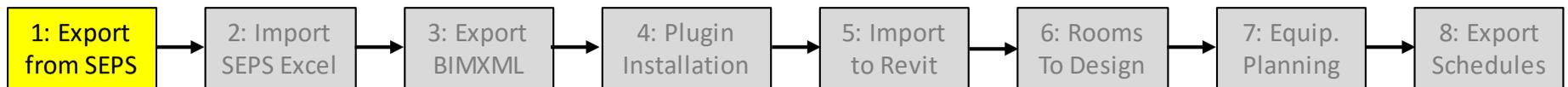




SEPS2BIM & Revit

Step by Step Guide



[View Short Video Tutorial](#)

Powered by



1: Export from SEPS

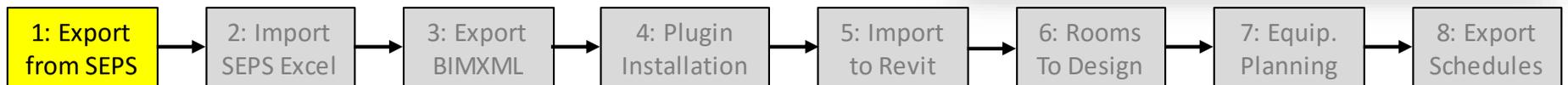
Log into SEPS to export the Project BIM Export (Excel): <https://seps.max.gov> or receive the Project BIM Export (Excel) file from SEPS user or client.

Download: <http://onuma.com/plan/helpfiles/SEPS2BIM-Guide.zip>

The SEPS2BIM-Guide folder contains the files used in the example used for the video series and this file including

- Project BIM Export (Excel) from SEPS
- BIMXML file for import into Revit
- Configuration files

The screenshot displays the SEPS web application interface. The top navigation bar shows 'SEPS - Project Administration [Reports]' and the current project is 'SMALL BIM TEST (TESTING 1691 ATTRIBUTES)'. On the left, a sidebar lists various reports, with 'Project BIM Export (Excel)' selected. The main content area shows the 'Project BIM Export (Excel)' report options, including a 'Report Options' section with 'Departments' (01 - DAY TREATMENT CENTER (261) selected) and an 'Include' section (Project Point of Contact (POC) Information unselected). An 'Export Project' button is visible. Overlaid on the right is a system welcome screen for the 'Space and Equipment Planning System (SEPS)', featuring logos for the VA and Military Health System, and a consent form with an 'I Agree' button.



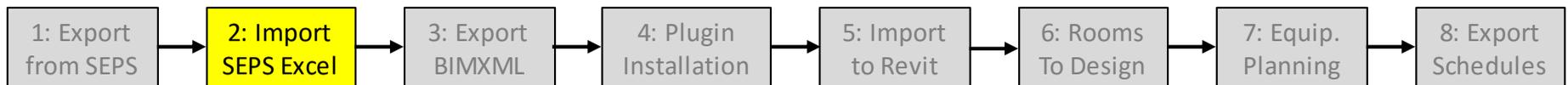
2: Import SEPS file in SEPS2BIM.org

Use the SEPS2BIM website to upload SEPS BIM Excel Export file:
<http://seps2bim.org/project-generator.html>

The screenshot shows the 'Create BIM in Onuma from SEPS BIM Excel Export' page. At the top, a navigation bar includes 'SEPS 2 BIM', 'OBJECTS', 'TEMPLATES', 'TOOLS', 'Space & Equipment', 'Departments', 'Projects', 'TRAINING', and 'EVENTS'. A red '1' is placed above the 'Projects' link. The main form has the following elements:

- Username:** A text input field containing 'thomas', with a red '2' next to it.
- Password:** A password input field with masked characters, with a red '2' next to it.
- Location:** A text input field containing 'VA, Seattle', with a red '5' next to it. A 'Search' button is to its right.
- Project Name:** A text input field containing 'BIM from SEPS Exce', with a red '3' next to it.
- Select SEPS BIM Excel File(s):** A list of file selection buttons, each labeled 'Choose File' and 'no file selected'. The first button has a green file icon and is labeled 'BIM_SMALL B', with a red '4' next to it.
- Map:** A Google Maps interface showing a street view of a location. A red pin is placed on the map, and a black polygon is drawn around a building labeled 'Health Care System', with a red '6' next to it.
- Proceed:** A blue button with the text 'Proceed', with a red '7' next to it.

