

Diamond Knowledge Base

Real Time Clock Adjust During Collection (UPP Series)

Command available in UPP 4.16 and 4.56 and higher Firmware.

When subtracting minutes from the clock – This function causes the counter to reset the clock back one minute at the beginning of each new minute for the duration of time you specify. For example, if you tell it to subtract 10 minutes from the time when the clock currently reads 12:46:23, when the clock rolls over to 12:47:00 it will reset back to 12:46:00. It will repeat that 9 more times to subtract off the 10 minutes you requested, and then move forward normally.

Depending on the mode you are in, this causes different effects. In Count, Binned, and the Binned part of Bin+WIM, the effect is almost non-noticeable because the current interval will simply be longer with each delayed minute. However, in Raw Per Vehicle, Sensor, and WIM modes, vehicles can be recorded that have duplicate times and/or are out of order, something that is not normally possible. Processing software must be able to cope with this during the adjustment period, or you can set the “BlockVeh” bit to not allow vehicles to be stored during this waiting period.

When adding minutes to the clock – This is actually more complicated than subtracting time because the user can add time which crosses interval boundaries and make it impossible for the importing software to understand what has occurred. There are two basic scenarios:

A) User adjusts clock just a few minutes (less than a single interval).

B) User adjusts clock a lot of minutes (more than a single interval).

In scenario A, the user just wants to add a few minutes to the clock. In this situation, the ideal approach is to set the number of minutes into and then set a zero into . If you are in Count, Bin, or Bin+WIM, the counter will always wait until the beginning of a new interval to apply the time and it will all be applied at once (the clock will jump forward). No record will be made in the file in this instance.

In scenario B, the user needs to skip ahead more than a few minutes. In many ways it is probably better to stop collection, reset the clock, and restart collection if you have this much of a correction to do (since you have lost more than an interval already anyway). However, you can set the number of minutes into and then put a 1 into . The recording of the new Time/Date stamp will alert software that something has happened to the clock and it should be alerted to that.

Both of the above scenarios (A & B) mostly apply to Count, Bin, and Bin+WIM. In Raw, WIM, and Sensor modes, you are usually ok to add minutes to the clock without too much of a penalty. It should be noted that in heavy traffic flow you could get a vehicle time that was stored with the vehicle prior to the adjustment and thus makes other vehicles out of sync, so software should watch for that. Recording of a new Time/Date stamp is optional, although it does alert the system to something having been changed.

NOTE: Using this command when collection is not active will change the clock immediately.

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