Computing A Minimal Spanning Tree

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Given a set of nodes and a metric defining the distances between the nodes, people often want to find a minimal spanning tree for these nodes. MLAB has a built-in function, MST, to construct such a tree. Given a distance matrix D for a set of points given in the rows of a 2-column matrix M, MST(D) generates a 3-column output matrix defining the edges and edge-length of a minimal spanning tree of the points in M. Here is an example of MLAB computing a minimal spanning tree.

```
m = shape(140,2, ran on 0^^280)
d = dists(m)
e = mst(d)

v = mesh(m row (e col 1), m row (e col 2))

draw m pt circle ptsize .01 lt none
draw v lt alternate color red
top title = "A Minimal Spanning Tree"
view
```