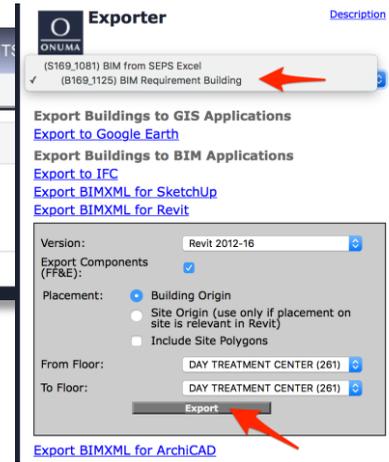
1. Go to the project generator page on the SEPS2BIM website.
2. Enter your username and password for ONUMA (use the link “Get a free account”) if you don’t have an account yet.
3. Name your project
4. Use the selection button to navigate to your SEPS BIM Excel Export file. If you have multiple files for a single project, you can upload them individually.
5. Search for the location of the project.
6. Draw an outline for the site on the map.
7. Click “**Proceed**”



3: Export BIMXML from ONUMA



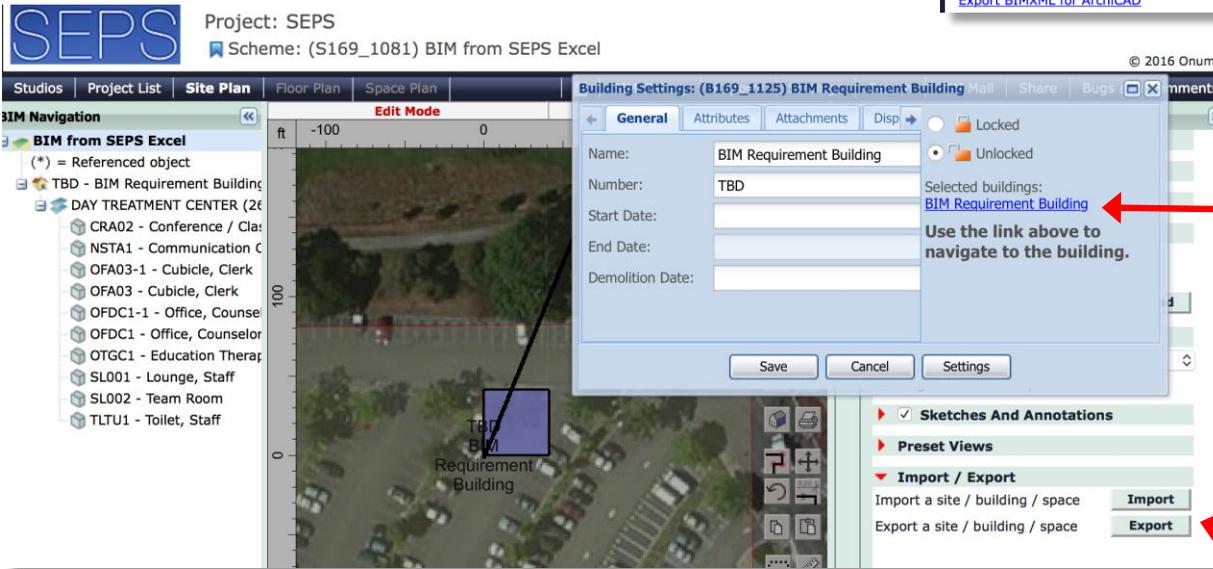
Use link to review or download the building just created in ONUMA



Note:
 Switch to the building level to export a building to BIMXML (for use with plugins in Revit, Archicad, or SketchUp)

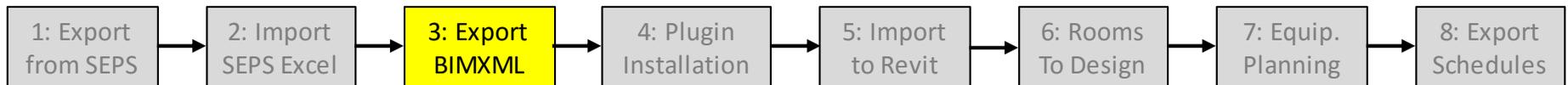
Export the building to be imported into your BIM application

or



Double-click on building and use the blue link in the popup to review and modify the first floor of the new building. The floor plans can also be reviewed by selecting the floors in the navigation tree on the left.

