

LCS vs. Edit distance. LCS (on the left side below) is using the same code as edit distance, with substitution cost set to a large value (i.e., greater than the sum of insertion and deletion costs). Edit distance (on the right side below) has insertion, deletion and substitution costs all equal to 1.

Length of LCS = 4

		h	b	c	d	e	g
_	0	1	2	3	4	5	6
a	1	2	3	4	5	6	7
b	2	3	2	3	4	5	6
c	3	4	3	2	3	4	5
e	4	5	4	3	4	3	4
f	5	6	5	4	5	4	5
g	6	7	6	5	6	5	4

bceg

DIMMIMDM

Min edits/changes = 3

		h	b	c	d	e	g
_	0	1	2	3	4	5	6
a	1	1	2	3	4	5	6
b	2	2	1	2	3	4	5
c	3	3	2	1	2	3	4
e	4	4	3	2	2	2	3
f	5	5	4	3	3	3	3
g	6	6	5	4	4	4	3

SMMSSM

What happens when following changes are made to initialization of Edit distance? (Insertion, deletion and substitution costs are all equal to 1)

Min number of edits/changes = 1

	_ I t s _ n e a r _ f i m i s h _ l i n e																			
_	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
f	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
i	2	2	2	2	2	2	2	2	2	2	1	0	1	1	2	2	2	2	1	2
n	3	3	3	3	3	2	3	3	3	3	2	1	1	2	2	3	3	3	2	1
i	4	4	4	4	4	3	3	4	4	4	3	2	2	1	2	3	4	4	3	2
s	5	5	5	4	5	4	4	4	5	5	4	3	3	2	1	2	3	4	4	3
h	6	6	6	5	5	5	5	5	5	6	5	4	4	3	2	1	2	3	4	4