



Essex

Service Details



ESSEX

This presentation provides an introduction to Essex and a detailed overview of our service offerings.

Essex

Industry Space



ESSEX

Essex leverages over 50 years of building ingenuity and engineering expertise. We occupy a distinct niche and pioneer advanced solutions to meet our clients complex issues surrounding facilities maintenance, occupant comfort, and energy usage.

Essex

Services

Master Systems Integration (MSI)

Connect Facility Systems for Seamless Control

Data Analytics

Transform Facility Data into Actionable Results

Facilities Planning

Develop Facilities Standards and Roadmaps to Success

Dedicated Support

Alleviate Staff Shortages and Increase Effectiveness

ESSEX



ESSEX

No matter where we begin, our solutions generally fall into four service categories: Facilities Planning, Master Systems Integration, Data Analytics, & Dedicated Support.

Facilities Planning

Develop Facilities Standards and Roadmaps to Success

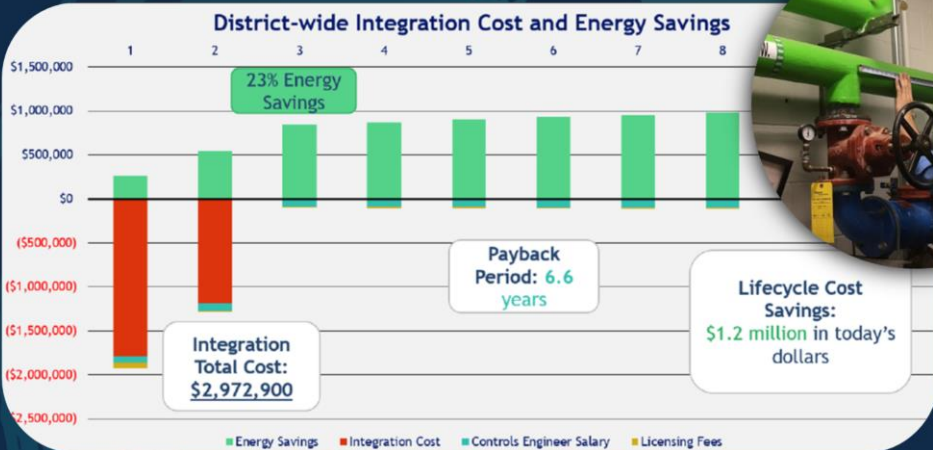
- Facilities Integration Master Plan
- Building Controls & Integration Guidelines
- Division 25 Specifications
- Meter Assessment & Retrofits



Your building portfolio may encompass a diverse range of buildings, spanning different classifications, ages, and regions, each with unique characteristics and challenges to be evaluated and optimized through essential facilities planning and specification development.

Facilities Integration Master Plan

Facilities Planning



Evaluate your existing building technology to develop a plan that will govern the implementation of your long-term building management initiatives, including equipment upgrades, budget estimates, implementation schedules, and a cost-benefit analysis.

Building Controls & Integration Guidelines

Facilities Planning



SITE

dis: "Essex"
id: @3245
site: ✓
area: 10,000 ft²
city: "Atlanta"
weatherRef: @1794 "Atlanta"



EQUIP

dis: "AHU Main"
id: @6748
equip: ✓
ahu: ✓
hvac: ✓
siteRef: @3245 "Essex"



POINT

dis: "sfCmd"
id: @3023
discharge, air, fan: ✓
cmd, point: ✓
equipRef: @6748 "AHU Main"
siteRef: @3245 "Essex"



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Develop a detailed standard to define your expectations for a controls project—from new construction to renovations and retrofits. These guidelines explicitly outline your approved vendors and communication protocols, as well as your IT and security provisions, data naming and tagging standards, and requirements for alarming, scheduling, and trending.

Division 25 Specifications

Facilities Planning



GOOD



1 non-proprietary
Operating System

BAD



95% of new building
designs today!
(zero integration)

UGLY



1 MORE thing to manage

Establish a detailed Division 25 Specification (Integrated Automation) to ensure consistency in all integration projects. Define approved equipment models, describe an execution scheme for how the products will be installed, and detail the roles and responsibilities of your contractors.

