Draw Forestogram in with rgl package

June 17, 2014

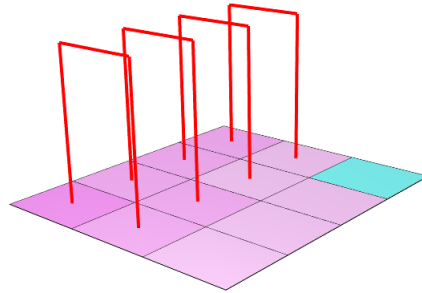**Abstract**

The abstract text goes here.

1 Introduction

$$Merge = \begin{pmatrix} -1 & -2 \\ -1 & -2 \\ 1 & -3 \\ 2 & -4 \\ 1 & -3 \end{pmatrix} Height = \begin{pmatrix} 1 \\ 1.3 \\ 4 \\ 7 \\ 10 \end{pmatrix} Rowcol = \begin{pmatrix} r \\ c \\ c \\ c \\ r \end{pmatrix}$$
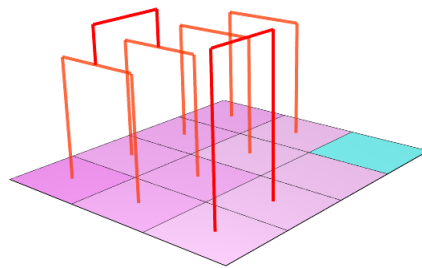
2 Step by step construction

2.1 Step 1

$$Merge = \begin{pmatrix} -1 & -2 \end{pmatrix} Height = \begin{pmatrix} 1 \end{pmatrix} Rowcol = \begin{pmatrix} r \end{pmatrix}$$
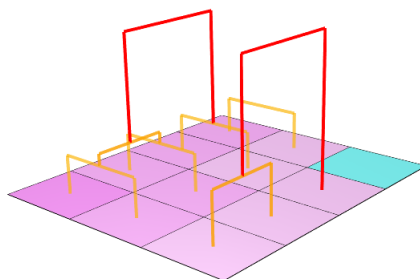
2.2 Step 2

$$Merge = \begin{pmatrix} -1 & -2 \end{pmatrix} Height = \begin{pmatrix} 1.3 \end{pmatrix} Rowcol = \begin{pmatrix} c \end{pmatrix}$$
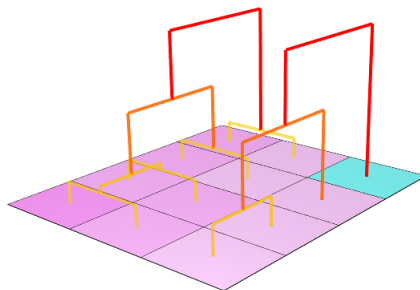
2.3   Step 3

$$Merge = \begin{pmatrix} 1 & -3 \end{pmatrix} Height = \begin{pmatrix} 4 \end{pmatrix} Rowcol = \begin{pmatrix} c \end{pmatrix}$$
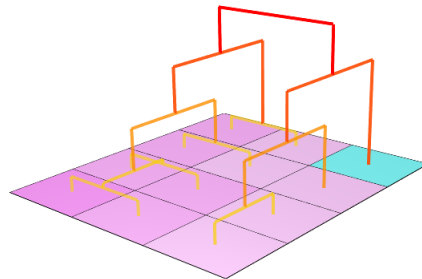

2.4   Step 4

$$Merge = \begin{pmatrix} 2 & -4 \end{pmatrix} Height = \begin{pmatrix} 7 \end{pmatrix} Rowcol = \begin{pmatrix} c \end{pmatrix}$$

2.5   Step 5

$$Merge = \begin{pmatrix} 1 & -3 \end{pmatrix} \, Height = \begin{pmatrix} 10 \end{pmatrix} \, Rowcol = \begin{pmatrix} r \end{pmatrix}$$

3   Implementation in R

```
1  library(rgl)
2  source('Function.R')
3
4  # Matrix size.
5  size = c(3, 4)
6
7  # Example tree drawing.
8  values = c(-1, -2, -1, -2, 1, -3, 2, -4, 1, -3)
9  merges = MergeMatrix(size, values)
10 heights = c(1, 1.3, 4, 7, 10)
11 rowcols = c(0, 1, 1, 1, 0)
12
13 # Plot forestogramme.
14 Forestogramme(size, merges, heights, rowcols)
```

4   Render forestogramme with rgl package

5   Conclusion

Write your conclusion here.