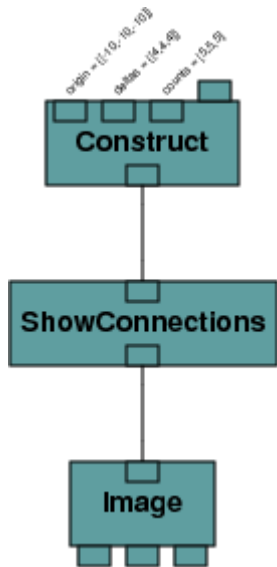
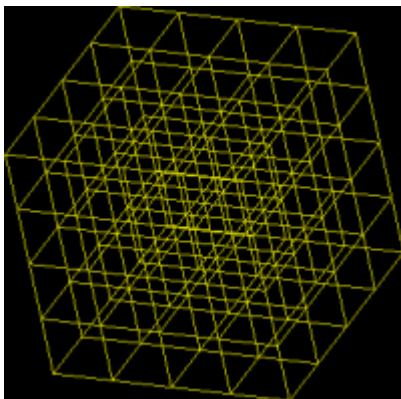


OpenDX mesh visualization intro

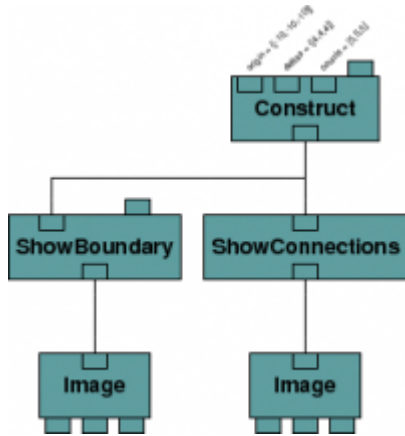
Step 1: Grid construction and edges visualization



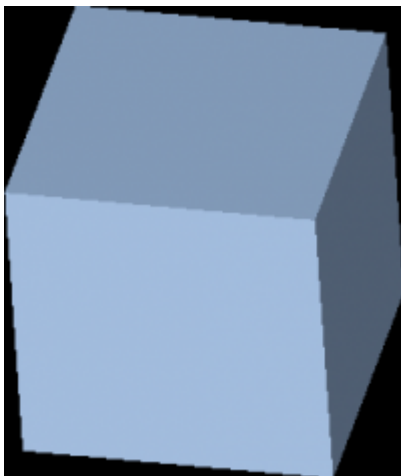
```
grid = Construct(origin=[-10,-10,-10],  
                 deltas=[4,4,4], counts=[5,5,5]);  
edges = ShowConnections(grid);  
camera = AutoCamera(edges, "off-diagonal");  
Display(edges, camera);  
KeyIn("Hit any key to exit");
```



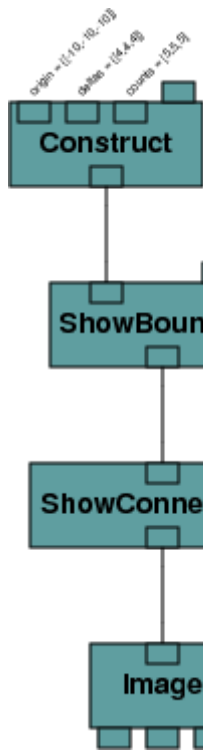
Step 2: Showing grid boundary



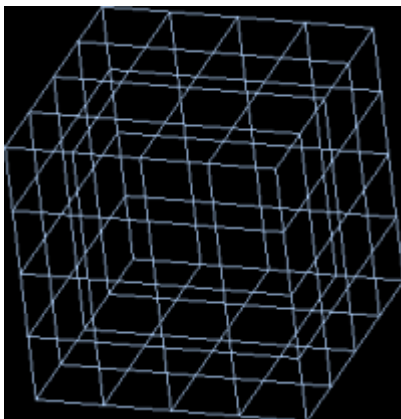
```
grid = Construct(origin=[-10,-10,-10],  
                 deltas=[4,4,4], counts=[5,5,5]);  
edges = ShowConnections(grid);  
boundary = ShowBoundary(grid);  
camera = AutoCamera(edges, "off-diagonal");  
Display(edges, camera);  
KeyIn("Hit any key to exit");  
Display(boundary, camera);  
KeyIn("Hit any key to exit");
```