Export to BIM application



4: Installation of Revit Plugin and MLSTD 1691 Library

Go to the Tools section on the SEPS2BIM website to download the ONUMA-Revit Plugin and the matching MLSTD 1691 library:
<http://seps2bim.org/tools.html>

Follow these steps:

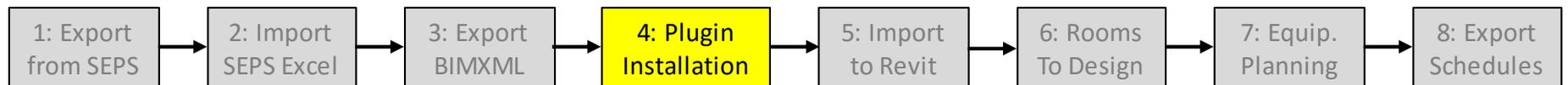
1. Download the Plugin and the MLSTD 1691 library
2. Close all running instances of Revit
3. Run the ONUMA-Revit Plugin installer.
4. Navigate to the plugin's library "LIB" - for example:
C:\ProgramData\Autodesk\ApplicationPlugins\Onuma.bundle\2015\LIB\
and add the unzipped folder with the MLSTD 1691 families into the LIB folder.

Note: You might have to "show hidden files" (Control Panel > Appearance and Personalization) to be able to see the "ProgramData" folder.

Other files that can be used are in the SEPS2BIM-Guide folder:

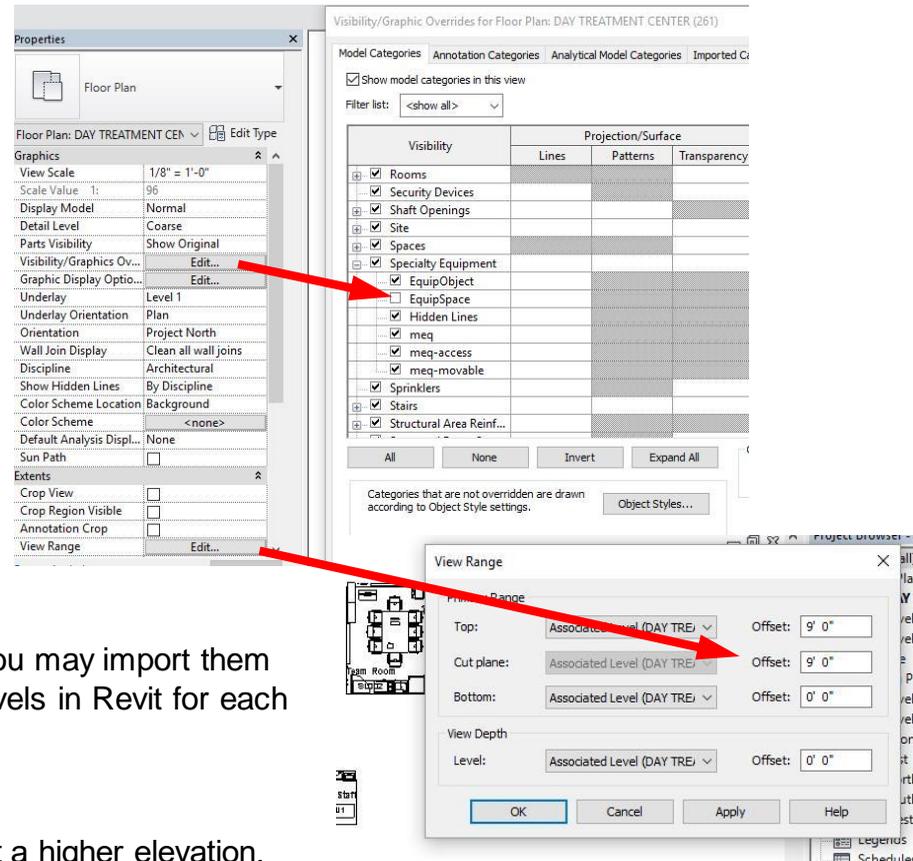
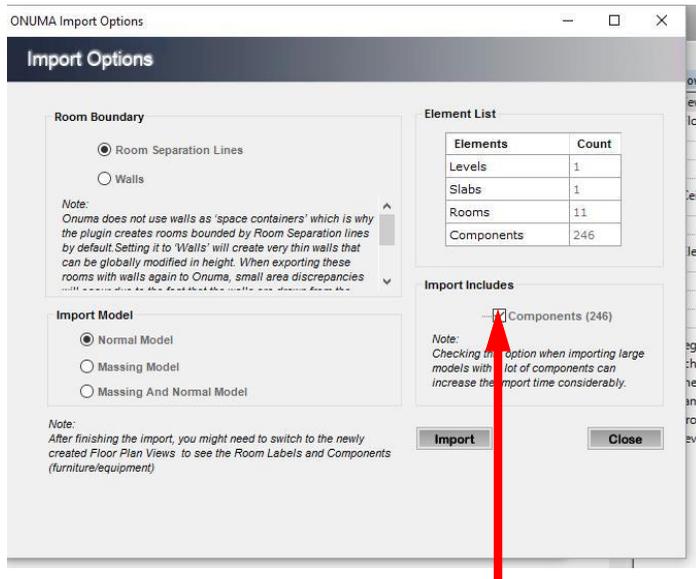
- Project BIM Export (Excel) from SEPS
- BIMXML file for import into Revit
- Configuration file to align Shared Parameters
- Standard Room and Equipment Schedules

