



Getting Started: Location Mapping



Location Mapping

- Allows sites to establish a hierarchy of facilities and procedure room locations as they exist within a given hospital and/or health system
- Hierarchy is used to filter data by anesthetizing locations
- Provides the opportunity to filter and group locations that may have similar case types, though not physically located in the same building.
- Location Mapping should be completed prior to starting Case Validations and can be completed simultaneously with Variable Mapping.
 - Multiple MPOG tools rely on Location Mapping:
 - Case Validation asks what room the procedure was done in
 - Data Diagnostics allows the cases to be sorted by location to drill down on any out-of-range scores
 - Case Viewer allows users to search for procedures according to location

Location Mapping

- Example for use: a site may have several outpatient surgery centers and would want to “group” the data from these locations to examine performance at outpatient facilities.
- Mapping of locations is usually completed when a site initially joins MPOG but should be maintained as new rooms are added (see slides 20-25)

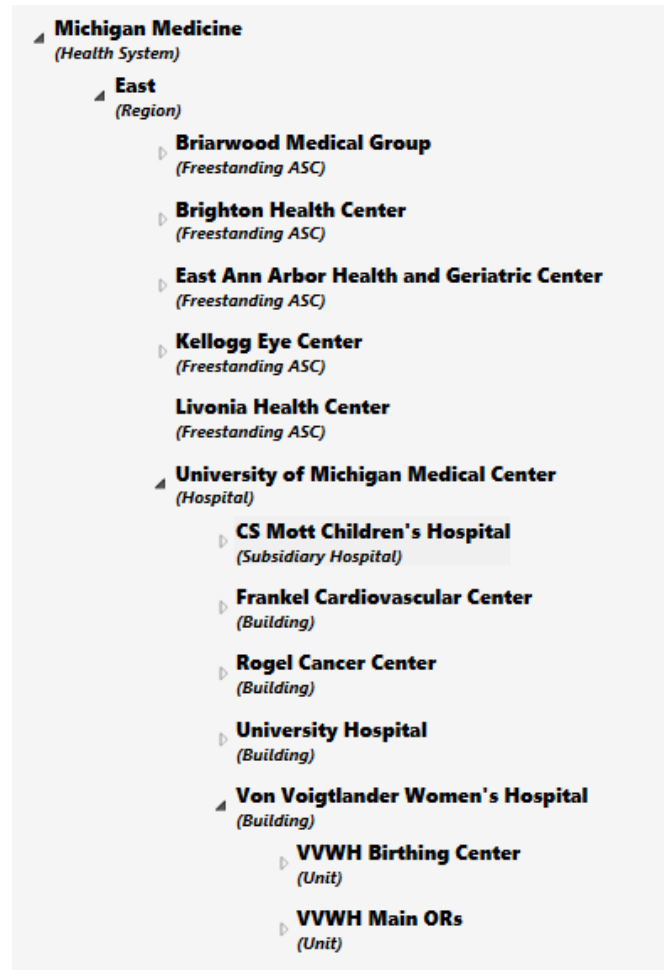
The screenshot displays a user interface for location mapping. On the left, a dark blue sidebar titled "Additional Filters" contains a list of filter categories: "+ Location", "+ Patient Age", "+ Patient Gender", "+ Patient Race/Ethnicity" (which is highlighted in a lighter blue), and "+ Surgical Service". To the right, a light gray panel shows a hierarchical list of medical facilities. It starts with a collapsed "Michigan Medicine (Health System)" category, which is expanded to show several freestanding ASCs: Briarwood Medical Group, Brighton Health Center, East Ann Arbor Health and Geriatric Center, Kellogg Eye Center, and Livonia Health Center. Below this is another collapsed category, "University of Michigan Medical Center (Hospital)", which is expanded to show four buildings: CS Mott Children's Hospital, Frankel Cardiovascular Center, Rogel Cancer Center, and University Hospital. A vertical scrollbar is visible on the right side of the list.

Tier Definitions

▲	Michigan Medicine <i>(Health System)</i>
▷	Briarwood Medical Group <i>(Freestanding ASC)</i>
▷	Brighton Health Center <i>(Freestanding ASC)</i>
▷	East Ann Arbor Health and Geriatrics Center <i>(Freestanding ASC)</i>
▷	Kellogg Eye Center <i>(Freestanding ASC)</i>
▷	Livonia Health Center <i>(Freestanding ASC)</i>
▲	University of Michigan Medical Center <i>(Hospital)</i>
▷	C. S. Mott Children's Hospital <i>(Building)</i>
▷	Comprehensive Cancer Center ORs <i>(Floor)</i>
▷	Frankel Cardiovascular Center <i>(Building)</i>
▷	University Hospital <i>(Building)</i>
▷	Von Voigtlander Women's Hospital <i>(Floor)</i>

- Health System is determined by the [American Hospital Association](#) website
- Region is an optional tier and is defined by the Health System (specifically for systems that cross multiple states)
- Hospital Name is also determined by using the [American Hospital Association](#) website
- Freestanding ASCs will be on the same tier as Hospitals
 - Freestanding ASCs have a different address than the hospital and are not on the same campus
- Attached ASCs are on the tier below Hospital and include ASCs that are either in the same building or on the same campus as the hospital

Tier Definitions



- Subsidiary Hospital is another optional level, used for facilities labeled as 'Subsidiary Hospital' per the [AHA website](#). Subsidiary Hospitals do not have a bed size listed but rollup to the parent hospital.
- Building is another optional level, based on the hospital's campus structure. Common building types include Cancer Center or Cardiovascular Center.
- Unit/Floor is used for either a Unit, Floor, Tower, Pavilion, Department, etc., and is determined by the hospital.
- Sub-unit is used for additional filtering below the Unit/Floor tier.
- Rooms are determined by extract and cannot be changed or updated by user
 - Epic Sites: Unspecified Room should be assigned to the highest tier (Health System or Hospital)

Location Mapping: Initial Setup

Access 'Location Mapping' on the MPOG Suite



Health System

- Click the 'Add Location' button at the bottom and enter the name of your Health System as listed on the [AHA website](#). The MPOG Clinical Informatics Specialist will help you with this step.
- If your institution does not have a Health System name, skip to the next slide

Institution: University of Michigan Health - Ann Arbor - Epic

Unmapped Rooms

Room Hierarchy

Expand All Collapse All

Add New Location

Location Name: Test Health System

Location Type: Health System

OK Cancel

Map to (No location selected)

