To: Distribution   23 October 1974

From: F.M. Attree and H.D. Lemmel

Subject: Dictionary 24 (Data headings)

Ref.:   4C-2/55, H. Potters 28 August 1974
         4C-1/47, V. May   4 October 1974
         various letters

        Concerning the col. 66 flags in Dictionary 24, we have no pre-
ference from our side and would agree to any consistent set of flags. We
assume that these dictionary flags will also be useful for edit-listing
complex data tables and not only for checking purposes.

        Hans proposes also to group the headings according to their
families. In some cases this can well be done. However, in other cases
this would lead to inconveniences to the compilers, and this should be
avoided. For example: ANG1, ANG2, ANG3 should remain sorted together and
not, as their different flags suggest, far away from each other.

        Please find attached the draft dictionary as we have it now.
We suggest that Vicky and Hans solve different views (if any) among each
other. We await notification from one of them and shall then update the
dictionary accordingly.

Attachment

Distribution: Clearance: for J.J. Schmidt

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INCIDENT NEUTRONS

EN	INCIDENT NEUTRON ENERGY, LAB-SYSTEM	A
EN-APRX		A
EN-MIN	LOW LIMIT OF INCIDENT N-ENERGY RANGE, LAB-SYSTEM	A
EN-MAX	HIGH LIMIT OF INCIDENT N-ENERGY RANGE, LAB-SYSTEM	A
EN-DUMMY	DUMMY ENERGY. USED AS THE NUMERICAL EQUIVALENT OF AN INCIDENT NEUTRON SPECTRUM WHERE NO NUMERICAL ENERGY VALUE IS GIVEN BY THE AUTHOR	A
EN-CM	INCIDENT NEUTRON ENERGY, C-M-SYSTEM	A
EN-CM-MIN	LOW LIMIT OF INCIDENT N-ENERGY RANGE, C-M-SYSTEM	A
EN-CM-MAX	HIGH LIMIT OF INCIDENT N-ENERGY RANGE, C-M-SYSTEM	A
MOM	MOMENTUM OF INCOMING PARTICLES	S
MOM-MIN	MINIMUM MOMENTUM OF INCOMING PARTICLES	S
MOM-MAX	MAXIMUM MOMENTUM OF INCOMING PARTICLES	S

ERRORS

EN-RSL	INCIDENT-NEUTRON ENERGY-RESOLUTION	B
+EN-RSL	+UNSYMMETRIC ENERGY RESOLUTION	B
-EN-RSL	-UNSYMMETRIC ENERGY RESOLUTION	B
EN-ERR	ERROR OF MONOCHROMATIC INCIDENT-NEUTRON ENERGY OR UNCERTAINTY OF THE CENTRAL ENERGY IN AN INCIDENT NEUTRON-SPECTRUM.	B
EN-ERR1	ENERGY ERROR, IF MORE THAN ONE ERROR IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'.	B
EN-ERR2	SECOND ENERGY ERROR, IF MORE THAN ONE ERROR IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'	B
+EN-ERR	+ UNSYMMETRIC ENERGY-ERROR	B
-EN-ERR	- UNSYMMETRIC ENERGY-ERROR	B

RESONANCE ENERGIES

EN-RES	RESONANCE ENERGY	C
MU-ADLER	MU IN ADLER-ADLER RESONANCE-ANALYSIS. EQUIVALENT TO RESONANCE ENERGY	C
EN-RES-ERR	ERROR OF RESONANCE-ENERGY	D

(Question: Could not C and D be merged with A and B?)

OUTGOING PARTICLES, ENERGIES

E	ENERGY OF OUTGOING PARTICLE, LAB-SYSTEM	E
E1	ENERGY OF OUTGOING PARTICLE, AS DEFINED IN BIB-SECT°N	E
E2	ENERGY OF OUTGOING PARTICLE, AS DEFINED IN BIB-SECT°N	K

According to H.P. E2 would be sorted far away from E1 at the very end of this section. This would disturb the compilers.

E-APRX		E
E-MIN	LOW LIMIT OF OUTGOING-PARTICLE E-RANGE, LAB-SYSTEM	E
E-MAX	HIGH LIMIT OF OUTGOING-PARTICLE E-RANGE, LAB-SYSTEM	E
E-CM	ENERGY OF OUTGOING PARTICLE, C-M-SYSTEM	E
E-CM-MIN	LOW LIMIT OF OUTGOING-PARTICLE E-RANGE, C-M-SYSTEM	E
E-CM-MAX	HIGH LIMIT OF OUTGOING-PARTICLE E-RANGE, C-M-SYSTEM	E
E-EXC	EXCITATION-ENERGY	E
E-EXC-MIN	LOW LIMIT OF EXCITATION-ENERGY	E
E-EXC-MAX	HIGH LIMIT OF EXCITATION-ENERGY	E
E-LVL	LEVLE-ENERGY	E
E-LVL-INI	INITIAL LEVEL OF GAMMA-TRANSITION	E
E-LVL-FIN	FINAL LEVEL OF GAMMA-TRANSITION	K

