How To use clusterGraph

November 25, 2003

Introduction

A *clusterGraph* is a graph defined on a set of nodes that have been clustered or grouped in some fashion. The grouping must form a partition of the nodes. In this graph all nodes within the same cluster are adjacent while there are no edges between clusters.

Thus, each cluster is a complete graph but there are no between cluster edges.

```
> library(methods)
> library(graph)
> library(cluster)
> data(ruspini)
> pm <- pam(ruspini, 4)
> cG <- new("clusterGraph", clusters = split(names(pm$clustering),
+     pm$clustering))
> nodes(cG)

 [1] "1"  "2"  "3"  "4"  "5"  "6"  "7"  "8"  "9"  "10" "11" "12" "13" "14" "15"
[16] "16" "17" "18" "19" "20" "21" "22" "23" "24" "25" "26" "27" "28" "29" "30"
[31] "31" "32" "33" "34" "35" "36" "37" "38" "39" "40" "41" "42" "43" "44" "45"
[46] "46" "47" "48" "49" "50" "51" "52" "53" "54" "55" "56" "57" "58" "59" "60"
[61] "61" "62" "63" "64" "65" "66" "67" "68" "69" "70" "71" "72" "73" "74" "75"
```

We now have a graph that we could perform various operations on.