

Room Tracking

Tracking from Excel's program requirements:

If we were provided with an excel file containing list of rooms required and the program tracking needs to start from this point (before it has been modelled in revit).







Step 1:

Assuming the Excel requirements list looks like the picture below, where the list contains the Room names, Qty required and unit area required at the least. If we want to track the reason for change then a comments column in is recommended along with department name for better categorization and ease of filtering.


Room Code	Room Name	Qty Req'd.	Unit Area Req'd.	Const Phase	Const Type	Comments	Department	Functional Area:
EXAU1	Exam / Consult, Audiology	2	120	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
EXVE1	Vestibulography and Biosway Room - combine with OPAE2 for dual use	1	180	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
HAFR1	Hearing Aid Fitting Room	2	120	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
HATL1	HEARING AID TESTING LAB/SHOP	1	190	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
OFA01	OFFICE, Supv	1	120	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
OPAE2	Electrophysiology Room	1	0	1	0	Combined with OPAE2	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
PEHS4	Exam, Audiometric Booth	5	260	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
RECP1	Reception	1	100	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
SRSE1	Storage, Equipment	1	150	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC
TPG01	Toilet, Audiology Patient (delete if a pt toilet is nearby in design)	1	60	1	0		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC

Step 2:


Use the highlighted tool in excel (custom tool that PT created) to instantiate the rooms (rows based on the qty required column and assign Room Unique IDs or RUID to each row by just selecting and dragging the marker down in Excel which will autofill the next number in the series.

AutoSave      

Prototype Steps & Template.xlsx - Excel




 Search

FileHomeInsertDrawPage LayoutFormulasDataReviewViewRvtRoomTrackHelpBLUEBEAM


RowDuplByColQty

RoomGrp

H23

	A	B	C	D	E	F	G	H
1	Room Code	Room Name	Qty Req'd.	Unit Area Req'd.	Comments	Department	Functional Area:	Room UID
2	EXAU1	Exam / Consult, Audiology	2	120		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0000
3	EXAU1	Exam / Consult, Audiology	2	120		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0001
4	EXVE1	Vestibulography and Biosway Room - combine with OPAE2 for dual use	1	180		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0002
5	HAFR1	Hearing Aid Fitting Room	2	120		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0003
6	HAFR1	Hearing Aid Fitting Room	2	120		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0004
7	HATL1	HEARING AID TESTING LAB/SHOP	1	190		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0005
8	OFA01	OFFICE, Supv	1	120		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0006
9	OPAE2	Electrophysiology Room	1	0	Combined with OPAE2	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0007
10	PEHS4	Exam, Audiometric Booth	5	260		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0008
11	PEHS4	Exam, Audiometric Booth	5	260		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0009
12	PEHS4	Exam, Audiometric Booth	5	260		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0010
13	PEHS4	Exam, Audiometric Booth	5	260		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0011
14	PEHS4	Exam, Audiometric Booth	5	260		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0012
15	RECP1	Reception	1	100		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0013
16	SRSE1	Storage, Equipment	1	150		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0014
17	TPG01	Toilet, Audiology Patient (delete if a pt toilet is nearby in	1	60		OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0015

Step 3:

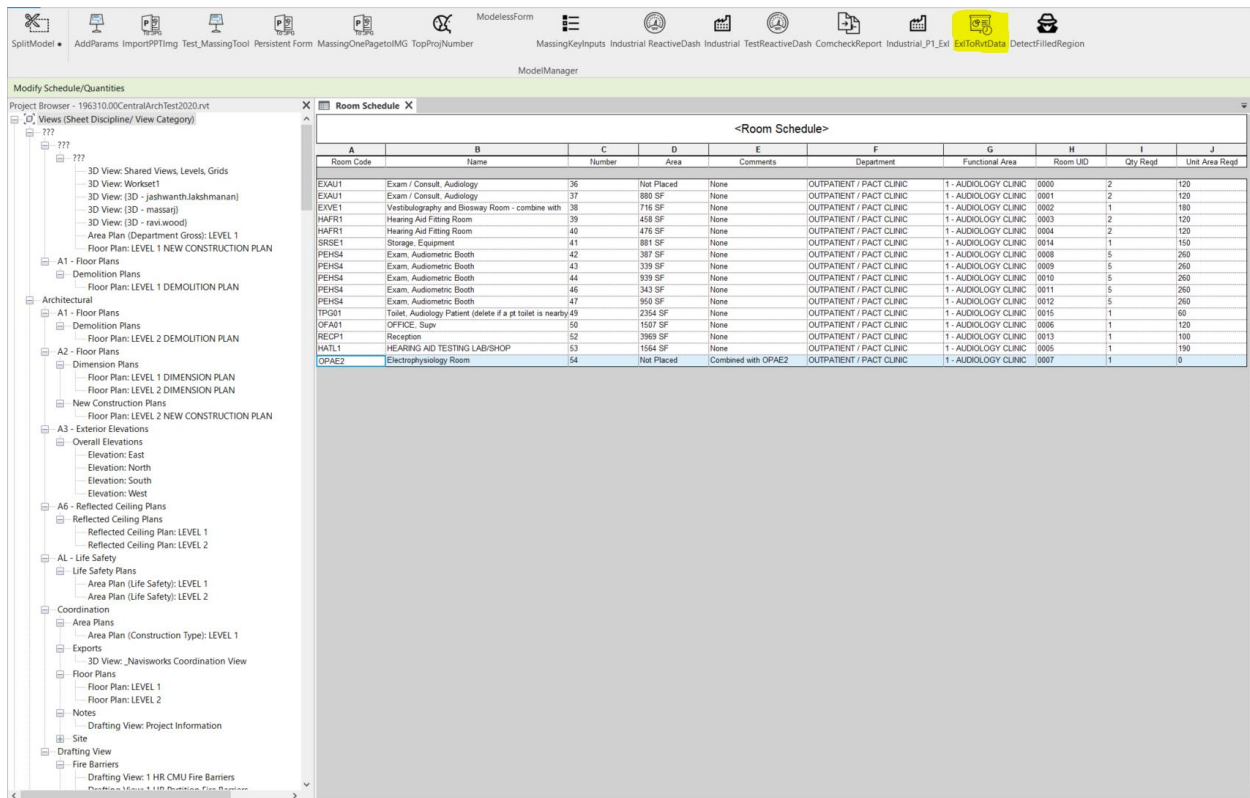
Once the project is modelled in Revit and the rooms have been placed, we would need a room schedule with the following fields :

<Room Schedule>									
A	B	C	D	E	F	G	H	I	J
Room Code	Name	Number	Area	Comments	Department	Functional Area	Room UID	Qty Reqd	Unit Area Reqd
	Exam / Consult, Audiology	36	Not Placed				0000	0	0
	Exam / Consult, Audiology	37	880 SF				0001	0	0
	Vestibulography and Biosway Room - combine with OPAE2 fo	38	716 SF				0002	0	0
	Hearing Aid Fitting Room	39	458 SF				0003	0	0
	Hearing Aid Fitting Room	40	476 SF				0004	0	0
	Storage, Equipment	41	881 SF				0014	0	0
	Exam, Audiometric Booth	42	387 SF				0008	0	0
	Exam, Audiometric Booth	43	339 SF				0009	0	0
	Exam, Audiometric Booth	44	939 SF				0010	0	0
	Exam, Audiometric Booth	46	343 SF				0011	0	0
	Exam, Audiometric Booth	47	950 SF				0012	0	0
	Toilet, Audiology Patient (delete if a pt toilet is nearby in desig	49	2354 SF				0015	0	0
	OFFICE, Supv	50	1507 SF				0006	0	0
	Reception	52	3969 SF				0013	0	0
	HEARING AID TESTING LAB/SHOP	53	1564 SF				0005	0	0
	Electrophysiology Room	54	Not Placed				0007	0	0

At which point the user will have to manually match each row/room to its respective RUID to bring in the information from excel using our tool.