Meter Assessment & Retrofits

Facilities Planning



Conduct a thorough assessment of existing meters and MEP systems to create actionable steps to a holistic advanced metering infrastructure (AMI). We focus on connecting unconnected meters, replacing manually read meters, and adding additional meters to provide you with valuable and comprehensive data.

Master Systems Integration

Connect Facility Systems for Seamless Control



- Enterprise Building Automation Systems (BAS)
 - Specialized BAS Solutions - Alarming, Scheduling, Graphics
- Enterprise Energy Management & Information Systems (EMIS)
 - Specialized EMIS Solutions - Custom Stakeholder Dashboards

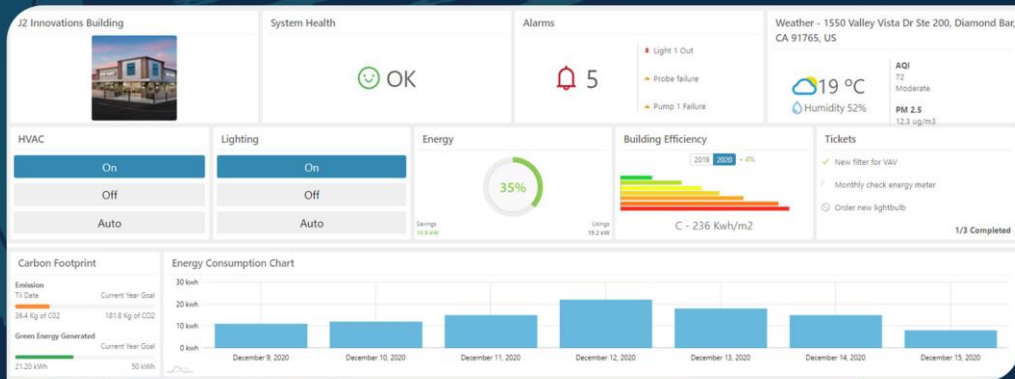


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MSI results in the harmonization of all of your building technologies, from equipment controls to energy submeters, and ensures smart automation of your entire building portfolio.

Enterprise Building Automation Systems

Master Systems Integration



Access all of your data on one centralized platform, and reap the benefits from a unified, intelligent, and responsive building ecosystem. Our enterprise solutions include intuitive graphical visualization, efficient historical trending, organized alarm monitoring, and convenient equipment scheduling.

Specialized BAS Solutions: Alarming

Master Systems Integration

The interface displays alarm management for two buildings, SA and SB, with detailed views for specific alarms.

Building SA

Alarm	Alarm Count	priority	a1	a2	Niagara Alarm Duplicate	Percent Acknowledged
SA Exhaust Fan 3 Alarm	11	default	✓	✓		40%
SA VAV Device Status Alarm	5	critical	✓			88%
SA Boiler 1 Alarm	3	critical	✓	✓		100%

This week there were only 3 Boiler Alarms in Building SA. Average Time to Acknowledge: 10min

Building SB

Alarm	Alarm Count	priority	a1	a2
SB Exhaust Fan 1 Alarm	8	default	✓	
SB AHU Device Status Alarm	7	critical	✓	
SB Chiller Alarm	6	critical	✓	

City Center AHU-1

Mar 30, 2023 12:01 am [LOS ANGELES]

ALARM STATUS : Normal

LAST IN ALARM : Mar 30, 2023 08:55 am

PRIORITY : 102

Instructions: 1. Check wiring on actuator damper 2. Grease up dampers 3. Verify programming is correct...

ACKNOWLEDGE

City Center Vav-07

Mar 30, 2023 12:00 am [LOS ANGELES]

ALARM STATUS : Alarm

LAST IN ALARM : Mar 30, 2023 12:00 am

PRIORITY : 107

Instructions: 1. Check VAV 2. Double check AHU 3. Go to zone and check wiring 4. Hard reset box...

