



CONNECT

**Scorecard Report from a
Watchdog**

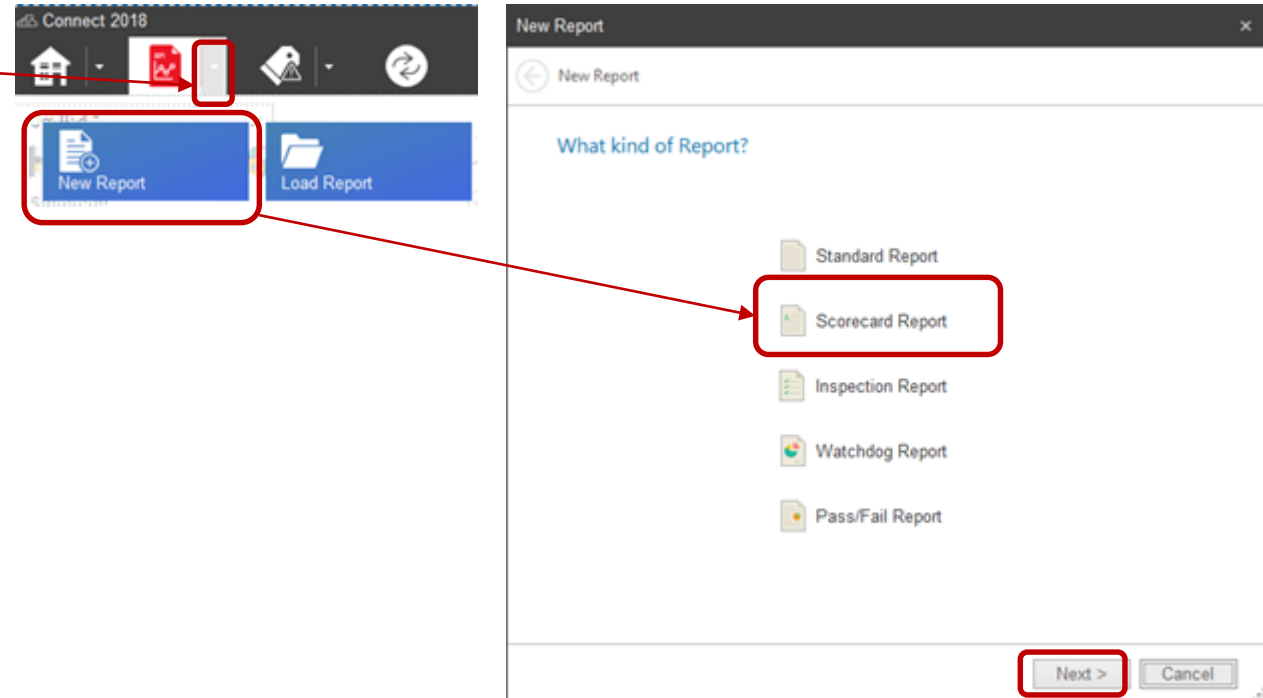
Scorecard Report from a Watchdog

Choose the drop-down arrow to the right of the Reports icon.

Choose the New Report icon.

In the New Report window, choose *Scorecard Report*.

Click *Finish*.



Scorecard Report from a Watchdog

If you choose the From Watchdog option, the scoring will be copied from the Watchdog.

Click on the dropdown arrow.
Select the desired watchdog to report.

Click *Finish*.

New Report

← New Report

What type of Scorecard Report?

From Profile (None)

From Watchdog

Name	Description
(None)	
Amli_Lofts	Watchdog Container
CHW-HW_Systems	Watchdog Container
AHU	Watchdog Container
VAV	Watchdog Container
VAV_Inspection_ItemsWD	Vav Inspection Items Watchdog
MAU	Watchdog Container
FCU	Watchdog Container
Cypress_Plaza	Watchdog Container
Sudbury_Bldg	Watchdog Container
ESMS_Test	ESMS_Test

Finish Cancel

Scorecard Report from a Watchdog

The Profile Objects tab window opens.

Select the desired objects to report.

Note that the objects will display in the order that they were selected.

Do Not click OK on the Profile Objects window at this time.

Click on the *External Objects* tab.

