GRAPHER

INTRODUCTION

- The application has a board with 25*40 squares.
- In this application; user can draw, load, save a graph, and calculate R, R2, R3, ... , Rn, R* and Rmin matrices.
- R matrix gives directly connected nodes (1 step away).
  R2 matrix gives exactly 2 steps away points.
- Rn matrix gives exactly n steps away points. R* matrix gives all connected points.
- Rmin matrix gives the minimum number of steps required for going point a to point b.

WELL DESIGNED CONSOLE INTERFACE

```
   R MATRIX              R*
   ABCDEFGHIJKLMNOP      ABCDEFGHIJKLMNOP
A  0010000100000000   A  1111111110000000
B  1000000000000000   B  1111111110000000
C  0101001000000000   C  1111111110000000
D  0000100010000000   D  0001110010000000
E  0000100000000000   E  0000100000000000
F  0001000000000000   F  0001110010000000
G  0000000100000000   G  1111111110000000
H  0100000000000000   H  1111111110000000
I  0000010000000000   I  0001110010000000
J  0000000000000000   J  0000000000000000
K  0000000000000000   K  0000000000000000
L  0000000000000000   L  0000000000000000
M  0000000000000000   M  0000000000000000
N  0000000000000000   N  0000000000000000
O  0000000000000000   O  0000000000000000
P  0000000000000000   P  0000000000000000

 MENU                              QUERY FOR MIN STEPS
 '0' => Show R Min Matrix          From: E  To: E
 '1' => Show R and R * Matrix      1
 '2-9' => Show Rn Matrix
 'Q' => Query For Min Steps
 'C' => Change The Graph
```

RECURSIVE MATRIX MULTIPLICATION

2018510016 SADULLAH CİHAN
2018510023 ÖZCAN ELMACI
2018510013 M.FATİH BİRDİR

DEUCENG
Dokuz Eylül University
Dept of Computer Engineering