

ICCCFO
Illinois Community College
Chief Financial Officers



Spring Conference
April 8-10, 2015

Starved Rock Conference Center
Oglesby, IL



Towards A Total Cost of Ownership

Community Colleges: Beyond Design and Construction

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Towards A Total Cost of Ownership

Community Colleges: Beyond Design and Construction

STV



Jan Turner



Rob Barthelman

ICCCFO | April 10, 2015

Agenda

- Introductions
- STV Overview
- Asset Management
- Planning Efficiencies
- Space Utilization
- Discussion



STV

Established 1912
100% Employee Owned
40 North American Offices
1,800 Personnel



Market Sector Diversity

- Public and Private Academic and Healthcare Providers
- Transportation & Infrastructure
- Federal, State and Local Agencies
- Commercial and Residential



STV | Full Service Capabilities

Focus on Quality | Collaboration with Clients



STV | Full Service Capabilities

Focus on Quality | Collaboration with Clients





Laney Community College Master Plan

(Urban and Rural Sites)



SUNY Westchester Community College Gateway Center



City Colleges of Chicago; Truman College Student Services



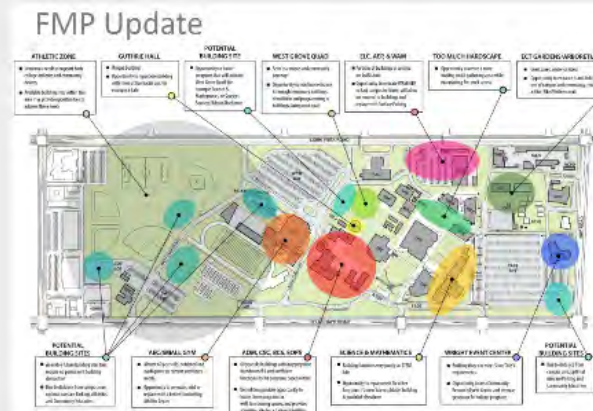
- Master Planning / Programming
- Design & Engineering
- Asset Management
- Program and Project Management
- Construction Management
- Project Controls

Facilities & Asset Management



Impetus : Facilities Planning

- Collection of Documentation
- Assessments
- Programmatic Review
- Space Utilization/Space Needs
- Facilities Recommendations
- New/Replacement Systems
- Infrastructure Improvements



Ventura County Community College
2015



Laney Community College
2013



Marin Community College
2013



Solano Community College
2014

The Result... Facilitating OBJECTIVE Decisions

Community College Facilities/Asset Management



DATA

Connecting To Data;
For Desired Outcomes



DECISION

Reporting & analyses;
Decisions & Action Plans



MONEY

Smart Spending;
Achieve College Goals

Connecting data and organizing it in easy to understand formats, communicating facility and operational requirements

Facilities Management - Basic Data

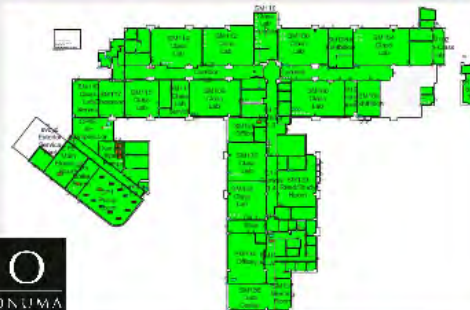
Space Inventory

Campus, Building, Room | Program, Room Use | Square Footage

ID	BLDG	ROOM	NAME	AREA	TYPE	STATUS	PROGRAM	ROOM USE	DATE
100	100	100	100	100	100	100	100	100	100
101	100	101	101	100	100	100	100	100	100
102	100	102	102	100	100	100	100	100	100
103	100	103	103	100	100	100	100	100	100
104	100	104	104	100	100	100	100	100	100
105	100	105	105	100	100	100	100	100	100
106	100	106	106	100	100	100	100	100	100
107	100	107	107	100	100	100	100	100	100
108	100	108	108	100	100	100	100	100	100
109	100	109	109	100	100	100	100	100	100
110	100	110	110	100	100	100	100	100	100
111	100	111	111	100	100	100	100	100	100
112	100	112	112	100	100	100	100	100	100
113	100	113	113	100	100	100	100	100	100
114	100	114	114	100	100	100	100	100	100
115	100	115	115	100	100	100	100	100	100
116	100	116	116	100	100	100	100	100	100
117	100	117	117	100	100	100	100	100	100
118	100	118	118	100	100	100	100	100	100
119	100	119	119	100	100	100	100	100	100
120	100	120	120	100	100	100	100	100	100

