Ortelia Space Builder User Manual

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Introducing Ortelia Space Builder

Ortelia Space Builder™ is a 3D interactive tool for creating 3D gallery spaces for use in Ortelia Curator™. Ortelia Space Builder allows users to import floor-plans of gallery spaces. A scale 3D model of the gallery can be created from the floor-plans as well as inserting of doorways, doors, windows and square holes in walls. Users can set ceiling and wall height and wall thickness independently. Walls can be painted and the resulting gallery saved for use in Ortelia Curator™.

Ortelia Space Builder™ has been created specifically with gallery professionals in mind. Ortelia Space Builder requires no specialised CAD skills, it is easy to use and very quick to learn.

Ortelia Space Builder™ is bundled with Ortelia Curator and is installed at the same time. Refer to the Ortelia Curator Manual for installation instructions.

System Requirements

The following hardware and software configurations are recommended for running Ortelia Curator.

Operating system:

- Microsoft Windows XP® (SP3)

- Microsoft Vista®.

- *Microsoft Windows 7®*

- *Microsoft Windows 10®*

- *Macintosh*

- *Linux operating systems are not supported.*

Hardware:

- Recommended minimum of 2Gb of RAM

- Intel Core 2 Duo or Quad Core processor or above

- DirectX 9.0c (and above) capable graphics card with a minimum of 512Mb graphics memory (we recommend Nvidia graphics cards, see below)

Important Note

*Ortelia Space Builder leverages many of the latest developments in graphics card technology. Specifically, the interactive environment utilizes Microsoft DirectX Shaders (**Shader Model 3 support and above**). Your graphics card (at a minimum) must support Microsoft DirectX 9c and above to ensure that your environment will display correctly. The following graphics cards are a minimum specification required to run Ortelia Curator.*

Minimum Graphics card specification

ATI Radeon HD 3800 Series. and above - 512Mb Memory and above
NVIDIA GeForce 8 Series and above - 512Mb Memory and above

Note: *We do not recommend the use of integrated motherboard graphics cards. It is highly recommended that a stand-alone graphics card be used.*

Getting Started

Ortelia Space Builder is installed with Ortelia Curator™.

To start Ortelia Space Builder™ go to the Windows start menu and navigate to the Ortelia Curator menu. Click on the Ortelia Space Builder link with your Left Mouse Button (LMB).
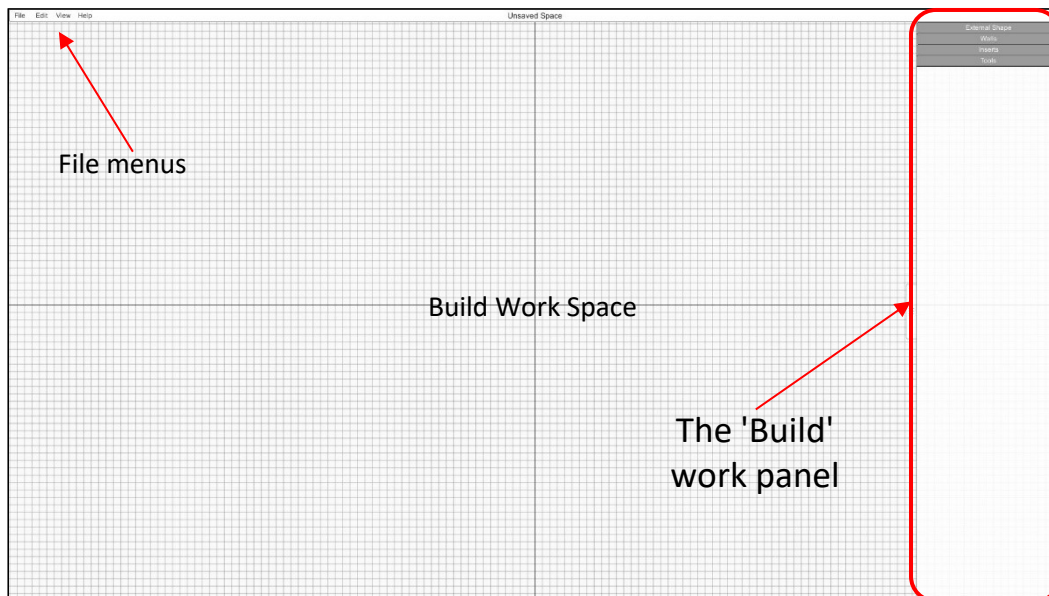

Note: *Load time will depend on the hardware configuration you are using. Refer to our recommended hardware configuration above*.

The Space Builder Interface

There are three key areas within the environment. These are:

    I.   The File Menus

    II.   The Build Panel

    III.   The Build Work Space

File menus

Build Work Space

The 'Build' work panel

The Ortelia Space Builder Interface

The File Menus

The 'File' menu consists of four menu items with each menu having its own drop-down. The menu items and their drop-downs are detailed below.

The '*File*' menu gives users access to commonly used commands.

New	Create a new space
Open	Open an existing space file
Save	Save the current space
Save As	Save the current space with a new name
Screenshot	Save a screenshot of the current view
Exit	Exit Ortelia Space Builder

The '*Edit*' menu allows users to undo and redo actions.

