


Evo Energy Technologies

Advanced CAM Package (Control and Monitoring)




Live Monitoring

With the ability to monitor our high performance heat pumps via our CAM package, operational performance can be matched to better suit the individual needs of the aquatic facility and provide the ability to reduce energy costs based on actual operational data.



REDCLIFFE
WAR MEMORIAL SWIMMING POOL



OVERVIEW
HEAT PUMPS
METERING
HISTORIES
ALARMS

OVERVIEW

Key

Manual Hand Valve

Plant Data - Live

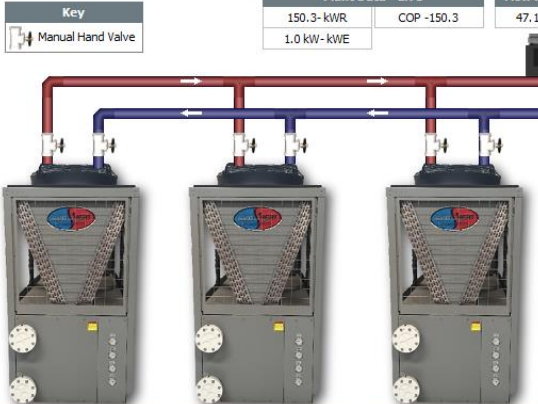
150.3-kWR	COP -150.3
1.0 kW- kWE	

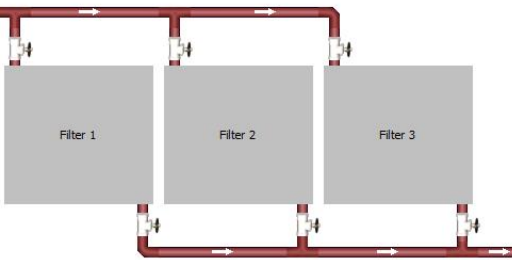
Flow Meter

47.1 L/s

Supply Temp

28.1 °C





Return Temp

27.3 °C

Pump Status

Running

Heat Pump 1		Heat Pump 2		Heat Pump 3	
Unit Status	Unit ON	Unit Status	Unit ON	Unit Status	Unit ON
Unit Mode	Heating	Unit Mode	Heating	Unit Mode	Heating
Alarm Status	Normal	Alarm Status	Normal	Alarm Status	Normal
Inlet Cool SP	27.0 °C	Inlet Cool SP	27.0 °C	Inlet Cool SP	27.0 °C
Inlet Heat SP	27.5 °C	Inlet Heat SP	27.5 °C	Inlet Heat SP	27.0 °C
Inlet Temp	28.0 °C	Inlet Temp	28.5 °C	Inlet Temp	28.0 °C
Outlet Temp	28.5 °C	Outlet Temp	28.5 °C	Outlet Temp	28.5 °C
Comp Status	1 2 3 4	Comp Status	1 2 3 4	Comp Status	1 2 3 4


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Control

In being able to control parameters remotely, CAM allows for greater system efficiency by reducing the time needed in programming or making changes at a controller level in plant rooms.

Another system first is the ability to lockout set-point changes made on-site, thus eliminating any unauthorised changes to set-points or system parameters.



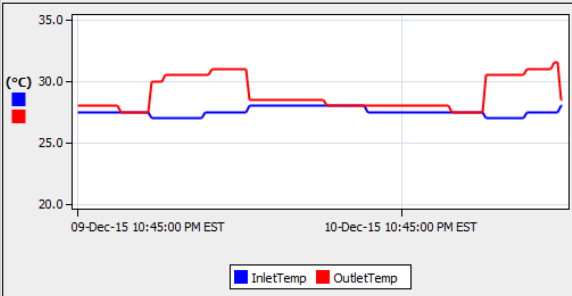
REDCLIFFE
WAR MEMORIAL SWIMMING POOL

OVERVIEW
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HEAT PUMP 1
HEAT PUMP 2
HEAT PUMP 3

Temperature Information		Heat Pump Information		Faults / Alarms / Failure Information	
Inlet Cool SP	27.0 °C	Compressor 1 Status	Stopped	Alarm Status	Normal
Inlet Heat SP	27.5 °C	Compressor 2 Status	Stopped	System 1 HP	OK
Inlet Temp	28.0 °C	Compressor 3 Status	Stopped	System 2 HP	OK
Outlet Temp	28.5 °C	Compressor 4 Status	Stopped	System 3 HP	OK
Coil 1 Temp	24.0 °C	Unit Status	Unit ON	System 4 HP	OK
Coil 2 Temp	24.0 °C	Unit Mode	Heating	System 1 LP	OK
Coil 3 Temp	24.0 °C	Fan High Speed	Inactive	System 2 LP	OK
Coil 4 Temp	24.0 °C	Fan Low Speed	Inactive	System 3 LP	OK
Ambient Temp	28.0 °C			System 4 LP	OK

