

ALGORITMA DAN PEMOGRAMAN

FUNGSI



By:

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KEGIATAN 1.

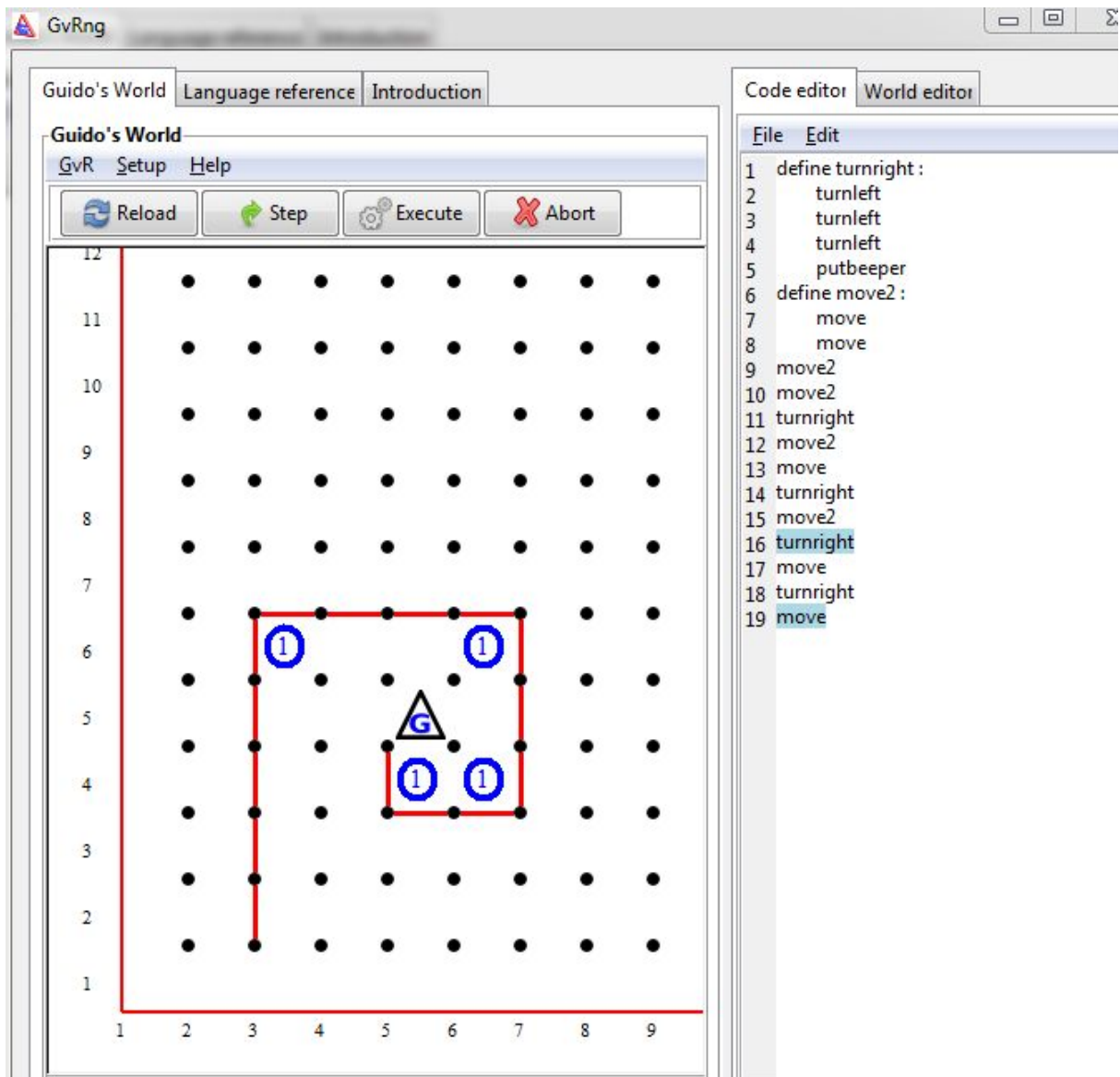
Berikut adalah program (tidak oleh lebihdari 20 baris) yang saya buat :

