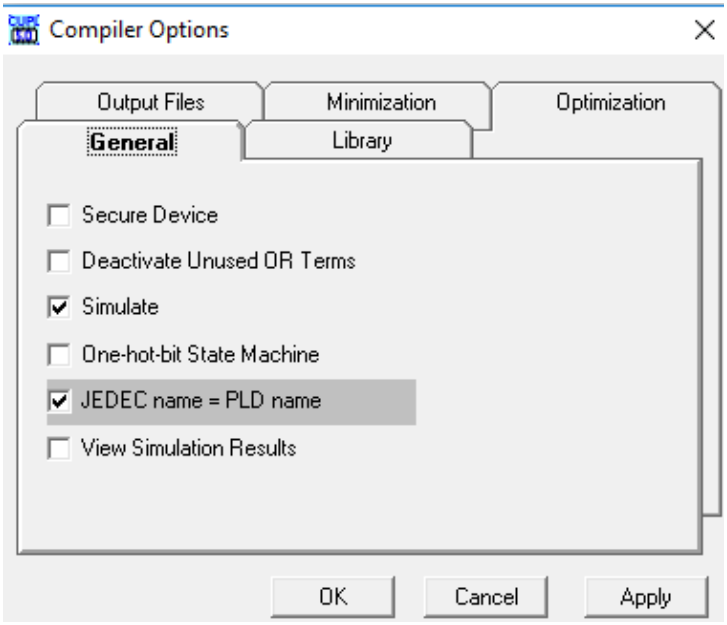
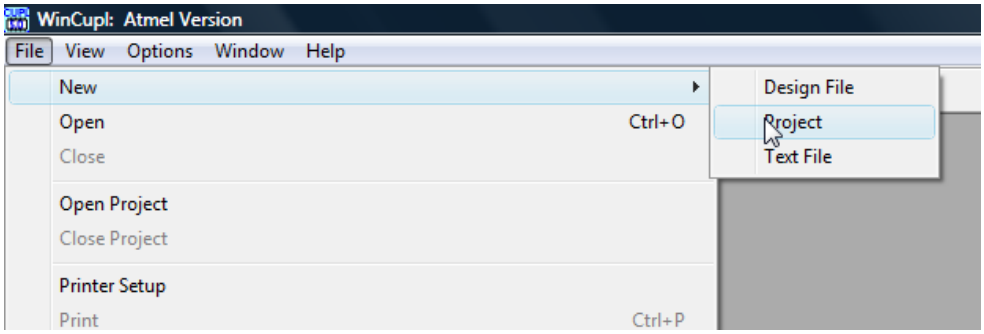
How to use WinCUPL 5.0

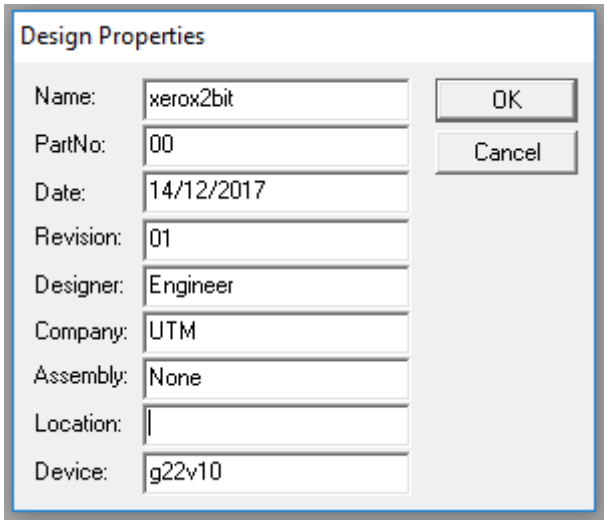
1. Install the software using the serial number given in the folder.
2. Start WinCUPL 5.0
3. Configure output jedec file name in option file tab → general:
   - Tick **JEDEC name = PLD name**



