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TECHNICAL INFORMATION SERVICE

Staff Bulletin

May 1968

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12 new titles available from TIS

Please see your administrative office or office librarian
for additional copies of this Bulletin.

CUC

MANUFACTURERS - INFORMATION SOURCES

IBM Systems Reference Library

SRL Subscription Service... a new program for selective
dissemination of IBM reference publications for office
libraries.

This new subscription plan for IBM manuals and other
reference publications makes it possible for you to
automatically receive a copy of all publications of
interest to you. It creates an IBM library for you and
keeps it up to date. Provisions are made in the plan to
order updates for multiple copies as required.

If your office hasn't already arranged for this service,
ask your IBM representative to establish it for you.
He will ask you to complete a subscriber profile on
which you indicate the major system for which the li-
brary is requested, and the subject areas for which
you want to maintain manuals, e.g., programming
systems-general, COBOL, sort/merge, systems tech-
niques.

A descriptive brochure on the SRL Subscription Service
is included with this mailing to Office Managers.

Honeywell EDP Management Consultants Newsletter.

Includes hardware and software announcements, new
publications, and some Honeywell corporate news.
The May issue had a 2 page supplement on Honey-
well Capabilities in Education.

Send your request to be put on their mailing list for
the Newsletter to: Honeywell, Electronic Data Proces-
sing Division, 60 Walnut Street, Wellesley Hills,
Mass. 02181. Att'n: Consultant Liaison Dept. M.S. #109.

MANUFACTURERS- INFORMATION SOURCES (cont'd)

RCA Computer Systems Information-Management Consultants Bulletin.

Substantive information on RCA systems is published in
this irregularly issued Bulletin. The RCA Spectra 70/630
Data Gathering System-DGS-was featured in the November
issue and Spectra 70 software systems in April. Requests
to be put on their mailing list should be sent to: Manager,
Consultant Relations, RCA Information Systems Division,
Camden, New Jersey 08101

Auerbach Standard EDP Reports is a comprehensive service
which brings together data about computer system character-
istics-hardware and software. The service includes com-
parision charts and performance evaluations.

The eight volume Standard EDP Reports has been extended
to cover Scientific and Control Computer Reports. This
new service has reports on the following equipment in its
initial publication: CDC 1700, PDP-8, Honeywell DDP 416,
516, 124, 224, and SDS Sigma 2. A state-of-the-art report
on digital plotters by the Auerbach technical staff is also
included.

The Auerbach Standard EDP and Scientific and Control Reports
are a part of the TIS reference collection and available for
your use as are the other Auerbach services: Data Handling
Reports, and Data Communications Reports.

COMPUTER PROGRAMS

The number of computer programs and proprietary packages
available for distribution is increasing rapidly. Announce-
ments and descriptions of some of the programs available
from both commercial and non commercial sources are
published in the catalogs and journal listed below. You
are encouraged to familiarize yourself with these new
information resources, all of which are available in TIS.

COMPUTER PROGRAMS (cont'd)

I. C. P. Quarterly, International Computer
Programs, Indianapolis, Indiana.

Lists commercial, utility, scientific and
engineering programs available from con-
sulting firms, processing centers, industry,
and individuals who voluntarily submit infor-
mation on their packages to the publisher for
inclusion in I. C. P. Quarterly. $25.00 per yr.

SHARE Programs and IBM Programs are
abstracted and indexed in the IBM Catalog
of Programs for the various processing
systems. Order Form No. C20-1619 for
the Catalog of Programs for the IBM System/360.

COSMIC: Directory of NASA computer programs.
The programs and the directory are distributed
by the Computer Software Management and
Information Center (COSMIC), University of
Georgia Computer Center.

Behavioral Science, an interdisciplinary bimonthly
journal, cosponsored by the Institute of Manage-
ment Science and the Fund for the Behavioral
Sciences, publishes abstracts of computer programs
(principally from universities) related to these
sciences.

