



Hunt Institute for Botanical Documentation
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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

International Business Machines Corporation

40 Saw Mill River Road
Hawthorne, New York 10532
914 / 592-5790

July 3, 1967

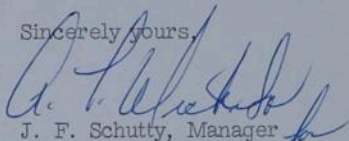
Mr. David J. Rogers
Taximetries Laboratory
Department of Biology
Armory 101
University of Colorado
Boulder, Colorado 80302

Dear Mr. Rogers:

The following is in reply to your letter of June 23, 1967.

Attached is a copy of the letter which was sent to Mr. G. B. Smith on June 1, 1967. This should answer any questions you may have.

Sincerely yours,



J. F. Schutty, Manager
Program Control Center
Program Information Department

JFS/TW/cm
(Attachment)

June 1, 1967
PID #3771

Mr. G. B. Smith
Graduate School Computing Center
University of Colorado
Boulder, Colorado

UQ STCT Similarity Clustering Program of Taximetrics Laboratory

Dear Mr. Smith:

Thank you for submitting data on the subject program.

The program has been assigned SHARE Distribution Number 3501. It will be released to the membership in the SHARE Distribution scheduled for the month of July.

We should like to congratulate you for this significant addition to the SHARE Library and encourage you to continue your interest and participation in the Library.

Very truly yours,

F. A. Marks, Jr, Manager
Program Information Department

FAM/mc

cc: Mr. R. Chambers

bcc: Mr. H. Hawkins-Denver-132

- Taximetrics Laboratory

June 23, 1967

Program Information Department
International Business Machines Corporation
40 Saw Mill River Road
Hawthorne, New York 10532

Gentlemen:

I would like to question the final fate of a program submitted to the SHARE Library for the IBM 7044 computer through the Graduate School Computing Center, University of Colorado, Boulder. The program first submitted in March was returned for corrections. These corrections were made and the program re-submitted. I will be pleased to receive information concerning disposition of this program. For your information:

Submitter's Name: Dr. David J. Rogers
Author: R. C. Brill
Title: Similarity-Clustering Program of Taximetrics
Laboratory
Field of Application: Classification
Primary Subject Code: H5

Sincerely yours,

David J. Rogers
Professor of Botany

DJR/ch

- Taximetrics Laboratory

April 13, 1967

Mrs. Kay Rhine
Librarian
Computing Center
Graduate School
University of Colorado
Boulder, Colorado 80302

Dear Mrs. Rhine:

Enclosed are a listing of the program we are submitting to SHARE, a new copy of the write-up, a new SHARE submittal form, and a new deck of catalog cards.

We hope that this revised information will be acceptable by the SHARE librarian.

Yours truly,

R. C. Brill
Programmer

RCB/ch

Enc.

Abstract (Cards 10-99, Columns 12-72)

This program has been prepared as an aid for workers in all areas of biology and in other fields as well who have problems in the classification of material, living or otherwise. For a biological and mathematical understanding of the algorithms employed see the following.

Wirth, Estabrook and Rogers. 1966. A graph theory model for systematic biology. *Systematic Zoology*, 15(1)/59-69.

Estabrook. 1966. A mathematical model in graph theory for biological classification. *Journal of Theoretical Biology*, 12/297-310.

Estabrook and Rogers. 1966. A general method of taxonomic description for a computed similarity measure. *BioScience*, 16(11)/789-793.

Input to the program is the description of each member of a set of objects to be classified. The objects are described in terms of characters defined by the user. The program compares (character for character) each object in the study with every other object in the study and for each such object pair computes a similarity measure. A series of partitions of the study into clusters of related objects is then derived from this similarity measure. The output consists of a print-out of these partitions together with numbers which reflect the degree of isolation and the degree of internal affinity of the clusters formed. This provides the user with key information about the relatedness of his objects and serves as a guide in making classificatory decisions.

Address inquiries to Dr. David J. Rogers, Taximetrics Laboratory, Department of Biology, University of Colorado, Boulder, Colorado, 80302.

(Please attach additional pages, if necessary)

Pages Attached: Key-punchable Abstract Continuation (AC) 0
Non-Key-punchable Supplement (NK) 0

Signature of Submitter _____ Date _____

Signature of Installation Addressee _____

UNIVERSITY OF COLORADO
BOULDER, COLORADO
GRADUATE SCHOOL

COMPUTING CENTER

April 7, 1967

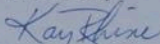
Mr. R. C. Brill
Taxonomy Laboratory
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado

Dear Mr. Brill:

SHARE has returned portions of your program submittal for corrections. I am enclosing a copy of the letter from SHARE along with copies of SHARE Reference Manual material mentioned in the letter. The mimeograph copy of your writeup was also returned and will be kept here until I hear from you.

If I can be of any service, please let me know.