Scorecard Report Editor

Profile Objects

Edit Filter Clear Filter

Object Name	Description	Data Type
<input checked="" type="checkbox"/> AirFlowActive	AirFlow Active	DOUBLE PRECISION
<input checked="" type="checkbox"/> AirFlowSetptActiveMin	Air Flow Setpt Active Min	DOUBLE PRECISION
<input checked="" type="checkbox"/> AirValvePosition	Air Valve Position	DOUBLE PRECISION
<input type="checkbox"/> CoolOutput	Cool Output	DOUBLE PRECISION
<input checked="" type="checkbox"/> CoolSetpointOccupied	Cool Setpoint Occupied	DOUBLE PRECISION
<input checked="" type="checkbox"/> CoolSetpointUnoccupied	Cool Setpoint Unoccupied	DOUBLE PRECISION
<input checked="" type="checkbox"/> DischargeAirTemp	Discharge Air Temp	DOUBLE PRECISION
<input type="checkbox"/> FlowSetpointActive	Flow Setpoint Active	DOUBLE PRECISION
<input checked="" type="checkbox"/> HeatOutputSecondary	Heat Output Secondary	DOUBLE PRECISION
<input checked="" type="checkbox"/> HeatSetpointOccupied	Heat Setpoint Occupied	DOUBLE PRECISION
<input checked="" type="checkbox"/> HeatSetpointUnoccupied	Heat Setpoint Unoccupied	DOUBLE PRECISION
<input checked="" type="checkbox"/> MaximumFlow	Maximum Flow	DOUBLE PRECISION
<input type="checkbox"/> ModeActive	Mode Active	DOUBLE PRECISION
<input type="checkbox"/> ModeHeatCool	Mode Heat/Cool	DOUBLE PRECISION
<input type="checkbox"/> Select All		

Note: Select the Objects you would like to view in the Report

OK Cancel

Scorecard Report from a Watchdog

The External Objects tab window opens.

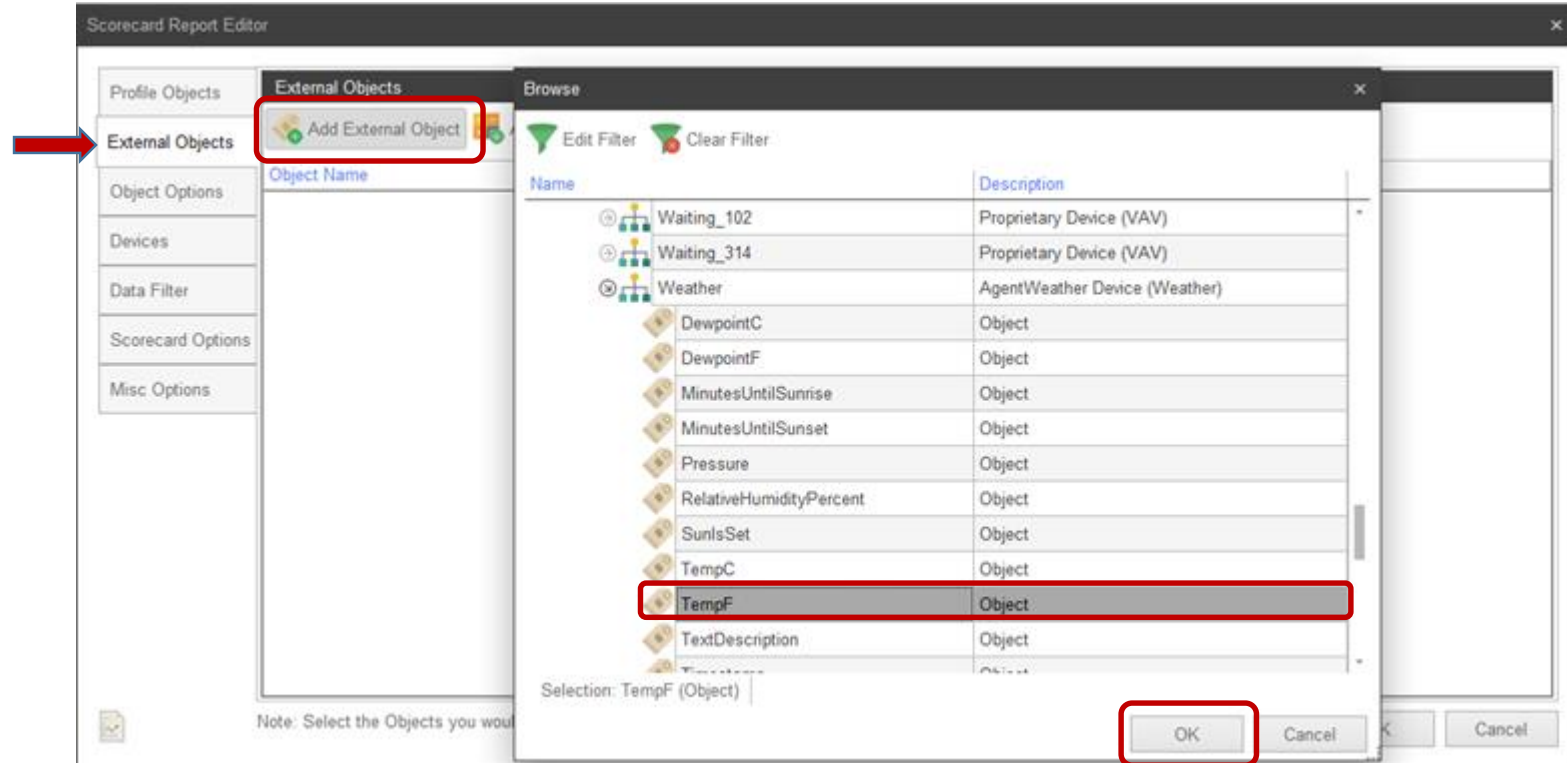
This tool allows the user to add an object from a different profile to this report. The example here is the Outside Air Temperature from a Weather service device.

