07/17/2024

Subject: **Revision Letter #001** to the SAE/USCAR-53 Standard, Issued 2023-07.

Changes have been made to the SAE/USCAR-53: INDUSTRIAL DATA COMMUNICATION FOR AUTOMOTIVE MANUFACTURING Standard. The changes are effective today. Comments and questions can be sent to ewcap@uscar.org.

Situation:

Additional detail is needed in **Section 7.4 Manufacturing Message Structure**; **Subsection 7.4.4.2.2 Cycle Identifier** to clarify and provide additional information.

Resolution:

Effective today, the following content is added to 7.4.4.2.2: A main controller (e.g., PLC) should be responsible for the creation of the CycleID and pass the ID to other devices performing actions during the cycle.

The other Devices associated to a machine's cycle receive the CycleID from the main controller. Devices not able to receive the CycleID from the main controller that manages the CycleID do not generate their own CycleID. Instead, the device reports a null CycleID, which is associated to the correct CycleID at a higher level within the system at a later time.

The edited content changes the section as shown:

7.4.4.2.2 Cycle Identifier

CycleID is a common identifier used to link different messages that happen during the same cycle and/or before the next cycle.

The CycleID is populated with the UTC timestamp at the start of every part cycle (i.e., part load) and is never blank.

The CycleID is populated regardless of station cycle state (manual or automatic cycling).

The CycleID is not reset by changes in a station's mode (auto, manual, cycle on, or cycle off).

A main controller (e.g., PLC) should be responsible for the creation of the CycleID and pass the ID to other devices performing actions during the cycle.

The other Devices associated to a machine's cycle receive the CycleID from the main controller. Devices not able to receive the CycleID from the main controller that manages the CycleID do not generate their own CycleID. Instead, the device reports a null CycleID, which is associated to the correct CycleID at a higher level within the system at a later time.~~Devices associated to a machine's cycle that do not manage the CycleID receive the CycleID from the main controller.~~

~~Devices not able to receive the CycleID from the main controller that manages the CycleID do not generate their own CycleID. Instead the device reports a null CycleID and it is associated to the correct CycleID at a higher level within the system at a later time.~~

The CycleID uses the extended time format with separators: hyphen between year, month, and day; the letter T between date and time; with colon between hour, minute, and second; period to separate seconds from milliseconds, followed by the letter Z (i.e., "2020-12-31T23:59:59.999Z").

The CycleID is also used by the application to establish the timestamp of events and tasks by adding the event or task start time reported (offset from start of cycle) to the CycleID.

Suite 35 • 3000 Town Center Building • Southfield, Michigan 48075
Office: (248) 223-9000