Did you Thear FROM MR. GRIFFIN?

- Colla

April 30, 1973

W. I. Dunaief

For your information and return.

30/73

B. Grad

March 1, 1973 Director of Cross Industry Development DPH 1133 Westchester Avenue 797 - TV454 1785

Decision Tables

Your memo dated 1/15/73

Mr. J. T. Griffin

I'm very pleased to hear of your proposal to use Decision Tables in CMIS and would like to help in establishing an appropriate technical and economic case.

My interest at this time is for two reasons. First, my personal association with the original development and use; and second, the new DPD attention to application development techniques (e.g. user productivity aids).

You should examine a number of current items to get a clear picture of the current status:

- 1. Los Angeles Science Center work with Decision Tables on line through APL.
- 2. WT experience with DLT (Type II) and Dectat (Program Product).
- 3. Decision Table book by Sol Pollack.
- 4. Available Decision Table Processor Programs from Independence Computing and Software (Decible III inquiry folder attached) and from Trilog.

I spoke to John Christiansen of IC4S at a recent ADAPSO Meeting and he indicated that he had sold Decible III to Riggs National Bank (Wash., D. C.), Solomon Bros. (NYC -Securities) and one or two other firms. Don Devine, President of Trilog, said he has received \$180K revenue from their decision table processors.

Please call to set up a date when we can get together to see if we can integrate your CMIS interest with my application development techniques mission.

pm cc: Mr. J. F. Bult Mr. W. I. Dunaief

B. Grad

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JAN 19 1973

January 18, 1973 Technical Publications White Plains 812 - 1133-1058 254-2519

J. T. Griffin Request for User Comments Regarding "Decision Tables"

Mr. J. T. Griffin Integration Test Sterling Forest Facility

The reader's comment form is intended to solicity comments on the publication itself; that is, the presentation of the subject. We are not asking for, nor do we normally receive, comments about the merits of the subject under discussion, whether it be hardware, software, or data processing techniques. So the readers comments that we have received fall into two general categories (1) requests for more detailed information, and (2) critiques of the manual itself. Often what I am categorizing as critiques amount to nothing more than trivial flaws that the reader has caught, and we have received a number of favorable comments about the presentation. A search of the file on this publication reveals no comments about the utility of decision tables.

Years have passed since I worked on this publication, and my assignments during these elapsed years have had nothing to do with decision tables. Mr. B. Grad was one of the inventors of decision tables, and I expect that he has been in a better position than I to follow the progress of his offspring. I am forwarding your letter to him, and while he like myself may have been involved in other projects, he is likely to be aware of those people within IBM who are pursuing projects related to decision tables.

HOCash H. J. Cash

Mr. F. T. Dolen 1041/1133 Mr. B. Grad, Dept. 797, TV454/1133

Date: January 15, 1973 From (location Integration Test or U.S. mall address): Sterling Forest Facility Dept. & Bidg: Dept. 719-3 Tieline & Tel. Ext.: 248-2631

Reference: 1.

of Decision Tables within the IBM Corporation and Outside the IBM Corporation. Applications of Decision Tables by H. E. McDaniel

Subject: Request for Information Regarding Applications

Compiling Optimized Code from Decision Tables by

2. H. J. Myers, IBM Journal of Research and Development, September, 1972

XeX

TO: Mr. B. Grad

FROM: J. T. Griffin

> Due to a re-kindled interest in Decision tables generated by reading Reference No. 2, I am seeking information relating to the applications of decision tables to many diverse data processing application requirements.

Mr. Frank Dapron of the San Jose Development Laboratory indicated that you might be a source of such information and affectionately described you as one of the "Fathers of Decision Tables". As a matter of fact, one of the articles in the book (which is a collection of the articles that have appeared in various data processing publications and periodicals) was an article by you in the Proceedings of the 1965 International Data Processing Conference. Reference No. 1, in fact, provided a rich source of detail as to the diverse applications of decision tables for many different companies, General Electric, Rand, etc.

I plan to cite several of the specific details provided in Reference 1 as a justification for recommending the wide-spread usage of decision tables in CMIS, more particularly with the advent of such a powerful tool as described in Reference 2. The anticipated benefits to be derived from using this tool should improve even the present bright record of improved data processing development times and improved data processing quality that is a hall-mark of the use of decision tables.