Undo (Ctrl + z)	Undo the last actions
Redo (Ctrl + y)	Redo the undo sequence

The '*View*' menu allows users to switch between 'Plan View' and 'Preview'.

Plan View (Ctrl + p)	Switch to 'Plan' view when in preview mode (3D view)
Preview (Ctrl + p)	Switch to 'Preview' view (3D view) when in plan view mode

The '*Help*' menu gives access to this help manual and information about the software.

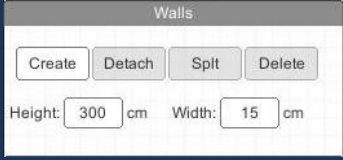| Quick Start Guide	Launches the Quick Start Guide with descriptions of commonly used tools
User Manual	Opens this help document as a PDF.
Web	Go to the Ortelia website
About	Application credits and version number

The Build work panel in detail

The 'Build' work panel is divided into four individual tabs that allow access to categorised functionality. The work panel tabs are summarised below:

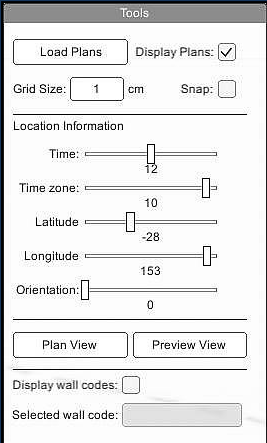|	
External Shape	*Tools for creating the external walls of individual gallery spaces, setting ceiling height and apply floor coverings*
Walls	*Tools for building internal walls*
Inserts	*Tools for creating doorways, windows and hole inserts in walls*
Tools	*Tools for importing floor plans, setting drawing scale and setting gallery real-world position*

The External Shape Tab

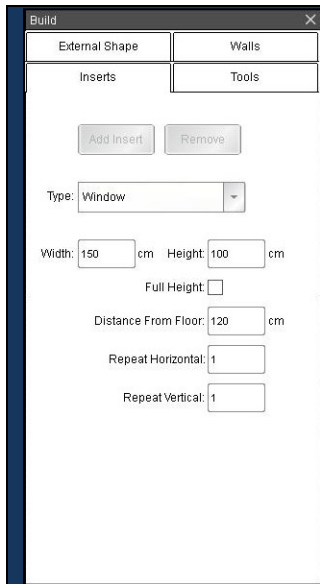|	
Add Space	*Create a new space or add another to the current build*
Remove	*Remove the selected space*
Ceiling Height	*Set the ceiling height (in cm) for the currently selected space*
Flooring	*Change the floor covering for the selected space from the preset list.*

The Walls Tab

Create	*Create an internal wall*	
Detach	*Detach a section of wall*	
Split	*Split a wall into two equal sections*	
Delete	*Delete the selected wall*	
Height	*Set the wall height*	
Width	*Set the wall thickness*	

The Tools Tab

Load Plans	*Load gallery floor plans (Image file)*
Display Plans	*Show or hide the plan in the Build area*
Grid Size	*Set the size of the grid squares and snapping*
Snap	*Turn snapping o/off when creating walls, placing inserts etc.*
Location information	*Enter the time zone, latitude, longitude, and orientation (north) of your gallery*
Plan View	*Switch to Plan View from Preview View (3D mode)*
Preview View	*Switch to Preview view (3D mode) from Plan View*
Display Wall Codes	*Show or hide the wall codes*
Selected Wall Code	*Shows the code of the currently selected wall*

The Tools panel shows:

Tools

Load Plans   Display Plans: ☑

Grid Size: 1 cm   Snap: ☐

Location Information

Time: ———————— 12

Time zone: ———————— 10

Latitude ———————— -28

Longitude ———————— 153

Orientation: ———————— 0

Plan View   Preview View

Display wall codes: ☐

Selected wall code: _____

The Inserts Tab

Add Insert	*Add an insert in a wall*
Remove	*Remove an insert from a wall*
Type	*Select between, Window, Door Way, Hole or fixed door (Closed door) using the dropdown menu*
Width	*Set the width of the insert (in cm)*
Height	*Set Height of the insert (in cm)*
Full Height	*Checkbox for full floor to ceiling insert*

	Distance From Floor	Distance of the bottom of the insert from the floor
	Repeat Horizontal	*Input the number of horizontal sections in the insert*
	Repeat Vertical	*Input the number of vertical sections in the insert*

Build

External Shape	Walls
Inserts	Tools

Add Insert   Remove

Type: Window

Width: 150 cm   Height: 100 cm

Full Height: ☐

Distance From Floor: 120 cm

Repeat Horizontal: 1

Repeat Vertical: 1

Keyboard functions and Navigating

There are a number of methods for interacting and moving around inside the Ortelia Space Builder™. A combination of keystrokes and mouse functions can be used to navigate.

Plan View Mode

There are only two mouse functions needed to use and navigate in Plan View mode. The following table summarizes these functions.

- **Left Mouse Button** (**LMB**) – This button is the action button. You can use it to select/move walls, and complete input actions such as check boxes.
- **Middle Mouse Button** (**MMB**) - The middle mouse button is used to pan around the work space. Click and hold the MMB and move your mouse to Pan.
- The **scroll wheel** can be used for zooming in and out in Plan View.

