

**WHITE PAPER -- BEST APPROACH FOR CLASSROOM/SPACE UTILIZATION RATE REPORTING
(R25, 25LIVE, and X25 SOFTWARE TOOLS)**

As researched for the AiM Advisory Committee and Aaron Yamane of ITS-MIS; February 5, 2014

OVERVIEW

UH campuses have interest in analyzing classroom/space utilization rates using an array of class schedule, class attendance, space management, and other metrics. This white paper is an attempt to compile factual information, document known needs, and forecast research and information yet to be collected. The BPC's AiM Advisory Committee (AAC) is charged with standardizing and formalizing space management protocols across the 10 UH campuses. Coupling long-range space management data with room utilization data makes for a more comprehensive understanding of space usage, occupancy, and management which therefore results in enhanced strategic planning at campus and system-wide levels.

Currently R25 is softly used by some campuses to track non-academic events. The technical setup is administered and supported by ITS-MIS, led by Aaron Yamane. The AAC is charged with examining needs and resources, and further recommending solutions, policy/procedure, and a streamlined strategy for a standard space management protocol at all ten UH campuses. Campus interest in room utilization data has been formally addressed to the larger AAC and therefore has been included in the overall committee charge to more closely examine the overall needs, and determine whether or not R25, 25Live, and X25 is a suitable solution.

General Space Inventory data (room types, square footage, etc.) – AiM	Metrics (Classification of Instructional Programs) for annual NSF reporting – AiM
Occupancy (org occupancy, people occupants, grant occupants) – AiM	Metrics used for F&A Indirect Cost Recovery reporting – AiM
Long-term Space Requests – AiM	Classroom/Space Utilization reporting -- <i>TBD</i>
CAD viewing and AiMCAD graphical reports -- AiM	Campus Mapping
Asset Management and Location tracking -- AiM	Class and Campus Events Scheduling – Banner, R25 and EMC*

**EMC currently used at LCC in lieu of R25*

- Software Details
 - Ultimately, software applications such as R25 and 25Live focus to centralize data sets used when scheduling any type of room usage, for academic and non-academic purposes.
 - R25 acts as a “sister” tool to Banner, and at some campuses is the primary reservation database for non-academic events.
 - Key software attributes:
 - R25
 - Currently licensed by UH ITS
 - Windows (only) R25 client is used primarily by Schedulers to manage room requests and run reports.
 - R25 client is not supported for Apple
 - Vendor stop developing enhancements for the client and redirected focus to 25Live
 - Does not work well for non-schedulers, or basic infrequent users
 - Interfaced with UH's Student Information System (Banner) to manage course scheduling
 - Does not offer a Web-based end-user interface (for scheduling rooms, pulling reports, etc.)

- 25Live
 - Web based version of R25
 - Because 25Live is an add-on, users will continue to have access to the R25 client and Banner Interface (No loss of current R25 functionality)
 - Offers an customizable end-user interface, which can be specifically designed for different types of users and usage
 - Vendor offering individual campus license and support, or system package
- X25
 - Reporting module
- Primary internal user groups at each campus to use R25/25Live
 - Schedulers
 - R25 is best for centralized academic scheduling. For those offices, 25Live's mobility and flexibility is not an enticing factor.
 - Non-centralized scheduling users will hugely benefit of 25Lives mobility, flexibility, and ease of use.
 - Understanding scheduling trends by academic departments, popular class times/days
 - Strategizing under-utilized dates/times
 - Space Managers and Facilities Use (O&M) Groups
 - Ability to schedule space maintenance and repair periods/outages
 - Calculating and understanding room utilization rates
 - Strategizing better room usage and scheduling (for space planning, facilities projects, etc.)
 - Reporting and analyses
 - Justifying need for new space/buildings
 - Instructional Support, IT/AV Equipment Managers
 - Inventory classroom equipment in designated classrooms
 - Ability to schedule space maintenance and repair periods/outages
 - Non-instructional Events Coordinators
 - View and reserve room use outside of instructional time slots
 - Reporting and analyses
 - UH System Offices (i.e. Institutional Research & Analysis Office (IRAO), Office of Research Services (ORS))
 - Usage by academic discipline
 - Class trends
 - Research usage
 - Reporting and analyses
 - Campus Security and Public Safety
 - Knowing what events are happening on their campus
 - Plan increase/decrease of security presence due to event attendance and location
 - Help individuals who are lost or just trespassing