Download: <http://onuma.com/plan/helpfiles/SEPS2BIM-Guide.zip>

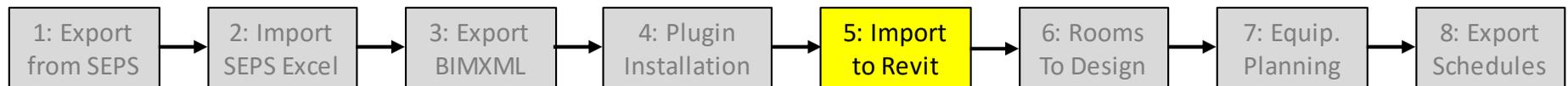


5: Import of BIMXML file into Revit

Use the ONUMA Plugins to import the exported BIMXML file(s) into the BIM Application



1. Import the BIMXML file into a new Revit file.
If you exported each floor separately from ONUMA, you may import them all into the same Revit file thereby creating multiple levels in Revit for each floor (department).
2. Select the checkbox to include "Components"
3. Change the "Visibility/Graphics" for "EquipSpace"
4. Change the "View Range" to show objects mounted at a higher elevation.
5. Save the Revit file

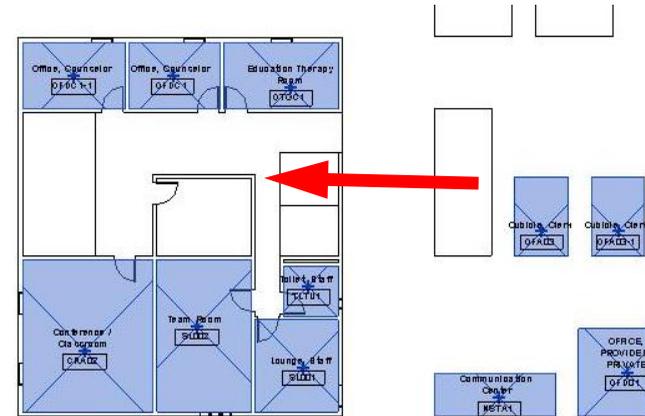
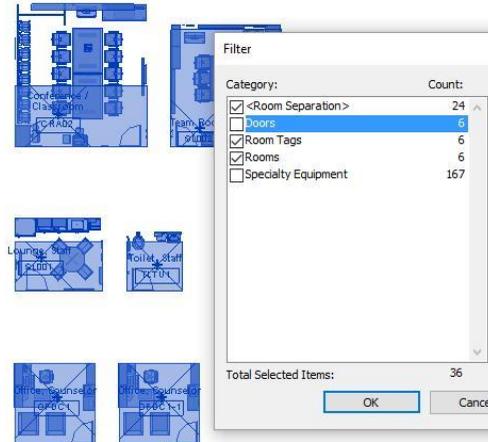
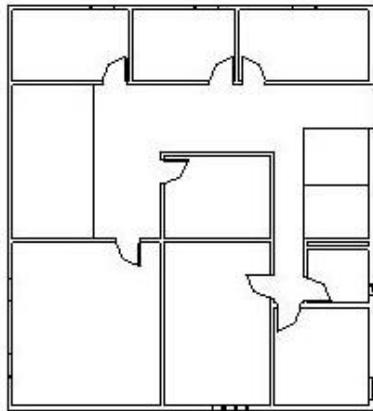


6: Add SEPS rooms to Architecture

Open architectural model and **import SEPS2BIM_Configuration** with the ONUMA-Revit Plugin to **align Shared Parameters** with project team.

