

## SmartCount UDP MultiCast DataStream Specification

### Firmware Version 5.2.0.0 and Above

**Protocol** - TCP/IP User Datagram Protocol (UDP)  
**Port** - 55056  
**Broadcast Type** - Multicast  
**IP broadcast address** - 255.255.255.255  
**Encoding** - Ascii String Comma Separated  
**Stream Structure** - <DeviceInformation>,<DataTags> (See individual structures for device information and data tags below)  
**Preface** - This specification assumes the end user has a full understanding of network socket communication and programming. Programming of a UDP server for capturing the below Data Tags is beyond the scope of this document. Once you have established a UDP Server on Port 55056 the below specification will assist with parsing and consuming of relevant data. Each SmartCount device automatically outputs a data stream of the most current Data Tags related to the running SmartCount version. These data streams are at a fixed frequency set by the variable "Data Push Frequency in Minutes" in the unit "Settings" screen.

#### DEVICE INFORMATION

Device Information Structure - Header, Value, (#FROM, VALUE, #SC_VERSION, VALUE, #SOFTWARE_VERSION, VALUE, #TIME, VALUE, #TOKEN, VALUE, #ACTIVATION, VALUE, #DEVICENAME, VALUE, #ADDRESS, VALUE)				
HEADER, VALUE	DATATYPE	DESCRIPTION	FORMAT	Firmware
#FROM, VALUE	STRING	Unique Identifier assigned to the SmartCount Ethernet Interface (MAC Address)	Alpha Numeric Characters - XXXXXXXXXXXX	2.1.5.0
#SC_VERSION, VALUE	INTEGER	SmartCount Unit Version (i.e. SC-16 will report 16)	Integer - 0 thru 999	2.1.5.0
#SOFTWARE_VERSION, VALUE	STRING	Software Build Currently Running on SmartCount	Alpha Numeric Characters - Major.Minor.Build.Revision	2.1.5.0
#TIME, VALUE	DATETIME	Timestamp of when the Data Reading was captured on the SmartCount	Year-Month-Day Hour:Minute:Second.Millisecond - YYYY-MM-DD HH:MM:SS.MS	2.1.5.0
#TOKEN, VALUE	INTEGER	Internal Use	Internal Use	2.1.5.0
#ACTIVATION, VALUE	BOOLEAN	Internal Use	Internal Use	2.1.5.0
#DEVICENAME, VALUE	STRING	Device Name as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	2.1.5.0
#ADDRESS, VALUE	IP ADDRESS	The IPv4 Address of the SmartCount Network Interface	IPv4 - 255.255.255.255	2.1.5.0

