

# **Consistency Check**

Check the consistency between <u>Revit files</u> and <u>spine Projects</u>. Check for missing or inconsistency data. <u>Consistency Check Tutorial (Video English)</u>

### 1. Synchronization Configuration and process line

t: Synch	nronization Configuration	_		×	network Consistency Check
Select Ca	tegories	5 C	ategories s	elected	Current Project: 2945 - My Project
Select	all		<show all<="" td=""><td>&gt; ~</td><td></td></show>	> ~	
Selected	Category Name				5 30 CCS Classes
	Columns			^	
	Communication Devices				6 0 CCS Type ID
	Conduit Fittings				
	Conduit Runs				0 Recognized Single Leve
	Conduits				X
	Curtain Panels				4 Single Level ID
	Curtain Systems				
	Curtain Wall Mullions				3 Objects deleted in Spine
	Data Devices				
	Doors				0 Objects deleted in Revit
	Duct Accessories				
	Duct Fittings				0 Properties
	Duct Insulations				

- Select <u>Revit categories</u> to be checked
- 2. Click OK
- 3. Number of issues

- 4. Bold text indicate the current step
- 5. The blue color indicate that there is still issues to be considered
- 6. The green color indicate that all issues has been handled



## 2. CCS Classes

🕏 Consistency Check		- 🗆 X
Current Project: 2945 - My Project		
4 CCS Classes	i These objects have not been class dropdown to filter the CCS Class Classification by instance	ssified. Choose which CCS Class they should have and click Apply. Start typing in a es.
4 CCS Type ID	Floors	· · ·
	250mm Conc / Polystyrene	floor U
7 Recognized Single Level ID	Walls	[L] XLH - Floor drain
	Basic Walls	[L] BF - Floor structure [L] C - Structural floor system
	Ext - 408mm Brick/Brick	[L] C - Structural floor system [L] AC - Floor separating assemblage
24 Single Level ID	Int - 100mm Concrete	×
	Ext - 408mm Brick/Concrete	· · · · · · · · · · · · · · · · · · ·
2 Objects deleted in Spine		[L] BD - Wall structure [L] AD - Wall assemblage
2 Objects deleted in Revit		BIM7AA Type Coding V3.2, SfB class code
0 Properties		3
		Apply Skip

Objects without a CCS Class 🗹

- 1. Type in a synonym for the class
- 2. Select a class
- 3. Click Apply

A: Toggle 'Classification by instance' to add classes as instance parameters 🔀

**B:** If an object have a class from <u>another standard</u>, the dropdown display suggested CCS classes



## 3. CCS Type ID

Consistency Check		-	- 🗆	×
ent Project: 2945 - My Project				
4 CCS Classes	i These Revit types have been classified but a linked to.	re missing CCS Type ID. Choose which CCS Type each Rev	it type should be	e
	Show only used types			
5	Revit Type	CCS Type		
4 CCS Type ID	Structural Columns			
1	M_Concrete-Rectangular-Column		4	
5	U Column 200x300mm	[L]%ULD1 - Column 200x300mm		G
18 Recognized Single Level ID	Column 300x450mm - [L]%ULD3		~	Ç
	Windows			
66 Single Level ID	Single Light			
	Window 1300x1300mm		~	G
IL .	3 Window 2400x1300mm		✓ ✓	Ç
3 Objects deleted in Spine		[L]%QQA1 - Window 1300x1300mm		
אר		[L]%QQA2 - Window 1300x1700mm	_	
IL		[L]%QQA3 - Window 2400x1300mm		
2 Objects deleted in Revit				
۲				
0 Properties	16 Family Types are missing CCS Classification Please use Classification/Identification to ma			
$\smile$		Back Apply	Skip	

Objects with a <u>CCS Class</u> , but without a <u>CCS Type</u>

- 1. The <u>Revit Type</u> is linked to a CCS Type in another file, and that type is suggested
- 2. The Revit Type has been linked to the CCS Type [L]%ULD3, which no longer exist in the spine Project
- 3. The drop-down display CCS Types within the CCS Class
- 4. Tick types to be linked