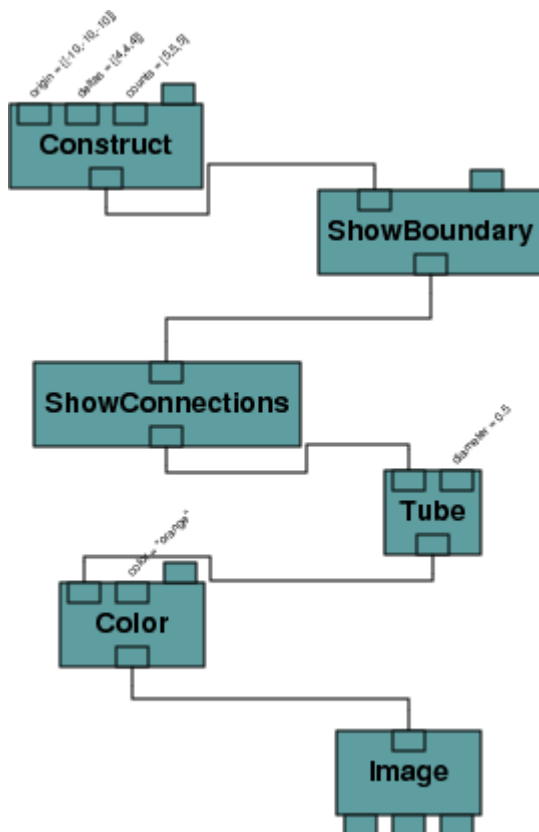
Step 3: Showing edges on boundary only



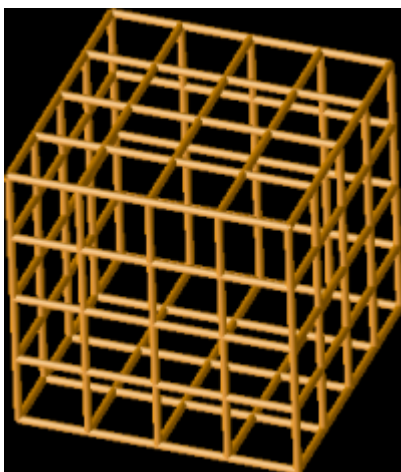
```
grid = Construct(origin=[-10,-10,-10],  
                 deltas=[4,4,4], counts=[5,5,5]);  
boundary = ShowBoundary(grid);  
edges = ShowConnections(boundary);  
camera = AutoCamera(edges, "off-diagonal");  
Display(edges, camera);  
KeyIn("Hit any key to exit");
```



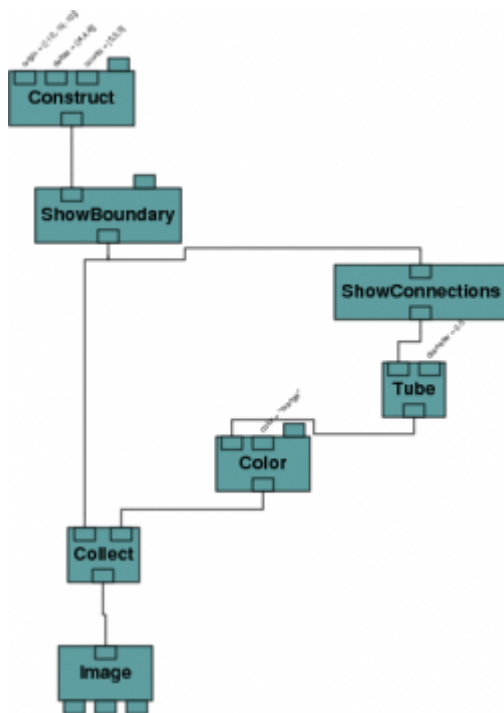
Step 4: Showing eds as tubes



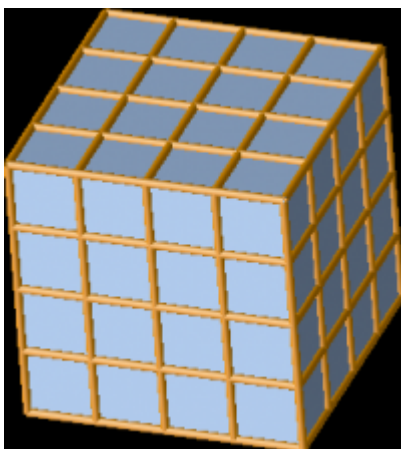
```
grid = Construct(origin=[-10,-10,-10],  
                deltas=[4,4,4], counts=[5,5,5]);  
boundary = ShowBoundary(grid);  
edges = ShowConnections(boundary);  
edges = Tube(edges, diameter=0.5);  
edges = Color(edges, "orange");  
camera = AutoCamera(edges, "off-diagonal");  
Display(edges, camera);  
KeyIn("Hit any key to exit");
```



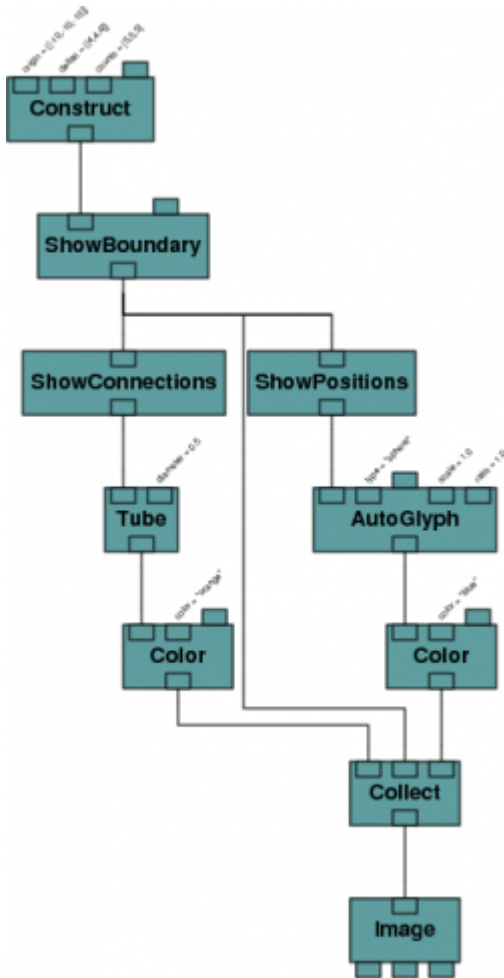
Step 5: Superimposing boundary and edges