Browse to and select the desired external object to add to the report.

Click *OK* on the Browse window.

Do Not click OK on the External Objects window at this time.

The next slide will display the Calculated Objects tool.



Scorecard Report from a Watchdog

The Add Calculated Object tab window opens.

This tool allows the user to add a object that is calculated from the expression created in the Edit Object window.

In this example the expression is calculating the absolute difference between the Space Temperature and the Active Space Temperature setpoint and storing the result in a new report object we have named Temp Error

Click *OK* on the Edit Object window.

Do Not click OK on the External Objects window at this time.

The next slide will display the External Objects results.

The screenshot displays the 'Scorecard Report Editor' application. On the left, a sidebar contains navigation options: Profile Objects, External Objects, Object Options, Devices, Data Filter, Scorecard Options, and Misc Options. The 'External Objects' section is active, showing a list with 'Weather.TempF'. A red arrow points to the 'Add Calculated Object' button. The main 'Edit Object' window is open, showing a 'Name' field with 'Temp Error' and an expression field containing 'ABS([SpaceTemperatureActive] - [SpaceTemperatureSetpointActive])'. Below the expression field are mathematical operators (+, -, *, /, =, =, <, >) and logical operators (LIKE, is null, is not null, AND, OR, VAL). A 'Functions' panel lists various functions like ABS(n), Ceiling(n), Floor(n), Round(n), DayOfWeek, HourOfDay, and TimeOfDay. A 'Stored Objects' panel lists various system objects, with 'SpaceTemperatureSetpointActive' highlighted. At the bottom right, the 'OK' button is highlighted with a red box.

Scorecard Report from a Watchdog

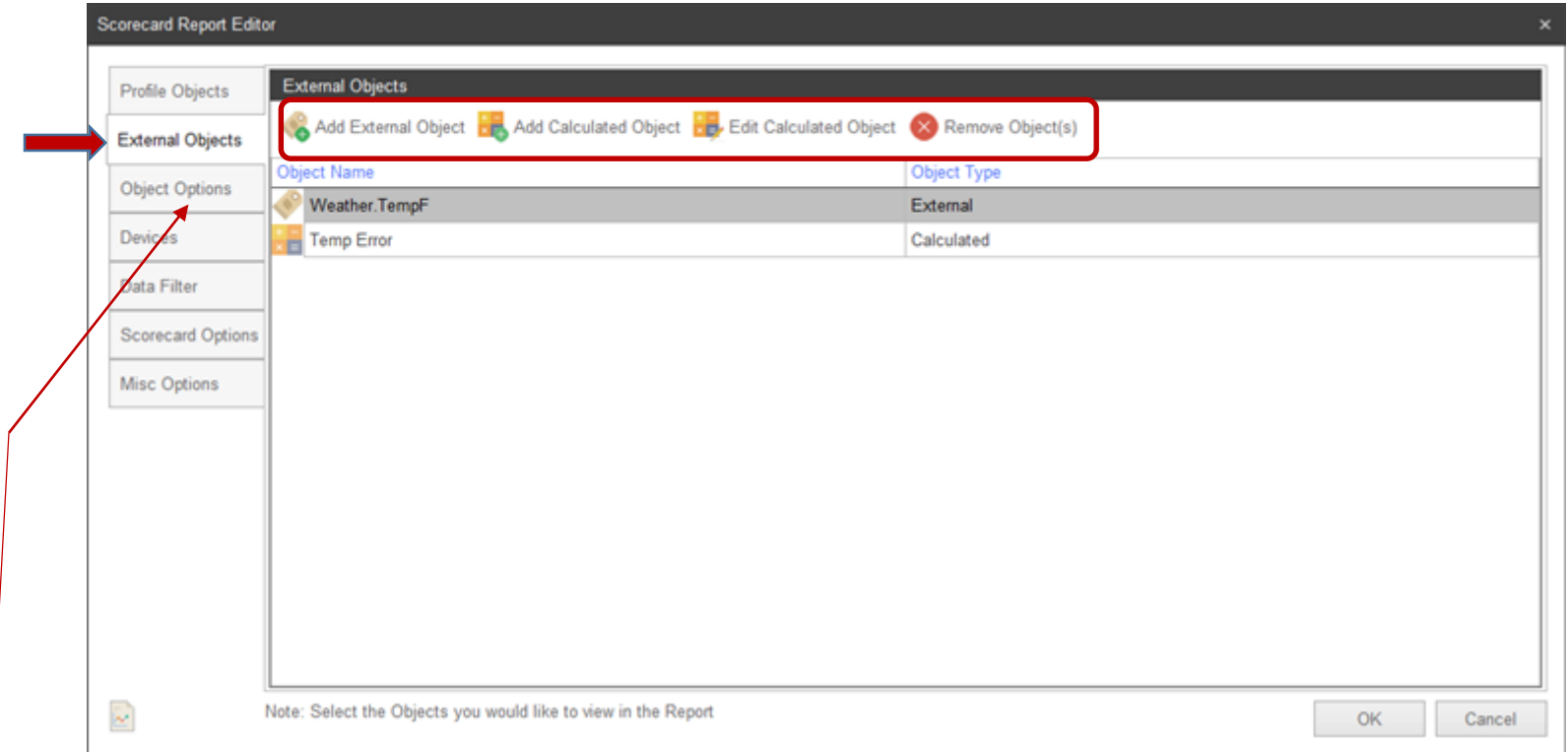
The External Objects window now displays 2 objects. One is the Outside Air temperature from the Weather device and the other is the calculated Space temperature and Space temperature setpoint absolute difference.

