TL FINISHES

GUIDE (ENGLISH)

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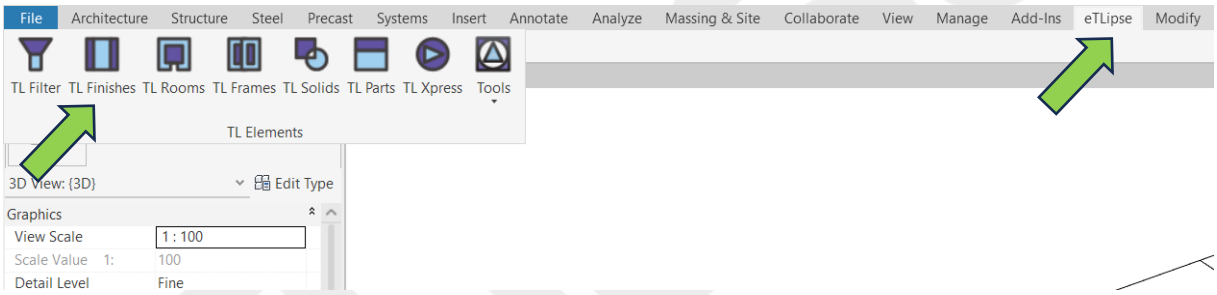
TL ELEMENTS: FINISHES – FINISHING OF WALLS \\ GUIDE

TL FINISHES is a tool for filtering and manual selection of model lines, room separation lines and .DWG linked file layers; creation of walls using these lines; addition of finish materials to walls; insertion of walls to the external or internal side of existing walls; changing of join type for multiple walls; adjustment of wall type by wall function and addition of profiles to walls. You can use the core functionalities of the TL Elements lists to handle elements selection and visualization. The standard TL Elements integrated visualization tools are also available to improve this workflow.

This is a guide to get you started on the basics of the command. Please, keep in mind that, in addition to this and any other support material, TL Elements also provides helpful tooltips with descriptions of features that you may invoke by hovering your mouse over the buttons of the application.



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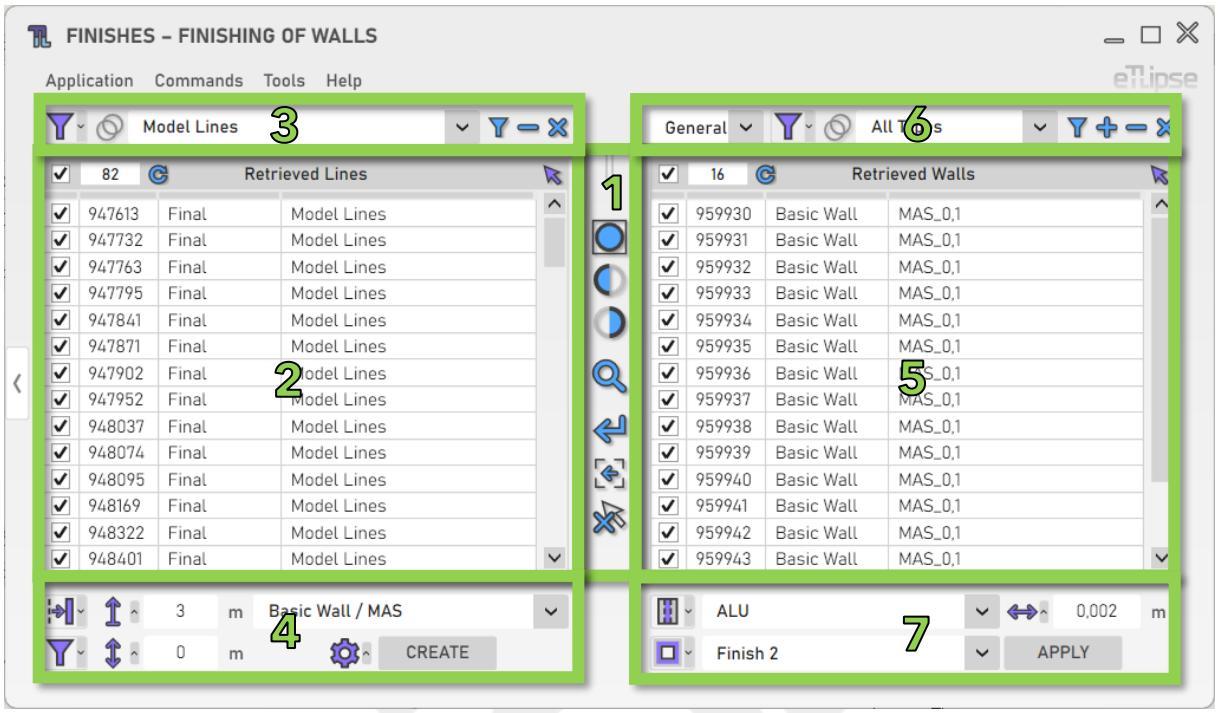
TL FINISHES INTERFACE



As we can see in the image, the TL Finishes user interface provides:

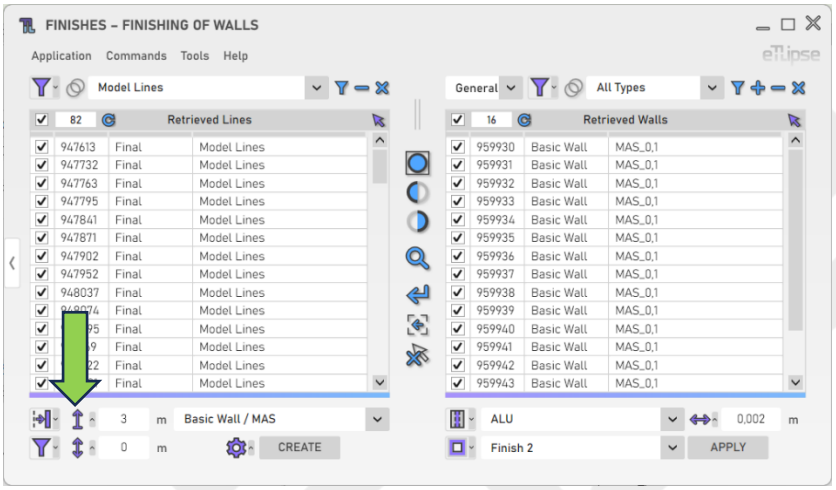
1. A set of visualization tools.
2. A list of elements of the Model Lines/Room Separation Lines/DWG layers (Graphic Styles) categories (Lines Retrieval List).
3. A set of tools for lines/DWG layers filtering (to fill the Lines Retrieval List).
4. A set of tools for operations with the lines/DWG layers checked in the Lines Retrieval List.
5. A list of elements of the Walls/Columns/Structural Columns/Structural Framing categories (Walls Retrieval List).
6. A set of tools for walls/columns/beams filtering (to fill the Walls Retrieval List).
7. A set of tools for operations with the walls/columns/beams checked in the Walls Retrieval List.

To learn how to use the controls in lists and the visualization tools, please, refer to the "TL List" and "TL Visualization Tools" guides.

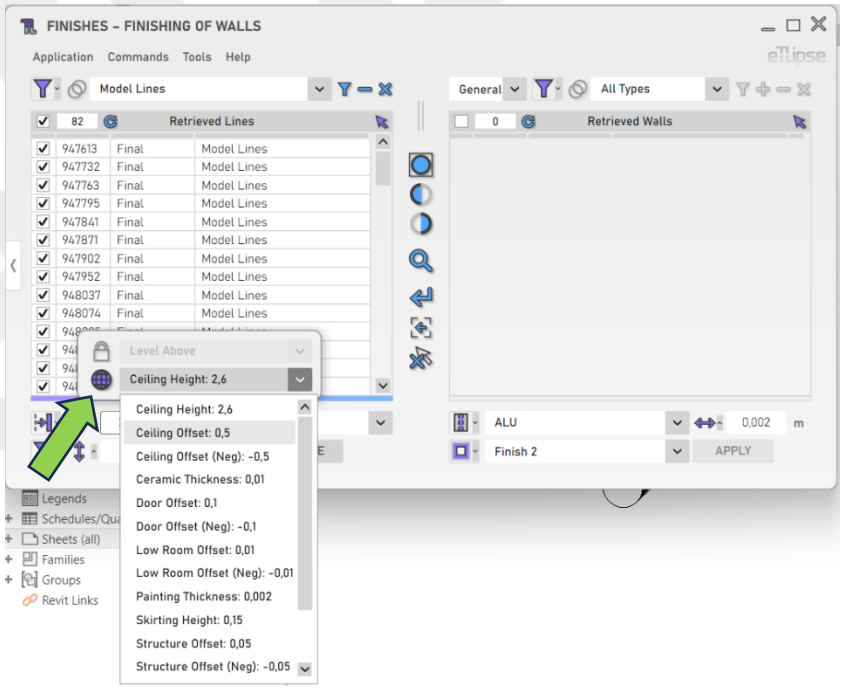
All numeric text boxes in the interface will assume values in the unit currently set for length in the active project (for the examples in this guide, it will be meter) and also can parse simple formulas of multiplication, division, subtraction and addition in this unit.

USE OF REVIT GLOBAL PARAMETERS

Before using any of the multiple features of TL Finishes, we should note that every field for numeric value in its user interface can be locked and receive values from Revit global parameters. We must keep in mind that the global parameter must always match the unit type of the numeric field (fields for length values require length global parameters, fields for integer values require integer global parameter, etc.).



Every field is preceded by a button that opens the panel with the option to lock the values in the field to a Revit global parameter. In the image, we can see an example of this button next to a field that takes values for elevations of walls (in this case, values of length).



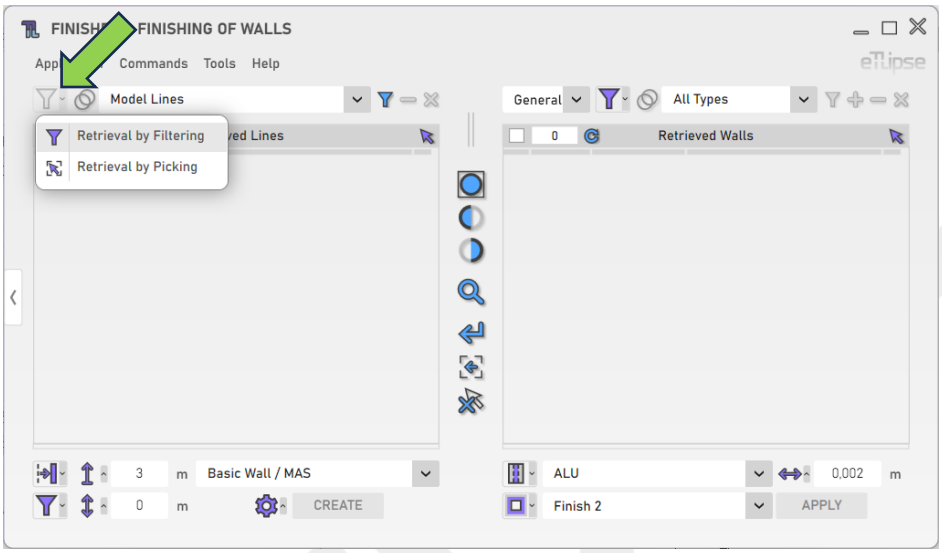
After clicking the button, we can click the "globe" icon to lock the field to one of the available global parameters of the respective unit type found in the active Revit project.

If no global parameter for the unit type of the field is found, the button to open the panel will be disabled.

LINES/LAYERS RETRIEVAL

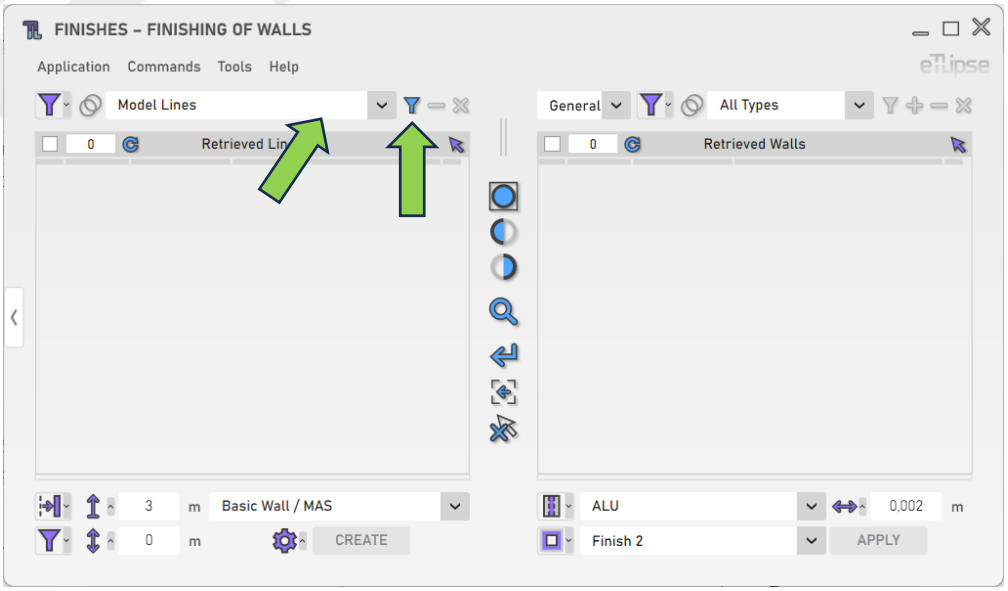
Retrieval Mode

You can retrieve lines in two ways: by filtering them by source ("Filtering") or by picking the ones you wish in the Revit active view ("Picking"). You can set the retrieval mode in the "Toggle Retrieval Mode" dropdown box. DWG layers can only be retrieved by filtering.



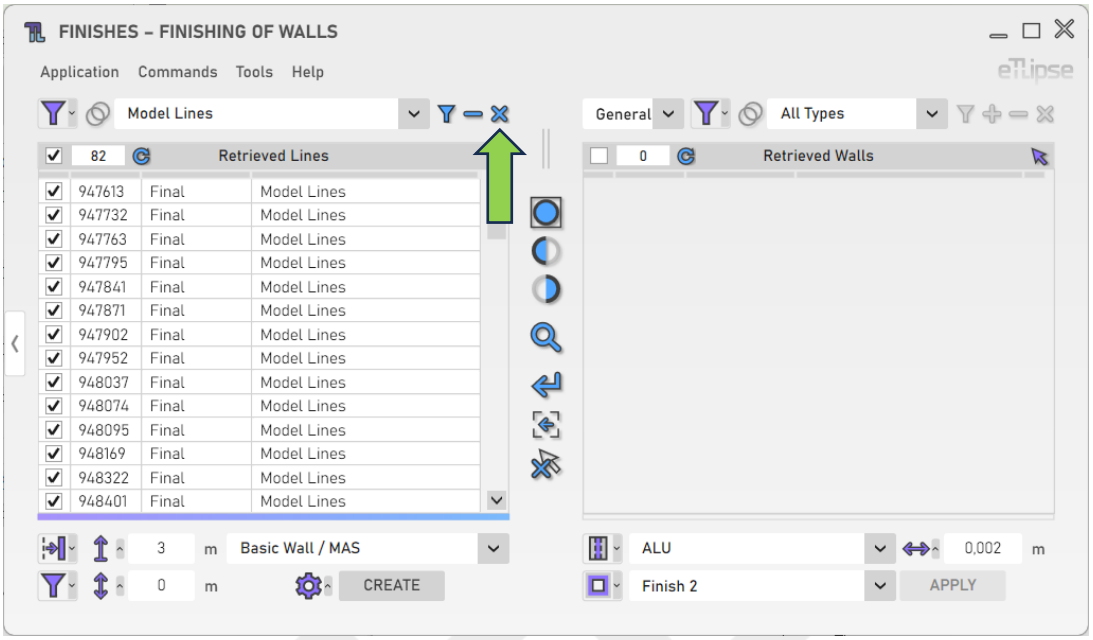
Retrieving Lines/DWG Layers

In order to retrieve and list all model lines or room separation lines in the project, you must choose one of these categories in the "Lines Source" dropdown box and click the "Retrieve Lines" button. To retrieve layers from a DWG file, you must choose the DWG file in the list and click the same button. In Manual mode, you'll have to pick the lines of the chosen source in the Revit active view. Keep in mind that, if there are lines already selected in the Revit view, these lines are going to be listed, instead.



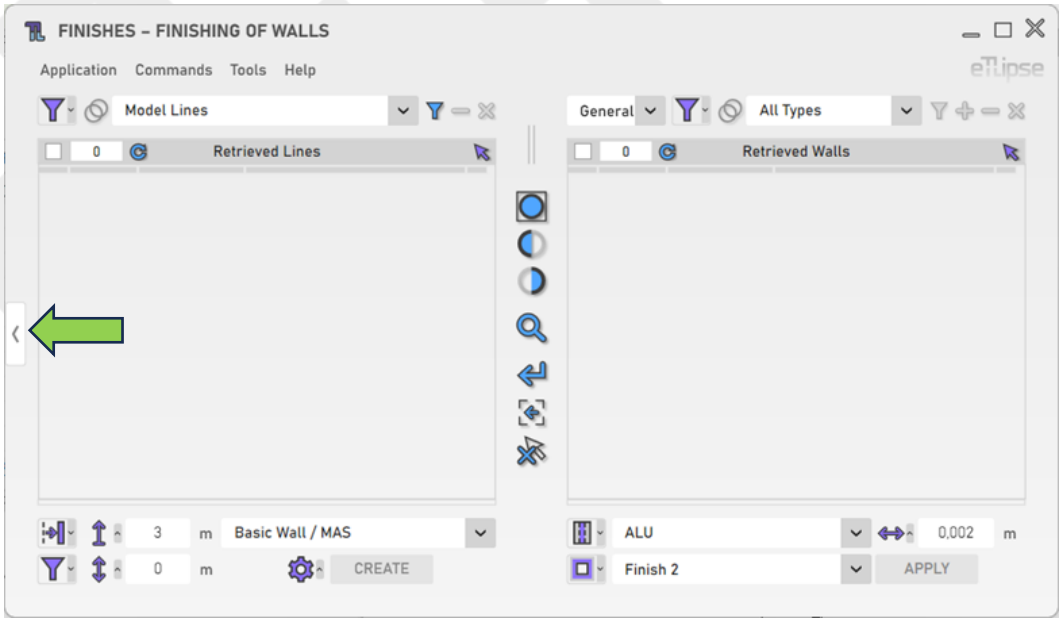
Clearing the Lines List

In order to clear the list, you must click the “Clear Lines” button.



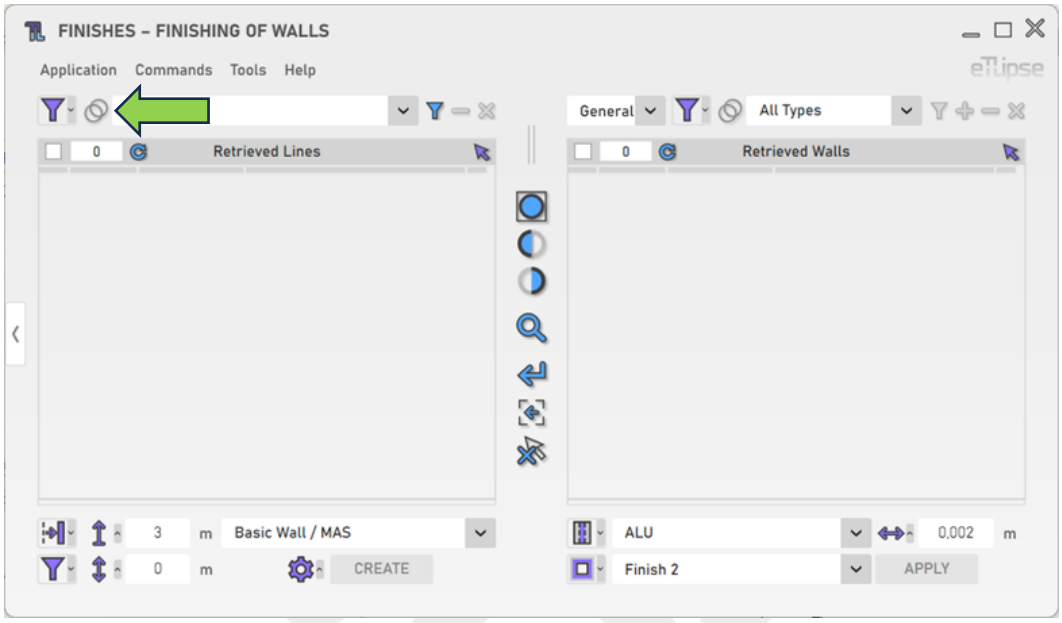
Using TL Filter to fill the Lines List

At any time, you can click the “Slide to TL Filter” arrow button to bring lines/layers of DWG files retrieved in TL Filter to the Lines Retrieval List.



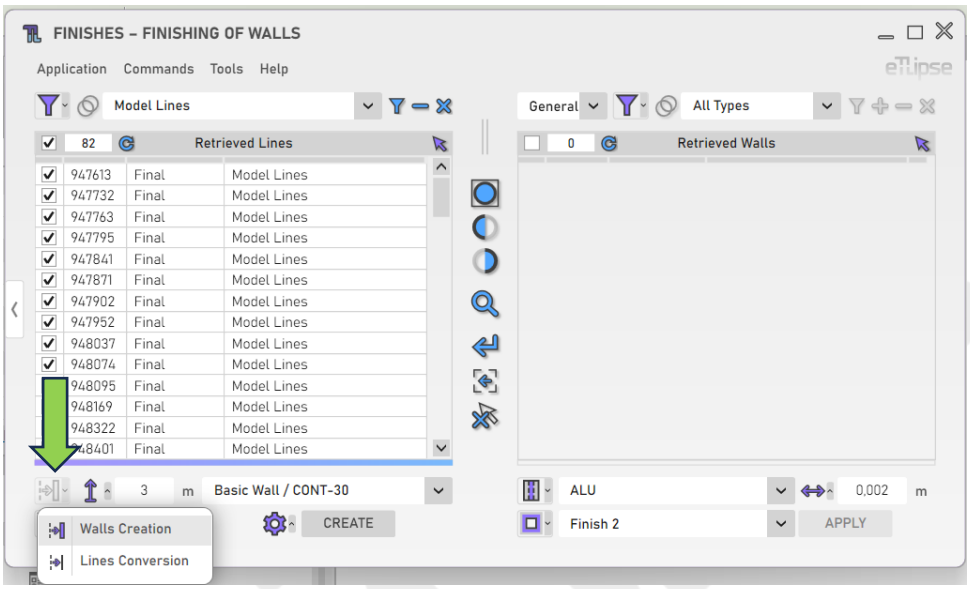
Retrieval of Lines/DWG Layers from Linked Models

You can click the "Toggle Allow Linked Line Sources" to enable the possibility to list lines/DWG layers from linked projects in the Lines Retrieval List.



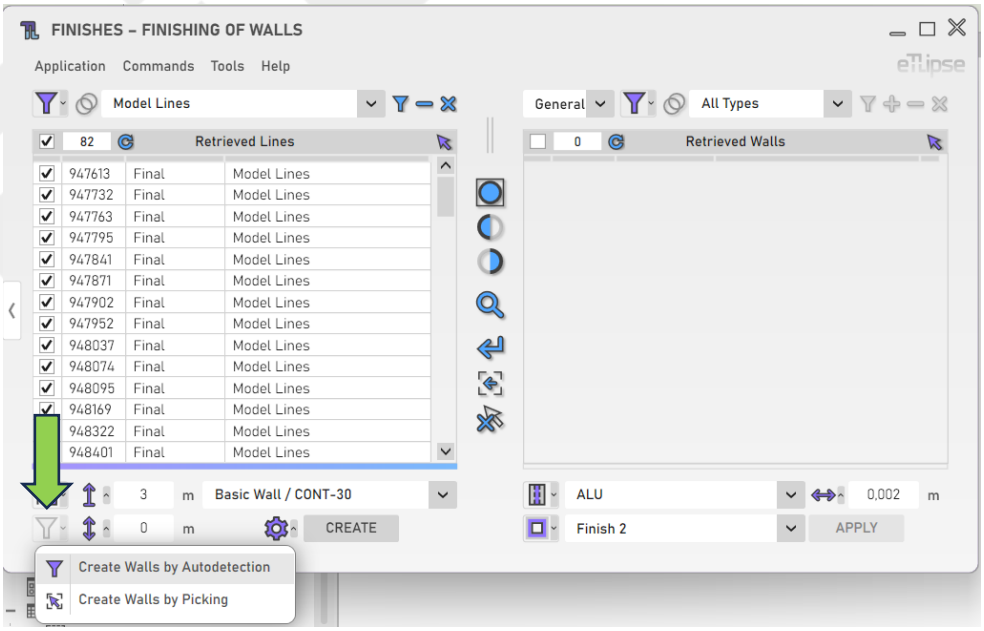
LINES OPERATION: WALLS CREATION

In order to access the tools for creation of walls based on the lines or lines of the layers checked in the Lines Retrieval List, you must select the "Walls Creation" mode at the "Toggle Lines Operation Mode" dropdown box.



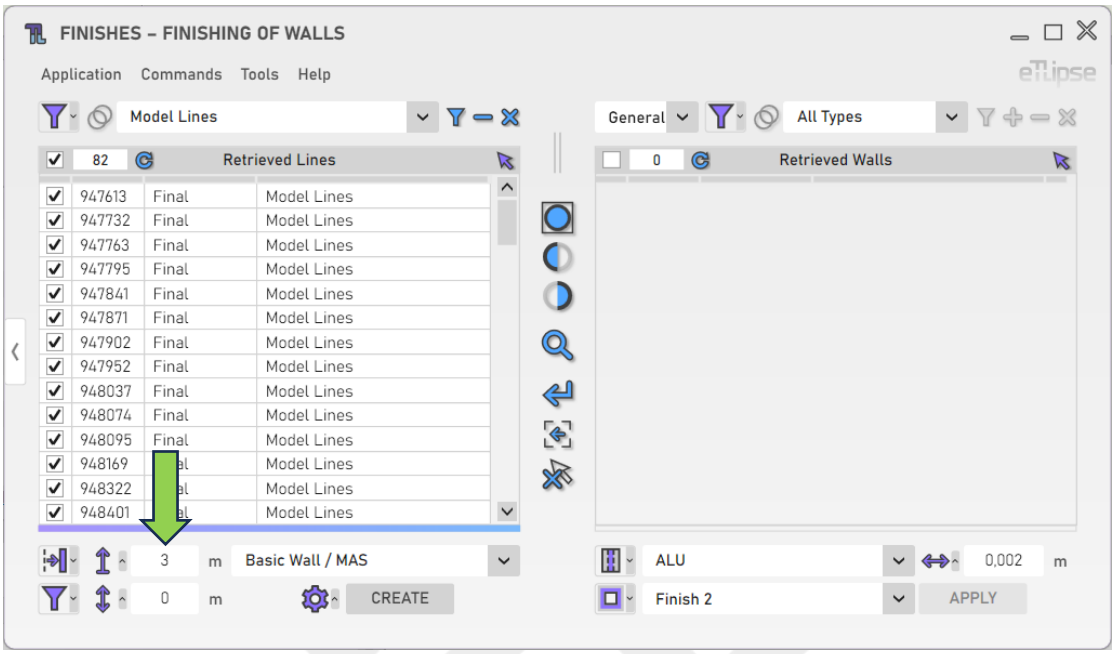
Walls Creation Modes

You can choose a creation mode for this feature. By opening the "Toggle Walls Creation Mode" dropdown box, you can find options to create walls by autodetection of valid lines or by manually picking the lines.