Preview (3D) Mode

Keyboard functions (Directional Keys)

Both the arrow keys and the W,S,A,D keys can be used as directional keys to move around the environment.

Arrow keys allow the following movement:
Forward (Up arrow, Backwards (Down Arrow), Left (Left arrow) and Right (Right Arrow)

W,S,A,D keys allow the following movement:
Forward (**W** key), Backwards (**S** Key), Left (**A** Key) and Right (**D** Key)

Mouse Functions (Selecting objects, looking around)

The mouse buttons serve various functions.

- **Left Mouse Button** (**LMB**) – This button is the action button. You can use it to select/move walls, and complete input actions such as check boxes.
- **Right Mouse Button** (**RMB**) – This button is used to **rotate** about the 3D preview environment. Hold the **RMB** down and then move your mouse sideways to rotate about. Use this in combination with the *direction key*s to move freely around the environment. For example, you can simply use the forward and backward directional keys to move in those directions while holding down the **RMB** to steer.

Note: *This is a very effective and efficient way to navigate the 3D environment.*
Hint: *You can travel faster through the 3D environment by holding down the 'SHIFT' key while moving.*

Moving and Turning

Use either the **arrow keys** or the **W**,**S**,**A**,**D** keys to move forward, backwards or pan sideways. Click and hold down the RMB in combination with the directional keys to turn corners and look around. The figure below demonstrates moving forward in the 3D environment while using the mouse to steer.
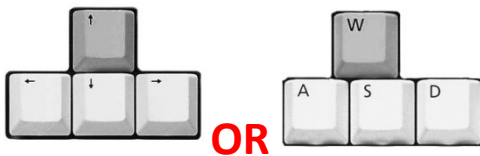
Hold down either the Up Arrow key or the W key

and

Hold down the Right Mouse Button while moving the mouse sideways

Importing Floor Plans

To import a floor plan go to the '*Tools*' tab.
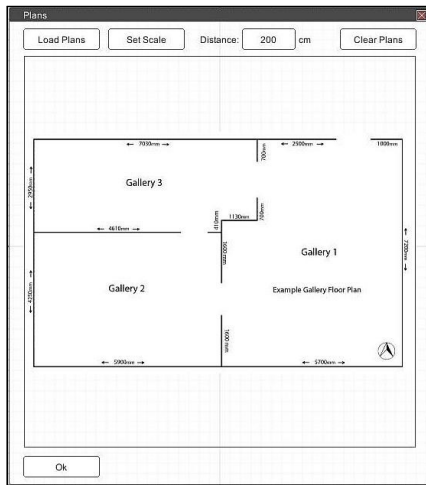
1. Click the '*Load Plans*' button.

2. The 'Plans' window will appear.

3. To Load a plan click the *'Load Plan Image'* button.

4. Navigate to the folder containing your plan image (.jpg format) and select it or use the example floor plan provided.

5. Once the plan has been loaded, it can be scaled to the correct real-world size ready for building.

6. To scale the plan to the correct real-world size click the '*Set Scale*' button.

7. Position the mouse cursor over the start point for your scale measurement and click with the LMB to place your first point.

8. Move your mouse pointer to the next point (a red line will be drawn).

9. Click on the endpoint with your LMB

10. Enter the distance (in cm) in the Distance input box.

11. When you are finished click the '*Ok*' button.

The plan of the gallery will now appear in the workspace.

Note: *You do not need a plan to create a gallery. You can build a gallery without the use of a floor plan.*
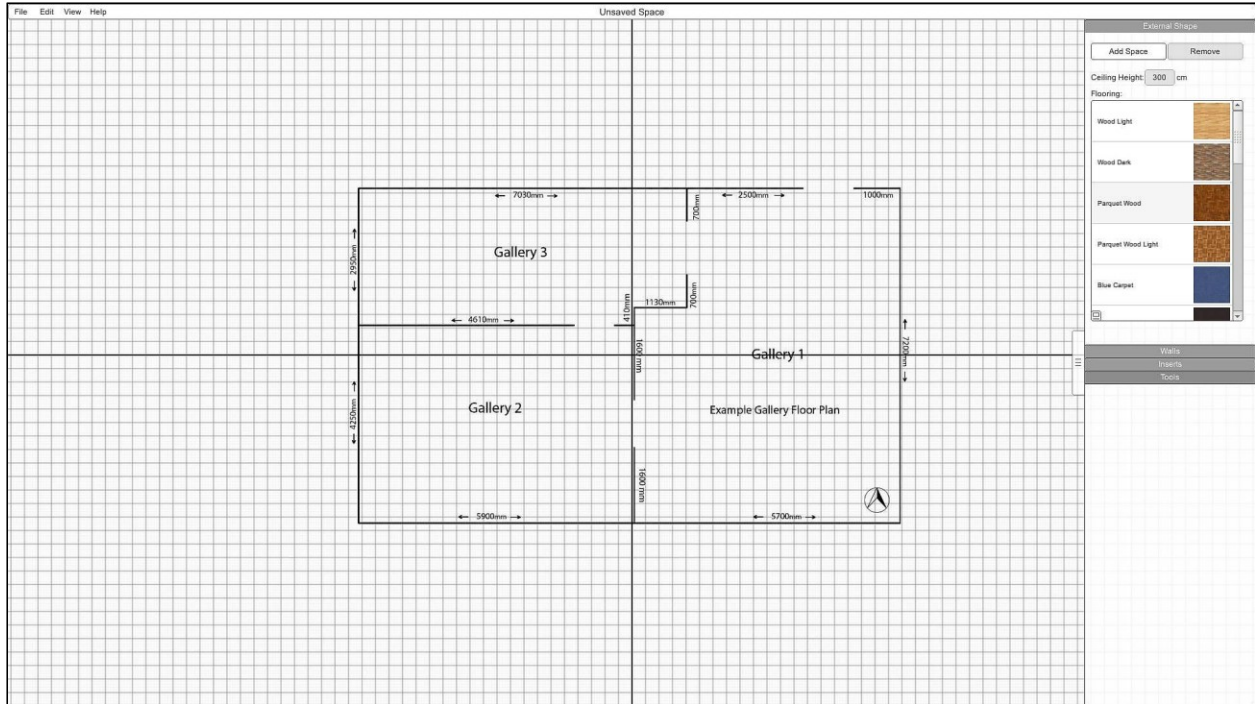
Building a Gallery

