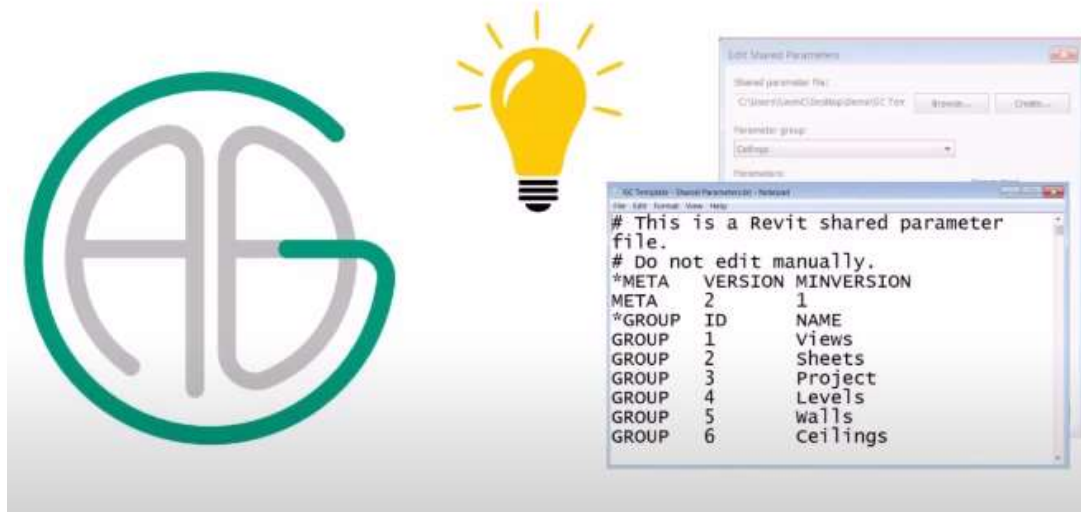


MASTERING **REVIT** ASSEMBLY CODES

BY THE AUSSIE BIM GURU

Revisiting the essentials



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Assembly Codes

Guide for Users, by a User!



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What we'll cover

What are assembly codes

Classification systems

Uniclass 2015 file

Assembly code file structure

Lining up tables



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What are they?

Inherent field in most Revit elements
They are intended for element classification.

Description	
Assembly Description	Ext. Wall - Precast
Assembly Code	B2010120



What are they?

They are very similar to keynotes, but
cannot generate a legend

Description		
Assembly Description	Ext. Wall - Precast	
Assembly Code	B2010120	
Material		



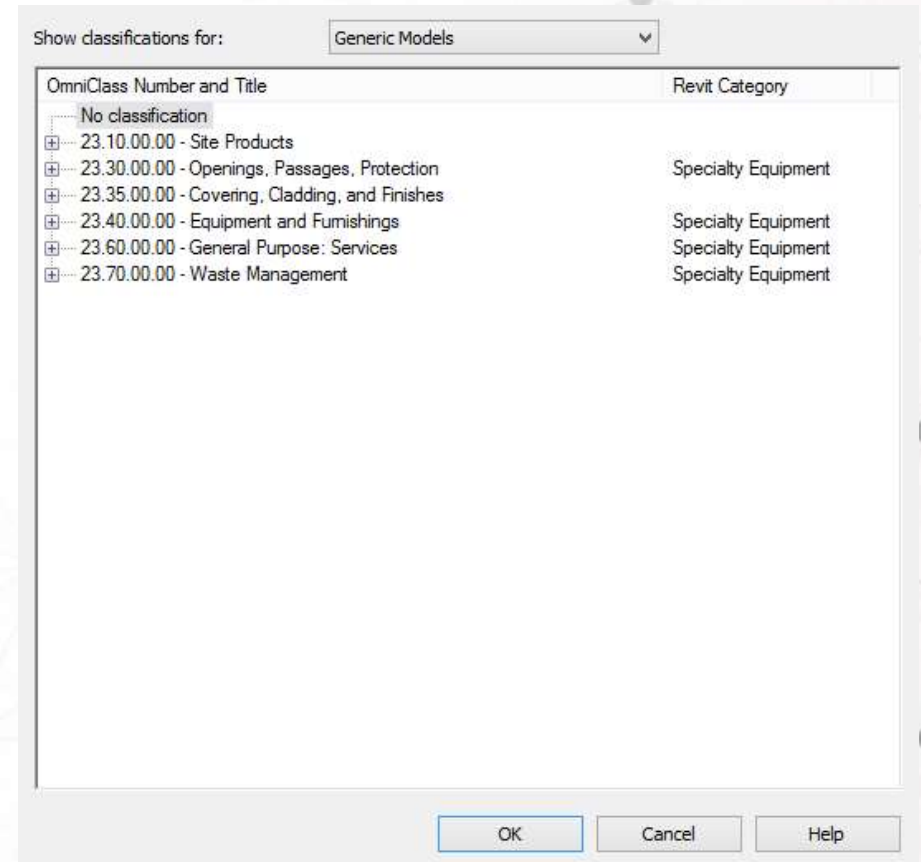
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Omniclass