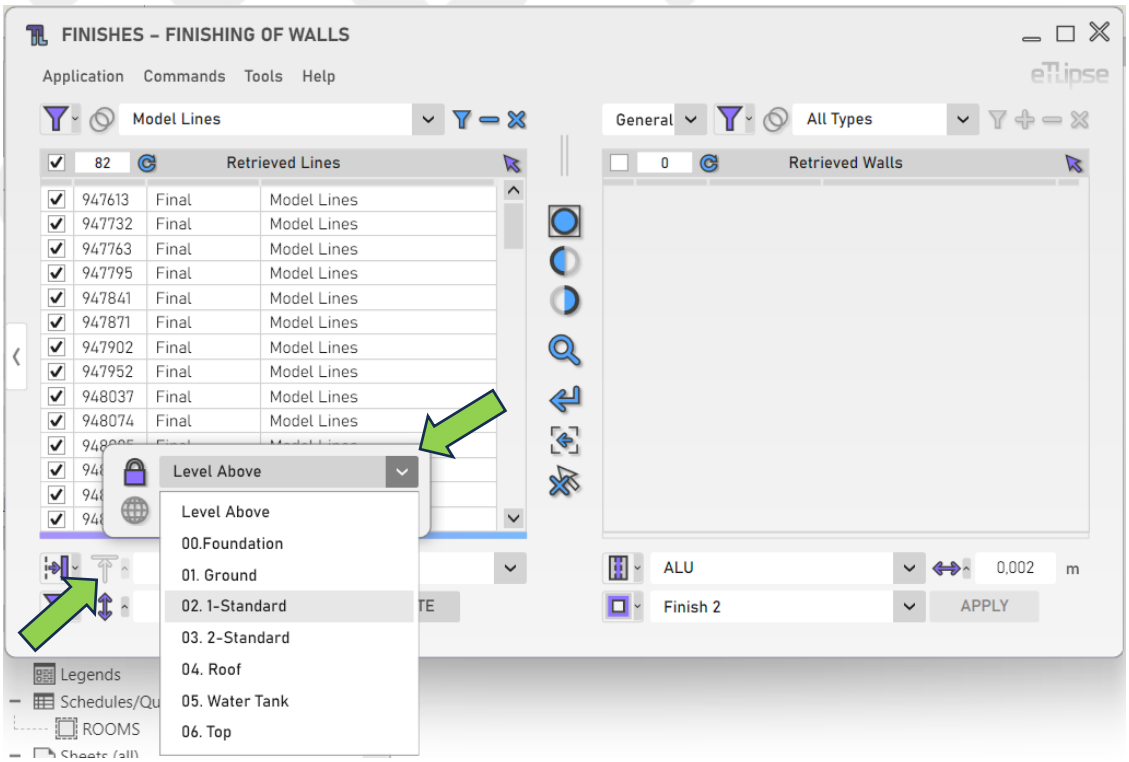
Wall Height

To set the height of the walls to be created, provide a length value in the indicated text box.



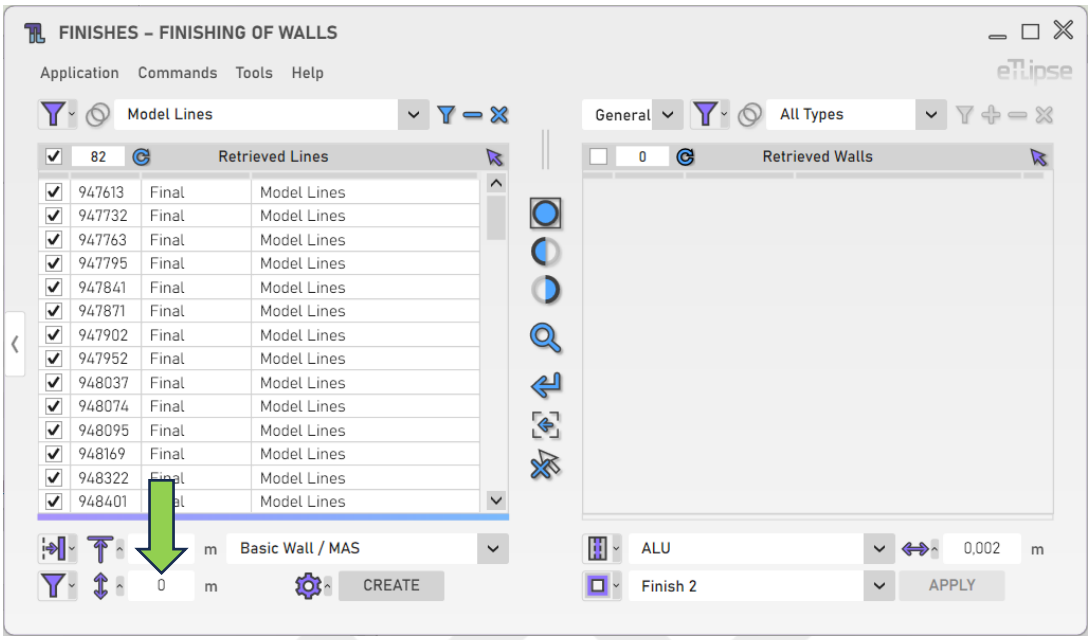
Wall Top Offset Lock

Alternatively, you can lock the top face of the walls to be created to a given project level and set an offset value based on this level. To achieve this, click the respective icon, then, enable the lock button and choose a level in the popup panel that appears.



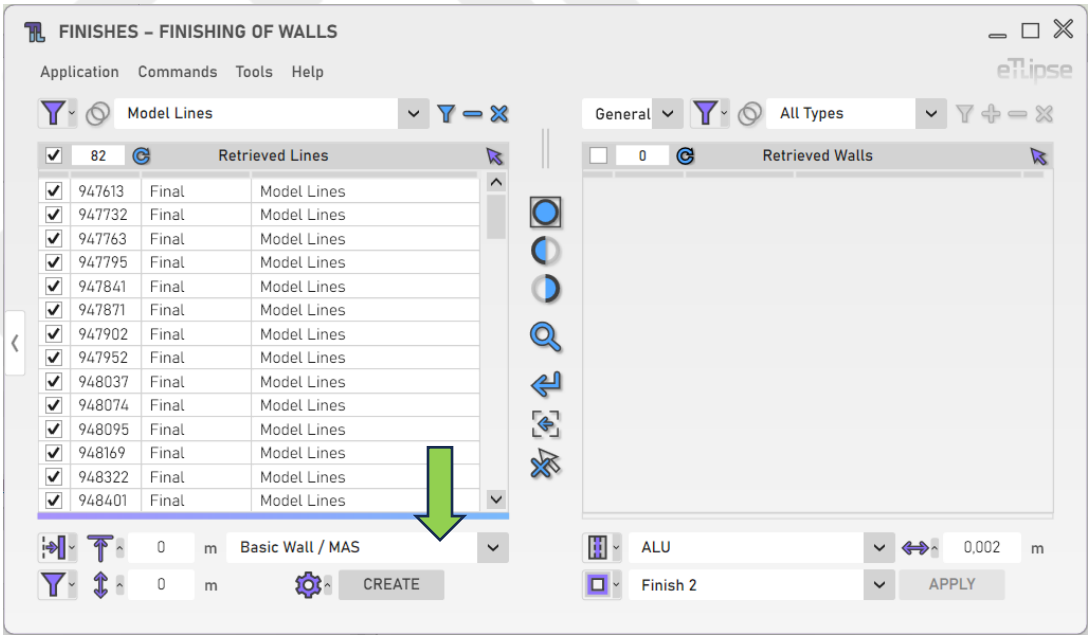
Wall Elevation

To set the elevation of the walls to be created, provide a length value in the indicated text box.



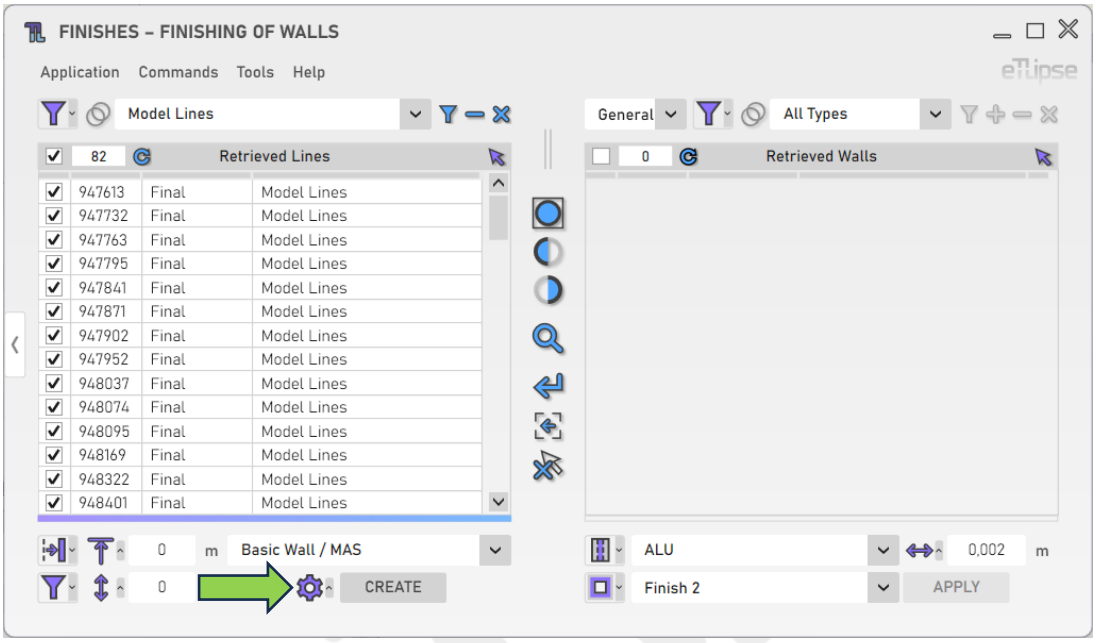
Wall Type

To set the type of the walls to be created, choose a wall type at the “Wall Type” dropdown box.



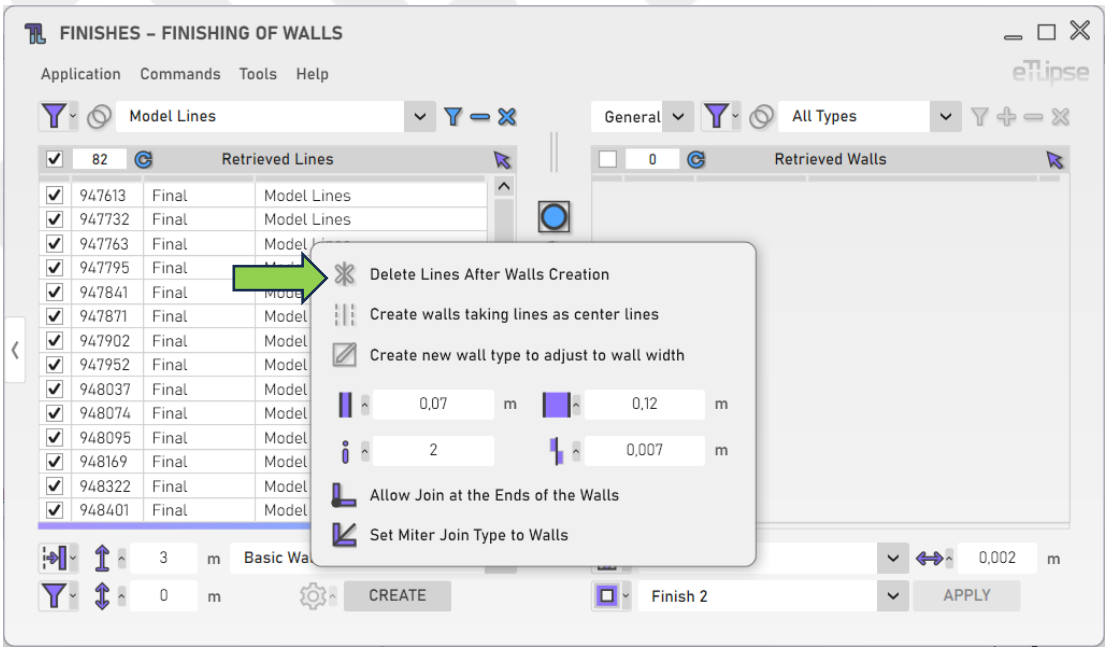
Additional Settings

To access the additional settings for walls creation by lines, you must click the "Additional Settings" button.



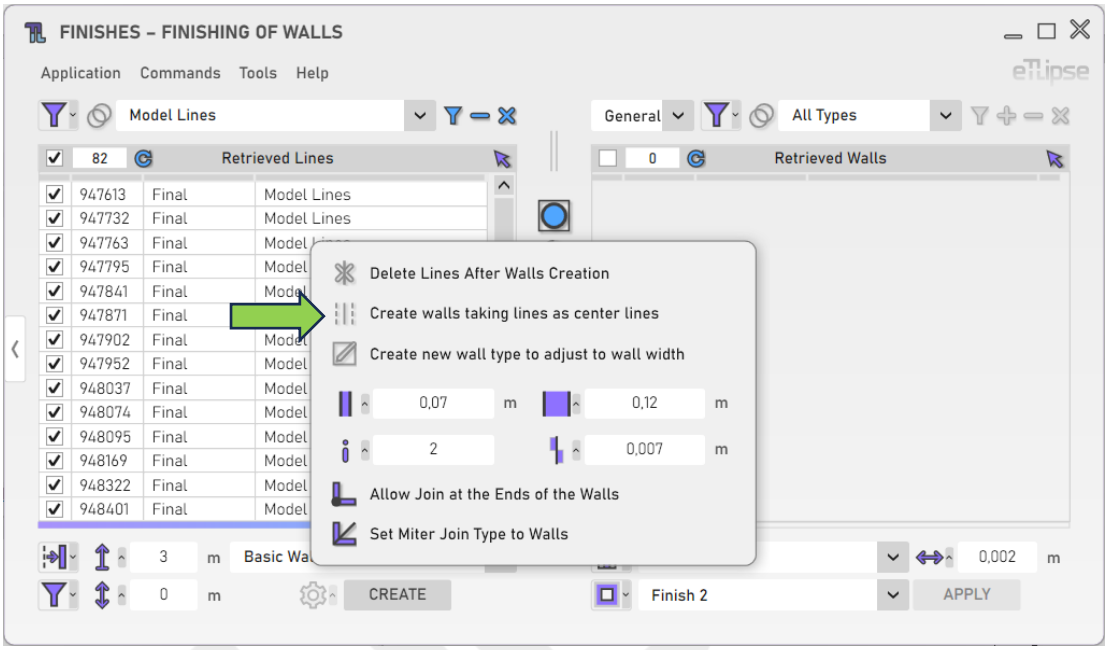
Delete Lines after Walls Creation

To automatically delete the lines used to create the walls after the process, you must enable the "Delete Lines After Walls Creation" button.



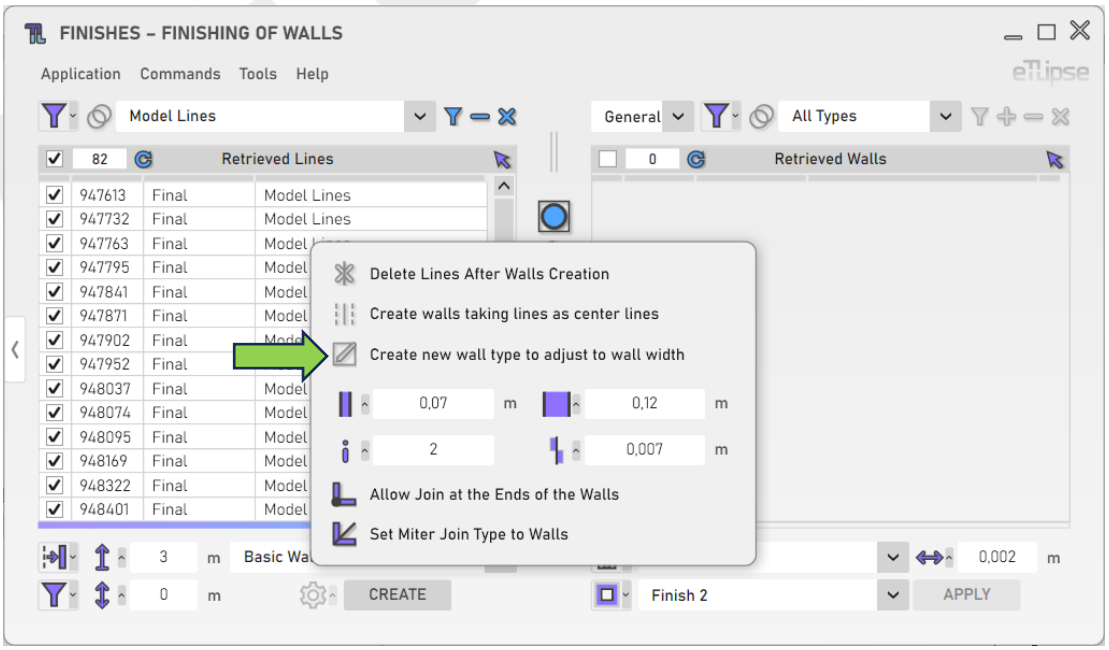
Use Lines as Center Lines

By default, TL Finishes will consider pairs of parallel lines as references for wall creation. If you wish to use the lines as the centerlines for the walls to be created, you must enable the "Toggle Use Lines as Centerlines" button.



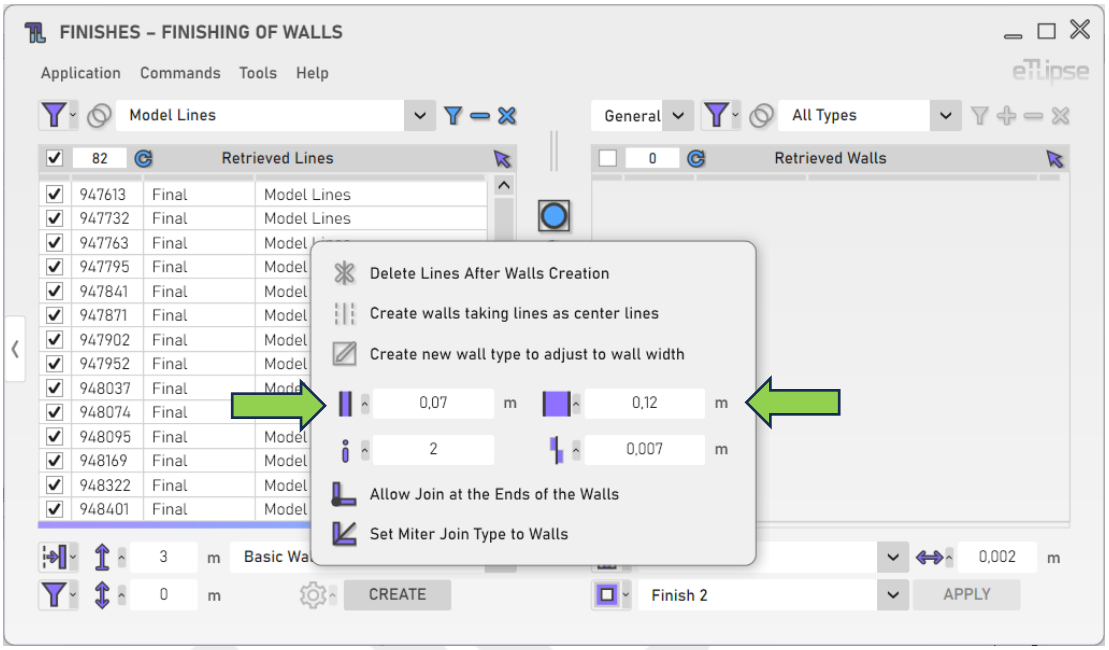
Create Type for Wall Width

In order to create walls with their type adjusted to the width between the parallel lines, you must enable the "Toggle Create Type for Wall Width" button.



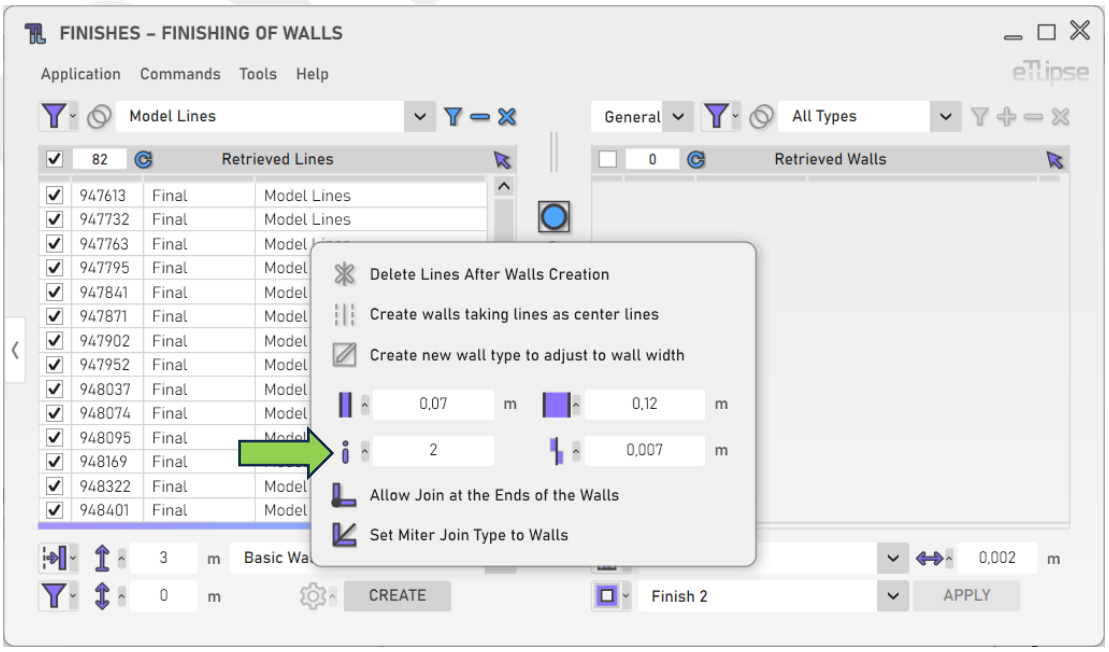
Minimum and Maximum Wall Width

With the Autodetection mode enabled, to determine the minimum and maximum width values between parallel lines for walls creation, you must provide a length value in the indicated text boxes.



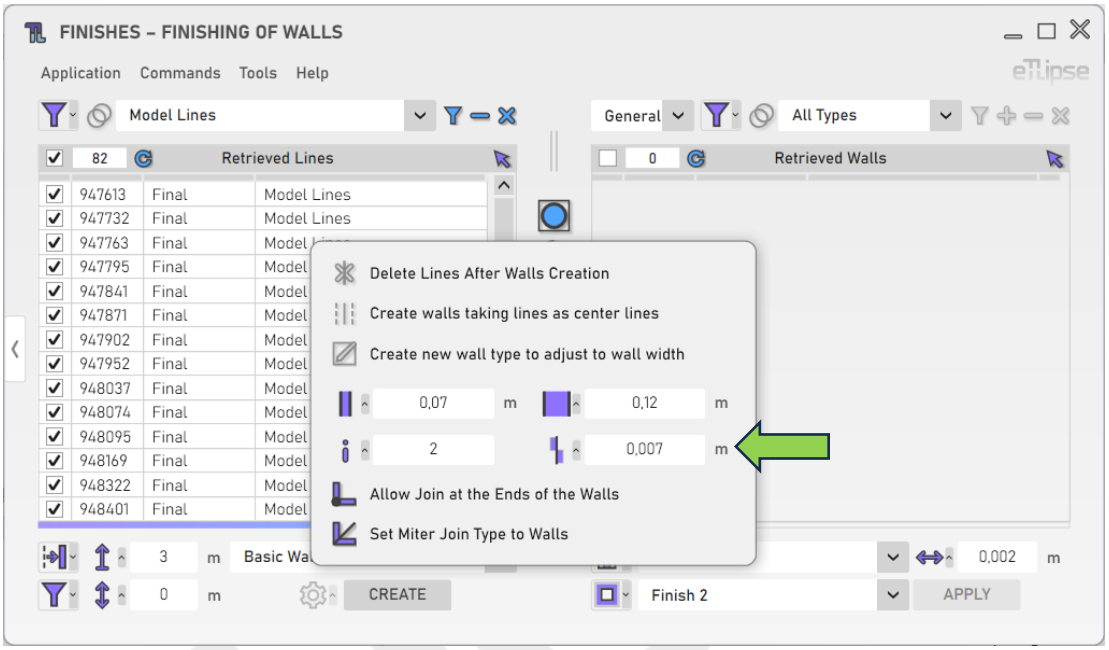
Rounding Places for Wall Type Width Check

To set the number of decimal places of the value to be used as width for new wall types created based on the detected offset between the parallel lines used as reference for walls creation, you must provide an integer value in the indicated text box.



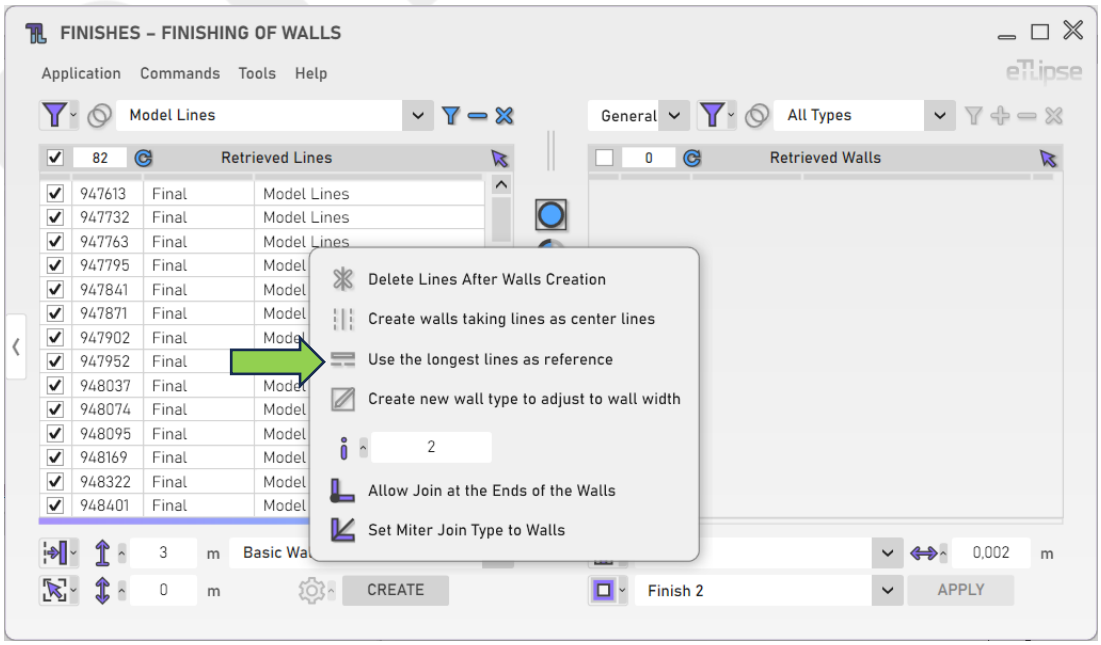
Alignment Tolerance

With the Autodetection mode enabled, to set a maximum distance value between the axes of lines in continuity in order to determine if they are aligned, you must provide a length value in the indicated text box.