Add Location Update Location Delete Location Unmap Location Export Hierarchy

Location Tags

- Facility type - Acute care hospital
- Facility type - Attached ambulatory surgery center
- Facility Type - Children's Hospital
- Facility type - Freestanding ambulatory surgery center
- Facility type - Office-based anesthesia
- Community-Based Hospital
- Electroconvulsive Therapy (ECT)
- OB-GYN - IVF-only room
- OB-GYN - Labor and delivery
- OB-GYN - Obstetric operating room
- Other - Hybrid operating room
- Other - Minor procedure room
- Other - Mixed use operating room
- Other - Offsite anesthesia
- Other - Outpatient surgery room
- Other - Pediatric
- Radiation Oncology
- Radiology - CT
- Radiology - Interventional radiology
- Radiology - MRI
- Radiology - PET/Nuclear Medicine
- Recovery - ICU
- Recovery - PACU
- Service specific room - Cardiac operating room
- Service specific room - Electrophysiology/Cardiac
- Service specific room - Endoscopy
- Service specific room - Trauma
- TEE

Right click on any tag to view its rooms

Regions

- Click on the Health System to highlight it blue and choose 'Add Location'. Fill out any Regions that your institution uses.
 - For example, East/West, Michigan/Ohio, etc.
- If your institution does not group by region, skip to the next slide

The screenshot displays the 'Location Mapping' interface for the 'University of Michigan Health - Ann Arbor - Epic' institution. It features two main panels: 'Unmapped Rooms' on the left and 'Room Hierarchy' on the right. The 'Room Hierarchy' panel is currently expanded to show the 'Test Health System (Health System)'. A modal dialog box titled 'Add New Location' is open, allowing the user to enter a 'Location Name' (currently 'North Region') and select a 'Location Type' (currently 'Region'). The dialog includes 'OK' and 'Cancel' buttons. At the bottom of the interface, there are several action buttons: 'Map to Test Health System', 'Add Location', 'Update Location', 'Delete Location', 'Unmap Location', and 'Export Hierarchy'.

Hospitals/Freestanding ASCs

- Click on the Region name to highlight it blue, and choose 'Add Location'
 - If you do not have any regions, click on the Health System to highlight it blue, and choose 'Add Location'
- Add all Hospitals and Freestanding ASCs associated with the Region or the Health System that are participating in MPOG

Hospital

Test Health System (Health System) Expand All Collapse All

- North Region (Region)
- South Region (Region)
 - South Hospital (Hospital)

Add New Location

Location Name: North Hospital

Location Type: Hospital

OK Cancel

Add Location Update Location Delete Location Unmap Location Export Hierarchy

Freestanding ASC

Test Health System (Health System) Expand All Collapse All

- North Region (Region)
 - North Hospital (Hospital)
- South Region (Region)
 - South Hospital (Hospital)

Add New Location

Location Name: South ASC

Location Type: Freestanding ASC

OK Cancel

Add Location Update Location Delete Location Unmap Location Export Hierarchy

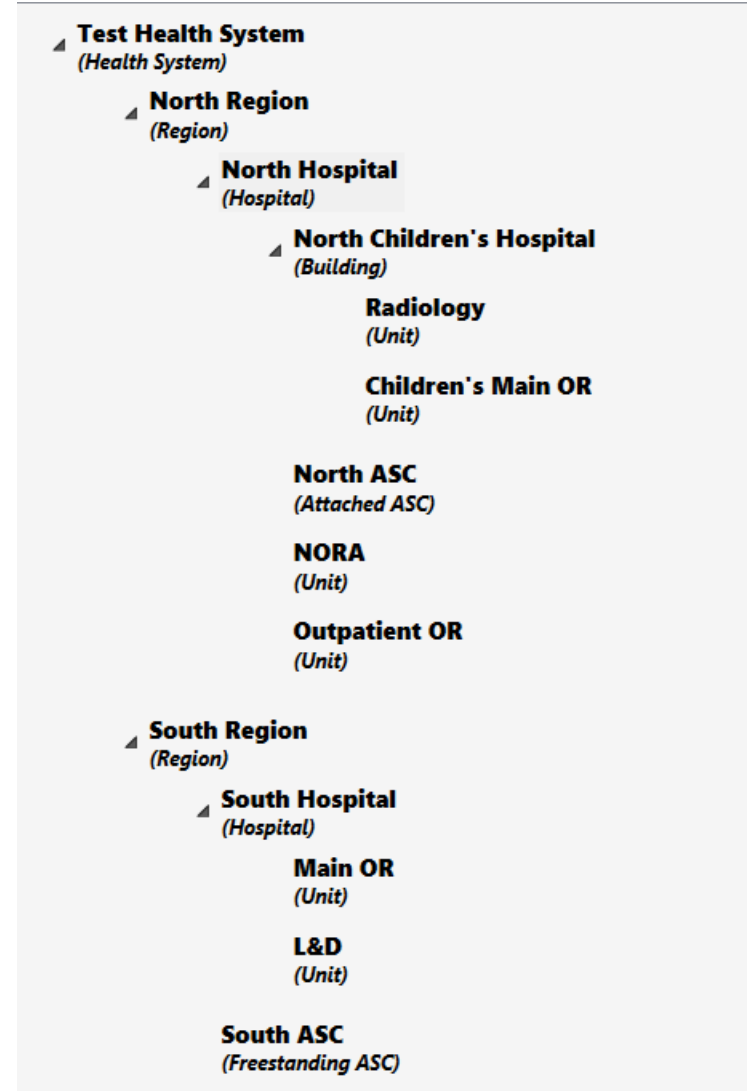
Subsidiary Hospitals, Buildings, and Attached Ambulatory Surgery Centers (ASCs)

- Next, click on each hospital to highlight them blue, and click 'Add Location.'
- If you have subsidiary hospitals listed on the AHA website, list them under the parent hospital.
- If your hospital has any attached ASCs, add them here.
- You can also add buildings associated with each hospital.
- Repeat this step for each hospital.

The screenshot displays a software interface for managing a hierarchy of locations. The main area shows a tree structure under the heading 'Test Health System (Health System)'. The tree is expanded to show 'North Region (Region)', which contains 'North Hospital (Hospital)'. Under 'North Hospital', there is a sub-entry for 'North Children's Hospital (Building)'. Below the North Region, the 'South Region (Region)' is also expanded, showing 'South Hospital (Hospital)' and 'South ASC (Freestanding ASC)'. In the top right corner of the main interface, there are 'Expand All' and 'Collapse All' buttons. An 'Add New Location' dialog box is open in the foreground, featuring a text input field for 'Location Name' containing 'North ASC' and a dropdown menu for 'Location Type' set to 'Attached ASC'. The dialog has 'OK' and 'Cancel' buttons. At the bottom of the main interface, there is a row of five buttons: 'Add Location', 'Update Location', 'Delete Location', 'Unmap Location', and 'Export Hierarchy'.