Loadable families have
Omniclass 23 available,
but I rarely use them.

Why?

System families do not
have access to these
tables.

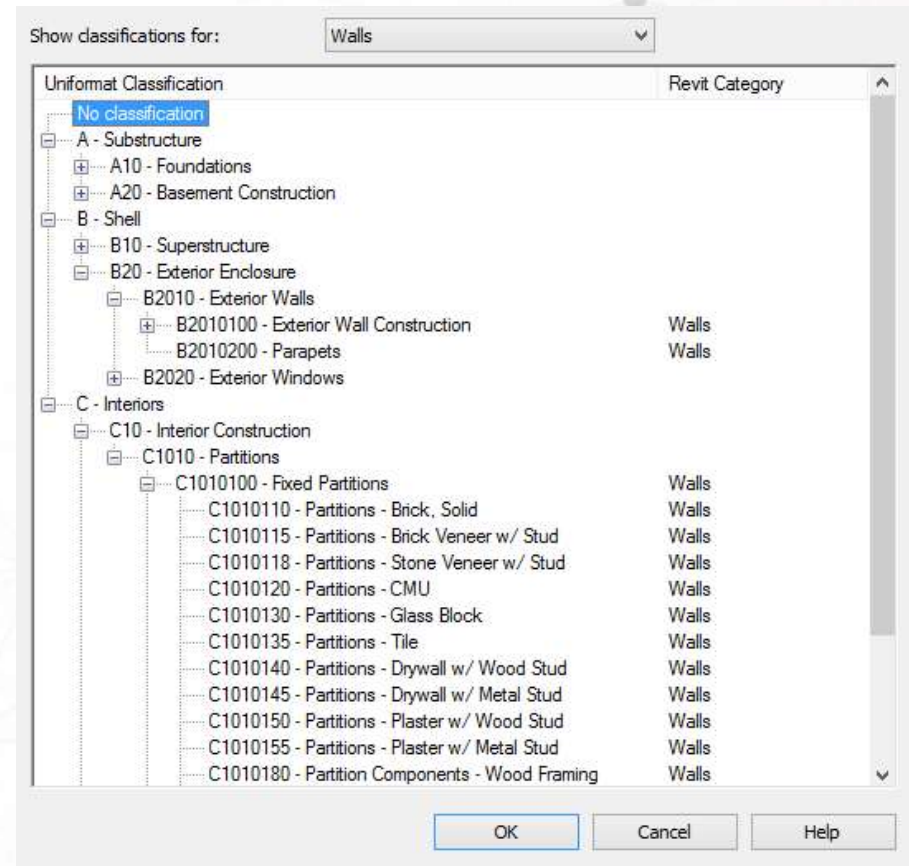


Uniformat

By default, this is the assembly code file in use by Revit.