STANDARDS

IPS Tech Memo - NBS

Information Processing Standards Tech Memo is the title of
an occasional publication prepared by the Center for Computer
Sciences and Technology, National Bureau of Standards. It
carries technical notes on the adoption of Federal ADP
standards and information regarding work being done on

STANDARDS (cont'd)

IPS Tech Memo-NBS

ADP standardization within the Federal establishment.

Distribution of IPS Tech Memo is official: not for pub-
lication, and is intended for persons activily involved
in Federal ADP programs. However, NBS has put
CUDC Technical Information Service on its mailing list
and we will route copies to interested persons.

COBOL Extension to Handle Data Bases: Report to the
CODASYL COBOL committee by the Data Base Task
Group, January 1968. Mimeo. 46 p.

The following recommendations are made in the report:

1. Store records on mass storage devices in an
increased variety of forms which more nearly
model the actual use or relationship of one
record to another. Some typical structures are
trees, hierarchies, or networks.

2. Find records in the structure with a
minimum of procedural effort.

3. Insert records into defined structures.

4. Remove records from structures.

5. Modify the content of records in a structure
and cause any required restructuring which
the modification may imply (remove the
necessity for sorting or merging to accomplish
the restructuring).

6. Delete records in a variety of data structures
as above.

A limited number of copies of the report are available from TIS.
Personnel in Chicago, Los Angeles, and Hartford offices do not
request from TIS as copies are already available in these offices.
See Mel Young, L. A. , Jim Doody, Chicago, Paul Taylor,
Hartford for the report.

STANDARDS (cont'd)

USA Standards Institute X3.4-Common Programming
Language Committee.

The minutes of meetings, documentation, and correspondence
relating to the work of the Common Programming Language
Committee are available in the Technical Information Service.

U. S. GOVERNMENT

Department of Defense - Marketing

The Defense Industry Bulletin is published by the Department
of Defense for the purpose of communicating data of interest
from the Department to contractors and other business
interests. Contents of the monthly issues can be used as a
guide by industry concerning official policies, programs and
projects. Information is supplied on techniques and methods
of managing government contracts.

The functions, operations and structures of selected DOD
operations are given extensive coverage, e.g., the Defense
Contract Administration Services was featured in the May
issue. Departmental organization charts, and budget data
are included in the Bulletin as well as a posting of all
defense procurement contracts of $1,000,000 and over
awarded during the previous month.

The Defense Industry Bulletin is distributed without charge.
Subscription requests for this informative and useful pub-
lication should be made on company letterhead and addressed
to the Business and Labor Division, OASD (PA), Room 1 E 764,
The Pentagon, Washington, D. C. 20301.

U. S. GOVERNMENT (cont'd)

Defense Documentation Center (DDC).   New ordering
procedure for DDC Users.

Organizations with DOD Contracts have been able to obtain
free copies of technical reports resulting from government
sponsored research and development work. Beginning
July 1, 1968, the Defense Documentation Center will
implement a new DOD policy under which DDC users re-
questing hard copy of DOD technical reports (from DDC)
are subject to a charge for such service. Full text will
continue to be available to all DDC users in microform at
no charge. The service charge for providing hard (paper)
copies of those technical reports available in microfiche
form (generally those accessioned by DDC after July 1965)
is $3.00 in most cases. Requests for paper copies of these
reports should be made on CFSTI coupons and sent to:
Clearinghouse for Federal Scientific & Technical Information,
U. S. Department of Commerce, Springfield, Virginia 22151.

Other DDC services such as report bibliographies and hard
(paper) copies of DDC technical reports not available in
microfiche form, will continue to be provided at no charge.
Requests for such services should be made on the appropriate
DDC form and mailed to DDC.

CUDC offices which have been using the DOD services under
contract agreements and have not received notices relating to
the policy changes, should contact TIS for additional information.

COMPUTER USAGE DEVELOPMENT CORPORATION

Publications

George Trimble's extensive Time-Sharing bibliography
was published in "Computing Reviews", May 1968. A copy
is attached and additional copies are available from TIS.
This is an updated version of the bibliography which we
distributed in mimeograph form last year.