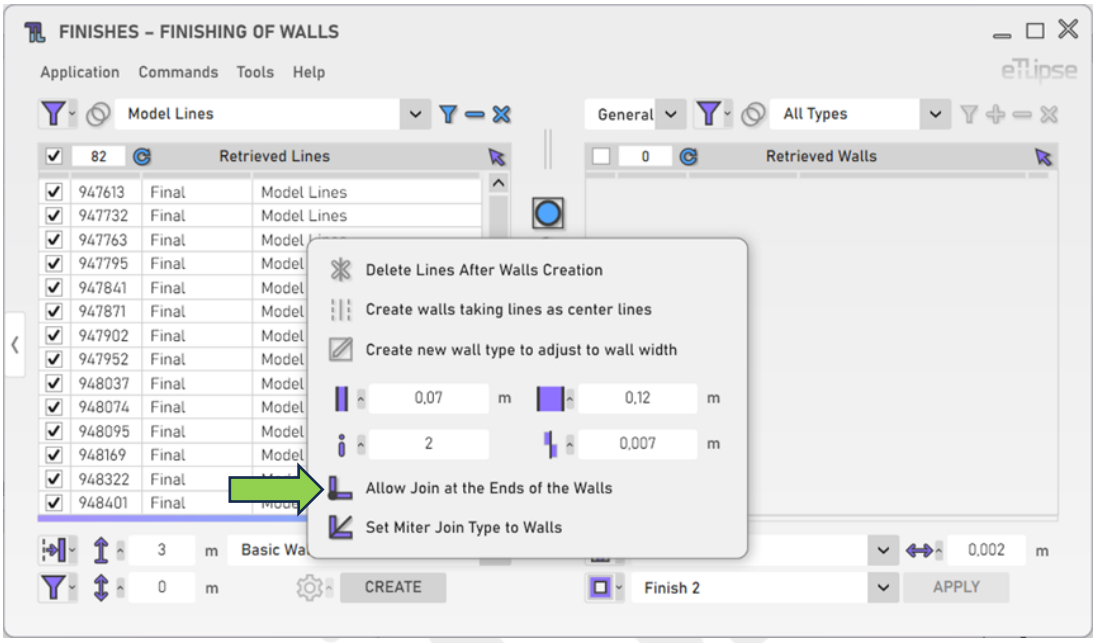
Use Longest Lines as Reference

With Manual mode enabled, in order to use the longest of the parallel lines as reference for the length of the wall to be created, you must enable the “Toggle Use Longest Lines as Reference” button.



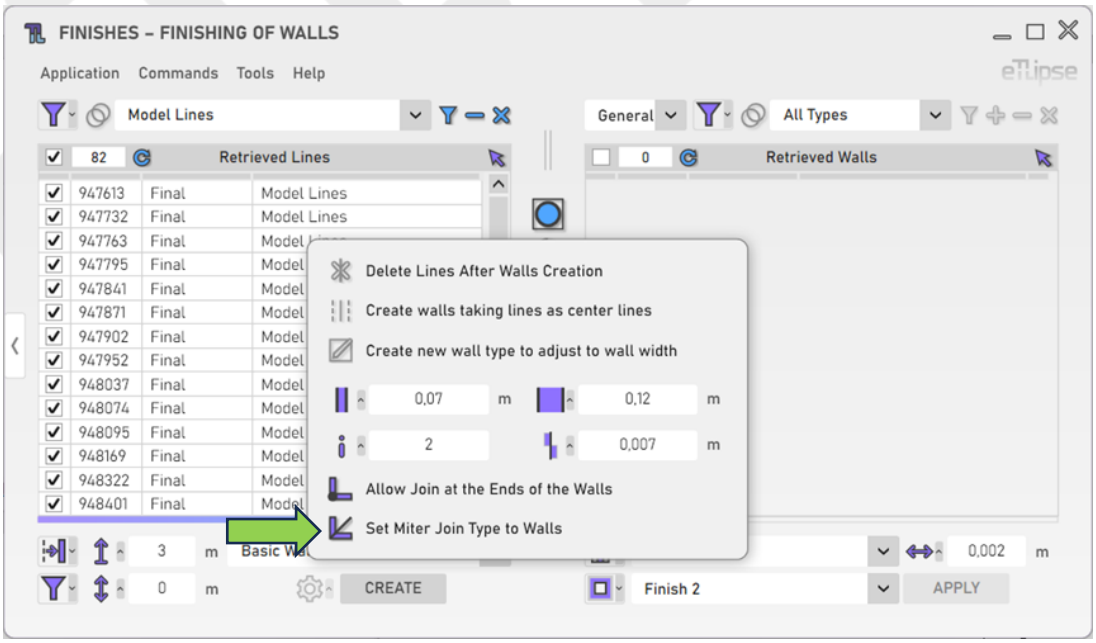
Allow Join

To automatically allow joins at ends of the walls to be created, you must enable the "Toggle Allow Join" button.



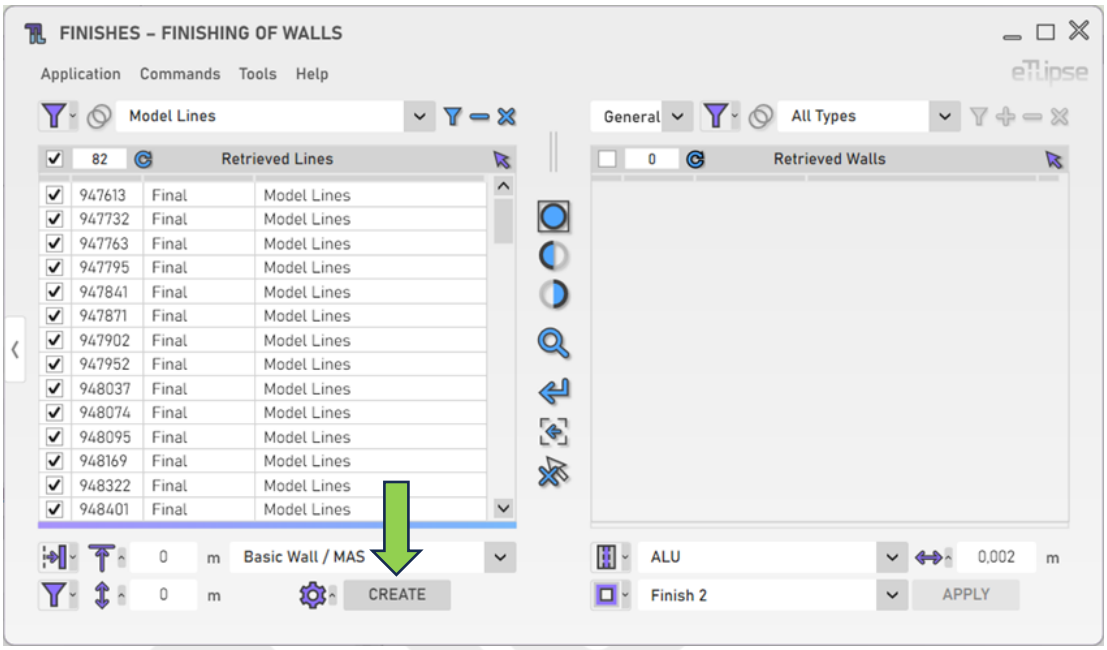
Join Type Miter

To automatically apply the "miter" join type to the ends of the walls to be created, you must enable the "Toggle Join Type Miter" button.



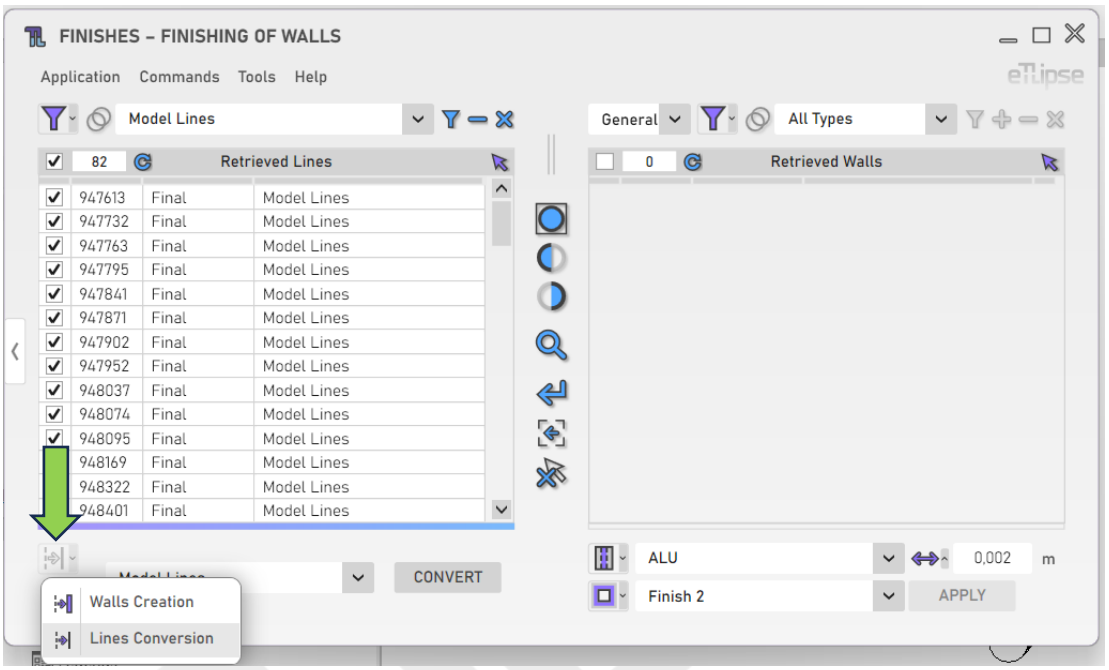
Creating Walls by Lines

To create the walls with the provided settings, click the “Create Walls by Lines” button. Keep in mind that, in Manual and parallel lines modes, the user must click between each pair of parallel lines that should contain a wall. Also, when your operation is finished, you must press the "Esc" (Escape) key to properly end the process.



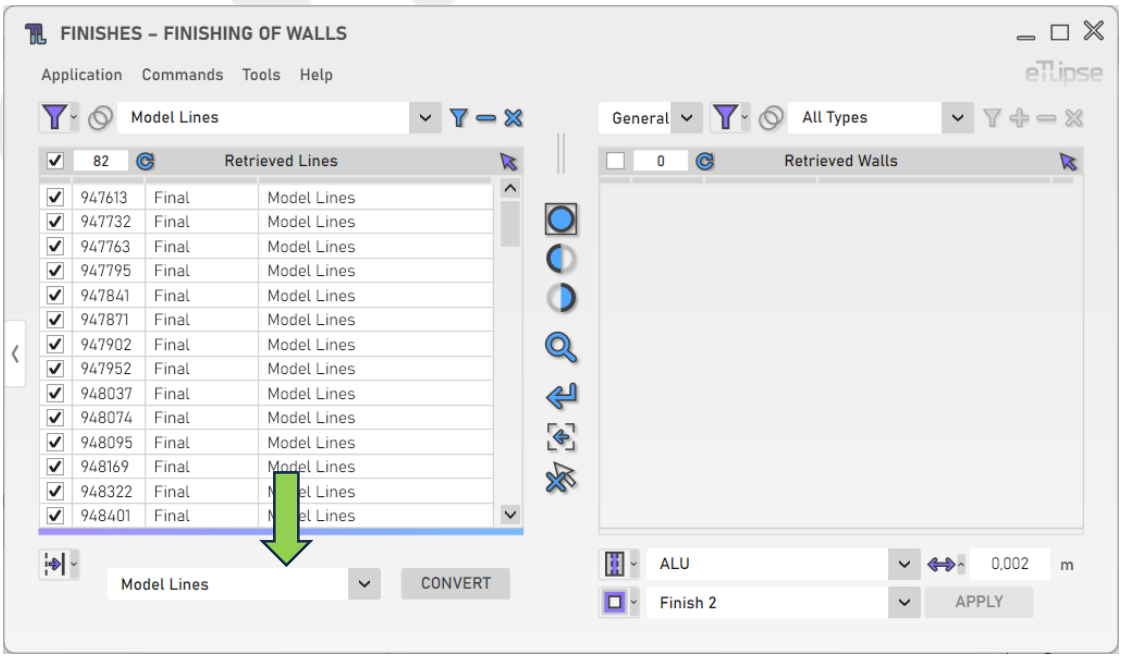
LINES OPERATION: LINES CONVERSION

In order to access the tools for conversion of the lines or lines of the layers checked in the Lines Retrieval List, you must select the “Lines Conversion” mode at the “Toggle Lines Operation Mode” dropdown box.



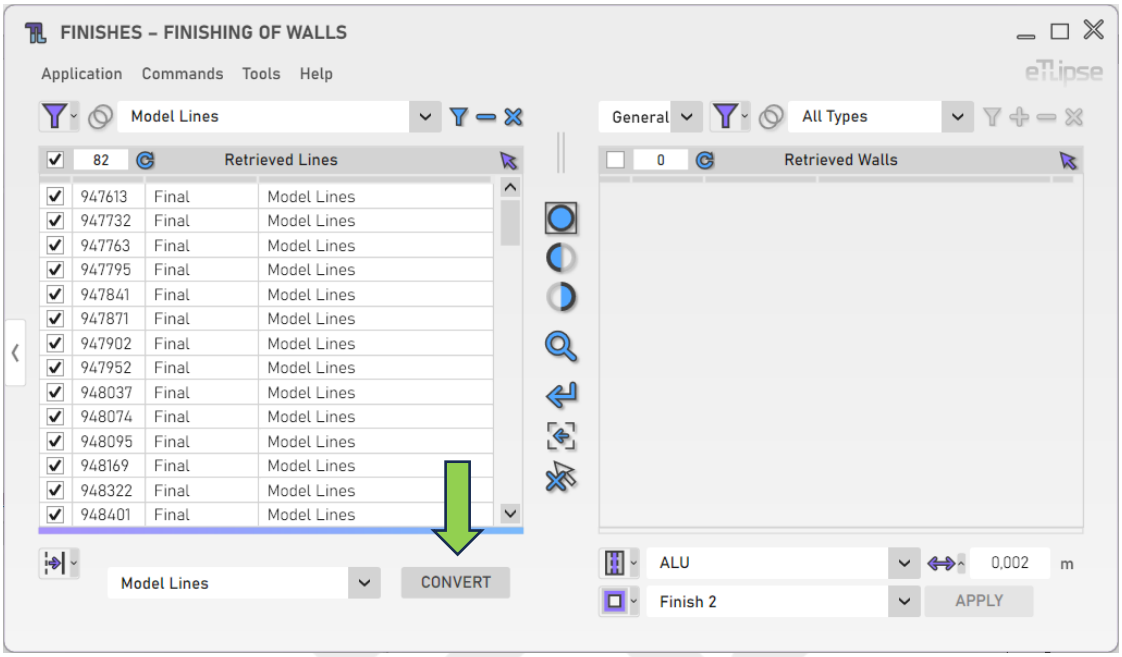
Line Type

To set the line type you wish to convert the checked lines to, choose a line type at the “Line Type” dropdown box.



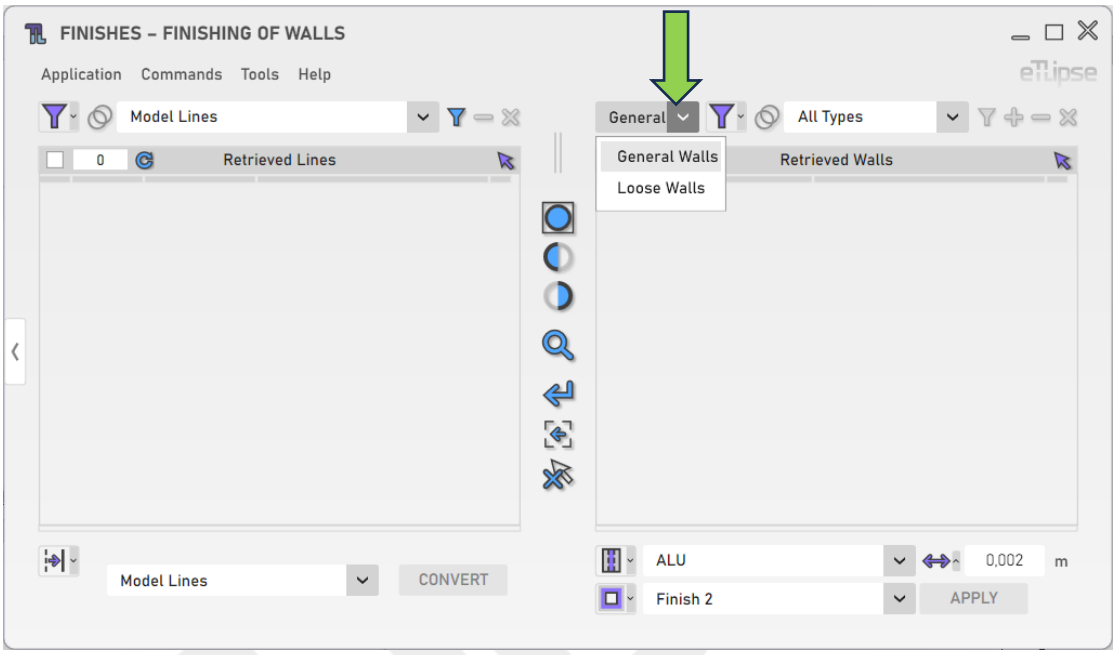
Converting Lines

To convert the lines with the provided settings, click the “Convert Lines” button.



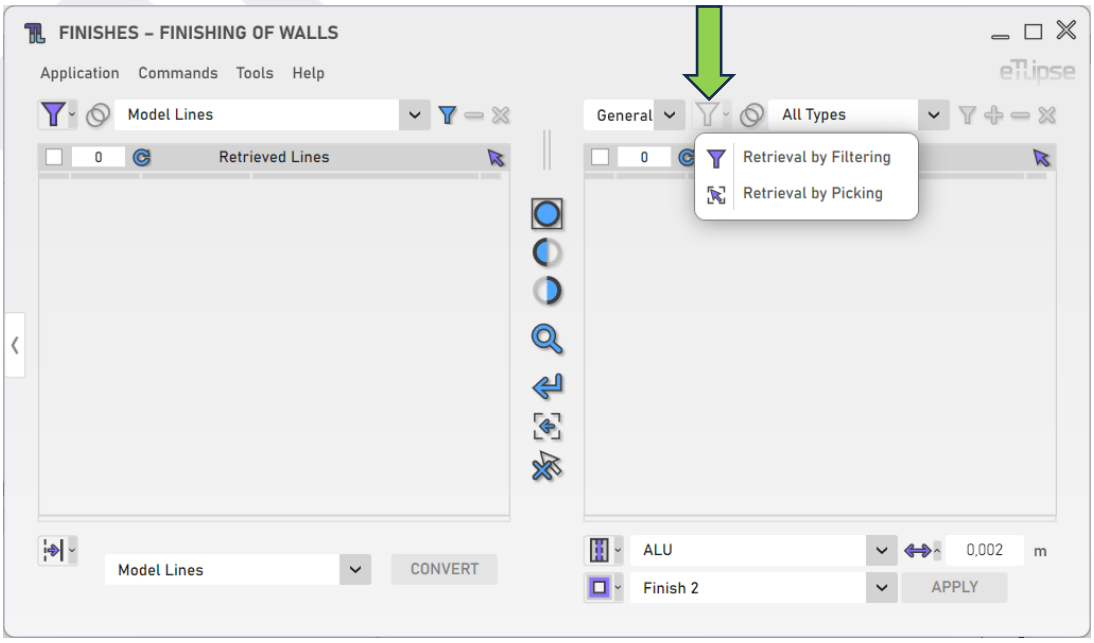
WALLS RETRIEVAL: GENERAL WALLS MODE

You can list walls, columns, structural columns and beams to perform operations of finish addition, wall type change, profile addition and wall type adjustment. To enable this specific retrieval mode, you must select the "General Walls" mode at the "Walls Operation Modes" dropdown box.



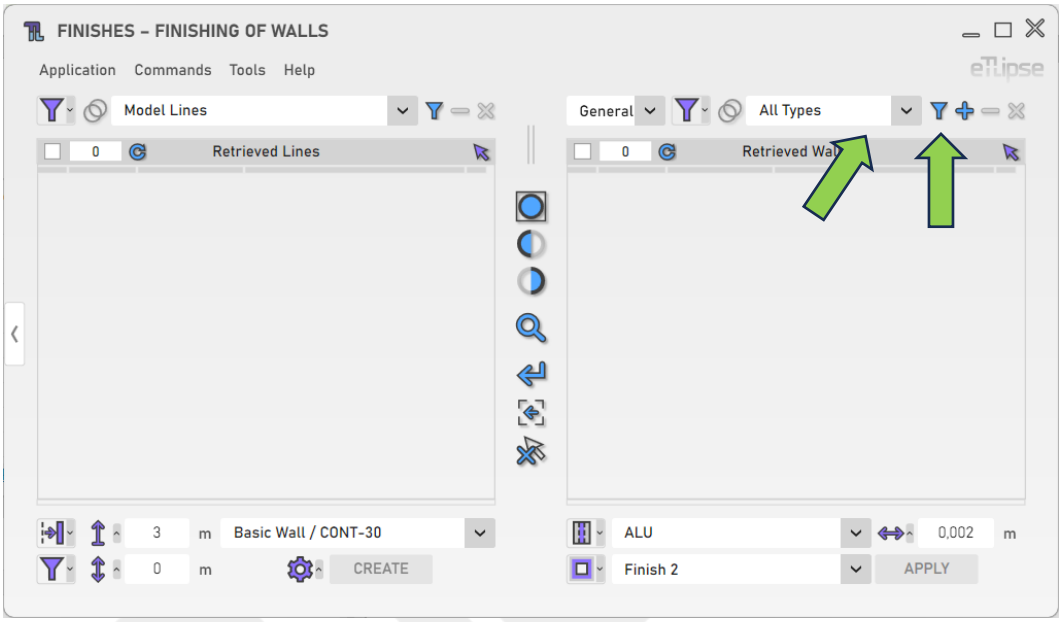
Retrieval Mode

You can retrieve walls, columns, structural columns and beams in two ways: by filtering them by type ("Filtering") or by picking the ones you wish in the Revit active view ("Picking"). You can set the retrieval mode in the "Toggle Retrieval Mode" dropdown box.



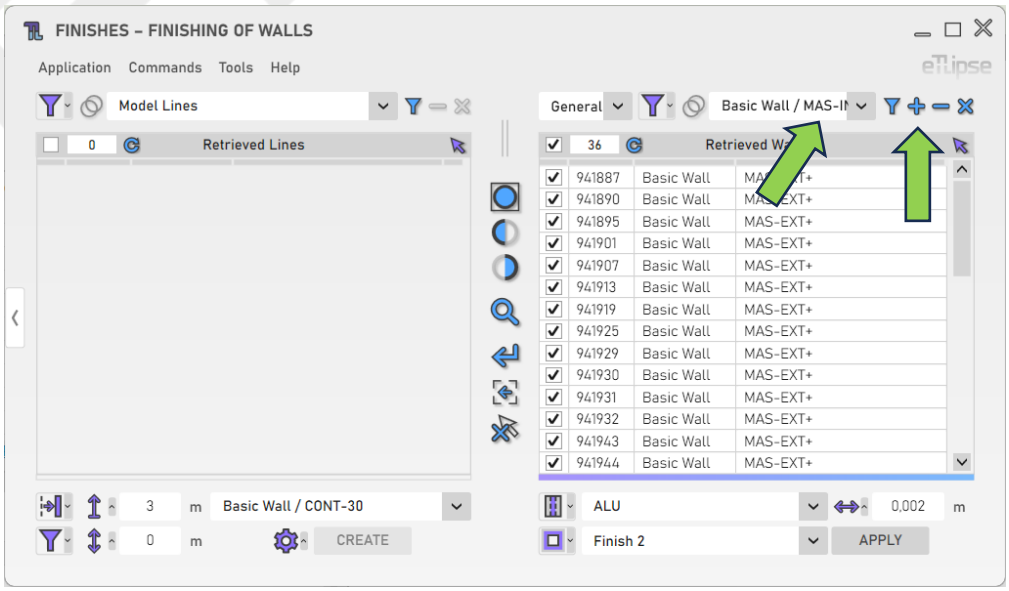
Retrieving Walls, Beams or Columns by Type

In order to retrieve and list walls, beams or columns of a specific type, you must choose a type in the "Wall, Beam and Column Type" dropdown box and click the "Retrieve Walls, Beams or Columns" button. In Manual mode, you'll have to pick the elements of the chosen type in the Revit active view. Keep in mind that, if there are elements already selected in the Revit view, these elements are going to be listed, instead.



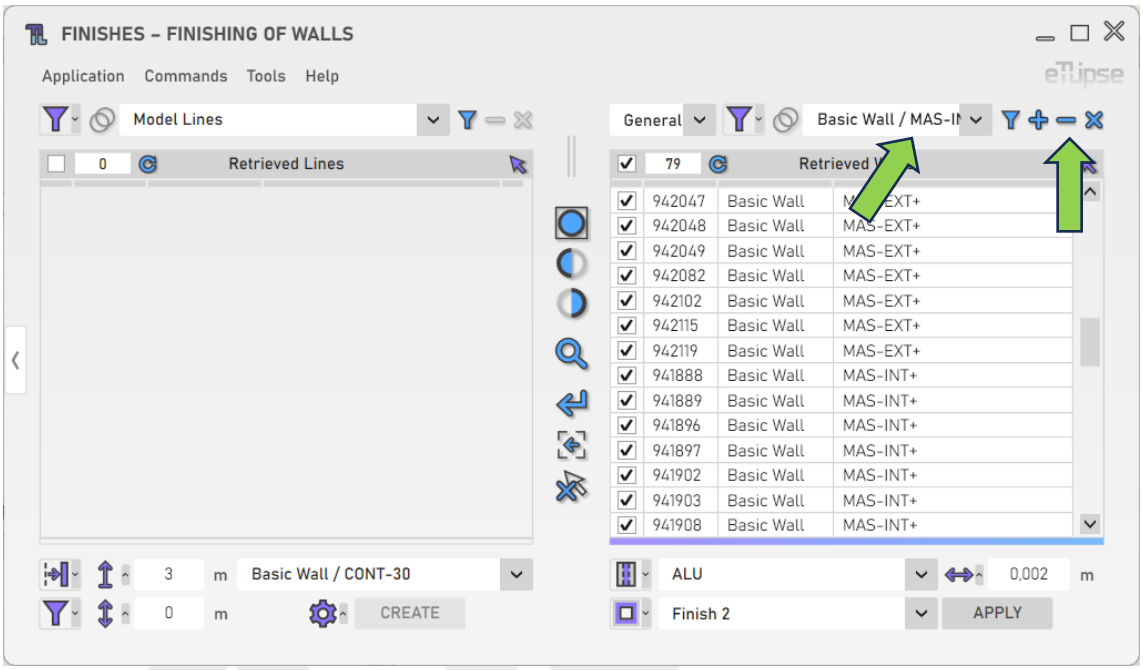
Adding Walls, Beams or Columns by Type

In order to add walls, beams or columns of a specific type to the list, you must choose a type in the "Wall, Beam and Column Type" dropdown box and click the "Add Walls, Beams or Columns" button. In Manual mode, you'll have to pick the elements of the chosen type you want to add in the Revit active view.