Find out more at;

<https://www.csiresources.org/standards/uniformat>



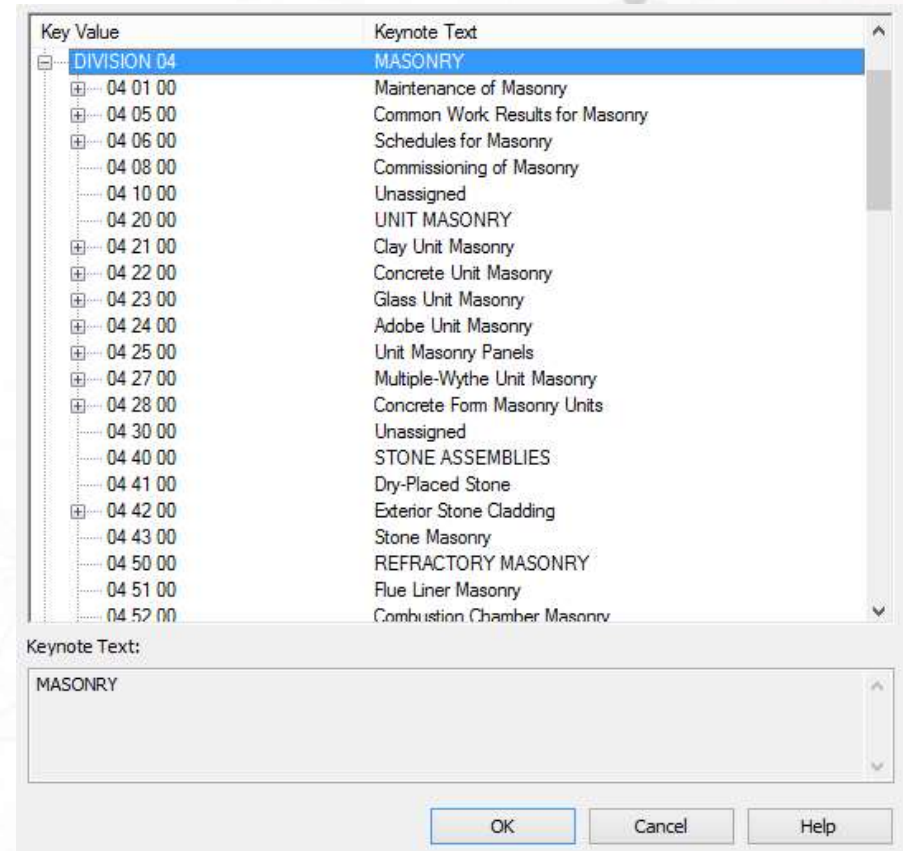
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Master format

An alternative typically used in USA/Canada.

Find out more at;

<https://www.csiresources.org/standards/masterformat>



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Uniclass 2015

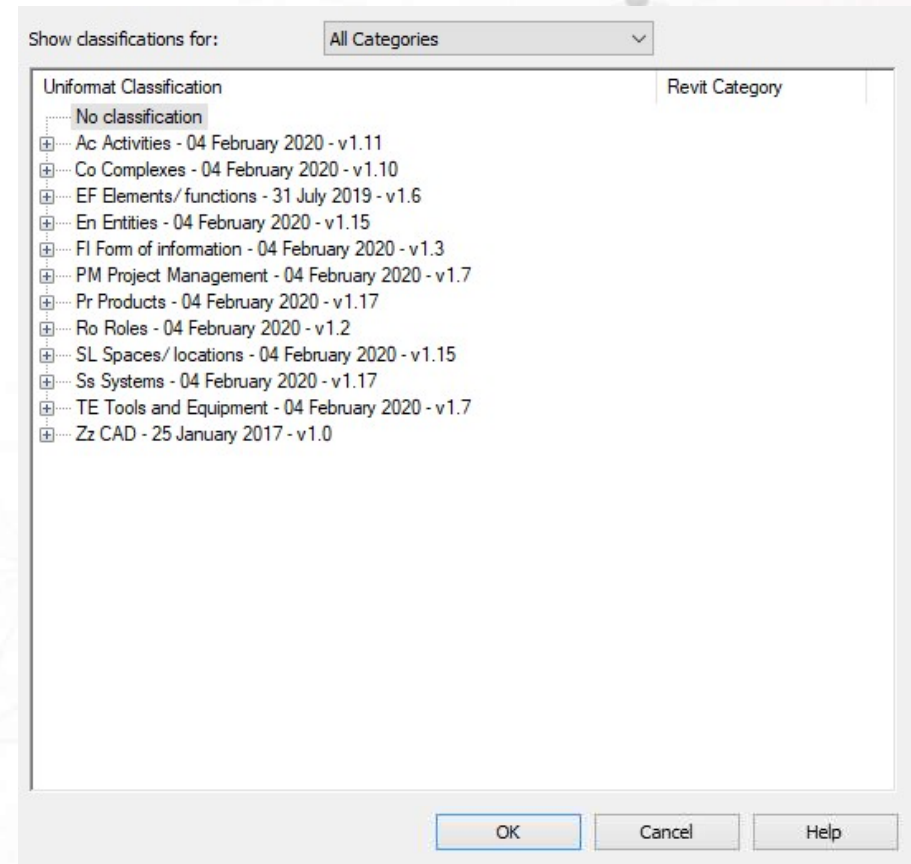
Most common in the UK,
but growing in use. More
broad vs. the alternatives.