According to H.P. E-LVL-FIN would be sorted far away from E-LVL-INI. (with E2)

E-LVL-MIN	LOW ENERGY-LIMIT OF A DISCRETE LEVEL-GROUP	E
E-LVL-MAX	HIGH ENERGY-LIMIT OF A DISCRETE LEVEL-GROUP	E
LVL-NUMB	LEVEL-NUMBER, TO BE USED ONLY IF OTHER INFORMATION IS NOT AVAILABLE.	E
Q-VAL-APRX	APPROXIMATE Q-VALUE	E
Q-VAL	Q-VALUE	E
Q-VAL-MIN	LOWER LIMIT OF Q-VALUE	E
Q-VAL-MAX	UPPER LIMIT OF Q-VALUE	E
E-GAIN	GAIN IN NEUTRON ENERGY	(E
E-DGD	DEGREDATION IN NEUTRON ENERGY	E

ERRORS

E-RSL	OUTGOING-PARTICLE ENERGY-RESOLUTION	F
E-ERR	OUTGOING-PARTICLE ENERGY-ERROR	F
E-LVL-ERR	LEVEL-ENERGY ERROR	F
Q-VAL-RSL		
Q-VAL-ERR	Q-VALUE ERROR	F
E-GAIN-ERR	ERROR OF GAIN IN NEUTRON ENERGY	F
E-DGD-ERR	ERROR OF DEGREDATION IN NEUTRON ENERGY	F

OUTGOING PARTICLES, ANGLES

ANG	ANGLE, LAB-SYSTEM	G
ANG1	ANGLE, DEFINITION SPECIFIED IN THE BIB-SECTION	G
ANG2	ANGLE, DEFINITION SPECIFIED IN THE BIB-SECTION	(M
ANG3	ANGLE, DEFINITION SPECIFIED IN THE BIB-SECTION	Ø

According to H.P. ANG2 and ANG3 would be sorted far away from ANG1

ANG-MIN	LOW LIMIT OF ANGLE RANGE, LAB-SYSTEM	G
ANG-MAX	HIGH LIMIT OF ANGLE RANGE, LAB-SYSTEM	G
ANG-CM	ANGLE, C-M-SYSTEM	G
ANG-CM-MIN	LOW LIMIT OF ANGLE RANGE, C-M-SYSTEM	G
ANG-CM-MAX	HIGH LIMIT OF ANGLE RANGE, C-M-SYSTEM	G
COS	COSINE OF ANGLE, LAB-SYSTEM	G
COS-MIN	LOW LIMIT OF COSINE-RANGE OF ANGLE, LAB-SYSTEM	G
COS-MAX	HIGH LIMIT OF COSINE-RANGE OF ANGLE, LAB-SYSTEM	G
COS-CM	COSINE OF ANGLE, C-M-SYSTEM	G
COS-CM-MIN	LOW LIMIT OF COSINE-RANGE OF ANGLE, C-M-SYSTEM	G
COS-CM-MAX	HIGH LIMIT OF COSINE-RANGE OF ANGLE, C-M-SYSTEM	G
NUMBER	COEFFICIENT-NUMBER OF LEGENDRE OR COSINE COEFFICIENTS	G U
NUMBER-CM	COEFFICIENT-NUMBER OF LEGENDRE OR COSINE COEFFICIENTS WHEN THE FIT HAS BEEN DEDUCED FROM AN ANGULAR DISTRIBUTION IN WHICH THE ENERGIES ARE GIVEN IN THE CENTRE OF MASS SYSTEM	G U

ERRORS

ANG-RSL	ANGULAR RESOLUTION	H
ANG-ERR	ANGLE-ERROR	H
COS-RSL	COSINE OF ANGULAR RESOLUTION	H
COS-ERR	COSINE OF ANGLE-ERROR	H

DATA, RATIO, STAND

DATA	HEADING FOR COLUMN GIVING THE QUANTITY SPECIFIED UNDER 'ISO-QUANT'
DATA-CM	DATA GIVEN IN THE CENTRE OF MASS SYSTEM
DATA-APRX	APPROXIMATE VALUE OF DATUM
DATA-MIN	LOW LIMIT OF DATUM
DATA-MAX	HIGH LIMIT OF DATUM
RATIO	HEADING FOR COLUMN GIVING THE RATIO SPECIFIED UNDER 'ISO-QUANT'. OR THE QUANTITY/STANDARD RATIO
RATIO-MIN	LOW LIMIT OF RATIO
RATIO-MAX	HIGH LIMIT OF RATIO
STAND	HEADING FOR COLUMN GIVING THE NUMERICAL VALUE ASSUMED FOR THE ISO-QUANT SPECIFIED UNDER 'STANDARD'
STAND1	FIRST STANDARD-VALUE IF MORE THAN ONE IS GIVEN. EXPLANATION UNDER 'STANDARD'
STAND2	SECOND STANDARD-VALUE IF MORE THAN ONE IS GIVEN. EXPLANATION UNDER 'STANDARD'
EN-NRM	NORMALIZATION ENERGY. TO BE USED WHEN A DATA SET IS NORMALIZED TO ONE ENERGY ONLY.