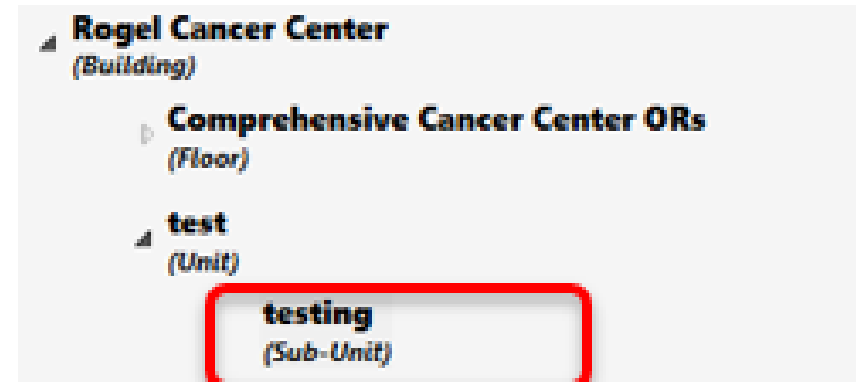
Unit/Floor

- Click on the Hospital name and choose 'Add Location.'
- List the units as they exist within each hospital. For example, Main OR, Radiology, Interventional Radiology, Cath Lab, L&D, NORA (for other Non-OR anesthesia cases, i.e., ICU, bedside, ED, etc.).
- Repeat this step for each hospital, building, and ASC.



Sub-units

- This is an optional tier and will not be used for all sites
- Sub-units should be mapped when your site has additional location tiers below the Unit/Floor level



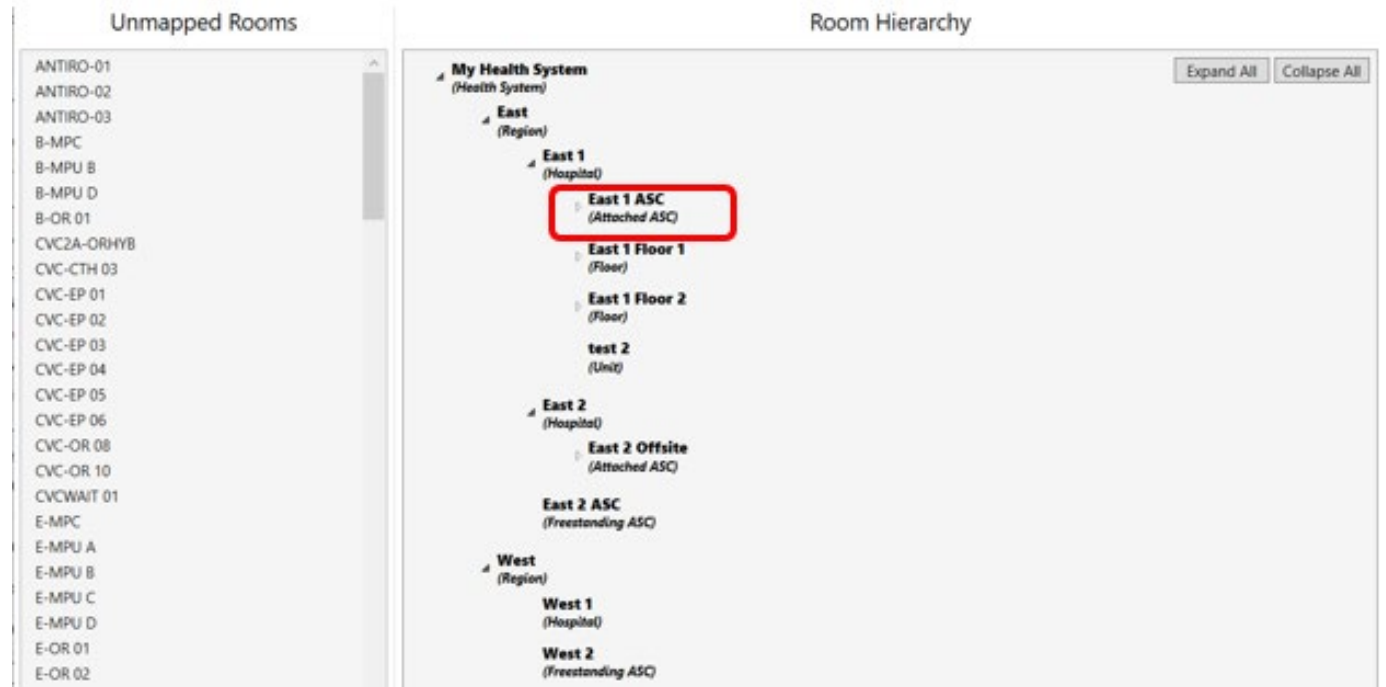
Location Mapping: Rooms

Click on the site in the middle of the screen that you would like to assign operating rooms. In this example, 'East 1 ASC' is selected.

*Room names will not be in bold font and cannot be added or changed by the user.

*All room names are determined by the extract.

*Any new rooms will automatically be added to the Unmapped Rooms section as cases associated with those rooms are extracted into the local MPOG database.



Select operating rooms from the left side of the screen. You can map one room at a time by clicking on the room name and dragging it to the appropriate location. It is also possible to select a group of rooms by holding the 'shift' key and selecting all rooms applicable.

Rooms can also be moved to a different location after they have been mapped. You can either click and drag the room to the appropriate location, or you can copy and paste.

The screenshot displays two panels from a software interface. The left panel, titled 'Unmapped Rooms', contains a list of room identifiers. A red rectangular box highlights a group of rooms: E-OR 01, E-OR 02, E-OR 03, E-OR 04, E-OR 05, and E-OR 06. Below this list is a button labeled 'Map to East 1 ASC'. The right panel, titled 'Room Hierarchy', shows a tree structure under the heading 'My Health System'. The hierarchy includes 'East' (Region), 'East 1' (Hospital), 'East 1 ASC' (Attached ASC), 'East 1 Floor 1' (Floor), 'East 1 Floor 2' (Floor), 'East 2' (Hospital), 'East 2 ASC' (Freestanding ASC), 'East 2 Offsite' (Attached ASC), and 'West' (Region) with sub-items 'West 1' (Hospital) and 'West 2' (Freestanding ASC). At the top right of the hierarchy panel are 'Expand All' and 'Collapse All' buttons. At the bottom right are buttons for 'Add Location', 'Update Location', 'Delete Location', 'Unmap Location', and 'Export Hierarchy'.