NEEDS FOR MEANINGFUL IMPLEMENTATION AND USE

- Close examination by each campus to understand how scheduling is currently administered¹
 - Who is entering into Banner?
 - Academic Departments (for proprietary classrooms), and Non-Academic/General Events need to consistently enter comprehensive data that can be reported out and analyzed.
 - Are all courses scheduled in Banner? Or are there manual processes that somehow make its way into final Schedule of Courses?
 - Not all classes are in Banner, for example: Non-Credit and English Intensive.
 - Where is non-academic scheduling data kept? R25? Other system? Manual/paper?
 - Each campus and department often maintains their own scheduling system or process.
 - Campuses need to determine a way to centralize all scheduling data in R25 whether it be via direct data entry or electronic data load from Banner.
 - How do departmentally-managed classes/course schedules make its way to Schedulers?
 - At Manoa, departments submit their class schedules to the Enrollment Management's University Scheduler. Departments utilizing their own space for a class or lab will list their rooms on their schedules. Any class without a department space listed will be assigned a general-use classroom by the University Scheduler.
 - Other campuses must examine and understand this process as a first step to consolidating and centralization.
- Agreement for centralizing data in software like R25/25Live
- Wide range usage by varying groups to collect reliable data
- Determination of what type of data analysis and reporting each campus needs.

SYSTEMWIDE or INDIVIDUAL CAMPUS IMPLEMENTATIONS & POTENTIAL COSTS FOR 25LIVE

- Aaron Yamane (ITS-MIS) has estimated one-time licensing costs and annual maintenance costs
 - Individual campus licenses slightly higher
 - Campus (system-wide) licensing cheaper
 - UHWO wants to get license asap
- Need to identify a functional lead to work with ITS-MIS (Aaron Yamane)
 - No system space management office, so designating a functional lead is not clear-cut.

¹ See Diagram A

OUTSTANDING QUESTIONS

- Where is R25 currently used?
 - Is currently used by Manoa, Maui, Honolulu, and Hilo campus to manage Academic and Non-Academic events.
 - Maui and Hilo
 - Honolulu
 - Honolulu implemented R25's workflow functionality to ensure that events are property approved and vetted.
 - Manoa
 - Manoa Campus Security uses it secure vacant rooms in the evenings, and open classrooms and restrooms for events occurring on weekends and holidays.
 - Manoa Center for Instructional Support uses R25 to schedule maintenance and installations of AV equipment.
 - Manoa Custodians use R25 to open and clean classrooms before the first class or event.
 - Manoa Academic user R25 to optimize their course schedule
- What is the nature of R25s interface with Banner?
 - Banner course changes triggers a flag to let R25 know a change occurred. Every 15mins, R25 looks for those flags, and pulls the latest information regarding those specific courses.
 - After academic departments have finalized their course schedules, they can update the Banner Course's Space Assignment (only its location can be updated).
- Can X25 be replaced with existing report writer? (i.e. BIRT)? Could we create a centralized data repository with AiM?
 - Yes, this may be possible with proper planning and resources.

HELPFUL RESOURCES:

Example of a Space Utilization Plan

University of Wisconsin-Madison, Classroom Space Utilization Project Team

http://adminexcellence.wisc.edu/content/uploads/2011/12/Space-Utilization_Classroom_Campus-Forum-Presentation_2012_06_20.pdf

Sample of a reporting dashboard

University of Minnesota, Office of Classroom Management

<http://www.classroom.umn.edu/scheduling/dashboard.html>

Example of a BI tool for dashboard or gallery setups

Tableau public

<http://www.tableausoftware.com/public/about-tableau-products?ref=http://public.tableausoftware.com/views/Fall2011UMNTCUtilizationDashboardWebSize/GPCSummary>

DIAGRAM A – Ideal General Workflow

The following illustrates a general workflow for effective use of a tool like R25/25Live. Setups will vary from campus to campus, but comprehensive data entry and collection is necessary for successful reporting.

