**The equation to calculate time taken for 1 projection is:**

Where,

= system clock frequency = **45 MHz**

: is the delay in terms of cycles of the injection frequency = **0**

: is the number of averages used while acquiring the data. Minimum value is 1 and maximum is 64 and it must be a number which is power of 2.

: This is the delay between the click of ‘Scan’ button and start of first scan = **60**

= Time taken for 1 projection. This is the minimum time we can set. This value is obtained as number of cycles of the System clock frequency from the equation. Conversion to time unit (seconds) is explained below.

: Time taken for 1 scan.

**For example,**

For average number 64 and frequency = 10KHz,

After calculation from above equation , we get = 306060,

* This value should be converted to binary which is 1001010101110001100.
* Group this value in 4 bytes, i.e. 🡪 00000000 00000100 10101011 10001100.
* Replace the last 8 bits as 🡪 00000000 00000100 10101011 11111111.
* Now the 1st byte is TimeInfoHigh, 2nd is TimeInfoMid and 3rd is TimeInfoLow. So we would set TimeInfoHigh = 0, TimeInfoMid = 4, and TimeInfoLow = 171 in the script file.
* Again if we were to calculate in seconds, we must convert

00000000 00000100 10101011 11111111 to decimal which is 306175 and divide it by the clock frequency i.e., 45 MHz. So we get 6.8 ms which is the time taken for 1 projection.

**So in order to set desired time taken for 1 projection, the values for TimeInfoHigh, TimeInfoMid and TimeInfoLow can be adjusted in the script file.**