ARCHIBUS

Largest Singapore University Transforms Space Management with BIM

Singapore's Nanyang Technological University (NTU) is yet another example of Singapore's unrelenting search for excellence in education as well as in commerce.

The university placed 1st among the world's best young universities and ranked 13th globally in the 2015 QS World University Rankings.

Needless to say, its 33,000-student enrollment and extensive campus has only grown with its reputation. NTU currently comprises a 200 hectare garden campus and houses that country's largest on-campus residence infrastructure.

NTU's extensive portfolio of planted grounds, 16 residential halls, and numerous academic buildings meant that the school finally recognized that it's leading-edge academics also required the introduction of a leading-edge, BIM-based solution to address NTU's facilities management challenges.

Central to that effort was the creation of NTU BIM models integrated with ARCHIBUS facilities management data to produce both 2D and 3D visualizations of its properties for more precise space management.

First University to Adopt BIM in Singapore

NTU was the first university in Singapore to adopt BIM technology for facility operation in response to a call by the Building Construction Authority (BCA) of Singapore to use BIM for building lifecycle management.

In 2013, ARCHIBUS was chosen to help meet the BIM adoption objective because of its Enterprise Information Modelling (EIM) capability. BIM-enabled space planning was then implemented in the first-phase of the project to better optimize space as a first step in achieving a range of project goals.

Vital Statistics

Organization:
Nanyang Technological University

Facilities Facts:

33,000-student enrollment and extensive campus. NTU currently comprises a 200 hectare garden campus and houses that country's largest on-campus residence infrastructure with 16 residence halls .

ARCHIBUS Applications:
Space Inventory & Performance; Space Chargeback; Personnel & Occupancy; Smart Client for AutoCAD and Revit

Reasons for Implementing:

Eliminate manual facilities management processes; increase efficiency for processing reports and room inventories; Track and monitor leasing space chargeback internally and externally.

Benefits Gained:
More automated facilities management processes and efficiency. Space and asset utilization optimized through automated real-time analysis

Business Partner:
ARCHIBUS Solution Centers - Singapore
Web Site:
www.ntu.edu.sg/

Evolve your workplace strategy

Those goals also included the elimination of manual FM processes; more efficient generation of reports and room inventories; and improved leased space chargeback processes.

To accomplish these tasks the university had to first import its log forms, Excel spreadsheets, and CAD drawings into its BIM models. The BIM information was then integrated with its ARCHIBUS database information. This resulting system, implemented in approximately 4 months, allowed users to access both 2D and 3D views of university room or floor configurations and entire exterior building representations.

All that information, in turn, will ultimately be linked to lease, maintenance, asset and other information required by the university for accounting and reporting purposes.

Accelerated Implementation and Acceptance

"Everyone loves to play with the BIM models," says Japri Maming, CEO of ARCHIBUS Solution Center – Singapore. "This was an accelerated implementation that we completed in 4 months with the help of two teams that were needed to clean up and verify data in addition to the integration work and training.

To the extent possible, NTU used ARCHIBUS out-of-the-box but more customized user interfaces were also developed.

"Designing for human factors and ease of use was also important to accelerate adoption and user satisfaction," says CEO Maming. "The overall implementation has everyone at NTU excited as well as more productive. "