

Supplementary Materials

Figure S1. Scheme of input/output information given in Revit® and OCL.

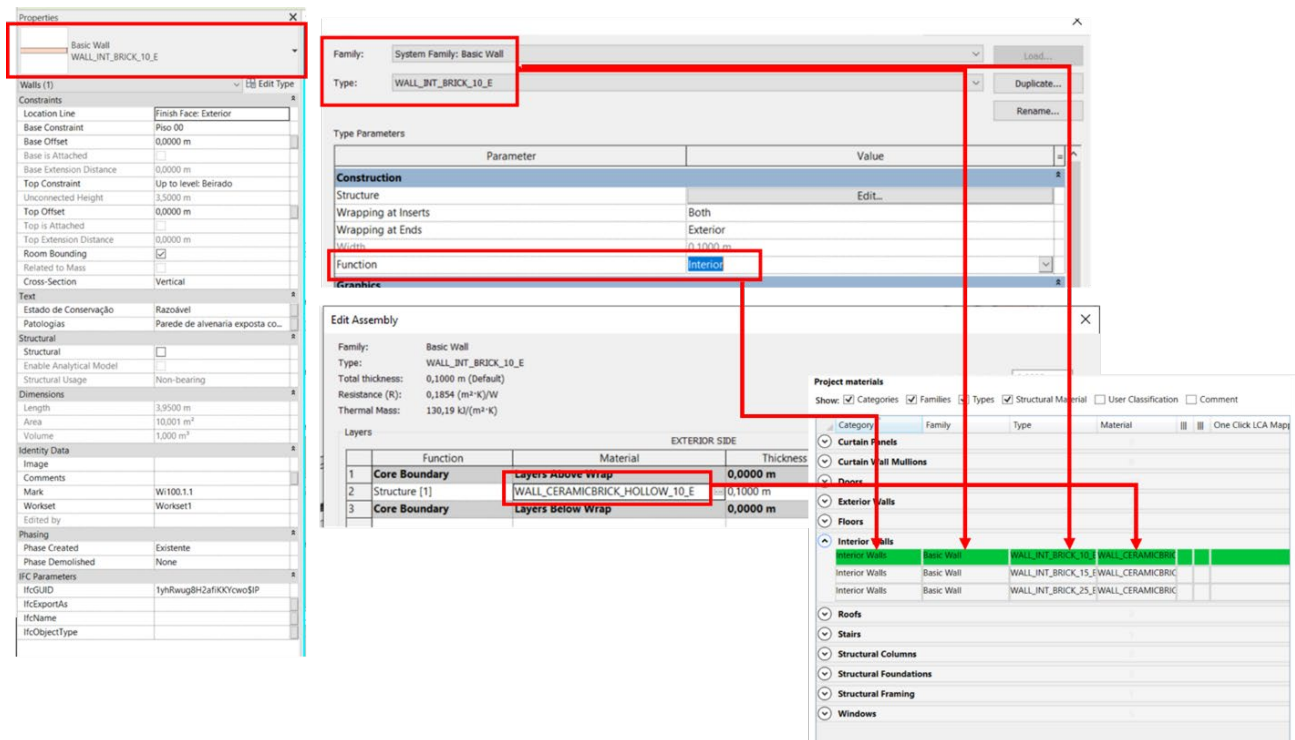


Figure S2. 'Internal walls' correctly mapped in the plugin and manually modified in the online version appear as 'external walls' in the final mapping step.

Recognized from	CLASS	MATERIAL	QUANTITY	QTY_TYPE	THICKNI	
Your recognized mapping!	EXTERNA L WALL	WALL_CERAMICBRICK_HOLLOW_25_E	41.28	M2	250	
wall_ceramicbrick_hollow_25_e	INTERNAL ...	Basic Wall				

1.2.3 External walls	9.36 m2	Delete
1.3.2 Internal walls, partitions and doors	10 m2	Delete
1.3.2 Internal walls, partitions and doors	125 m2	Delete
1.3.2 Internal walls, partitions and doors	41 m2	Delete

Figure S3. The automatic mapping can lead to duplicated environmental impact.

door_wood_e	DOOR	DOOR WOOD E, 2 rows	1.4.2 Façade openings	23 m2	Plywood, generic, 4-50 mm (0.16-
glass_e	DOOR	GLASS E, 2 rows	1.4.2 Façade openings	8.84 m2	Steel door with glass, exterior use
glass_e	EXTERNA ...	Painel de sistema	1.2.3 External walls	79 m2	Precast glass fibre reinforced con

Figure S4. The unidentified materials: names are crucial to enable automatic mapping.

