

Kidsgrove ALGOL Compilation Error Messages

0. Explanation

The error messages produced by the Kidsgrove Algol system are of two types, which are not clearly distinguished by their numbers: (a) diagnoses of mistakes in the source program being compiled and (b) notifications of problems internal to the compiler. Only the former are of use to the KDF9 Algol programmer, the latter being of interest only to the maintainers of the compiler. I have not bothered to include internal errors in the following lists, so they can be recognised by having an unlisted error number. If any do crop up, it would be a service to report them to the compiler team (via kdf9@findlayw.plus.com).

1. Failures in the Translator Control Routine

These appear on the Flexowriter (so they will not be seen if compiling with Flexowriter output suppressed, as is normal with the `kalgol` and `wich` commands), in the format:

F *dd/ss* or P *nn/ss*

where *dd* is a failure number, *ss* is the brick number, and *nn* a device number, indicating a parity failure. All of these messages, with *dd* in the range 01 to 23 are irrelevant to the Algol programmer.

2. Failures in the Kidsgrove Translator

These messages are output to the line printer.

Fail No.	Likely reason
01 301	EM not after <u>end</u> or <u>end</u> comment
01 306	declaration list wrong
01 308	invalid number
01 309	two subscripted variable occurring adjacent to each other without any form of separator
01 310	first symbol of source program is not <u>begin</u>
01 311	machine is too small
01 312	bracket mismatch
01 313	too many <u>ends</u> in ALGOL
01 314	basic symbol valid only in expressions used at statement level, or vice versa
01 315	<u>comment</u> in wrong place, invalid parameter comment
01 316	not enough <u>end</u> 's in ALGOL
01 317	too many blocks in a level
01 318	declarator not in block head, or specifier not in procedure head
01 319	various syntax errors in block or procedure head
01 320	repeated declarations, formal; or specifications: formal unspecified, specification and no formal
01 321	more than 96 procedures
01 323	too many dimensions in array declaration; too many arrays in segment
01 324	closing string quote misplaced
01 325	invalid formal parameters in a segment call procedure; formal procedure included in formals
01 327	invalid basic symbol in segment identifier
01 328	wrong number of symbols in segment identifier
01 329	<u>own</u> variable declared in a segment
01 330	text of standard functions, in the library, in error
01 400	misplaced <u>KDF9</u>
01 401	formals not permitted in code
01 402	syntax of code specification: invalid number separators; terminator; numbers too large
01 403	pseudo instruction invalid: not <u>[F]</u> , <u>=</u> <u>[F]</u> or <u>J</u> <u>[F]</u> ; jump to non-label, fetch/store label
01 404	invalid formal identifier in code
01 405	formal not in formal list: missing <code>]</code> or mis-spelling
01 406	invalid formal parameter in a segment
02 309	machine too small or ALGOL program too large
02 320	identifier undeclared or used outside its scope
02 322	assignment to procedure or function description or to a label outside its body
02 331	odd or even restart by operator

01/20	first word fetched backwards not <u>end</u> of the program
04/20	(<i>p</i>) not preceded by a procedure statement or declaration OR a re-use of a procedure identifier in a block within that in which it was declared as a different type of variable
05/20	invalid character in procedure heading
06/20	formal parameter in procedure declaration without specification marker
07/20	class 3 variable other than switch, label or string
08/20	class 3 variable other than switch, label or string
09/20	<u>begin</u> <u>end</u> incorrectly nested
10/20	two <u>end</u> programs
11/20	procedures incorrectly nested
12/20	formal by name not in declaration
13/20	specifier not inside (<i>p</i>) parameters
14/20	no space left, source program too big
15/20	no level parameters
16/20	statement list out of step
17/20	formal level statement without an actual statement including formal
19/20	no space left: source program too big
20/20	too many formal procedures
21/20	procedure calls nested too deep
22/20	formal chain too long
23/20	invalid character after actual parameter
24/20	character following (<i>p</i> or , <i>p</i> not a parameter
25/20	invalid character after procedure identifier
26/20	<u>begin</u> after procedure identifier
27/20	number of formal and actual parameters not equal
29/20	statement list wrong
30/20	actual/formal correspondence incorrect
31/20	statement list wrong
32/20	source program too big
34/20	source program too big or complicated
35/20	source program too big or complicated
36/20	source program too big or complicated
37/20	actual/formal correspondence incorrect
39/20	source program too big
43/20	not an expression
44/20	source program too big
50/20	segment specified for statements in main program
51/20	a segment may call itself only by declaring a procedure internal to itself with appropriate segment identifier
80/20	formal/actual procedure claiming more than 16 deep
81/20	machine error
82/20	odd or even restart
01/22	procedure misplaced
02/22	procedure used but not declared
04/22	procedure used but not declared
08/20	procedure used but not declared
10/22	<u>begin</u> / <u>end</u> structure incorrect
11/22	number of elements declared in array segment $\neq 0$
12/22	incorrect array declaration
13/22	incorrect array declaration
14/22	incorrect <u>own</u> array declaration
15/22	incorrect <u>own</u> array declaration
16/22	program too long to be translated
19/22	<u>begin</u> / <u>end</u> structure incorrect
20/22	parameter or array declaration in an array declaration
21/22	incorrect array declaration
22/22	arrays too large
26/22	not formal array, procedure, switch or label in declaration list
28/22	odd or even restart