ACKNOWLEDGE

City Center Vav-03

Mar 30, 2023 12:00 am [LOS ANGELES]

ALARM STATUS : Alarm

LAST IN ALARM : Mar 30, 2023 12:00 am

PRIORITY : 107

Instructions: 1. Check VAV 2. Double check AHU 3. Go to zone and check wiring 4. Hard reset box...

ACKNOWLEDGE

STATUS	DATE/TIME ↑	NAME
🔔	Mar 30, 2023 12:10 1 am	City Center AHU-1
🔴	Mar 30, 2023 12:10 6 am	City Center Vav-07
🔴	Mar 30, 2023 12:10 6 am	City Center Vav-03
🔔	Mar 30, 2023 12:10 6 am	Modern Palace AHU
🔔	Mar 30, 2023 12:10 6 am	Pearl Tower Chiller
🔴	Mar 30, 2023 12:10 6 am	City Center Vav-09



If an enterprise BAS is not right for your building portfolio at this time, Essex can resolve specific problem areas by enhancing your existing systems or deploying our own tools for new functionality. For example, we deploy effective alarm management strategies, such as prioritizing alarms based on severity, implementing alarm suppression rules, and creating critical alarm digests.

Specialized BAS Solutions: Scheduling

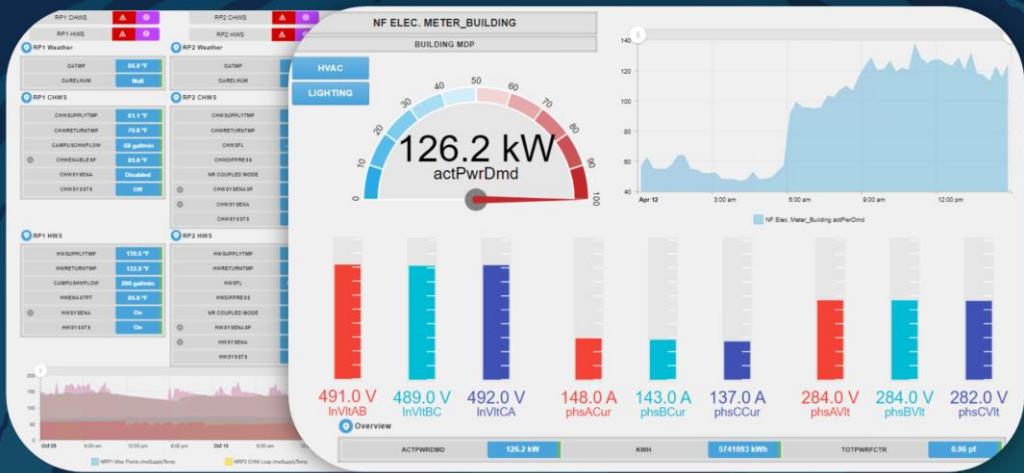
Master Systems Integration



Convenient equipment control is a critical aspect of modern equipment management, improving energy efficiency, productivity, and safety. At Essex, we create intuitive and expeditious solutions for scheduling individual or groups of equipment, including applications that can be accessed directly from your phone.