These objects will display in individual columns in the resulting report.

You may add more External Objects or Calculated Objects. You may edit existing calculated object. You may remove either.

Do Not click OK on the External Objects window at this time.

Click on the *Object Options* tab.



Scorecard Report from a Watchdog

The Object Options tab window opens.

This tool allows the set the order that objects will be displayed in this report.

The numbers on the right hand side are the order of display.

You may drag and drop any row using a left click and hold. Then move the pointer to the desired location and release the left mouse button.

The user may also assign a rows order assignment by left clicking in the Order cell and either swipe and type the new row number or use the up or down arrows.

Do Not click OK on the Object Objects window at this time.

Click on the *Devices* tab.

Name	Order
SpaceTemperatureActive	1
SpaceTemperatureSetpointActive	2
OccupancyActive	3
AirFlowActive	4
FlowSetpointActive	5
MaximumFlow	6
AirFlowSetptActiveMin	7
AirValvePosition	8
DischargeAirTemp	9
HeatOutputSecondary	10
CoolSetpointOccupied	11
HeatSetpointOccupied	12
CoolSetpointUnoccupied	13
HeatSetpointUnoccupied	14
Weather.TempF	15
Temp Error	16

Note: Select the Objects you would like to view in the Report

OK Cancel

Scorecard Report from a Watchdog

The Devices tab window opens.
This tool allows the user to select or deselect devices to be included in the report.

Expand the navigation tree nodes by clicking on the node arrows.

Devices containing the selected Profile from slide 3 will have been selected. The user may deselect a device they wish to be excluded.

Do Not click OK on the Devices window at this time.

Click on the *Data Filter* tab.

Name	Description	Profile
Agents	Agent Container	
Amli Lofts	Agent	
<input checked="" type="checkbox"/> 1st_Floor_East_Corr	Admin Bldg 1st Floor East Corr	VAV
<input checked="" type="checkbox"/> Admin_Asst_300	Admin Bldg Admin Asst 300	VAV
<input checked="" type="checkbox"/> Attic_East	Admin Bldg Attic East	VAV
<input checked="" type="checkbox"/> Attic_West	Admin Attic West	VAV
<input checked="" type="checkbox"/> Bookstore_213_West	Admin Bldg Bookstore 213 West	VAV
<input checked="" type="checkbox"/> Break_Room_321	Admin Bldg Break Room 321	VAV
<input checked="" type="checkbox"/> Business_Office_138	Admin Bldg Business Office 138	VAV
<input checked="" type="checkbox"/> Corner_Center_201	Admin Bldg Tutoring Center 201	VAV
<input checked="" type="checkbox"/> Computer_Center_200	Admin Bldg Computer Center 200	VAV
<input checked="" type="checkbox"/> Concourse_315_North	Admin Bldg Concourse 315 North	VAV
<input checked="" type="checkbox"/> Concourse_315_South	Admin Bldg Concourse 315 South	VAV
<input checked="" type="checkbox"/> Conference_119	Admin Bldg Classroom 119	VAV

Scorecard Report from a Watchdog

The Filter Criteria/Data Range window opens. Note the upper section allows a custom expression and the lower window defines the Date Range of the report.