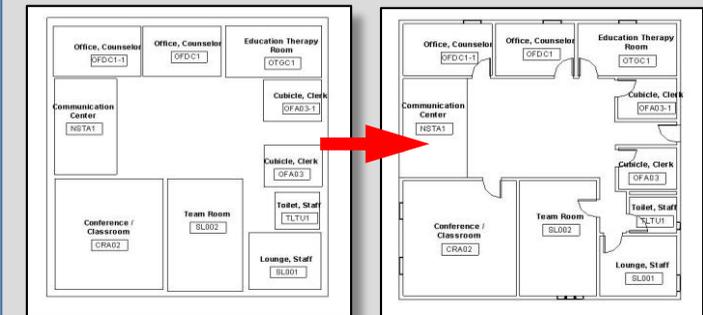
Copy the SEPS rooms from the import BIMXML to the architectural model

Move the SEPS rooms with all their data to the architectural model



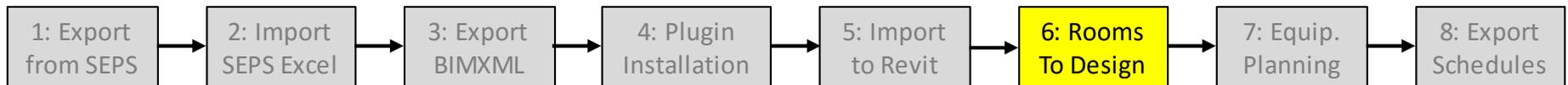
Alternative approach

OR Develop the Design with imported spaces: **Blocking & Stacking** Architectural Design



Notes:

- Don't cut/paste or copy/paste rooms within the same file. Revit will reset all unique identifiers.
- Room numbers are based on Room Code with sequential number – they are used to align rooms in the architectural plan with the rooms in the equipment plan. Use the Blueprint Number parameter for plan room numbers.

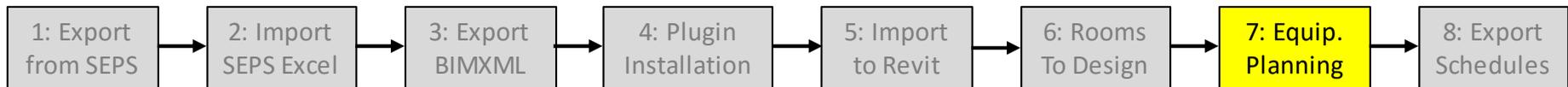
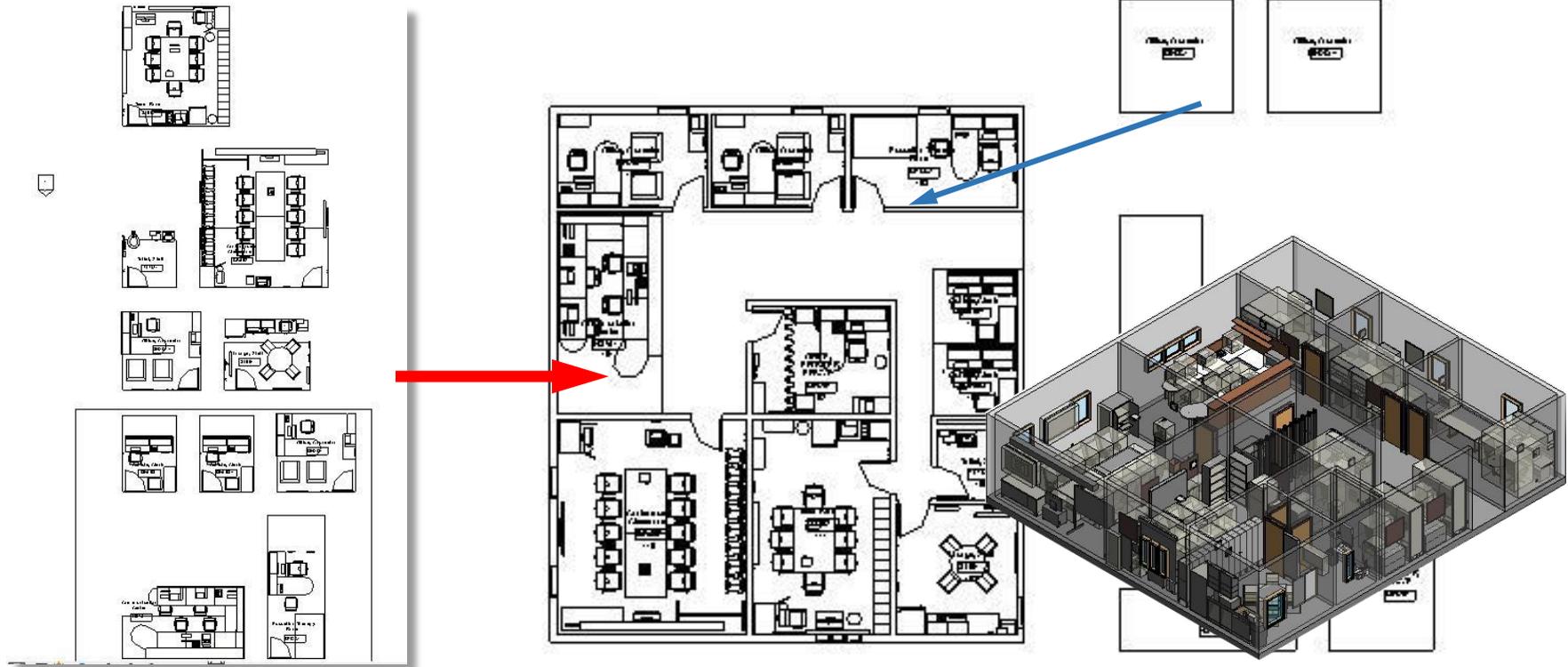