Specialized BAS Solutions: Graphics

Master Systems Integration

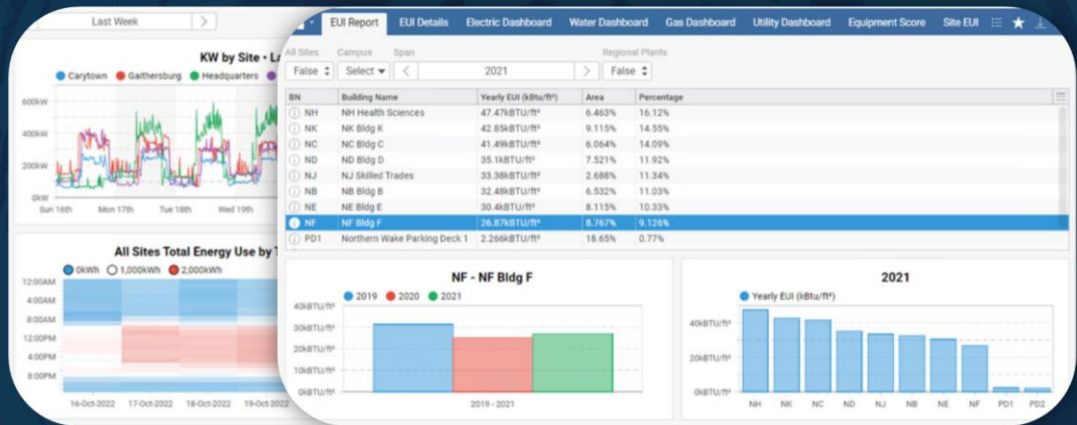


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Develop custom graphics for your BAS to streamline operations and enhance the efficiency of building management employees. Essex specializes in creating interactive and informative graphics for building automation systems at low cost, tailored to the specific needs and preferences of our clients, from detailed floor plans to campus plant overviews.

Enterprise EMIS

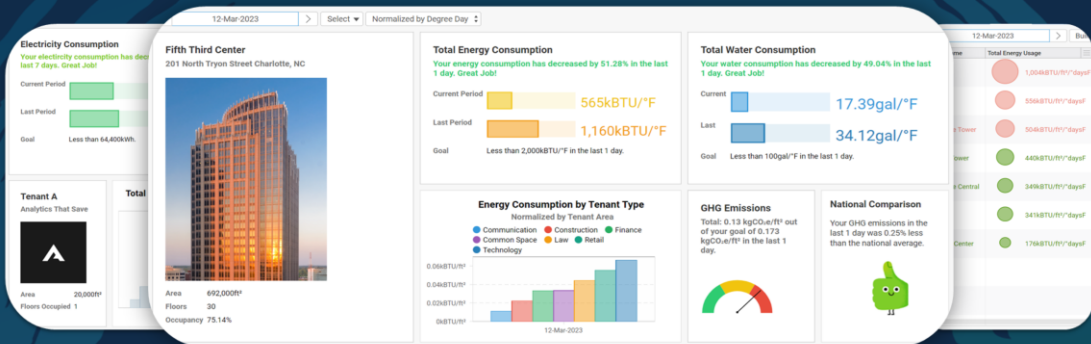
Master Systems Integration



EMIS is a critical tool for ESG-conscious organizations looking to reduce their environmental impact and comply with regulatory requirements. Our EMIS platform offers an integrated solution for managing and monitoring environmental data and utility bills, providing insights into energy consumption, emissions, costs, and other key metrics using live submeter data or automatic billing imports.

Specialized EMIS Solutions: Custom Stakeholder Dashboards

Master Systems Integration



Design custom views for monitoring and optimizing energy usage in buildings, providing valuable insights for building owners, facility managers, occupants, and other stakeholders. Essex evaluates each stakeholder's circumstances and creates solutions tailored to their specific goals.

Data Analytics

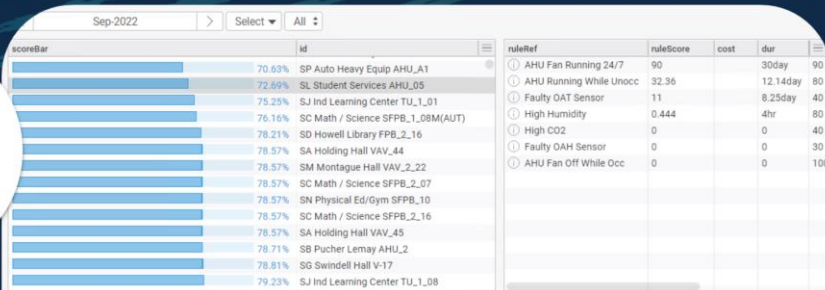
Transform Facility Data into Actionable Results

- Fault Detection & Diagnostics (FDD)
- Continuous Commissioning
- Automated Reporting

Essex provides you with interactive data insights or analytic reports automatically sent to your inbox regularly. Be proactive and prioritize your maintenance efforts with our fault detection & diagnostics, or identify inefficiencies and savings opportunities with our continuous commissioning.