The screenshot shows the GvRng software interface. The main window displays a 18x13 grid with a red path starting from the bottom-left corner (row 1, column 1) and ending at the top-left corner (row 13, column 1). The path is a large rectangle with a smaller rectangle inside it. A blue triangle with a 'G' inside is located at the center of the grid (row 5, column 5). The interface includes a menu bar with 'GvR', 'Setup', and 'Help'. Below the menu bar are buttons for 'Reload', 'Step', 'Execute', and 'Abort'. On the right side, there is a 'Code editor' tab with a list of commands:

```
1  define turnright :
2      turnleft
3      turnleft
4      turnleft
5  move
6  move
7  move
8  move
9  turnright
10 move
11 move
12 move
13 turnright
14 move
15 move
16 turnright
17 move
18 turnright
19 move
20 turnoff
```

KEGIATAN 2

Berikut adalah program (tidak boleh lebih dari 19 baris) yang saya buat :

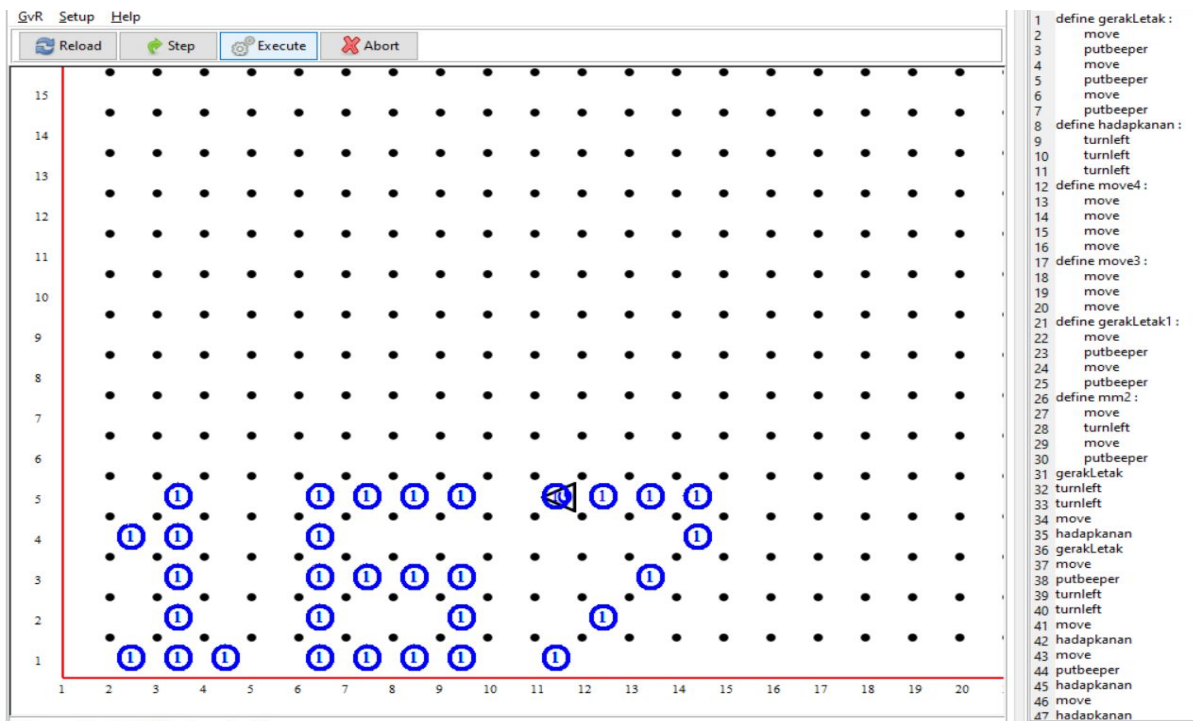


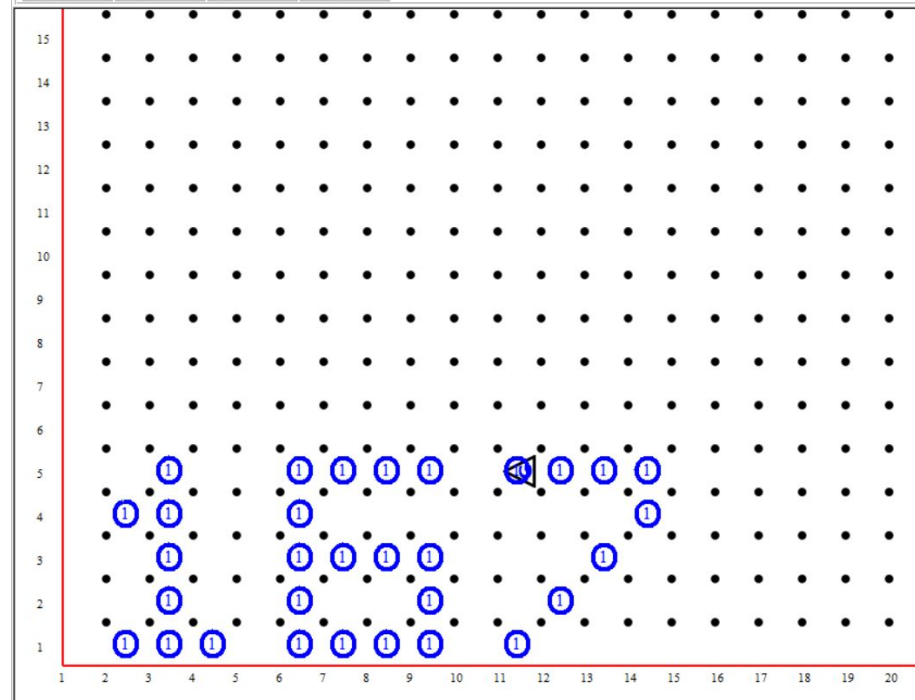
KEGIATAN 3

Jumlah Beeper pada program saya : 31 beeper

Jumlah baris intruksi pada program sesuaitemplate : 86 baris

Berikut adalah *Screen shoot* dari window GvRng setelah program dijalankan :





```

41 move
42 hadapkanan
43 move
44 putbeeper
45 hadapkanan
46 move
47 hadapkanan
48 move4
49 putbeeper
50 gerakLetak
51 turnleft
52 turnleft
53 move3
54 turnleft
55 gerakLetak
56 move
57 putbeeper
58 turnleft
59 turnleft
60 move
61 move
62 hadapkanan
63 gerakLetak
64 hadapkanan
65 gerakLetak1
66 hadapkanan
67 gerakLetak1
68 turnleft
69 turnleft
70 move4
71 putbeeper
72 mm2
73 move
74 hadapkanan
75 move
76 putbeeper
77 move
78 turnleft
79 move
80 putbeeper
81 move
82 putbeeper
83 turnleft
84 gerakLetak
85 putbeeper
86 turnoff
    
```