In order to substantiate that deployment, however, it is necessary, of course, to make a business case of the known merits and applications of decision tables. To that end, I have contacted several people in the IBM organization, as well as searched out various information sources and this search is the driver which leads to this present letter being directed to you.

Since CMIS presently is not an interactive development system, our situation as to its application is more analogous to the applications of the mid-60's when the developments and implementation of design into code had to be done principally through basic languages and in a batch or remote testing environment, all of which contributed to a less-than-optimal total implementation cycle. It is thought that decision tables and more particularly the decision table compiler referred to in Reference 2 will have a substantial impact on CMIS development and CMIS quality even over and above those which would still be realized in the utilization of decision tables in an interactive (on-line) application development mode.

Succintly any information which you would have that could provide a discussion of the advantages as well as the disadvantages and the details thereof would be greatly appreciated.

Thank you.

J. J. Anff

JTG/rmt

cc:	Mr.	F.	s.	Contey
	Mr.	F.	Ε.	Dapron
	Mr.	н.	J.	Myers
	Mr.	с.	J.	Straub

Date:	January 15, 1973
From (location or U.S. mail address): Dept, & Bidg: Tieline & Tel. Ext.:	Integration Test Sterling Forest Facility Dept. 719-3 248-2631
Subject: Reference: XXXX	Request for User Comments Regarding Applications of Decision Tables to Data Processing Requirements 1. IBM Data Processing Technique publication "Decision Tables - A Systems Analysis Documentation Technique" IBM Form NO. GF-208102-0, dated December, 1969 2. "Compiling Optimized Code from Decision Tables" Author: H. J. Myers, IBM Journal of Research and Development, September, 1972
то:	IBM Technical Publications 112 East Post Road White Plains, New York

As with most IBM publications, the end of the document indicates a form letter on which users are requested to write comments regarding the publication itself and the usefulness of this publication and its content.

I would appreciate an abstraction and if the volume of comentary is not too great, the details that would have to do with applications of decision tables which users, both inside the IBM Corporation and outside the IBM Corporation, have written to your department reguarding the efficacious application of decision tables.

This request for information is tendered to support the business case I am building regarding a proposal that decision tables, more particularly the use of decision tables in conjunction with a decision table compiler (Reference 2), be deployed within CMIS (which is an SPD Manufacturing Information System for IBM's need). The lessions regarding the efficacy and application of decision tables to data processing environment will hopefully be substantiated by the comments which you have recieved and bolster the position of its deployment within CMIS.

J. J. Briffer

Mr. F. S. Contey Mr. F. E. Dapron Mr. H. J. Myers Mr. C. J. Straub

FROM:

J. T. Griffin

JAN 18 1973

In-house Training Seminar Total

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DECISION TABLES AND MODULAR PROGRAMMING

ETEN

Decision tables are rapidly becoming recognized throughout the industry as the best means of communicating and documenting logical procedures. By combining the techniques of decision tables and modular programming, many installations have been able to significantly increase the efficiency and reduce the costs of their systems designs and documentation.

Now, for one low fee, you can have as many people as you desire attend a one-day training session on the combined techniques of Decision Tables and Modular Programming, given at your installation on a date convenient to you.

Imbependence computing 6 software corp. SEND NOW 235 WHITE HORSE PIKE W, COLLINGSWOOD, N. J. 08107 (609) 854-8924 For further information and a copy of the course outline.	Name
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DECISION TABLES FOR SYSTEM DESIGN AND DOCUMENTATION

Anyone faced with the task of designing, debugging, or maintaining a computer system recognizes the importance of effective documentation. However, in todays industry, truly effective documentation is the exception, rather than the rule. And, where effective documentation does exist, the costs for creating and maintaining the documentation may equal or even exceed the costs of creating the system itself!

