

Legend

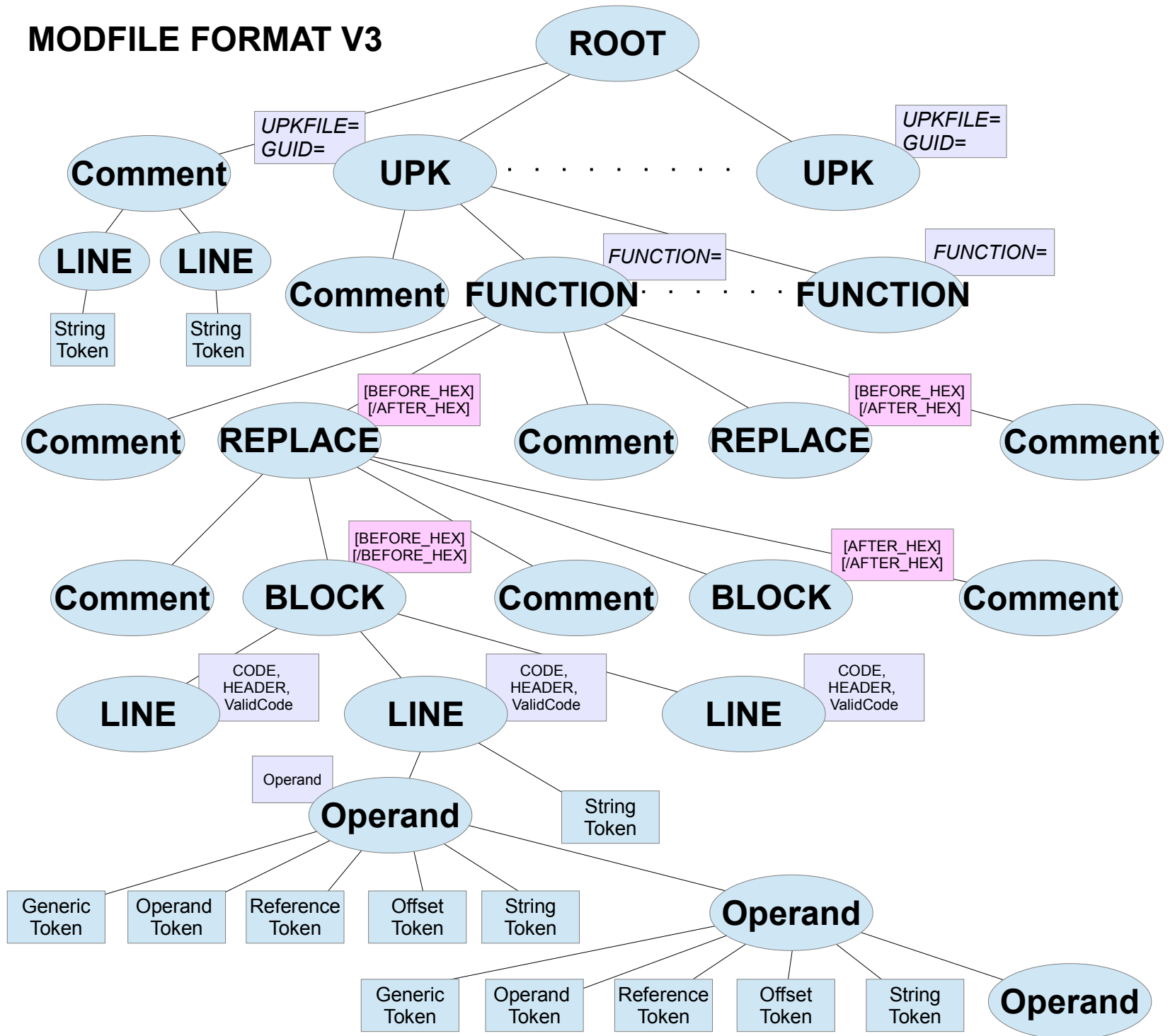
Node

Leaf

Tags

Delimiters

MODFILE FORMAT V3



Nodes do not contain displayable data. They are used for organization and may contain meta-data.

ROOT

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

UPK

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

FUNCTION

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

REPLACE

Replace Node. Begins with [BEFORE_HEX]. Lasts until next [/AFTER_HEX]. Defines scope of a single hex replacement.

BLOCK

Block Node. Begins with [BEFORE_HEX] or [AFTER_HEX]. Lasts until next [/BEFORE_HEX] or [/AFTER_HEX]. Defines scope of a block of hex. Can represent an entire function (for jump offset repair)

LINE

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

OPERAND

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

COMMENT

Comment Node. Special node that can only contain Line nodes containing string tokens.

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.