Unidentified or problematic data: 6 / 40.28 % of volume You only need to map items once. We remember your choices. Delete all < 1 % Delete all < 0.1 %

Imported data						Map data to
Material	Class	Comment	Building Parts	Quantity	Share	Target resource
roof_fibercement_e	ROOF	Basic Roof	1.5 Roof	54.28 m3	15.41 %	Fibre cement boards, 1300 kg/m3
wall_ceramicbrick_hollow_25_e	EXTERNA...	Basic Wall	1.2.3 External walls	144 m2	10.25 %	Choose the mapping
wall_ceramicbrick_hollow_15_e	INTERNAL...	Basic Wall	1.3.2 Internal walls, partitions and doors	125 m2	5.34 %	Choose the mapping
wall_ceramicbrick_hollow_21_e	EXTERNA...	WALL CERAMICBRICK HOI	1.2.3 External walls	77 m2	4.57 %	Choose the mapping
wall_ceramicbrick_hollow_25_e	INTERNAL...	Basic Wall	1.3.2 Internal walls, partitions and doors	41 m2	2.93 %	Choose the mapping
floor_int_wood_2_e	SLAB	Floor	1.2.1 Frame (beams, columns and slabs)	211 m2	1.2 %	Choose the mapping

Figure S5. Names given to the materials inside Revit® 2022.

Material Browser - Brick, Ceramic, Hollow, 25, E

Project Materials: All

Name: **Brick, Ceramic, Hollow, 25, E**

Clad - White

Ceramic Tile, Roof, P

Ceramic Tile, Roof, 15x15, White, P

Brick, Ceramic, Hollow, 25, E

Brick, Ceramic, Hollow, 21, E

Brick, Ceramic, Hollow, 15, E

Brick, Ceramic, Hollow, 11, E

Identity | Graphics | Appearance | Physical | Thermal

Name: **Brick, Ceramic, Hollow, 25, E**

Descriptive Information

Description: Ceramic brick, 25x30x20cm, Existente

Class: Masonry

Comments:

Keywords:

Product Information

Manufacturer:

Model:

Cost:

URL:

Figure S6. OCL mapping after correcting names in Revit®.

brick, ceramic, hollow, 25, e	EXTERNA...	Basic Wall	1.2.3 External walls	144 m2	10.25 %	Red brick, average production, U
brick, ceramic, hollow, 15, e	INTERNAL...	Basic Wall	1.3.2 Internal walls	125 m2	5.34 %	Red brick, average production, U
brick, ceramic, hollow, 21, e	EXTERNA...	Brick, Ceramic, Hollow, 21, E	1.2.3 External walls	77 m2	4.57 %	Red brick, average production, U

Figure S7. Some unidentified materials after name correction.

Material	Class	Comment	Building Parts	Quantity	Share	Target resource
ceramic tile roof, a	ROOF	Basic Roof	1.5 Roof	374 m2	14.25 %	Roofing tile from clay (terracotta)
rockwool insulation, a	HORIZONTAL...	Compound Ceiling	2.1.4 Wall and ceiling finishes	205 m2	2.69 %	Rock wool insulation panel, L= 0.0

Figure S8. Material quantities and classification information: (1) Before mapping (selecting the respective datasets for each material); (2) After mapping.