The first step in creating a gallery space is to create the individual spaces. To do this go to the '*External Shape*' tab.

1. Click on the 'Add Space' button.

2. Your cursor will change to a crosshair.

3. Click with the LMB on the first point where you want to start the external wall.

4. Move your cursor to the next point and click with the LMB to add the next point.

5. Trace your way around the first gallery space and finish the space by pressing 'Enter' on your keyboard.

6. The sequence below shows this process for creating the first space n the example file.

Note. If you do not want to complete the space simply press the 'Escape' key on your keyboard to abort the drawing operation.
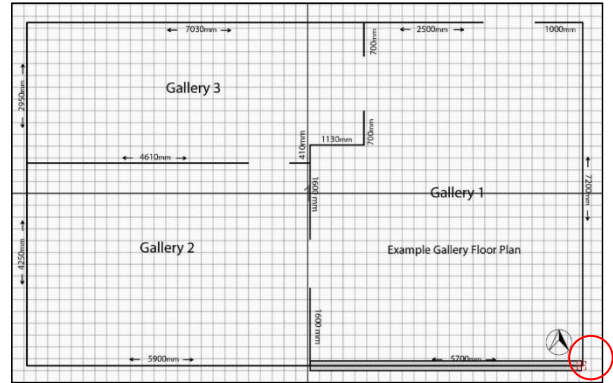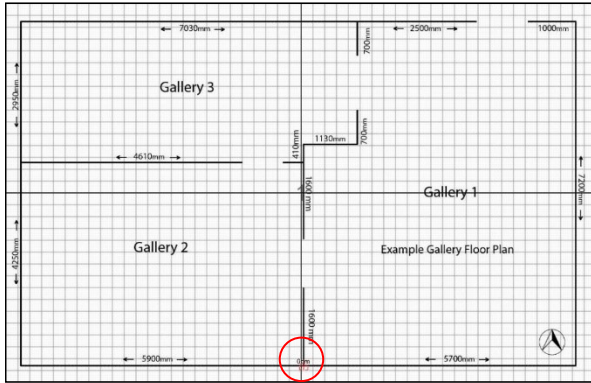
1. Place the cursor over the first point and click with the LMB

2. Place the cursor over the next point point and click with the LMB
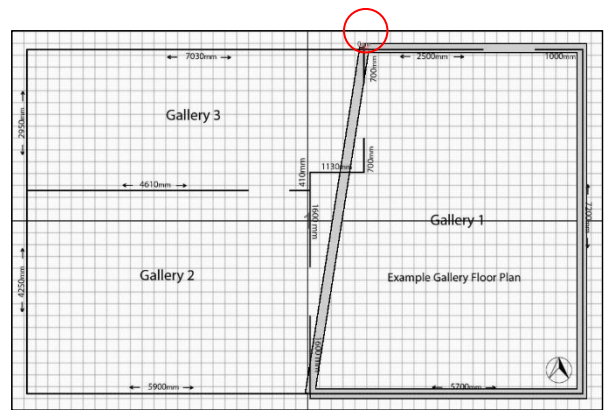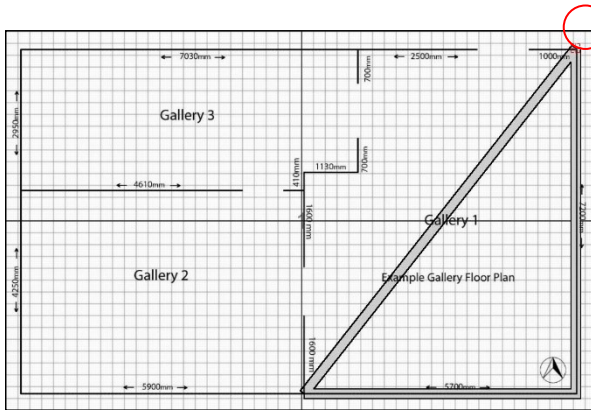
3. Continue around Gallery space one

