Legend

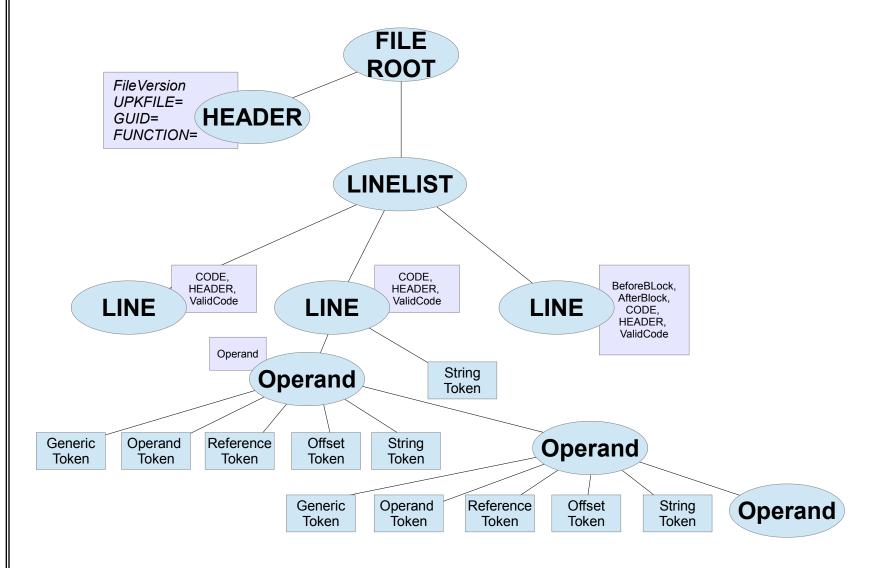
Node

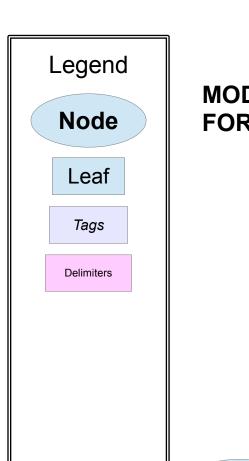
Leaf

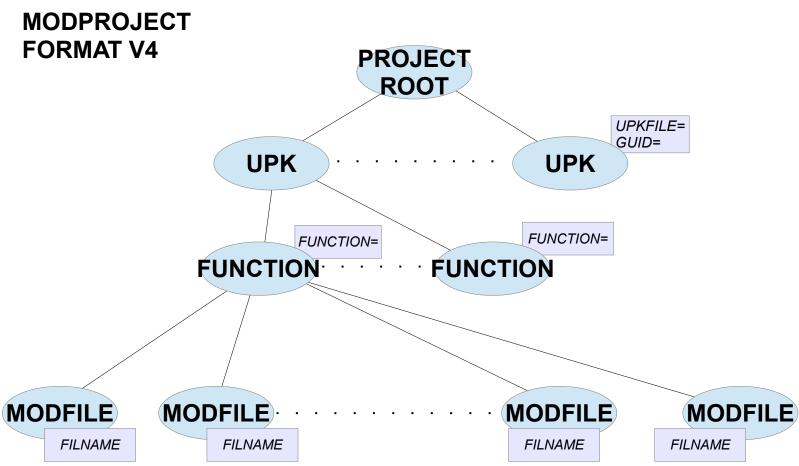
Tags

Delimiters

## **MODFILE FORMAT V4**







## **Project-level categories**

PACK	<b>AGE</b>
ROC	<b>)</b> T_

The root node of the package. Only one can exist. Has no owner.



UPK Node. Begins with UPKFILE=. Lasts until next UPKFILE= . Used to determine reference mappings and upks to apply/revert to.



Function Node. Begins with FUNCTION=. Lasts until next FUNCTION=. Used to determine function scope when apply/revert hex changes.



A single modfile I the modpackage

## File-level categories



The root node of the file. Only one per file. Has no owner.



Line Node. Scope from EOL to next EOL. Can represent a comment, ModFile delimiter, or line of unreal bytecode.



Operand Node. Determined by parsing unreal bytecode. Represents a single byte executable command.

## Tokens are leaves containing displayable data. They may contain meta-data.

Operand Token

Operand token. Always 1 bytecode. Represents an operand such as 0x00, 0x01, 0x1B, or 0x19.

Reference Token

Reference token. Always 4 bytes of bytecode. Represents a reference – an index into the objectlist, importlist, or namelist. Contains metadata indicating if it is a virtual function reference.

Offset Token Offset Token. Always 2 byte of bytecode. Represents an absolute or relative offset. Contains metadata indicating whether it is absolute or relative.

String Token String Token. Variable length. Can represent an unreal string (00 terminated) or a modfile comment (EOL terminated). Unreal strings have Operand parent nodes while modfile comments do not.

Generic Token Generic Token. Variable length. Can represent unreal data values (ints, floats, vectors) of fixed length or extra format-required tokens.