A: See Revit Type in the model

**B:** Go to <u>classification</u>



## 4. Recognized Single Level ID

nt Project: 2945 - My Project	These Single Level ID's went	e found in current model. They were	e found in Spine but are not linked to ar	object in current model or link	ker
6 CCS Classes		I. Select how these objects should b			
	Single Level Id	Applications	Documents	Action	
	A - No relations - 5 Item(s)			Add Relation	¥
	[A]#100	Website		Add Relation	×
4 CCS Type ID	[A]#101	Website		Create new Id Code	×
	[A]#102	Website		No action	~
	[A]#103	Website		Add Relation	×
18 Recognized Single Level ID	[A]#103	Website		Create new Id Code	×
Recognized single Level 10	B - Related to another obje	ct - 6 Item(s)		Create new Id Code	~
	[A]#200	Autodesk Revit	My Project - Architectural.rvt	Replace Revit relations	~
Ĺ	[A]#201	Autodesk Revit	My Project - Architectural.rvt	Replace all relations	~
54 Single Level ID	[A]#202	Autodesk Revit	My Project - Architectural.rvt	Create new Id Code	~
٢	[A]#203	Autodesk Revit	My Project - Architectural.rvt	No action	~
	[A]#204	Autodesk Revit	My Project - Architectural.rvt	Replace Revit relations	~
5	[A]#204	Autodesk Revit	My Project - Architectural.rvt	Create new Id Code	~
3 Objects deleted in Spine	C - Related to another mod	el - 7 Item(s)		Replace Revit relations	~
	[A]#300	Autodesk Revit	My Project - Construction.rvt	Add Relation	~
L	[A]#301	Autodesk Revit	My Project - Construction.rvt	Replace Revit relations	~
2 Objects deleted in Revit	[A]#302	Autodesk Revit	My Project - Construction.rvt	Replace all relations	~
<u>۲</u>	[A]#303	Autodesk Revit	My Project - Construction.rvt	Create new Id Code	v
	[A]#304	Autodesk Revit	My Project - Construction.rvt	No action	×
5	[A]#305	Autodesk Revit	My Project - Construction.rvt	Add Relation	~
0 Properties	(A1#305	Autodesk Revit	My Project - Construction.rvt	Create new Id Code	~

Single Level ID's 🔀 in the current model with a mismatch in relations.

If an ID appears multiple times in a <u>document</u>, it is displayed in *cursive and orange* and the relation can only be added to one of the objects.

### A - No relations

ID Code was found in the spine project, but has no relations to any <u>documents</u> **C**. **Actions:** 

**Add Relation:** Adds a new relation between Revit object and spine object. Relations to other models or <u>applications</u> remains.

**Create new Id Code:** Creates a new Id Code with next available number. Current Id Code will be replaced with the newly created.

**No action:** Revit object will not be related to a spine object.



							- 0		×
	evel ID's were four in this model. Sele				ut are not linked t	o an obje	ect in current model or l	inked	to
unitent object	in this model. Sele	cer now ene	se objects should	be linked.					_
Single Level Id			Applications	Documents			Action		
A - No relation	s - 5 Item(s)					-	Add Relation	Ý	
[A]#100			Website			1	Add Relation	Ý	Ç
[A]#101			Website			2	Create new Id Code	Ý	Ç
[A]#102			Website			3	No action	Ý	Ç
[A]#103			Website			Ă	Add Relation	Ý	Ç
[A]#103			Website			Ú	Create new Id Code	Ý	Ç
B-Belatadia	another times	ممتضمونال	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~. v	L.,
		В	С		F				
	A	D			L .				