4. Continue to add points
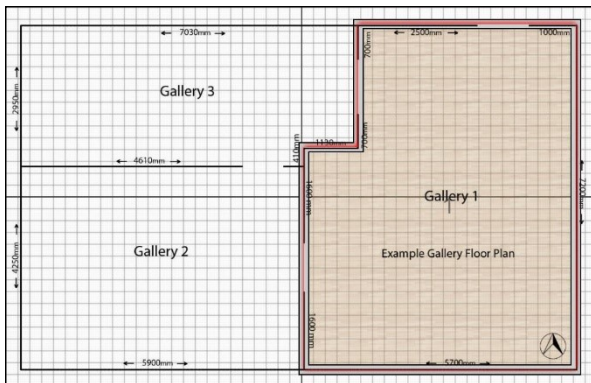
5. Press 'Enter' to complete the space. Set your ceiling height (in cm) in the 'Ceiling Height' input box.
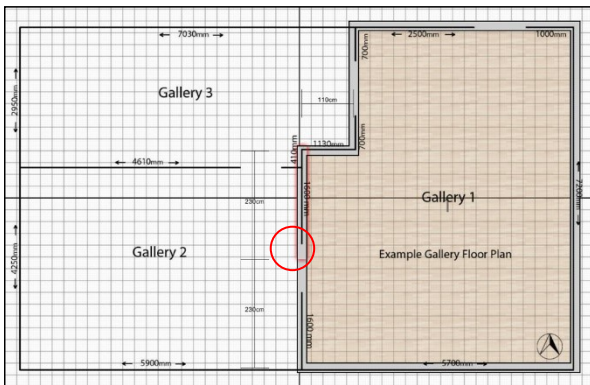

6. View your room in 3D view by clicking the '*Preview*' button in the '*Tools*' tab or using the shortcut Ctrl + p
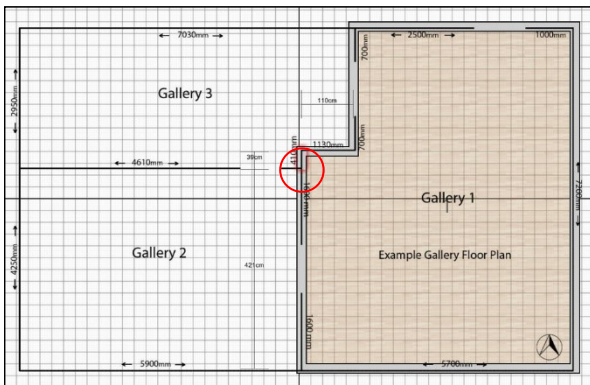
Splitting Walls

Individual walls can be split into multiple segments if needed. The following steps describe how to split and move walls.
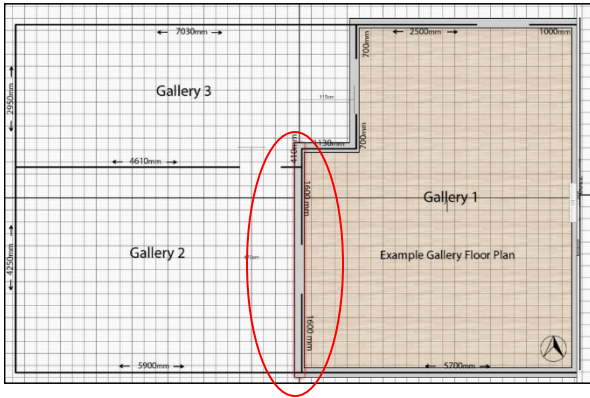
1. Select a wall by clicking on it with the LMB. The wall will be highlighted in red.

**2.** In the '*Walls*' Tab click the '*Split*' Button. The wall will now by split in equal halves.

3. Click and hold the LMB on one end of the highlighted section of wall and move it to a new position. Release the LMB to finish.

Adding additional Gallery Spaces

The process for adding additional gallery spaces to the current space is the same as creating a new space. The following steps describe how to add additional spaces to your current build.
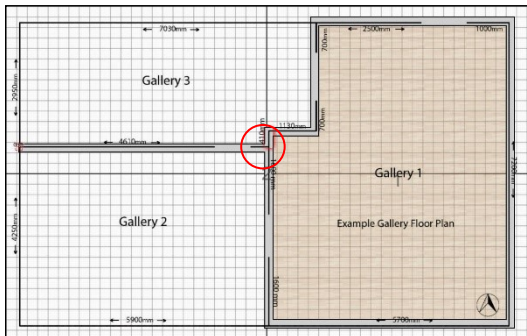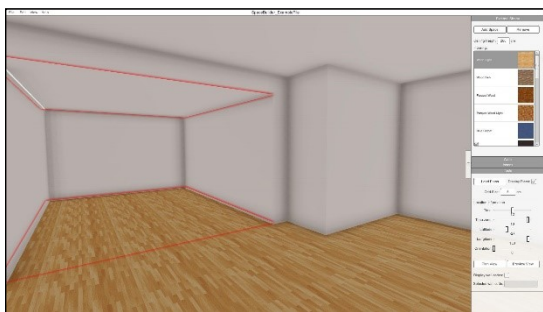

