Paging: The solution to fragmentation – maybe.

1. Pages
2. Page table
3. Page frame
4. Address format

Suppose we have created a decimal computer with page size 100. Our process has 6 pages, and is allocated 6 page frames. The page table is shown below. Translate the list of virtual addresses given below. If an address is illegal, write "error" for the virtual address.

Page Table

0	21
1	75
2	3
3	12
4	1
5	19

Real	Virtual
10	
150	
327	
455	
1024	
361	
599	
222	
12	
767	

Segment size 1000

Segment Table

0	2100
1	0075
2	0030
3	0120
4	1000
5	2000

Given the following 2-level hierarchical page tables, translate the following addresses. Addresses are four decimal digits, with the first digit representing the first index, the second digit representing the second index, and the last two digits representing the offset.

0	7192
1	7244
2	7396
3	7680
4	7728

0	21xx
1	33xx
2	47xx
3	53xx
4	66xx

0	00xx
1	01xx
2	13xx
3	17xx
4	14xx

0	62xx
1	55xx
2	44xx
3	37xx
4	81xx

0	09xx
1	10xx
2	32xx
3	15xx
4	18xx

0	08xx
1	55xx
2	02xx
3	07xx
4	96xx

Virtual	Real
2121	
3841	
4288	
8160	
2733	
9940	
0144	
1377	
2289	
3148	

Segmentation with paging

64-bit addresses