Α	В	С	D	E	F
Name	Number	CCS Topnode	CCS Class Code	CCS Class Name	CCS Single Level ID
Corridor	06	[A]	EAC	Corridor	[A]#100
Corridor	13	[A]	EAC	Corridor	[A]#101
Corridor	23	[A]	EAC	Corridor	[A]#102
Corridor	24	[A]	EAC	Corridor	[A]#103
Corridor	30	[A]	EAC	Corridor	[A]#103
ç. Arrente de la construcción de	Samo -	talan mu	EAC	Concider	mann

#### **Result:**

- 1. Add Relation: 'Corridor 06' is related to spine object [A]#100
- 2. **Create new Id Code:** *'Corridor 13'* is related to a new spine object *[A]#3*, and spine object *[A]#101* is not related to the current model
- 3. No action: Nothing happens to 'Corridor 23'
- 4. *'Corridor 24'* and *'Corridor 30'* has the same CCS Single Level ID value [A]#103. Select one to be related to spine object [A]#103 and one to get a new ID Code

**Create new Id Code:** '*Corridor 24*' is related to new spine object [A]#4 **Add Relation:** '*Corridor 30*' is related to spine object [A]#103

Α	В	С	D	E	F
Name	Number	CCS Topnode	CCS Class Code	CCS Class Name	CCS Single Level ID
Corridor	06	[A]	EAC	Corridor	[A]#100
Corridor	13	[A]	EAC	Corridor	[A]#3
Corridor	23	[A]	EAC	Corridor	[A]#102
Corridor	24	[A]	EAC	Corridor	[A]#4
Corridor	30	[A]	EAC	Corridor	[A]#103
artican Arth	÷~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	FA1			

### B - Related to another object

ID Code already has a relation in current model **C**, but it differs from the object defined in the spine project **C**.

#### Actions:

**Replace Revit relations:** Replaces all Revit relations. This deletes all other Revit model relations. Relations to other <u>applications</u> **Z** are not affected by this action.

Replace all relations: Replace all previous relations. This deletes all other relations regardless



#### application.

**Create new Id Code:** Creates a new Id Code with the next available number. Current Id Code will be replaced with the newly created.

**No action:** Revit object will not be related to a spine object.

B - Related to another object - 6 Item(s)			-	Create new Id Code	Ý	
A]#200	Autodesk Revit	My Project - Architectural.rvt	1	Replace Revit relations	×	(
A]#201	Autodesk Revit	My Project - Architectural.rvt	2	Replace all relations	×	(
A]#202	Autodesk Revit	My Project - Architectural.rvt	3	Create new Id Code	×	(
A]#203	Autodesk Revit	My Project - Architectural.rvt	4	No action	×	
[A]#204	Autodesk Revit	My Project - Architectural.rvt	X	Replace Revit relations	×	(
[A]#204	Autodesk Revit	My Project - Architectural.rvt	5	Create new Id Code	¥	(

Α	B	С	D	E	F
Name	Number	CCS Topnode	CCS Class Code	CCS Class Name	CCS Single Level ID
Office	21	[A]	ADA	Office	[A]#200
Office	22	[A]	ADA	Office	[A]#201
Office	38	[A]	ADA	Office	[A]#202
Office	40	[A]	ADA	Office	[A]#203
Office	41	[A]	ADA	Office	[A]#204
Office	42	[A]	ADA	Office	[A]#204
Office _	<b></b> 50 <b></b>	[A]	ADA	Qffice	

#### **Result:**

- 1. **Replace Revit relations:** 'Office 21' is related to spine object *[A]#200*. All other Revit model relations to *[A]#200* is deleted
- 2. **Replace all relations:** 'Office 22' is related to spine object [A]#201. All other relations to [A]#201 is deleted
- 3. **Create new Id Code:** '*Office 38*' is related to new spine object [A]#5 and spine object [A]#202 will not be related to the current model
- 4. **No action:** 'Office 40' still has the Single Level ID value [A]#203, but spine object [A]#203 is not related to the Revit object
- 'Office 41' and 'Office 42' has the same CCS Single Level ID value [A]#204. Select one to be related to spine object [A]#204 and one to get a new ID Code
   Replace Revit relations: 'Office 41' is related to [A]#204