Find out more at;

<https://www.thenbs.com/our-tools/uniclass-2015>



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UC15 Tables

This system is broken into tables, many which go beyond objects, for example:

- Activities
- Spaces
- building types

A background network diagram consisting of a series of interconnected nodes and lines, forming a complex web-like structure. The nodes are represented by small grey circles, and the lines are thin grey lines connecting them. The overall shape is somewhat circular, with more nodes and connections on the right side.

Co - Complexes
En - Entities
Ac - Activities
SL - Spaces/ locations
EF - Elements/ functions
Ss - Systems
Pr - Products
TE - Tools and Equipment
PM - Project management
FI - Form of information
Ro - Roles
Zz - CAD



So many codes...

The system contains a lot of codes, but architects mostly use the Ss – Systems and Pr – Products tables.

So many codes, how to set up a file for this?!

Co - Complexes
En - Entities
Ac - Activities
SL - Spaces/ locations
EF - Elements/ functions
Ss - Systems
Pr - Products
TE - Tools and Equipment
PM - Project Management
Zz - CAD
FI - Form of Information
Ro - Roles
Uniclass 2015 table names, generated by Buildig.
Uniclass 2015 combined table, generated by Buildig.

2283 rows
7588 rows



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Digital Guerilla

Luckily, Digital Guerilla has us covered here.

They provide a free Uniclass 2015 coding file here;

<https://digital-guerrilla.scot>

Thanks Graham!



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Assembly code files

Let's have a look at the UC15 file,
as well as how I implement it.

Description		
Assembly Description	Ext. Wall - Precast	
Assembly Code	B2010120	



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Tab delimited



Code	Description	Tree level
------	-------------	------------

```
BG_Uniclass2015.txt - Notepad
File Edit Format View Help
Co Complexes      04 February 2020 - v1.10      1
Co_20      Administrative, commercial and protective service complexes      2
Co_20_10      Legislative complexes      3
Co_20_10_60      Governmental complexes      4
Co_20_15      Administrative complexes      3
Co_20_15_08      Business parks      4
Co_20_15_58      Office complexes      4
Co_20_20      Secular representative complexes      3
Co_20_20_15      Complexes for representatives of nation states abroad      4
```

