

Original SiftDown

Procedure SiftDown(N)

pre Heap(2, N) and $N > 0$

post Heap(1, N)

I := 1

loop

 /*Inv: Heap(1, N) except perhaps between I
 and its (0, 1, or 2) children */

 C := 2*I

 if C > N then break

 /* C is the left child of I */

 if C + 1 ≤ N then

 /* C + 1 is the right child of I */

 if X[C+1] < X[C] then

 C := C + 1

 /* C is the least child of I */

 if X[I] ≤ X[C] then break

 Swap(X[C], X[I])

 I := C

endloop

Modified SiftDown