Now select the “Map to East 1 ASC’ button in the bottom left corner. All of the selected anesthetizing locations will move under the East 1 ASC title in the middle portion of the display box.

The screenshot displays a software interface for room management, divided into two main sections: "Unmapped Rooms" and "Room Hierarchy".

Unmapped Rooms: A list of room identifiers including B-OR 01, CVC2A-ORHYB, CVC-CTH 03, CVC-EP 01 through CVC-OR 10, CVCWAIT 01, E-MPC, E-MPU A through E-MPU D, E-OR 01 through E-OR 06, IRCV07, IRCV09, IRMT01, IRUH01 through IRUH05, IRUHN1, and IRUHN2.

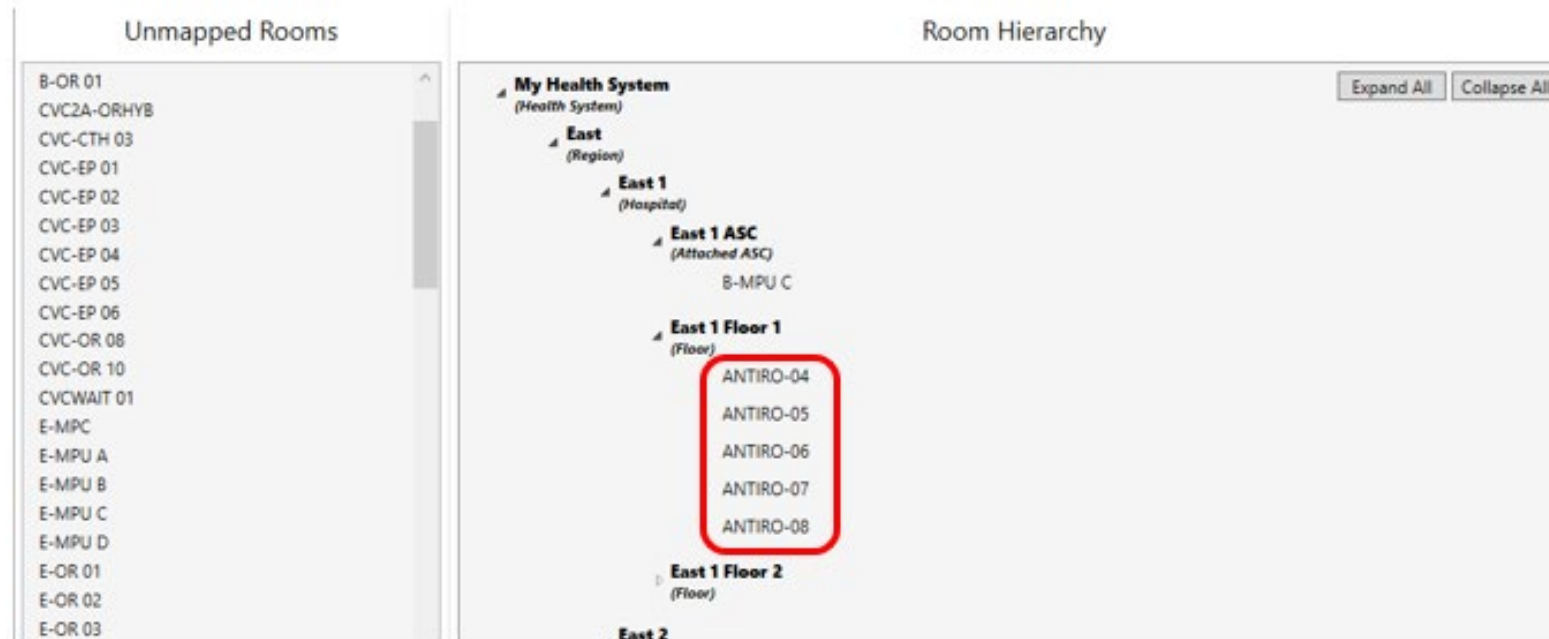
Room Hierarchy: A tree structure for "My Health System (Health System)". It is organized into two main regions: "East (Region)" and "West (Region)".

- East (Region):**
 - East 1 (Hospital):**
 - East 1 ASC (Attached ASC):** This node is highlighted with a red box in the original image.
 - East 1 Floor 1 (Floor)
 - East 1 Floor 2 (Floor)
 - East 2 (Hospital):**
 - East 2 ASC (Freestanding ASC)
 - East 2 Offsite (Attached ASC)
- West (Region):**
 - West 1 (Hospital)
 - West 2 (Freestanding ASC)

At the bottom of the interface, there are several control buttons: "Map to East 1 ASC" (highlighted with a red box), "Add Location", "Update Location", "Delete Location", "Unmap Location", and "Export Hierarchy".

Continue mapping all unmapped rooms from the left column to the appropriate locations in the middle 'Room Hierarchy' column.

Epic Sites: 'Unspecified Room' should be mapped to the highest tier (Health System or Hospital) as the 'unspecified room' designation is typically used across a variety of sites within the organization.



Location Mapping: Location Tags

Each room can now be 'tagged' to indicate the type of room or type of procedures performed in each OR/procedure area. Select a room from the 'Room Hierarchy' list.

Room Hierarchy

Expand All Collapse All

- ▲ **My Health System**
(Health System)
- ▲ **East**
(Region)
- ▲ **East 1**
(Hospital)
- ▲ **East 1 ASC**
(Attached ASC)
- B-MPU C
- ▲ **East 1 Floor 1**
(Floor)
- ANTIRO-04
- ANTIRO-05
- ANTIRO-06
- ANTIRO-07
- ANTIRO-08
- ▼ **East 1 Floor 2**
(Floor)
- ▲ **East 2**
(Hospital)
- ▼ **East 2 ASC**
(Freestanding ASC)
- ▼ **East 2 Offsite**
(Attached ASC)
- ▼ **West**

Location Tags

- Facility type - Acute care hospital ?
- Facility type - Attached ambulatory surgery centre
- Facility type - Freestanding ambulatory surgery centre
- Facility type - Office-based anesthesia
- OB-GYN - Labor and delivery ?
- OB-GYN - Obstetric operating room
- Other - Hybrid operating room ?
- Other - Minor procedure room ?
- Other - Mixed use operating room ?
- Other - Offsite anesthesia ?
- Other - Outpatient surgery room
- Other - Pediatric
- Radiology - Interventional radiology ?
- Radiology - MRI
- Recovery - ICU
- Recovery - PACU
- Service specific room - Cardiac operating room
- Service specific room - Electrophysiology/Cardiac
- Service specific room - Endoscopy
- OB-GYN - IVF-only room
- Service specific room - Trauma ?
- Facility Type - Children's Hospital
- Electroconvulsive Therapy (ECT)
- TEE
- Radiation Oncology
- Community-Based Hospital

While the room is highlighted, click the appropriate 'location tags' from the right side of the display box to designate what procedures occur in the selected room. You can select multiple tags for each room.

