Space Inventory Techniques

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NCFMTC '07 Conference at MIT

The 3 Most Important Decision Support Questions

1. What facilities do we have, and where are they?

2. How well are they being used?

3. When will we need more (or less)?

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What is the Importance of a Space Inventory?

- **To provide timely and accurate space information…**
- **…as a decision support tool…**
- **…for senior management's allocation of physical resources…**
- **…needed to carry out the university / medical center's mission.**

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To Show It Another Way

START HERE !

Inventory
What do we have; where; who's using it ?

Utilization
How well is it being used ?

Planning
When will we need more or less?

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The 4 Basic Items Required for a Space Inventory

1. A unique ID for <u>every</u> space

2. Assigned architectural room use(s)

3. Organizational assignment(s)

4. FICM <u>and</u> BOMA areas.

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Let's Look at the 4 Elements

1. **Space ID:**
   - the most *"abused"*
2. **Room Use:**
   - the most *"confused"*
3. **Organization:**
   - the most *"mis-used"*
4. **FICM <u>&</u> BOMA Areas:**
   - together, the *"least used"*

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Unique Space ID's Purpose
(The most "abused")

1. To **<u>orient and direct</u>** people unfamiliar with your site to their **<u>destination</u>**.
2. To provide **<u>visitors and occupants</u>** with an ID system that will:
   - **<u>Locate rooms</u>** with the fewest, clearest keys,
   - Provide easy means for **<u>directing others.</u>**

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Techniques For Space IDs

Begin identifications from largest to smallest areas:

1. Campus

2. Buildings

3. Floors

4. Rooms.

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Focus: The Sequence of Directing People

1. **Large** ➡️ **Small**

2. **Outside** ➡️ **Building Circulation**

3. **Building** ➡️ **Floor**

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Building Names Vs. Numbers

- **Why names?**
  - ✓ *Historical preservation (Old Main)*
  - ✓ *Donor recognition (Smith House)*
  - ✓ *Visitor recognition (Student Center)*
- **Why numbers?**
  - ✓ *Operational references*
    - ◆ *Mail, HVAC, maintenance, fire/safety*
  - ✓ *Equipment location labeling*
- **Why not allow for both?**

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Floor Numbering
(Best Known By "Hotel" System)

1. **Ground level Main Entrance is Floor 1**
   Sloped lot requires a choice.

2. **Numbers Ascend from Floor 1**
   Mezzanines, Penthouses, Roof Structures should be consistent logical extensions.

3. **Numbers Descend from Floor 1**
   Alternatives: Lower Level (LL1, LL2) Basement, Sub-Bsmt. (SB1, SB2)

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Assignable Room Numbering
(Best Known by Postal System)

1. **Use postal system concepts**

   Read two numbers for direction and for odd/even sides of corridor.

2. **Assign groups of odd/even numbers to each structural bay**

3. **Leave gaps in room numbers for future partition changes**

4. **Use suite system for rooms in rooms**

   E.G. Room 101A is inside room 101, Room 101AA is inside Room 101A.

Non-Assignable Space Numbers

Assign space number "00" with consistent suffixes suggested below.

....

B = Bridges/Tunnels

C = Corridors
(Use C1, C2 for each leg.)

E = Electrical Closets

E = Elevator
(Use E1, E2, or EA, EB.)

J = Janitor Closets
(Add to closest Rm. No.)

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Non-Assignable Space Numbers
(Continued)

L = **Lobby**
   (Use L1, L2 or LA, LB.)
T = **Tel. Closets**
   (Add to closest Rm. No.)
S = **Stairways**
   (Use S1, S2, or SA, SB.)
Z = **Shaft, Accessible**
   (Add to closest Rm. No.)
Z = **Shaft, Inaccessible**
   (Sum by Floor, Add to Rm. No. "00".)

Room Uses
(Most *"Confused"*)

Use 3 Hierarchy Levels of Room Uses
....

