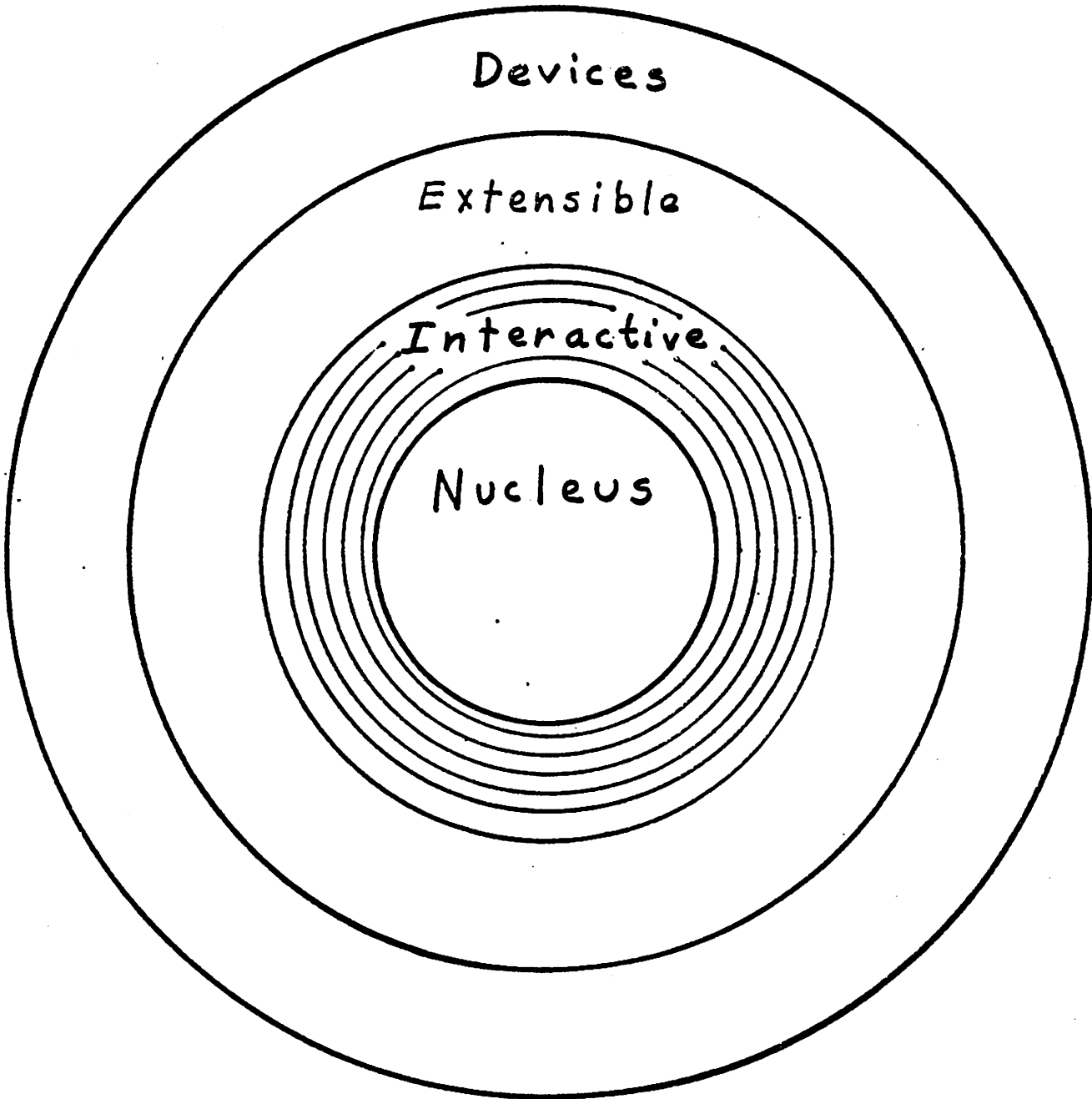


FORTH VOCABULARIES

Application
Layers

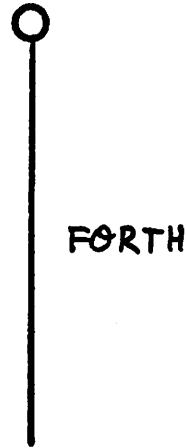
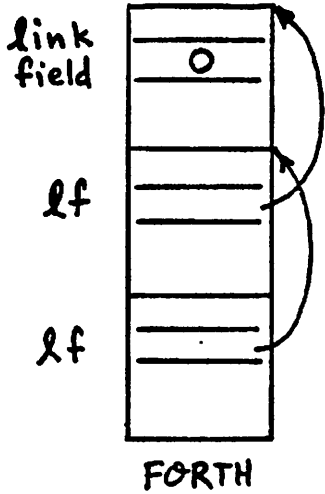