**Create new Id Code:** 'Office 42' is related to new spine object [A]#6

Α	В	С	D	E	F
Name	Number	CCS Topnode	CCS Class Code	CCS Class Name	CCS Single Level ID
Office	21	[A]	ADA	Kontor	[A]#200
Office	22	[A]	ADA	Kontor	[A]#201
Office	38	[A]	ADA	Kontor	[A]#5
Office	40	[A]	ADA	Kontor	[A]#203
Office	41	[A]	ADA	Kontor	[A]#204
Office	42	[A]	ADA	Kontor _	[A]#6
Office	42		ADA		[A]#0



### C - Related to another model

ID Code is related to an object in another model.

#### Actions:

Add Relation: Adds a new relation between Revit object and spine object. Relations to other models or applications 🔀 remains.

**Replace Revit relations:** Replaces all Revit relations. This deletes all other Revit model relations. Relations to other applications are not affected by this action.

**Replace all relations:** Replace all previous relations. This deletes all other relations regardless application.

**Create new Id Code:** Creates a new Id Code with next available number. Current Id Code will be replaced with the newly created.

No action: Revit object will not be related to a spine object.

C - Related to another model - 7 Item(s)			-	Replace Revit relations	×	
A]#300	Autodesk Revit	My Project - Construction.rvt	1	Add Relation	~	(
A]#301	Autodesk Revit	My Project - Construction.rvt	2	Replace Revit relations	Ý	(
A]#302	Autodesk Revit	My Project - Construction.rvt	3	Replace all relations	×	(
A]#303	Autodesk Revit	My Project - Construction.rvt	4	Create new Id Code	~	(
[A]#304	Autodesk Revit	My Project - Construction.rvt	5	No action	×	(
[A]#305	Autodesk Revit	My Project - Construction.rvt	Ğ	Add Relation	×	(
[A]#305	Autodesk Revit	My Project - Construction.rvt	$\odot$	Create new Id Code	Ŷ	(

Α	B	С	D	E	F
Name	Number	CCS Topnode	CCS Class Code	CCS Class Name	CCS Single Level ID
Toilet	07	[A]	ABB	Toilet	[A]#300
Toilet	08	[A]	ABB	Toilet	[A]#301
Toilet	15	[A]	ABB	Toilet	[A]#302
Toilet	16	[A]	ABB	Toilet	[A]#303
Toilet	25	[A]	ABB	Toilet	[A]#304
Toilet	26	[A]	ABB	Toilet	[A]#305
Toilet	32	[A]	ABB	Toilet	[A]#305
Toilet	121		*~B~~~~~		

#### **Result:**

- 1. **Add Relation:** '*Toilet 07*' is related to spine object [*A*]#300. spine object [*A*]#300 is still related to a Revit object in another model
- 2. **Replace Revit Relations:** '*Toilet 08*' is related to spine object [*A*]#301. spine object [*A*]#301 is no longer related to a Revit objects in another model
- 3. **Replace all Relations:** '*Toilet 15*' is related to a spine object [*A*]#302. spine object [*A*]#302 is no longer related to objects in other models
- 4. Create new Id Code: 'Toilet 16' is related to a new spine object [A]#7.
- 5. **No Action:** Nothing happens
- 6. 'Toilet 26' and 'Toilet 32' has the same CCS Single Level ID value [A]#305. Select ont to be related to spine object [A]#305 and one the get a new ID Code



#### Add Relation: 'Toilet 26' is related to [A]#305

#### Create new Id Code: 'Toilet 32' is related to new spine object [A]#8

Α	В	С	D	E	F
Name	Number	CCS Topnode	CCS Class Code	CCS Class Name	CCS Single Level ID
Toilet	07	[A]	ABB	Toilet	[A]#300
Toilet	08	[A]	ABB	Toilet	[A]#301
Toilet	15	[A]	ABB	Toilet	[A]#302
Toilet	16	[A]	ABB	Toilet	[A]#7
Toilet	25	[A]	ABB	Toilet	[A]#304
Toilet	26	[A]	ABB	Toilet	[A]#305
Toilet	32	[A]	ABB	Toilet	[A]#8

