

Affinity for Revit facilitates the process of creating a program, then loading that directly into Revit as Rooms that can be used for your schematic design.

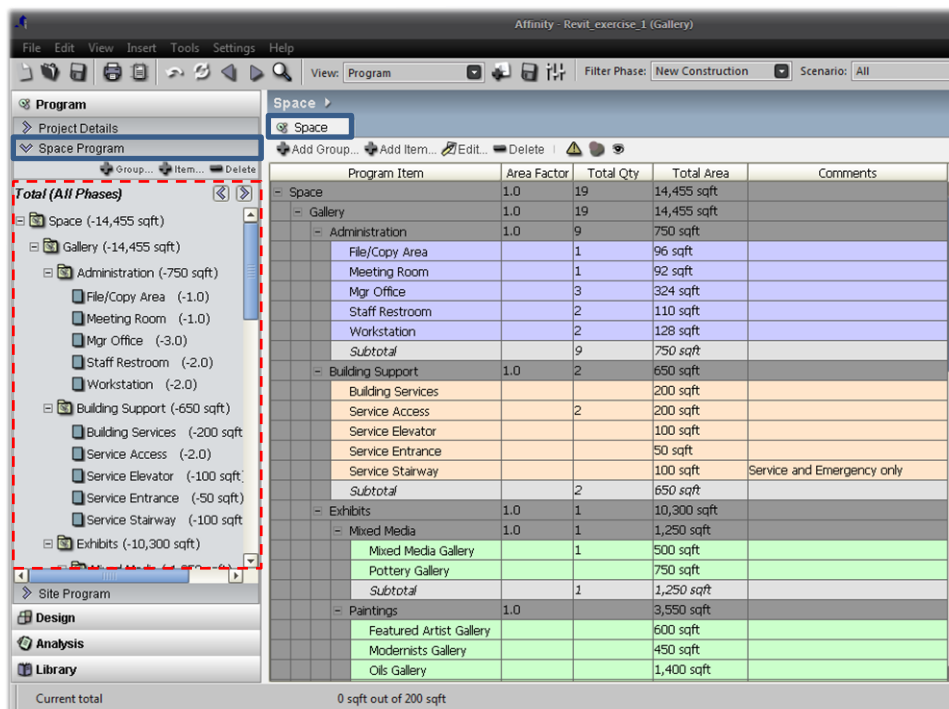
Typically, schematic design of projects is done in a program that is intended mainly for graphics. These programs do not allow that work to be transferred for use in a production program. It also does not maintain continuous checks against your required program. This Use Case describes the process of loading a program that exist in Affinity directly into Revit, creating a plan in Revit and applying the program spaces to the enclosures, and then loading that design back into Affinity. This not only ensures that there is no need to input identical program information in the Revit model, but it also maintains a link between the program and the documentation as the project progresses.

## 1. Loading Affinity Program into Revit

Affinity provides an easy-to-use plug-in for Revit. Through the loading process, the user can load just program information into Revit without a design. Revit converts all of the program spaces into rooms. All the program space properties, components and requirements are associated with the rooms that are used when creating the design.

### A. REVIEW IN AFFINITY

#### Affinity Program



Program Item	Area Factor	Total Qty	Total Area	Comments
- Space	1.0	19	14,455 sqft	
- Gallery	1.0	19	14,455 sqft	
- Administration	1.0	9	750 sqft	
File/Copy Area		1	96 sqft	
Meeting Room		1	92 sqft	
Mgr Office		3	324 sqft	
Staff Restroom		2	110 sqft	
Workstation		2	128 sqft	
Subtotal		9	750 sqft	
- Building Support	1.0	2	650 sqft	
Building Services			200 sqft	
Service Access		2	200 sqft	
Service Elevator			100 sqft	
Service Entrance			50 sqft	
Service Stairway			100 sqft	Service and Emergency only
Subtotal		2	650 sqft	
- Exhibits	1.0	1	10,300 sqft	
- Mixed Media	1.0	1	1,250 sqft	
Mixed Media Gallery		1	500 sqft	
Pottery Gallery			750 sqft	
Subtotal		1	1,250 sqft	
- Paintings	1.0		3,550 sqft	
Featured Artist Gallery			600 sqft	
Modernists Gallery			450 sqft	
Oils Gallery			1,400 sqft	