1. Place the cursor over the first point and click with the LMB
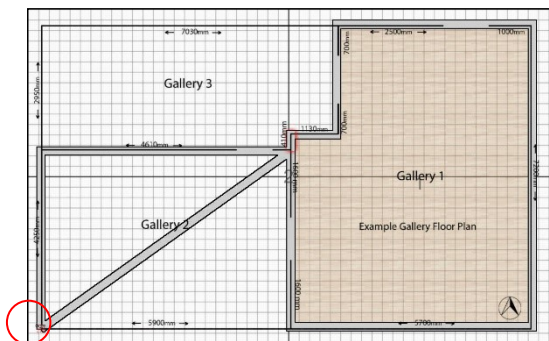
2. Continue to add points
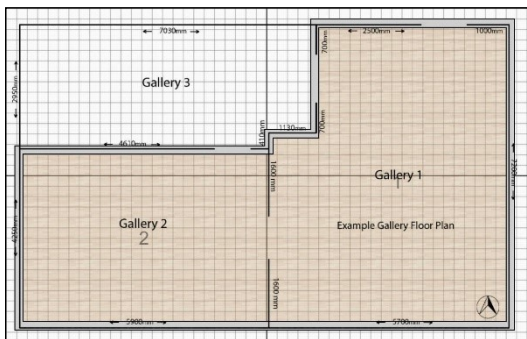
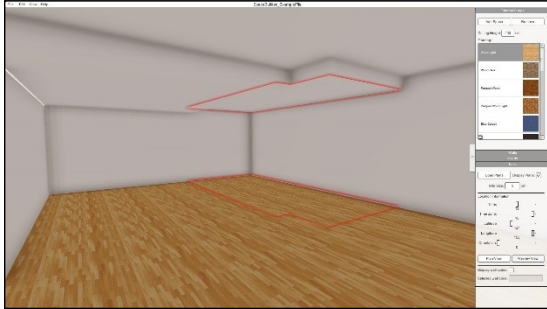**3.** Press 'Enter' to complete the space. Set your ceiling height (in cm's) in the 'Ceiling Height' input box.

4. View your room in 3D view by clicking the '*Preview*' button in the '*Tools*' tab or using thhe shortcut Ctrl + p. In this example Gallery space One ceiling height is set at 320cm's an Gallery space Two at 280cm's.

Note that the common walls between the two spaces have been removed. These will be replaced by internal walls

Adding Internal Walls

When you have all the spaces added to your gallery you can begin to add internal walls. The following steps describe the process for adding internal walls to your gallery. To add internal walls go to the '*Walls*' Tab.
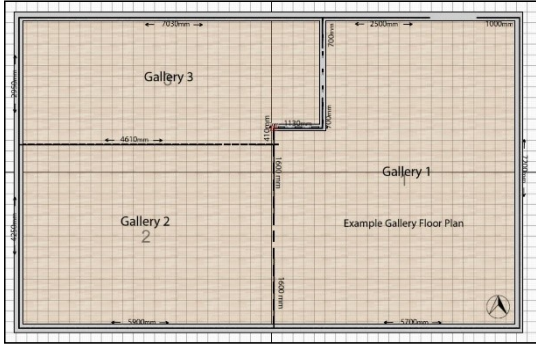

1. This 3D preview shows the entire gallery completed without internal walls. In this example Gallery 1 has a celing height of 320 cm, Gallery 2 is 290 cm and Gallery 3 is 270 cm.
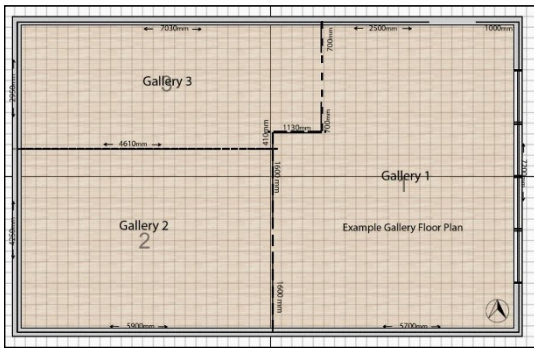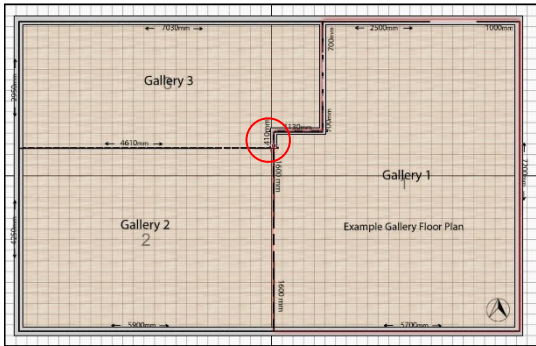

