# Adjusting the node size in igraph using a matrix

I have the following network diagram:

```
set.seed(1410)
df<-data.frame(
"site.x"=c(rep("a",4),rep("b",4),rep("c",4),rep("d",4)),
"site.y"=c(rep(c("e","f","g","h"),4)),
"bond.strength"=sample(1:100,16, replace=TRUE))

library(igraph)
df<-graph.data.frame(df)
V(df)$names <- c("a","b","c","d","e","f","g","h")
layOUT<-data.frame(x=c(rep(1,4),rep(2,4)),y=c(4:1,4:1))
E(df)[ bond.strength < 101 ]$color <- "red"
E(df)[ bond.strength < 67 ]$color <- "yellow"
E(df)[ bond.strength < 34 ]$color <- "green"
V(df)$color <- "white"
l<-as.matrix(layOUT)
plot(df,layout=l,vertex.size=10,vertex.label=V(df)$names,
edge.arrow.size=0.01,vertex.label.color = "black")
```
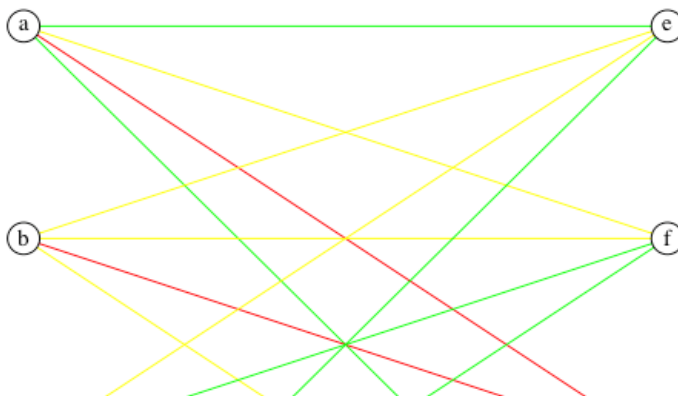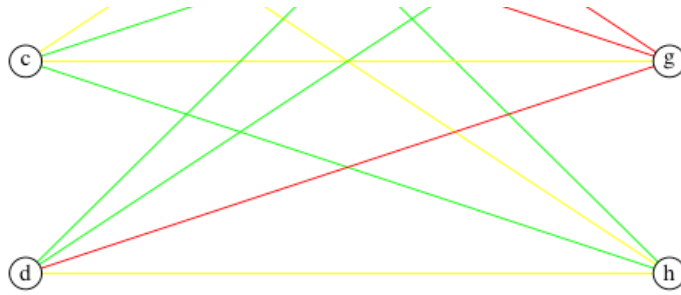
and would like to adjust the size of the nodes using a matrix such as this:

```
m<-matrix(data=c(25,0,15,0,35,0,5,0,0,10,0,5,0,19,0,44), nrow=2, ncol=8)
colnames(m)<-c("a","b","c","d","e","f","g","h")
row.names(m)<-c("site.x","site.y")

        a  b  c  d  e  f  g  h
site.x 25 15 35  5  0  0  0  0
site.y  0  0  0  0 10  5 19 44
```

Any sugestions how I go about this?

r | nodes | igraph

asked Aug 21 '12 at 15:46

Elizabeth
1,089 1 11 39

add a comment

1 Answer

You could use

```
node.size<-setNames(c(25, 15, 35, 5, 10, 5, 19, 44),c("a", "b","c", "d", "e", "f", "g
plot(df,layout=l,vertex.label=V(df)$names,
edge.arrow.size=0.01,vertex.label.color = "black",vertex.size=node.size)
```

so basically a named vector.

```
plot(df,layout=l,vertex.label=V(df)$names,
edge.arrow.size=0.01,vertex.label.color = "black",vertex.size=as.matrix(node.size) )
```

would also work
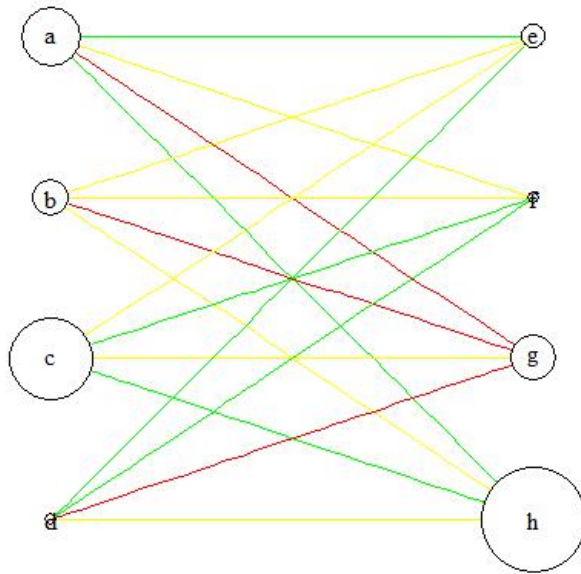
UPDATE:

If you need to use your `m` matrix

```
plot(df,layout=l,vertex.label=V(df)$names,
edge.arrow.size=0.01,vertex.label.color = "black",vertex.size=m[m!=0])
```

edited Aug 22 '12 at 10:48   answered Aug 21 '12 at 16:15

                                                        shhhhimhuntingrabbits
                                                        4,900   1   5   14

So in using a matrix or data.frame to create the named vector is it necessary to use the setNames function?
Could you give an example of how I would use the matrix m in my example to create the named vector and
how this should be inserted in to "vertex.size=". Thanks so much. –   Elizabeth   Aug 22 '12 at 10:39

Thanks a million! –   Elizabeth   Aug 22 '12 at 11:14

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