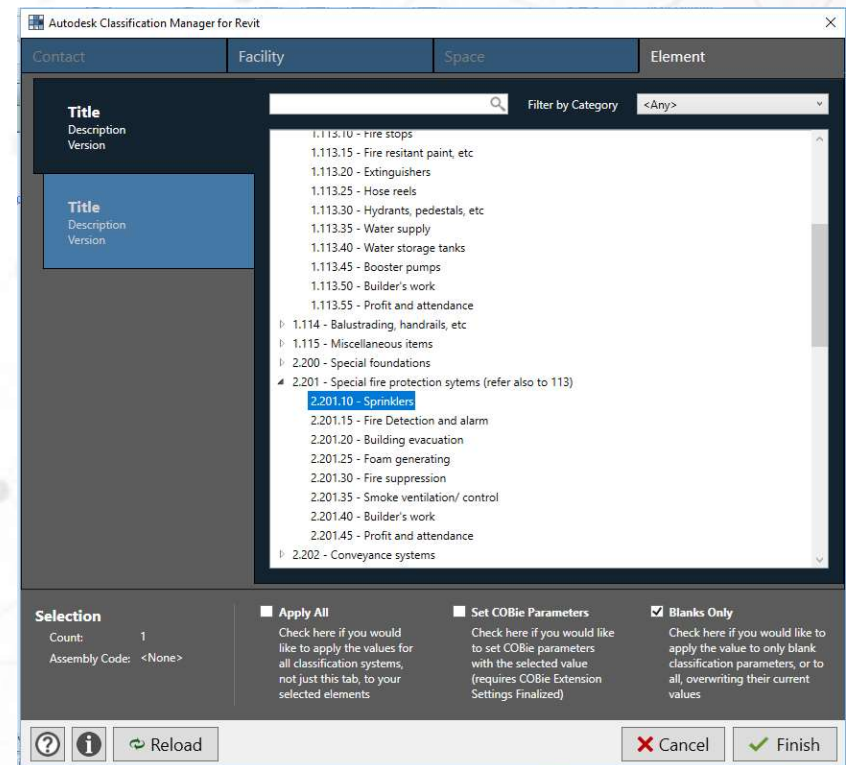


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Classification Manager

This app that is free with Revit (via the download manager) can assign classifications to elements in bulk.

It is still quite a slow process. Personally I just try to capture UC15 in template/library.



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Lining up tables?

Show classifications for: All Categories

Unifomat Classification	Revit Category
⊕ Ss_25_12_60 - Panel enclosure systems	Furniture Systems
⊕ Ss_25_12_65 - Panel partition systems	
⊕ Ss_25_12_70 - Retractable partition systems	
⊕ Ss_25_12_80 - Structural glass wall systems	
⊕ Ss_25_12_85 - Structural steel panel wall systems	
⊖ Ss_25_13 - Unit wall structure systems	Walls
⊕ Ss_25_13_05 - Adobe block wall systems	Walls
⊕ Ss_25_13_24 - Dry stone wall systems	Walls
⊕ Ss_25_13_30 - Gabion wall systems	Walls
⊕ Ss_25_13_33 - Glass wall systems	Walls
⊕ Ss_25_13_35 - Gypsum block wall systems	Walls
⊕ Ss_25_13_45 - Lead brick wall systems	Walls
⊕ Ss_25_13_50 - Masonry wall systems	Walls
⊕ Ss_25_13_50_49 - Masonry exposed feature systems	Walls
⊕ Ss_25_13_50_51 - Masonry wall leaf systems	Walls
⊕ Ss_25_13_50_54 - Masonry free-standing wall leaf sys...	Walls
⊕ Ss_25_13_50_56 - Masonry internal partition systems	Walls
⊕ Ss_25_13_70 - Reinforced masonry wall systems	Walls
⊕ Ss_25_13_85 - Straw bale wall systems	Walls
⊕ Ss_25_14 - Fence systems	
⊕ Ss_25_15 - Fixed pedestrian barrier systems	
⊕ Ss_25_16 - Fixed traffic and protective barrier systems	
⊕ Ss_25_17 - Dam and levee structure systems	
⊕ Ss_25_20 - Wall cladding systems	
⊕ Ss_25_25 - Wall lining systems	
⊕ Ss_25_30 - Door and window systems	