1. **Assignable vs. Non-assignable**
     (Office versus Lobby)
     (Pvt. Circulation versus Corridor)
2. **Major Rm. Uses:**
     *(Classrm**s** -100, Lab**s** -200, Office**s** -300)*
3. **Detail Rm. Uses:**
     - Keep linked list of Acct. Nos. if needed
     (Office -310, Office Service -315)

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Room Uses
(Continued)

- **Think "Architectural" descriptors**
  - Classroom, Lab, Office
- **Don't think Functions**
  - Administrative, Research, Teaching
- **Don't think Ranks**
  - Professor's Office, Staff Office.

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Room Uses
(Continued)

- **Level 3 "Service" category can offer more detail than FICM if valuable for planning purposes.**

- **Some examples:**
  - **Classroom Service**
    Projection Room, Preparation Room.
  - **Office Service**
    Pvt. Lav, Pvt. Circ, Kitchenette, Vault.

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Organizational Assignment
(Most *"Mis-used"*)

Think "N" Hierarchy Levels of Room Organizations to reflect actuality.
....

- **Assign each space to the specific <u>user</u>'s organization<u>s</u>, not 'owner'.**
- **Use <u>names</u>, not chart of account Nos.**
  - Keep linked list of Nos. if needed.
- **Use consistent abbreviations in names.**
  - Ctr = Center, Svc = Service, Sch = School.

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Space Areas
(*"Least Used"*)

Two Areas Needed for Space Inventory Purposes, Not One!

....

1. **FICM: Inside to inside wall area.**
2. **BOMA: Centerline to Centerline wall area**

....

1. **FICM used for ICR, Utilization studies**
2. **BOMA used for Planning, Leased area.**

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And Now – A Deeper Look At Our Space Inventory

…or How to Get Two Gold Stars

Maintain Timely & Accurate Space Inventory Data

- **Field survey expensive space annually** (*Exclude Residential & Athletic space*)
- **Gather only Rm No, Rm Use & Geometry** (*Set goal of 150,000 GSF/day/surveyor*)
- **Get Senior Mgmt. letter of introduction**
- **Take renovations Project Mgr to lunch!**
- **Get Rm No. assignment responsibility** (*Drop everything for new Rm Nos. request*).

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Study Space Utilization

- **Provide response to "How well are we using our space?" via <u>ratio analyses</u>…**
  - Divide a resource measure by a productivity measure, or its reciprocal.

    E.G. SF per Person; # of People per # of Lab Stations, Rsch $ per SF

  - Recognize need to gather data with little or no help. Be creative!
  - Provide results in business graphics where possible.

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A Space Utilization Graphic of Ratio Results
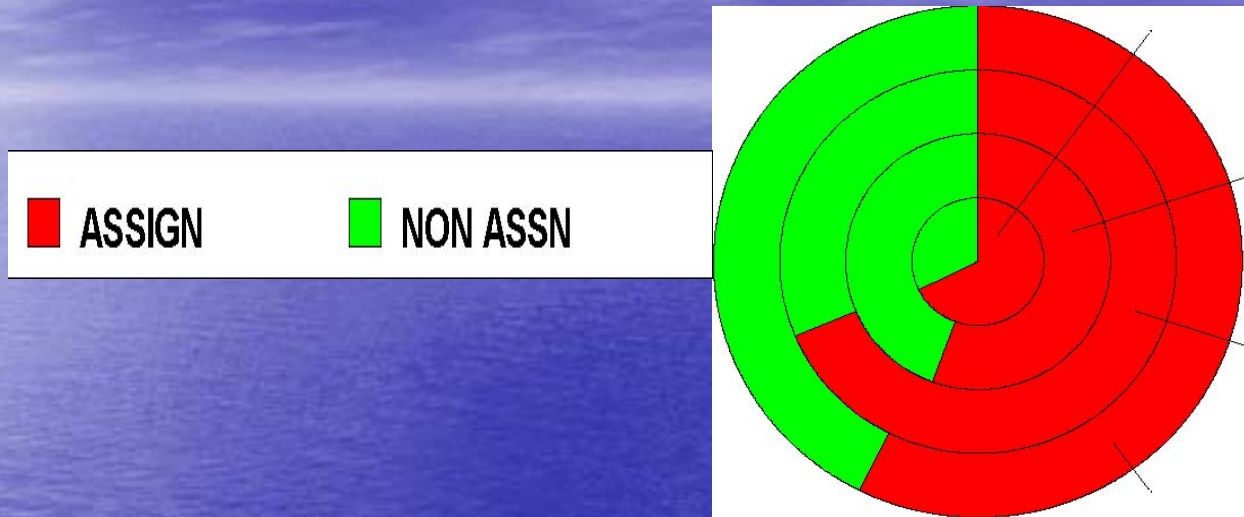
ASSIGN ■ **NON ASSN** ■