Click on the *Edit* in the upper section.

The Edit Filter Criteria window opens providing a tool to construct an expression to define when the report objects will be displayed.

In this example the report will display object values when the OccupancyActive object returns a value of 1. This will apply to each individual device.

After defining the desired expression click on *OK* in the Edit Filter Criteria window.

Do Not click OK on the Filter Criteria/Date Range window at this time.

The screenshot shows two overlapping windows from the 'Scorecard Report Editor' application. The background window, 'Scorecard Report Editor', has a sidebar with menu items: Profile Objects, External Objects, Object Options, Devices, Data Filter (highlighted with a red arrow), Scorecard Options, and Misc Options. The main area is titled 'Filter Criteria' and contains a large empty text box. An 'Edit...' button in the bottom right corner of this window is highlighted with a red box. The foreground window, 'Edit Filter Criteria', has a 'Date Range' section with 'Description: Current Day' and a date range from '5/30/2018 12:00:00 AM' to '5/30/2018 1:45:05 PM'. The main text area contains the expression '(OccupancyActive) = 1'. Below the text area is a toolbar with operators: +, -, *, /, =, !=, <, >, LIKE, is null, is not null, AND, OR, VAL. At the bottom, there are two panes: 'Functions' with buttons for (n), ABS (n), Ceiling(n), DayOfWeek, Floor (n), HourOfDay, Round (n), TimeOfDay..., and Case Builder...; and 'Stored Objects' with a list of variables including CoolSetpointUnoccupied, DischargeAirTemp, FlowSetpointActive, HeatOutputSecondary, HeatSetpointOccupied, HeatSetpointUnoccupied, MaximumFlow, ModeActive, ModeHeatCool, OccupancyActive (highlighted), PresentValue, SpaceTemperatureActive, and SpaceTemperatureSetpointActive. An 'OK' button in the bottom right corner of the 'Edit Filter Criteria' window is highlighted with a red box.

Scorecard Report from a Watchdog

The lower section of Filter Criteria window provides the user many options to set the Date Range the report will include.

Click on the *Edit* in the lower section.

The Date Range window opens.

The Relative Date Range option is set to the Current day by default. The user has the options identified with red arrows.

The Literal Date Range option is also set to the Current day by default. The user has the options identified with blue arrows.

After defining the desired Date Range click on *OK* in the Date Range window.

Do Not click OK on the Filter Criteria/Date Range window at this time.

Click on the *Data Filter* tab.

The screenshot shows the 'Scorecard Report Editor' window. On the left is a sidebar with tabs: Profile Objects, External Objects, Object Options, Devices, Data Filter (selected), Scorecard Options, and Misc. Options. The main area is divided into 'Filter Criteria' and 'Date Range' sections. The 'Filter Criteria' section shows the expression '[OccupancyActive] = 1'. The 'Date Range' section shows a 'Date Range' window with 'Description: Current Day' and 'Date Range: 5/30/2018 12:00:00 AM To 5/30/2018 2:40:52 PM'. Below this is a 'Date Range Properties' window with two options: 'Literal Date Range' (selected) and 'Relative Date Range'. The 'Relative Date Range' section has dropdowns for 'Current' and 'Day(s)'. A calendar for May 2018 is shown, with the 30th highlighted. To the right is a list of time intervals: 15 Minutes, 30 Minutes, 1 Hour, 2 Hours, 6 Hours, 12 Hours, 1 Day, 2 Days, 1 Week, 2 Weeks, 1 Month, 2 Months, 6 Months, 1 Year. At the bottom, there is a 'Previous' dropdown, a '1' spinner, a 'Day(s)' dropdown, and a checked 'Include Current' checkbox. A red box highlights the 'Edit...' button in the bottom right corner of the main window.

Scorecard Report from a Watchdog

The Scoring/Layout window opens.

As a result of selecting the *From Watchdog* option in Slide 3, the scoring expressions from the selected watchdog are provided here.

The user may modify these scoring expressions by clicking on the *Edit* in the upper section.

The Score Properties window opens. The watchdog scoring parameters will be pre selected.

Do Not click OK on the Scoring/Layout window at this time.