### 5. Single Level ID

ent Project: 2945 - My Project		
4 CCS Classes	t These objects does not have a Single Level ID or the Single Level ID differs from Spine. Checked objects a new Single Level ID.	will be a
	Туре	
4 CCS Type ID	Walls	
Ĭ	Ext. wall - Brick 400mm gypsym	15
6 Recognized Single Level ID	Ext. wall - Brick 400mm waterboard	2
9 Single Level ID	Int. wall - lightconcrete 168mm  Windows  Single Light	10
July Single Leven D	Window 1300x1300mm	29
3 Objects deleted in Spine	Window 2400x1300mm Window 1300x1700mm	75
х	Structural Columns     M_Concrete-Rectangular-Column	10
2 Objects deleted in Revit	Column 300x450mm	40
<u></u> Ц	Column 150x300mm	21
0 Properties	Column 200x300mm	4

Objects with a <u>CCS Class</u>, but without a <u>Single Level ID</u>

- 1. Tick objects to be assigned a Single Level ID
- 2. Click apply



## 6. Objects deleted in spine

Consistency Check		-		×
rent Project: 2945 - My Project				
CCS Classes	i These objects have been deleted in Spine but still exists in your Revit model. Checked o hosted, will be deleted from your model.	bjects, and object	ts that are	:
4 CCS Classes	Single Level ID			
4 CCS Type ID	Walls		6	
Ť	Exterior - Brick 400mm - [L]#AD1			v (
Recognized Single Level ID	Int. Double-Flush - Double-flush door 1812x2114mm - [L]#QQC1	(	ີ	
Y	Int. Double-Flush - Double-flush door 1812x2114mm - [L]#QQC2	(	ີ	
	Exterior - Brick 400mm - [L]#AD2			
9 Single Level ID	Exterior - Brick 400mm - [L]#AD3			
			2	
3 Objects deleted in Spine				
2 Objects deleted in Revit				
0 Properties		B		
-	Back	Apply	Skip	

Objects deleted in the spine Projects **C**, that still exist in the current Revit file **C**. Reassign a Single Level ID **C** or delete the object in the Revit file.

- 1. Tick objects to be deleted in the Revit file
- 2. Tick objects to be reassigned a Single Level ID
- 3. Click apply

A: Display objects in the model



7. Objects deleted in Revit

🕏 Consistency Check		-		×
Current Project: 2945 - My Project				
$\mathbf{\circ}$	$m{i}$ These objects were found in Spine but no longer exists in your Revit model. Checked objects will be	: delete	e in Spine.	
4 CCS Classes	Single Level ID		×	
	[L]#AD4			\$
CCS Type ID	[L]#QQC3		1⊻	S
			$\bigcirc$	
6 Recognized Single Level ID				
9 Single Level ID				
Objects deleted in Spine				
2 Objects deleted in Revit				
0 Properties	2			
	Back Apply		Skip	

Objects found in the spine Project **C**, which no longer exist in the current Revit file **C**.

- 1. Tick objects to be deleted in the spine Project
- 2. Click apply

A: Display objects in the spine Desktop & Viewer 🗹



## 8. Properties

🕏 Consistency Check		_		×
Current Project: 2945 - My Project				
CCS Classes	i			
	Source Download properties	6		
CCS Type ID	Vpload properties	(	2	
6 Recognized Single Level ID	Copy CCS Classification to instance		30	
3 Single Level ID				
Objects deleted in Spine				
Objects deleted in Revit				
0 Properties		4		
	Back Apply		Close	

- 1. Download property values 🔀 from the spine Project 🔀 to the Revit file 🔀
- 2. Upload propertie values from the Revit file to the spine project
- 3. Copy CCS classification to instances 🗹
- 4. Click apply

### 9. Consistency Check Tutorial (Video English)