

In order to provide more attractive input and listing formats for users at installations allowing upper- and lower-case letters, we define three modes by which bold names (i.e. SETL keywords and user-defined operators) may be distinguished in source input.

Point-Strop Mode:

Bold names must be prefixed by a point and followed by a delimiter (i.e., a special character or blank). Names consisting of the same sequence of letters and digits as a bold name are permitted (but not encouraged). Upper- and lower-case letters are equivalent; for example, abc, ABC, and abC are three representations of the same name.

Reserved-Word Mode:

Stropping conventions in this mode are identical to those in point-strop mode, with the following exceptions:

1. SETL keywords are written without the stropping point; some other delimiter must precede the keyword.
2. Names spelled the same as a keyword are prohibited. (Stropping of user defined operators is the same as in point-strop mode.)

Case-Strop Mode:

This mode imparts significance to the choice of upper- or lower-case letters, and is usable only when both are available for preparation of the source code. Upper and lower case may be intermixed only in bold names, within string denotations, and in comments. Letters used in the representation of names must be lower-case; names whose spelling duplicates that of a bold name are tolerated. Each bold name must begin with a capital letter; a delimiter must follow.

For example,

End

and

END

both represent the same keyword,

end

is a name, and

enD

is illegal.

It should be noted that point-strop and reserved-word modes are those available at present and will be supported at every SETL installation. Case-strop mode will of course remain unavailable at sites providing only upper case input facilities. Users of this mode who wish to assure portability of their programs should avoid the use of names bearing the same alphanumeric representation as a bold name; code respecting this restriction will then run either in case-strop or in reserved-word mode.

Revisions to the SETL front end (such as elision of stropping points) will shortly make possible source listing with bold-name distinction in a standardized format, independent of the stropping mode chosen for the source input.

The following table lists the representation of the publication language currently in use on the CDC 6600, plus mappings to the ASCII 64- and 96-character sets and the IBM 62-character set. (Characters identical in the publication language and in all four machine-dependent character sets are omitted.) Keyword forms are also specified. The single-character forms, where inelegant, are provided primarily to assure portability; it is assumed that native users of the IBM 370 will write, for example, ('A',1) rather than 'A',1", and <<1...N>> in preference to &1...N%. Modestly clever formatting routines could give similarly readable results.

KEYWORD	PUBLICATION	CDC	ASCII 96	ASCII 64	IBM
<<	{	≤	{	&	&
>>	}	≥	}	%	%
(/ /*OR, WHERE NO AMBIGUITY OBTAINS,*/ ([[[[-
/) /*OR, SIMILARLY,*/)]]]]	"
FCR /*OR*/ FCRALL	∨	∨	@	@	@
EXISTS	∃	∃	?	?	?
IN /*OR*/ ELMT	∈	→	\	\	\
WHERE /*OR*/ ST		^	!	!	!
	#	+	#	#	#
	;	;	;	;	;
	-	-	-	-	-
	'	†	'	'	'

(1) FOR EXAMPLE, (/1,2,3/), (1,2,3), (/X ∈ S/), (/X ∈ S), AND (/1) ARE ALL ACCEPTABLE TUPLES; (X ∈ S) AND (1) ARE NOT.