Step 4:

Use the data transfer tool to bring in all the relevant information for each of the rooms into revit



Room Code	Name	Number	Area	Comments	Department	Functional Area	Room UID	Qty	Unit Area
EXAU1	Exam / Consult, Audiology	36	Not Placed	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0000	2	120
EXAU1	Exam / Consult, Audiology	37	880 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0001	2	120
EXAE1	Vestibulography and Biosway Room - combine with	38	716 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0002	1	190
HAFR1	Hearing Aid Fitting Room	39	458 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0003	2	120
HAFR1	Hearing Aid Fitting Room	40	476 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0004	2	120
SRSE1	Storage, Equipment	41	881 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0014	1	150
PEH54	Exam, Audometric Booth	42	387 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0006	5	260
PEH54	Exam, Audometric Booth	43	339 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0009	5	260
PEH54	Exam, Audometric Booth	44	939 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0010	5	260
PEH54	Exam, Audometric Booth	46	343 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0011	5	260
PEH54	Exam, Audometric Booth	47	960 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0012	5	260
TPG01	Toilet, Audiology Patient (delete if a pt toilet is nearby)	49	2354 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0015	1	60
OF A01	OFFICE, Supv	50	1507 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0006	1	120
RECP1	Reception	52	3969 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0013	1	190
HATL1	HEARING AID TESTING LAB/SHOP	53	1564 SF	None	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0005	1	190
OPAE2	Electrophysiology Room	54	Not Placed	Combined with OPAE2	OUTPATIENT / PACT CLINIC	1-AUDIOLOGY CLINIC	0007	1	0

Once all this information is in Revit, our custom hooks that come as a part of the GS General tools automatically collect all the room information and stores it in a sql server database when you close the file. Which is then queried and visualized using power BI where we use sliders and filters to consume this data.

Step 5:

When new rooms are added an RUID is automatically assigned after each sync. That is why we do not want to delete any rows/rooms from the project. We could potentially assign RUIDs which are not unique and we'd stop tracking those rooms since its RUID no longer exists.

Project Browser - 196310.00CentralArchTest2020.rvt

Views (Sheet Discipline/ View Category)

- ???
- 3D View: Shared Views, Levels, Grids
- 3D View: Workset1
- 3D View: (3D - jashwanth.lakshmanan)
- 3D View: (3D - massar)
- 3D View: (3D - raviarao)
- Area Plan (Department Gross): LEVEL 1
- Floor Plan: LEVEL 1 NEW CONSTRUCTION PLAN
- A1 - Floor Plans
 - Demolition Plans
 - Floor Plan: LEVEL 1 DEMOLITION PLAN
- Architectural
 - A1 - Floor Plans
 - Demolition Plans
 - Floor Plan: LEVEL 2 DEMOLITION PLAN
 - A2 - Floor Plans
 - Dimension Plans
 - Floor Plan: LEVEL 1 DIMENSION PLAN
 - Floor Plan: LEVEL 2 DIMENSION PLAN
 - New Construction Plans
 - Floor Plan: LEVEL 2 NEW CONSTRUCTION PLAN
 - A3 - Exterior Elevations
 - Overall Elevations
 - Elevation: East
 - Elevation: North
 - Elevation: South
 - Elevation: West
 - A6 - Reflected Ceiling Plans
 - Reflected Ceiling Plans
 - Reflected Ceiling Plan: LEVEL 1
 - Reflected Ceiling Plan: LEVEL 2
 - AL - Life Safety
 - Life Safety Plans
 - Area Plan (Life Safety): LEVEL 1
 - Area Plan (Life Safety): LEVEL 2
 - Coordination
 - Area Plans
 - Area Plan (Construction Type): LEVEL 1
 - Exports
 - 3D View: Navisworks Coordination View
 - Floor Plans
 - Floor Plan: LEVEL 1
 - Floor Plan: LEVEL 2
 - Notes
 - Drafting View: Project Information
 - Site
 - Drafting View
 - Fire Barriers
 - Drafting View: 1 HR CMU Fire Barriers

