

Depth-first traversal logic

dft – called to visit the entire graph in depth-first sequence, starting with the first. It calls dftInternal once for each vertex.

```
void dft (graph)
    set all vertices as unvisited
    position at first vertex in the graph
    while (more vertices in graph)
        if (vertex not visited)
            dftInternal (graph, vertex)
        endif
        position at next vertex
    end while
```

dftInternal – called for a specific vertex. It visits the vertex, marks it as visited, and goes through all its neighbors. When it finds a neighbor that is unvisited, it calls itself again, passing that neighbor as the vertex.

```
void dftInternal (graph, vertex)
    visit vertex
    mark vertex visited
    position at first neighbor (there might not be one)
    while (there are more neighbors for the vertex)
        if (the neighbor has not been visited)
            call dftInternal (graph, neighbor)
        endif
        position to next neighbor
    end while
```