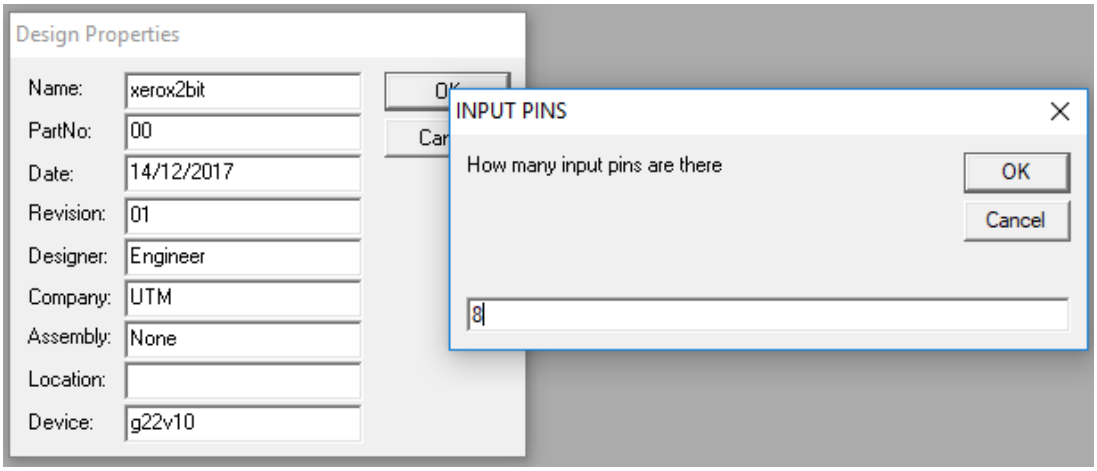
4. Start a new project : File → New → Project



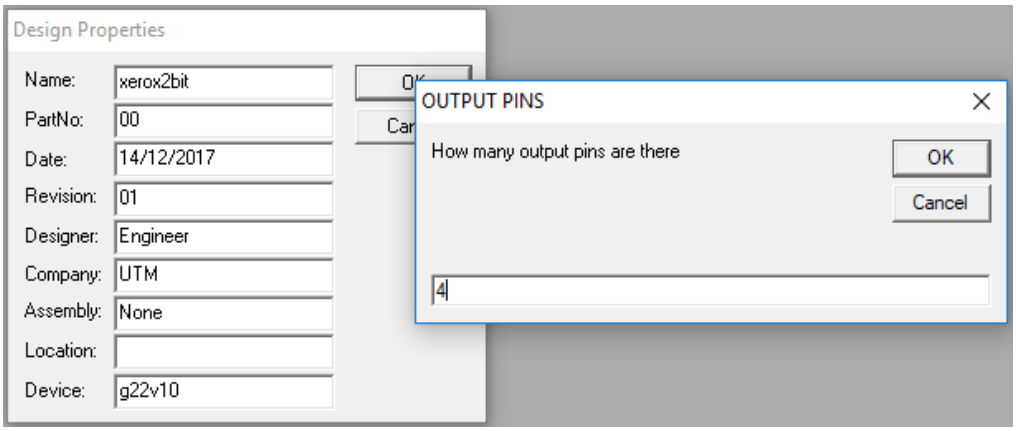
5. Key in the information, the most important is the **Name** and **Device.** The device must be **G22V10.**



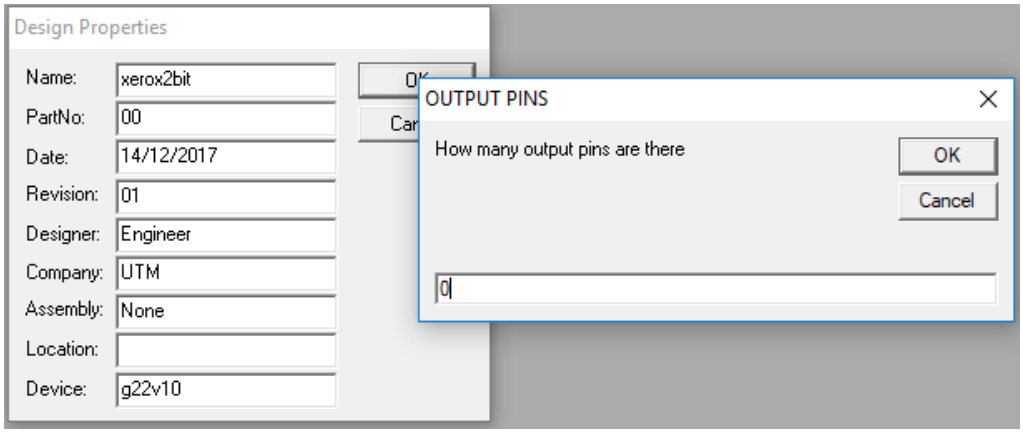
6. Key in number of input pins. It depends on your design, for the program of 2 bit Xerox machine, number of input pins is 8.