(about 5yr old)

VOCABULARIES

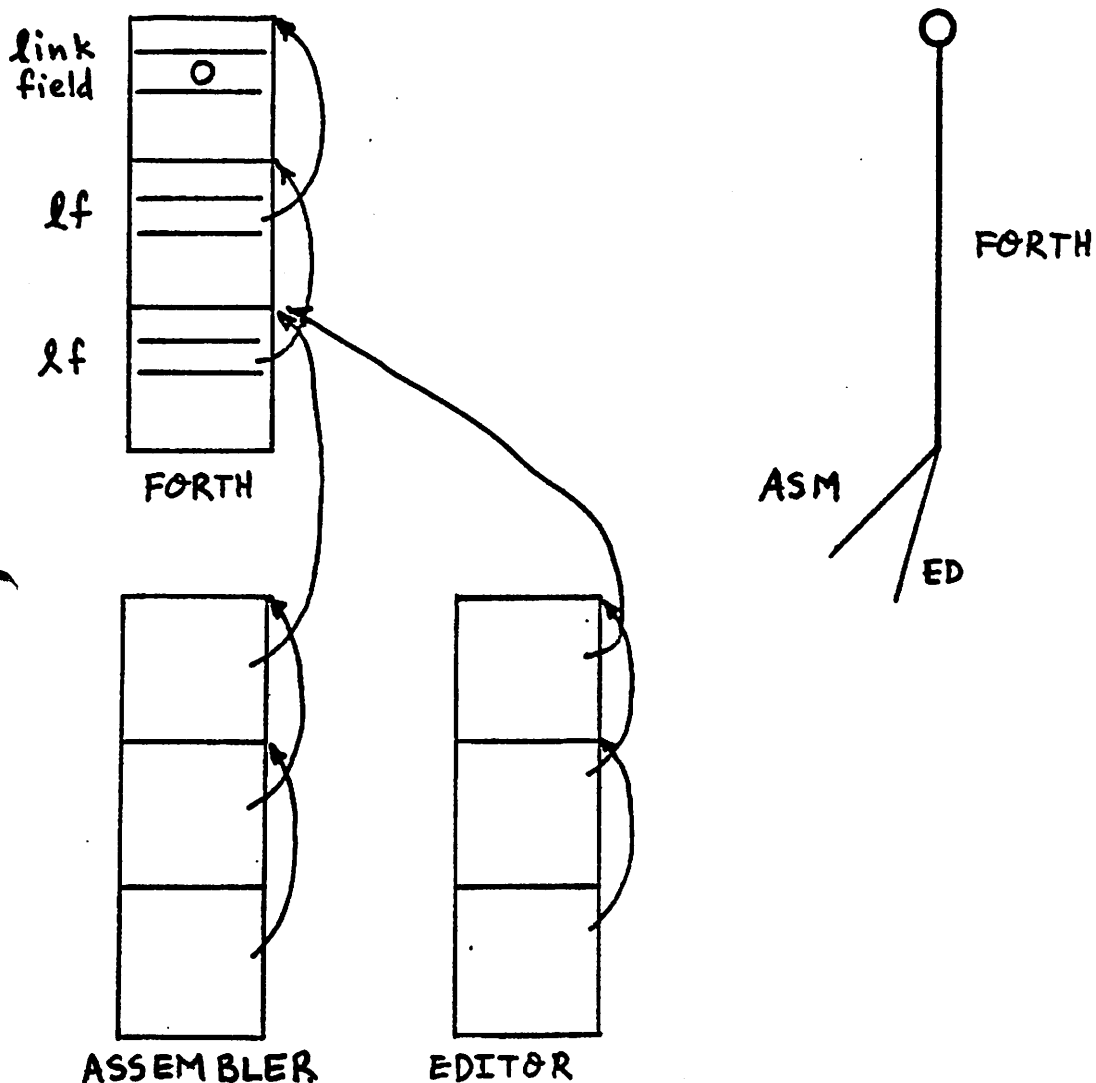
V.2
a
fig

give definition names scope by restricting dictionary searches to a subset of the dictionary. This subset may be a general tree structure.