CLASS	MATERIAL	QUANTITY	QTY_T
EXTERNAL WALL	Glass, P	78.8	m2
DOOR	Wood, Door leaf, R	4.38	m2
DOOR	Wood, Door leaf, R	16.03	m2
HORIZONTAL FINISH	RockWool, Insulation, A	205.26	m2
HORIZONTAL FINISH	Gypsum Plasterboard, White, A	205.26	m2
SLAB	Ceramic Tile, bathroom, 60x60, White, P	11.89	m2
SLAB	Wood, Floor, 2, P	191.85	m2
ROOF	Concrete, C12/15	52.18	m3
ROOF	Ceramic Tile, Roof, A	374.36	m2
SLAB	Concrete, C12/15	125.21	m3
STAIRS	Concrete, C12/15	2.74	m3
BEAM	Concrete, C12/15	2.43	m3
COLUMN	Concrete, C12/15	2.27	m3
EXTERNAL WALL	Plaster, White, A	183.17	m2
EXTERNAL WALL	Insulation, EPS, A	7.33	m3
EXTERNAL WALL	Brick, Ceramic, Hollow, 25, E	144.41	m2
EXTERNAL WALL	Brick, Ceramic, Hollow, 11, E	9.36	m2
INTERNAL WALL	Ceramic Tile, bathroom, 15x15, White, A	99.03	m2
INTERNAL WALL	Brick, Ceramic, Hollow, 10, E	10.19	m2
INTERNAL WALL	Brick, Ceramic, Hollow, 15, E	95.15	m2
WINDOW	Aluminum, Black, P	7.55	m2
WINDOW	Glass, P	8.44	m2
DOOR	Aluminum, Black, P	6.25	m2
DOOR	Glass, P	8.84	m2
DOOR	Handle, Door, Metal, P	4	unit
DOOR	Handle, Door, Metal, R	8	unit
SLAB	Mortar	6.12	m3

(1)

CLASS	MATERIAL	QUANTITY	QTY_TYPE	COMMENT
SLAB	Ready-mix concrete	125.21	m3	Floor
ROOF	Ready-mix concrete	52.18	m3	Basic Roof
WALL	Terracotta brick wit	144.41	m2	Basic Wall
WALL	Terracotta brick wit	76.62	m2	Brick, Ceramic, Hollow, 21, E, 2 rows
FOUNDATION	Ready-mix concrete	15.77	m3	Concrete, C12/15, 2 rows
WALL	Red brick, average	95.15	m2	Basic Wall
WALL	Terracotta brick wit	67.82	m2	Brick, Ceramic, Hollow, 25, E, 2 rows
SLAB	Cement mortar, grc	6.12	m3	Mortar, 2 rows
WALL	Gypsum plaster, 11	483.58	m2	Plaster, White, A, 2 rows
HORIZONTAL FINISH	Gypsum plaster (gy	205.26	m2	Compound Ceiling
SLAB	Sawn timber, plane	191.85	m2	Floor
WALL	Cement mortar, grc	3.43	m3	Mortar, 3 rows
WALL	Gypsum plaster, 11	183.17	m2	Basic Wall
STAIRS	Ready-mix concrete	2.74	m3	Cast-In-Place Stair
BEAM	Ready-mix concrete	2.43	m3	STRUCTURE_BEAM
COLUMN	Ready-mix concrete	2.27	m3	Pilar Rectangular
WALL	Terracotta brick wit	9.36	m2	Basic Wall
WALL	Red brick, average	10.19	m2	Basic Wall
WALL	Natural stone slabs	45.44	m2	Limestone, Knocker, E, 4 rows
DOOR	Coated glass, single	8.84	m2	Glass, P, 2 rows
WINDOW	Coated glass, single	8.44	m2	Janela
DOOR	Sawn timber, plane	16.03	m2	DOOR_INT
DOOR	Sawn timber, plane	4.38	m2	DOOR_INT
WALL	Coated glass, single	78.8	m2	Painel de sistema
ROOF	Roofing tile from cl	374.36	m2	Basic Roof
HORIZONTAL FINISH	Rock wool insulation	205.26	m2	Compound Ceiling
WALL	EPS insulation pan	7.33	m3	Basic Wall
WALL	Ceramic glazed tile	99.03	m2	Basic Wall

(2)