

INCLUDE\_DIRECTIVE

FILE\_NAME

STRING

STRING\_LITERAL

CHARACTER

QUOTE

ASCII

QUOTE

#include "textures.inc" global\_settings { ambient\_light rgb 1 } camera { sky < 0 , 0 , 1 >

GLOBAL\_SETTINGS

GLOBAL\_SETTING\_ITEMS

COLOR

COLOR\_BODY

COLOR\_VECTOR

3D\_VECTOR

[sky VECTOR]

VECTOR

VECTOR\_TERM

VECTOR\_EXPRESSION

VECTOR\_LITERAL

FLOAT

NUMERIC  
TERM

NUMERIC  
FACTOR

NUMERIC  
EXPRESSION

FLOAT\_LITERAL

DIGIT

FLOAT

NUMERIC  
TERM

NUMERIC  
FACTOR

NUMERIC  
EXPRESSION

FLOAT\_LITERAL

DIGIT

FLOAT

NUMERIC  
TERM

NUMERIC  
FACTOR

NUMERIC  
EXPRESSION

FLOAT\_LITERAL

DIGIT



[CAMERA\_MODIFIERS]

[look-at VECTOR]

[angle F.VERTICAL]

VECTOR\*

Float\*

look-at

< 0, 0, 0 >

angle

40

}

# ATMOSPHERIC-EFFECT

SKY\_SPHERE

PIGMENT

PIGMENT\_BODY

[PIGMENT\_IDENTIFIER]

sky\_sphere {

pigment {

Bright-Blue-Sky {

}

}

LIGHT:

LIGHT-SOURCE

[LIGHT-SOURCE-ITEMS]

COLOR

COLOR-BODY

COLOR-VECTOR

3D-VECTOR

VECTOR\*

[LIGHT-MODIFIERS]

[fade-distance FLOAT]

Float\*

light-source

{ < 7, 8, 9 >,

color rgb

< 1, 1, 1 >

fade-distance

20

A handwritten parse tree for the expression "fade-power 2 \*". The root node is "[fade-power FLOAT]". It has three children: "fade-power", "FLOAT\*", and a closing bracket "}". The "FLOAT\*" node has a single child, the number "2".

```

graph TD
    Root["[fade-power FLOAT]"] --- Node1["fade-power"]
    Root --- Node2["FLOAT*"]
    Root --- Node3["}"]
    Node2 --- Node4["2"]
  
