FOR USASI X3 AD HOC COMMITTEE ON DATA DESCRIPTIVE LANGUAGE

"EXTERNAL VERSUS INTERNAL FORMATS"

Work on Standard Data Descriptive Languages can be separated with advantage into two independent aspects: standards concerned with "external data formats" and those concerned with "internal data formats". At the beginning, it is my belief that maximal effort should be concentrated on the external data formats as having the greater immediate payoff.

In the terminology used here, "internal data formats" are concerned with the locations of, arrangements of, and meanings of the bits as used inside a computer, or in any of its closely coupled parts, or of a closely coupled system or network which may contain other computers. "External data formats" are concerned with the subdivision of, and the interpretation of streams of standard ASCII coded characters in an already standardized physical interchange medium, and used in a loosely coupled cooperative environment composed of people, projects, and equipment of various kinds. An initial emphasis upon external data formats is appropriate because such formats are conceptually simpler, they are separable from the internal formats (which are exceedingly complex), they make use of already-developed standards, they desperately need immediate attention, and many projects are waiting for such format standards. Moreover, a solution to the problems of external formats will lay a foundation for the solution of the more intractable problems of internal data formats.

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