#### DATA TAGS

Data Tags Structure - Header, TagName, Value, (#00, NULL, VALUE, #01, Cumulative Sensor 1 Count, VALUE, #02, Cumulative Sensor 2 Count, VALUE, ... thru ... #100, NULL, VALUE)				
HEADER, TAGNAME, VALUE	DATATYPE	DESCRIPTION	FORMAT	Firmware
#00, TargetDevice, VALUE	IP ADDRESS	The IPv4 Address for Static Data Collection Target	IPv4 - 255.255.255.255	3.0.0.0
#01, Cumulative Sensor 1 Count, VALUE	INTEGER	Actual Counts on SmartCount Input 1 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#02, Cumulative Sensor 2 Count, VALUE	INTEGER	Actual Counts on SmartCount Input 2 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#03, Cumulative Target Count, VALUE	INTEGER	Total Target Counts since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#04, Cumulative Calculated Field 1, VALUE	Undefined	Custom Computed Field 1 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#05, Cumulative Calculated Field 2, VALUE	Undefined	Custom Computed Field 2 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#06, Cumulative Calculated Field 3, VALUE	Undefined	Custom Computed Field 3 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#07, Cumulative Calculated Field 4, VALUE	Undefined	Custom Computed Field 4 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#08, Cumulative Calculated Field 5, VALUE	Undefined	Custom Computed Field 5 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#09, Cumulative Calculated Field 6, VALUE	Undefined	Custom Computed Field 6 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#10, Cumulative Calculated Field 7, VALUE	Undefined	Custom Computed Field 7 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#11, Cumulative Distance, VALUE	INTEGER	Total distance since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#12, Cumulative Calculated Field 8, VALUE	Undefined	Custom Computed Field 8 since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#13, Current Calculated Field 1, VALUE	Undefined	Snapshot of Computed Field 1 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#14, Current Calculated Field 2, VALUE	Undefined	Snapshot of Computed Field 2 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#15, Current Calculated Field 3, VALUE	Undefined	Snapshot of Computed Field 3 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#16, Cumulative Run Time, VALUE	INTEGER	Total run time in seconds since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#17, Cumulative Down Time, VALUE	INTEGER	Total down time in seconds since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#18, Current Calculated Field 4, VALUE	Undefined	Snapshot of Computed Field 4 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#19, Current Calculated Field 5, VALUE	Undefined	Snapshot of Computed Field 5 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#20, Current Calculated Field 6, VALUE	Undefined	Snapshot of Computed Field 6 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#21, Current Calculated Field 7, VALUE	Undefined	Snapshot of Computed Field 7 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#22, Current Calculated Field 8, VALUE	Undefined	Snapshot of Computed Field 8 at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#23, Cumulative Status Time 0, VALUE	INTEGER	Total down time in seconds of selectable status 0 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#24, Cumulative Status Time 1, VALUE	INTEGER	Total down time in seconds of selectable status 1 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#25, Cumulative Status Time 2, VALUE	INTEGER	Total down time in seconds of selectable status 2 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#26, Cumulative Status Time 3, VALUE	INTEGER	Total down time in seconds of selectable status 3 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#27, Cumulative Status Time 4, VALUE	INTEGER	Total down time in seconds of selectable status 4 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#28, Cumulative Status Time 5, VALUE	INTEGER	Total down time in seconds of selectable status 5 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#29, Cumulative Status Time 6, VALUE	INTEGER	Total down time in seconds of selectable status 6 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#30, Cumulative Status Time 7, VALUE	INTEGER	Total down time in seconds of selectable status 7 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#31, Cumulative Status Time 8, VALUE	INTEGER	Total down time in seconds of selectable status 8 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#32, Cumulative Total Time, VALUE	INTEGER	Total down time in seconds since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#33, Cumulative Pause Time, VALUE	INTEGER	Total down time in seconds the system was in pause since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#34, Cumulative Setup Time, VALUE	INTEGER	Total down time in seconds the system was in setup since the last data stream.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#35, NULL, VALUE	Undefined	Spare for future use	Undefined	
#36, NULL, VALUE	Undefined	Spare for future use	Undefined	
#37, NULL, VALUE	Undefined	Spare for future use	Undefined	
#38, NULL, VALUE	Undefined	Spare for future use	Undefined	
#39, NULL, VALUE	Undefined	Spare for future use	Undefined	
#40, Current Sensor 1 Count, VALUE	INTEGER	Actual Counts on SmartCount Input 1 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#41, Current Sensor 2 Count, VALUE	INTEGER	Actual Counts on SmartCount Input 2 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#42, Current Target Count, VALUE	INTEGER	Target Counts since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#43, Current Distance, VALUE	INTEGER	Distance since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#44, Current Run Time, VALUE	INTEGER	Run Time in seconds since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#45, Current Down Time, VALUE	INTEGER	Down time in seconds since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#46, Current Status Time 0, VALUE	INTEGER	Down time in seconds of selectable status 0 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#47, Current Status Time 1, VALUE	INTEGER	Down time in seconds of selectable status 1 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#48, Current Status Time 2, VALUE	INTEGER	Down time in seconds of selectable status 2 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#49, Current Status Time 3, VALUE	INTEGER	Down time in seconds of selectable status 3 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#50, Current Status Time 4, VALUE	INTEGER	Down time in seconds of selectable status 4 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#51, Current Status Time 5, VALUE	INTEGER	Down time in seconds of selectable status 5 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#52, Current Status Time 6, VALUE	INTEGER	Down time in seconds of selectable status 6 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#53, Current Status Time 7, VALUE	INTEGER	Down time in seconds of selectable status 7 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#54, Current Status Time 8, VALUE	INTEGER	Down time in seconds of selectable status 8 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#55, Current Actual Rate, VALUE	INTEGER	Snapshot of the exact actual rate at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#56, Current Target Rate, VALUE	INTEGER	Snapshot of the exact target rate at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#57, Current Average Rate, VALUE	INTEGER	Snapshot of the exact average rate at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#58, Current Total, VALUE	INTEGER	Snapshot of the current total at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#59, Current Actual Total, VALUE	INTEGER	Snapshot of the actual total at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#60, Current Count Percent, VALUE	INTEGER	Snapshot of the count percent at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#61, Current Net Percent, VALUE	INTEGER	Snapshot of the net percent at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#62, Current Percent Complete, VALUE	INTEGER	Snapshot of the percent complete at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#63, Current Rate Percent, VALUE	INTEGER	Snapshot of the rate percent at the time of data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	2.1.5.0
#64, Current Net, VALUE	INTEGER	Snapshot of Sensor 1 Count Minus Sensor 2 count at the time of the data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#65, Current Total Time, VALUE	INTEGER	Total time in seconds since last data reset.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#66, Current Pause Time, VALUE	INTEGER	Pause time in seconds since last data reset.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#67, Current Setup Time, VALUE	INTEGER	Setup time in seconds since last data reset.	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	3.0.0.0
#68, Current Starting Count, VALUE	INTEGER	User set value on the settings screen (1 through 999999)	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	4.0.0.0
#69, Current Rate Specifier, VALUE	STRING	User set value on the settings screen (second, minute, hour)	Alpha Numeric Characters - A-Z 0-9	4.0.0.0
#70, Cumulative Status Time 9, VALUE	INTEGER	Total down time in seconds of selectable status 9 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#71, Cumulative Status Time 10, VALUE	INTEGER	Total down time in seconds of selectable status 10 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#72, Cumulative Status Time 11, VALUE	INTEGER	Total down time in seconds of selectable status 11 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#73, Cumulative Status Time 12, VALUE	INTEGER	Total down time in seconds of selectable status 12 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#74, Cumulative Status Time 13, VALUE	INTEGER	Total down time in seconds of selectable status 13 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0