2. The process for adding an internal wall is the same as that for creating external shape. Place the cursor over the first point and click with the LMB
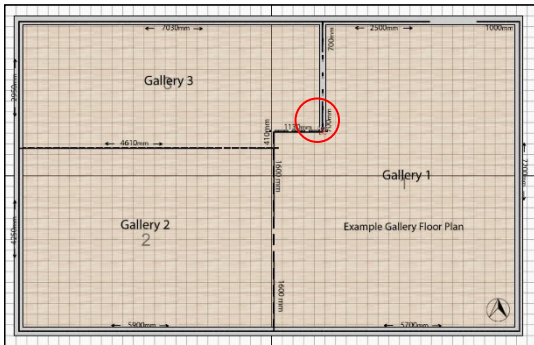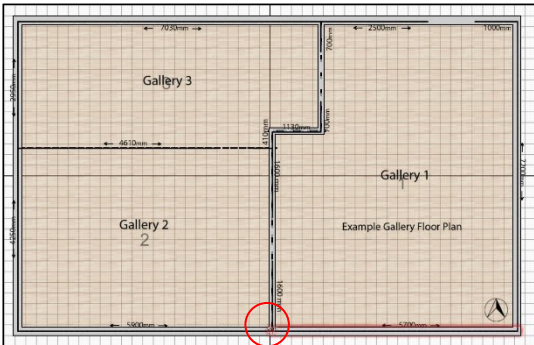

3. Continue to add points

4. Continue to add points

**5.** Add points where you want other walls to snap to.

**6.** Press 'Enter' to complete the wall

7. View your room in 3D view by clicking the '*Preview*' button in the '*Tools*' tab or using the shortcut Ctrl + p.

Adding Doorways, Doors and Windows

Adding doorways, Doors, Windows and Holes is very simple. To add inserts go to the '*Inserts*' tab. The following steps describe how to add inserts into the walls of your current build.
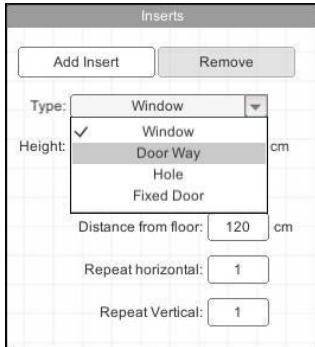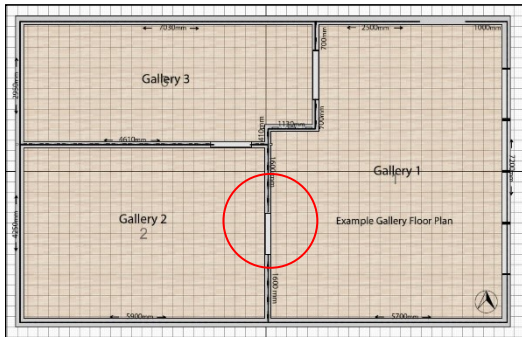
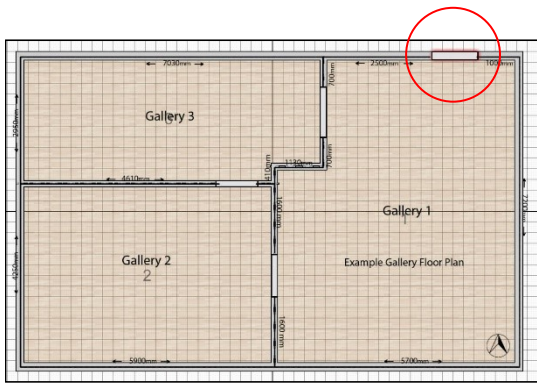**1.** From the '*Inserts*' Tab choose '*Door Way*' from the '*Type*' drop-down menu
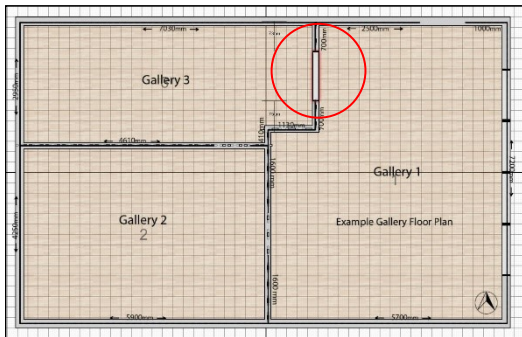
2. Click on the *'Add Insert'* button and move your cursor over the wall where you want the doorway to be placed. Note that as you move the insert the distance from each wall is displayed. Set the width and height of the doorway in the relevant input boxers.

Note that if an insert is selected, the dimensions/type/etc from that insert will be used for the new insert.
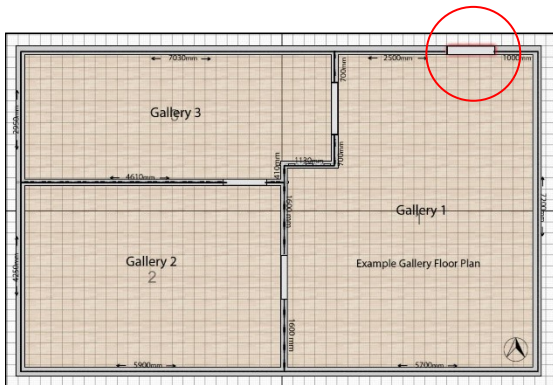
3. Continue to add doorways as shown and setting their width and height.
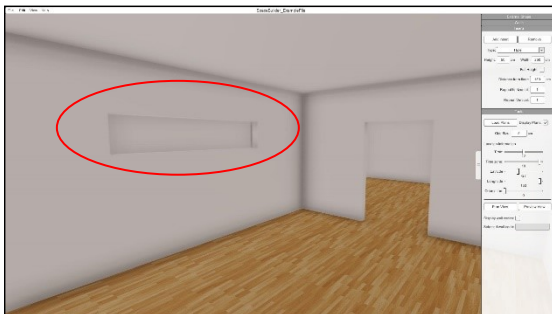
4. From the '*Inserts*' Tab choose 'Fixed *Door*' option from the '*Type*' drop-down menu. Place the door as shown and set the desired width and height.