Sincerely,



(Mrs.) Kay Rhine
Librarian

KR/v
attachements

IBM

40 Saw Mill River Road
Hawthorne, New York 10532
914/592-5790

International Business Machines Corporation

March 17, 1967
PID #3771

Mr. G. B. Smith
Graduate School Computing Center
University of Colorado
Boulder, Colorado

UQ GTCT 7044

Dear Mr. Smith:

Thank you for submitting the above program for inclusion in the SHARE Program Library.

In order for us to process the program, the following problems should be corrected:

1. The submittal form we received has been obsoleted; it will be necessary for you to transfer information on the submittal form onto the revised form required for all submittals reaching SDA after December 15, 1965. (SHARE Reference Manual page 0.04-01). *attached*

2. We note that the submittal form states twenty-nine pages of listings; however, we have not received the listings. *and copy didn't read in.*

attached ← 3. The catalog cards received were not complete. All cards have to be punched in the format suggested in the SHARE Reference Manual (page 6.06-01). Keypunch instructions for SHARE Program Library catalog cards are contained in the SHARE Reference Manual, pages 6.05-13, 6.05-21.

4. The graphic quality of the write-up is such that we should be able to reproduce a usable copy. However, it is difficult if the quality of the copy will correspond to that intended by the SHARE Standards. To effectively reproduce the documentation, we will require clearer and more consistent copy of pages.

We will pend further processing of this program until the foregoing problems have been resolved.

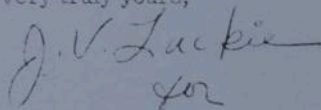
Mr. G. B. Smith

-2-

March 17, 1967

If we can be of any further assistance in this matter, please do not hesitate to contact us. We sincerely appreciate your interest and participation in the SHARE Program Library.

Very truly yours,

A handwritten signature in cursive script that reads "J. V. Luckie" followed by a smaller signature that appears to be "for".

F. A. Marks, Jr., Manager
Program Information Department

FAM/JFS/mc

cc: Mr. R. Chambers

6.06 PROGRAM REVISION PROCEDURE

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8 Always send a new submittal form. Also submit a complete, new deck of catalog
9 cards.

10
11 If new cards are required, send an entirely new deck; not just the cards that are
12 to be changed.
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1
2
3 E. KEYPUNCH INSTRUCTIONS AND FORMATS FOR SHARE PROGRAM
4 LIBRARY CATALOG CARDS

5
6 (To be used in conjunction with the "SHARE PROGRAM LIBRARY
7 PROGRAM PACKAGE SUBMITTAL/ANNOUNCEMENT" form)

8
9 The submitter of a program is requested to keypunch Catalog Cards for his program
10 and submit them along with the PROGRAM PACKAGE SUBMITTAL/ANNOUNCEMENT to SDA.
11 The Catalog Cards are to be keypunched from the SUBMITTAL form, according to the
12 following instructions. Please note that the specific card columns and type of
13 card into which each detail item of information is to be punched is indicated,
14 as pre-printed information, in the right margin of the SUBMITTAL form.

15
16 The information in input fields 2 and 3 is the basic identification of the program
17 and is to be punched in columns 1-8 of all cards of the catalog packet.

18
19 Columns 9-10 contain a Card Code for the type of card. This is essentially a
20 card sequence designation. Instructions for punching this field are given in the
21 table below.

22
23 Please punch an asterisk (*) in column 11 of all cards of your catalog packet.
24 This is a format code used by the library processing programs.

25
26 Seven or more cards are required for your Catalog Card packet. The different
27 types of cards are identified by the punching in columns 9 and 10, as follows:

Type of Card	Card Code		Remarks	Detail input fields from SUBMITTAL form to be punched on this Type of Card
	Col. 9	Col. 10		
Index Card A	A	Blank		1, 4-7
Index Card B	B	Blank		9 - 16
Index Card C	C	Blank		17 - 19
Index Card D	D	Blank		20 - 21
Search Card	S	Blank		22
Title Card	0	Blank	numeral zero	8
Abstract Cards	1	0	} as many as required	23
	1	1		
	1	2		
	.	.		
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	9	9		

SHARE PROGRAM CATALOG CARDS

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Title card. Punched numeral "0" in column 9.

Columns	Field Numbers	Field Titles and Remarks
1 - 8	2,3	Common
9 - 10		Card Type and Card Number Column 9 punch "0", column 10 blank.
11		Format code - punch "*" (asterisk) in all cards.
12 - 68	8	Title
69 - 80		Reserved, leave blank

Abstract cards. Punched "10" through "99" as needed, in columns 9-10.

Columns	Field Numbers	Field Title and Remarks
1 - 8	2,3	Common
9 - 10		Columns 9 and 10 punch sequentially
11		Format code - punch "*" (asterisk) in all cards.
12 - 72	23	Abstract. Punch following usual typing procedure.
73 - 80		Blank

The above two card types are consistent with previous SHARE practice, except in columns 1-11 common field.