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#75,Cumulative Status Time 14,VALUE	INTEGER	Total down time in seconds of selectable status 14 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#76,Cumulative Status Time 15,VALUE	INTEGER	Total down time in seconds of selectable status 15 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#77,Cumulative Status Time 16,VALUE	INTEGER	Total down time in seconds of selectable status 16 since the last data stream	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#78,Current Status Time 9,VALUE	INTEGER	Down time in seconds of selectable status 9 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#79,Current Status Time 10,VALUE	INTEGER	Down time in seconds of selectable status 10 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#80,Current Status Time 11,VALUE	INTEGER	Down time in seconds of selectable status 11 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#81,Current Status Time 12,VALUE	INTEGER	Down time in seconds of selectable status 12 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#82,Current Status Time 13,VALUE	INTEGER	Down time in seconds of selectable status 13 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#83,Current Status Time 14,VALUE	INTEGER	Down time in seconds of selectable status 14 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#84,Current Status Time 15,VALUE	INTEGER	Down time in seconds of selectable status 15 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#85,Current Status Time 16,VALUE	INTEGER	Down time in seconds of selectable status 16 since the last data reset	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#86,Planned Down Time,VALUE	INTEGER	User set value on the settings screen (0 through 999)	8 Byte Integer - 15 digit max / NULL string if Data Tag is not relevant to running version	5.2.0.0
#87,NULL,VALUE	Undefined	Spare for future use	Undefined	
#88,NULL,VALUE	Undefined	Spare for future use	Undefined	
#89,NULL,VALUE	Undefined	Spare for future use	Undefined	
#90,Optional Field 1,VALUE	STRING	Open Field One as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	2.1.5.0
#91,Optional Field 2,VALUE	STRING	Open Field One as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	2.1.5.0
#92,Optional Field 3,VALUE	STRING	Open Field One as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	2.1.5.0
#93,Optional Field 4,VALUE	STRING	Open Field One as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	3.0.0.0
#94,Optional Field 5,VALUE	STRING	Open Field One as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	3.0.0.0
#95,Optional Field 6,VALUE	STRING	Open Field One as set in the "Settings" screen on the SmartCount Unit	Alpha Numeric Characters - A-Z 0-9	3.0.0.0
#96,NULL,VALUE	Undefined	Spare for future use	Undefined	
#97,NULL,VALUE	Undefined	Spare for future use	Undefined	
#98,NULL,VALUE	Undefined	Spare for future use	Undefined	
#99,NULL,VALUE	Undefined	Spare for future use	Undefined	
#100,NULL,VALUE	Undefined	Spare for future use	Undefined	