MARGRES

BIM

LIBRARY MANUAL

MARGRES
CERAMIC TILES

Index

00. Document Versions

V.00	31.07.2021	First published version
V.01	18.02.2022	Update of the followed collections: - Hybrid - Time 2.0 Creation of the Linea Time 2.0 Collection
V.02	11.05.2022	Second update of the followed collections: _ Hybrid _ Time 2.0 New collections created: _ Pure Stone _ Linea Pure Stone _ Slabstone _ Linea Slabstone
V.03	02.03.2023	Update of the followed collections: - Hybrid - Time 2.0 - Linea Time 2.0 - Pure Stone - Linea Pure Stone - Slabstone - Linea Slabstone

01. Introduction

This BIM Library Manual aims to support the installation and use of BIM Objects related to products developed and marketed by MARGRES, seeking to help AEC Industry - Architecture, Engineering and Construction technicians in their decision process.

02. Library Description

The presented library was developed for AUTODESK REVIT® and refers to the followed collections marketed by **MARGRES**:
_ **Hybrid**
_ **Time 2.0**
_ **Linea Time 2.0**
_ **Pure Stone**
_ **Linea Pure Stone**
_ **Slabstone**
_ **Linea Slabstone**

Included in this library are all the typologies of collections listed above, in the colours, finishes and commercialised formats.

03. Compatible Versions

The library is compatible with the AUTODESK REVIT® software and 2019 version or newer.

04. Objects Characteristics

The objects are created in the respective categories, so that they can be used according to their real application. This way, all objects relating to floor and wall coverings are created in the Floor and Wall object categories respectively - system families. The Skirting objects are created as Wall Sweep - System family. The step objects and internal and external corners, are created as loadable families in *.Rfa format in the Generic Models category.
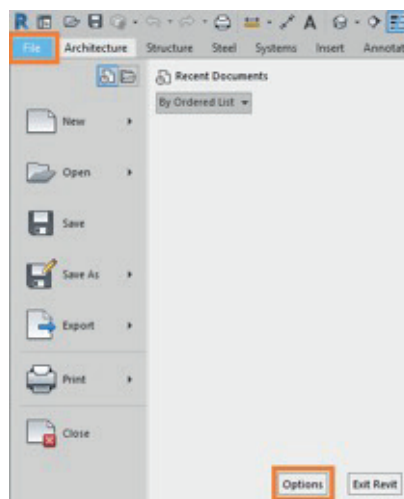
The objects are presented with nominal measurements, but are modelled with their actual measurements, adding 1.00mm around the entire piece to account a 2mm joint for the interior objects. The objects to be used in the exterior, were added 1.50mm around the entire piece to account a 3mm joint. The black colour objects from the Hybrid collection, the Grey colour from the Slabstone collection and the Black and Carbon colours from the Time 2.0 collections, were added 2.50mm around the entire piece to account a 5mm joint, once it can be applied in the exterior.

All here proposed instructions are just suggestions to create a correct paving execution. It's highly recommended to consult the project country laws and applied standards, as well as the project team instructions.
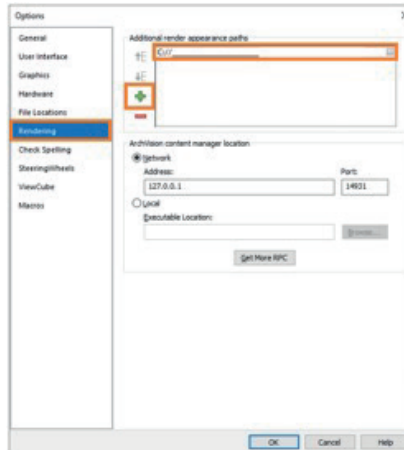
05.   **Inserting the Material Library**

The created objects have associated materials, which, for the purpose of representation and rendering, have images that give to it its characteristics related to colour, shape and finish. In order to the program map it correctly, the file **MARGRES-[correspondent collection]-Materials.zip** must be unzipped and the inside folder saved in a user directory.