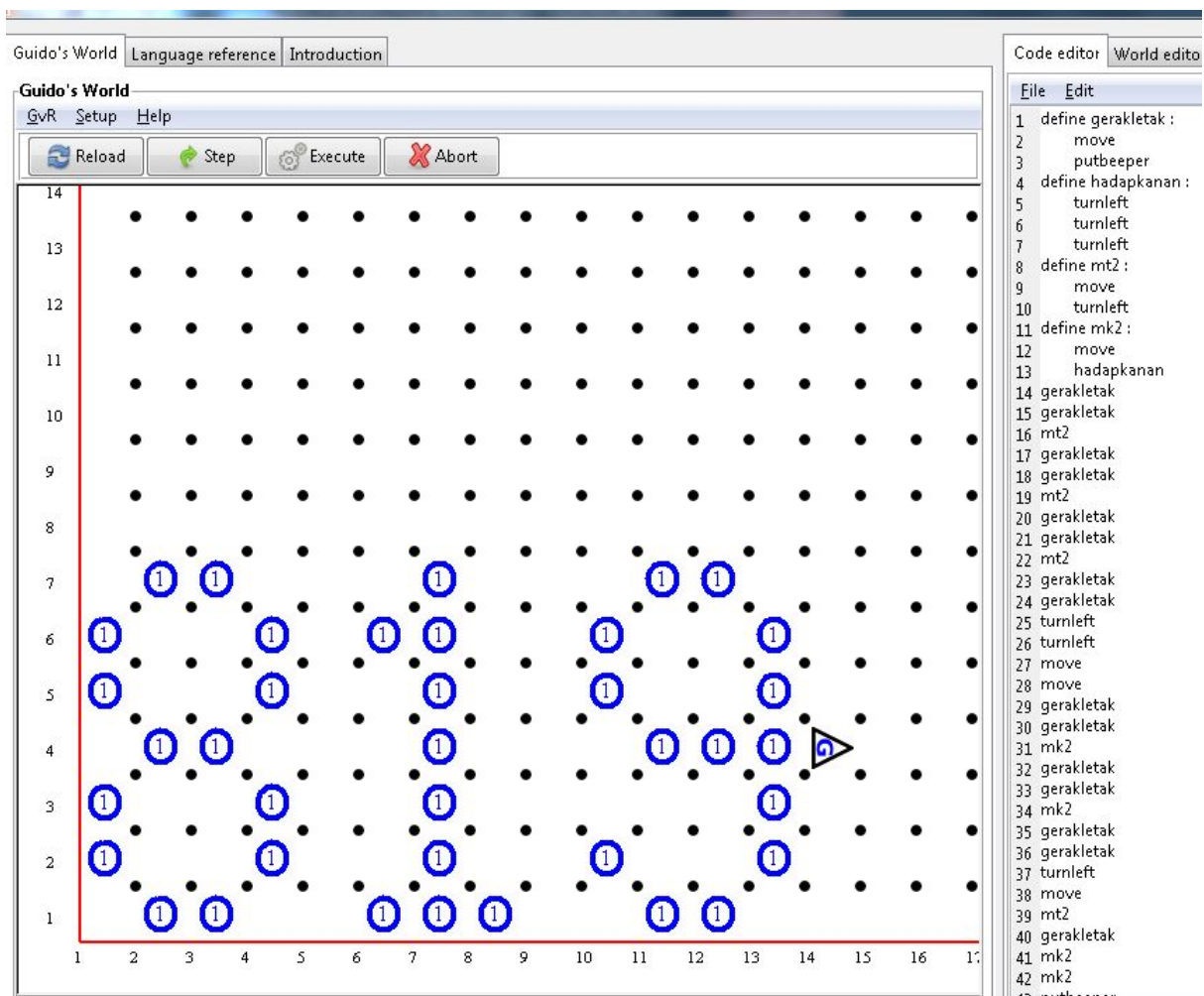
KEGIATAN 4

Jumlah baris intruksi pada program sesuai *template*: 137

Jumlah baris intruksi menggunakan fungsi *hadapkan*: 80

Jumlah baris intruksi setelah menggunakan fungsi *gerakLetak*: 80

Berikut adalah Screen shoot dari window GvRng setelah program dijalankan :



KEGIATAN 5

Jumlah baris instruksi pada program saya : 18 baris

Berikut adalah program (maksimal 20 baris) yang saya buat

The screenshot displays the Guido's World environment. The main window shows a 15x15 grid of black dots. A red square path is drawn on the grid, starting from a blue triangle at the bottom-left corner (row 1, column 3) and ending at the top-right corner (row 6, column 8). The path is composed of red lines connecting the dots. Four blue circles with the number '1' are placed at the corners of the square: (6, 3), (6, 8), (1, 3), and (1, 8). The top of the window has a menu bar with 'GvR', 'Setup', and 'Help'. Below the menu bar are four buttons: 'Reload', 'Step', 'Execute', and 'Abort'. The right side of the window has a 'Code editor' tab with a list of 18 instructions:

```
1 define m3p :  
2   move  
3   move  
4   move  
5   move  
6   putbeeper  
7   turnleft  
8   turnleft  
9   turnleft  
10  move  
11  m3p  
12  m3p  
13  m3p  
14  m3p  
15  turnleft  
16  turnleft  
17  move  
18  turnoff
```


KEGIATAN 6

Jumlah baris intruksi pada program saya : 33 baris

Berikut adalah program yang saya buat :

The screenshot shows the Guido's World environment. The main window displays a 17x14 grid with a red path starting from a green triangle at (2, 4) and ending at (12, 4). The path consists of horizontal segments at y=2, y=3, y=4, y=5, and y=6, with vertical segments connecting them. There are blue circles with the number '1' at (4, 2), (4, 5), (7, 2), (7, 5), (10, 2), (10, 5), and (10, 6). The code editor on the right shows the following code:

```
1  define u :  
2      move  
3      turnleft  
4      move  
5      putbeeper  
6      turnleft  
7      turnleft  
8      move  
9      turnleft  
10 define turnright  
11     turnleft  
12     turnleft  
13     turnleft  
14 define m :  
15     u  
16     move  
17     move  
18     u  
19     move  
20     move  
21     u  
22 define s :  
23     move  
24     turnright  
25     move  
26     turnright  
27 move  
28 m  
29 s  
30 m  
31 move  
32 s
```

