XXIII. READING THE COMP FILE (CONT.)

B) Finding the path time of an unlatched output . The path time of the largest input term is added to output time of the unlatched part .

Example: <<< GAA . Boolean file reads :

```
C6HG  GAA = ekd ekc ekb eka .
```

Comp file reads :

```
<<< GAA  1247
   C6G 075 c7n 032 c3n cwn 032 csn 000 *** .

<<< eka  661                    <<< ekb  724
   C5A 036 c6b 005 c5q .           c5v 015 c6c .
   f5q .                           F5A 044 f6c 015 f5v .
   i5q 004 i6b .                   i5v .
   l5q .                           l5v .
   o5q 004 o6b .                   o5v 015 o6c .
   r5q .                           r5v 015 r6c 000 *** .
   u5q 004 u6b 000 *** .

<<< ekc  677                    <<< ekd  716
   c5z 010 c6d 000 *a* .           c5x 010 c6e 000 *a* .
   f5z 010 f6d .                   f5x .
   I5A 047 i6d 010 i5z .           i5x .
   l5z 010 l6d .                   L5A 050 l6e 016 l5x .
                                   o5x .
                                   r5x 010 r6e .
                                   u5x 010 u6e .
```

1) The first step is to find the longest input into C6 chip .

   a) <<< eka 360 + 36 + 36 + 36 = 468 .
   b) <<< ekb 360 + 36 + 44 + 36 + 15 + 10 + (15 * 2) + 36 = 567 .
   c) <<< ekc C6 chip is last chip hit so path is 677 .
   d) <<< ekd C6 chip is last chip hit so path is 716 .

2) Now find path time from C6 chip .

   a) Bias from longest input is 716 .
   b) Package bias (H chip) is 180 . 716 + 180 = 896 .
   c) C6G pin bias is 36 grids . 896 + 36 = 932 .
   d) Foil between C6G and c7n is 75 grids . 932 + 75 = 1007 .
   e) c7n pin bias is 36 grids . 1007 + 36 = 1043 .
   f) Foil between c7n and c3n is 32 grids . 1043 + 32 = 1075 .
   g) c3n pin bias is 36 grids . 1075 + 36 = 1111 .
   h) Foil between c3n and cwn is 32 grids . 1111 + 32 = 1143 .
   i) cwn pin bias is 36 grids . 1143 + 36 = 1179 .
   j) Foil between cwn and csn is 32 grids . 1179 + 32 = 1211 .
   k) csn pin bias is 36 grids . 1211 = 36 = 1247 . 1247 / 360 = 3.46 ns.