The screenshot shows the 'Scorecard Report Editor' window. On the left is a sidebar with categories: Profile Objects, External Objects, Object Options, Devices, Data Filter, Scorecard Options (highlighted with a red arrow), and Misc Options. The main area is divided into 'Scoring' and 'Layout' sections. The 'Scoring' section contains a table with the following data:

Name	Percent of Total Score
Damper Ovrđ	1
Closed Damper Airflow	1
SpaceTempScore	47
AirFlowScore	47
UnOccCoolSpScore	1
UnOccHeatSpScore	1
OccCoolSpScore	1
OccHeatSpScore	1

Below the table are buttons for 'Edit...', 'Remove', and 'Add'. A red arrow points to the 'Edit...' button. The 'Layout' section has radio buttons for 'Date as Column, Device as Row' (selected) and 'Device as Column, Date as Row'. A 'Score Properties' dialog box is open, showing the following settings:

- Name: Space Temp Score
- Type: FB vs SP, FB vs SP w/ Deadband, FB vs Constant, FB vs 2 SP, FB vs 2 SP w/ Deadband, Custom
- Feedback Object: SpaceTemp
- SP Object: EffectSetPt
- Max Error: 5
- Weight of Overall Score: 100

At the bottom of the dialog are 'OK' and 'Cancel' buttons. A note at the bottom of the main window reads: 'Note: Select the Objects you would like to'.

Scorecard Report from a Watchdog

The Scoring/Layout window opens.

As a result of selecting the *From Watchdog* option in Slide 3, the scoring expressions from the selected watchdog are provided here.

The user may modify these scoring expressions by clicking on the *Edit* in the upper section.

The Layout section allows the user to choose the Column and row arrangement of the Date and Device in the left pane of the report.

The Group By section allows the user to set the Column headers in the left pane of the report. The report may provide columns by the Hour, Day, Week, Month or by device Average ranking.

Do Not click OK on the Scoring/Layout window at this time.

Click on the *Misc Options* tab.

The screenshot shows the 'Scorecard Report Editor' window. The 'Scoring' section lists various metrics and their 'Percent of Total Score'. The 'Layout' section has radio buttons for 'Date as Column, Device as Row' (selected) and 'Device as Column, Date as Row'. The 'Group By' section has radio buttons for 'Hour' (selected), 'Day', 'Week', 'Month', and 'Average with Ranking'. There are 'Edit...', 'Remove', and 'Add' buttons at the bottom right of the Scoring section. A red arrow points to the 'Edit...' button. Another red arrow points to the 'Misc Options' tab in the left sidebar. Below the main window, several preview tables are shown, each with a red arrow pointing to it from the 'Misc Options' tab. The first preview table shows a grid of scores for devices HP_1 to HP_4 across dates 5/30/2018 and 5/31/2018. The second preview table shows a similar grid but with a different layout. The third preview table shows a grid with columns for 'Device', 'Score', 'Rank', and 'Grade'.

Name	Percent of Total Score
Damper Ovrdr	1
Closed Damper Airflow	1
SpaceTempScore	47
AirFlowScore	47
UnOccCoolSpScore	1
UnOccHeatSpScore	1
OccCoolSpScore	1
OccHeatSpScore	1

Device	5/30/2018	5/31/2018
HP_1	100	100
HP_2	98	96
HP_3	97	100
HP_4	89	89

Device	5/30/2018	5/31/2018
HP_1	100	100
HP_2	98	96
HP_3	97	100
HP_4	89	89

Time Stamp	HP_1	HP_2	HP_3
5/30/2018 12:00:00 AM	100	98	97
5/31/2018 12:00:00 AM	100	96	100

Device	Score	Rank	Grade
HP_4	89	11	Good
HP_13	91	10	Good
HP_12	92	9	Good
HP_5-6	95	8	Good
HP_9	96	6	Good

Scorecard Report from a Watchdog

The ExpressionFormat/Data Options window opens.

Expression Formats will highlight a section of a column of data where the expression is true.

Click on *Add*, the Edit Object window opens.

The expression displayed will be true when the Space temperature is greater than the Effective Setpoint plus 5 deg.

This expression was named "Too Hot"

If the expression was successfully modified click *OK* in the Edit Object window.

Do Not click OK on the Expression Format/Data Options window at this time.

The screenshot displays the 'Scorecard Report Editor' application. On the left is a vertical navigation pane with categories: Profile Objects, External Objects, Object Options, Devices, Data Filter, Scorecard Options, and Misc Options. The 'Misc Options' category is selected, and a red arrow points to it. The main area is divided into two panes: 'Expression Format Conditions' at the top and 'Data Options' at the bottom. In the 'Expression Format Conditions' pane, an 'Add' button is highlighted with a red box. The 'Edit Object' window is open over the 'Data Options' pane. It has a 'Name' field containing 'Too Hot' and a text area containing the expression $(\text{SpaceTemp}) > ((\text{EffectSetPt}) + 5)$. Below the text area is a toolbar with mathematical operators (+, -, *, /, =, !=, <, >) and logical operators (LIKE, is null, is not null, AND, OR, VAL). At the bottom of the 'Edit Object' window, there are 'Functions' and 'Stored Objects' tabs. The 'Stored Objects' list includes: DischargeTemp, EffectOcc, EffectSetPt (highlighted), FanMode, HeatStages, OccupiedCool, OccupiedHeat, SF-C, SF-S, SpaceTemp, UnoccupiedCool, and UnoccupiedHeat. At the bottom right of the 'Edit Object' window, the 'OK' button is highlighted with a red box.