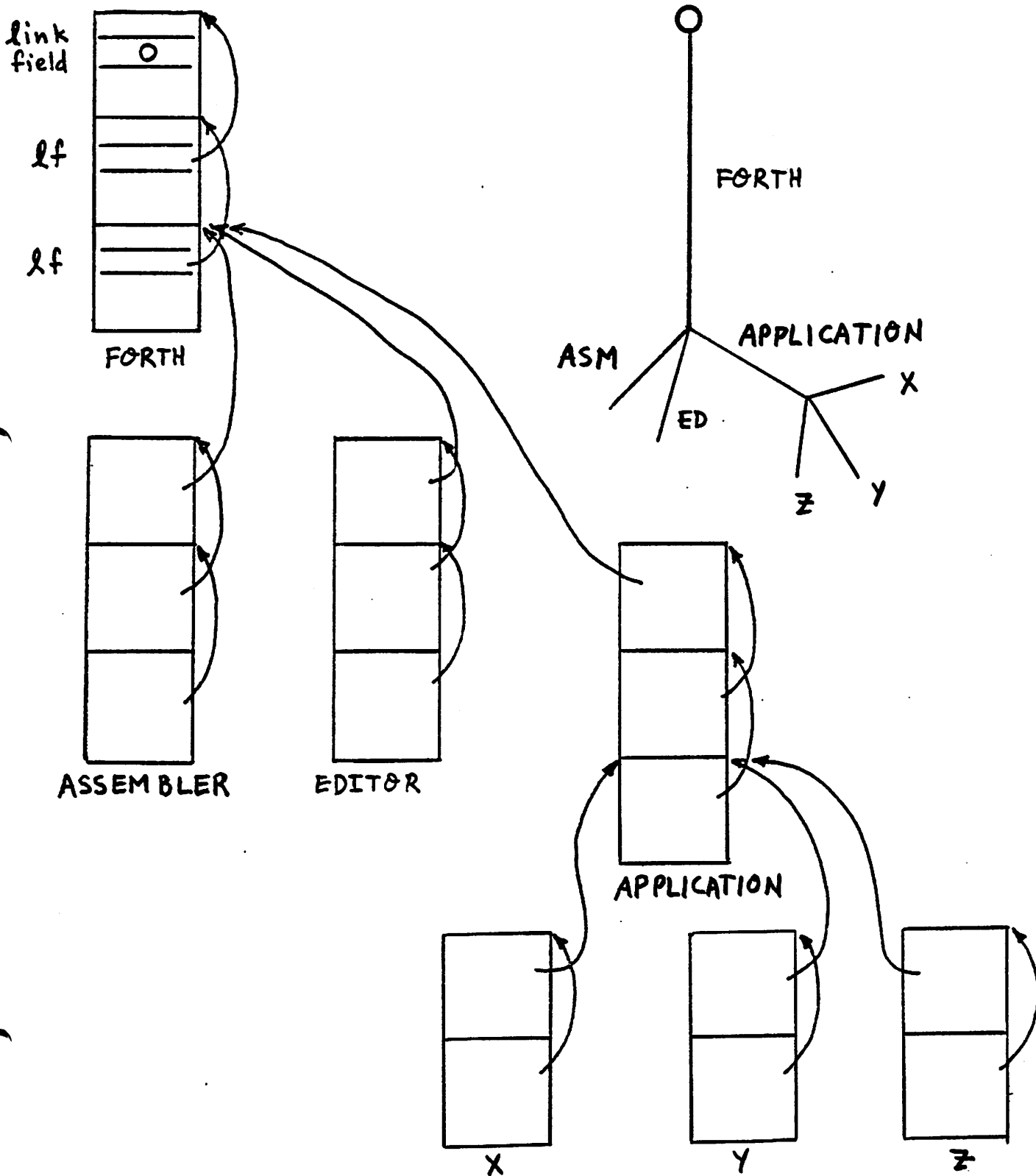
VOCABULARIES

give definition names scope by restricting dictionary searches to a subset of the dictionary. This subset may be a general tree structure.



VOCABULARIES

give definition names scope by restricting dictionary searches to a subset of the dictionary. This subset may be a general tree structure.



Implementation requirements:

The dictionary is one memory area.
Space is allocated and deallocated like
a stack.