▲ Toggle Item List View




Inlet Probe Failure	Normal
Outlet Probe Failure	Normal
Coil 1 Prob Failure	Normal
Coil 2 Prob Failure	Normal
Coil 3 Prob Failure	Normal
Coil 4 Prob Failure	Normal
Ambient Probe Failure	Normal
Antifreeze 1 Prob Failure	Normal
Antifreeze 2 Prob Failure	Normal
Antifreeze 3 Prob Failure	Normal
Antifreeze 4 Prob Failure	Normal
Suction 1 Prob Failure	Normal
Suction 2 Prob Failure	Normal
Suction 3 Prob Failure	Normal
Suction 4 Prob Failure	Normal

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Alerts and Alarms

Be in control at all times. In the event of any system failure or set parameter variation, our alarms will advise the end user of any issue that arises. Being alerted to a potential issue could result in a timely resolve that may have otherwise gone unnoticed with a much larger impact on pool operations.



REDCLIFFE
WAR MEMORIAL SWIMMING POOL



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ALARMS

Time Range: ? to ?

Open Alarm Sources 8 Sources / 45 Alarms

Timestamp	Source State	Ack State	Source	Alarm Class	Priority	Message Text
03-Nov-15 11:14:08 PM EST	Normal	0 Acked / 7 Unacked	Alarm Status	General_Alarm_Class	255	Unit General Alarm Cleared
03-Nov-15 11:14:03 PM EST	Normal	0 Acked / 8 Unacked	System 4 HP	General_Alarm_Class	255	Unit General Alarm Cleared
27-Oct-15 6:24:26 PM EST	Normal	0 Acked / 12 Unacked	Alarm Status	General_Alarm_Class	255	Unit General Alarm Cleared
27-Oct-15 6:24:21 PM EST	Normal	0 Acked / 7 Unacked	System 4 HP	General_Alarm_Class	255	Unit General Alarm Cleared
23-Oct-15 6:50:35 PM EST	Normal	0 Acked / 1 Unacked	System 3 HP	General_Alarm_Class	255	Unit General Alarm Cleared
08-Oct-15 4:46:38 PM EST	Normal	0 Acked / 2 Unacked	System 3 HP	General_Alarm_Class	255	Unit General Alarm Cleared
08-Oct-15 4:46:33 PM EST	Normal	0 Acked / 3 Unacked	System 2 HP	General_Alarm_Class	255	Unit General Alarm Cleared
08-Oct-15 4:38:13 PM EST	Normal	0 Acked / 5 Unacked	System 1 HP	General_Alarm_Class	255	Unit General Alarm Cleared

Acknowledge
Hyperlink
Notes
Silence
Filter

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History and Trends

Keep all your operational data in a single repository for easy access to trend logs and history files. Correlate data streams against different variables to allow for greater in-depth reporting as well as exposing opportunities for energy efficiency.

Moreton Bay Regional Council
REDCLIFFE WAR MEMORIAL SWIMMING POOL
EVO HEAT HOT AIR TECHNOLOGY

OVERVIEW HEAT PUMPS METERING HISTORIES ALARMS

HISTORIES

Time Range: Last 24 Hours
Title:
Grid Lines: Show
Rollup: None

Histories

- Heat Pump 2 - Inlet Cool SP
- Heat Pump 2 - Inlet Heat SP
- Heat Pump 2 - Inlet Temp
- Heat Pump 2 - Outlet Temp
- Heat Pump 2 - Unit Mode
- Heat Pump 2 - Unit Status
- Heat Pump 3 - Ambient Temp
- Heat Pump 3 - Coil 1 Temp
- Heat Pump 3 - Coil 2 Temp
- Heat Pump 3 - Coil 3 Temp
- Heat Pump 3 - Coil 4 Temp
- Heat Pump 3 - Fan High Speed
- Heat Pump 3 - Fan Low Speed
- Heat Pump 3 - Inlet Cool SP
- Heat Pump 3 - Inlet Heat SP
- Heat Pump 3 - Inlet Temp
- Heat Pump 3 - Outlet Temp
- Heat Pump 3 - Unit Mode
- Heat Pump 3 - Unit Status
- Plant COP
- Power Meter - 3 phase Voltage

Current Charts

- 33_RedcliffePool/Heat Pump 1 - Ambient Temp [Line Chart]
- 33_RedcliffePool/Heat Pump 1 - Outlet Temp [Line Chart]
- 33_RedcliffePool/Heat Pump 2 - Outlet Temp [Line Chart]
- 33_RedcliffePool/Heat Pump 3 - Outlet Temp [Line Chart]

Build Clear

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System Integration

Bringing it all together. At its core, CAM utilises the Tridium Niagara AX platform allowing for greater system integrations. By using Industry standard open protocols such as Modbus and BACnet, our system can communicate with most modern devices and as such can bring stand-alone systems back into a single interface allowing for a more streamlined and manageable aquatic operation. With a substantial library of connectivity drivers, CAM can be interfaced or integrated into most existing Building Management Systems .