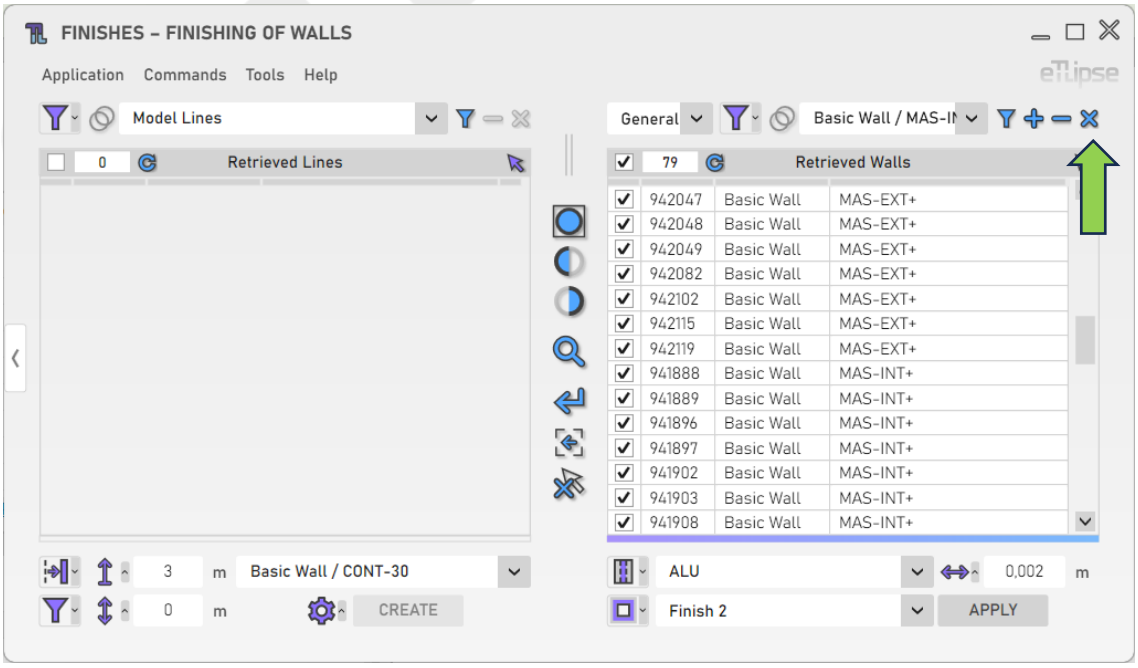
Removing Walls, Beams or Columns by Type

In order to remove walls, beams or columns of a specific type from the list, you must choose a type in the "Wall, Beam and Column Type" dropdown box and click the "Remove Walls, Beams or Columns" button. In Manual mode, you'll have to pick the elements of the chosen type you want to remove in the Revit active view.



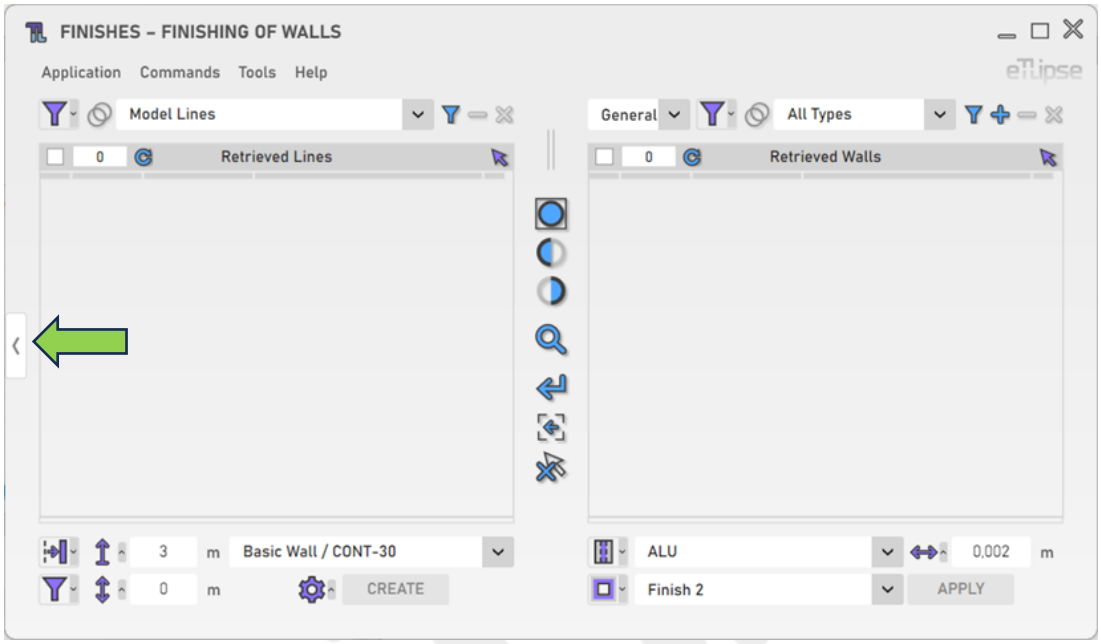
Clearing the Walls List

In order to clear the list, you must click the "Clear Walls Retrieval List" button.



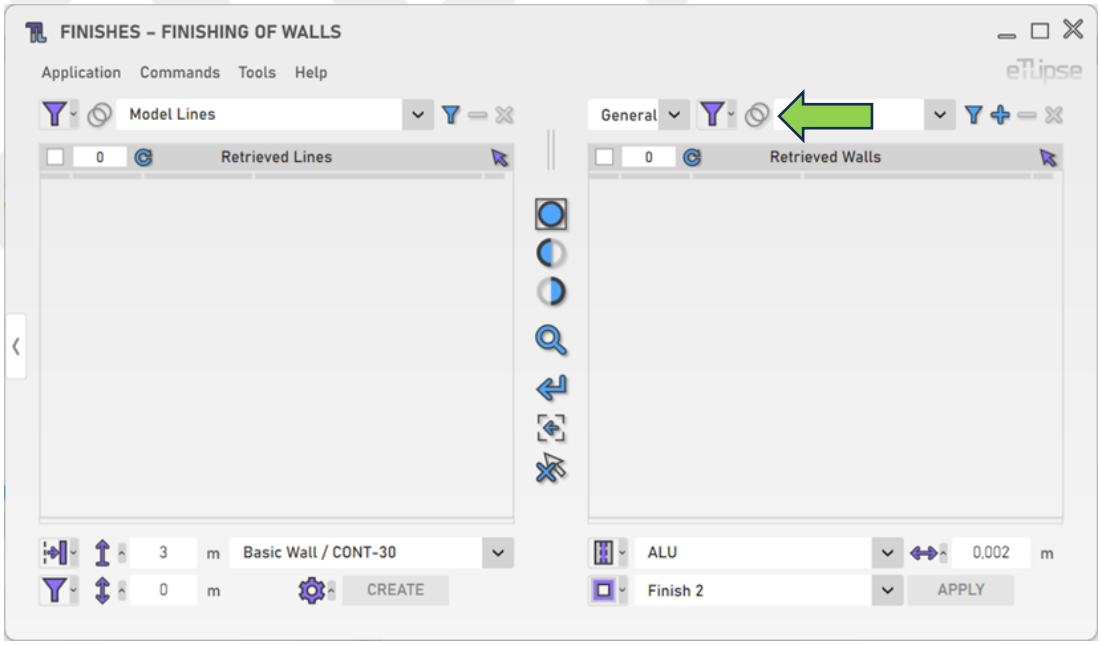
Using TL Filter to fill the Walls List

At any time, you can click the "Slide to TL Filter" arrow button to bring walls, beams or columns retrieved in TL Filter to the Walls Retrieval List.



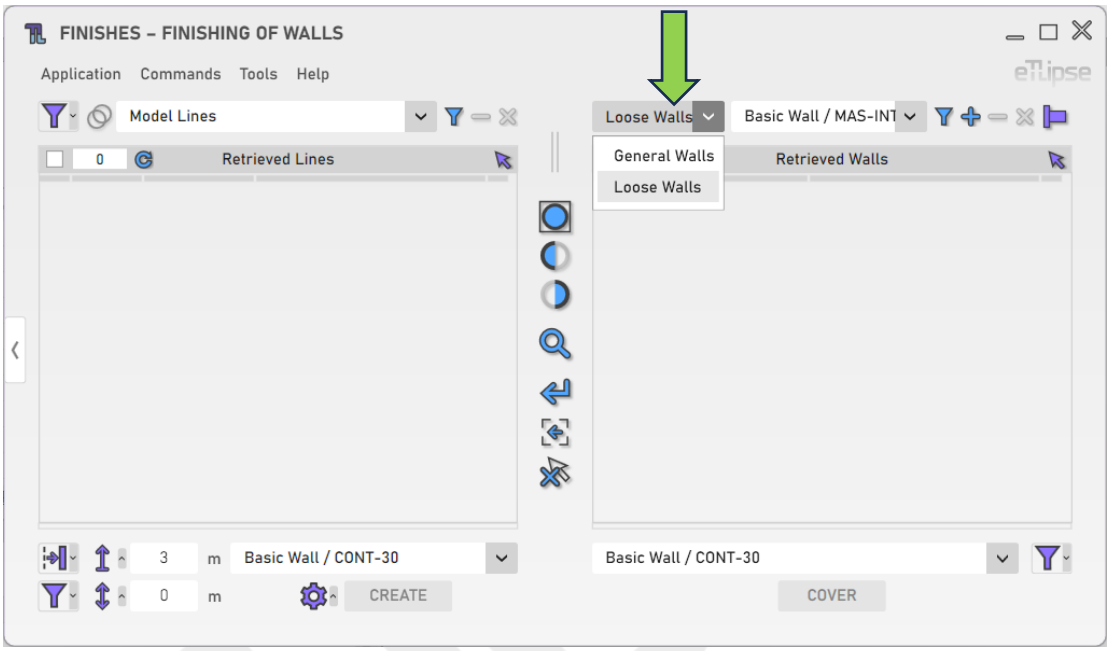
Retrieval of Walls, Beams and Columns from Linked Models

You can click the "Toggle Allow Linked Elements" to enable the possibility to list walls, beams and columns from linked projects in the Walls Retrieval List.



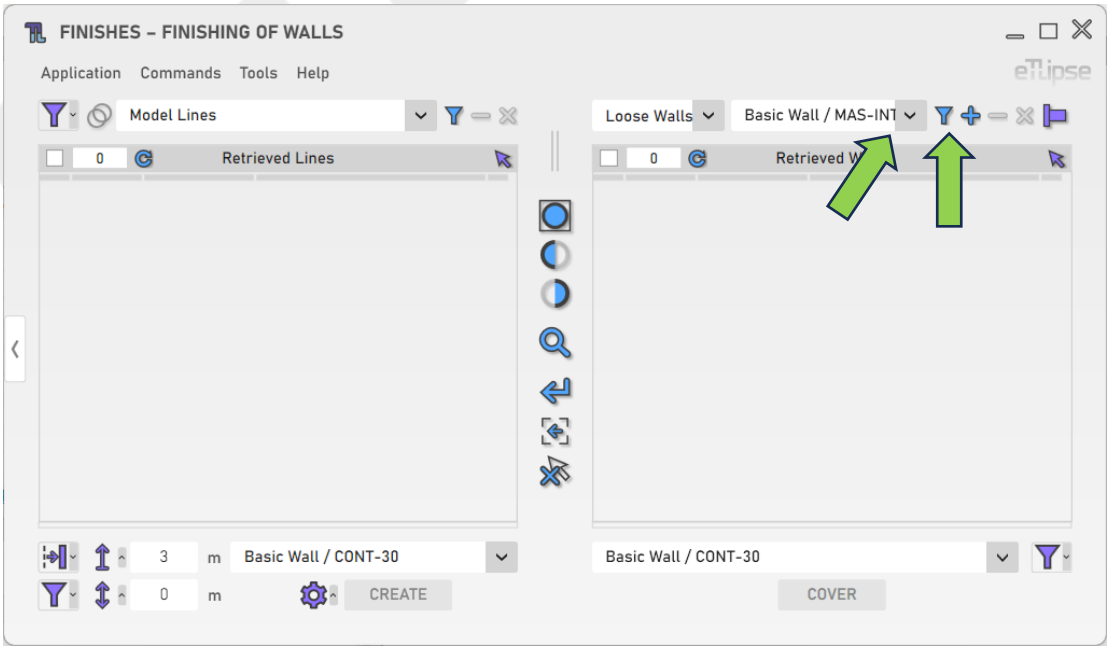
WALLS RETRIEVAL: LOOSE WALLS MODE

You can list walls with at least one of its ends unconnected to perform operations of covering with the placement of another wall. To enable this specific retrieval mode, you must select the "Loose Walls" mode at the "Walls Operation Modes" dropdown box.



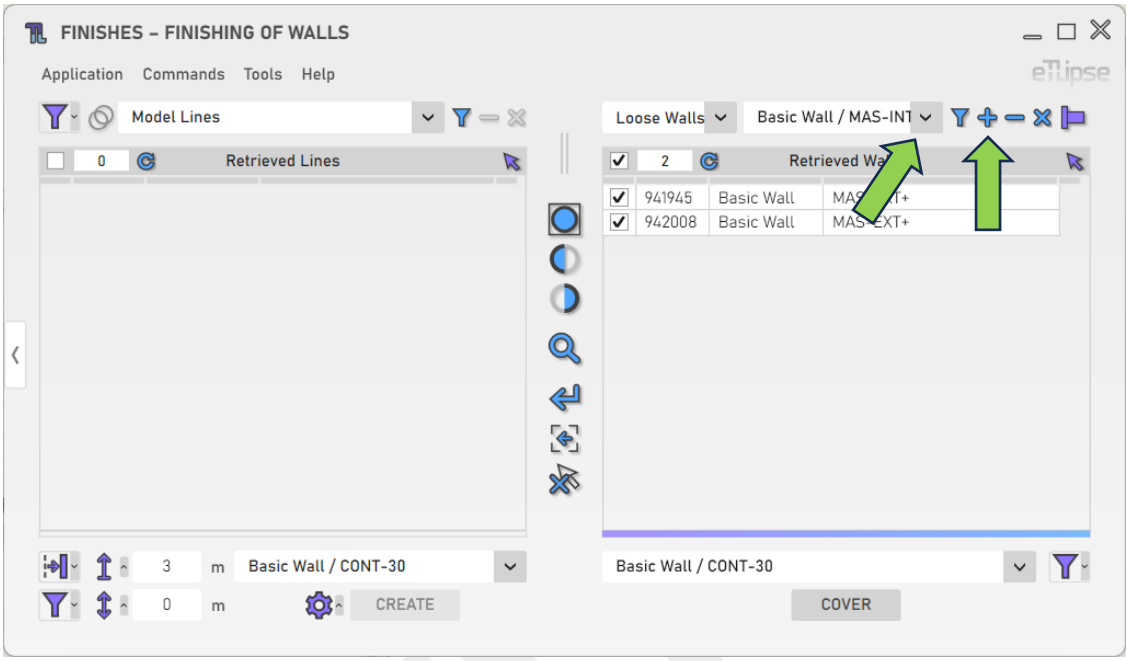
Retrieving Loose Walls by Type

In order to retrieve and list loose walls of a specific type, you must choose a type in the "Wall Types" dropdown box and click the "Retrieve End Walls" button.



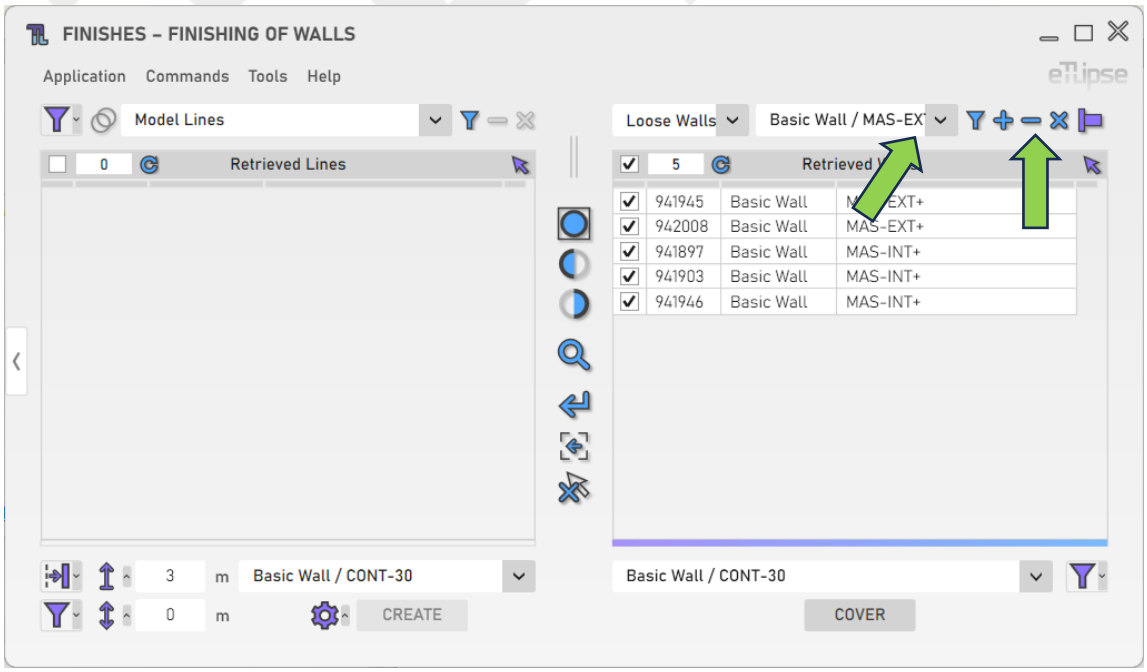
Adding Loose Walls by Type

In order to add loose walls of a specific type to the list, you must choose a type in the "Wall Types" dropdown box and click the "Add Loose End Walls" button.



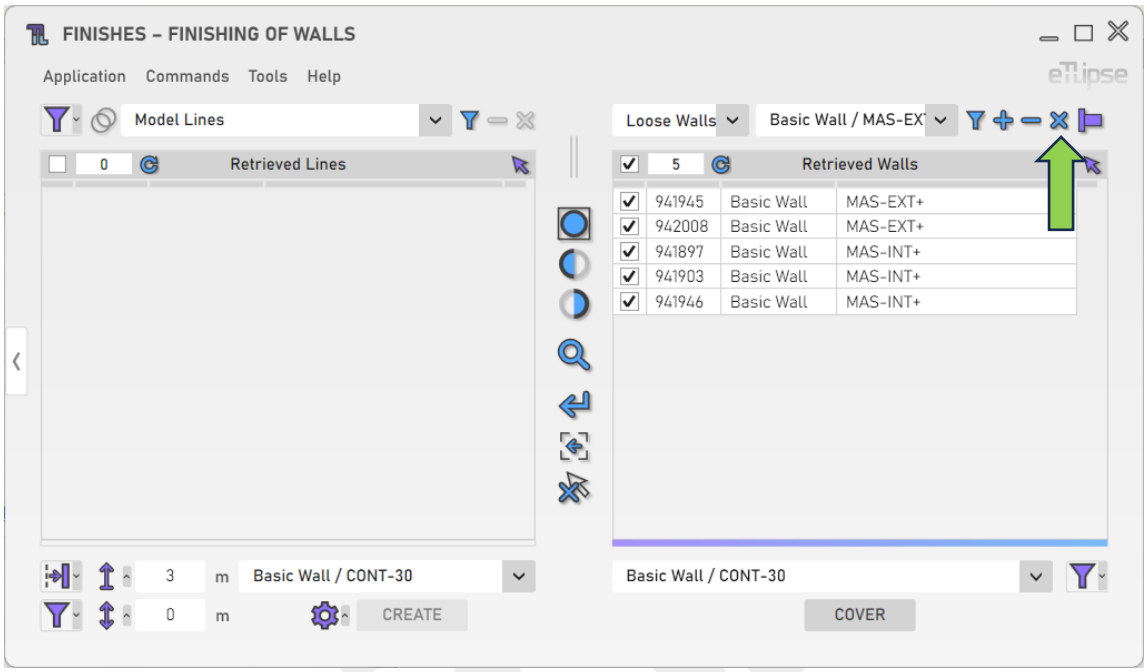
Removing Loose Walls by Type

In order to remove loose walls of a specific type from the list, you must choose a type in the "Wall Types" dropdown box and click the "Remove Walls" button.



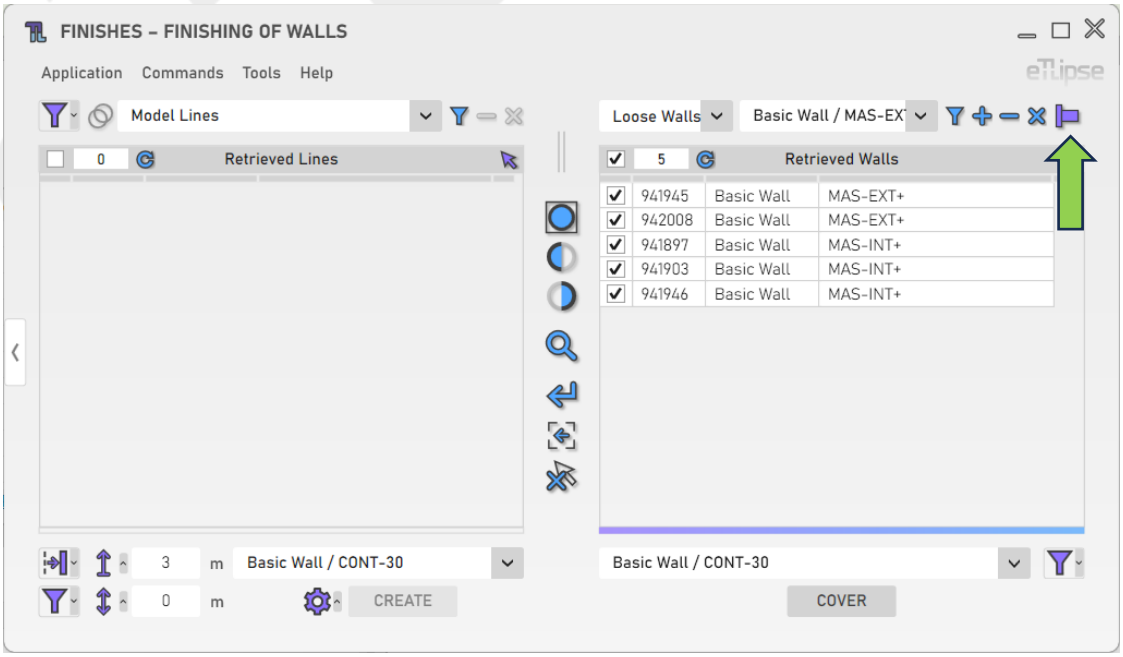
Clearing the Walls List

In order to clear the list, you must click the “Clear Walls Retrieval List” button.



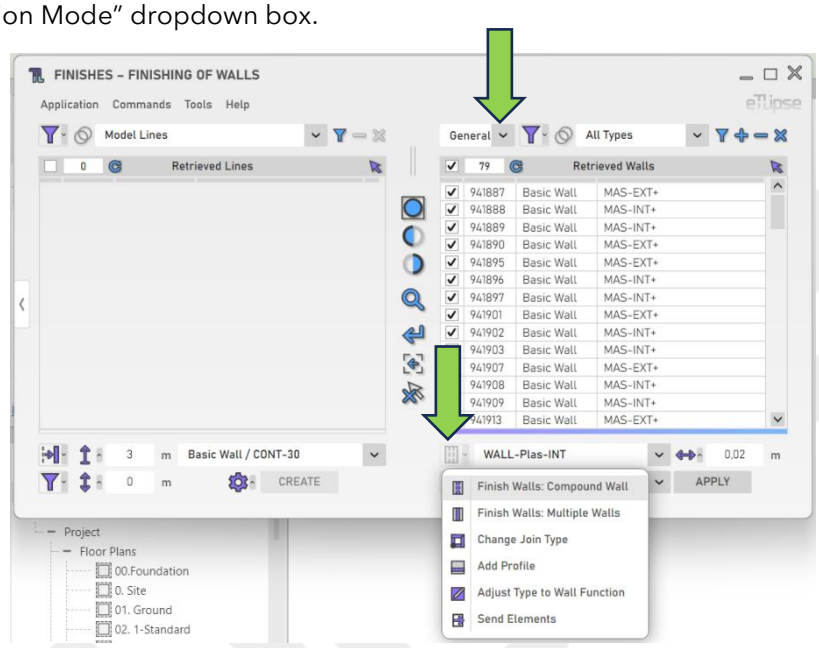
Inclusion by Connection to Lower or Higher Walls

In order to enable the inclusion of walls connected to walls with a higher base or a lower top in loose walls retrievals, you must enable the “Toggle Inclusion by Connection to Lower or Higher Walls” button. It applies to height differences greater than 10 centimeters.



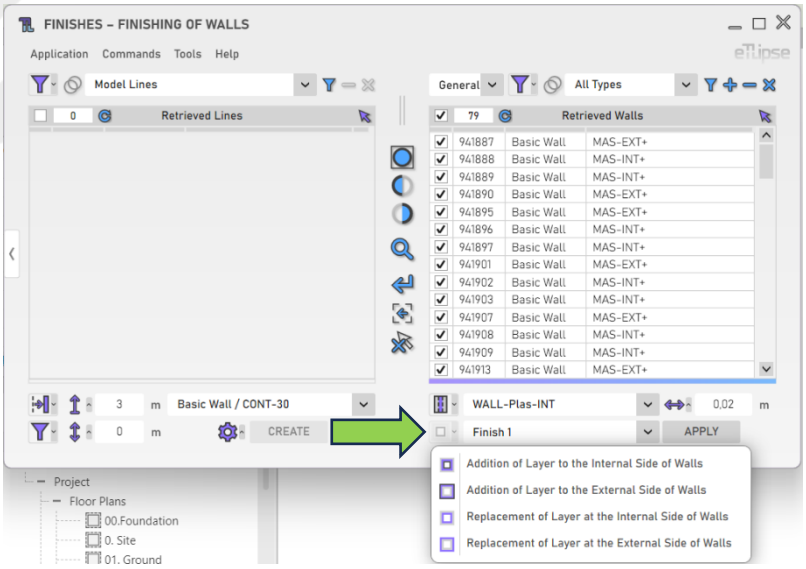
WALLS OPERATION: FINISH WALLS: COMPOUND WALL

In order to access the tools for addition/replacement of finish layers of the walls checked in the Walls Retrieval List, the "General Walls" mode must be selected at the "Walls Operation Modes" dropdown box and the "Finish Walls: Compound Wall" mode must be selected at the "Toggle Wall General Operation Mode" dropdown box.