Definitions may be added to any vocabulary
at any time.

- ① Need a pointer to the last definition in each vocabulary. This pointer must be changed each time a definition is added to the vocabulary.
- ② Must be able to chain the first definition of a "leaf" vocabulary to the last definition of its parent vocabulary.
- ③ Must be able to identify the subtree which will be searched.
- ④ Must be able to identify the read and write vocabularies separately.

fig-FORTH implementation technique:

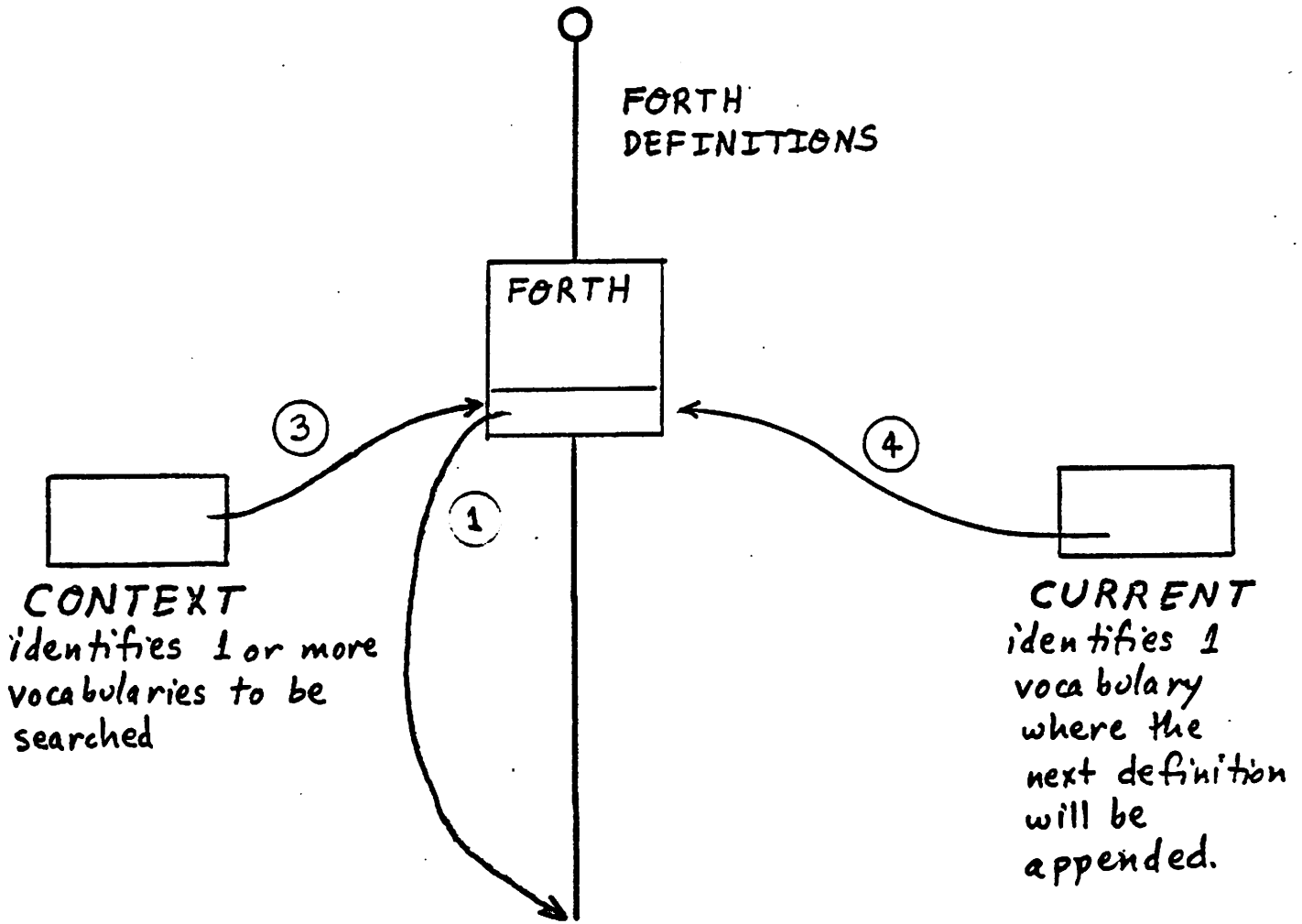
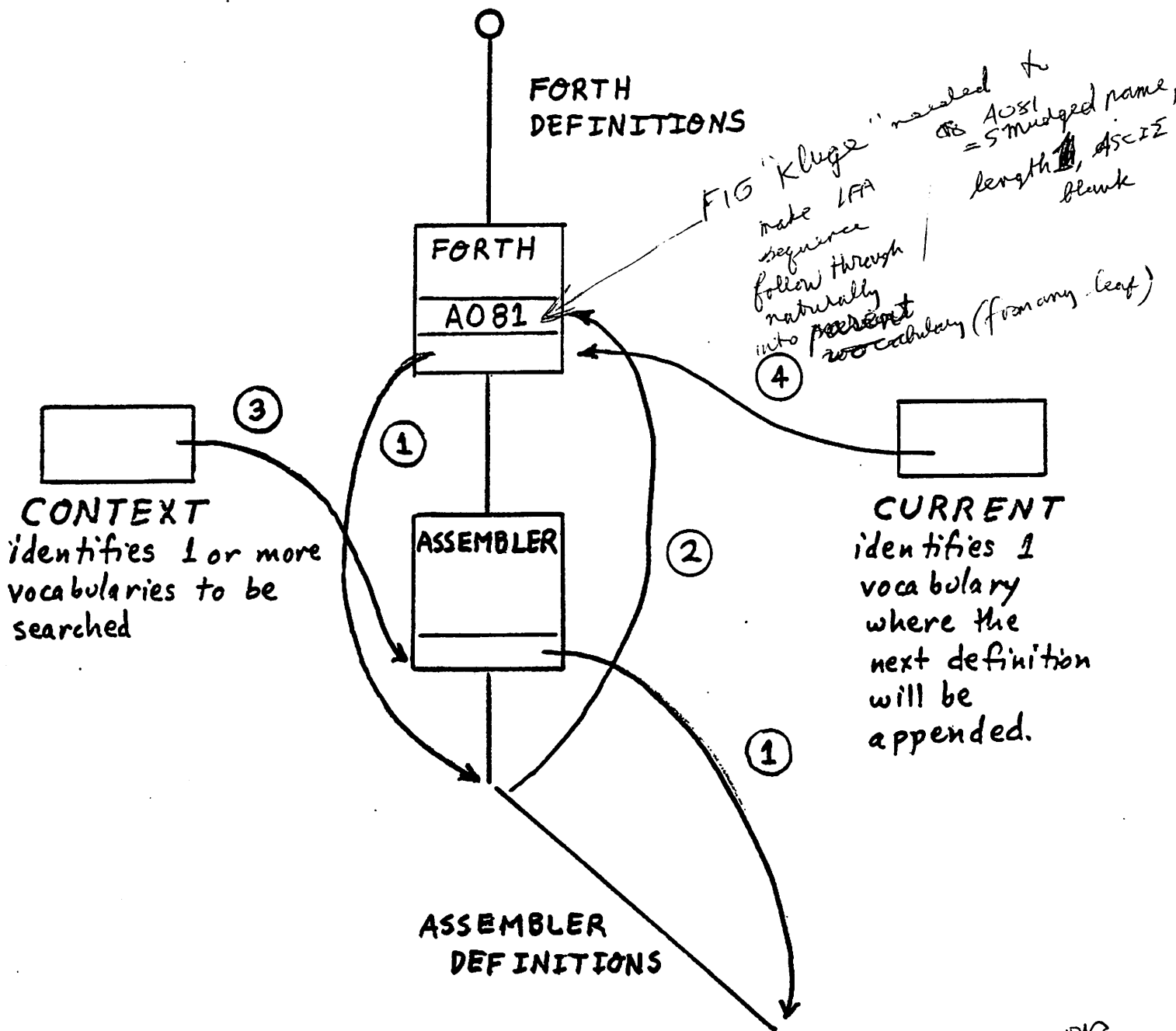