ERRORS

DATA-ERR	DATA-ERROR. EXPLANATION TO BE GIVEN UNDER 'ERR-ANALYS'
DATA-ERR1	FIRST DATA-ERROR, IF MORE THAN ONE ERROR-COL IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'
DATA-ERR2	SECOND DATA-ERROR. IF MORE THAN ONE ERROR-COL IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'
DATA-ERR3	THIRD DATA-ERROR. IF MORE THAN ONE ERROR-COL IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'
+DATA-ERR	+ UNSYMMETRIC DATA-ERROR. EXPLANATN UNDER 'ERR-ANALYS'
-DATA-ERR	- UNSYMMETRIC DATA-ERROR. EXPLANATN UNDER 'ERR-ANALYS'
RATIO-ERR	RATIO-ERROR
RATIO-ERR1	FIRST RATIO-ERROR. IF MORE THAN ONE RATIO-ERROR IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'
RATIO-ERR2	SECOND RATIO-ERROR. IF MORE THAN ONE RATIO-ERROR IS GIVEN. EXPLANATION UNDER 'ERR-ANALYS'
+RATIO-ERR	+UNSYMMETRIC RATIO-ERROR. EXPLANATN UNDER 'ERR-ANALYS'
-RATIO-ERR	-UNSYMMETRIC RATIO-ERROR. EXPLANATN UNDER 'ERR-ANALYS'
STAND-ERR	STANDARD-ERROR
STAND1-ERR	ERROR OF FIRST STANDARD-VALUE
STAND2-ERR	ERROR OF SECOND STANDARD-VALUE

(Question: Why is STAND treated, with respect to col.66 flags, same as DATA and RATIO? Is it not more analogous to a parameter as on next page?)

PARAMETERS

TEMP	SAMPLE TEMPERATURE	8
TEMP-ERR	ERROR OF SAMPLE TEMPERATURE	9
ELEMENT	Z-NUMBER OF ELEMENTS, FOR FISSION-PRODUCT YIELDS ONLY	1
MASS	A-NUMBER OF ISOTOPES, FOR FISSION-PRODUCT YIELDS ONLY	Q
HL	HALF-LIFE OF RESIDUAL NUCLEUS	6
HL1	HALF-LIFE OF NUCLEUS SPECIFIED IN THE BIB-SECTION	6
HL2	HALF-LIFE OF NUCLEUS SPECIFIED IN THE BIB-SECTION	6 O
HL3	HALF-LIFE OF NUCLEUS SPECIFIED IN THE BIB-SECTION	6 W
HL-ERR	ERROR OF HALF-LIFE OF RESIDUAL NUCLEUS	7
HL1-ERR	ERROR OF HALF-LIFE OF NUCLEUS SPECIFIED IN BIB-SECTION	7
HL2-ERR	ERROR OF HALF-LIFE OF NUCLEUS SPECIFIED IN BIB-SECTION	7 I
HL3-ERR	ERROR OF HALF-LIFE OF NUCLEUS SPECIFIED IN BIB-SECTION	7 X

Sorting according to flag would be poor.

MOMENTUM L	ANGULAR MOMENTUM L OF RESONANCES, STRENGTH-F'S, ETC.	2
PARITY	PARITY OF RESONANCE	2
STAT-W G	STATISTICAL-WEIGHT FACTOR G	4
SPIN J	SPIN J OF RESONANCES, STRENGTH-FUNCTIONS, ETC.	4

MISC	HEADING FOR A COLUMN WITH SUPPLEMENTARY INFORMATION FOR WHICH NO DATA-HEADING KEYWORD HAS BEEN DEFINED. EXPLANATION TO BE GIVEN UNDER 'MISC-COL' KEYWORD	Y
MISC1	FIRST MISCELLANEOUS COLUMN - IF MORE THAN ONE IS GIVEN SAME USAGE AS -MISC-(SEE ABOVE)	Y
MISC2	SECOND MISCELLANEOUS COLUMN -IF MORE THAN ONE IS GIVEN SAME USAGE AS -MISC-(SEE ABOVE)	Y

FLAG	FLAG. MEANING OF FLAGS GIVEN UNDER THIS HEADING TO BE EXPLAINED IN BIB-SECTION UNDER 'FLAG'	Z

NOTE= THE CHARACTERS AND DIGITS IN COL.66 ARE USED FOR COMPUTERIZED CHECKING OF COLUMN-SEQUENCE. SEE MANUAL.

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