PREVIOUS DOCUMENTATION METHODS NO LONGER WORK

Narrative descriptions are usually difficult to follow, tend to be either ambiguous or incomplete, and easily lead to misinterpretations. Flowcharts are more exact than the narrative description but are difficult to prepare, tend to be quite bulky and hard to follow, and are still prone to logic and coding errors. In addition, flowcharts are inflexible and difficult to change. A simple change in the logic of a system may cause pages of flowcharts to be rewritten.



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DECISION TABLES FOR MODERN, EFFECTIVE DOCUMENTATION

Decision tables were developed as a means of easy and effective communication of logical procedures. They are not only easy to prepare, but are easy to read - without special training. Logic that may require pages of flowcharts can be shown in a few simple, concise decision tables. By their very nature, decision tables prevent the most common logic errors - ambiguity and incompleteness. Most particularly, the format of decision tables make even major changes to the logic easy to accomplish.

DECIBLE III CREATES PROGRAMS FROM DECISION TABLES

Now, by using DECIBLE III, programs can be created directly from decision tables. Each program is created using DECIBLE III's unique optimizing routines, permitting the decision tables to be written for maximum documentation without reducing the the efficiency of the program. By having the documentation create the program, the problems of logic errors, misinterpretations of problem definition, and lack of proper documentation are solved.

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C10030	IF CRS-CLANT . ZERO
C10040	60 TC C050151
C10050	ELSE
C10080	IF C38-CUANT + 2000
010070	GO TC C050152
010080	ELSE
C10090	GO TO COSCISS.
010100	IF NOTE-CODE . "B"
010110	CO TC 2050153.
010120	0050155.
010130	PERFORM #15C-N-CODES.
010140	GC TO DOSDIE.
010150	0050151.
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DECIBLE III DECISION TABLE PROCESSOR

For automatic handling of logical decisions





SPECIAL FEATURES OF DECIBLE III

OPTIMIZATION

DECIBLE III uses a unique algorithm to produce the most optimum possible coding from a decision table. This optimization is tailared to the specific hardware and software system on which DECIBLE III is installed. On most systems DECIBLE III will run at full I/O speed.

EASE OF USE

DECIBLE III uses simple free-format statements.

SHORT-HAND TRANSLATION

DECIBLE III contains a complete short-hand translation system. This system permits 3 character abbreviations to be translated into long data names or phrases, reducing the amount of coding required to obtain complete documentation.

LIMITED AND EXTENDED ENTRY TABLES

DECIBLE III processes limited, mixed, or extended entry decision tables.

LIBRARY SYSTEM

DECIBLE III permits users to keep source language programs on tape or disk and provides maintenance runs simultaneously with the translating of tables.

INITIAL SET RULE

This rule permits the operation of actions prior to the testing of conditions in a decision table.

SEQUENCED ACTION ENTRIES

The action entries indicate the sequence in which the actions are to be performed.

OPTIONAL ELSE RULE

DECIBLE III allows individual tables to be written with or without an ELSE rule.

COMPLETE ERROR RECOVERY

DECIBLE III, while offering complete logic validation of every decision table, produces compileable coding from every table. A mistake in one table, therefore, does not prevent the compilation of the program and debugging of other sections of the program.

decible III

DECISION TABLE PROCESSOR

DECISION TABLES:

- * PROVIDE SUPERIOR DOCUMENTATION
- * ARE EASY TO USE
- * ARE EASY TO LEARN
- * HELP PREVENT AMBIGUITY
- HELP PREVENT INCOMPLETENESS
- * ARE CONCISE
- * ARE EASILY CHANGED

DECIBLE III:

- CONVERTS DECISION TABLES INTO COMPUTER PROGRAMS
- * CONTAINS COMPLETE SHORT-HAND SYSTEM
- * CONTAINS COMPLETE LIBRARY SYSTEM
- * IS EASY TO USE
- * IS EASY TO LEARN
- * REDUCES CODING TIME
- * REDUCES DEBUGGING TIME
- * REDUCES MAINTENANCE TIME
- * HELPS ELIMINATE 'HIDDEN' BUGS
- * PRODUCES COMPLETELY OPTIMIZED PROGRAMS
- PROCESSES LIMITED OR EXTENDED ENTRY TABLES
- TRANSLATES DIRECTLY INTO PL/1, COBOL, OR FORTRAN

independence computing



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