Scorecard Report from a Watchdog

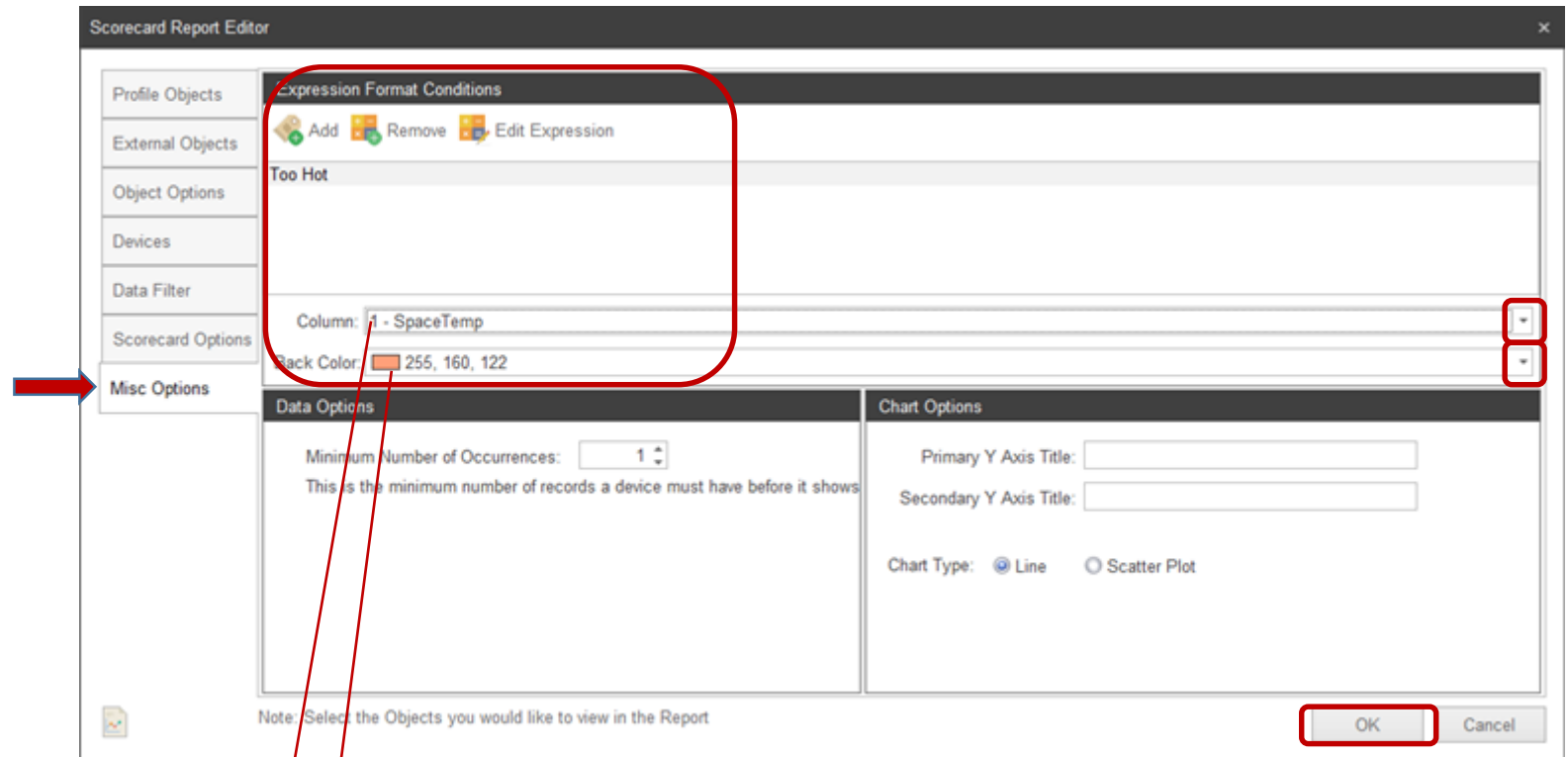
This expression named “Too Hot” is displayed in the Expression Format Conditions window.

Click on the dropdown arrow on the right side of the Column box and choose the object data that you wish to be highlighted when the expression is true.