7. Equipment planning

1. Open your company's standard equipment planning template or a new Revit file and **import SEPS2BIM_Configuration** with the ONUMA-Revit Plugin to **align Shared Parameters** with project team.

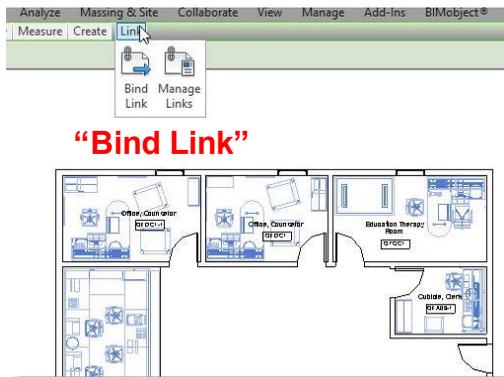
2. Add link the architectural model
3. Copy/Paste rooms with equipment from SEPS import file to Equipment plan.
4. Start equipment planning process by moving contents to matching room in the linked architectural plan.

Note:
Before moving equipment, set the Cut Plane of the View Range at a high level to ensure that ceiling equipment is included in the moving of components.



8: Schedules Export

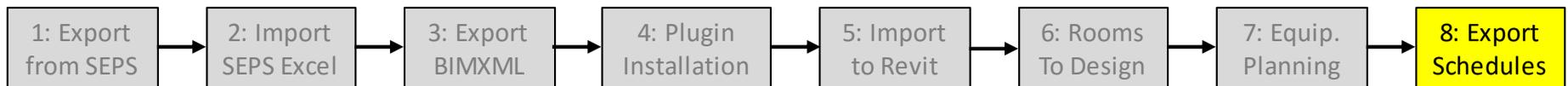
The Room Schedule contains the **Program Area** (specified in SEPS) in addition to the **actual BIM Room Area** as designed in the model. These areas allow a quick comparison between Space Requirement and actual Design.
Requirement **GUIDs** are maintained in the model.