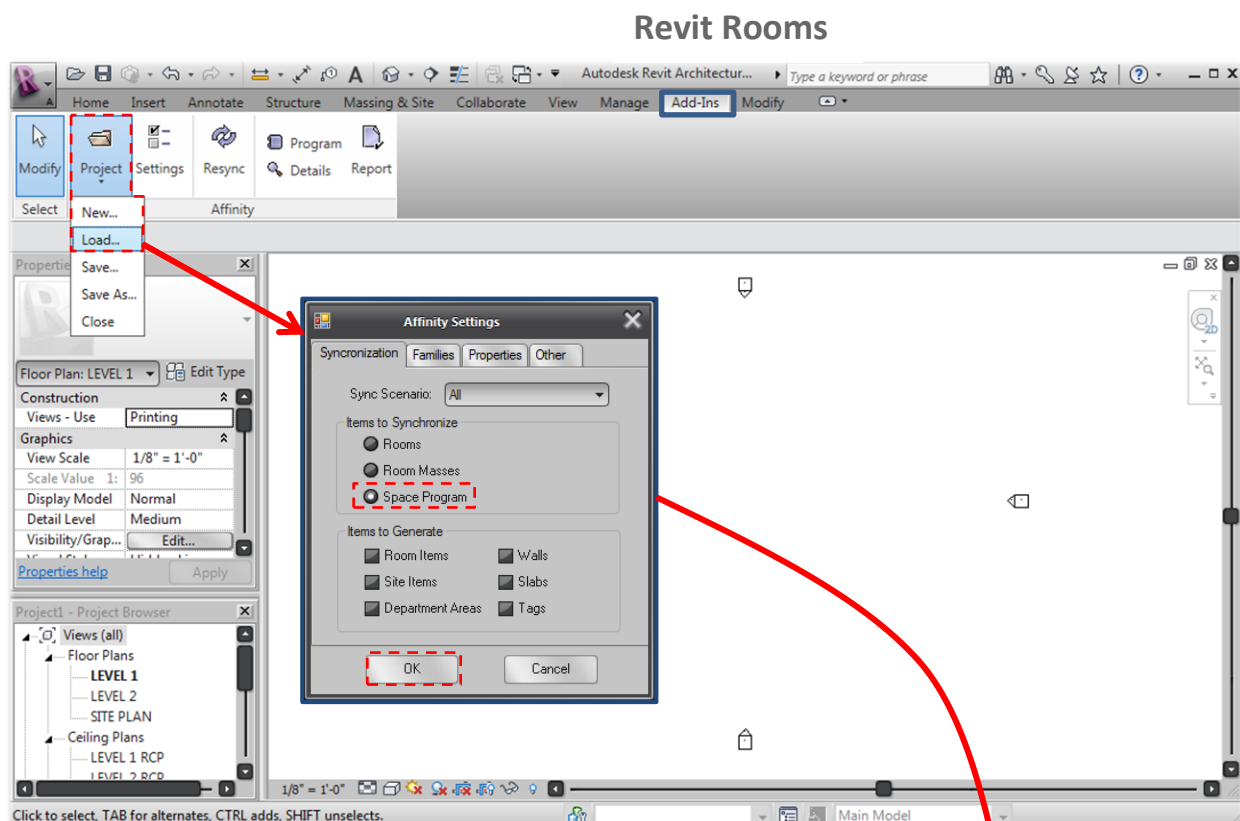
- Once a Program is created or imported, a list and count of all of your required Program spaces will show up in the Navigation bar under the Space Program tab.

## B. OPEN & SETUP

The Revit file should be set up using the proper unit of measurement and the location line of area calculations to your preferred setting. Make sure the Affinity file and Revit file settings match to avoid any discrepancies when the models are linked.

## C. LOAD

The Affinity Program is loaded into Revit with one simple step. The Affinity Spaces are converted to Rooms.



## D. CREATE SCHEDULE OF ROOMS

- Set up a Room Schedule to view all of rooms that were loaded into Revit from the Affinity program.
- Properties that match parameters automatically map over into Revit and can be scheduled.