Show classifications for: All Categories

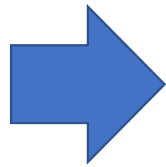
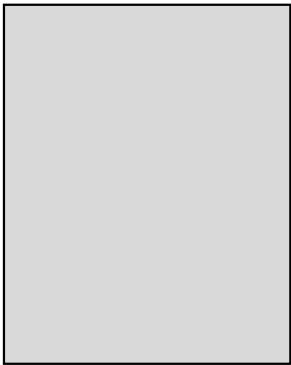
Unifomat Classification	Revit Category
⊖ B - Shell	
⊕ B10 - Superstructure	
⊖ B20 - Exterior Enclosure	
⊖ B2010 - Exterior Walls	
⊖ B2010100 - Exterior Wall Construction	Walls
B2010110 - Ext. Wall - CIP	Walls
B2010120 - Ext. Wall - Precast	Walls
B2010125 - Ext. Wall - Precast Lintels & Specialties	Walls
B2010130 - Ext. Wall - Tilt-up	Walls
B2010140 - Ext. Wall - CMU	Walls
B2010142 - Ext. Wall - CMU Cavity	Walls
B2010144 - Ext. Wall - CMU Composite	Walls
B2010146 - Ext. Wall - CMU Lintels & Specialties	Walls
B2010148 - Ext. Wall - Glass Block	Walls
B2010150 - Ext. Wall - Brick (Single Wythe)	Walls
B2010152 - Ext. Wall - Brick (Double Wythe)	Walls
B2010154 - Ext. Wall - Brick Cavity	Walls
B2010156 - Ext. Wall - Brick Composite	Walls
B2010158 - Ext. Wall - Brick Veneer w/ Stud	Walls
B2010160 - Ext. Wall - Stone Veneer w/ Stud	Walls
B2010170 - Ext. Wall - Metal Siding Supports	Walls
B2010175 - Ext. Wall - Metal Siding Panels	Walls
B2010180 - Ext. Wall - Wood Stud w/ Siding & Shingles	Walls
B2010185 - Ext. Wall - Wood Stud w/ Stucco	Walls
B2010200 - Parapets	Walls
B2010300 - Exterior Louvers, Screens & Fencing	Windows



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Mapping tables

Element with
Uniclass 2015 code



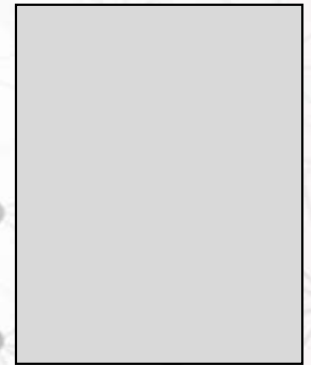
Mapping table

	A	B
1	Uniclass 2015	Unifomat
2	Ss_25_13_50	B2010154

Find match in col 1
Read value in col 2



Update code with
matching alternative



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Recommendations

Preparing

Roll out at least 1 system

Set up a mapping system

Check with your QS what works for them

Stay up to date if possible



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Recommendations

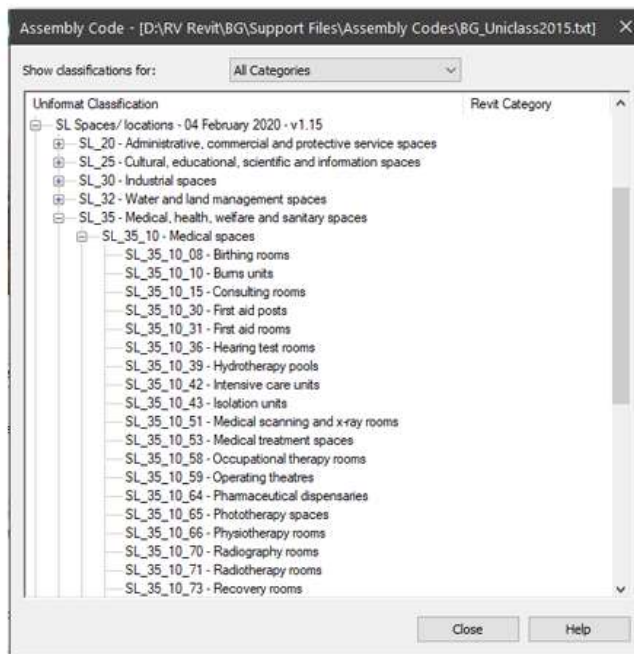
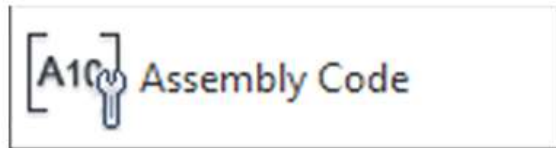
Safekeeping

To all the BIM Managers out there...

Keep a backup (or two!)



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