Room Schedule X

<Room Schedule>

A	B	C	D	E	F	G	H	I	J
Room Code	Name	Number	Area	Comments	Department	Functional Area	Room UID	Qty Reqd	Unit Area Reqd
EXAU1	Exam / Consult, Audiology	36	Not Placed	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0000	2	120
EXAU1	Exam / Consult, Audiology	37	880 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0001	2	120
EXVE1	Vestibulography and Biosway Room - combine with	38	716 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0002	1	180
HAFR1	Hearing Aid Fitting Room	39	458 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0003	2	120
HAFR1	Hearing Aid Fitting Room	40	476 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0004	2	120
SSSE1	Storage, Equipment	41	881 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0014	1	150
PEHS4	Exam, Audiometric Booth	42	387 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0008	5	260
PEHS4	Exam, Audiometric Booth	43	339 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0009	5	260
PEHS4	Exam, Audiometric Booth	44	939 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0010	5	260
PEHS4	Exam, Audiometric Booth	46	343 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0011	5	260
PEHS4	Exam, Audiometric Booth	47	960 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0012	5	260
TPG01	Toilet, Audiology Patient (delete if a pt toilet is nearby)	49	2354 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0015	1	60
OPAE1	OFFICE, Supv	50	1507 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0006	1	120
RECP1	Reception	52	3969 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0013	1	150
HATL1	HEARING AID TESTING LAB/SHOP	53	1664 SF	None	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0005	1	190
OPAE2	Electrophysiology Room	54	Not Placed	Combined with OPAE2	OUTPATIENT / PACT CLINIC	1 - AUDIOLOGY CLINIC	0007	1	0
	Room	59	Not Placed				0016		
	Room	60	Not Placed				0017		
	Room	61	Not Placed				0018		

Step 6 :

Open Power BI filter through the projects and dates

<div>TopFolderNum</div> <div>19631.00</div>	<div>Ruid</div> <div>13</div>	<div>RmNum</div> <div>52</div>	<div>RoomName</div> <div>Reception</div>	<div>Actual Area</div> <div>3,458.28</div>	<div>RmUnitAreaReqd</div> <div>100</div>	<div>ReqGross</div> <div>150</div>	<div>% Area difference</div> <div>3358.28%</div>	<div>Actual Room Count</div> <div>1</div>	<div>Total RmQtyReqd</div> <div>1</div>	<div>Ri</div> <div>None</div>
	15	49	Toilet, Audiology Patient (delete if a pt toilet is nearby in design)	1,256.82	60	90	1994.69%	1	1	None
	1	37	Exam / Consult, Audiology	1,398.38	120	180	1065.31%	1	2	None
	6	50	OFFICE, Supv	804.58	120	180	570.49%	1	1	None
	2	38	Vestibulography and Biosway Room - combine with OPAE2 for dual use	1,137.17	180	270	531.76%	1	1	None
	4	40	Hearing Aid Fitting Room	755.80	120	180	529.83%	1	2	None
	3	39	Hearing Aid Fitting Room	727.99	120	180	506.66%	1	2	None
	5	53	HEARING AID TESTING LAB/SHOP	835.32	190	285	339.64%	1	1	None
	14	41	Storage, Equipment	567.14	150	225	278.09%	1	1	None
	8	42	Exam, Audiometric Booth	386.97	260	390	48.83%	1	5	None
	11	46	Exam, Audiometric Booth	343.08	260	390	31.95%	1	5	None
	12	47	Exam, Audiometric Booth	343.08	260	390	31.95%	1	5	None
	9	43	Exam, Audiometric Booth	339.29	260	390	30.50%	1	5	None
	10	44	Exam, Audiometric Booth	339.29	260	390	30.50%	1	5	None
	7	54	Electrophysiology Room	0.00	0	0		1	1	Combined w
	0	56	Room	0.00	0	0		1	0	None
	0	57	Room	0.00	0	0		1	0	None
	0	58	Room	0.00	0	0		1	0	None
	0	36	Exam / Consult, Audiology	0.00	120	180	-100.00%	1	2	None
	Total			12,693.18	2580	3870	391.98%	19		

ProjectName

196310.00CentralArc...

