Gopher in a Tree Structures

The start of the gopher web is a singly linked list of Root structures (links go one way with the "next" variable, there is no way to follow the list backward.) "top" points to the first Root. Each Root contains a Branch structure. This is the first element in a doubly linked tree of Branches. "sub" points to the first branch in the next layer of the tree. "prev" points to the previous layer of the tree. "next" points to the next element at the current level of the tree. "link" contains links oustide the normal tree structure. It contains links between trees, etc ... In any single Branch, at least one of "sub" or "link" will be NULL. If both are NULL, this Branch is actually a leaf (a file, telnet session, etc...)