The user will then need to include the path to that folder in the list of paths to map material textures. To do this, go to ***FILE / OPTIONS***:
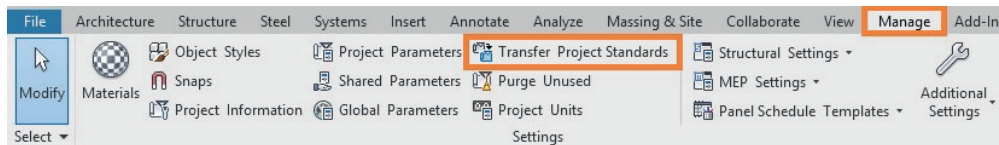
Then, in the **RENDERING**, section, add the path to the list of additional render appearance paths:
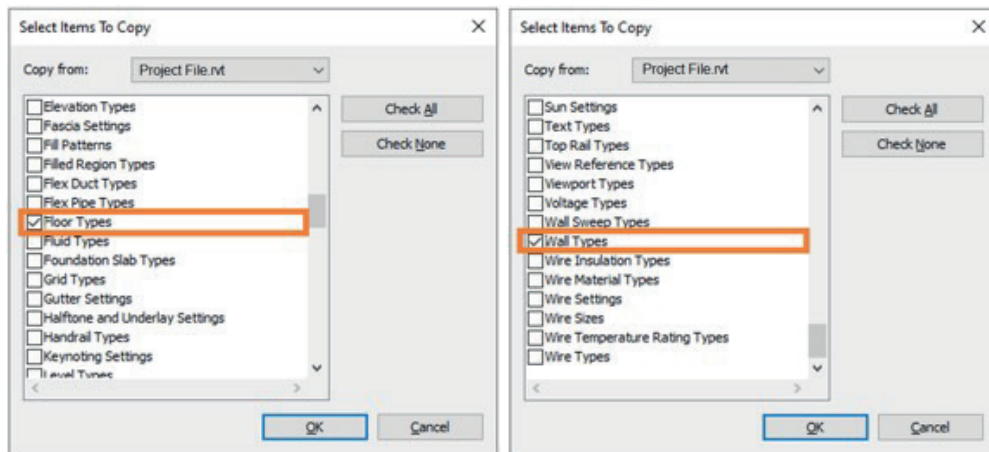

It is convenient to restart the software, after this step. This way, we ensure that all the necessary images of the materials are properly mapped for the rendering process.
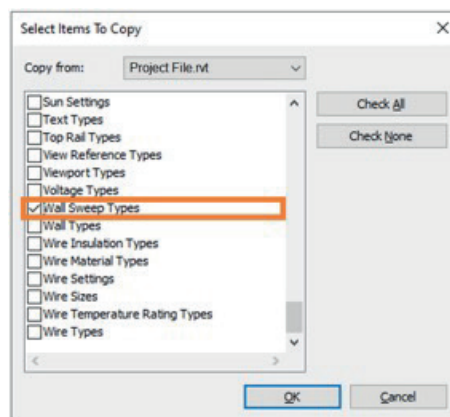
06. Insertion of Families

In the case of objects belonging to System families, namely those relating to wall and floor coverings, must be loaded from one project file (*.RVT) to another. Thus, to transfer the Wall or Floor category elements, you must open the MARGRES file with the desired collection's typology, as well as the project file that you want to transfer the MARGRES objects to, and go to **MANAGE / TRANSFER PROJECT STANDARDS**:
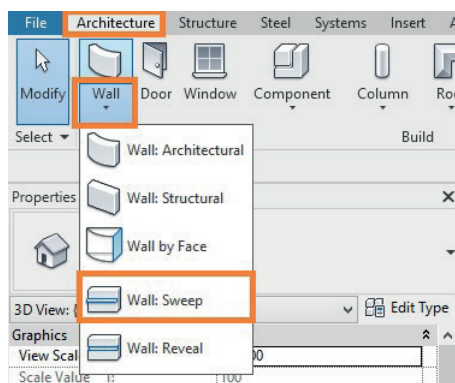