Alignment with State

Assures Data Matches Across Databases



Programmatic Uses

Graphic Indication of Program Type



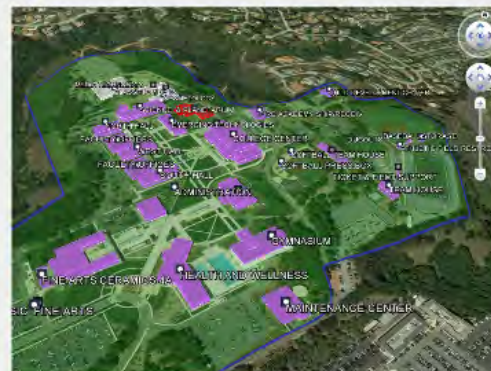
Condition Index

Facilities Condition | Cost of Renovation over Cost of New Construction



Building Status

Online | Offline | Construction



Room Use

Lecture | Lab | Office | Library | And More



Space Inventory

Campus, Building, Room | Program, Room Use | Square Footage

- VISION
- Barthelman is signed in: A
- Space Inventory
- 2050 VEHICLE/CUS
- 2100A PUBLIC RELATIONS (92)
- 2100B COMMUNITY EDUC (93)
- 2100C SMALL BUSINESS DEV (9)
- 2500 COMPUTING LRN CTR (11)
- 2600 BUSINESS SERVICES (11)
- 2800 WAREHOUSE STORAGE (1)
- 300 VISUAL ARTS (8)
- 350 PHOTOGRAPHY LAB (113)
- 400 SOCIAL SCIENCE (14)
- 450 FORUM (6)
- 500 BUS SOC SCIENCE (3)
- 5000 HORTICULTURE (118)
- 5100 HORTICULTURE (119)
- 5200 HORTICULTURE (120)
- 5300 HORTICULTURE (121)
- 5510 HORTICULTURE (122)
- 5520 HORTICULTURE (123)
- 5530 HORTICULTURE (124)
- 5540 HORTICULTURE (125)
- 5550 HORTICULTURE (126)
- 5560 HORTICULTURE (127)
- 600 SCIENCE (13)
- 700 MATH ENGIN TECH (11)
- 800 STEM BUILDING (12)
- 900 COLLEGE CENTER (4)
- Foundry (136)
- GROUNDS / PE STORAGE (65)
- HAZ MAT STORAGE (52)
- Health-Wellness Center (179)
- Maintenance Storage (54)
- OBSERV - DOME BLDG (74)
- OBSERV - EQUIP (73)
- OBSERV - STORAGE (75)

Building Profile

Building No.:	4	Year Built:	
Name:	900 COLLEGE CENTER	Last Addition:	
Abbrev:	CC	Building Status:	
Plan Type:	Permanent	Total Outside Gross:	
Location Code:	College/Campus	Total Rooms:	
Ownership Code:	Owned in fee simple	Total Assign Station:	
Condition Code:	2 - Remodeling - A	Total Assignable S:	
Construction Code:	Ordinary Masonry		
Efficiency:	70.40%		

Rooms ASF Summary

Prfx.	Rm No.	Sufx.	Use#	Room Use	Top/CSS #	Top/CSS Description	Station	Sq. Ft.
	901		630	Food Facilities	6940	Food Services	308	3,079
	902	A	680	Meeting Room	6730	Human Resources Management	6	186
	902	A	310	Office	6730	Human Resources Management	1	156
	902	B	310	Office	6730	Human Resources Management	4	608
	902	C	310	Office	6730	Human Resources Management	1	116
	902	D	315	Office Service	6730	Human Resources Management	0	118
	905		310	Office	6730	Human Resources Management	1	178
	905	A	310	Office	6730	Human Resources Management	1	183
	906	A	630	Food Facilities	6940	Food Services	153	2,323
	907		310	Office	6430	Extended Opportunity Programs and Services (EOPS)	3	369
	907	A	310	Office	6430	Extended Opportunity Programs and Services (EOPS)	1	93
	907	B	310	Office	6430	Extended Opportunity Programs and Services (EOPS)	1	81
	907	C	310	Office	6430	Extended Opportunity Programs and Services (EOPS)	1	81

Facilities Management - Basic Data

Space Inventory

Campus, Building, Room | Program, Room Use | Square Footage

Building	Room	Program	Room Use	Square Footage
100	100	100	100	100
100	101	100	100	100
100	102	100	100	100
100	103	100	100	100
100	104	100	100	100
100	105	100	100	100
100	106	100	100	100
100	107	100	100	100
100	108	100	100	100
100	109	100	100	100
100	110	100	100	100
100	111	100	100	100
100	112	100	100	100
100	113	100	100	100
100	114	100	100	100
100	115	100	100	100
100	116	100	100	100
100	117	100	100	100
100	118	100	100	100
100	119	100	100	100
100	120	100	100	100

Alignment with State

Assures Data Matches Across Databases



Programmatic Uses

Graphic Indication of Program Type



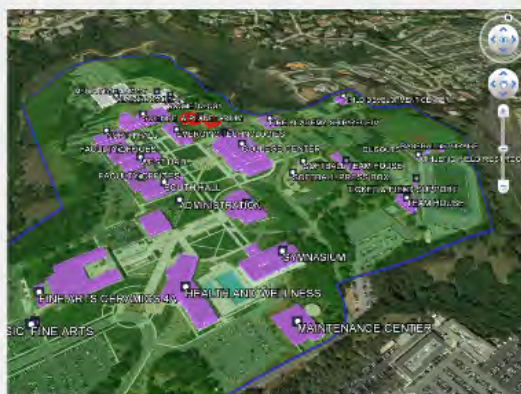
Condition Index

Facilities Condition | Cost of Renovation over Cost of New Construction



Building Status

Online | Offline | Construction



Room Use

Lecture | Lab | Office | Library | And More



Facilities Management - Connecting Data

Work Orders

Facilities | Site | Technology | Key Requests

Work Order Request
Soleno Community College - Fairfield Campus

Name of Requestor:
Joe Smith

Email:
jsmith@college.edu

Telephone (Optional):

Building:
SCIENCE

Floor:
FIRST FLOOR

Room:
327 - Class Lab Service

Location:
Above Ceiling

Please describe the reason for your Work Order Request:
Dripping water from ceiling tile

Request Type:
Building Maintenance

Please attach any relevant photos:
 No file chosen
 No file chosen
 No file chosen

!! copyright by Onuma.com 2013 !!