Click on the dropdown arrow on the right side of the Back Color box and choose the background color that you wish to use in the highlighted section of data samples.

The Data Options selector allow the user to require a minimum number of data samples a device must provide before any data is displayed.

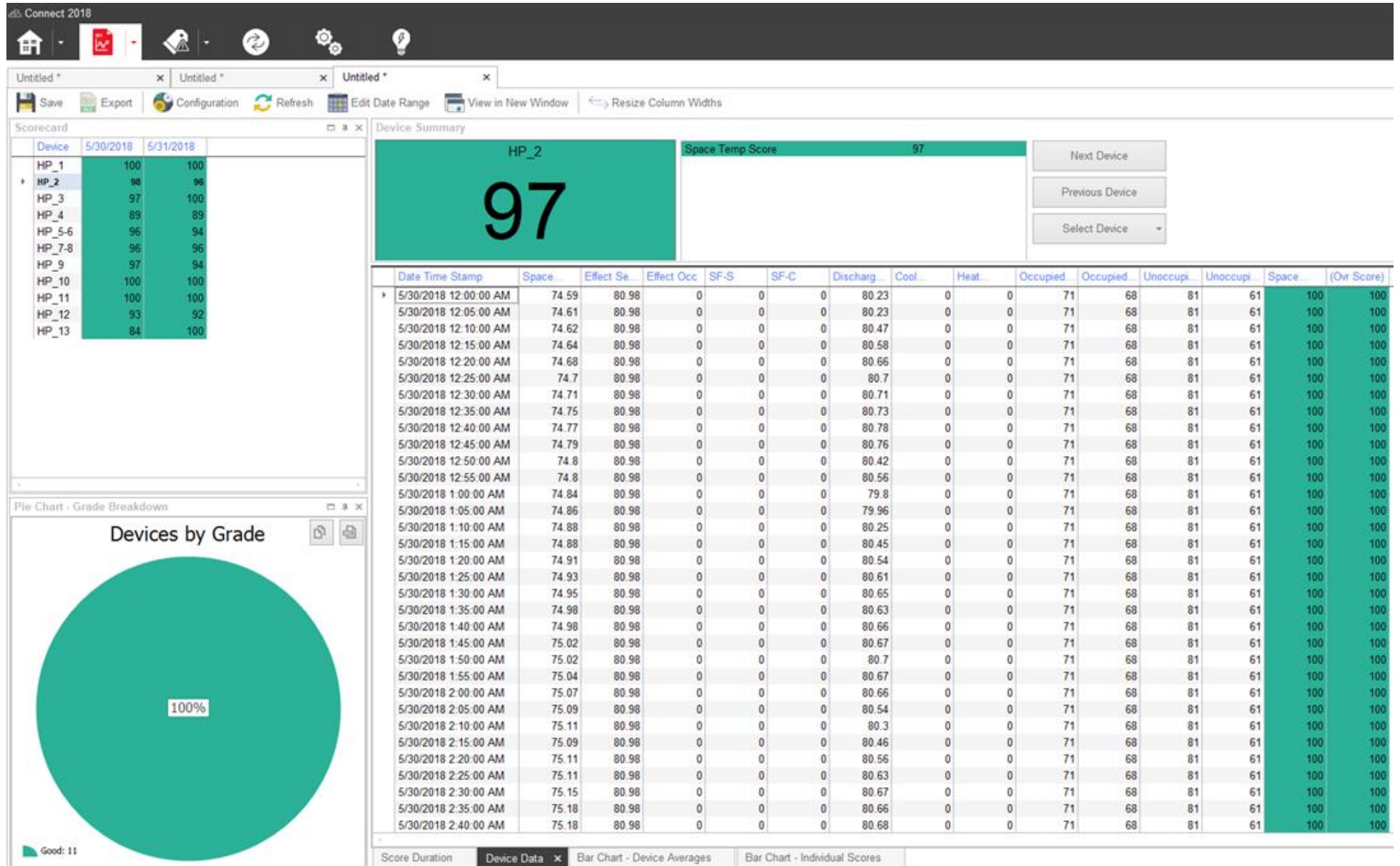
Now click OK on the Expression Format/Data Options to run the report.



Date Time Stamp	Space...	Effect Se...
5/30/2018 1:45:00 PM	79.93	70.97
5/30/2018 1:50:00 PM	79.38	70.97
5/30/2018 1:55:00 PM	78.82	70.97
5/30/2018 2:00:00 PM	78.35	70.97
5/30/2018 2:05:00 PM	78.04	70.97
5/30/2018 2:10:00 PM	77.67	70.97
5/30/2018 2:15:00 PM	77.36	70.97

Scorecard Report from a Watchdog

A Scorecard report using the From Watchdog option.





THANK YOU