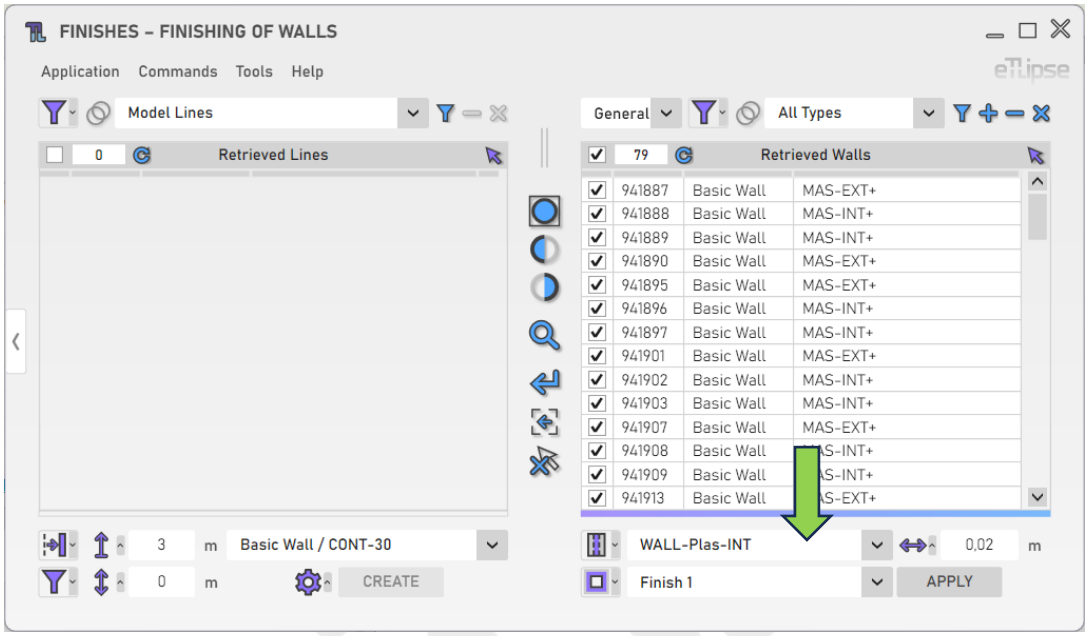
Finish Insertion Modes

You can choose an insertion mode for this feature. By opening the "Toggle Finish Insertion Mode" dropdown box, you can find options to add the layer to the internal side of each wall, add the layer to the external side of each wall, replace the layer on the internal side of each wall or replace the layer on the external side of each wall. In TL Finishes, the internal face will be considered the one with the materials of the interior side in the compound structure of the type of each wall. To check this, you can open the "Edit Assembly" window of the chosen wall type in Revit.



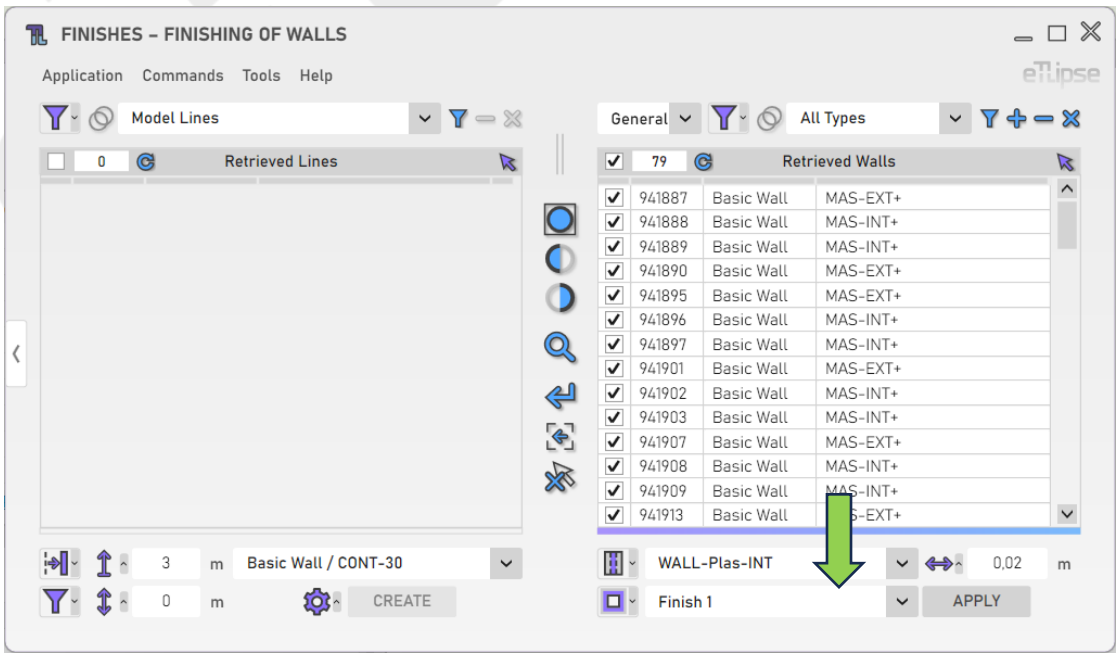
Finish Material

To set the material of the layer to be added to the structure of the walls, choose a material at the "Finish Material" dropdown box.



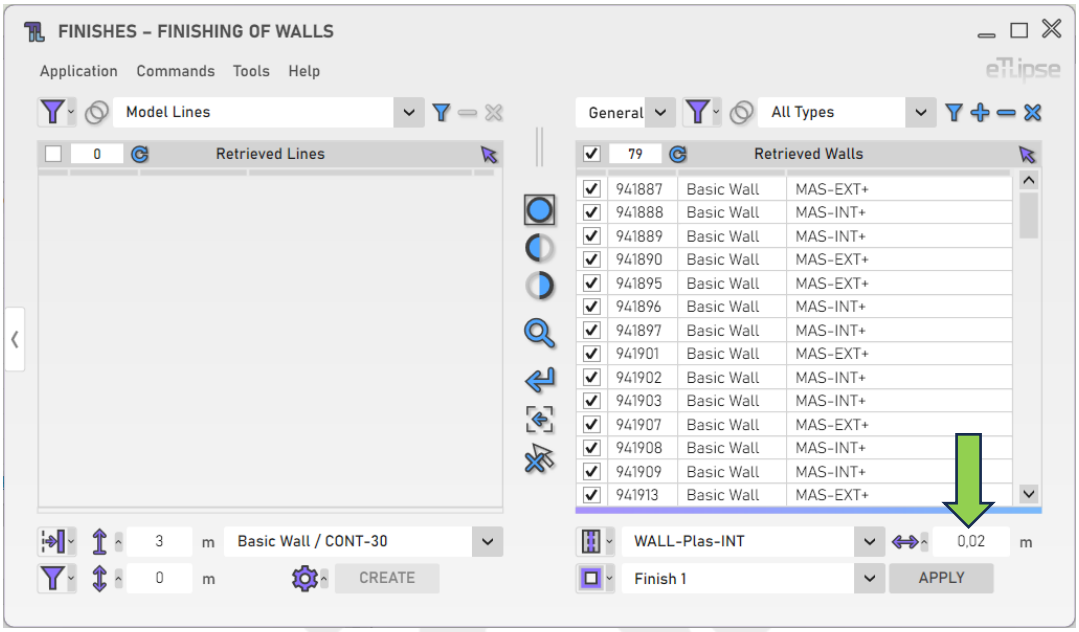
Layer Function

To set the function of the layer to be added to the structure of the walls, choose a function at the "Layer Function" dropdown box. These are the same functions we can find in the "Edit Assembly" window for wall types in Revit.



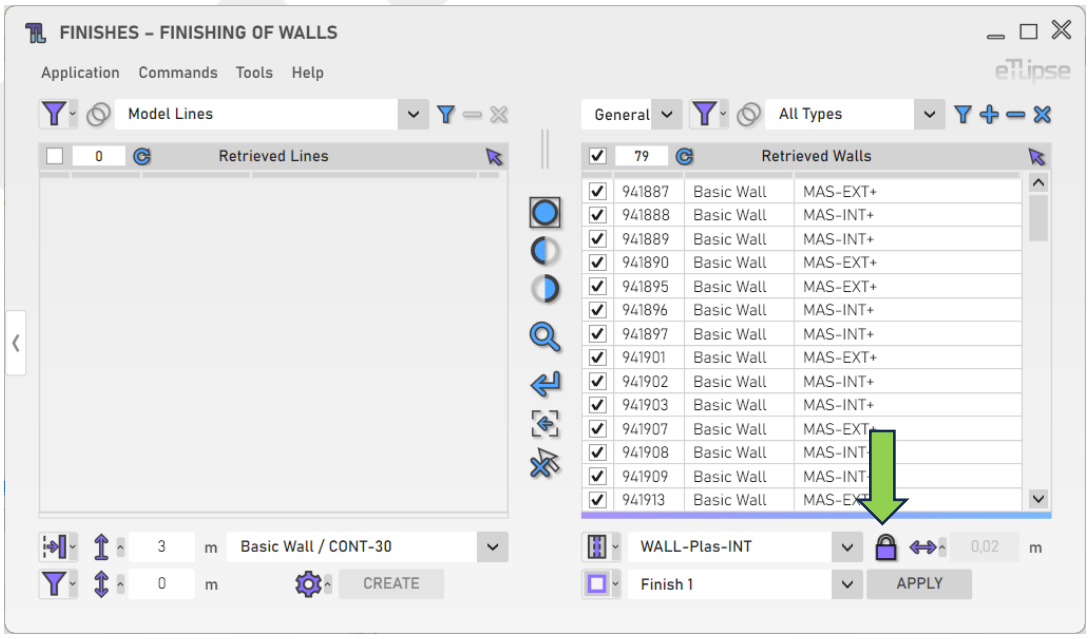
Finish Thickness

To set the thickness of the layer to be added to the structure of the walls, provide a length value in the indicated text box.



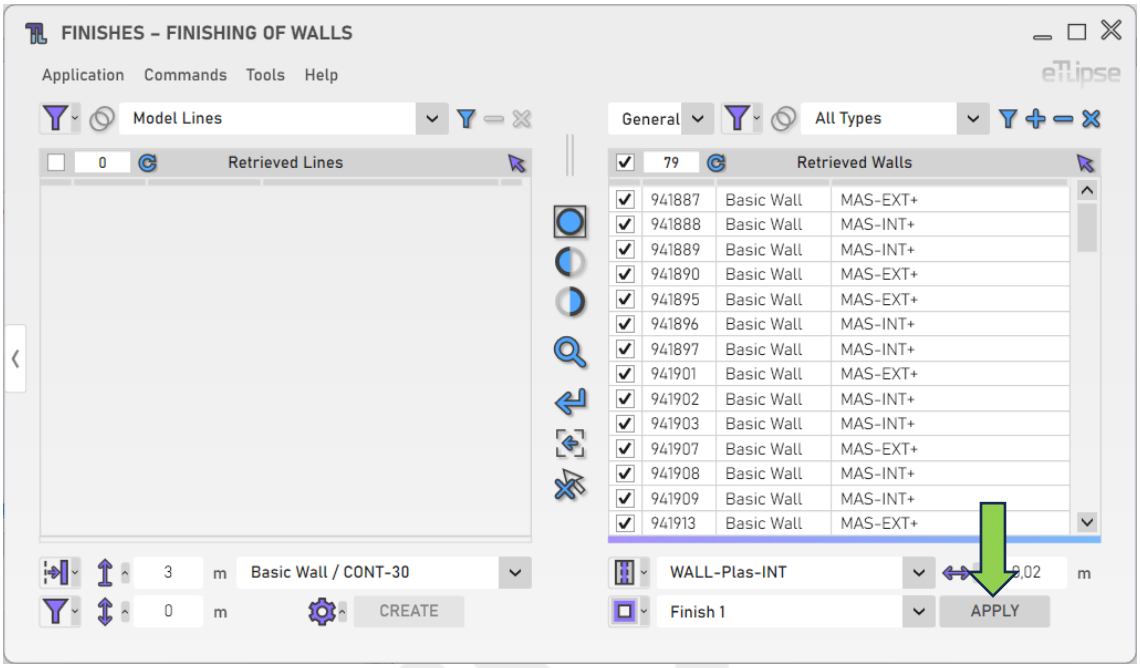
Thickness Lock

If one of the "Replacement" finish insertion modes is enabled, it is possible to preserve a finish layer's thickness when it is being replaced by a new finish layer, which will be generated with the preserved thickness, regardless of the value entered in the Finish Thickness field. To enable this mode, you need to click the "Thickness Lock" button.



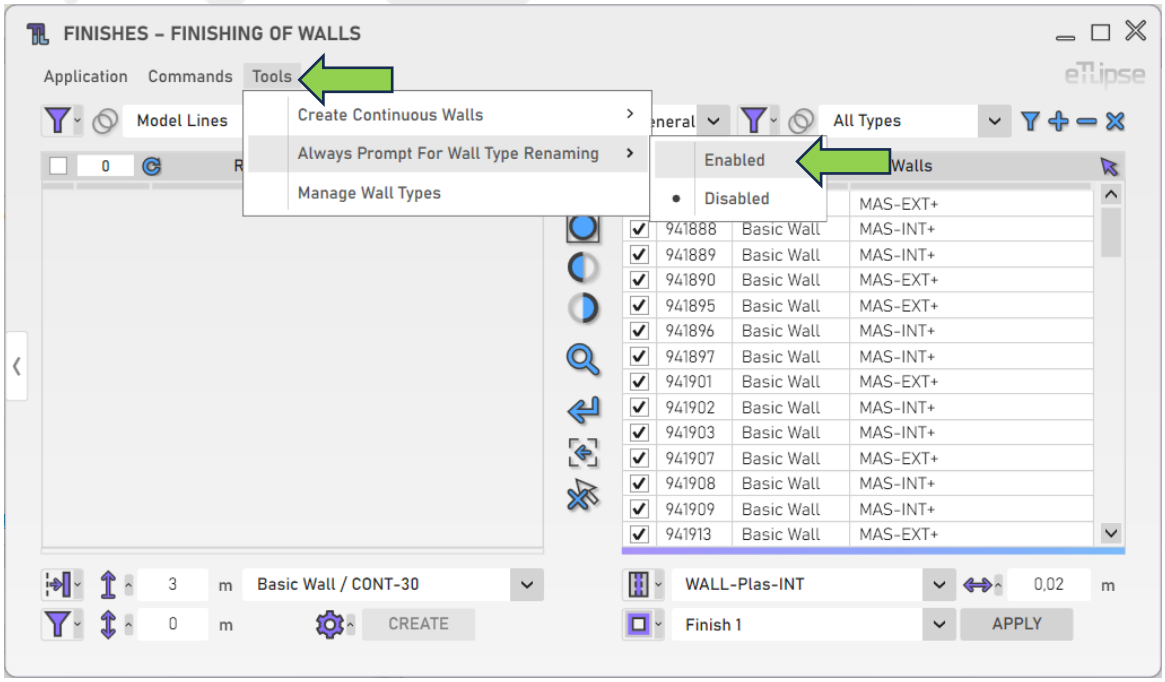
Applying Finish to Walls

To perform the addition/replacement of layers with the provided settings, click the "Apply Finish to Walls" button.



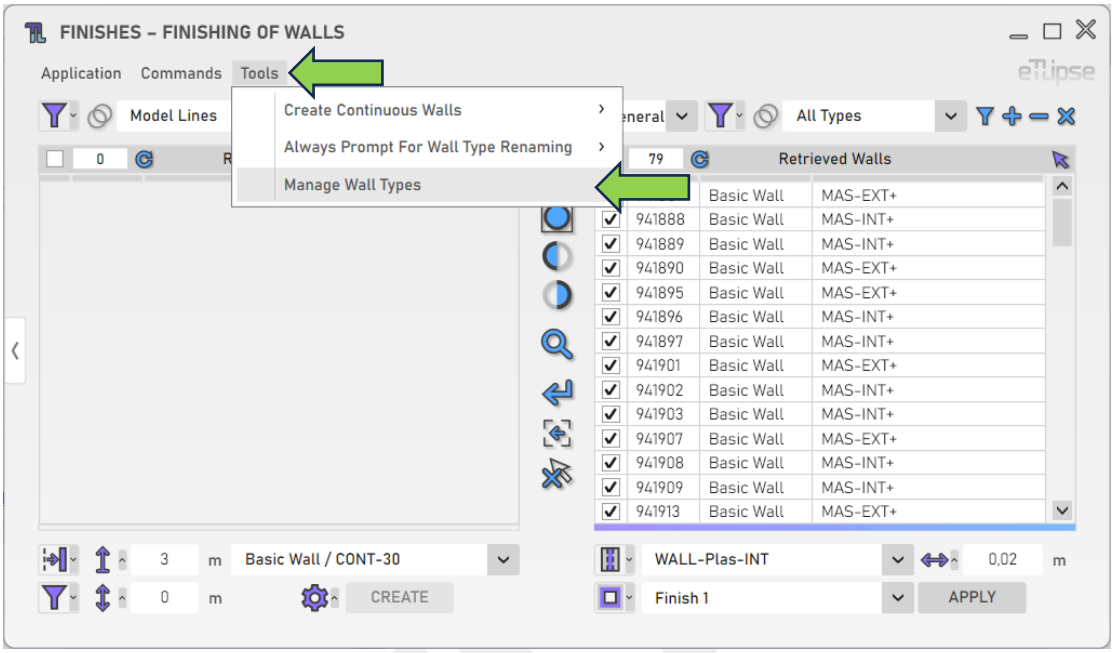
Prompt for Wall Type Renaming

If you wish to assign a custom name for each new wall type created, you must enable the "Always Prompt for Wall Type Renaming" option at the "Tools" menu.

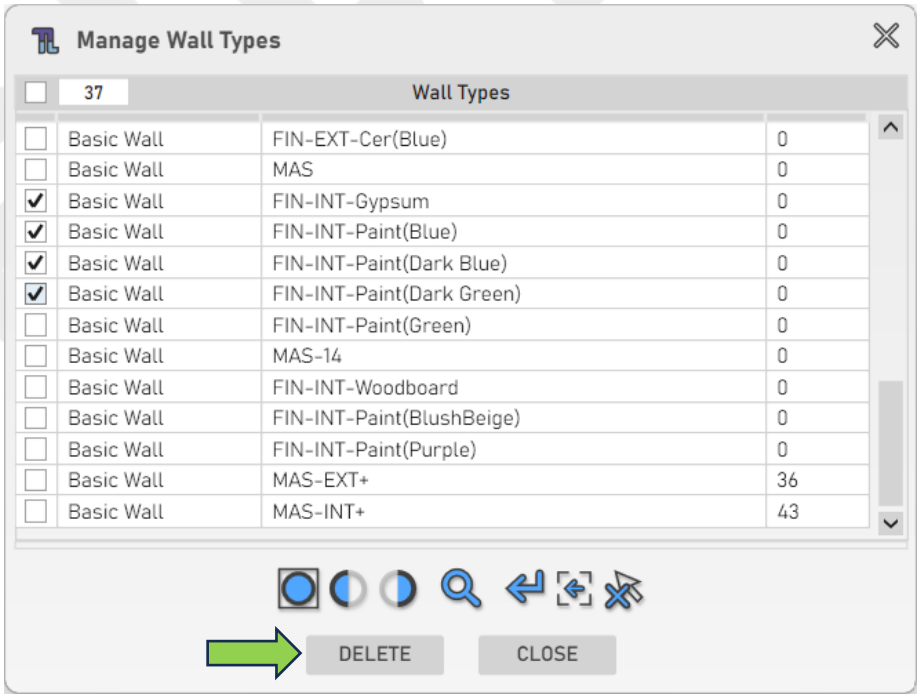


WALL TYPES MANAGER

TL Finishes provides a tool for management of wall types in the currently loaded Revit project. In order to access this tool, select the "Manage Wall Types" tool in the "Tools" menu.

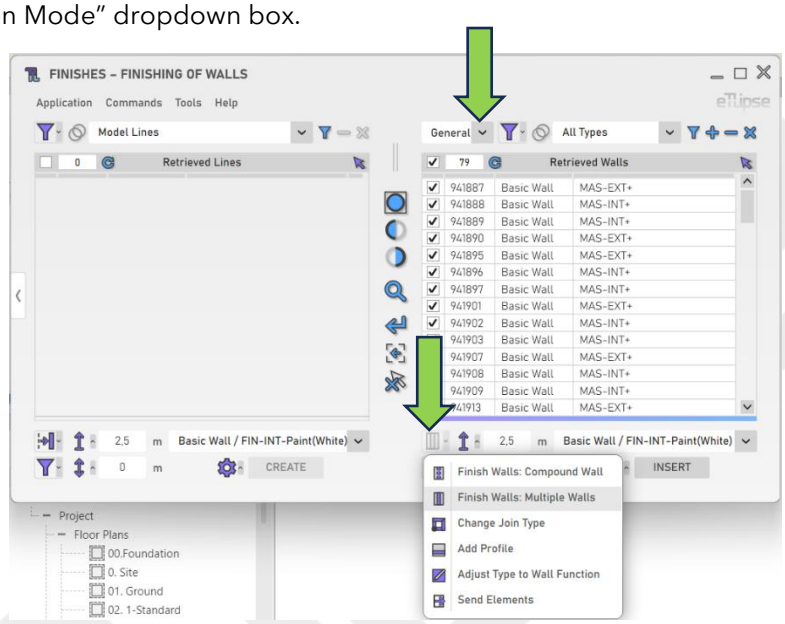


The manager lists all the wall types found in the project, with a counter of instanced walls for each type. To delete one or more specific types, you must check the respective types in the list and click the "Delete Wall Types" button.



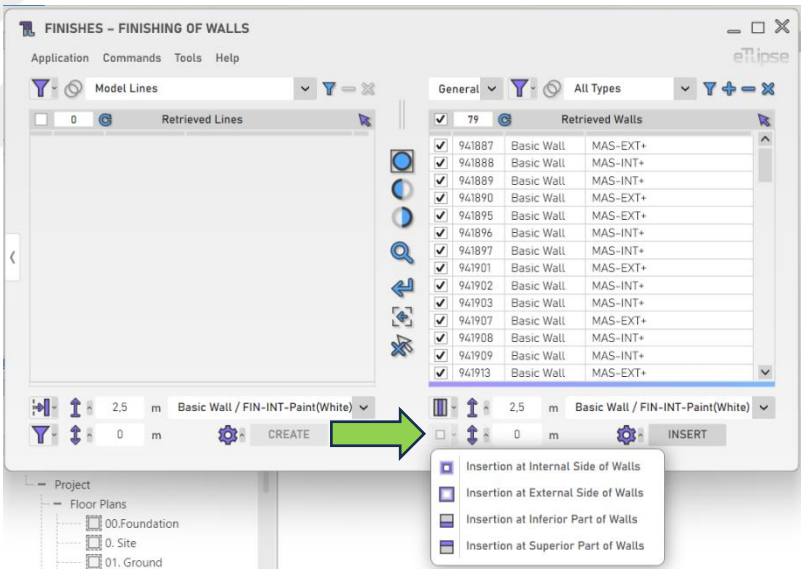
WALLS OPERATION: FINISH WALLS: MULTIPLE WALLS (HORIZONTAL: INTERNAL/EXTERNAL)

In order to access the tools for addition of new walls as finishes for the walls checked in the Walls Retrieval List, the "General Walls" mode must be selected at the "Walls Operation Modes" dropdown box and the "Finish Walls: Multiple Walls" mode must be selected at the "Toggle Wall General Operation Mode" dropdown box.



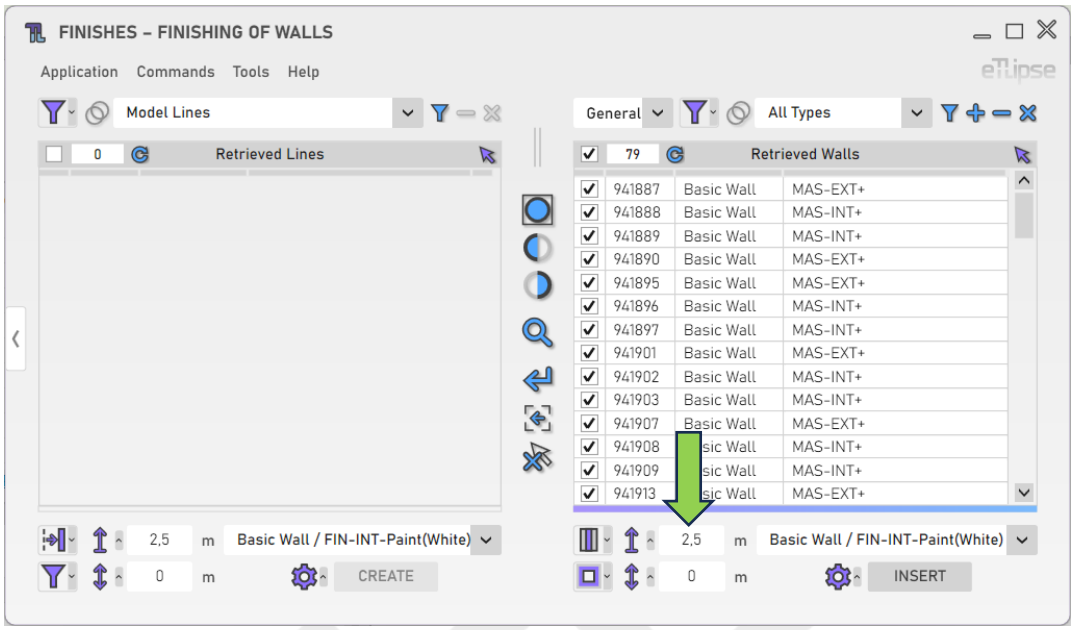
Wall Insertion Modes

You can choose an insertion mode for this feature. By opening the "Toggle Wall Insertion Mode" dropdown box, at the top, you can find options to insert a wall as finish to the internal side of each wall or insert a wall as finish to the external side of each wall. In TL Finishes, the internal face will be considered the one with the materials of the interior side in the compound structure of the type of each wall. To check this, you can open the "Edit Assembly" window of the chosen wall type in Revit.



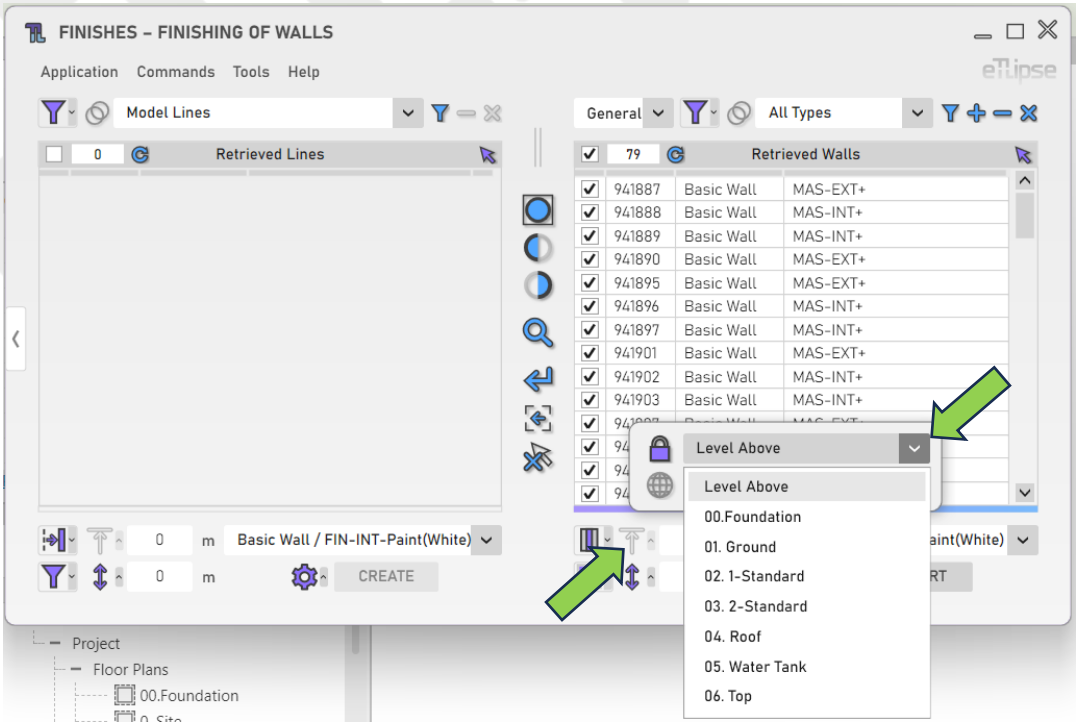
Wall Height

To set the height of the walls to be inserted, provide a length value in the indicated text box.