Task Assignment



Schedule Connection

Web-based / Digital Link to Facilities/Curricular Schedule



Monday	Tuesday	Wednesday	Thursday	Friday
<p>6:00-6:55 SODM - 102AC 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p>	<p>6:00-6:55 SODM - 102AC 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p>	<p>6:00-6:55 SODM - 102AC 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p>	<p>6:00-6:55 SODM - 102AC 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p>	<p>6:00-6:55 SODM - 102AC 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p> <p>6:00-6:55 SODM - 102AD 30 students</p>

Intro to Ethnic Studies I

Course ID: ETHN - 101AD
CRN: 40227
Start Date: 2014-01-13
End Date: 2014-03-16
Start Time: 11:10:00
End Time: 12:00:00
Start Time: ETHN - 101AD
Instructor: Ramirez, Rudy J.
Email: rjramirez@soleno.edu

Attendance: Monday: 56, Tuesday: 56, Wednesday: 56, Thursday: 56, Saturday: 56, Sunday: 56

Description: Study of the historical and cultural presence of Native Americans and La Raza in U.S. emphasis on contributions to California's institutions. Recommended preparation: 484/485 for LARS, 540/539 and completion of READ 480 or 465 or 415 with a grade of C or higher OR appropriate SAT (will as indicated by the reading placement tests) or other measures. (AA Area C10/Yes C2b, C5b, No Area D/Yes T3, UC Area 4/Yes T3)

Management - Connecting Data

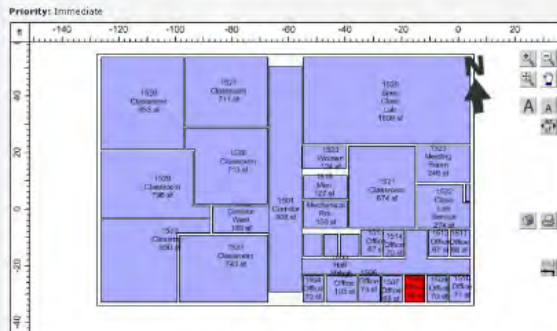
Schedule Connection

Web-based / Digital Link to Facilities/Curricular Schedule



Task Assignment

Lana Community College - Fairfield Campus



Submitted By: STV Open Access
(daniel.daxson@bharsh.com)

Location: MATHEMATICS
FIRST FLOOR
1508 - Office

Dataset Description: Ev. the frontdoor

Monday	Tuesday	Wednesday	Thursday	Friday
8:00-9:00 ECON-102AC 43 students		8:00-9:00 ECON-102AC 43 students		8:00-9:00 ECON-102AC 43 students
9:00-10:00 ECON-102AM 43 students		9:00-10:00 ECON-102AM 43 students		9:00-10:00 ECON-102AM 43 students
10:00-11:00 ETHN-300AB 43 students	10:00-11:00 LCON-100AC 43 students	10:00-11:00 LCON-100AC 43 students	10:00-11:00 LCON-100AC 43 students	10:00-11:00 LCON-100AC 43 students
11:00-12:00 ETHN-101AD 43 students	11:00-12:00 ETHN-101AD 43 students	11:00-12:00 ETHN-101AD 43 students	11:00-12:00 ETHN-101AD 43 students	11:00-12:00 ETHN-101AD 43 students
12:00-1:00 ESL-827AG 21 students		12:00-1:00 ESL-827AG 21 students		12:00-1:00 ESL-827AG 21 students

Intro to Ethnic Studies I

Course ID: ETHN - 101AD
CRN: 46297
Start Date: 2014-01-13
End Date: 2014-05-16
Start Time: 11:10:00
End Time: 12:00:00
Start Time: ETHN - 101AD
Instructor: Ramirez, Rudy J.
Email: ramirez@smccd.edu

Attendance:

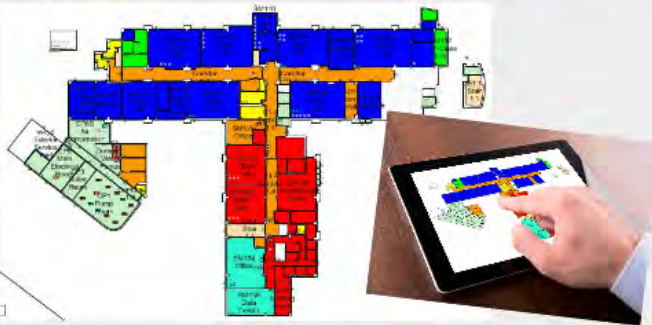
Monday	59
Tuesday	59
Wednesday	59
Thursday	59
Friday	56
Saturday	
Sunday	

Description: Study of the historical and cultural presence of Native Americans and La Raza in U.S. - emphasis on contributions to California's institutions. Recommended Preparation: eligibility for ENCL 848-858 and completion of READ-100 or 105 or ATE with a grade of C or higher OR appropriate skill level as indicated by the reading placement tests or other measures. (AX Area F1b/Arca F1b, CSUJ Area D/Arca F3, UC: Area 4/Arca 7c)