You must then select the object type that you want to transfer. In the case of floors objects, the **Floor Types** option must be chosen; in the case of wall coverings, choose the **Wall Types**:
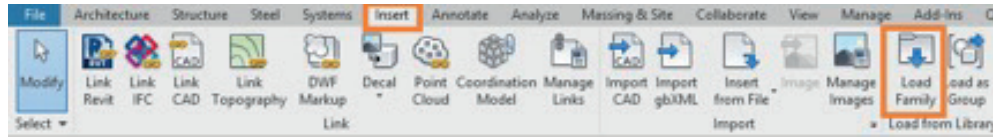
The skirting objects developed as Wall Sweep category, in order to load these objects for a project, the respective file must be opened first. Then, go to **MANAGE / TRANSFER PROJECT STANDARDS**, as mentioned above and choose the **Wall Sweep Types** option:
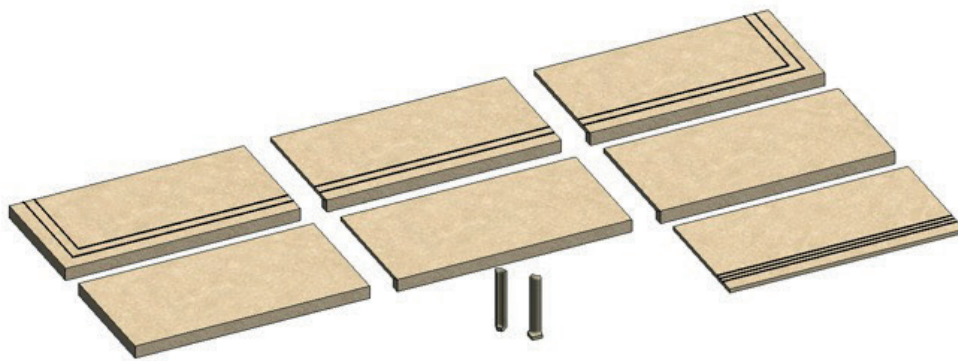

In order to be applied, simply activate the specific command to place Wall Sweeps in **ARCHITECTURE / WALL / WALL: SWEEP**:

Step objects, as well as the Internal Corner and External Corner objects, are loadable families in *.RFA format, so they must be loaded through the tab **INSERT / LOAD FAMILY**:

These objects are created as Face Based objects, so they will need an object surface to be able to be placed in the project, or in a chosen Workplane.

07. Object Properties

The objects have been developed in-depth and extensively. Thus, all objects have information concerning the manufacturer with respect to applicable international standards, namely:

_ Anti-Slip resistance - DIN EN 16165 (Anexo B);
_ Anti-Slip resistance - DIN EN 16165 (Anexo A);
_ Anti-Slip resistance - AZ/NZS 4586;
_ Anti-Slip resistance – DIN EN 16165 (Anexo C);
_ UPEC classification;
_ Color Shade Variation – ANSI 37.1-2012;
_ Breaking strength - EN ISO 10545-4;
_ Deep abrasion resistance – EN ISO 10545-6;
_ Chemical Resistance – EN ISO10545-13;
_ Stain Resistance – EN ISO 10545-14;
_ Type Product EN 14411;

_ Type Product ISO 13006;
_ GOST-R certification;
_ CCC – China Compulsory Product Certification;
_ SASO Quality Mark;
_ Green Guard Gold certification.

All objects also have the manufacturer's information, so that it can be easily referenced, as well as other relevant information:

_ Commercial reference;
_ Product URL;
_ Manufacturer URL.

The objects are also classified according to the international classification systems most used in the AEC industry:

_ IFC;
_ Uniclass 1.4;
_ Uniclass 2.0;
_ Uniclass 2015;
_ Uniformat II;
_ Masterformat;
_ UNSPSC;
_ NBS.

08. Material Quantification

All the *.RVT files related to the various typologies of the collections have pre-configured schedules with the related parameters to:
Manufacturer; Object Type; Reference Code; Area/Linear Length; No. of pieces.
For floor and wall objects, the number of pieces is calculated by dividing the object area by the piece area, so that, depending on the geometry of the wall/floor object, an increase of about 10% should be considered for breaks and cuts. The same logic it's applied to linear application pieces, like skirtings created as Wall Sweeps, that is calculated dividing the total length by the piece length.

09. Final Considerations

Future revisions to the current version of the library will be made available on the **MARGRES** website. Any question regarding them should be reported by email to **apoiotecnico@margres.com** .

MARGRES
CERAMIC TILES

Margres is one of the leading brands in the porcelain stoneware of flooring and wall covering sector, in the upper segment of the market, a reference in Portugal and with a great presence in the international market.

It has been producing in its factory based in Ilhavo since 1982, being one of the first producer of porcelain tiles in the world. Since then, Margres contributed to the affirmation of porcelain stoneware as the new standard in the ceramic world, able to answer to the most demanding needs of contemporary architecture.

Margres is exclusively dedicated to the production of porcelain stoneware, a premium product providing solutions for any type of construction in private or public spaces due to its high technical advantages. The features that make this product unique stem from the use of the most modern state-of-the art technology, high quality raw materials and an aesthetic concern that meets the contemporary architecture's demands.

The entrance of Margres into one of the most important Italian ceramic groups (Panariagroup), that is present in the international markets through several prestigious brands, increases Margres ability to occupy new segments of the global markets.

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