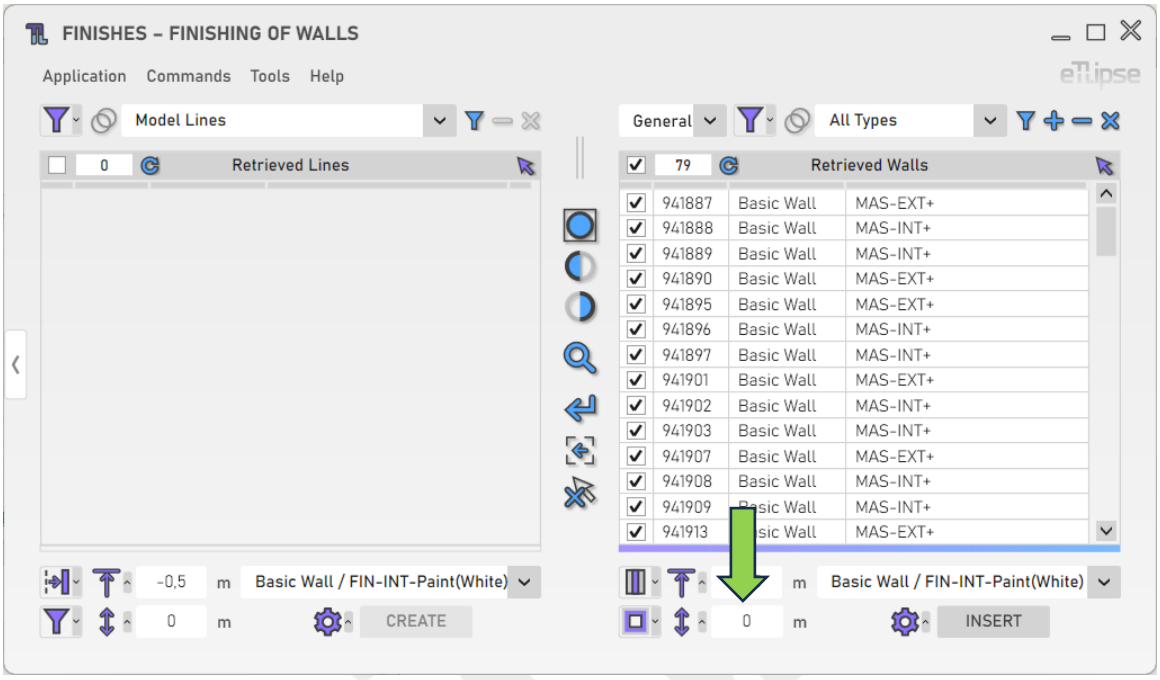
Wall Top Offset Lock

Alternatively, you can lock the top face of the walls to be inserted to a given project level and set an offset value based on this level. To achieve this, click the respective icon, then, enable the lock button and choose a level in the popup panel that appears.



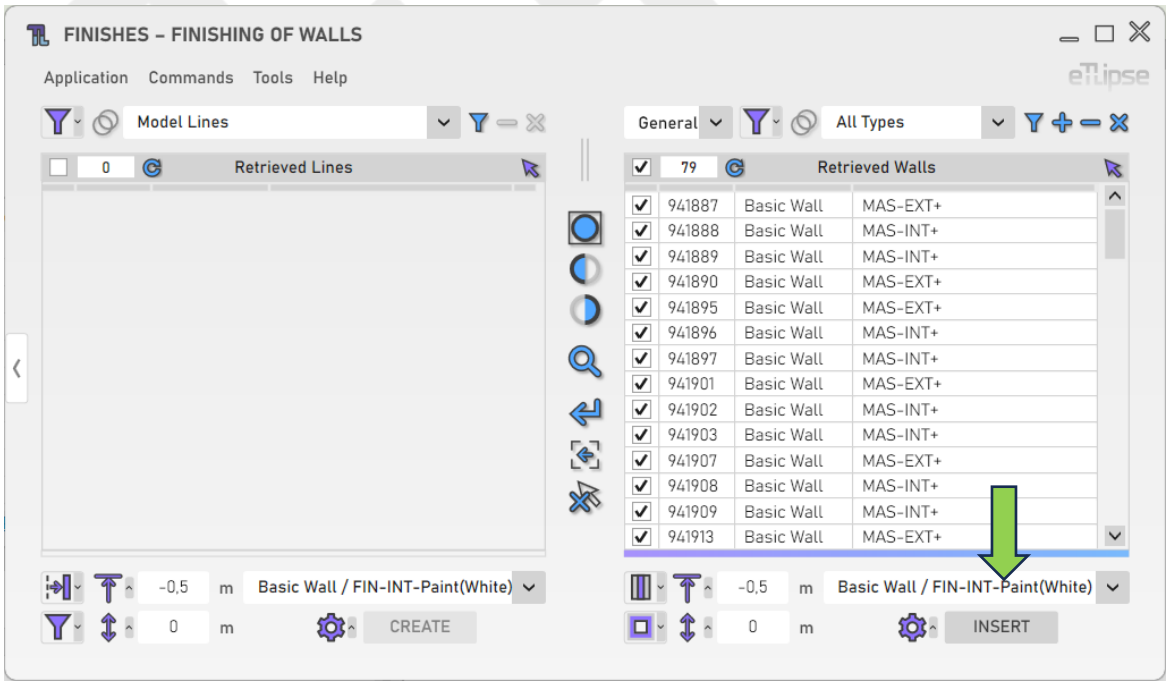
Wall Elevation

To set the elevation of the walls to be inserted, provide a length value in the indicated text box.



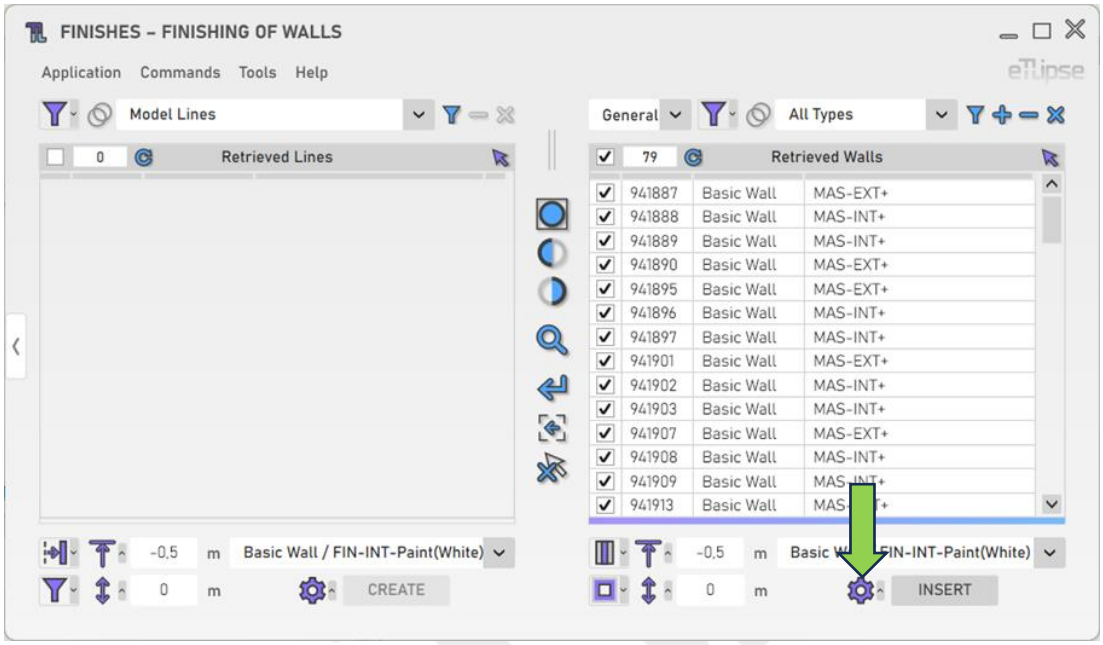
Wall Type

To set the type of the walls to be inserted, choose a wall type at the "Wall Type" dropdown box.



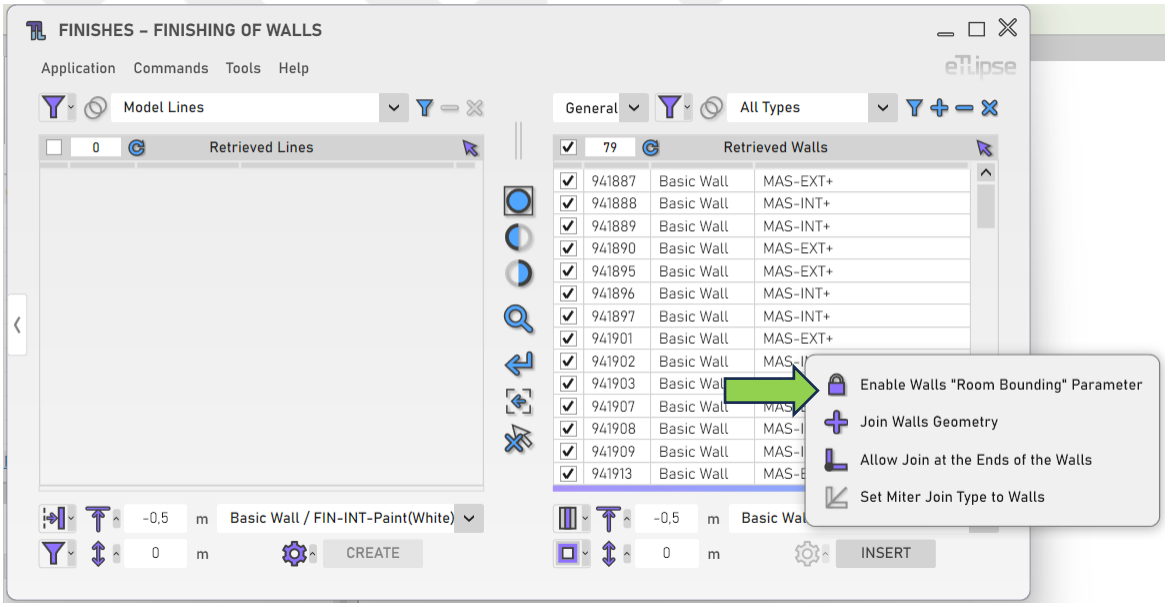
Additional Settings

Some features provide a greater number of settings and options. To access these settings, click the "Additional Settings" button.



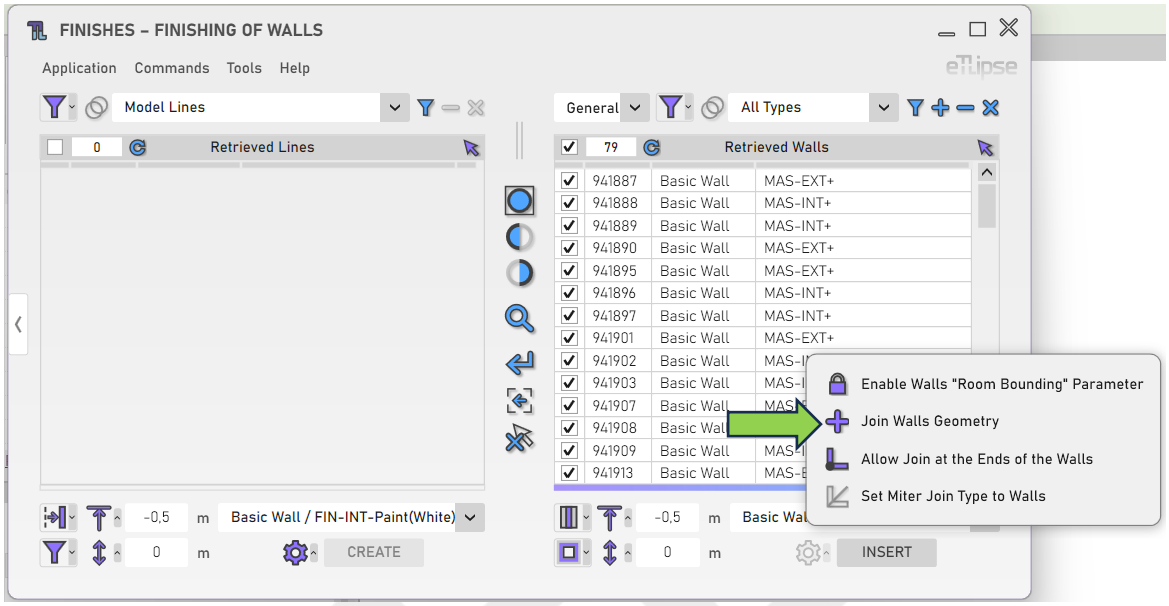
Room Bounding by Finish Wall

To automatically enable the "Room Bounding" Revit parameter of the walls to be inserted, you must enable the "Toggle Room Bounding for New Walls" button.



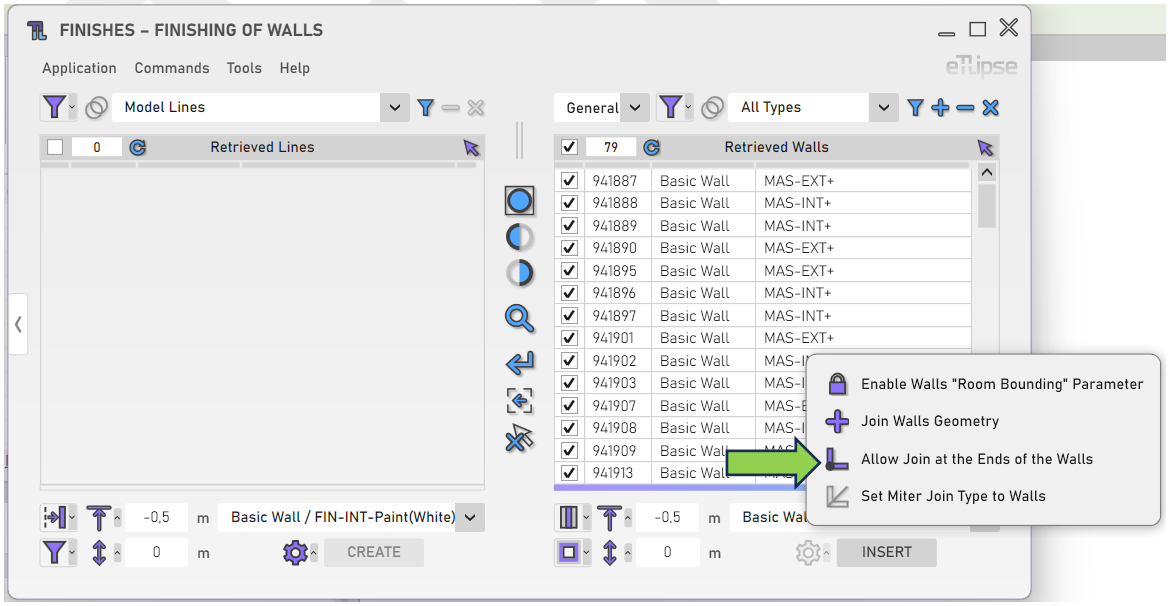
Join Geometry

To automatically join the geometry of the walls to be inserted with the geometry of the adjacent walls, you must enable the "Toggle Join Geometry" button.



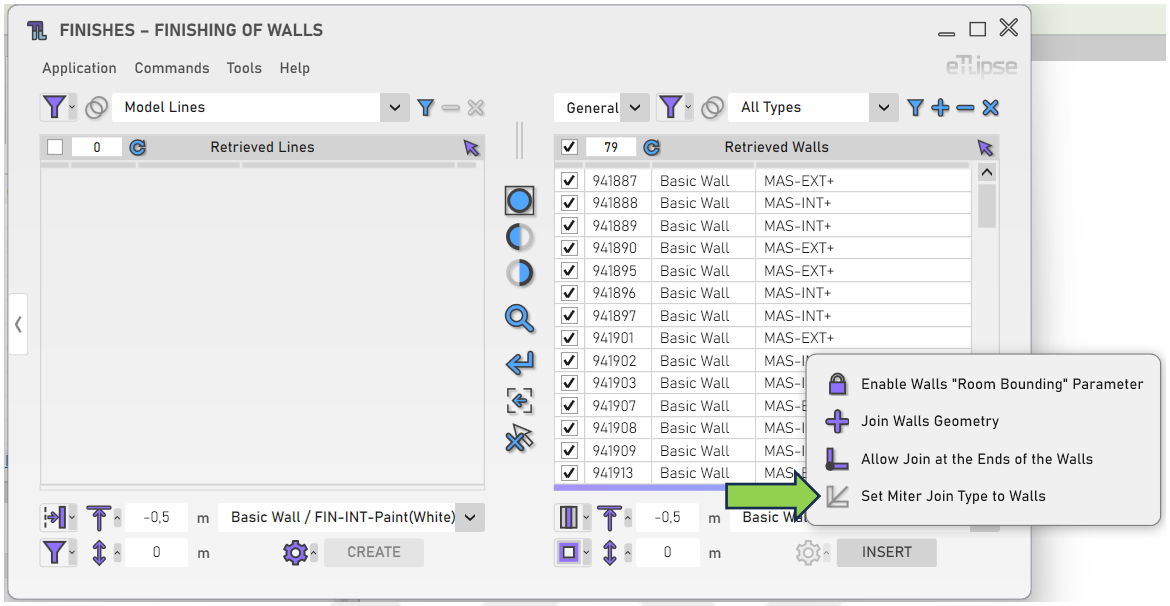
Allow Join

To automatically allow joins at ends of the walls to be inserted, you must enable the "Toggle Allow Join" button.



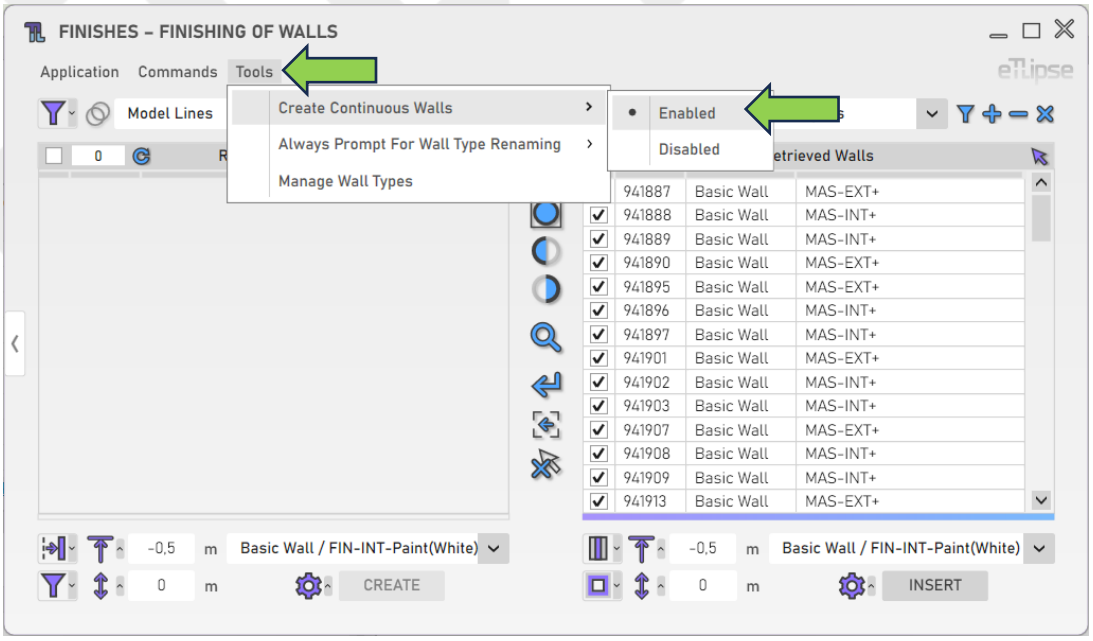
Join Type Miter

To automatically apply the "miter" join type to the ends of the walls to be inserted, you must enable the "Toggle Join Type Miter" button.



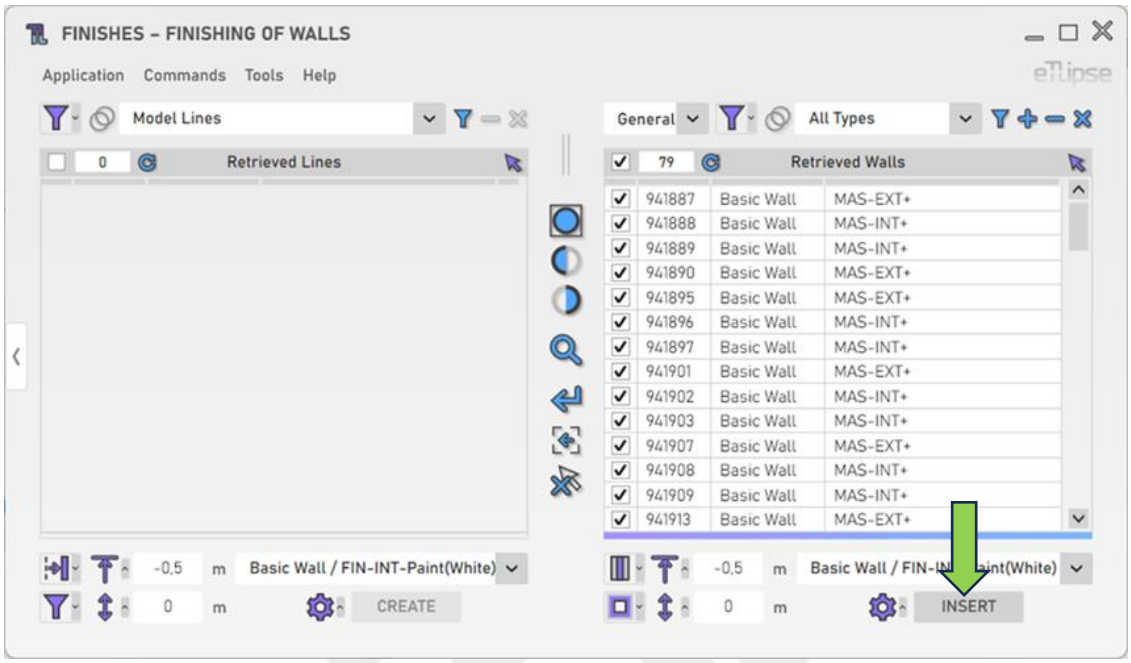
Creation of Continuous Walls

To allow the automatic insertion of one continuous wall in segments with multiple walls in the same direction and continuity, you must enable the "Create Continuous Walls" option at the "Tools" menu.



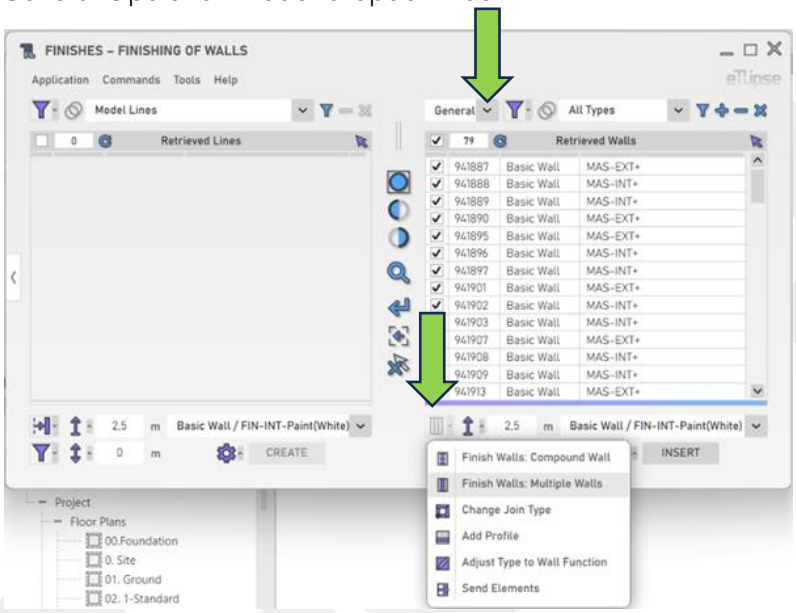
Inserting Walls

To insert the walls with the provided settings, click the “Insert Walls” button.



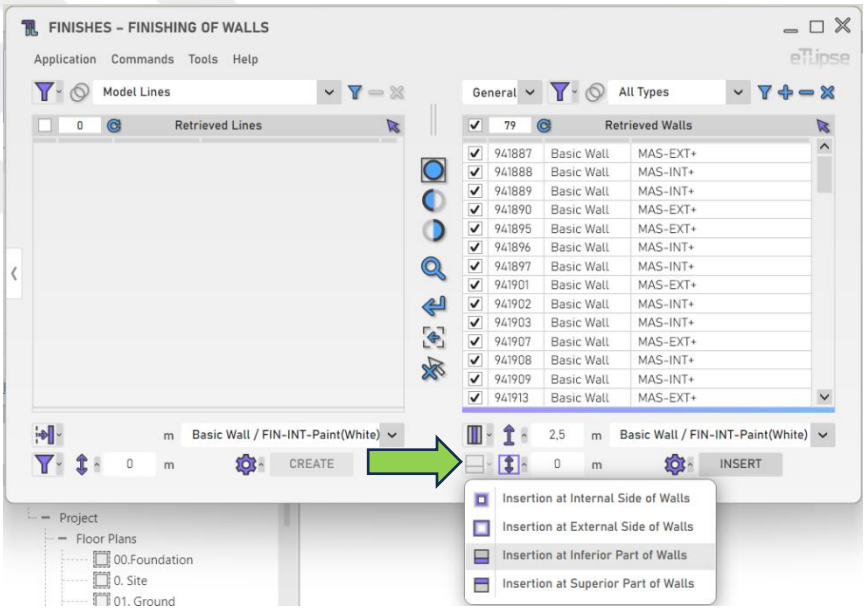
WALLS OPERATION: FINISH WALLS: MULTIPLE WALLS (VERTICAL: BELOW/ABOVE)

In order to access the tools to split the walls checked in the Walls Retrieval List and insert a new wall type below or above the split line, the "General Walls" mode must be selected at the "Walls Operation Modes" dropdown box and the "Finish Walls: Multiple Walls" mode must be selected at the "Toggle Wall General Operation Mode" dropdown box.