Facilities Management - Connecting Data

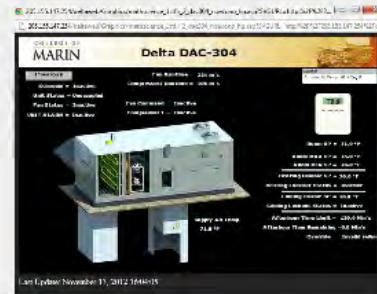
Interior Finishes

Floors | Ceiling | Walls | Base



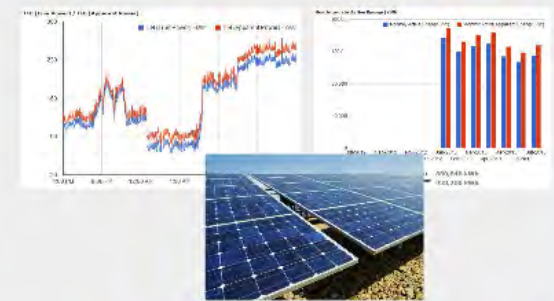
Systems Management

One Source for Access To BMS and EMS Interface



Energy Management

Linkage of Data Sources in One Interface with Dashboards and Data Interpretation



Systems Locations

Facilities Condition | Cost of Renovation over Cost of New Construction



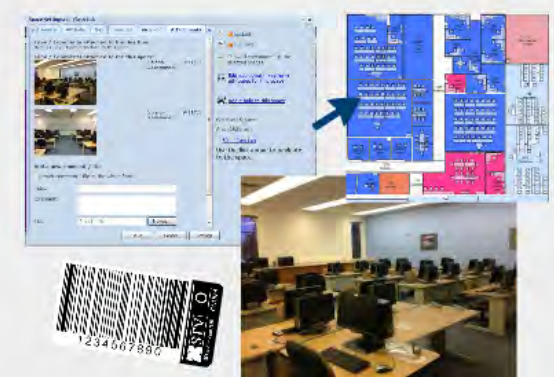
Systems Data

Online | Offline | Construction



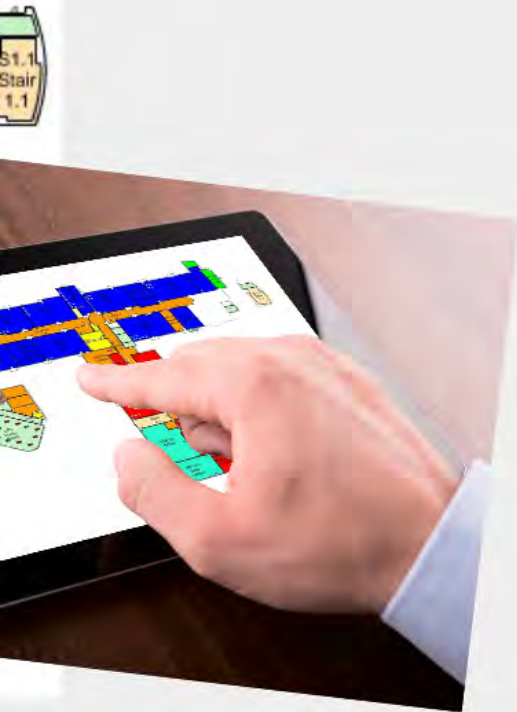
Space and FF&E Data

Lecture | Lab | Office | Library | And More



Systems Management

One Source for Access To BMS and EMS Interface



205.155.147.254/deltaweb/Graphics/mathscience_1stflr_2_dac304_noecono_hp.asp?SVGURL=http:%2F%2F205.155.147.254%2Fdel...

COLLEGE OF MARIN **Delta DAC-304**

Previous Fan Runtime = 224 hr's
Schedule = Inactive Compressor1 Runtime = 106 hr's
Unit Status = Unoccupied
Fan Status = Inactive Fan Command = Inactive
UNIT ALARM = Inactive Compressor 1 = Inactive

Weather
Outside Air Temp = 62.4 Deg F

70.6

Room SP = 71.0 °F
Room MAX SP = 75.0 °F
Room MIN SP = 70.0 °F
Heating Disable SP = 76.0 °F
Heating Lockout Status = Inactive
Cooling Enable SP = 40.0 °F
Cooling Lockout Status = Inactive
Afterhour Time Limit = 120.0 Min's
Afterhour Time Remaining = 0.0 Min's
Override = Invalid refer

