

Memo 4C-3/175

To: Distribution

16 September 1976

From: P.M. Smith and H.D. Lemmel

Subject: Numerical Data Formats  
Proposed change to Lexfor entry.

The Lexfor page on "Numerical Data Formats" contained some restrictions due to difficulties encountered at NDS with blanks embedded within numerical data fields. Since quite some time such difficulties have been solved at NDS, and data with embedded blanks have been transmitted. We therefore suggest to update this Lexfor page as attached.

(At the same time we wish to correct a misleading wording introduced by NNCSC in the Jan. 1974 update. See the top-most alteration mark on the attached page.)

Attachment

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Numerical Data Formats  
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NUMERICAL

The prescribed format of numerical data entered in the COMMON or DATA section of an EXFOR-entry is defined as "FORTRAN readable according to an E-format" (compare pages V.2 and VI.3 of the EXFOR-Manual).

That means in detail:

- \* A decimal-point is always required, also for integers.
- \* A decimal number without an exponent can have any position within the 11-characters field.
- \* No blank is allowed behind a sign (+ or -).
- \* A plus sign can be omitted, except that of the exponent when there is no E.
- \* In a notation with exponent the exponent must be right-adjusted within the 11-characters field.

All the following examples are valid entries:

0.14	+0.0014E+02
0.14	0.0014E+2
0.14	0.0014E2
+0.14	.0014+2
-0.140	-0.140E+00
-.14	-.14E0
	1.4E-1
	1.4-1
	1.40 -01*
	1.40 E 00*

Compilers should aim at a nice-looking and easy-readable arrangement of the numbers.

\* Note: Centers using PL/1 may have to apply special manipulation when numerical fields include embedded blanks.