In the example below, the tag of '*Facility type- Acute care hospital*' is applied to the ANTIRO-04 room. Use Ctrl + Shift to select multiple rooms at a time

The screenshot displays a 'Room Hierarchy' on the left and 'Location Tags' on the right. The hierarchy is as follows:

- My Health System (Health System)
 - East (Region)
 - East 1 (Hospital)
 - East 1 ASC (Attached ASC)
 - B-MPU C
 - East 1 Floor 1 (Floor)
 - ANTIRO-04** (highlighted)
 - ANTIRO-05
 - ANTIRO-06
 - ANTIRO-07

The 'Location Tags' panel includes the following options:

- Facility type - Acute care hospital
- Facility type - Attached ambulatory surgery center
- Facility type - Freestanding ambulatory surgery center
- Facility type - Office-based anesthesia
- OB-GYN - Labor and delivery
- OB-GYN - Obstetric operating room
- Other - Hybrid operating room
- Other - Minor procedure room
- Other - Mixed use operating room
- Other - Offsite anesthesia
- Other - Outpatient surgery room
- Other - Pediatric
- Radiology - Interventional radiology
- Radiology - MRI
- Recovery - ICU
- Recovery - PACU

You can also assign tags to 'parent' locations. All 'child' locations listed under the 'parent' inherit the parent tag(s). When the 'child' location is selected, tags attributed through the 'parent' will appear greyed out. This can only be changed by changing the 'parent' location tag. You can add additional tags to the 'child' locations that do not apply to the 'parent' location.

Room Hierarchy **Location Tags**

My Health System
(Health System)

- ▲ **East**
(Region)
 - ▲ **East 1**
(Hospital)
 - ▲ **East 1 ASC**
(Attached ASC)
 - B-MPU C**
 - ▲ **East 1 Floor 1**
(Floor)

Expand All Collapse All

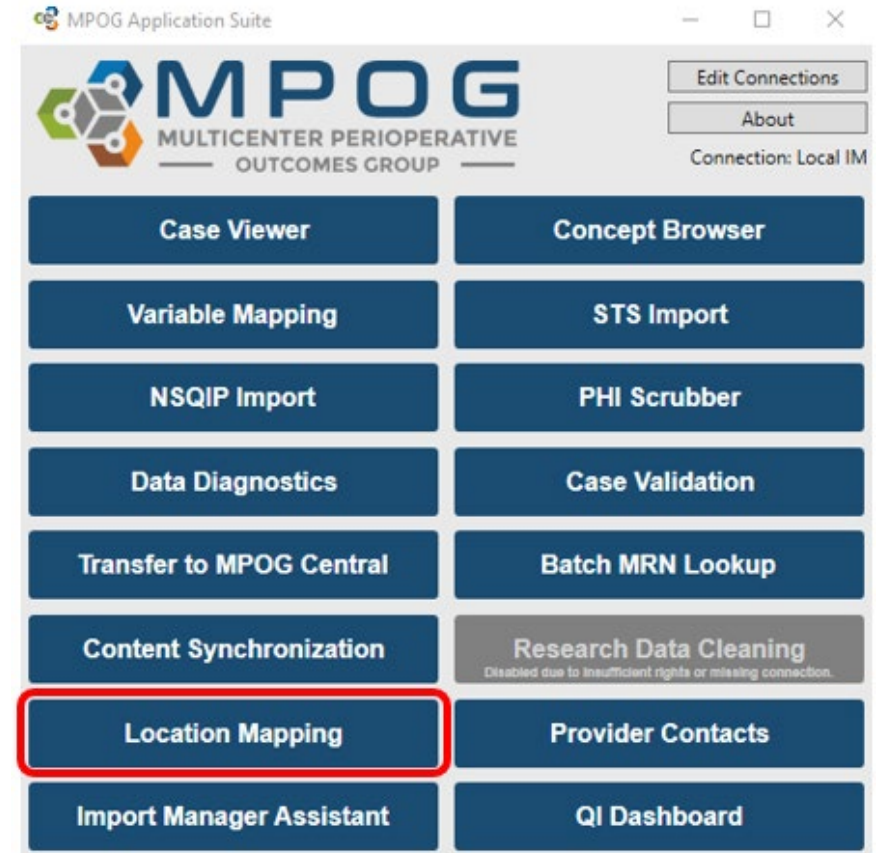
- Facility type - Acute care hospital ⓘ
- Facility type - Attached ambulatory surgery center ⓘ
- Facility type - Freestanding ambulatory surgery center ⓘ
- Facility type - Office-based anesthesia ⓘ
- OB-GYN - Labor and delivery ⓘ
- OB-GYN - Obstetric operating room ⓘ
- Other - Hybrid operating room ⓘ
- Other - Minor procedure room ⓘ
- Other - Mixed use operating room ⓘ
- Other - Offsite anesthesia ⓘ
- Other - Outpatient surgery room ⓘ

Additional Tools

Update Locations, Update Tier labels, Add Locations, Export Mapping, and Location Mapping Tips