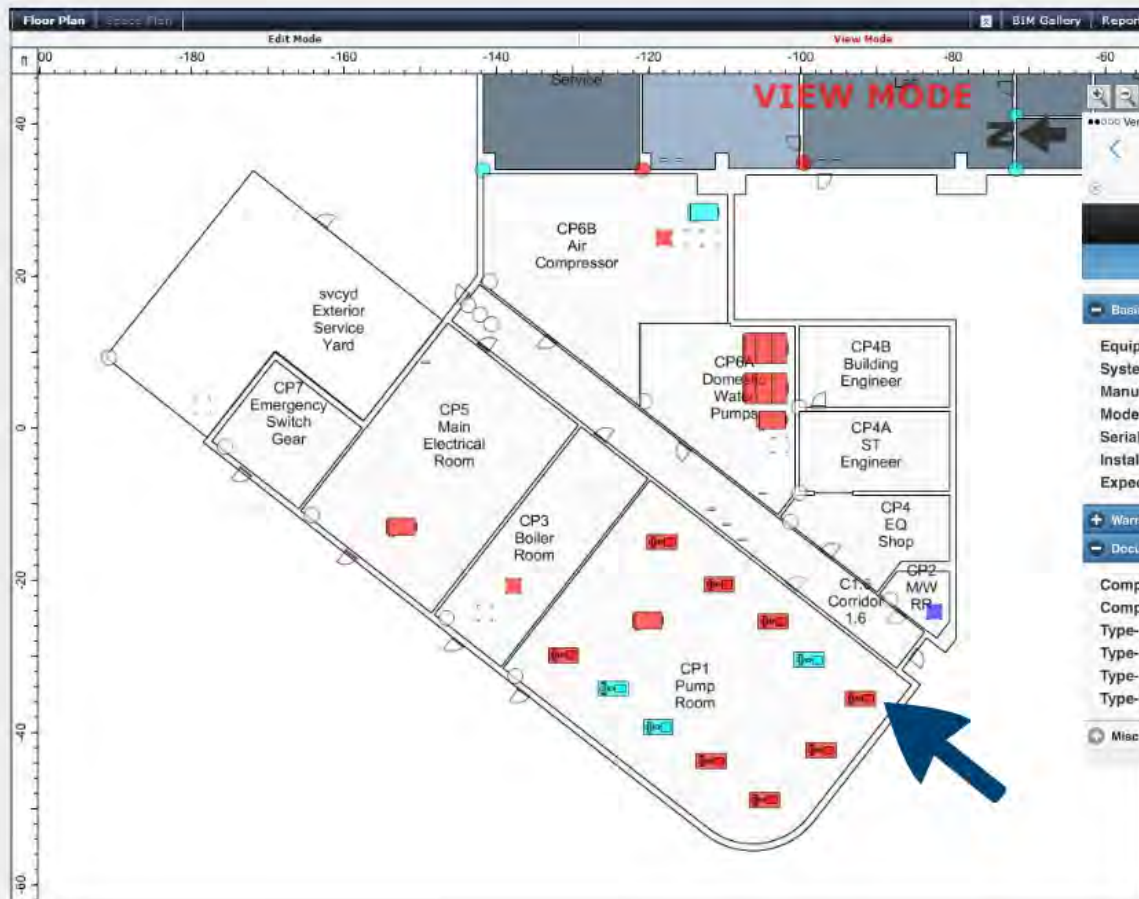
Supply Air Temp
71.6 °F

Last Update: November 13, 2012 16:04:05

Systems Data

Systems Locations

Facilities Condition | Cost of Renovation over Cost of New Construction



The screenshot shows a mobile application interface for "STV QR Reader". The top status bar shows the time as 12:59 PM and battery at 75%. The browser address bar shows "3d.stvinc.com". The app has a navigation bar with "Information", "BMS", and "Work Order" tabs. The "Information" tab is active, displaying the following details:

- Equip Name:** HP 1-10
- System Type:** Water Source Packaged Heat Pumps
- Manufacturer:** -
- Model Number:** TS048-PSC
- Serial Number:** -
- Install Date:** 2012-08-09
- Expected Life:** 0

Below the details are sections for "Warranty" and "Documents". The "Documents" section lists several files with red document icons:

- Component-Installation and Maintenance
- Component-Product Data-02
- Type-As-Built Plans Binder2
- Type-As-Built Schedule M402
- Type-Installation, Operation, and Maintenance
- Type-Product Data

A "Misc" section is also visible at the bottom.



Last Update: November 13, 2012 16:04:05

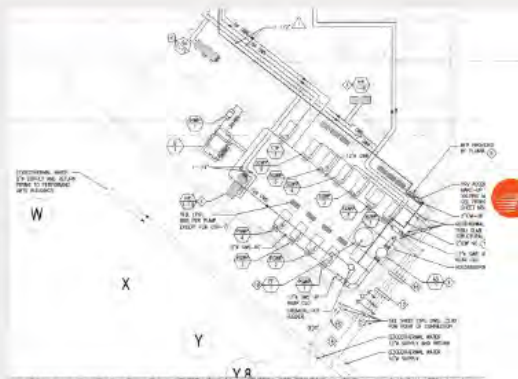
Override - Invalid restore

Systems Data

Online | Offline | Construction

Space

Lecture



Product Catalog

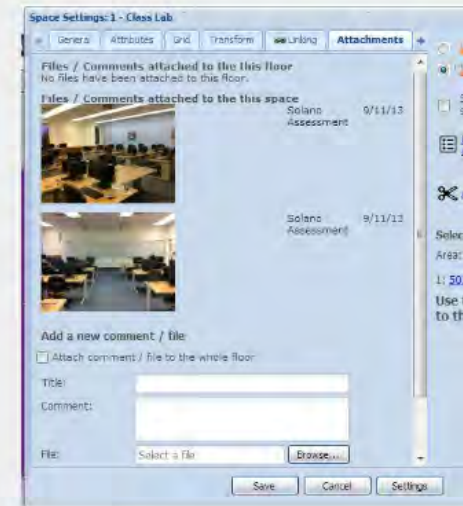
Series R™ Helical Rotary Liquid Chillers

70-250 Tons Model RTWD Water-Cooled
70-200 Tons Model RTUD Condenserless
Made in USA