fig-FORTH implementation technique:



NOTE: FORGET is very dangerous when you have interwoven vocabularies

Defining a vocabulary

VOCABULARY name

VOCABULARY FORTH

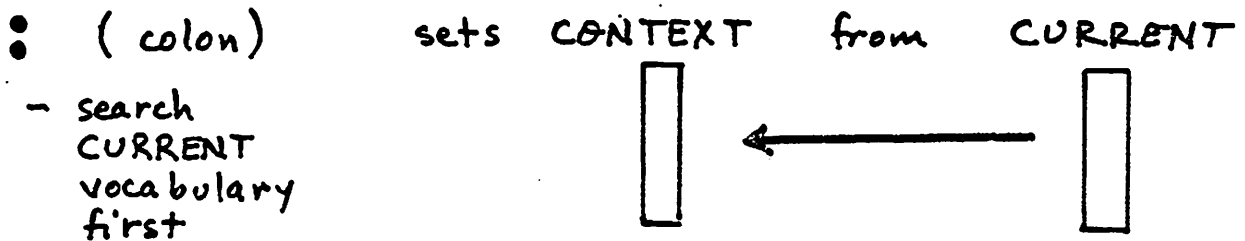
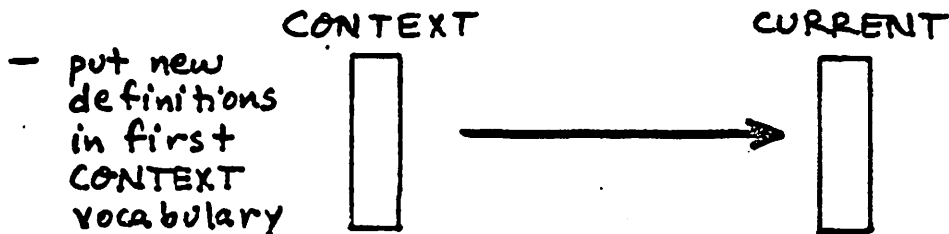
VOCABULARY ASSEMBLER

VOCABULARY EDITOR

Using vocabularies

vocabulary_name stores pointer to named vocabulary in CONTEXT.
identifies vocabulary subtree which may be subsequently searched.

DEFINITIONS sets CURRENT from CONTEXT



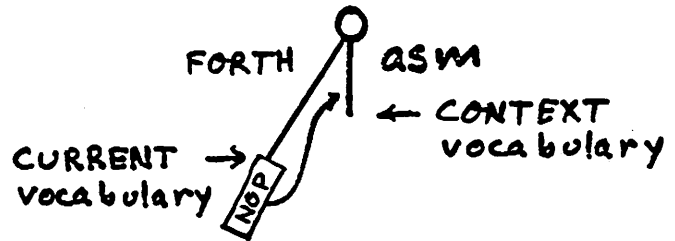
Reference definitions in the CONTEXT vocabularies.

Append new definitions to the CURRENT vocabulary.

Example:

Assume FORTH is both the CONTEXT and CURRENT vocabulary.

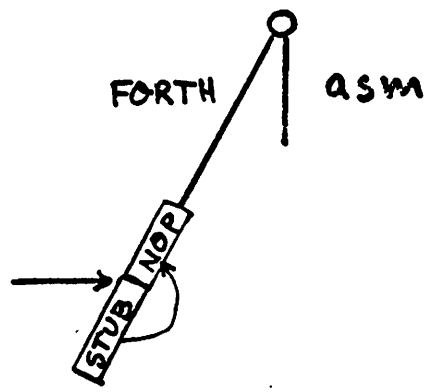
ASSEMBLER
changes the
CONTEXT vocabulary



CODE NOP NEXT

• restores the CONTEXT vocabulary

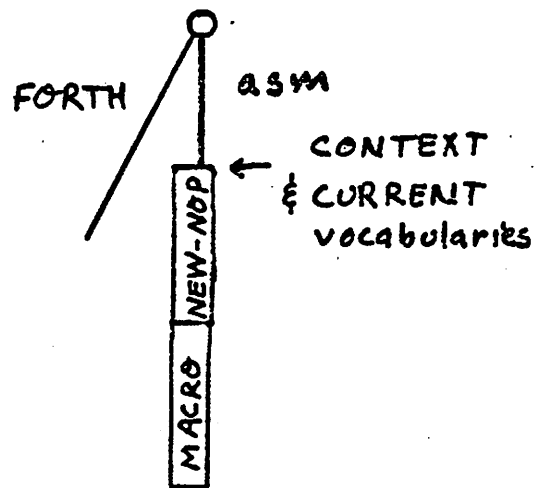
CONTEXT
CURRENT
vocabulary



: STUB NOP ;

ASSEMBLER DEFINITIONS

changes both CONTEXT
& CURRENT vocabularies
to assembler



CODE NEW-NOP NEXT

: MACRO NEW-NOP NEW-NOP ;

: ?VOC CONTEXT @ 4 -
NFA ZD. ;