CurrDate

☐ 7/16/2021 5:11:55 PM
 ☐ 7/15/2021 5:50:17 PM
 ☒ 7/15/2021 3:35:19 PM
 ☐ 7/15/2021 3:31:56 PM

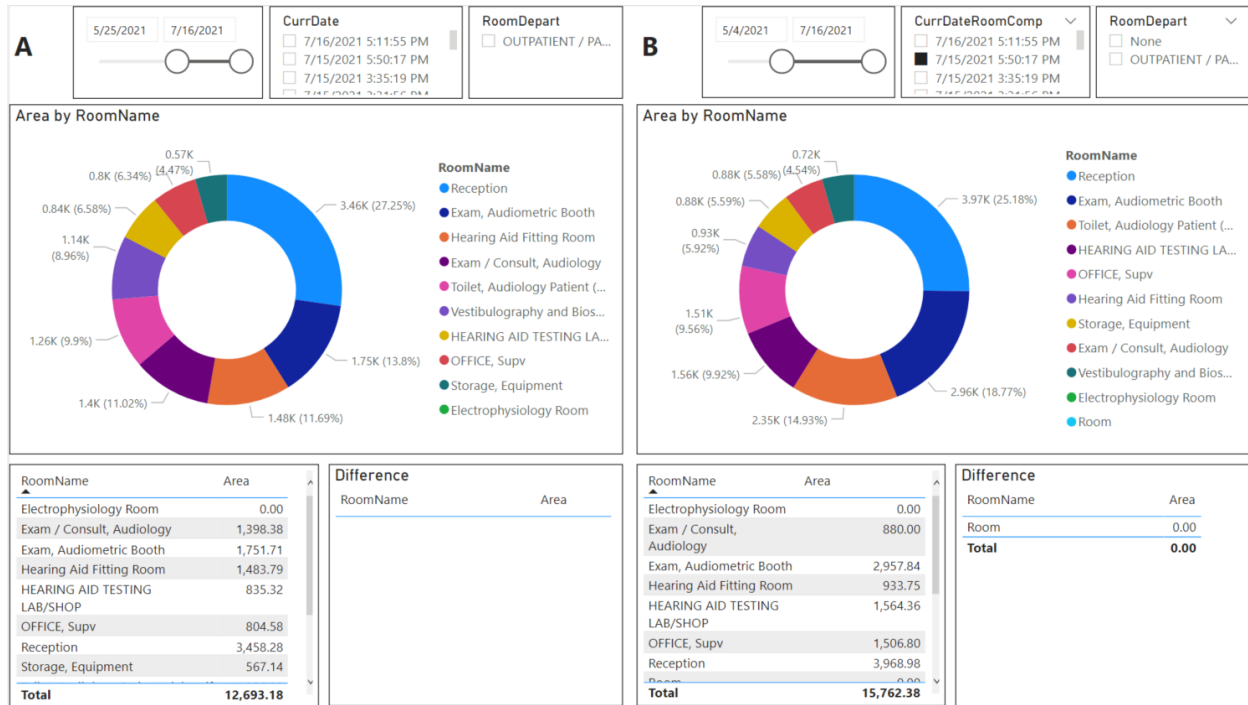
RoomDepart

☐ None
 ☐ OUTPATIENT / PACT ...

RoomName

☐ Electrophysiology Ro...
 ☐ Exam / Consult, Audi...
 ☐ Exam, Audiometric B...
 ☐ Hearing Aid Fitting R...
 ☐ HEARING AID TESTI...
 ☐ OFFICE, Supv
 ☐ Reception
 ☐ Room
 ☐ Storage, Equipment
 ☐ Toilet, Audiology Pat...
 ☐ Vestibulooarohv and...

Compare between two different dates :



Or look at a linear chart as the room area changes through dates with its comments in a running table