Number	Name	Program Area	Area	Omni Class 13	Department	Dept. NTG Factor	Project Functions Area Name	External ID (same as Project Room GUID)
NSTA1	Communication Center	100	196 SF	51 17 23 11	DAY TREATMENT CENTER (261)	1.45	RECEPTION AREAS	48b39f3a-f4f1-e411-944c-00155ddec90d
OTGC1	Education Therapy Room	160	144 SF	51 61 49	DAY TREATMENT CENTER (261)	1.45	PATIENT AREAS	4cb39f3a-f4f1-e411-944c-00155ddec90d
OFA03	Cubicle, Clerk	80	56 SF	55 11 17	DAY TREATMENT CENTER (261)	1.45	STAFF AND ADMINISTRATIVE AREAS	4db39f3a-f4f1-e411-944c-00155ddec90d
OFA03-1	Cubicle, Clerk	80	57 SF	55 11 17	DAY TREATMENT CENTER (261)	1.45	STAFF AND ADMINISTRATIVE AREAS	4ab39f3a-f4f1-e411-944c-00155ddec90d
OFDC1	Office, Counselor	120	115 SF	55 11 13	DAY TREATMENT CENTER (261)	1.45	STAFF AND ADMINISTRATIVE AREAS	4eb39f3a-f4f1-e411-944c-00155ddec90d
OFDC1-1	Office, Counselor	120	129 SF	55 11 13	DAY TREATMENT CENTER (261)	1.45	STAFF AND ADMINISTRATIVE AREAS	49b39f3a-f4f1-e411-944c-00155ddec90d
SL001	Lounge, Staff	80	146 SF	57 17 13	DAY TREATMENT CENTER (261)	1.45	STAFF LOUNGE, LOCKERS AND TOILETS	47b39f3a-f4f1-e411-944c-00155ddec90d
TLTU1	Toilet, Staff	50	52 SF	23 17 15	DAY TREATMENT CENTER (261)	1.45	STAFF LOUNGE, LOCKERS AND TOILETS	4bb39f3a-f4f1-e411-944c-00155ddec90d
CRA02	Conference / Classroom	150	380 SF	55 29 21 11	DAY TREATMENT CENTER (261)	1.45	EDUCATION AREAS	eee854ed-f2f1-e411-944c-00155ddec90d
SL002	Team Room	240	276 SF	55 11 21	DAY TREATMENT CENTER (261)	1.45	EDUCATION AREAS	efe854ed-f2f1-e411-944c-00155ddec90d

Program Room GUID	Program Room Number	Room Number	Design Room Number	Room: External ID (same as Project Room GUID)	Asset Identifier	Content Name	External ID (same as Project Content GUID)
efe854ed-f2f1-e411-944c-00155ddec90d	SL002	SL002	efe854ed-f2f1-e411-944c-00155ddec90d	K4665	Oven, Microwave, Consumer	66fb6469-f4f1-e411-944c-00155ddec90d	
efe854ed-f2f1-e411-944c-00155ddec90d	SL002	SL002	efe854ed-f2f1-e411-944c-00155ddec90d	M0385	Projector, Multimedia/Data	69fb6469-f4f1-e411-944c-00155ddec90d	
efe854ed-f2f1-e411-944c-00155ddec90d	SL002	SL002	efe854ed-f2f1-e411-944c-00155ddec90d	M0410	Screen, Projection, 70x70	8cfb6469-f4f1-e411-944c-00155ddec90d	
efe854ed-f2f1-e411-944c-00155ddec90d	SL002	SL002	efe854ed-f2f1-e411-944c-00155ddec90d	M1801	Computer, Microprocessing, w/Flat Panel	92fb6469-f4f1-e411-944c-00155ddec90d	
efe854ed-f2f1-e411-944c-00155ddec90d	SL002	SL002	efe854ed-f2f1-e411-944c-00155ddec90d	M1801	Computer, Microprocessing, w/Flat Panel	5cfb6469-f4f1-e411-944c-00155ddec90d	
efe854ed-f2f1-e411-944c-00155ddec90d	SL002	SL002	efe854ed-f2f1-e411-944c-00155ddec90d	R7000	Refrigerator, 14 Cubic Feet	5dfb6469-f4f1-e411-944c-00155ddec90d	
eee854ed-f2f1-e411-944c-00155ddec90d	CRA02	NSTA1	48b39f3a-f4f1-e411-944c-00155ddec90d	A1010	Telecommunication Outlet	fbfb6469-f4f1-e411-944c-00155ddec90d	
eee854ed-f2f1-e411-944c-00155ddec90d	CRA02	NSTA1	48b39f3a-f4f1-e411-944c-00155ddec90d	F0690	Workstation, Computer, Enclosed, With Li	a9fb6469-f4f1-e411-944c-00155ddec90d	
		OFDC1-1	49b39f3a-f4f1-e411-944c-00155ddec90d	F0295	Chair, Stacking		
		OFDC1	4eb39f3a-f4f1-e411-944c-00155ddec90d	F0295	Chair, Stacking	design added objects	
47b39f3a-f4f1-e411-944c-00155ddec90d	SL001	SL001	47b39f3a-f4f1-e411-944c-00155ddec90d	A1010	Telecommunication Outlet	82fb6469-f4f1-e411-944c-00155ddec90d	

The Content Schedule contains the **Program Room Number** and the **Design Room Number** where it is placed in the model for each object. These numbers and the **GUIDs** allow comparing Content Requirements with the actual Design.
All SEPS Requirement **GUIDs** are maintained in the model.