February 2006

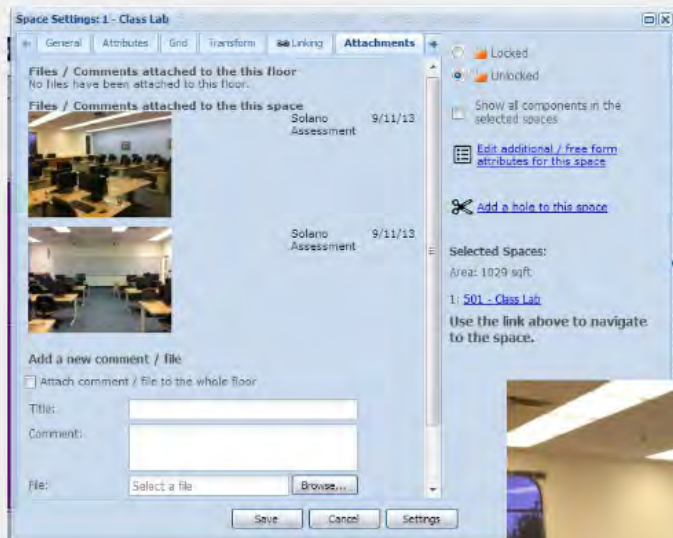
RLC-PRC029-EN





Space and FF&E Data

Lecture | Lab | Office | Library | And More



Facilities Management - Connecting Data

Interior Finishes

Floors | Ceiling | Walls | Base



Systems Management

One Source for Access To BMS and EMS Interface



Energy Management

Linkage of Data Sources in One Interface with Dashboards and Data Interpretation



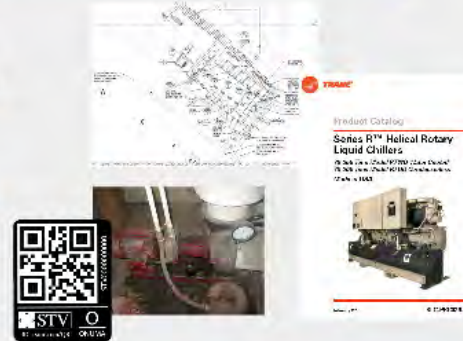
Systems Locations

Facilities Condition | Cost of Renovation over Cost of New Construction



Systems Data

Online | Offline | Construction



Space and FF&E Data

Lecture | Lab | Office | Library | And More



STV+ | Community College Features

Knowing our clients well, we saw additional need...



• And, hence... STV+

- Collection of Documentation
- Programmatic Review
- Space Utilization/Space Needs
- Custodial Planning
- Preventative Maintenance



