BMS Plugins – Facilitate Easy Integration with *VRV* Systems

For Niagara Framework®

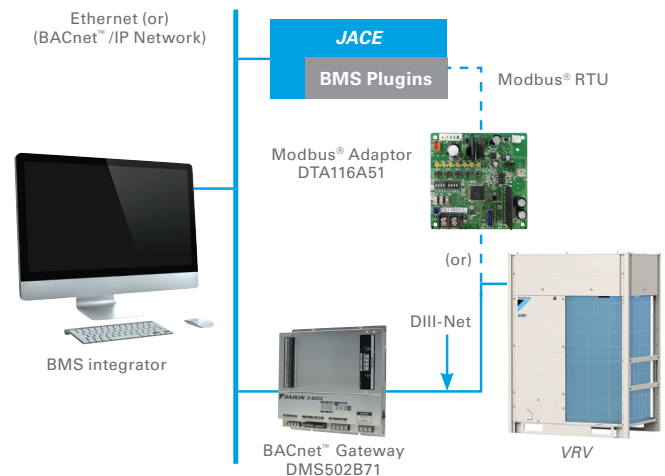Compared with traditional HVAC systems, the *VRV* control logic is different and may seem challenging for integrator that are not familiar with the *VRV* systems. Daikin endeavors to resolve this issue by providing BMS (Building Management Systems) Plugins to the integrator for easy integration. BMS Plugins are pre-programmed objects and graphics built for *Niagara Framework* specifically for Daikin *VRV*. By using the BMS Plugins, the integrators work load could be reduced to as little as point linking.

Ethernet (or) (BACnet™/IP Network)

JACE

BMS Plugins — Modbus® RTU

Modbus® Adaptor DTA116A51

(or)

DIII-Net

BMS integrator

BACnet™ Gateway DMS502B71

VRV

Features/Benefits

» Built with the most commonly used BMS Platform - *Niagara Framework*

» Easy Integration for integrators

» Graphics with provided PX Files

» Simple point linking with programmed functions blocks

» Modifiable demo stations to meet the requirement of a project.

» Reduced possibility of integration issues with *VRV* systems

» Single set-point and dual set-point demo stations

» Replicable graphics

» Applicable to both heat pump and heat recovery system

» Locally developed software package that can be updated to meet the market needs.

Specifications

» Pre-programmed Function Blocks

‐ Auto changeover - dual and single set-point
‐ Setback
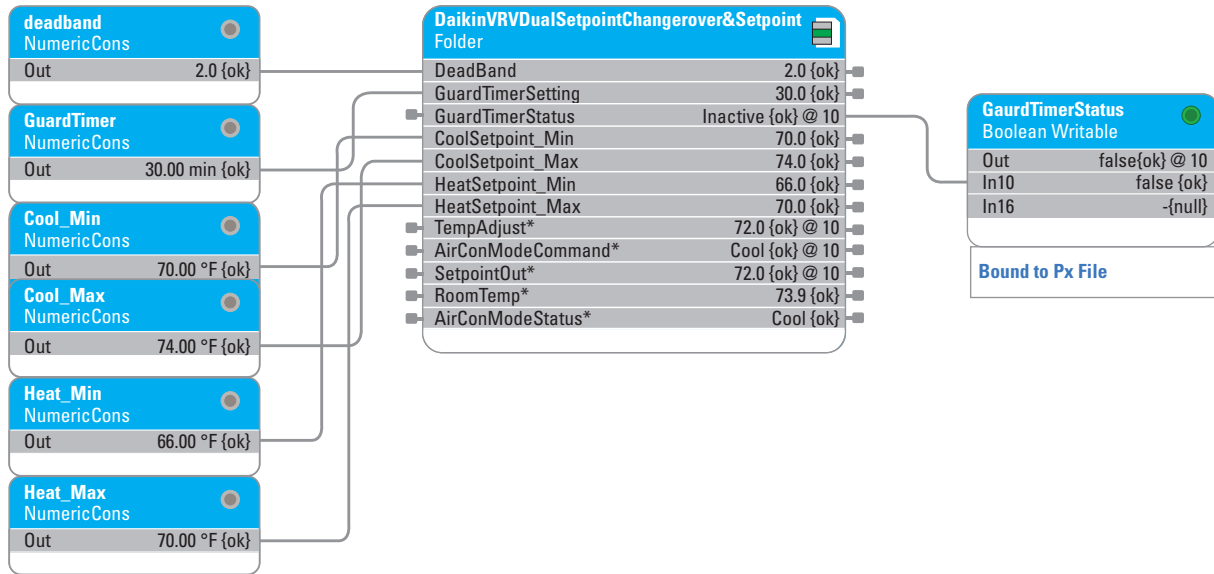‐ Set-point range limitation - dual and single set-point