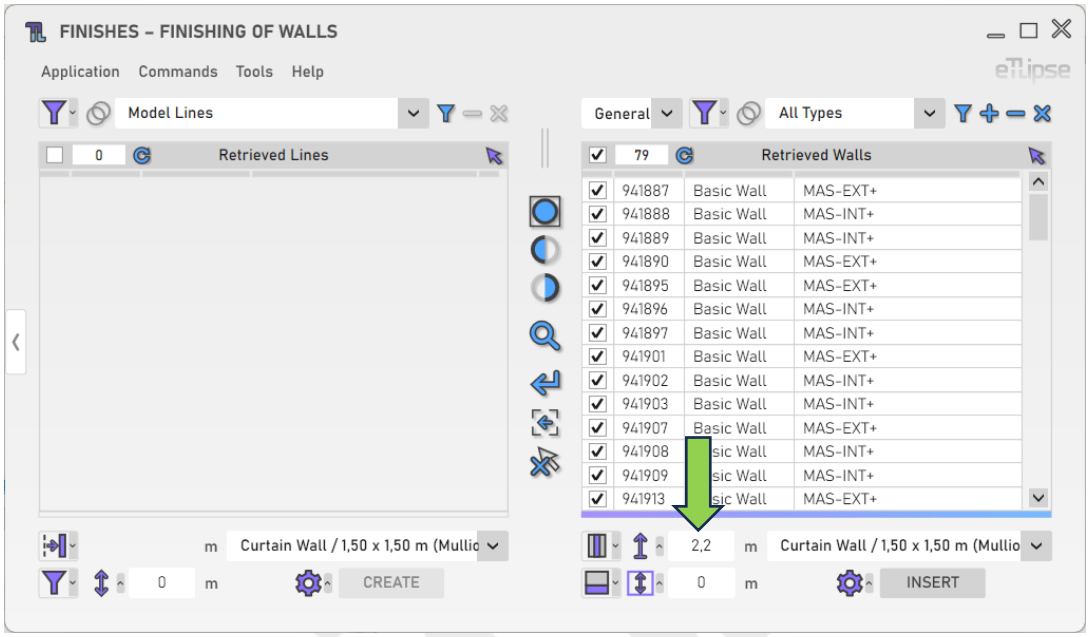
Wall Insertion Mode

You can choose an insertion mode for this feature. By opening the "Toggle Wall Insertion Mode" dropdown box, at the bottom, you can find options to insert a wall at the inferior portion of each wall or insert a wall at the superior portion of each wall.



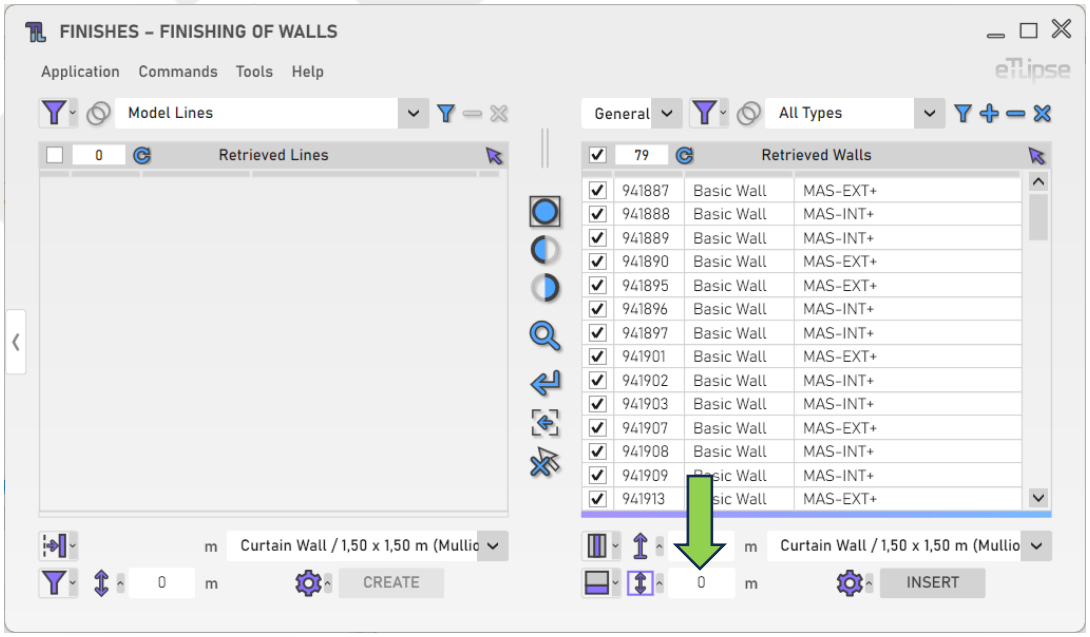
Division Height

To set the height of the split line that will divide the checked walls, provide a length value in the indicated text box.



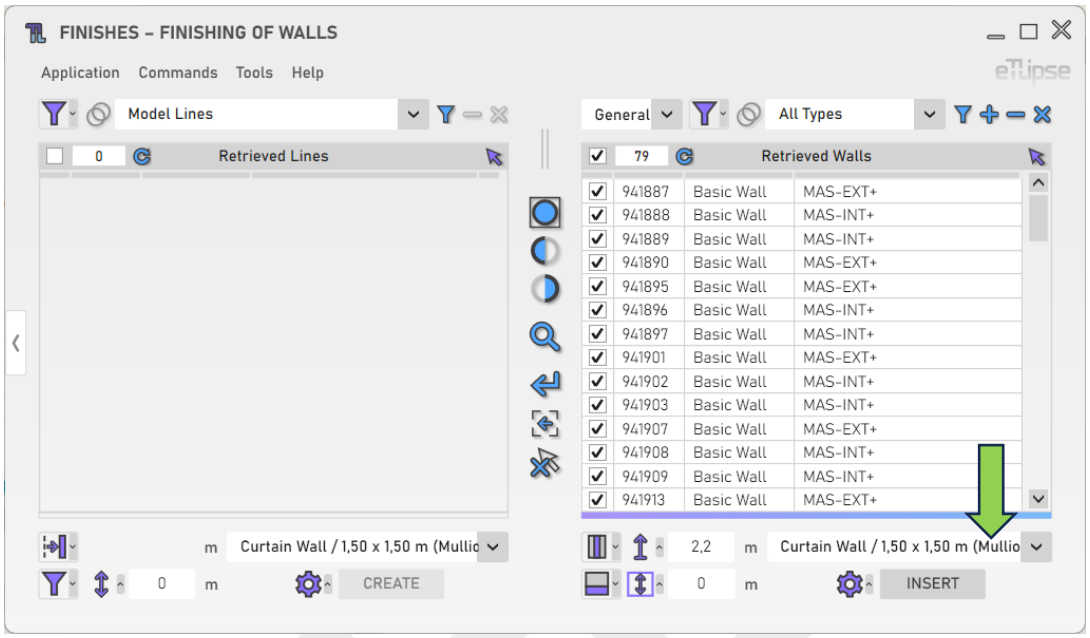
Division Opening

If you wish to split the walls with an opening, provide a length value in the indicated text box for the vertical length of the opening. Positive values place the opening above the split line. Negative values place it below the split line. The default value (0) prevents the creation of the opening.



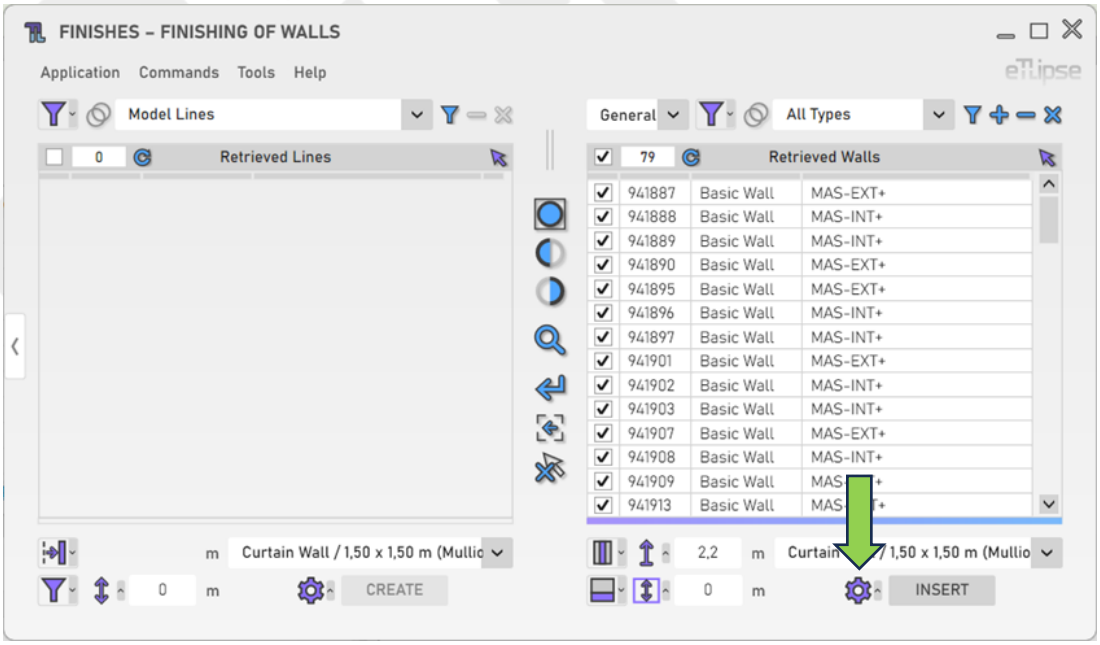
Wall Type

To set the new wall type to be inserted, choose a wall type at the “Wall Type” dropdown box.



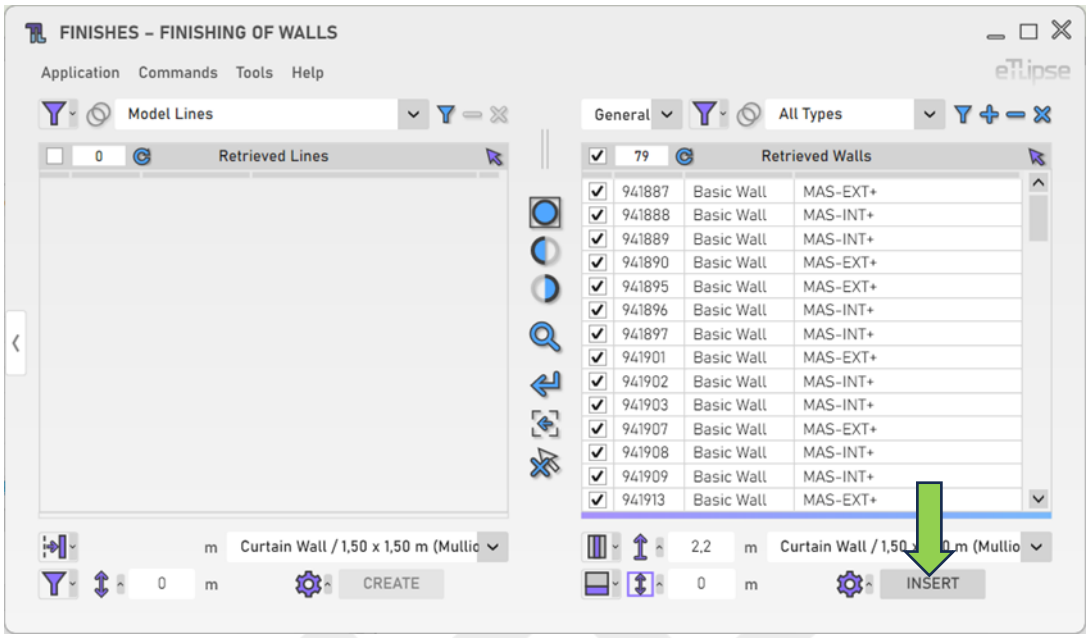
Additional Settings

The additional settings follow the same instructions given for the “Horizontal (Internal/External)” mode.



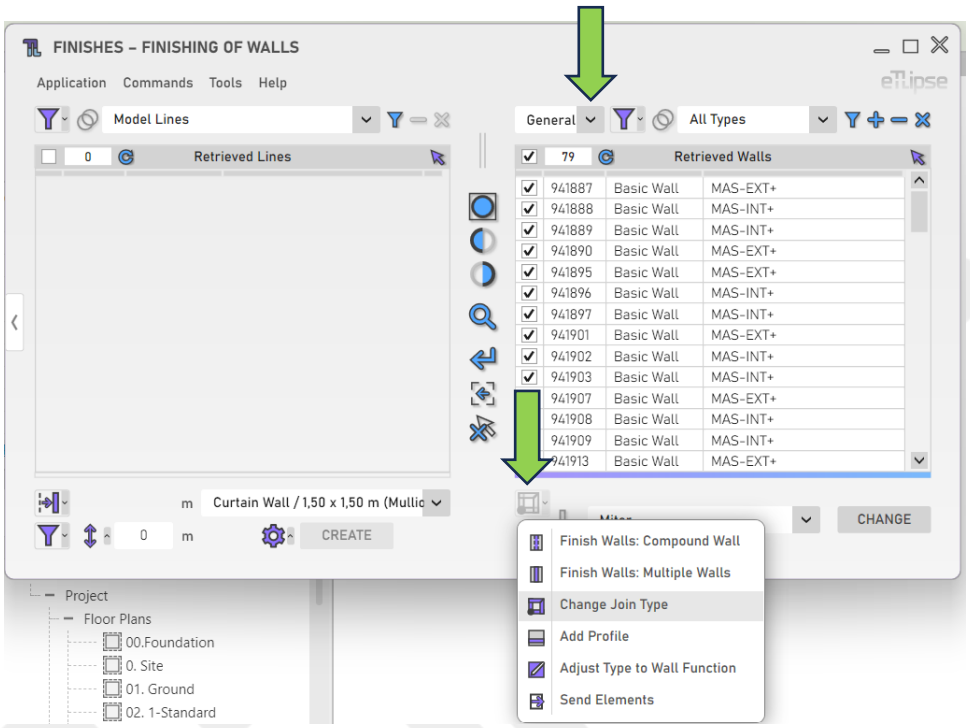
Inserting Walls

To insert the walls with the provided settings, click the “Insert Walls” button.



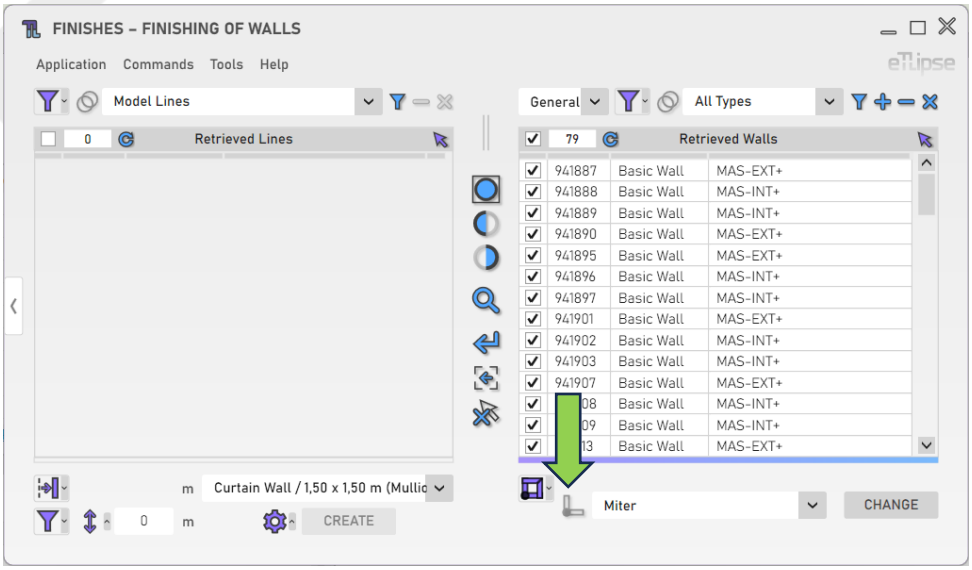
WALLS OPERATION: CHANGE JOIN TYPE

In order to access the tools to automatically change the join type at the ends of walls checked in the Walls Retrieval List, the “General Walls” mode must be selected at the “Walls Operation Modes” dropdown box and the “Change Join Type” mode must be selected at the “Toggle Wall General Operation Mode” dropdown box.



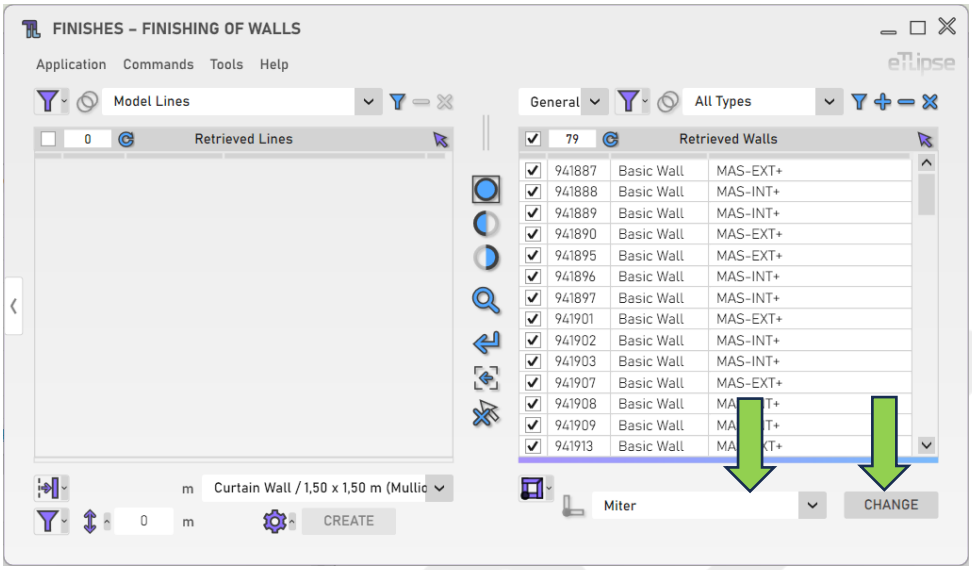
Force Join Type

If you wish to attempt a forced join type over walls meetings that are not currently qualified for the operation (like walls that are unconnected by a small distance), the “Toggle Force Join Type” button must be enabled.



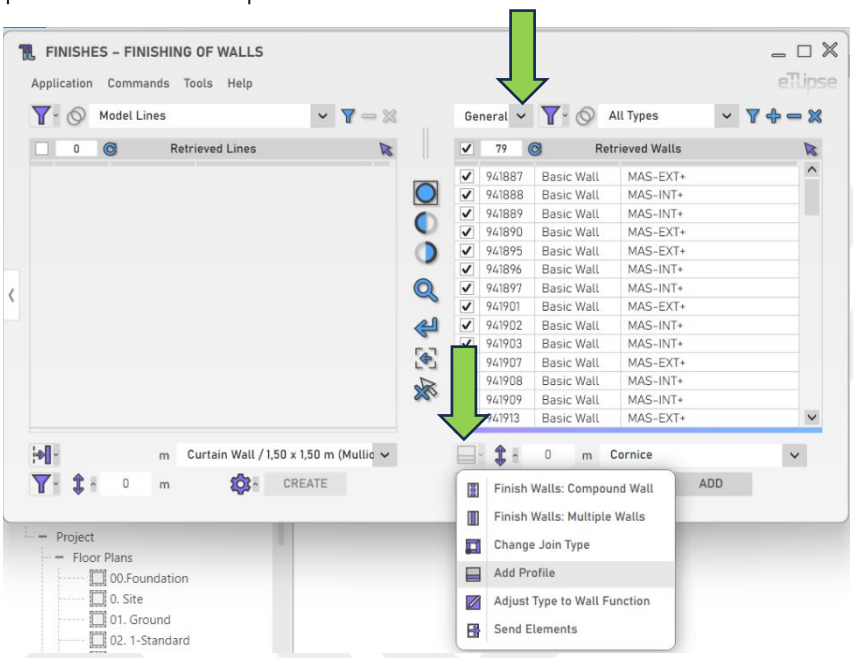
Changing Join Types

To perform the change of join type for the walls checked in the Walls Retrieval List, you must select a join type in the "Join Type" dropdown box and click the "Change Walls Join Type" button.



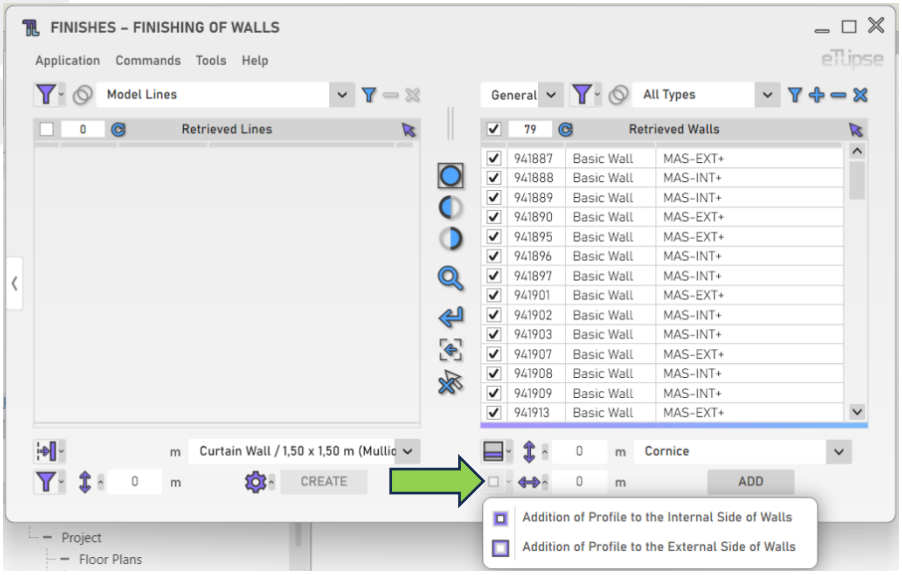
WALLS OPERATION: ADD PROFILE

In order to access the tools to automatically add a profile (sweep or reveal) instance to the walls checked in the Walls Retrieval List, the "General Walls" mode must be selected at the "Walls Operation Modes" dropdown box and the "Add Profile" mode must be selected at the "Toggle Wall General Operation Mode" dropdown box.



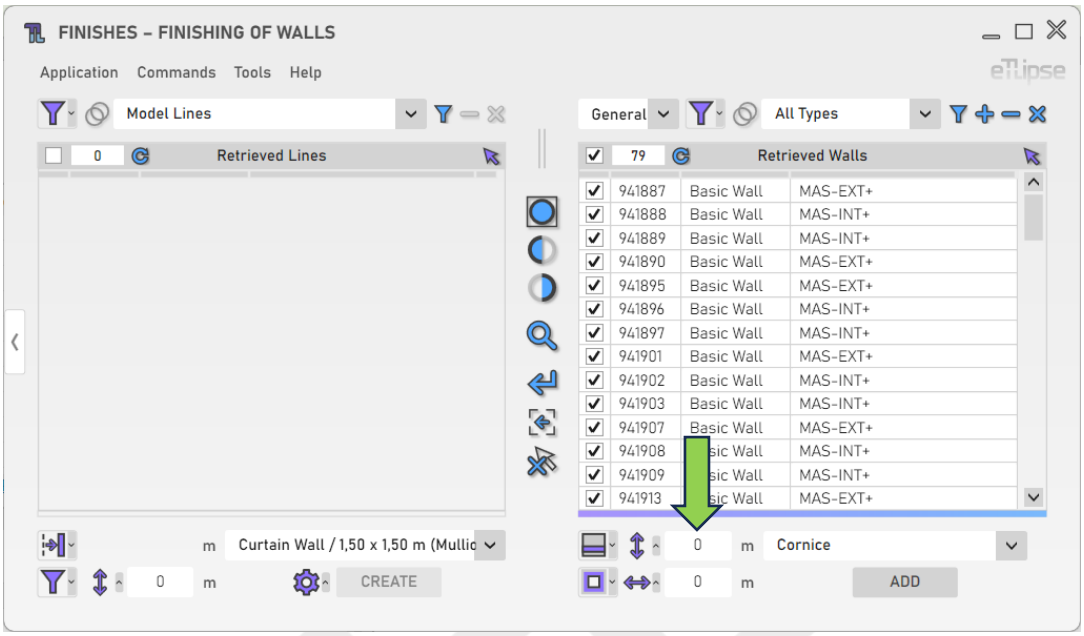
Profile Addition Mode

You can choose an addition mode for this feature. By opening the "Toggle Profile Addition Mode" dropdown box, you can find options to add the profile to the internal side of each wall or add the profile to the external side of each wall. In TL Finishes, the internal face will be considered the one with the materials of the interior side in the compound structure of the type of each wall. To check this, you can open the "Edit Assembly" window of the chosen wall type in Revit.



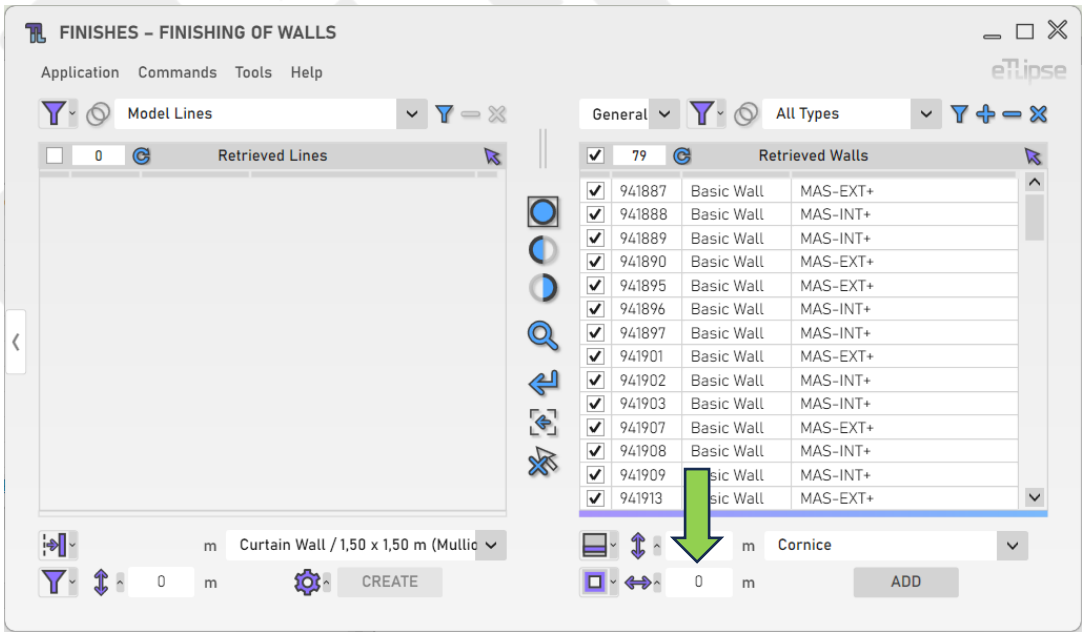
Profile Elevation

To set the elevation of the profiles to be added, provide a length value in the indicated text box.



