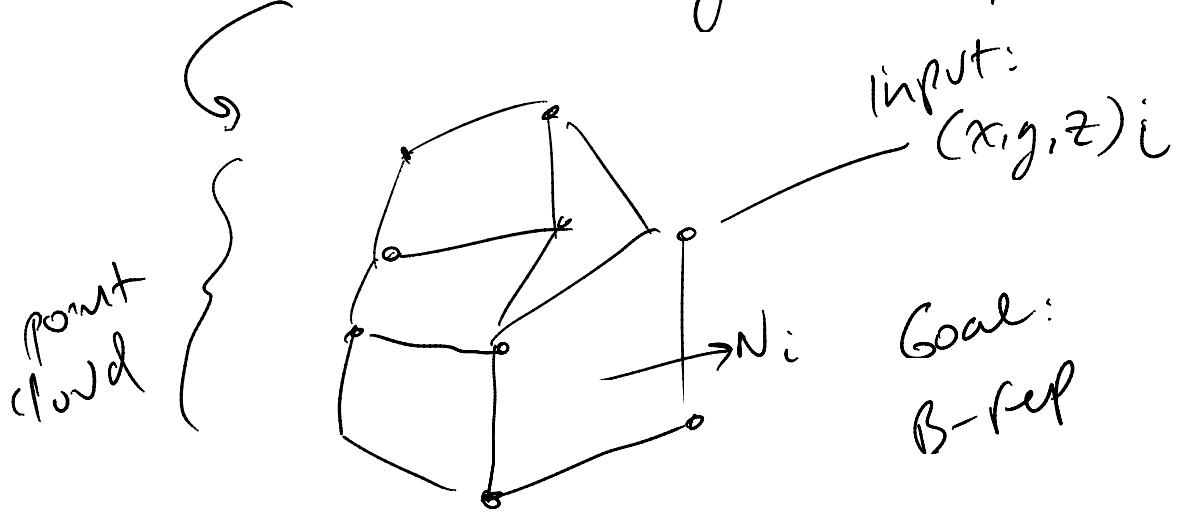


Overview

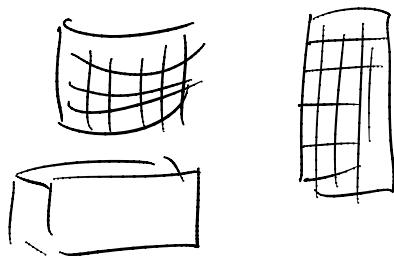
Tuesday, August 08, 2006
12:15 PM

- 2 objectives :
 - Data structures & Analysis
 - Solution to surf. recon. prob.



Tuesday, August 08, 2006
12:15 PM

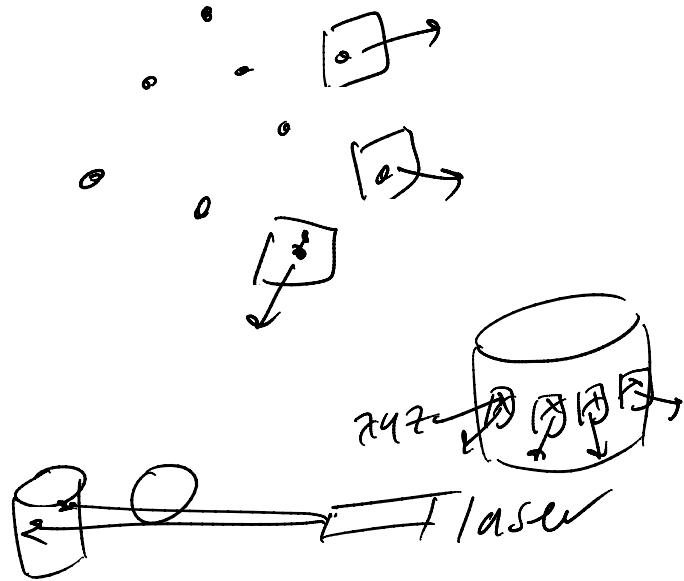
Input: List of points in 3D $(x, y, z)_c$
Output: List of triangles:
these "define" surface of
object \rightarrow e.g. mike.dat



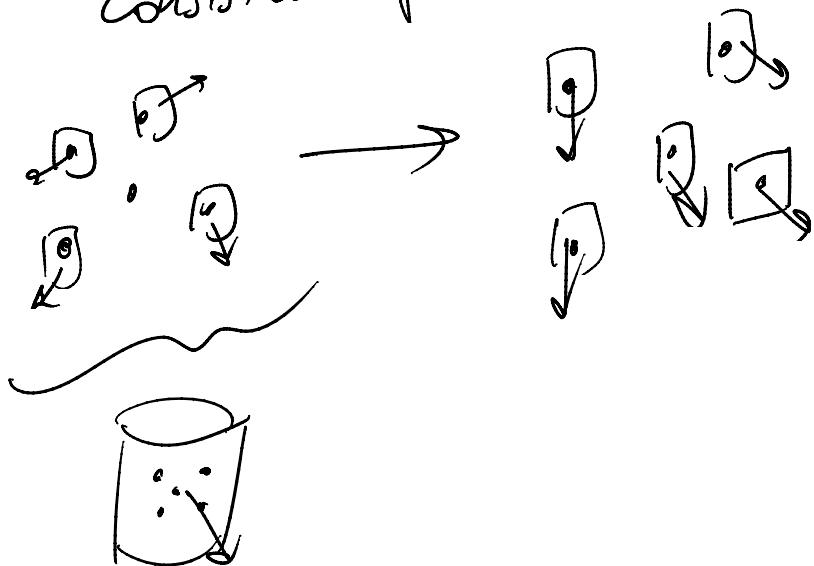
4 steps

1. Tangent plane estimation

origin
of point cloud
data



Phase 2:
consistent plane orientation



Phase 3

signed distance

ftn

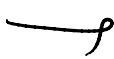
Phase 4

marching cubes

TO BE EXPLAINED LATER

Phase 3 /

1. Tangent Plane Orientation



a) kd-tree



b) principal components PCA



(matrix stuff, eigenvalues)

1. a) kd-tree } both depend
on sorting

b) PCA

want an
efficient sorting alg.

Data Structures

Alg. Analysis U