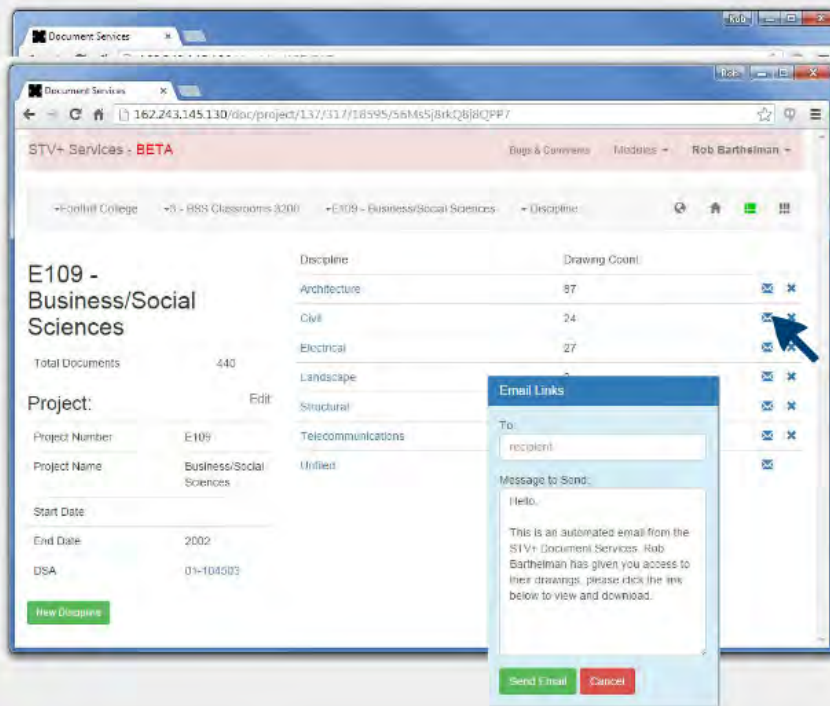
STV+ | Community College Features

Dashboard Access



STV+ | Community College Features

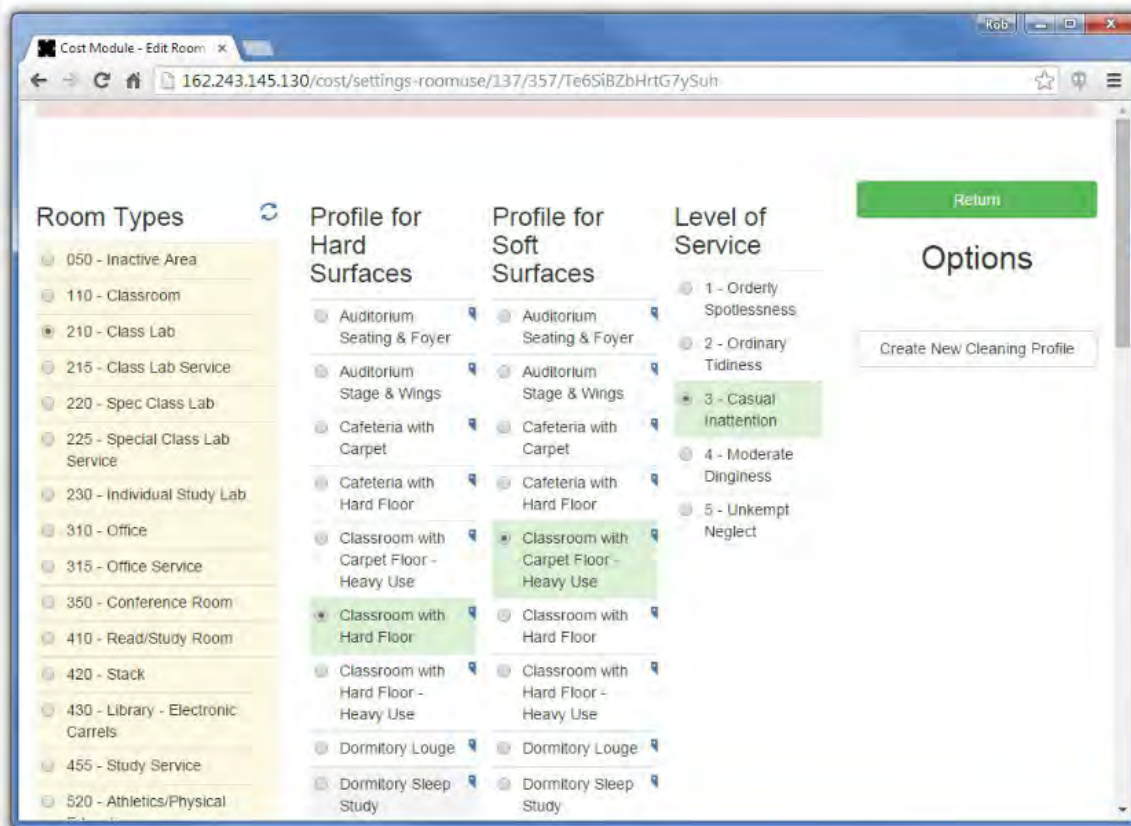
Document and File Library



- Secure Interface
- Campus and building structure
- Access to known projects: related files and data
- E-mail access to building files
- Ability to e-mail link to desired categories; Category level allows ability to send link to individual files

STV+ | Community College Features

Custodial Planning and Tasking



- Utilizes Industry data to acknowledge standard custodial tasks by building and room type
 - APPA Data
 - Tool to Set Expectations
- Ability to customize standard data to apply to college preferences

STV+ | Community College Features

Custodial Planning and Tasking

The screenshot shows the STV+ Services - BETA web application interface. The browser address bar displays the URL: 162.243.145.130/cost/bldg/137/357/Te6Si8ZbHrtG7ySuh/20270. The page header includes "STV+ Services - BETA" and "Rob Barthelma". The breadcrumb navigation shows: "College Of San Mateo" > "Demo Test 2" > "10 - COLLEGE CENTER" > "Space".

On the left, the room details for "161 Spec Class Lab" are displayed:

- Onuma
- Flooring: Linoleum
- Square Footage: 950
- Cleaning Profile: Classroom with Hard Floor
- APPA Level: 3 - Casual II
- Daily Routine Minutes: 10
- Daily Project Minutes: 2
- Assigned Zone:

The "Tasks:" section lists the following routine tasks with their frequencies and status:

Task	Frequency	Status
Clean chalkboards and trays	D	✗
Clean erasers	D	✗
Dust flat surfaces	W	✗
Empty pencil sharpeners	D	✗
Empty waste containers	D	✗
Relamp	D/A	✗
Spot-clean walls and doors	M	✗
Sweep, dust-mop floors	A/D	✗

Below the tasks is an "Add Task" button. On the right, there is a floor plan visualization with tabs for "Unused Spaces", "Level 1", "Level 2", "Level 3", and "Level 4". The floor plan shows a grid of rooms, with a specific room highlighted in blue.

- Structure
 - Campus
 - Building
 - Room
- Building selection
- Room selection
 - Custodian assigned
 - APPA Level
 - Routine and project tasks defined
 - Assumed minutes/day
 - Ability to customize

STV+ | Community College Features

Space Utilization

Building: 14 - SOUTH HALL

ACTIVE

Onuma

Total Building ASF: 15,806

Total Building Stations: 778

WSCH

210 - Class Lab	799
110 - Classroom	818
Total	1617

WSCH By Space

WSCH By Program

No data

Space	ASF	Stations	WSCH	Total	M	T	W	Th	F
101 - Class Lab	606	24	22	3.2 hrs		3.2 hrs			
102 - Classroom	1,028	58	790	22.4 hrs	5.3 hrs	5.5 hrs	5.2 hrs	5.6 hrs	0.8 hrs
103 - Class Lab	818	32	82	8.5 hrs		2.8 hrs	2.8 hrs	2.8 hrs	

Space: 205 - Classroom

ACTIVE

Onuma

Room Use	110 Classroom
TOP	10591 - Classmate Assignment
ASF	1,129
Stations	51
ASF per Station	
State Benchmark	15
Actual	22
Weekly Hours Occupied	
State Benchmark	45 hrs/week
Actual	25.9 hrs/week
Station Usage while Occupied	
State Benchmark	66%
Actual	56%
Average Students while Occupied	28
WSCH	
State Benchmark	2,367
Actual	738

Monday

101-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A
102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A
103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F
110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A	110-1000 ACTG-1316A
102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A	102-1100 ACTG-1716A
103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F	103-1200 ENGL-1038F

Financial Accounting

Form ID: ACTG-1038F

CRN: 10387

Start Date: 2014/08/19

End Date: 2014/12/11

Start Time: 11:30:00

End Time: 12:45:00

Section: ACTG-1038F

Instructor: Andrew, Rony T.

Prereq: none/dependent/req.

Attributes:

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Enrollment:

- Students: 31
- Workshop: 0
- Hands: 0
- Train: 0
- Security: 0
- Supply: 0

Program: Prequisite and corequisite of Financial Accounting Principles. This is the application of Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) to solve real-world problems. The program is designed to provide students with the skills and knowledge necessary to prepare and analyze accounting information. The program is designed to provide students with the skills and knowledge necessary to prepare and analyze accounting information. The program is designed to provide students with the skills and knowledge necessary to prepare and analyze accounting information.