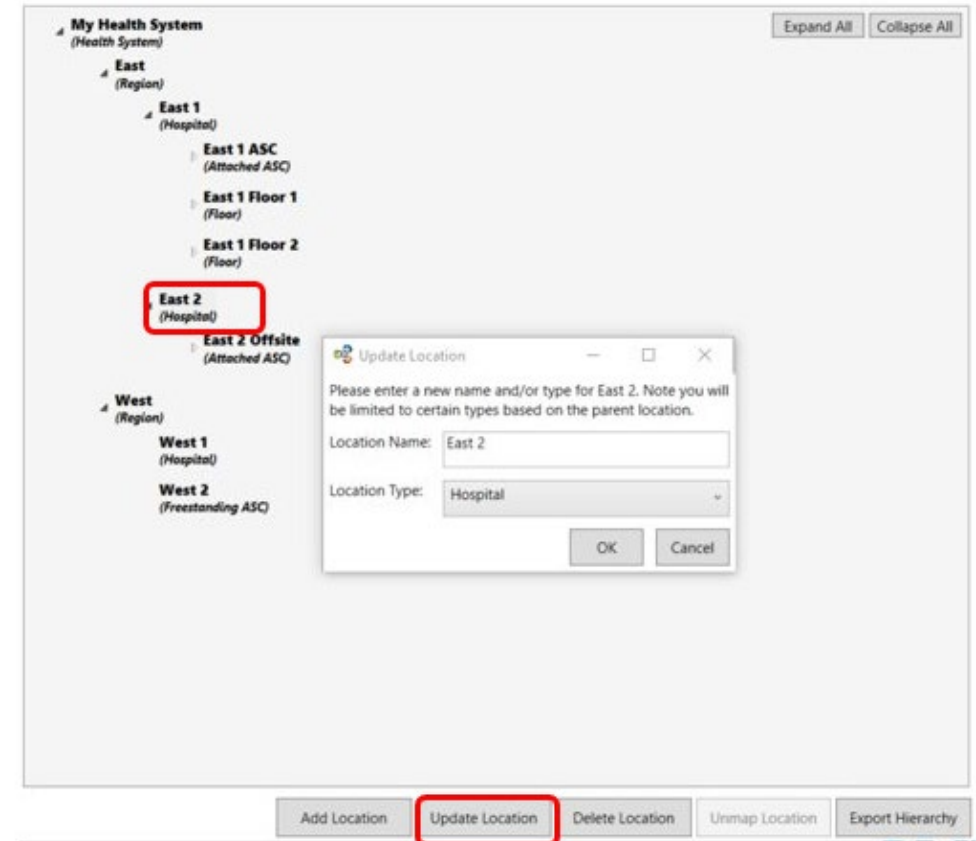
Updating Locations

Access 'Location Mapping' on the MPOG Suite



Updating Tier labels

- If a tier label is missing or incorrect, click on the location and then on 'Update Location'
- A text box will pop up that will allow you to change the name of the location and the tier label, based on what tier it is currently on



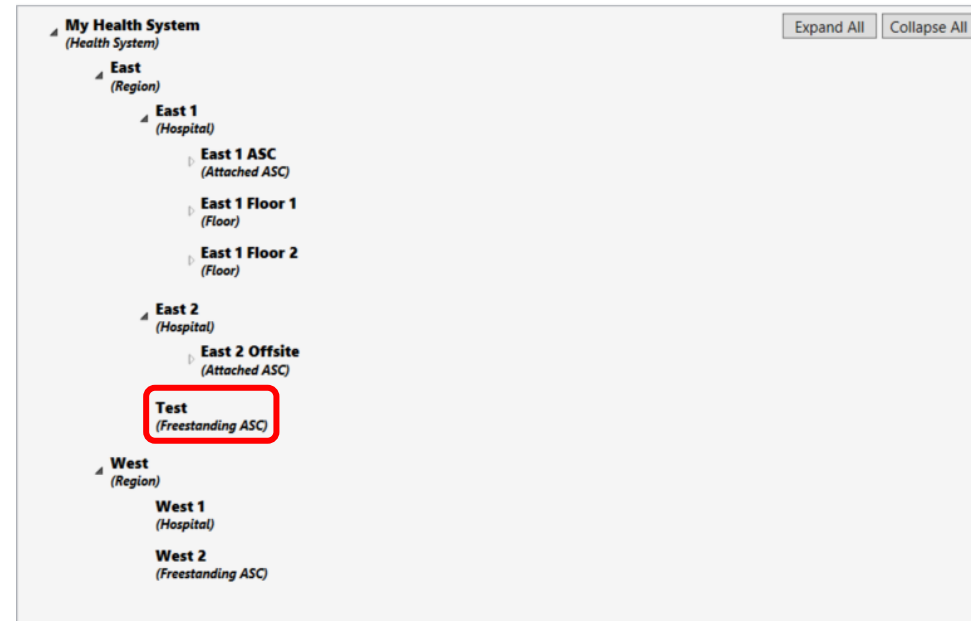
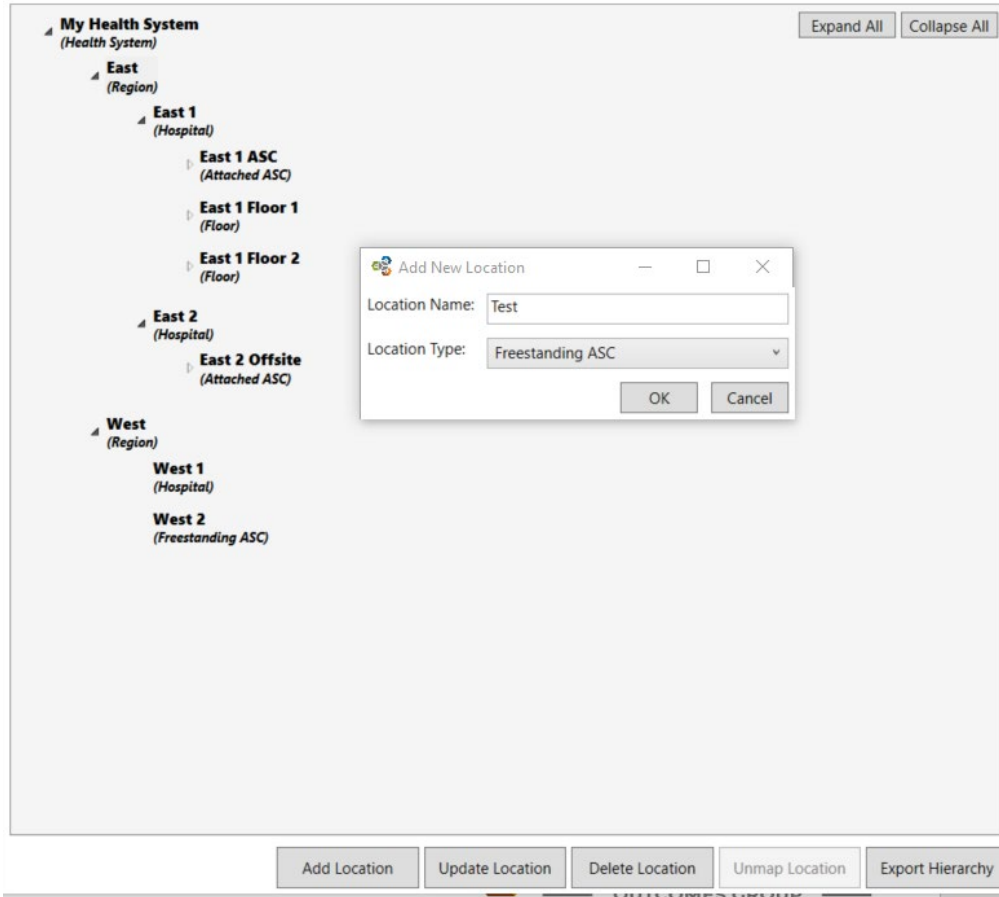
Adding New Locations

