DVR SCOPE:

What will happen when the "DVR Creator" VI is stopped? Will DVR still be valid in the 2nd VI?

No, when the DVR Creater.vi is stopped, the DVR will not be valid in 2nd VI because the moment when the vi where the DVR created is stopped running, the DVR is released so that it cannot be accessed anymore.If we try to access a reference which is already destroyed LabVIEW throws an error.

DVR ACCESS:

Loop 1: Increments the value by 1

Loop 2: Multiplies the value by 2.

**Loop 3:** Decrements the value by 1.

Loop 4: Reads and displays the value.

Four loops are created where the first three loops modify data using a In place element structure and the fourth loop reads the DVR data.

1. Wait time/delays in the loops

Case 1: Same Delay

When the same delay, for example 1000ms, is kept in all the four loops, the execution takes place randomly without any specific order and the value gets updated. The no.of times each loop executed is the same for all four loops.
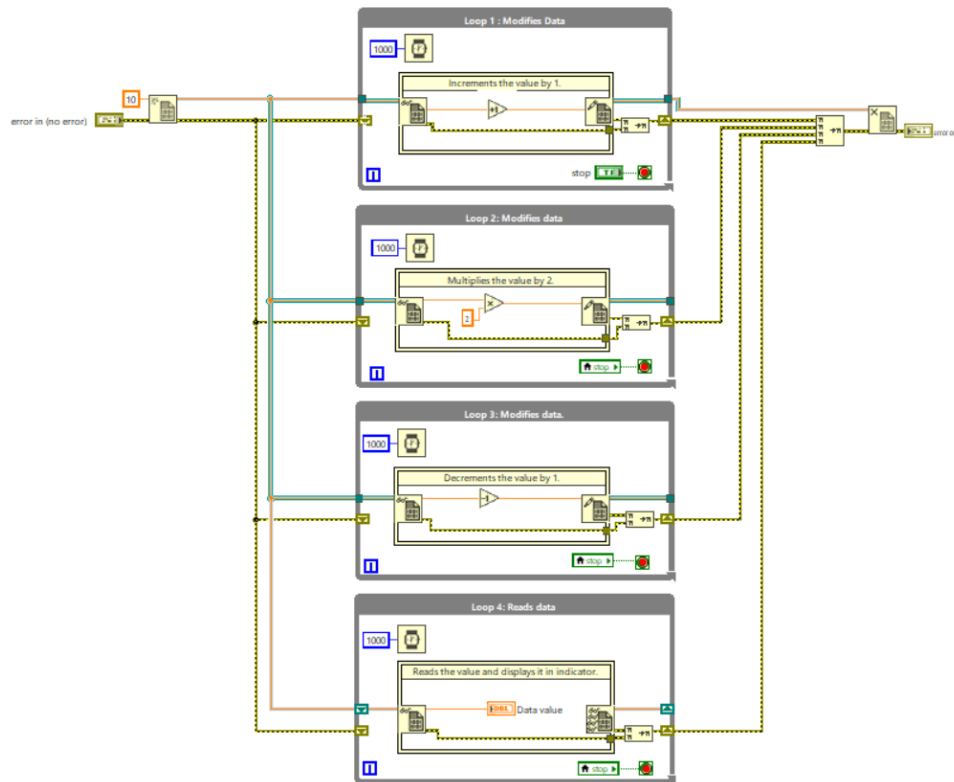
Case 2: With different delays

When different delays are given, for example

Loop 1: 1500ms

Loop 2: 2000ms

Loop 3: 750ms

Loop 4: 200ms

The loop with less delay gets executed more number of times than the loop with greater delays. Here Loop 4 gets executed more times than loop 3.

No. of executions loop 4 > loop 3 > loop1 > loop2

2 ."Mark as Modifier" in Input terminal

It is a way of indicating that LabVIEW modifies the data wired thus optimizing the performance by reducing the number of copies of the data LabVIEW creates.

3. "Allow Parallel Read-only Access" in output terminal

When the right border output node of In place element structure is unwired LabVIEW allows Read-only access to the data value reference without modifying the data.