

XVI. THE REPORTS FORMAT

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1. Introduction

Following the processing of documents and requests, the SMART user may specify a printout of requests, answers, and correlation by using the ANSWER specification (see Section III of this report). If this printout is requested, it is handled by link 13, following a sort of the correlation tape in link 12. Documents are considered for printing as answers to a request, if their correlation coefficient with the request is greater than or equal to the parameter specified by CUTRD (see Section III).

2. Formats for Reports

Three formats are available for the reports, each format corresponding to a different degree of detail in the printout of the answers. Selection of one of these formats is specified by a parameter included in an ANSWER specification card. This parameter consists of one of three words: SHORT, MEDIUM, or LONG.

ANSWER SHORT produces the most compact form of report. This form causes the request identifiers and the document identifiers to be printed-out. Figure 1 shows an example of the printout generated by ANSWER SHORT. The left-hand column contains the request identifier. To the right of

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this column are listed the identifiers for the documents whose correlation with the request was greater than or equal to the parameter CUTRD.

| | | | | | | | | | | |
|--------------|-----|------------|-----|-----------|-----|-----------|-----|-----------|-----|----------|
| DIFFERNTL EQ | 384 | STABILITY | 360 | SIMULATIN | 386 | ELIMINATI | 392 | ON COMPUT | 200 | SOLUTION |
| | 85 | NOTE ON AN | 387 | BOUNDARY | 103 | RUNGE-KUT | | | | |

SHORT Report Format

Figure 1

| | | | | | | | | | | |
|---------|---|--|--|--|--|--|--|--|--|--|
| REQUEST | *LIST DIFFERNTL EQ NUMERICAL SOLN OF DIFFERENTIAL EQUATIONS | | | | | | | | | |
|---------|---|--|--|--|--|--|--|--|--|--|

| <u>ANSWER</u> | <u>CORRELATION</u> | <u>TITLE</u> |
|---------------|--------------------|---|
| 384 STABILITY | 0.8575 | STABILITY OF NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS |
| 360 SIMULATIN | 0.7741 | SIMULATING SECOND ORDER EQUATIONS |
| 386 ELZMZNATI | 0.7407 | ELIMINATION OF SPECIAL FUNCTIONS FROM DIFFERENTIAL EQUATIONS |

MEDIUM Report Format

Figure 2

| <u>REQUEST</u> | <u>*LIST DIFFERENTIAL EQ NUMERICAL SOLN OF DIFFERENTIAL EQUATIONS</u> | |
|----------------|---|---|
| <u>ANSWER</u> | <u>CORRELATION</u> | <u>TITLE AND CITATION</u> |
| 364 STABILITY | 0.8575 | STABILITY OF NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS W. E. MILNE AND R. R. REYNOLDS (OREGON STATE COLLEGE) J. ASSOC. FOR COMPUTING MACH. VOL 6 PP. 196-203 (APRIL, 1959) |
| 360 SIMULATIN | 0.7741 | SIMULATING SECOND-ORDER EQUATIONS D. G. CHADWICK (UTAH STATE UNIV.) ELECTRONICS VOL 32 P. 64 (MARCH 6, 1959) |
| 386 ELIMINATI | 0.7407 | ELIMINATION OF SPECIAL FUNCTIONS FROM DIFFERENTIAL EQUATIONS J. E. POWERS (UNIV. OF OKLAHOMA) COMMUN. ASSOC. FOR COMPUTING MACH. VOL 2 PP 3-4 (MARCH, 1959) |

LONG Report Format

Figure 3

ANSWER MEDIUM produces a more detailed list of answers. As shown in Fig. 2, the text of the request is printed first. The document identifiers (left-hand column, Fig. 2), the correlation of the document with the request (middle column), and the title of the document (right-hand column) are then listed in order.

Figure 2 shows the printout for ANSWER LONG, the most detailed available form of report. In this format, the document citation is printed in addition to the information printed by ANSWER MEDIUM. It should be noted that in all three formats, documents are listed in descending order of correlation with the request. (Reading from left to right in Fig. 1 and reading downward in Figs. 2 and 3).