

Zurich Conference on
"Universal language"

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32.) Procedures.

It was finally agreed to accept the following syntactical form:

Procedure A_1 [input] $\Rightarrow$ [output] , ... , A_n [...] $\Rightarrow$ [...],
 B_1 [...], ... , B_k [...]

A_1)

$B_1 \leftarrow E$

B_2)

$B_3 \leftarrow E$

A_5)

END

$A_1, A_2, \dots, B_k$ are identifiers characterising different subprocedures contained within the procedure, $B_1, \dots, B_k$ designating functions. Each identifier is followed by its appropriate input variables in brackets as shown above. In the case of subprocedures requiring output variables, the input brackets are followed by $\Rightarrow$ followed by brackets containing the output variables and exit labels separated by delimiters. Each identifier must reappear as a label among the statements. Each function identifier $B_1, \dots, B_k$ must appear on the "ergibt"-side of an assignment statement. Some of the stat. are return stat.. Permissible entries in the input and output brackets are given in section 31 under the heading Definition. Thus functions are just those special procedures having no stated output variables. This definition supercedes the definition given in section 6c.

33.) Procedure call

A proc.call is a stat. calling for the execution a subproc, with a specific set of variables. It is identical in form to the characterization of the subproc. called for:

G [input] $\Rightarrow$ [output]

Places for input and output variables are filled according to section 31 under "call".

34.) Bound variables and subscripts

When functions or arrays occur as arguments in proc. calls, some of their variables are subscripts respectively may be bound. That is, values of these variables or subscripts are assigned by the proc. called for. It was agreed to designate such bound variables or subscripts by leaving the appropriate argument positions blank. Thus the evaluation of $y = \int_a^b f(x)dx$ by Simpsons rule is indicated by the procedure call

$$\text{SIMP} [f [] ; a ; b ; h] \Rightarrow [y]$$

It is permitted to use this notation for evaluating

$$\int_a^b f(x,z)dx \quad \text{for fixed } z \text{ by}$$
$$\text{SIMP} [f [,z] ; a ; b ; h] \Rightarrow [y]$$

35.) Classification statements

The section "Symbol Classification Statements" on page 4 and 5 of the ACM proposal is accepted.

36.) Array statements

Array statements are used to give the dimensions of arrays as follows:

$$\text{ARRAY } A [i ; j ; k \{ 1 ; m ; n]$$

where A is an identifier naming the array. The letters in the brackets indicate that the elements of the array run from

$$A [i ; j ; k] \quad \text{to} \quad A [1 ; m ; n] .$$

If the array stat., is used in connection with a proc. the i,j,k,l,m,n may be expressions containing input variables of the proc.. Otherwise they must be constants.

37.) Input and output will be handled by proc. which will be included in the list of preferred procedures.