

A Proposal on the global - equivalence controversy

1. Dynamic allocation of storage is sensible and should not be destroyed
2. No procedure definition occurs "within" another one. All their identifiers are local unless specified otherwise.
3. Introduction of two declarations

SHARE ARRAY
KEEP ARRAY ...

effect :

SHARE causes array to be undefined on jump (of any kind) from the programming unit (procedure, compound statement)

KEEP causes array to be undefined on
 (i) execution of a procedure return
 (ii) exit from a programming block

4. Added to the heading of a procedure is a declaration of syntactic parameters

syntactic (α ; B, γ , ...)

Where the α , B, γ may be units for which substitution must be made (see ACM (21.2)) before a procedure can be imbedded in a program

5. The imbedding is done by

fit name ($\tau \rightarrow \alpha$, $\gamma \rightarrow B$, $\mu \rightarrow \gamma$)

Where τ , γ , μ are units which may be substituted (see Zurich report (VI, p.51))

6. Conflicts may arise among successive calls of a procedure. The resolution of this conflict is accomplished by copying the procedure under a different name (necessary in any event, e.g. use of integration routine)

7. A procedure call is of the form

Name (.....) = : (.....)

fit
copy name

and the latter may be missing with anyone call

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