Use an external tool to check Requirement Compliance

A simple external database application can generate quick reports for Space Area, Space Type, Department, and Functional Area compliance based on the unique identifiers (GUID) in the Space and Equipment Program (SEPS).

Equipment movement, additions, and omissions can be tracked with the Space and Content GUIDs.

Import Room Schedule Filter Program Spaces that are **not found** in Design BIM Show Program Spaces Show Design Content **Design Spaces** (Room Schedule)

Number	Program Area	Area as designed	Department	Functional Area
CRA02	Conference / Classroom	150	380	DAY TREATMENT CENTER (261) EDUCATION AREAS
SL002	Team Room	240	276	DAY TREATMENT CENTER (261) EDUCATION AREAS
OTGC1	Education Therapy Room	160	144	DAY TREATMENT CENTER (261) PATIENT AREAS
NSTA1	Communication Center	100	196	DAY TREATMENT CENTER (261) RECEPTION AREAS
OFA03	Cubicle, Clerk	80	56	DAY TREATMENT CENTER (261) STAFF AND ADMINISTRATIVE AREAS
OFA03-1	Cubicle, Clerk	80	57	DAY TREATMENT CENTER (261) STAFF AND ADMINISTRATIVE AREAS
OFDC1	Office, Counselor	120	115	DAY TREATMENT CENTER (261) STAFF AND ADMINISTRATIVE AREAS
OFDC1-1	Office, Counselor	120	129	DAY TREATMENT CENTER (261) STAFF AND ADMINISTRATIVE AREAS
SL001	Lounge, Staff	80	146	DAY TREATMENT CENTER (261) STAFF LOUNGE, LOCKERS AND
TLTU1	Toilet, Staff	50	52	DAY TREATMENT CENTER (261) STAFF LOUNGE, LOCKERS AND
Total DAY TREATMENT CENTER (261)		1,180	1,551	

Design Area < 90% > 90% AND < 110% > 110%

Import Content Schedule Find content placed in spaces not matching the Program (# or GUID) Find duplicate Content GUIDs Show all Content (excl. Doors and Windows) Show Design Spaces Show Program Content **Design Content** (Content Schedule)

BIM Rm #	Program Rm #	Content Name	Mark	Family	Revit Family Category
OTGC1	OFDC1	Chair, Easy	F0255-2	F0255 - Chair, Easy	Specialty Equipment
NSTA1	CRA02	Telecommunication Outlet	A1040-15		
NSTA1	CRA02	Workstation, Computer, Enclosed, With Lock	F0690-1		
OFDC1-1	NA	Chair, Stacking			
OFDC1	NA	Chair, Stacking			

5 records found

5 records of content contain a program space number or program space GUID that doesn't match the number or GUID in the BIM.

OK

Resources and Links

<http://SEPS2BIM.org>

Videos SEPS2BIM in 8 Steps:

<https://www.youtube.com/playlist?list=PLVUOInnVtoOH8Dt7a8U8nG7ZU18oWCz-I>

SEPS2BIM Tools:

<http://seps2bim.org/tools.html>

Note: Add the unzipped MLSTD 1691 library to the LIB folder of the ONUMA-Revit Plugin normally installed in the following location:
C:\ProgramData\Autodesk\ApplicationPlugins\Onuma.bundle\2015\LIB\1691_Revit2015

SEPS2BIM Project Generator (from SEPS BIM Export):

<http://seps2bim.org/project-generator.html>

Archive with all files used for this SEPS2BIM Guide:

<http://onuma.com/plan/helpfiles/SEPS2BIM-Guide.zip>

1. Original SEPS BIM Excel Export
2. BIMXML file exported from ONUMA
3. SEPS2BIM Architecture-2015.rvt (sample for above SEPS program)
4. SEPS2BIM_Configuration.xml (for alignment of Shared Parameters)
5. Schedule-Templates-2015.rvt (room and equipment schedule templates)
6. Room Tag.rfa (room tag with display of Blueprint Number)
7. Sample Equipment and Room Schedules (Excel files)
8. This SEPS2BIM process guide with links to videos for each step