


## New Features – SmartCount Edge PLUS (2021)

### Planned Downtime and notes


**Planned Down Time** – Exclusive to the SmartCount Edge PLUS. Located in the SETTINGS menu, Planned Down Time allows you to take into account not only your unplanned down time but your planned down time as well. Planned down time is entered in minutes and can be used in the Calculated Fields formulas. 3-digit numeric value represented in minutes and is included in the data stream

Additionally a “Notes” field will allow you to enter a description of your planned down time, up to 50 characters. This does not get added to the data stream.

Planned Downtime (minutes)



Planned Downtime Notes



### 8 Calculated Fields

**Calculated Fields** - Create your own variable(s) in the SmartCount Edge PLUS – Create up to 8 custom calculations and display as variables on the screen. Calculations are derived from existing data variables and can be displayed as Time, Percent, or Number. Values are included in the data stream.

Acceptable Operands are addition (+) subtraction (-) multiplication (\*) and division (/)

Calculations are based on seconds so any variable used that is not in seconds, must be multiplied by 60 to convert to seconds

#### Calculated Fields

Calculated Field 01 - (Total Product Produced) Display as Number

$[Actual\ Count] + [Actual\ Count\ 2]$

Valid Syntax: 3024.0 + 36.0 = 3060.0

Calculated Field 02 - (Reject Percent) Display as Percent

$[Actual\ Count\ 2] / ([Actual\ Count] + [Actual\ Count\ 2]) * 100$

Valid Syntax: 36.0 / (3024.0 + 36.0) \* 100 = 1.1

**Available Operands, and Tags**

- <Operand>
- ( <Operand>
- ) <Operand>
- \* <Operand>

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**Available Operands, and Tags**

- [Actual Count] <Display Value> (0-999999)
- [Actual Count 2] <Display Value> (0-999999)
- [Actual Hourly Count] <Display Value> (0-999999)
- [Actual Rate] <Display Value> (per rate specifier)

**Actual Example to calculate and display Availability %, Performance %, Quality %, and OEE %**

**Calculated Fields**

Calculated Field 01 - (AVAILABILITY) Display as Percent

$$\frac{(28800 - ([Planned Down Time] * 60) - [Total Down Time] + [Status Time 00])}{(28800 - [Planned Down Time] * 60)} * 100$$

Valid Syntex:  $(28800 - (55.0 * 60) - 5015.9 + 5015.9) / (28800 - 55.0 * 60) * 100 = 100$

28,800 = 8 hour shift \* 3600 to convert to seconds  
Planned down time \* 60 to convert to seconds  
\*100 to convert to a percentage

Calculated Field 02 - (PERFORMANCE) Display as Percent

$$10 / ([Total Time] / [Actual Count]) * 100$$

Valid Syntex:  $10 / (5016.1 / 0.0) * 100 = 0$

**Available Operands, and Tags**

- [Target Rate] <Setting Value> (per rate specifier)
- [Total Count] <Display Value> (0-999999)
- [Total Down Time] <Display Value> (seconds)
- [Total Time] <Display Value> (seconds)

Designed cycle time (seconds) divided by Total Time divided by Actual Count times 100 to convert to a percentage

Calculated Field 03 - (QUALITY) Display as Percent

$$((Count 1 - Count 2) / [Actual Count]) * 100$$

Valid Syntex:  $(0.0 / 0.0) * 100 = 0$

**Available Operands, and Tags**

- <Operand>
- ( <Operand>
- ) <Operand>
- \* <Operand>

Total pieces less rejects divided by total pieces times 100 to convert to a percentage

Calculated Field 04 - (OEE) Display as Percent

$$\frac{((28800 - ([Planned Down Time] * 60) - [Total Down Time] + [Status Time 00]) / (28800 - [Planned Down Time] * 60)) * (10 / ([Total Time] / [Actual Count])) * (([Count 1 - Count 2] / [Actual Count]) * 100)}$$

Valid Syntex:  $((28800 - (55.0 * 60) - 5110.5 + 5110.5) / (28800 - 55.0 * 60)) * (10 / (5110.6 / 0.0)) * ((0.0 / 0.0) * 100) = 0$

**Available Operands, and Tags**

- <Operand>
- ( <Operand>
- ) <Operand>
- \* <Operand>

Availability x Performance x Quality = OEE  
Times 100 to convert to a percentage

**Additional selections to Networking/Data Push**

30, 45, and 60 minute data push intervals have been added to the existing 1, 5, 10, and 15 minute data push intervals for more flexibility with your data

**8 Additional Downtime reasons**

8 additional downtime reasons have been added to the SETTINGS menu along with 4 new colors

Screenshot of the additional Down Time categories in settings.

**Down Time Description 9**  
Total: 00:00:00  
Color  Type

**Down Time Description 10**  
Total: 00:00:00  
Color  Type

**Down Time Description 11**  
Total: 00:00:00  
Color  Type

**Down Time Description 12**  
Total: 00:00:00  
Color  Type

**Down Time Description 13**  
Total: 00:00:00  
Color  Type

**Down Time Description 14**  
Total: 00:00:00  
Color  Type

**Down Time Description 15**  
Total: 00:00:00  
Color  Type

**Down Time Description 16**  
Total: 00:00:00  
Color  Type

## Copy and Paste MySQL configuration via Flash Drive

Located in the NETWORKING menu, this new feature saves time setting up multiple Edge products versus having to enter the same data in each SmartCount Edge PLUS. Save the configuration to a flash drive and upload to all Edge PLUS devices

Screenshot of the "Save to USB" button when pressed. Selecting "Save as new entry..." will prompt the user to enter a name, and the "Overwrite entry" will overwrite existing file on the drive.

MySQL Username: 3306

MySQL Password: dbaccess

MySQL Insert String: INSERT INTO `datastore`.`tbl\_datapool`(`data\_timestamp`,`data\_devicename`,`data\_actualcount\_1`,`data\_actualcount\_2`,`data\_targetcount`,`data\_runtime`,`data\_downtime`,`data\_statustime\_0`,`data\_statustime\_1`,`data\_statustime\_2`,`data\_statustime\_3`,`data\_statustime\_4`,`data\_statustime\_5`,`

Buttons: Load from USB, Save to USB

Test Query

Query Successful at 2020-11-13 09:40:05.111000

DATA TAGS

- Cumulative Sensor 1 Count <DECIMAL(7,1)>
- Cumulative Sensor 2 Count <DECIMAL(7,1)>
- Cumulative Target Count <DECIMAL(7,1)>
- Cumulative Calculated Field 1 <DECIMAL(7,1)>

Screenshot of the "Load from USB" when pressed. The popup menu will populate up to 5 .sql files from the root folder of the USB drive by file name.

MySQL Username: dbaccess

MySQL Password: 123

MySQL Insert String: INSERT INTO `datastore`.`tbl\_datapool`(`data\_timestamp`,`data\_devicename`,`data\_actualcount\_1`,`data\_actualcount\_2`,`data\_targetcount`,`data\_runtime`,`data\_downtime`,`data\_statustime\_0`,`data\_statustime\_1`,`data\_statustime\_2`,`data\_statustime\_3`,`data\_statustime\_4`,`data\_statustime\_5`,`

Buttons: Load from USB, Save to USB

Test Query

Query Successful at 2020-11-13 09:39:05.111000

DATA TAGS

- Cumulative Sensor 1 Count <DECIMAL(7,1)>
- Cumulative Sensor 2 Count <DECIMAL(7,1)>
- Cumulative Target Count <DECIMAL(7,1)>
- Cumulative Calculated Field 1 <DECIMAL(7,1)>