The screenshot shows the 'Location Mapping' application for 'University of Michigan Health - Ann Arbor'. It features three main panels: 'Unmapped Rooms' on the left with a list of room codes; 'Room Hierarchy' in the center showing a tree structure for 'My Health System' with regions like 'East' and 'West'; and 'Location Tags' on the right with a list of facility types. A 'Map to East' button is at the bottom left. A 'Add New Location' dialog box is open over the hierarchy, with 'Location Name' set to 'Test' and 'Location Type' set to 'Hospital'. Red boxes and numbers 1, 2, and 3 indicate the steps: 1. Click on a location in the hierarchy; 2. Click 'Add Location' at the bottom; 3. Enter details in the pop-up window.

1. Click on a location that is on the tier level above the location that you are adding.
2. Click 'Add Location'
3. Enter the name and type of location in the pop-up box

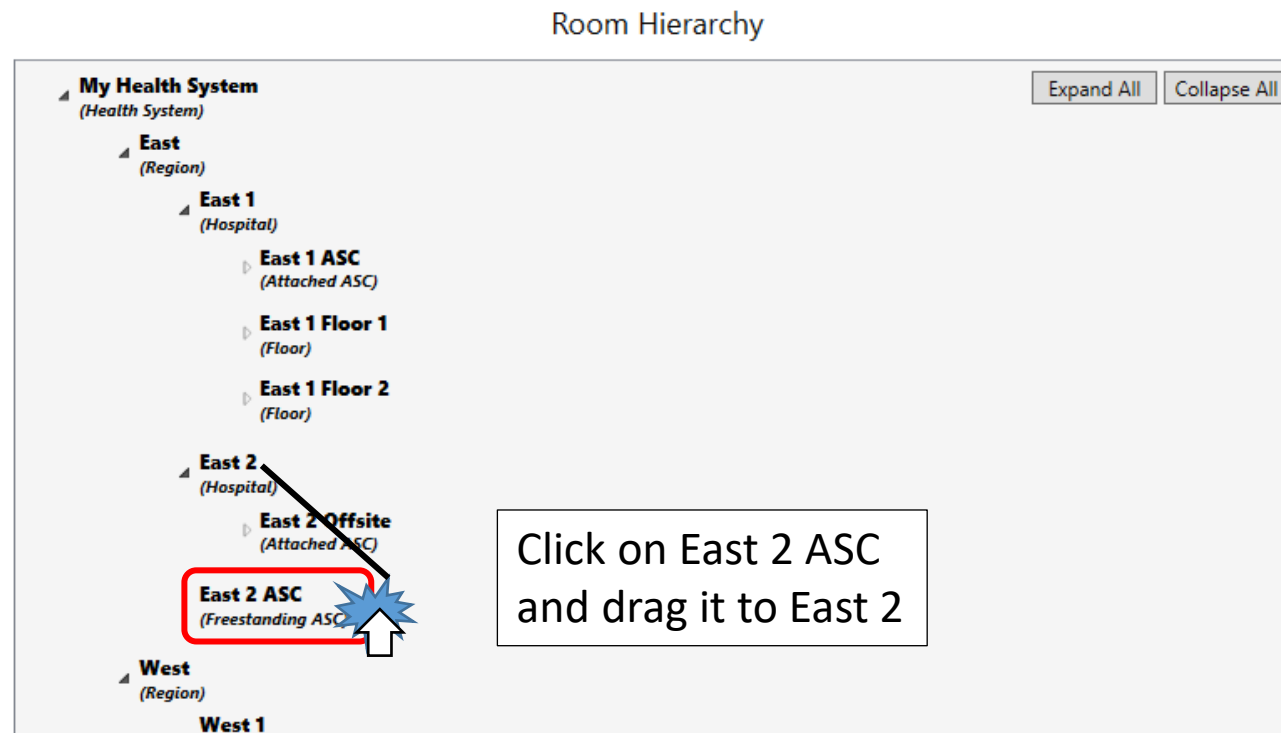
*You can add new locations for Region, Hospital, Site, and Unit/Floor only. You cannot add a new Room name.

The new location will populate the middle portion of the display box on the chosen tier.



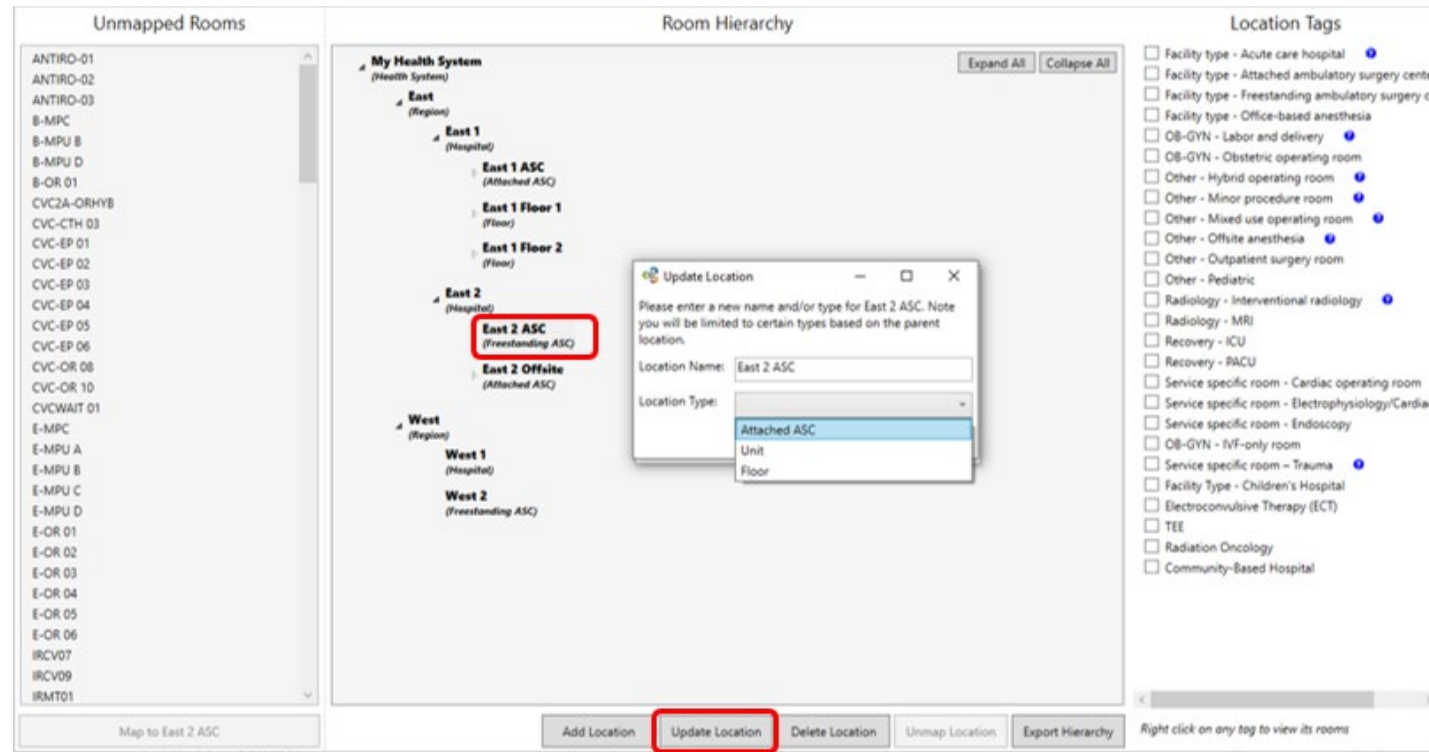
If a location was added to the incorrect tier, you can 'click and drag' to move it to the correct location.

