

Bix EBNF Definition

Notation:

- Square brackets [] delimit optional constructs;
- braces { } indicate zero or more repetitions of the enclosed construct;
- parentheses () indicate simple grouping of constructs;
- a vertical bar | indicates choice of one from many;
- literal text in definitions is denoted using bold font or a pair of quotation marks " " .

Program

starting-line:

start:

statement | function-declaration.

Variables

variable =

alphanumeric-text.

Conditionals

conditional-statement =

if-statement [{or-if-statement}] [or-else-statement].

Loops

loop-statement =

repeat-statement.

Statements

statement =

simple-statement | loop-statement | conditional-statement | operation-statement.

simple-statement =

variable any-sign (number | variable).

repeat-statement =

repeat while this is true [(simple-statement)]:
statement.

if-statement =

if this is true [(simple-statement)] **do this:** statement.

or-if-statement =

or if this is true [(simple-statement)] **do this:** statement.

or-else-statement =

or else do this: statement.

Variable and Identifier Categories

alphanumeric-text =

letter | digit [{letter | digit}].

number =
{digit}.

Low Level Definitions

any-sign =
sign | operation-sign | attribution-sign | comparison-sign.

sign =
"+" | "-".

operation-sign =
sign | "*" | "%".

attribution-sign =
"=".

comparison-sign =
"==" | ">" | "<".

letter =
"A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "O" | "P" | "Q" |
"R" | "S" | "T" | "U" | "V" | "W" | "X" | "Y" | "Z" | "a" | "b" | "c" | "d" | "e" | "f" | "g" | "h" | "i"
| "j" | "k" | "l" | "m" | "n" | "o" | "p" | "q" | "r" | "s" | "t" | "u" | "v" | "w" | "x" | "y" | "z" .

digit =
"0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9" .