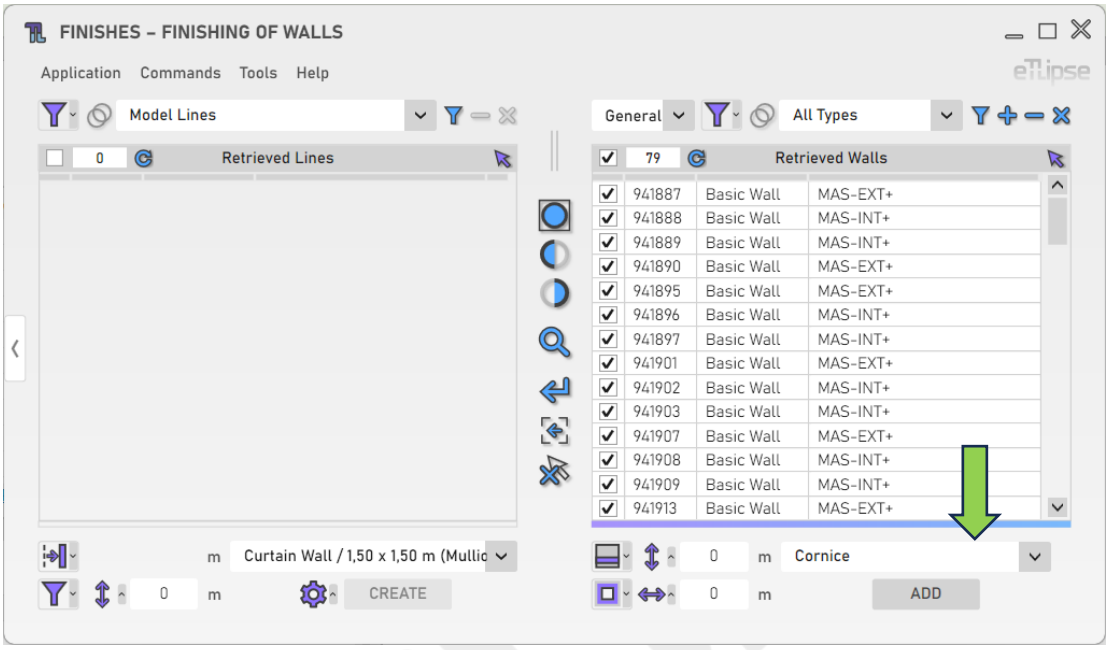
Profile Wall Offset

To set the horizontal distance between the profile instance and the wall, provide a length value in the indicated text box.



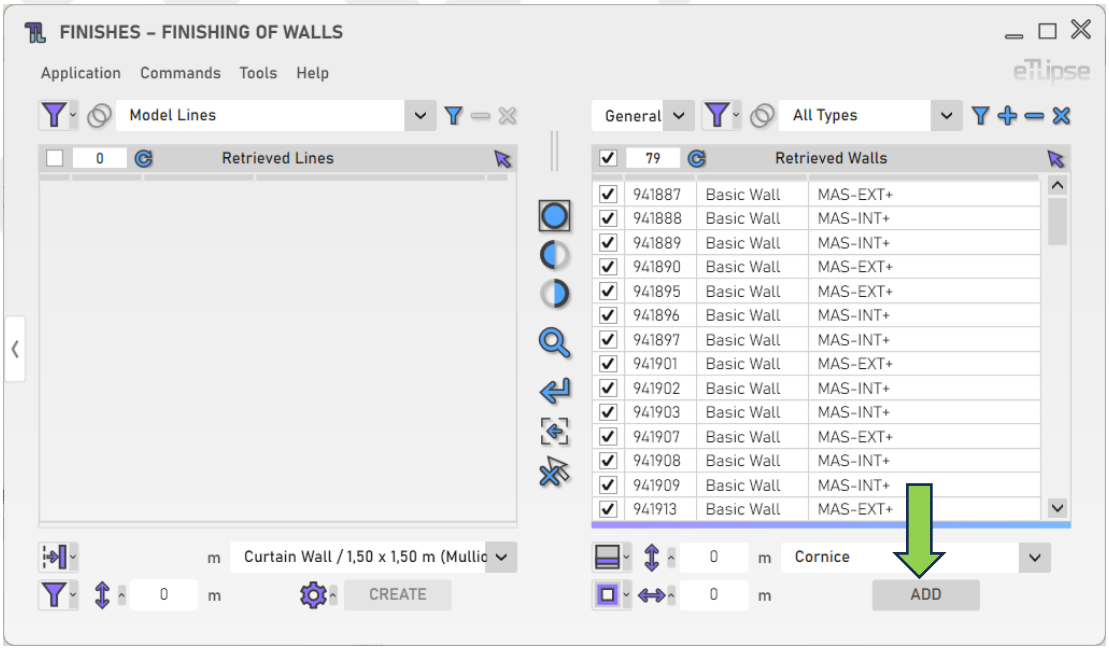
Profile

To set the specific profile (sweep or reveal) to be added, choose a profile at the "Profile" dropdown box.



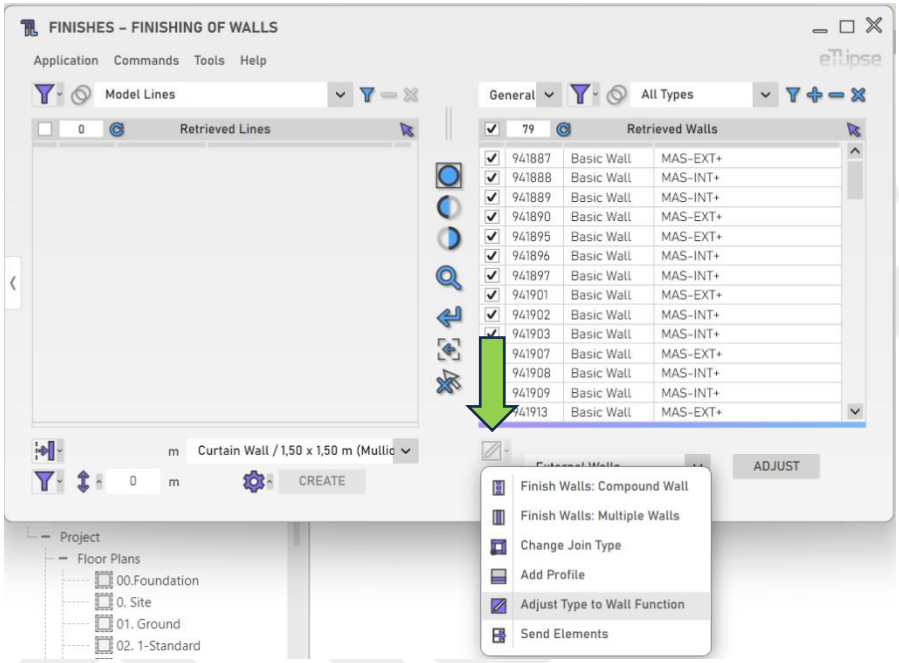
Adding Profile Instances

To add the instances of the chosen profile with the provided settings, click the "Add Profile Instances" button.



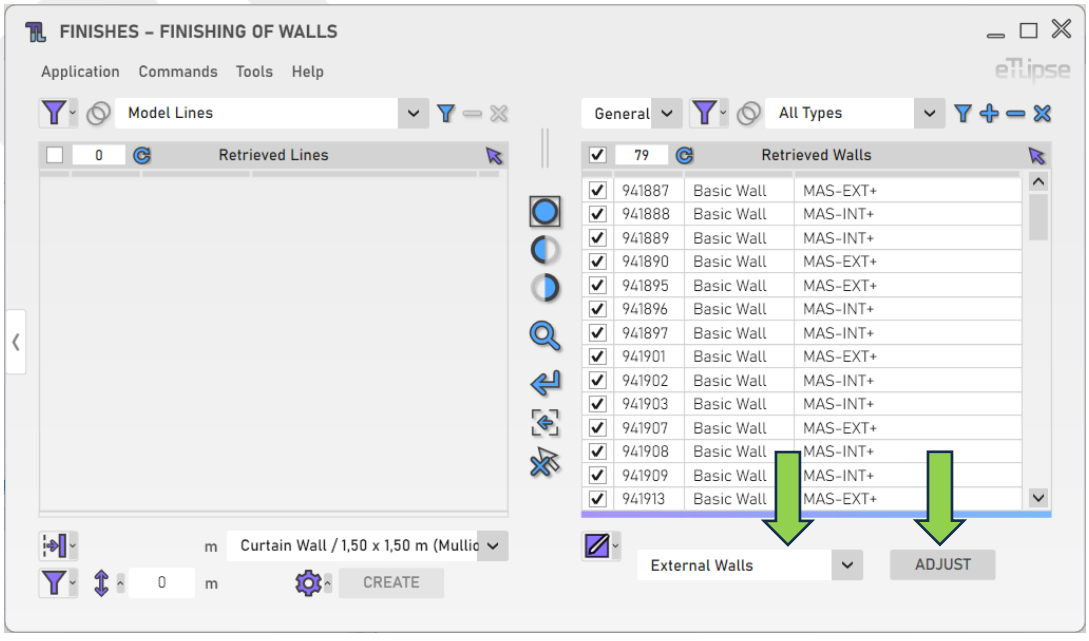
WALLS OPERATION: ADJUSTMENT OF TYPE TO WALL FUNCTION

In order to access the tools for adjustment of walls type to the chosen function (interior or exterior), the "General Walls" mode must be selected at the "Walls Operation Modes" dropdown box and the "Adjust Type To Wall Function" mode must be selected at the "Toggle Wall General Operation Mode" dropdown box.



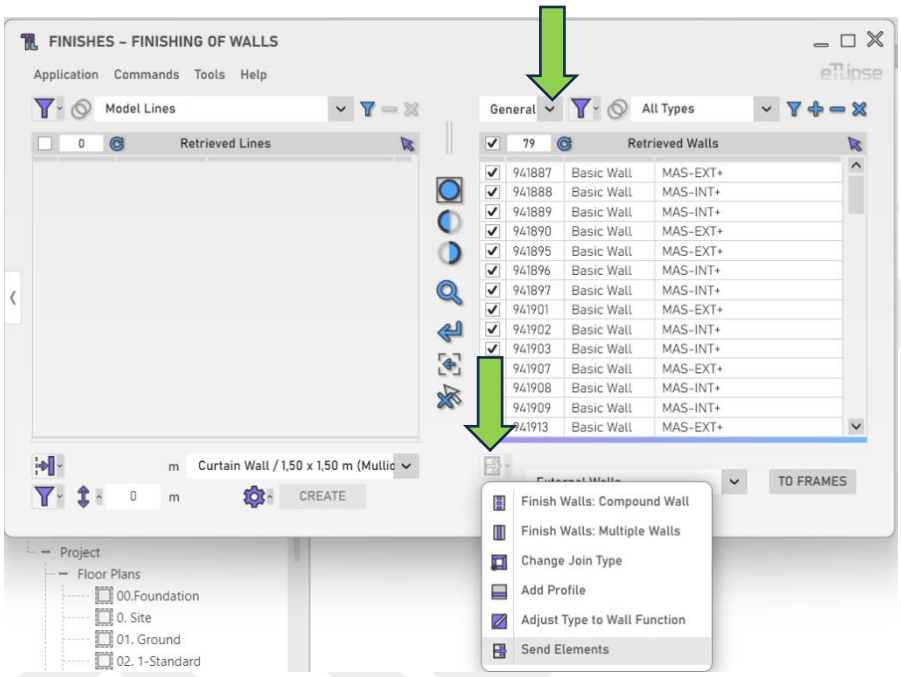
Adjusting Type to Wall Function

To adjust the type of the walls, you must select a function at the "Wall Function" dropdown box and click the "Adjust Type to Wall Function" button.



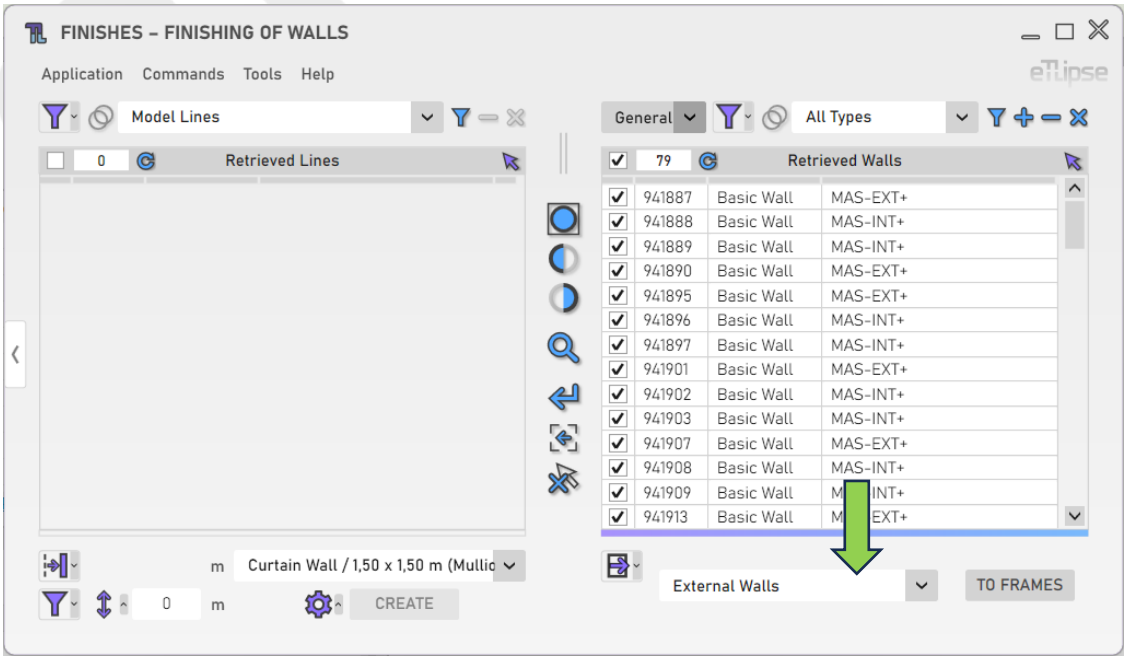
WALLS OPERATION: SEND ELEMENTS TO TL FRAMES

In order to access the tools to automatically send walls checked in the Walls Retrieval List to the TL Frames command, the "General Walls" mode must be selected at the "Walls Operation Modes" dropdown box and the "Send Elements" mode must be selected at the "Toggle Wall General Operation Mode" dropdown box.



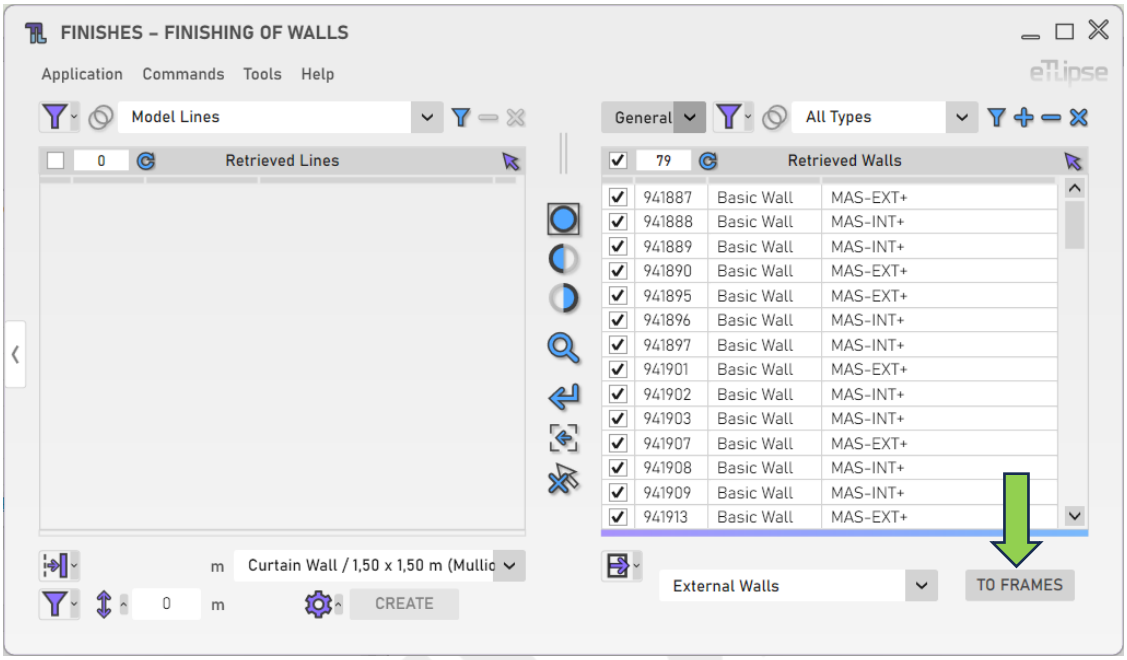
Walls to Send to TL Frames

To set the walls to be sent by their function (external, internal or all walls), choose an option at the "Walls to Send to TL Frames" dropdown box.



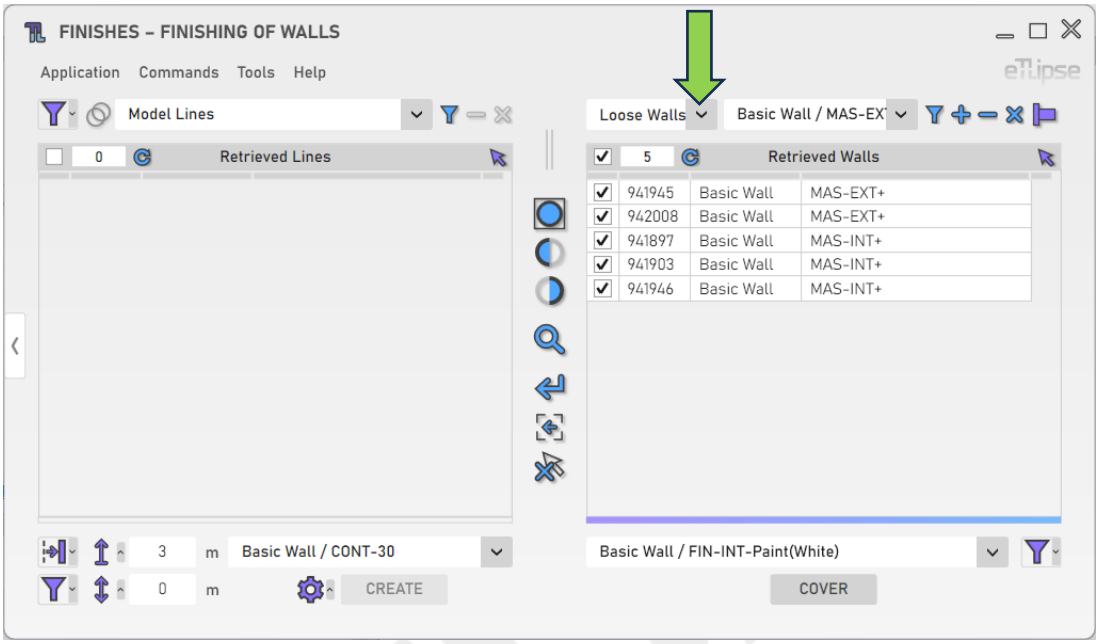
Sending Walls to TL Frames

To send the walls to TL Frames with the provided settings, click the “Send Walls to TL Frames” button.



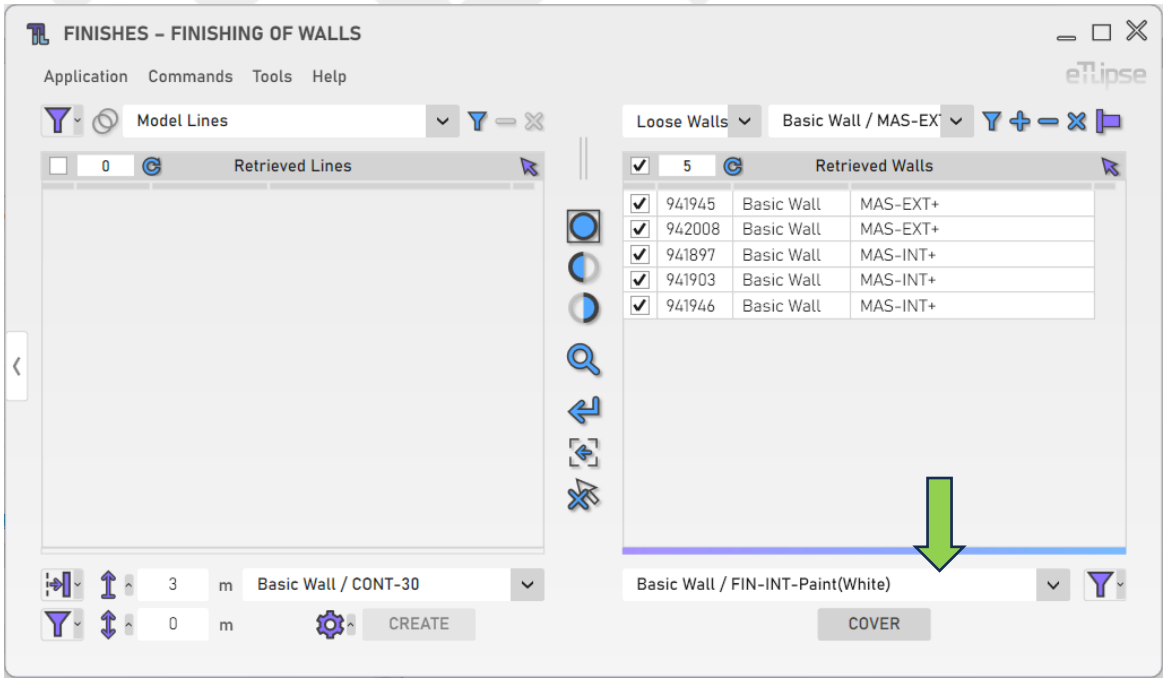
WALLS OPERATION: LOOSE WALLS OPERATION

In order to access the tools to cover the loose ends of walls checked in the Walls Retrieval, the "Loose Walls" mode must be selected at the "Walls Operation Modes" dropdown box.



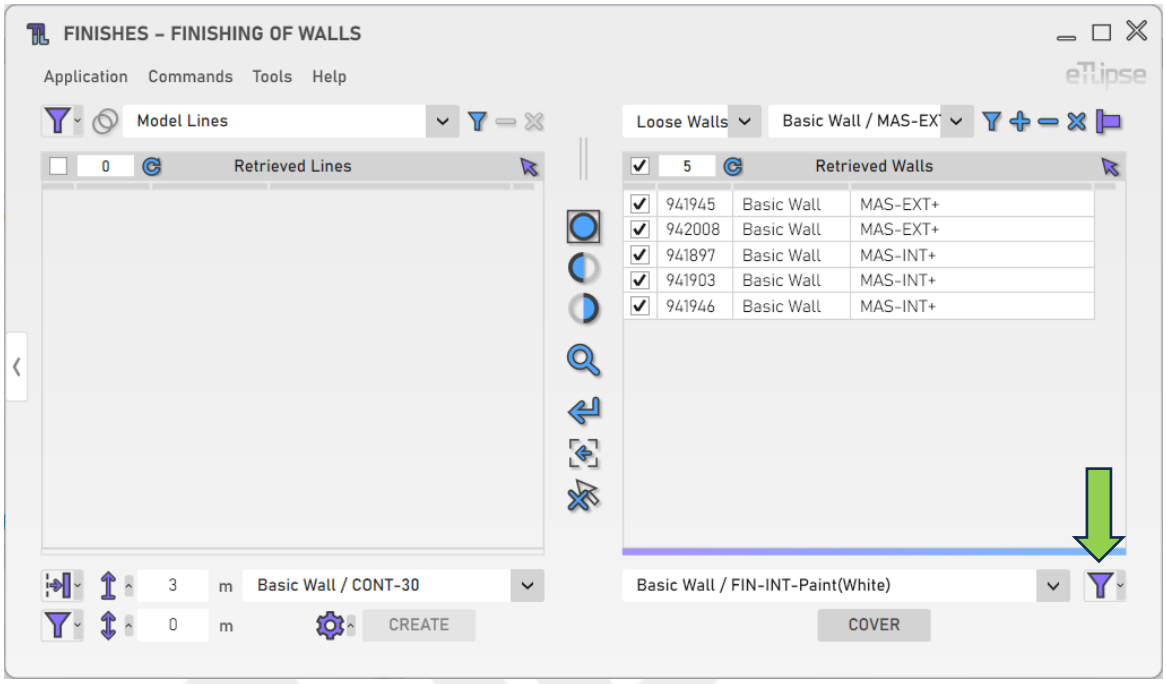
Cover Wall Type

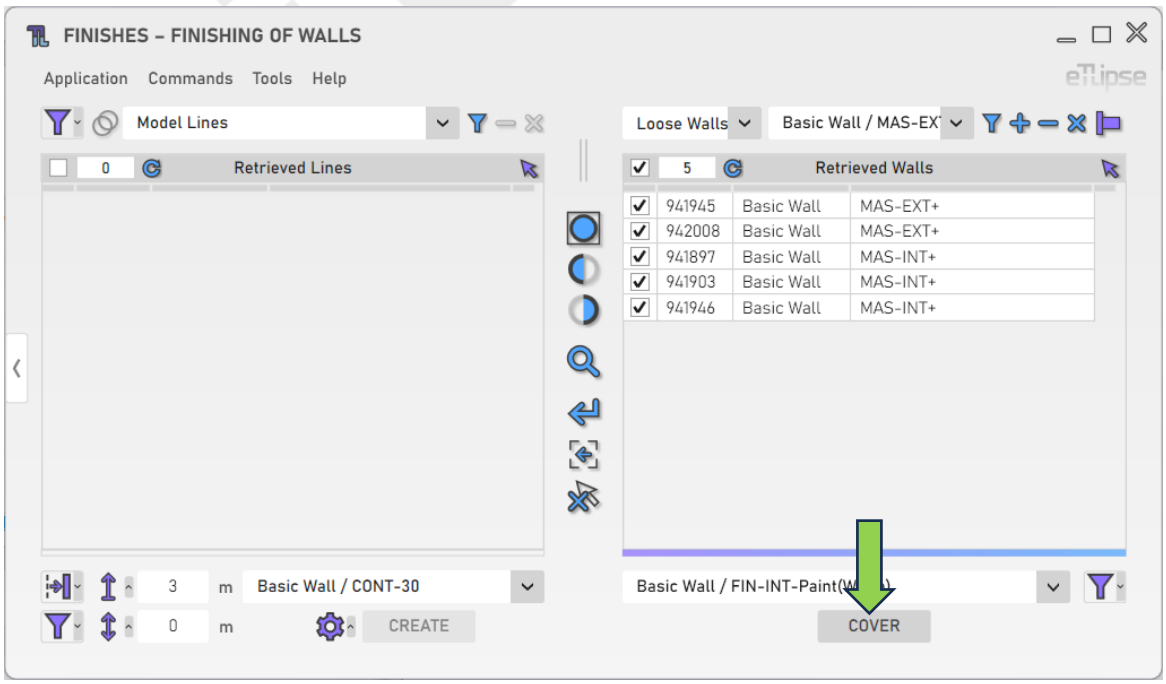
To set the wall type of the wall that will cover the loose ends, choose a wall type at the "Cover Wall Type" dropdown box.



Cover Wall Ends Modes

You can determine if the covering method should take the walls checked at the Walls Retrieval List (Automatic) or manually picked walls at the Revit view (Manually) by choosing the respective option at the "Toggle Cover Wall Ends Mode" dropdown box.



Covering Wall Ends

To cover the wall ends with the provided settings, click the "Cover Wall Ends" button.