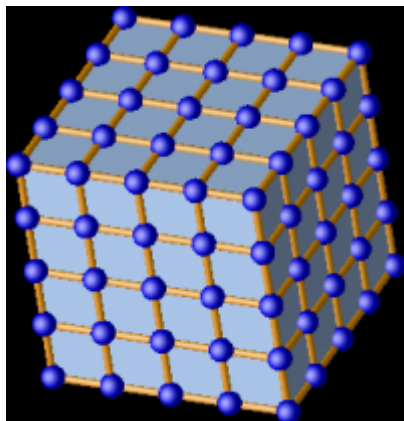
```
grid = Construct(origin=[-10,-10,-10],  
                 deltas=[4,4,4], counts=[5,5,5]);  
boundary = ShowBoundary(grid);  
edges = ShowConnections(boundary);  
edges = Tube(edges, diameter=0.5);  
edges = Color(edges, "orange");  
be = Collect(boundary, edges);  
camera = AutoCamera(edges, "off-diagonal");  
Display(be, camera);  
KeyIn("Hit any key to exit");
```



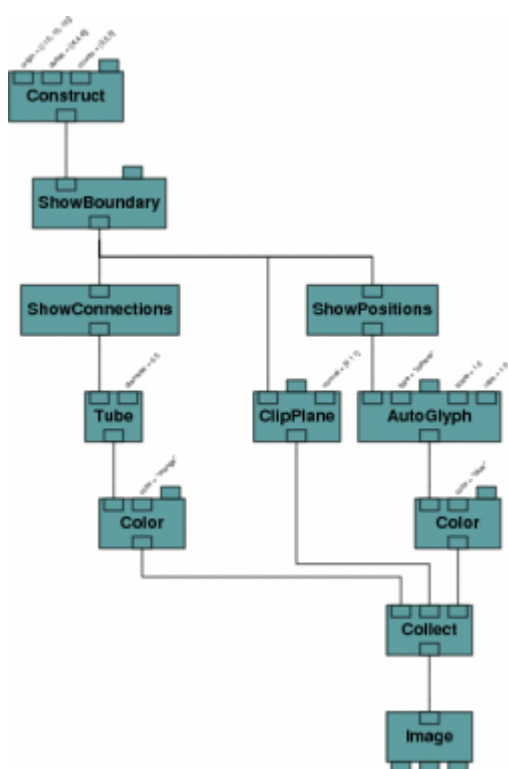
Step 6: Showing node glyphs



```
grid = Construct(origin=[-10,-10,-10],
                 deltas=[4,4,4], counts=[5,5,5]);
boundary = ShowBoundary(grid);
edges = ShowConnections(boundary);
edges = Tube(edges, diameter=0.5);
edges = Color(edges, "orange");
points = ShowPositions(boundary);
points = AutoGlyph(points, type="sphere",
                   scale=1.0, ratio=1.0);
points = Color(points, "blue");
be = Collect(boundary, edges, points);
camera = AutoCamera(points, "off-diagonal");
Display(be, camera);
KeyIn("Hit any key to exit");
```

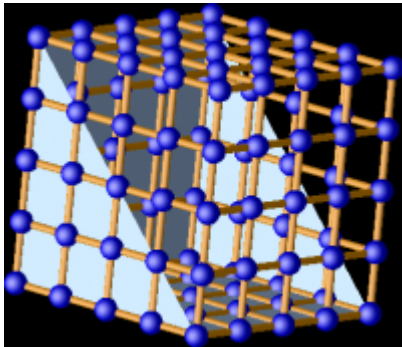


Step 7: Using cutting plane



```
grid = Construct(origin=[-10,-10,-10],
                 deltas=[4,4,4], counts=[5,5,5]);
boundary = ShowBoundary(grid);
edges = ShowConnections(boundary);
edges = Tube(edges, diameter=0.5);
edges = Color(edges, "orange");
points = ShowPositions(boundary);
points = AutoGlyph(points, type="sphere",
                   scale=1.0, ratio=1.0);
points = Color(points, "blue");
boundary = ClipPlane(boundary, normal=[0,1,1]);
be = Collect(boundary, edges, points);
camera = AutoCamera(points, "off-diagonal");
Display(be, camera);
```

```
KeyIn("Hit any key to exit");
```



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