Facility	Assignability	Area	% of NUSF
10	ASSIGN	89,138;	67.7%
	NON ASSN	42,434	32.3%
20	ASSIGN	15,408	55.7%
	NON ASSN	12,278	44.3%
30	ASSIGN	39,990	68.7%
	NON ASSN	18,234	31.3%

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A Sr. Mgrs. Space Facts Sheet
(They'll carry it with them to meetings !)

GROSS SQUARE FEET (GSF)	100 %	9,827,017 sf

NET USABLE SQUARE FEET (NUSF)	89.4 %	100 % 8,784,483 sf 30,820 spaces	10.6 %

NET ASSIGNABLE SQUARE FEET (NASF)	65.8 %	73.6 % 6,468,705 sf 21,044 spaces	NON-ASSIGN SQ. FT.	23.6 % 	26.4 % 2,315,778 sf 9,776 spaces

CLASSROOMS 208,578 sf	GENERAL USE 461,925 sf	LABORATORIES 1,284,931 sf	OFFICES 1,764,765 sf	RESIDENTIAL 1,027,989 sf	RSCH HLTH CARE 29,934 sf	SPECIAL USE 262,120 sf	STUDY 195,628 sf	SUPPORT 1,137,334 sf	UNCLASSIFIED 95,501 sf	BLDG SERVICES 186,694 sf	CIRCULATION 1,427,579 sf	MECHANICAL 701,505 sf	STRUCTURAL 1,042,534 sf
2.1% 2.4%	4.7% 5.3%	13.1% 14.6%	18.0% 20.0%	10.5% 11.7%	0.3% 0.3%	2.7% 3.0%	2.0% 2.2%	11.6% 13.0%	1.0% 1.1%	1.9% 2.1%	14.5% 16.3%	7.1% 8.0%	
644 sf average	360 sf average	429 sf average	191 sf average	260 sf average	124 sf average	819 sf average	758 sf average	542 sf average	297 sf average	101 sf average	307 sf average	213 sf average	
324 spaces	1282 spaces	2998 spaces	9245 spaces	3954 spaces	242 spaces	320 spaces	258 spaces	2099 spaces	322 spaces	1844 spaces	4646 spaces	3286 spaces	

Assist The Space Planners

- **Provide response to "When do we need more or less space?"**
  - Let the Planners do the Planning with <u>your</u> data and output.

1. **Use graphics to show alternatives to space allocation questions.**
2. **Show multiple organization users of spaces.**
3. **Show multiple room uses being made of spaces.**

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1.Do Space Planning Alternatives

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2.Show Multi-User Assignments

3. Show Multiple Space Uses

That's It Folks – Now You Have Choices

1. Take a Quiz?
2. Ask Questions?
3. Wake Up, and Ask Questions Later (kcyros@insite.org)

Quiz – Room Numbers

1. **What are the purposes for room numbering?**

2. **To what room numbering 'system' do most people relate?**

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Quiz – Room Uses

1. **How many hierarchy levels of room uses are needed?**

2. **Must we use only the FICM-designated 'Service' category as a catch-all?**

3. **How can we designate more than one room use in a space?**

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1. Quiz – Room Assignments

1. **How many hierarchy levels of room assignments are needed?**

2. **What hierarchy levels should we assign all spaces?**

3. **How can we designate more than one organization assigned to a space?**

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Quiz – Room Areas

1. **What are FICM areas and how are they used?**

2. **What are BOMA areas and how are they used?**

Scores

- **7 or less of 10 correct**: Hm-m-m… Have you thought of another career path?

- **8-9 of 10 correct**: Good for you. A little more FICM study and you'll get them all!

- **All 10 correct**: Fantastic. Now is the time to ask for a raise !