Fault Detection & Diagnostics

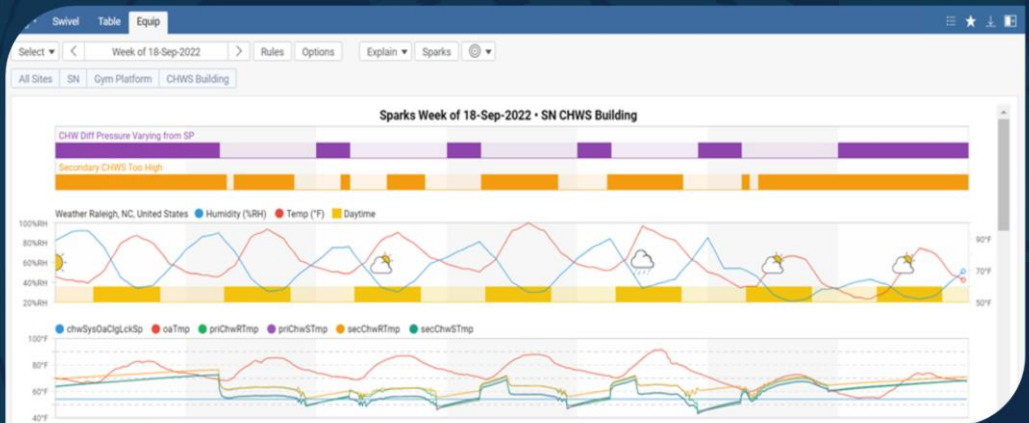
Data Analytics



Utilize FDD to improve the performance and reliability of your mechanical and metering systems. Our platform uses advanced algorithms to detect faults and anomalies in your equipment, allowing you to identify and resolve issues before they become major problems.

Continuous Commissioning

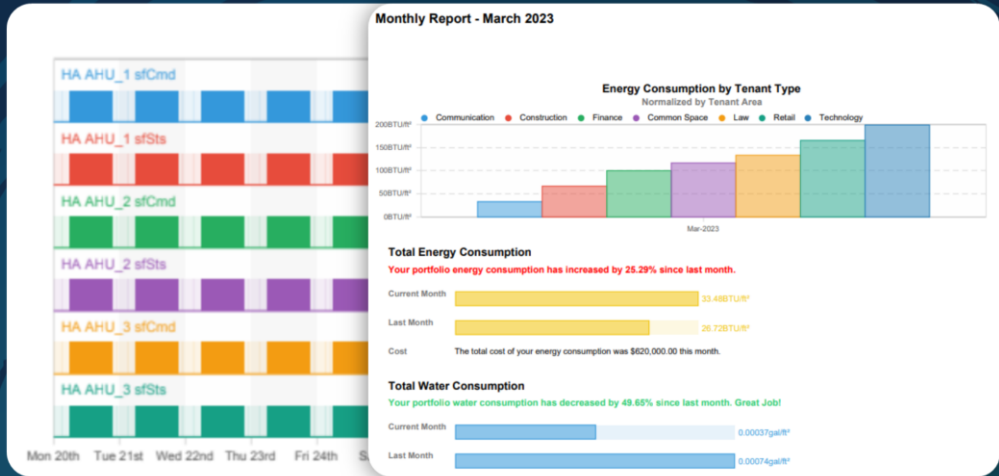
Data Analytics



Utilizing our fault detection and custom dashboarding capabilities, deploy remote continuous commissioning applications to maintain optimal building operation. Our continuous commissioning solutions constantly monitor and analyze building equipment and utility usage to identify inefficiencies and potential savings opportunities.

