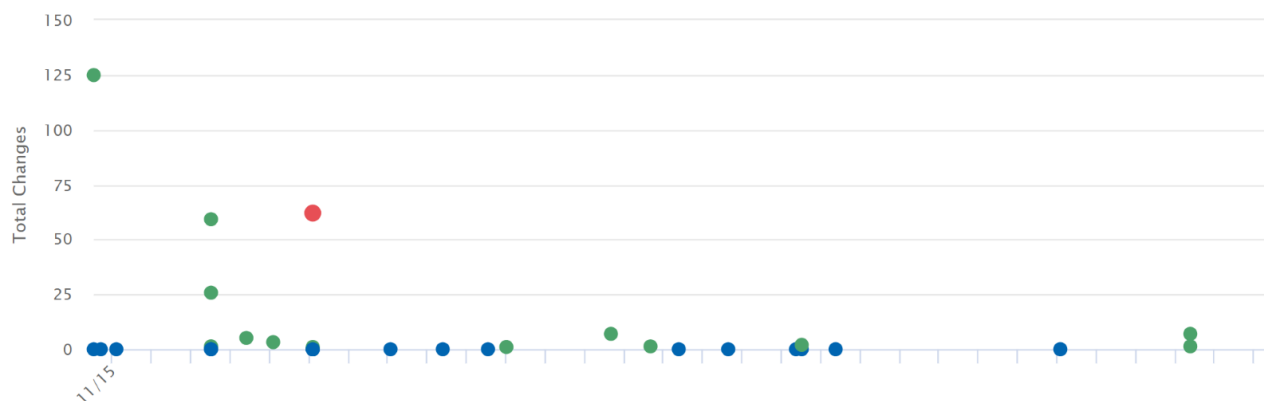
- 1941147

FRAMING PLAN - LEVEL 02

- 2766077

## So....Who-Dun-It?

Sometimes, when you are looking at these issues, you need to determine if it was one specific change that threw things off. That’s when it helps to use UNIFI’s Compare Changes tool, which provides you with a clear display of the total number of changes made on each date:



You can select any dot on this graph to get a list of all changes that were made on that date and who made those changes.

Families

61

Content Changed				
Category	Name	Instances Placed	IsInPlace	Source
Doors	Single-Flush	4 > 0	false	Non-UNIFI
Windows	ADSK_US_L_19_Window-Fixed-Arch-Top	5 > 0	false	UNIFI
Generic Models	Trim-Window-Interior-Flat-Arch-Top	5 > 0	false	Non-UNIFI
Generic Models	Trim-Window-Exterior-Flat-Arch-Top	5 > 0	false	Non-UNIFI
Structural Framing	Timber	6 > 0	false	Non-UNIFI
Doors	Bifold-4 Panel	3 > 0	false	UNIFI
Furniture	Bed-Standard	1 > 0	false	UNIFI
Furniture	Table-Night Stand	2 > 0	false	UNIFI
Casework	Vanity Cabinet-Single Door	1 > 0	false	Non-UNIFI
Casework	Base Cabinet-Double Door Sink Unit	2 > 0	false	UNIFI
Specialty Equipment	Dishwasher-Kenmore-Built-In-Dishwasher_with_Removable_Third_Rack_24in	1 > 0	false	Non-UNIFI

Since this provides you with all information on recent changes (and in an easy-to-organize format), you can consider it your own built-in security camera for a project. You can go back and quickly access “footage” of what happened and reach out to that individual to correct the changes, if necessary.

## Conclusion

It can often feel overwhelming trying to find out what exactly caused issues with your project in Revit. UNIFI makes this a hassle-free process for you. Our tools help you quickly identify exactly what is causing snags with your project

so that you can fix them in no time.

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