```

Intersection

{ Cone

{

$\langle 0, 0, -2 \rangle$ ,

2,

$\langle 0, 0, 2 \rangle$ ,

0

FINITE-SOLID-OBJECT  
→ SOLID OBJECT  
CONE  
→ OBJECT-MODIFIER

V-BASE-CENTER

F-BASE-RADIUS

V-CAP-CENTER

F-CAP-RADIUS

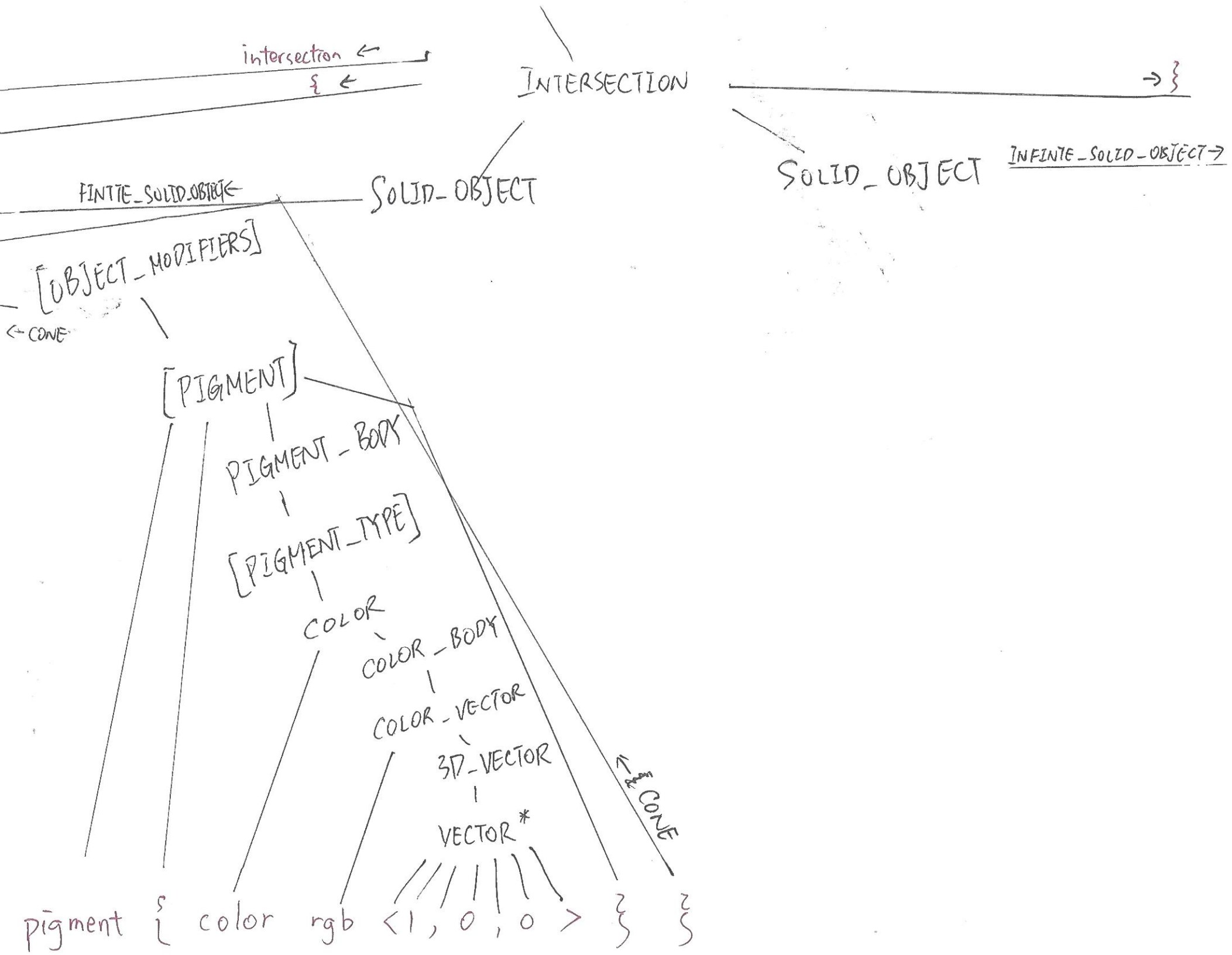
VECTOR\*

FLOAT\*

VECTOR\*

FLOAT\*





INFINITE - SOLID - OBJECT

← SOLID  
OBJECT

PLANE

[OBJECT-MODIFIERS]

[FINISH]

[FINISH-ITEMS]

[REFLECTION]

[ambient COLOR]

COLOR

COLOR-BODY

COLOR-IDENTIFIER

VECTOR\*

VECTOR\*

[diffuse

float]

float\*

float\*

COLOR

COLOR-BODY

COLOR-IDENTIFIER

VECTOR\*

VECTOR\*

plane { <1, 1.5, 2> , 0.7

finish { ambient 0 diffuse 0 reflection 1 }

SIGN:

+ | -

MULT:

\* | /

DIGIT:

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

VECTOR \*

VECTOR\_TERM [SIGN  
VECTOR\_TERM]

VECTOR\_EXPRESSION FLOAT \*

VECTOR\_LITERAL

< FLOAT\*, FLOAT\*, [FLOAT\*] >

FLOAT \*

NUMERIC\_TERM [SIGN  
NUMERIC\_TERM]

NUMERIC\_FACTOR

NUMERIC\_EXPRESSION

FLOAT\_LITERAL

[DIGIT][.] DIGIT...

← [OBJECT - MODIFIERS]

[TEXTURE]

TEXTURE\_IDENTIFIER

← PLANE  
INTERSECTION

texture

{

Aluminum

}

}

}