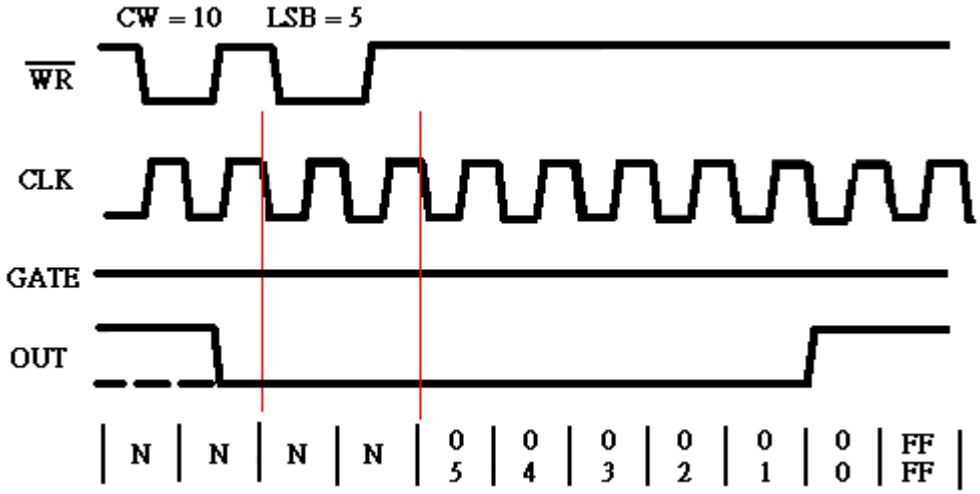
Q: Why does the timer counter read an incorrect value after selecting the mode, or why is there no timer counter activity?

Ans: This is normal for the 8254. No matter what mode you select, you must first **generate two clocks** to initialize the timer counter before it will start. An example for mode 0 is shown below. The first two clocks do not force the timer counter to begin. The purpose of this state is to initialize the timer counter. After the first two clocks, the timer counter will begin to count down.



Mode 0

The PCI-TMC12A can automatically generate two clocks to initialize the timer counter for the 8254. Refer to the sample code below for an illustration of the implementation.

Note: Be sure to set jumper 28 to TMC-12A.

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Example: Using the UniDAQ Driver

```
wRtn=Ixud_DriverInit(&wTotalBoards);

printf("The Total number of Boards is %d\n",wTotalBoards);

wRtn=Ixud_GetCardInfo(i,&DevInfo,&CardInfo,szModelName);

wBoardNo = 0;
wChannel = 1;  //Set the timer counter to counter 1
wMode = 0;  //Set the timer counter for mode 0
dwValue = 20000;  //Set the countdown value to 20000
wRtn = Ixud_SetCounter(wBoardNo,wChannel,wMode, dwValue);

  //Generate the clock to initialize the timer counter
wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,0<<wChannel);
wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,1<<wChannel);

wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,0<<wChannel);
wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,1<<wChannel);

wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,0<<wChannel);

for(;;)
{
  //Read the countdown value from the timer counter
 wRtn = Ixud_ReadCounter(wBoardNo,wChannel, &dwValue);

 wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,1<<wChannel);
 wRtn = Ixud_WritePort(DevInfo.dwBAR[2]+0x18,16,0<<wChannel);
}


wRtne=Ixud_DriverClose();
```

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Example: Using the Classic Driver

```
wRtn=PTMC12_DriverInit();

wTotalBoards=PTMC12_DetectBoards();

 wBoardNo = 0;
 wChannel = 1;  //Set the timer counter to counter 1
 wMode = 0;  //Set the timer counter for mode 0
 dwValue = 20000;  //Set the countdown value to 20000

wRtn=PTMC12_OpenBoard(wBoardNo,0);

wRtn=PTMC12_WriteCounter(wBoardNo,wChannel,wMode,dwValue);

//Generate the clock to initialize the timer counter
wRtn = PTMC12_WriteWord(wBoard,0x18,0<<wChannel);
 wRtn = PTMC12_WriteWord(wBoard,0x18,1<<wChannel);

 wRtn = PTMC12_WriteWord(wBoard,0x18,0<<wChannel);
 wRtn = PTMC12_WriteWord(wBoard,0x18,1<<wChannel);

 wRtn = PTMC12_WriteWord(wBoard,0x18,0<<wChannel);


 for(;;)
 {
   //Read the countdown value from the timer counter
  wRtn = PTMC12_ReadCounter(wBoardNo,wChannel, ReadValue);

   wRtn = PTMC12_WriteWord(wBoard,0x18,1<<wChannel);
   wRtn = PTMC12_WriteWord(wBoard,0x18,0<<wChannel);

 }

wRtn=PTMC12_CloseBoard(wBoardNo);

wRtn=PTMC12_CloseAll();
```

More details and specifications for the 8254 can be found at the following website.
http:\\ftp.utcluj.ro/pub/users/calceng/PMP/231164.**pdf**

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