```
depthfirst-dfsl  THM

⊢  For any graph
   ∀the_obj:GraphObject(the_graph).
   ∃L:V List.
   no_repeats(V;L)
   & (∀y:V. (y ∈ L))
   & depthfirst(the_obj) = dfsl(the_obj;L)
  by (RepeatFor 2 (Analyze 0)) THEN (Unfolds [‘depthfirst‘;‘dfsl‘] 0)
     THEN
     (Inst Thm: graphobj_DASH_properties [the_graph;the_obj])
     THEN
     (Analyze -1)
     THEN
     (Analyze -1)
     THEN
     (InstHyp [traversal(the_graph);nil;λs,i. dfs(the_obj;s;i)] -1)
     THEN
     (ReduceSOAps -1)
     THEN
     (NthHyp -1)
END
```