

CPC Update - Version 2017.2.24

This topic sheet explains the specific CPC update

CheckAttachment functionality

This integrity check has been changed. The range check of part thermocouples, vacuum probes, and vacuum sources now shows passing sensor values as well as the failing values. Here's an example:

Oven #1 - Attachments Check

Date: Friday, February 24, 2017
Time: 3:21:46 AM
Load Number: 253
Equipment: Oven #1
Operator: ASC

PART & TOOL INFORMATION				ATTACHMENT INFORMATION			
#	WITH	FIELD NAME	FIELD VALUE	PartTC	PRB	HDRA	HDRB
1	NA	Part Number Lot Number Serial Number Tool Number Description	PN1	PTC_1	PT_3 (A)	PT_1 PT_2	
2	NA	Part Number Lot Number Serial Number Tool Number Description	PN2	PTC_2	PT_6 (B)		PT_4 PT_5

PART ATTACHMENTS CHECK		
PART INDEX	SENSOR	REASON FOR PASS/FAIL
1	TC Count	Only 1 PartTC is attached. 3 are required.
1	PTC_1	*** FAIL. Value (81.0 Deg.F) is above high validation limit (80.0 Deg.F)
1	Probe Count	*** FAIL. Only 1 Probe is attached. 3 are required.
1	PT_3	PASS. Value (-27.2 InchHg) is inside range of -28.0 to -26.0 InchHg
1	PT_1	PASS. Value (-27.0 InchHg) is inside range of -28.0 to -26.0 InchHg
1	PT_2	PASS. Value (-27.1 InchHg) is inside range of -28.0 to -26.0 InchHg
1	Source Count	*** FAIL. Only 2 Sources are attached. 3 are required.
2	TC Count	Only 1 PartTC is attached. 3 are required.
2	PTC_2	PASS. Value (70.2 Deg.F) is inside range of 60.0 to 80.0 Deg.F
2	Probe Count	*** FAIL. Only 1 Probe is attached. 3 are required.
2	PT_6	PASS. Value (-20.2 InchHg) is inside range of -21.0 to -19.0 InchHg
2	PT_4	PASS. Value (-20.0 InchHg) is inside range of -21.0 to -19.0 InchHg
2	PT_5	PASS. Value (-20.1 InchHg) is inside range of -21.0 to -19.0 InchHg
2	Source Count	*** FAIL. Only 2 Sources are attached. 3 are required.

PART ATTACHMENTS CHECK - FAIL

CheckDrawdown functionality

This integrity check has been changed.

We fixed a bug that caused the drawdown test to not report on the sources attached to Header B on systems configured for dual-use vacuum lines and separate vacuum values for header B than header A. On previous versions of CPC, the lines attached to header B would incorrectly compare their values to header A vacuum value.

Also, the report now shows not only the failed sensors but also the sensors that passed the drawdown test. The previous versions of CPC would only show the failed sensors.

Here's an example where Header A is at -27 and Header B is at -20:

Oven #1 - Drawdown Check

Date: Friday, February 24, 2017
Time: 3:18:36 AM
Load Number: 253
Equipment: Oven #1
Operator: ASC

PART & TOOL INFORMATION				ATTACHMENT INFORMATION			
#	WITH	FIELD NAME	FIELD VALUE	PartTC	PRB	HDRA	HDRB
1	NA	Part Number Lot Number Serial Number Tool Number Description	PN1	PTC_1	PT_3 (A)	PT_1 PT_2	
2	NA	Part Number Lot Number Serial Number Tool Number Description	PN2	PTC_2	PT_6 (B)		PT_4 PT_5

DRAWDOWN CHECK BEGIN

Probes must be continuously within +/-deviation from the header value(s) for a minimum stabilization time.

Test Deviation = 1 InchHg
Min Stabilization Time = 10s
Max Test Time = 20s
SysVacA Value = -27.0
SysVacB Value = -20.0

PART INDEX	LINE	VALUE	DEVIATION
1	PT_3	-27.2	-0.2
1	PT_1	-27.0	0.0
1	PT_2	-27.1	-0.1
2	PT_6	-20.2	-0.2
2	PT_4	-20.0	0.0
2	PT_5	-20.1	-0.1

Total Test Time = 10.8 Secs
All Probes stabilized for 10.8 Secs

DRAWDOWN CHECK ENDS - PASS

New help information for Checks, CheckDrawdown, Output_PID, and other objects

These objects previously had no help information in the Object Editor. This help information has been added:

The screenshot shows the CPC Object Editor interface. On the left is a tree view of the object hierarchy, with 'Checks' selected under the 'Oven' object. The main pane displays the properties of the 'Checks' object in a table:

Name	Checks
Enabled	True
Status	FAIL
PartFieldsToDisplay	PartNumber, LotNumber, SerialNumber, ToolNumber, Description
PartTCType	PartTTC
ProbeType	Probe
ProbeMultiState	PRB
SourceType	Source
SourceMultiState	HDRA
Header1Setpoint	Oven.Outputs.VacCntrlA>MainSetpoint
Header1Value	Oven.Inputs.SysVacA\Value
Header2Setpoint	Oven.Outputs.VacCntrlB>MainSetpoint
Header2Value	Oven.Inputs.SysVacB\Value
Header2SubType	B
ReportObject	
OperatorName	ASC

A red arrow points from the 'ProbeMultiState' property in the table to a help window titled 'ProbeMultistate (Property)'. The help window contains the following text:

Units: The matching "Multistate" property for the PartAttachment object (ie. PRB)

The **ProbeMultistate** property defines what PartAttachment multistate selection indicates "probe" configuration (ie. all valves off).

Background

In some equipment configurations, the equipment will have dual-use vacuum lines that have a transmitter on every vacuum line. In this type of configuration, every vacuum line can be changed between a Source or a Probe. In these systems, the selection of the valves determines whether the line is a source or probe. This valve selection occurs in the Batch setup screen where a PartAttachment property called "Multistate" will be set.

At the bottom of the help window, the path '.Oven.Checks\ProbeMultiState' is displayed.