ACTG 101, Intermediate Preparation: ACTG 101, AA, CBA, ACD

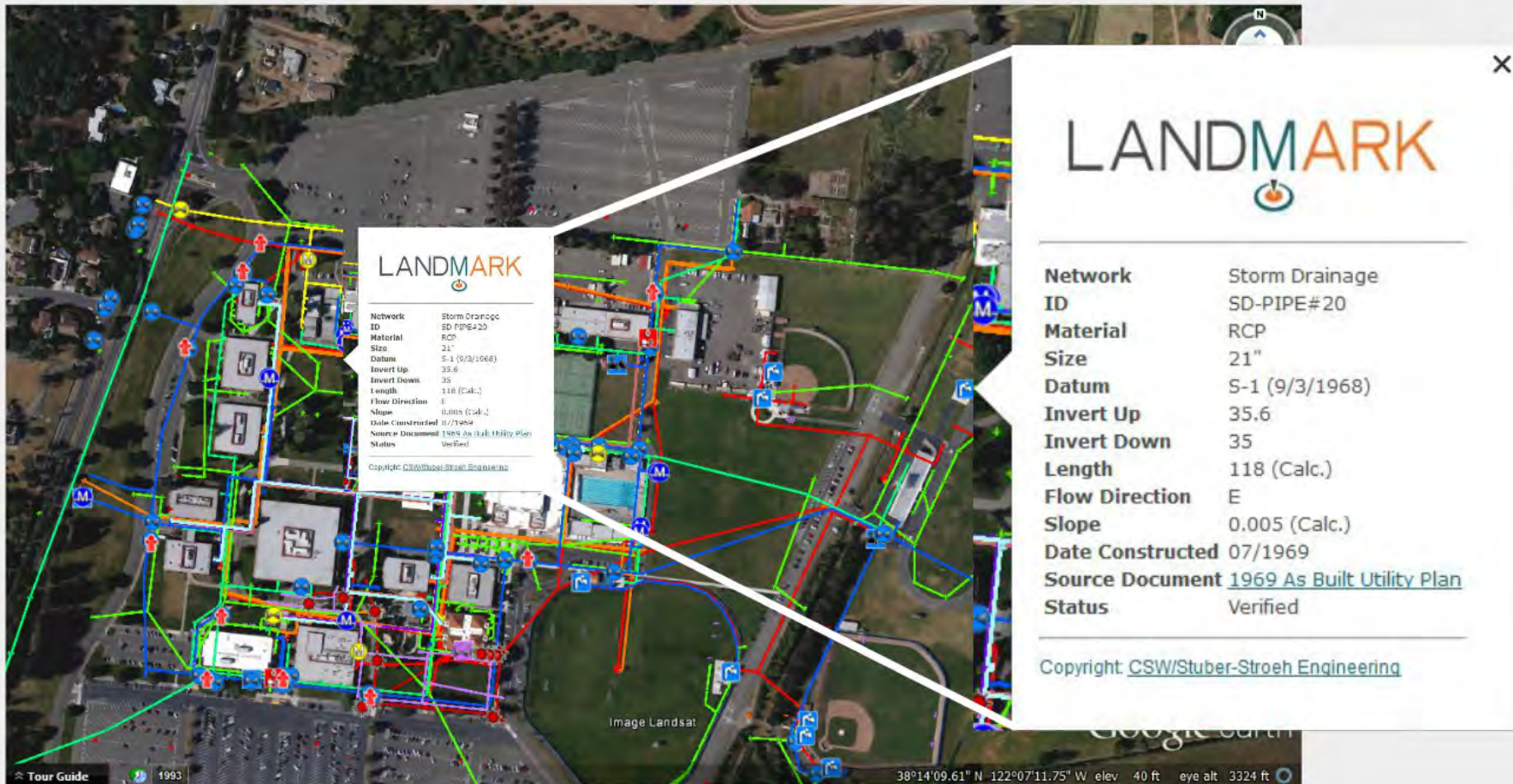
Search for Open Space

Close

- Structure
 - Campus
 - Building
 - Room
- Building selection
- Room selection
 - Square footage
 - Room finishes
 - APPA level
 - Routine and project tasks defined
 - Assumed minutes/day
 - Ability to customize
- Search for equitable space

STV+ | Community College Features

Infrastructure Asset Management



Lessons Learned

Community College Asset Management

REAL NEED

- Connection of Various Data Sources Facilitating Greater Outcomes
 - Facilities Team
 - Maintenance & Operations
 - Educational Planners
 - Schedulers
 - State Agencies
- High Desire for Accessing this Data / Capability
 - Immediate Add-Value; Efficiency and Effectiveness



Lessons Learned

Community College Asset Management

IMPLEMENTATION

- Improving Quality of Data Important - Time & \$\$\$ Investment
 - "Bad data in, Bad data out"
- Developing Database, Connecting Resources - Time Investment
- Buy-in at Highest Levels of Leadership is Essential



Lessons Learned

Community College Asset Management

VALUE

- Implement Highest Value Tools First - Scalable
- Connecting Traditionally Silo-ed Teams/Resources - Priceless
- Immediate Access to Information, Data, Tools - Priceless
- Ability to Communicate and Facilitate Objective Decisions - Priceless



ICCCFO
Illinois Community College
Chief Financial Officers



Spring Conference
April 8—10, 2015

Starved Rock Conference Center
Oglesby, IL



Towards A Total Cost of Ownership

Community Colleges: Beyond Design and Construction