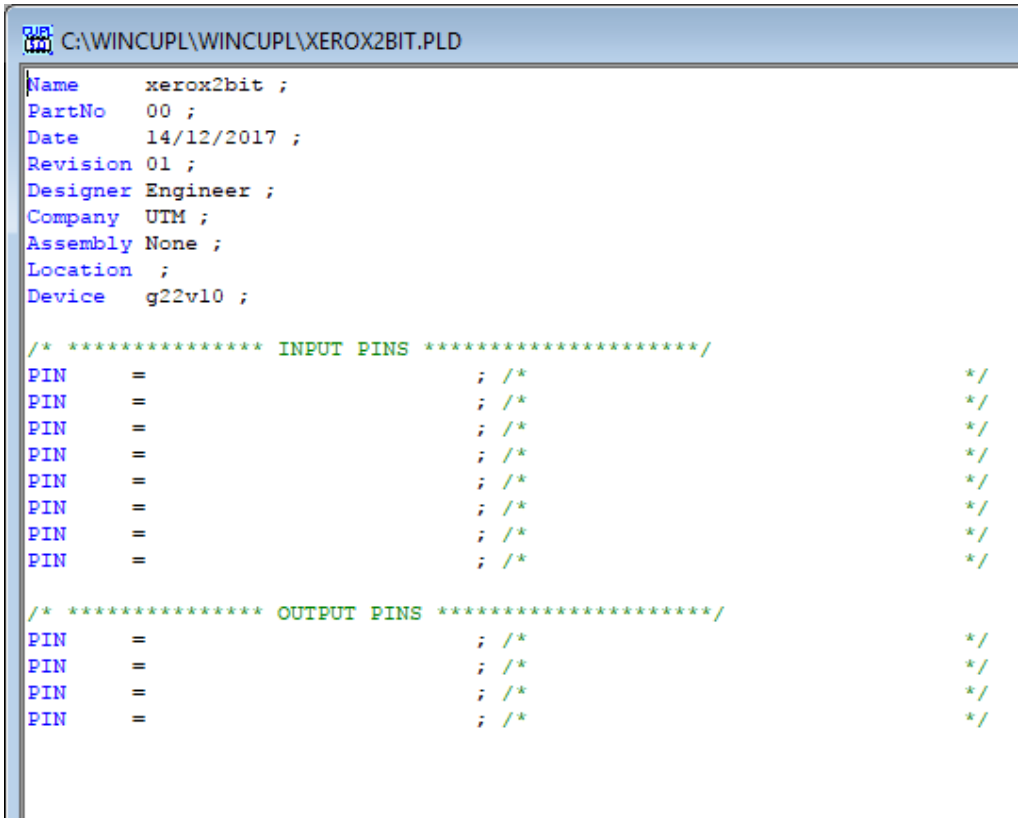
7. Key in number of output pins. It depends on your design, for the program of 2 bit Xerox machine, number of output pins is 4.



8. There is no pinnodes (internal nodes), key in 0.



9. A Template will appear in the editor.



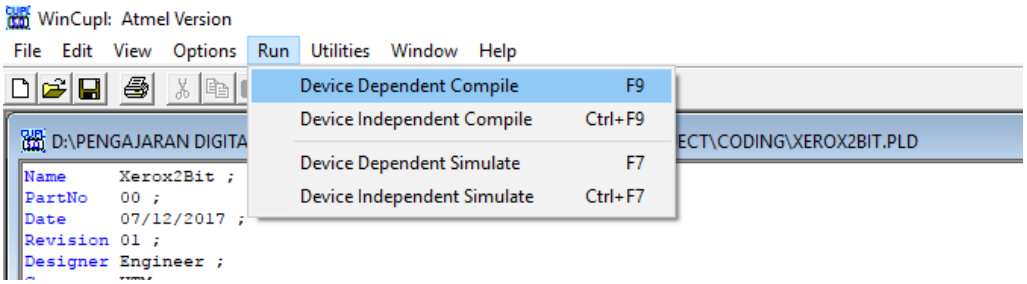
Type in your program.