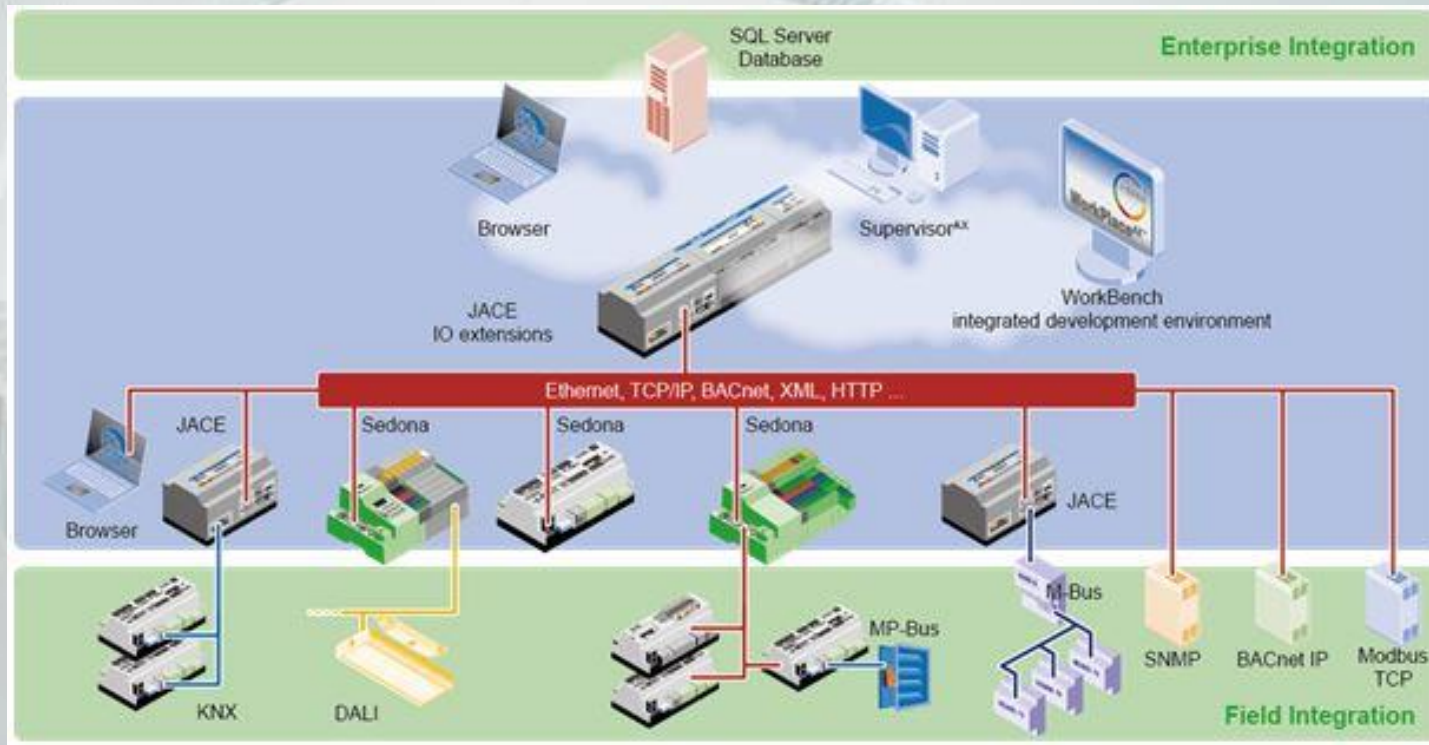
Third party drivers

Tridium currently has over 140 different Third Party device drivers allowing for trouble free integration with most aquatic infrastructure including existing building management systems.



System Architecture

With its unique ability to integrate and provide a single user platform for all compatible aquatic centre infrastructure, CAM is a valuable addition to any facility.



Further information

For further detailed information about CAM by Evo Energy Technologies including technical data please don't hesitate to get in touch.



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