

7	4	2	18	1
	3	6	9	12
20	17	19	12	16
	2	5	8	11
14	10	13	6	3
	1	4	7	10
8	15	5	9	11

Input file (test.dat) :

Run in Matlab:

```
>> bandopt('test.dat','test.opt')
```

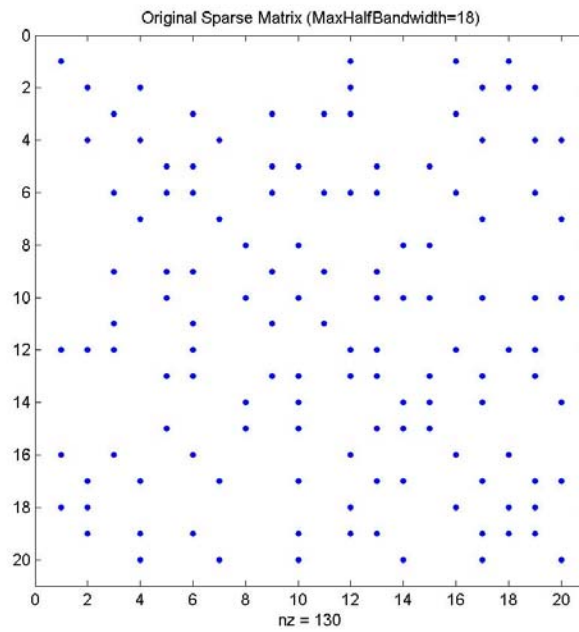


Fig 2. *Original Sparse Matrix Illustration*

Optimization results :

Renumbering rule of nodes:

Original	Optimized
1 ,	4
2 ,	14
3 ,	2
4 ,	18
5 ,	9
6 ,	6
7 ,	20
8 ,	11
9 ,	5
10 ,	15
11 ,	1
12 ,	7
13 ,	12
14 ,	16
15 ,	10
16 ,	3
17 ,	17
18 ,	8
19 ,	13
20 ,	19

Optimized maximum half bandwidth = 8

Optimized Sparse Matrix Illustration :

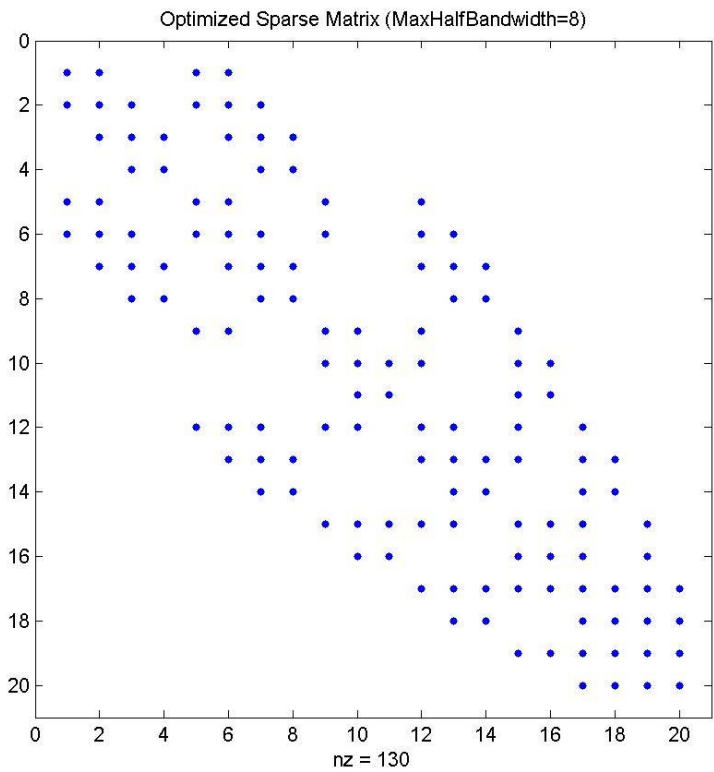


Fig 3. Optimized Sparse Matrix Illustration

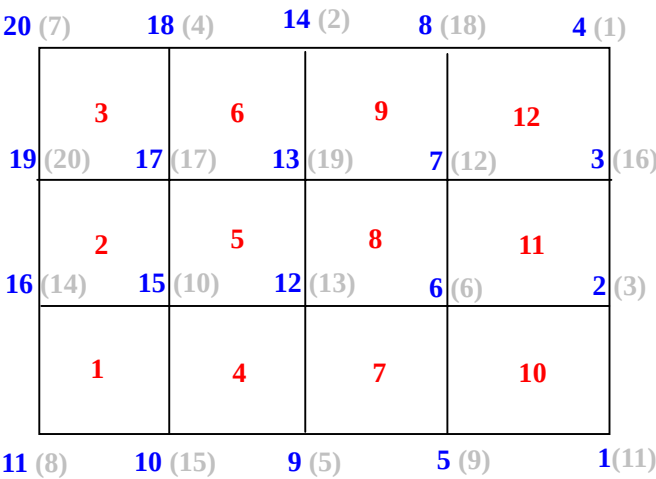


Fig 4. Optimized numbering rule of nodes (Maximum half bandwidth = 8)