Comment: use

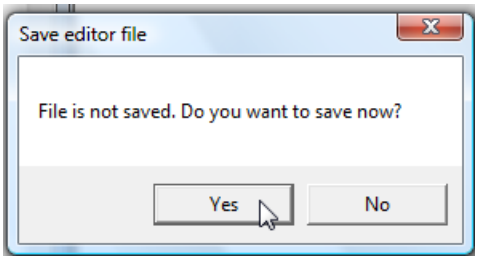
/* ……type your comment here…… */

```
Name     Xerox2Bnew ;
PartNo   00 ;
Date     07/12/2017 ;
Revision 01 ;
Designer Engineer ;
Company  UTM ;
Assembly None ;
Location  ;
Device   G22V10 ;

/* *************** INPUT PINS *********************/
PIN  1   =     clk                  ; /*         clock    */
PIN  2   =     reset                ; /*       reset      */
PIN  3   =     preset               ; /*      preset      */
PIN  4   =     a0                   ; /*  Comparator A    */
PIN  5   =     a1                   ; /*                  */
PIN  7   =     b0                   ; /*   Comparator B   */
PIN  8   =     b1                   ; /*                  */
PIN  10   =    startPrt             ; /*   Start Printing */

/* *************** OUTPUT PINS *********************/
PIN  17   =    diffCmp               ; /* XOR (A B not equal HIGH)  */
PIN  18   =    sameCmp               ; /* XNOR (A B equal HIGH)     */
PIN  21   =    q0                    ; /*  output counter           */
PIN  22   =    q1                    ; /*  output counter           */

/***** Function Comparator***********************/
sameCmp = !(a0$b0)&!(a1$b1);
diffCmp = !sameCmp ;

/**** Function Clock Enabler ********************/
clkEn=startPrt & diffCmp;

/*** Function Counter 2 Bit UP ******************/
field count =[q1..0];
$define s0 'b' 00
$define s1 'b' 01
$define s2 'b' 10
$define s3 'b' 11

count.ar=reset;     /* connect reg AR to reset (Asyn Mode)     */
count.sp=preset;    /* connect reg AR to preset (Syn Mode)     */

sequence count{
       present s0 if clkEn next s1;
              default next s0;
       present s1 if clkEn next s2;
              default next s1;
       present s2 if clkEn next s3;
              default next s2;
       present s3 if clkEn next s3;
              default next s3;
}
```

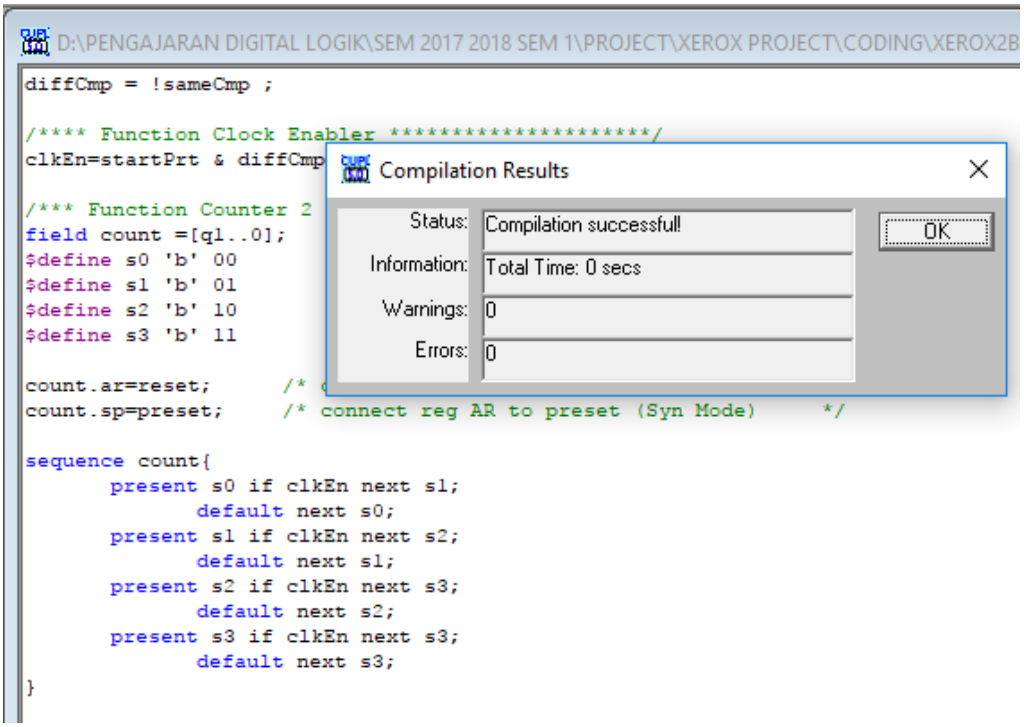
10. After finish editing, you need to compile the program. Press F9 or Click Run → Device Dependent Compile



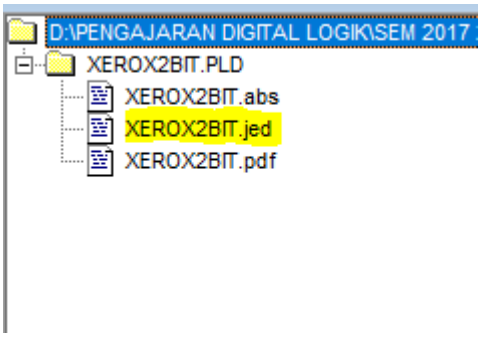
11. Press **Yes** when asked to save your file.



12. WinCUPL will compile the program and display a compilation result.



13. After a successful compilation a jedec (.JED) file will be created. This file will be needed to program the GAL by using a universal programmer such as Wellon or HI-LO programmer. Please read "How to use Wellon programmer" and "How to use Hi-Lo Prorammer".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