5. This 3D preview shows the fixed door in place.

6. Inserts can only be manipulated in the 2D view. Simply click on a doorway with the LMB and drag it where you want it.

7. To add a hole in a wall select '*Hole*' from the '*Type*' drop-down menu and click on the wall that you would like the insert in. You can only do this in Plan view.

Set the width and height of the hole. You can adjust the position of the hole interactively in Preview Mode.

8. To add a window in a wall select '*Window*' from the '*Type*' drop-down menu and click on the wall that you would like the insert in. You can do this in Plan view and Preview mode.

Set the width and height of the window. You can adjust the position of the window interactively in Preview Mode.

Windows can also be tiled by inputting the number of horizontal and vertical repeats in the relevant input boxes in the '*Inserts*' tab. Fixed doors can also be tiled horizontally. The following are some examples of windows set at varying repeats horizontally and vertically.

Single window. One horizontal repeat and one vertical repeat
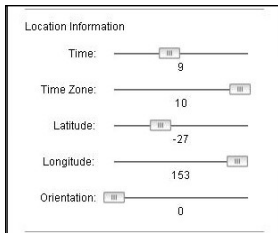

Four horizontal repeats and one vertical repeat

Four horizontal repeats and one vertical repeat with the '*Full Height*' checkbox activated

Four horizontal repeats and four vertical repeats with the '*Full Height*' checkbox activated

Setting the geographical position and orientation of the Gallery

To set your gallery in real-world space go to the '*Tools*' tab.

1. Set you timezone relative to GMT using the 'Time' slider
2. Set the Latitude and the Longitude using the sliders
3. Set the orientation of the gallery using the slider. O° is Due North, 90° due East, 180° is Due South and 270° is Due West.

To test the effects of light and shadow resulting from exterior light use the '*Time*' slider. The following examples are for a gallery located at **Latitude** 27°25'S and **Longitude** 153° 9' E.
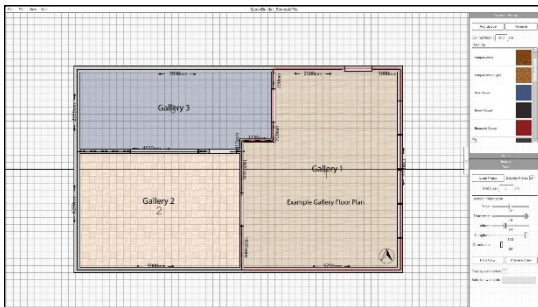
5 AM

9 AM

5 PM

View from Gallery number two at 5 AM

Changing floor coverings

1. To change floor coverings the 'External Walls' tab must be active.

Select the space that you want to change (in either plan view or preview mode) and then scroll through the available pre-defined floor coverings in the '*Flooring*' list. Select the floor covering you would like to apply by clicking on it witht he LMB
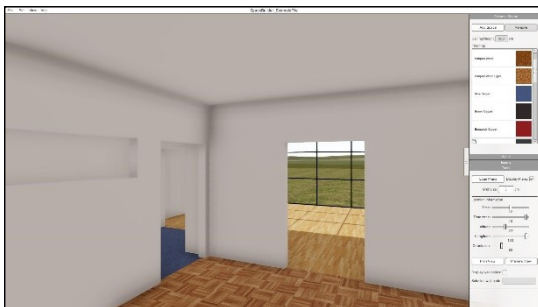
2. Priview mode showing all three gallery spaces with different floor coverings.

Saving your Gallery for use in Ortelia Curator

Save your gallery by going to the '*File*' menu and selecting '*Save*'. If it is the first time you are saving your gallery it will be saved to the default 'Galleries' folder and will be available for use in Ortelia Curator.

You can choose '*Save As*' and navigate to the folder where you want to save th file.

There may be instances where you need to add your gallery to the list of saved galleries in Ortelia Curator for future use. This would be the case if you saved your gallery to somewhere *other than* the default 'Galleries' folder. The following steps will guide you through the process.

1. Locate the gallery file you would like to add. The extension will be *.ocs,* for example, MyGallery.ocs.

2. You need to copy this gallery file to the Ortelia Curator '***Spaces***'. *Typically, this will be:*

   a. *C:\Users**Your Username**\Documents\Ortelia\Curator\Spaces* – Windows

   b. *Users/Username/Documents/Ortelia/Curator/Spaces* – Macintosh

3. The next time you start Ortelia Curator your gallery will appear in the list.

Help and Support

Support Options:
Website: http://orteliacurator.com
Forums: http://ortelia.com/Forums/
Email: support@orteliacurator.com

Please allow 24 hours for support requests to be answered.

Contact Details:
Ortelia Interactive Spaces
PO Box 3129
Newmarket , 4051
Queensland
Australia