System Compatibility

Compatible with *Niagara Framework* based BMS versions 3.8.38 and 4.2 with appropriate licenses. The Plugins are designed for use with the Daikin Modbus® Gateway (DTA116A51) or the Daikin BACnet™ Interface (DMS502B51).
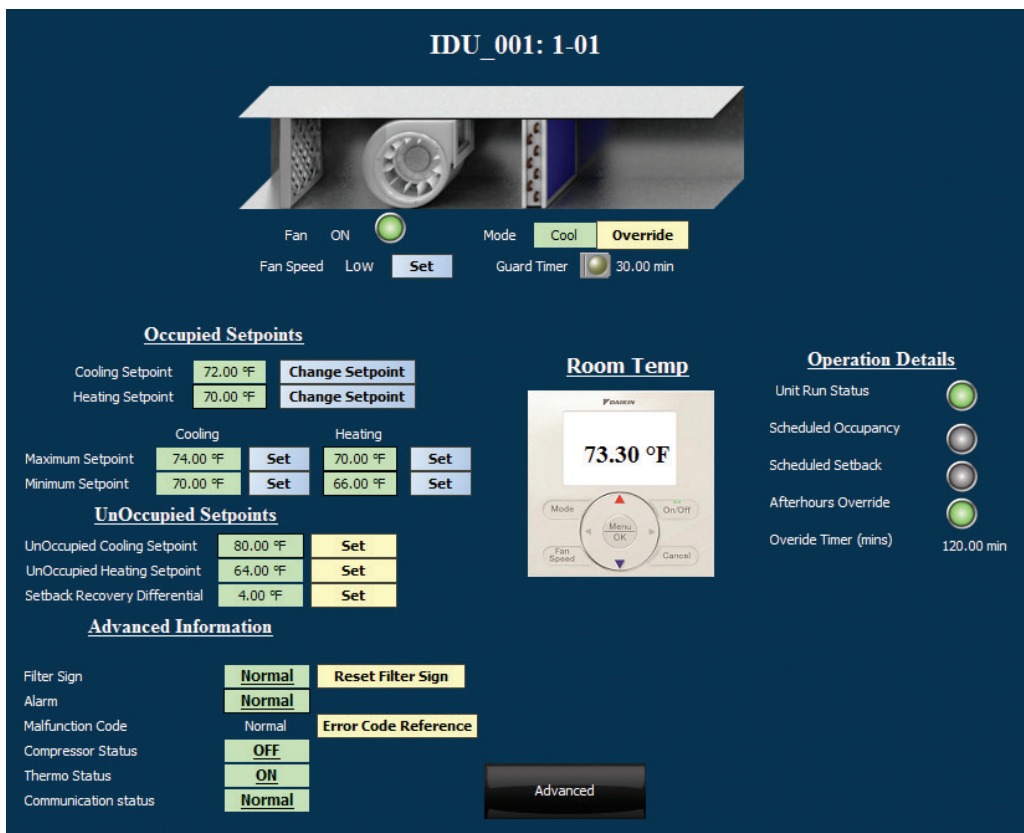
How to Acquire

The BMS Plugins are available at no charge and can be downloaded from DaikinCity.

BMS Plugin Logic Diagram

deadband
NumericCons
Out   2.0 {ok}

GuardTimer
NumericCons
Out   30.00 min {ok}

Cool_Min
NumericCons
Out   70.00 °F {ok}

Cool_Max
NumericCons
Out   74.00 °F {ok}

Heat_Min
NumericCons
Out   66.00 °F {ok}

Heat_Max
NumericCons
Out   70.00 °F {ok}

DaikinVRVDualSetpointChangerover&Setpoint
Folder

DeadBand	2.0 {ok}
GuardTimerSetting	30.0 {ok}
GuardTimerStatus	Inactive {ok} @ 10
CoolSetpoint_Min	70.0 {ok}
CoolSetpoint_Max	74.0 {ok}
HeatSetpoint_Min	66.0 {ok}
HeatSetpoint_Max	70.0 {ok}
TempAdjust*	72.0 {ok} @ 10
AirConModeCommand*	Cool {ok} @ 10
SetpointOut*	72.0 {ok} @ 10
RoomTemp*	73.9 {ok}
AirConModeStatus*	Cool {ok}

GaurdTimerStatus
Boolean Writable

Out	false{ok} @ 10
In10	false {ok}
In16	-{null}

Bound to Px File

FC-1 – Graphical User Interface (GUI)

IDU_001: 1-01

Fan   ON   Mode   Cool   **Override**
Fan Speed   Low   Set   Guard Timer   30.00 min

Occupied Setpoints

Cooling Setpoint	72.00 °F	Change Setpoint
Heating Setpoint	70.00 °F	Change Setpoint

	Cooling		Heating	
Maximum Setpoint	74.00 °F	Set	70.00 °F	Set
Minimum Setpoint	70.00 °F	Set	66.00 °F	Set

UnOccupied Setpoints

UnOccupied Cooling Setpoint	80.00 °F	Set
UnOccupied Heating Setpoint	64.00 °F	Set
Setback Recovery Differential	4.00 °F	Set

Advanced Information

Filter Sign	Normal	Reset Filter Sign
Alarm	Normal	
Malfunction Code	Normal	Error Code Reference
Compressor Status	OFF	
Thermo Status	ON	
Communication status	Normal	

Advanced

Room Temp

73.30 °F

Mode   Menu/OK   On/Off
Fan Speed   Cancel

Operation Details

Unit Run Status	
Scheduled Occupancy	
Scheduled Setback	
Afterhours Override	
Overide Timer (mins)	120.00 min

To learn more about BMS Plugins, visit www.daikincity.com or www.daikinac.com
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