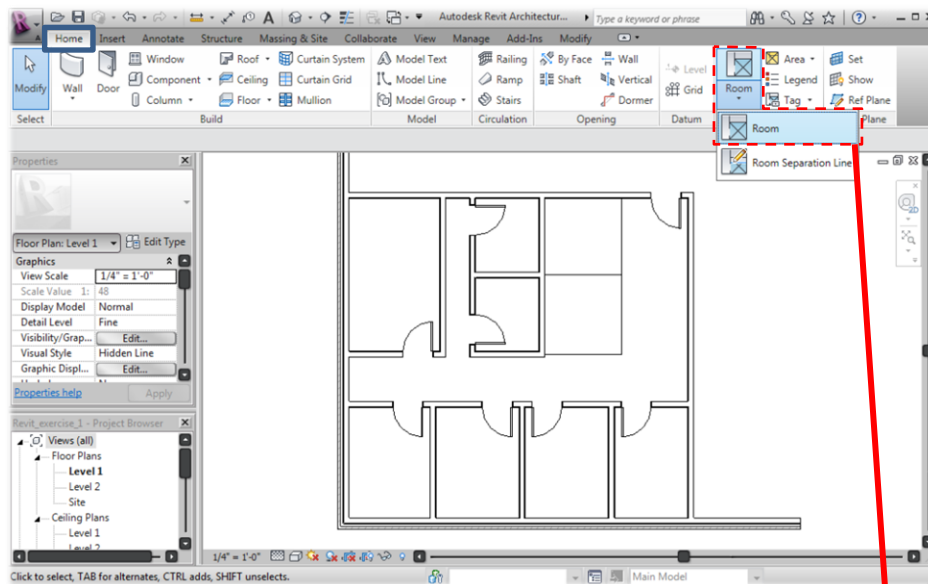
Revit Schedule

Room Schedule		
Name	Program Area	Area
<b>Gallery Administration</b>		
File/Copy Area	96	Not Placed
Meeting Room	92	Not Placed
Mgr Office	108	Not Placed
Mgr Office	108	Not Placed
Mgr Office	108	Not Placed
Staff Restroom	55	Not Placed
Staff Restroom	55	Not Placed
Workstation	64	Not Placed
Workstation	64	Not Placed
<b>Gallery Building Support</b>		
Building Services	100	Not Placed
Service Access	100	Not Placed
Service Access	100	Not Placed
Service Elevator	100	Not Placed
Service Entrance	185	Not Placed
Service Stairway	100	Not Placed

## 2. Creating a design in Revit

Rooms that are created in Revit exist even though they are not placed in the model. Once a design is created in Revit, the Rooms loaded from Affinity can be placed in enclosed regions. Once the link occurs between the Revit and Affinity file, Affinity ensures that all the program information and requirements resides with the model and is not lost through the duration of the project.

### A. CREATE LAYOUT

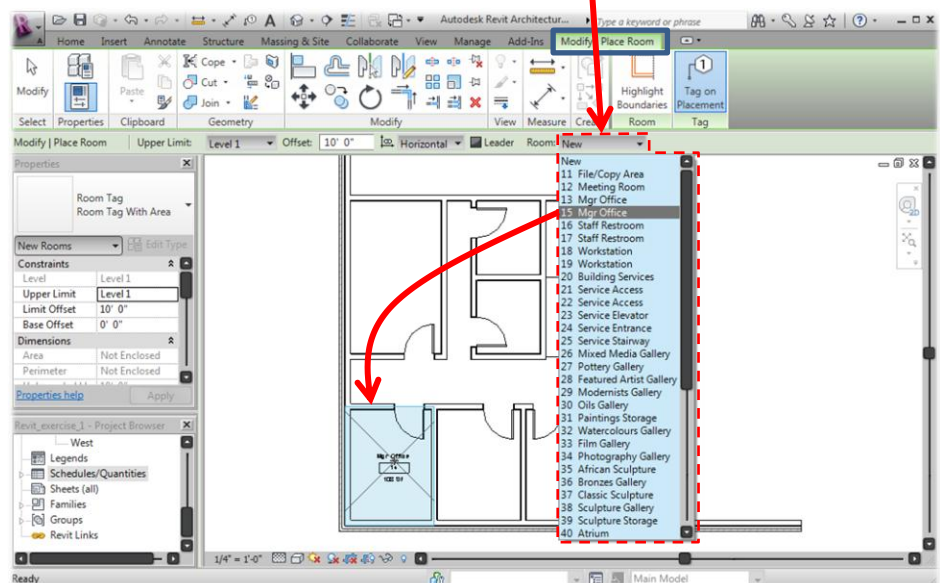


- Use Walls and Room Separation Lines to create enclosed spaces of a design plan.

Revit Design

### B. ASSIGN ROOMS

- Select Rooms from the list of Rooms created from the Affinity program and place them in the enclosed spaces.

