Figure 103: Example using two sequences

In this case, an automated playback takes place, consisting of SEQ[0], delay 0, SEQ[1], delay 1, then again SEQ[0], etc. The user can choose to start a complex playback with SEQ[0] or SEQ[1] through sending the SEQSTART[0] or SEQSTART[1] task. The complex playback always ends with delay 1.

The two sequences 0 and 1 are defined by the addresses of value tables in RAM (pointed to by SEQ[n].PTR) and the buffer size (SEQ[n].MAXCNT). The rate at which a new value is loaded is defined individually for each sequence by SEQ[n].REFRESH. The chaining of sequence 1 following the sequence 0 is implicit, the LOOP.CNT register allows the chaining of sequence 1 to sequence 0 for a determined number of times. In other words, it allows to repeat a complex sequence a number of times in a fully automated way.

In the following code example, sequence 0 is defined with SEQ[0].REFRESH set to 1, meaning that a new PWM duty cycle is pushed every second PWM period. This complex sequence is started with the SEQSTART[0] task, so SEQ[0] is played first. Since SEQ[0].ENDDELAY=1 there will be one PWM period delay between last period on sequence 0 and the first period on sequence 1. Since SEQ[1].ENDDELAY=0 there is no delay 1, so SEQ[0] would be started immediately after the end of SEQ[1]. However, as LOOP.CNT is