Automated Reporting

Data Analytics



ESSEX

Our software solutions offer quick and automated reporting solutions for all your BAS and EMIS needs. From reports on AHU runtimes to portfolio-level summary reports, Essex builds detailed yet easy-to-read reports for every level of your organization. With automated reporting, you have more time for critical tasks and data-driven decision making.

Dedicated Support

*Alleviate Staff Shortages and
Increase Effectiveness*

SUPPORT



- Software Training
- BAS Management
- EMIS Management



ESSEX

Staffing shortages can often burden facility departments. Our intuitive tools and solutions streamline processes and reduce staffing requirements, but building managers may still require dedicated support. As an extension of your team, Essex can manage your BAS or EMIS and train your staff to efficiently use the tools at hand.

Software Training

Dedicated Support

The screenshot displays a complex software interface for facility management, specifically for a Chilled Water System (CHWS). The interface is divided into several sections:

- Navigation Menu (Left):** Includes 'Spark' (View sparks, Filter by site/eq), 'Historian' (View point history), 'Favorites' (Find and manage), 'Dashboard' (EUI Data, Electric Water, Utility Dashboard, Equipment Score), 'Capturis Data' (View utility bills), 'Views and Reports' (AHU Runtime), and 'FIN Connectors' (View history).
- Main Display:** A central network diagram showing two chillers (Chiller 1 and Chiller 2) and two pumps (PUMP-1 and PUMP-2). The diagram includes various temperature and flow data points, such as 'SUPPLY TEMP', 'RETURN TEMP', and 'FLOW'. Control buttons for 'Start/Stop' and 'Command' are visible for each component.
- Parameters (Right):** Two panels for 'Chiller 1 Parameters' and 'Chiller 2 Parameters'. These panels show setpoints for 'EFFECTIVE SETPOINT', 'CHW SETPOINT', 'COMPRESSOR CURRENT', 'COMPRESSOR POWER', and 'CONDENSER SETPOINT'. They also include 'SCHEM-1' and 'SCHEM-2' controls with 'Status' and 'Start/Stop' buttons.
- Trends/Points (Far Right):** A 'Trends/Points' window showing a graph for 'SB Chiller 1 - unbracketed'.



While we prioritize tools that are intuitive for the end user, it is our goal to ensure that you become experts with any of your facilities software. Essex is the helping hand to make your team fire on all cylinders and will provide written training documentation, training recordings, and live training sessions.

BAS Management

Dedicated Support



All BAS products require regular maintenance and management throughout their lifetime. If you are short on staff or time, we are here to become a team member in managing your BAS softwares. Essex has expertise with all aspects of BAS software including: various communication protocols, device polling/tuning policies, metadata tagging, and control logic.

EMIS Management

Dedicated Support



Use your EMIS software to the fullest by extracting valuable data from your BAS software or utility bills.. Essex will regularly review your utility and usage data to deliver detailed reports on conservation measures that will provide the greatest ROI. We identify anomalies and help you prioritize upgrades for your facilities.

Facilities Data
Integration

Fine Tuned
Performance

Artificial
Intelligence
Performance Models

Continuous
Commissioning
Ongoing Performance
Evaluation

Higher
Resolution
Visualization

Analytics
Recommendations and
Reporting

Ingenuity
Research and Advanced
Applications

Fault
Detection
Predictive Maintenance

EMIS
Energy Management Information Systems
Uniform Utility Billing Program

Broad
Visualization

Solutions
Enterprise-Wide
Intelligence

Integration
Masterplan
Utility Integration
Audit

BAS Guidelines
Specifications
Standards

Dashboarding
Uniform Visualization
Panel
Building Graphics
Unification

As you can see, Essex deploys a variety of building technology solutions that are customized to your interests and the level of advancement of your facilities. We assist you in achieving a cutting-edge building portfolio wherever you are in your journey, from broad visualization to fine-tuned performance.

Thank You!
We would be honored to be a
part of your team.



ESSEX



Thank you for taking the time to learn about our services. Our engineers are always developing and expanding these, and we have a network of partners for referral, so don't hesitate to reach out if you are interested in something else within our industry space. We would be honored to be a part of your team.