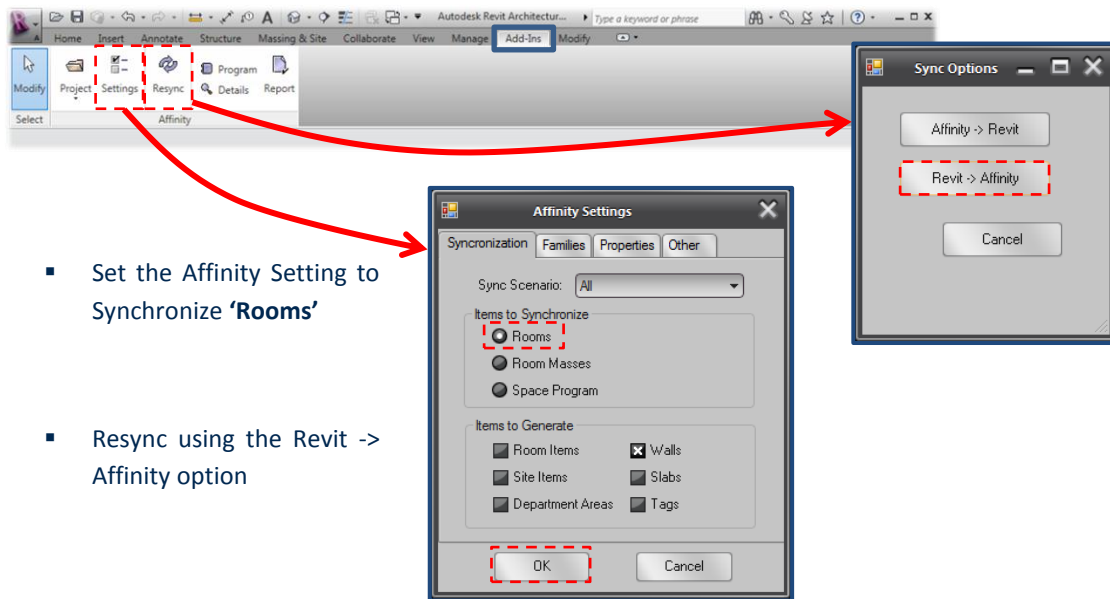


### 3. Synchronizing Revit design to Affinity

Now that the design has been created in Revit, the user shall sync the model back to Affinity. This will load the design in Affinity which allows the design team to analyze design-to-program compliance in real time.

#### A. SYNC DESIGN

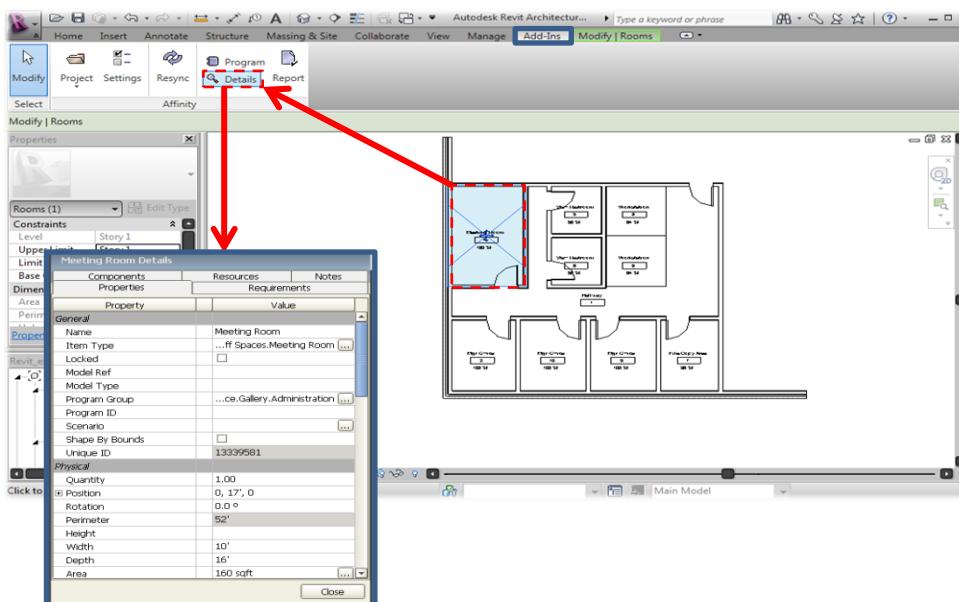
The Revit Design is quickly loaded into Affinity to create a Program to Design link.



- Set the Affinity Setting to Synchronize 'Rooms'
- Resync using the Revit -> Affinity option

#### B. VIEW DETAILS

The Program details in the Affinity project file are now linked to the Revit Model for the duration of the project. The room details, program and reports can all be accessed by the production team through Revit without the need to launch the Affinity application.



## 4. SUMMARY

In summary, Affinity provides a series of easy-to-use tools to create an early conceptual or schematic design that can then be loaded into Revit. This Use Case walks through the process of starting with just an Affinity program, loading that program directly into Revit, creating a design in Revit, and then loading that design back into Affinity for design-to-program compliance.

The Revit model remains linked to the Affinity design model, allowing the design team to view the program requirements and run Affinity reports from within Revit, without having to launch the Affinity application. Through the bi-directional integration between Affinity and Revit, the design team is able to analyze design-to-program compliance in real time – helping to ensure that as the design progresses in Revit, it continues to meet the client’s requirements as specified in the program.

Note that once the Affinity design model is loaded into Revit, the Revit model becomes the ‘master’ design model. All development of spaces already laid out in the design should be made in the Revit file. Subsequent synchronizations of the models will update data properties/parameter data, and will add newly laid out spaces from Affinity, but will not affect the previously designed spaces in Revit.