For Example, East 2 ASC was added as a Freestanding ASC, but should be attached.



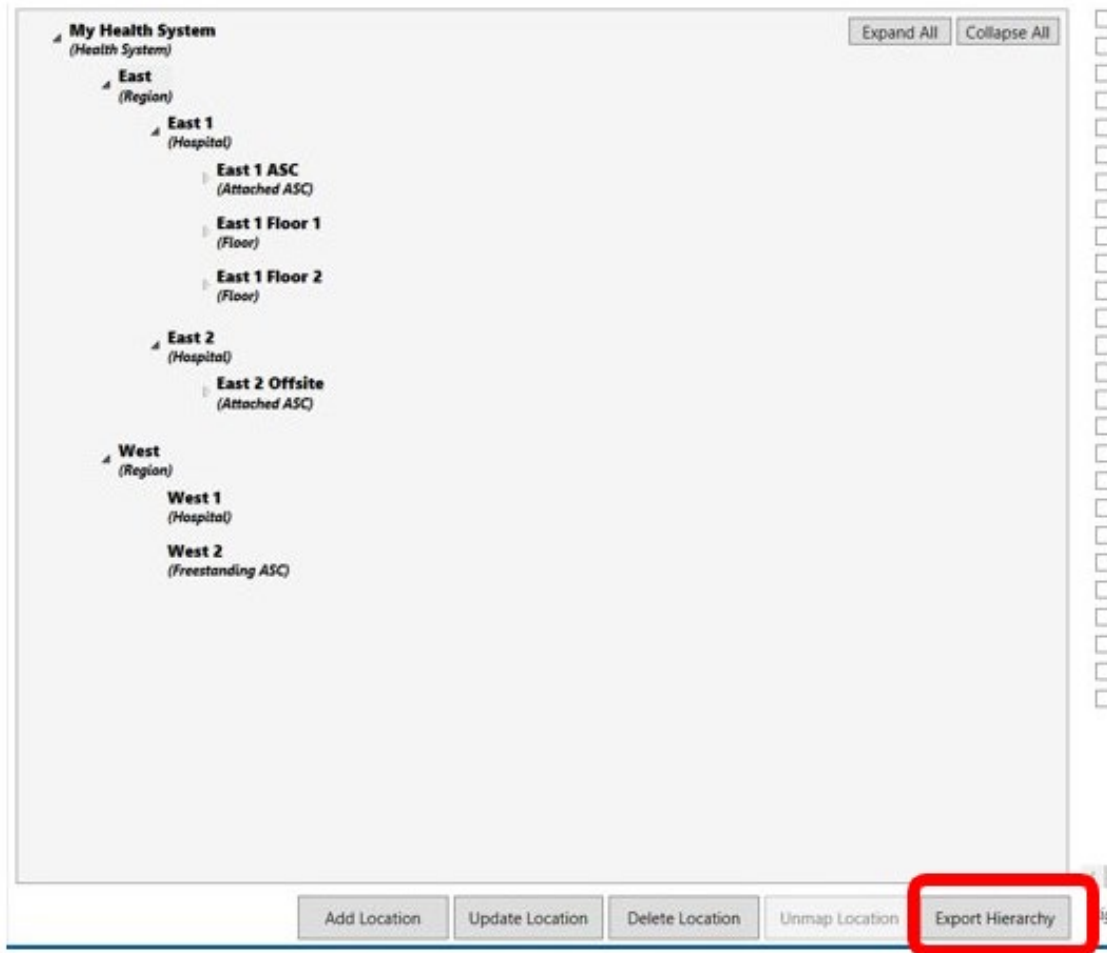
Clicking on 'East 2 ASC' and dragging it over the 'East 2' title will indent the secondary site to be listed under the primary

When moving locations to different tiers, you will also need to click on 'Update Location' to update the location type.



*See slides 13-19 for instructions on how to map rooms and add tags.

Export Location Mapping



- At times, the MPOG Coordinating Center may ask you to export your current location mapping for review.
- Clicking on the 'Export Hierarchy' button will save your current mappings as an excel file. Save this file to your computer and attach it as an email. There is no PHI in this file, so it is safe to send via email.

Location Mapping Tips

- Right click on any Location Tag to see rooms assigned to the tag.
- Continue assigning the proper location tags for all rooms in the room hierarchy. There is no need to save any changes to room locations or tags. **Any changes made are automatically saved.**
- To update the location mappings, the MPOG/ASPIRE programmer for your site will need to run the following script: EXEC Locations_UpdateCaseLocations. **It is recommended that this script be programmed to run automatically** on a schedule basis before diagnostics to capture any mapping changes that may occur in the future.
- Note: It is possible to add, rename, delete, or unmap locations as necessary using the buttons at the bottom of the display box. However, if an operating room or location is no longer in use, it is best to leave mapped as historical data will still rely upon this hierarchy.
- If you want to update the filter options in the dashboard, you adjust your location mapping and re-upload at least one case to Central. The new location hierarchy will be updated in the dashboard the Monday after you transferred to Central.