Computer Usage Development Corporation designed and
implemented the system described in Mechanized Library
Procedures for the IBM Advanced Systems Development
Division Library, Los Gatos, California. IBM Form No.
E 20-0285.

RECENT BOOKS - available on loan from the Technical Information Service.

Borko, Harold, editor
Automated Language Processing. John Wiley, 1967.
386 p. $12.95.

The contents of the book are characterized by the following
operational definition used in preparing it: language
processing is the manipulation, or coding, of language
for specific purposes such as communication, trans-
lation, storage and retrieval. This is a state of the art
report on automating language processing. The material
is grouped under three topics: language data proces-
sing, statistical analysis, and syntactic analysis.

Foster, J. M.
List Processing. American Elsevier Publishing
Company. 1967. 54 p. $4.50.

Hare, Van Court
Systems Analysis: A Diagnostic Approach. Harcourt,
Brace & World, 1967. 544 p. $12.50.

This is an excellent text on the subject. Systems
analysis is treated conceptually rather than approaching
it with a series of cookbook techniques. The author
succeeds in presenting a wide variety of application
areas combined with a comprehensive set of analytic
tools in a way that highlights the generalizations and
common sense that characterize the field. Several
rather sophisticated mathematical techniques are
introduced and discussed in a manner that follows the
problem to be solved rather than as formal theories.

While the book is an intelligible and well written treat-
ment of a difficult subject field, it is by no means an
instant systems analyst maker. System Analysis: A
Diagnostic Approach is quite properly intended for use
as a text for one or two semester graduate level
course in the field. Its primary value is that it provides
a framework into which systems analysts can fit their
experience, and use it to derive a coherent approach
to new assignments.

Reviewed by Ray Fitzgerald, Senior Staff Analyst,
Mount Kisco.

RECENT BOOKS (cont'd)

Hassitt, Anthony.
Computer Programming and Computer Systems.
Academic Press, 1967. 374 p. $10.75.

A text which assumes a knowledge of programming
equal to that given in the introductory texts of Fortran
or one of the other compiler languages. It deals with
the major system components and their interrelationships.

Kanter, Jerome.
The Computer and the Executive. Prentice-Hall, 1967.
134 p. $5.95.

The businessman has been inundated recently with
books written as introductions to computers. In the
opinion of David Shirley, editorial consultant of Data
Systems magazine, he will have to look a long way
to fine a better one than The Computer and the Executive.

It is written in a brisk, matter-of-fact style, shows
an acute sense of what is relevant to the prospective
computer user, and gives priority to what the computer
does rather than what it is. It successfully explores
the computer world from the management point of view
explaining what a computer does for commerce and
how it does it. The author uses the case method
approach and selected an inventory application as the
case problem. It is discussed in the programming
mode, the operations research mode, the integrated
systems mode, and the real time mode.

Knuth, Donald E.
The Art of Computer Programming. Vol. 1/Fundamental
Algorithms. Addison-Wesley, 1968. 634 p. $19.50.

To be reviewed in the next TIS Bulletin.

Lee, John A. N.
The Anatomy of a Compiler. Reinhold, 1967. 245 p.
$13.50.

Worth examining, but some CUDC experts evaluate the
presentation as "only fair".

RECENT BOOKS (cont'd)

Morse, Philip M.
   Queues, Inventories and Maintenance: the Analysis of
   Operational Systems with Variable Demand and Supply.
   Publications in Operations Research No. 1.   John Wiley,
   1967.   202 p. $6.95.

Novick, David, editor.
   Program Budgeting: Program Analysis and the Federal
   Budget.   Harvard University Press, 1965.   382 p. $6.50.

   Twelve interrelated essays by experts in their fields
   comprise this volume which is reported to be the most
   substantial treatment of PPBS published to date.

Plossl, G. W. and O. W. Wright.
   Production and Inventory Control: Principles and
   Techniques.   Prentice-Hall, 1967.   432 p. $8.95.

   TIS acquired this book in response to requests for basic
   information on inventory control in industry.   Analysts
   report that it is very useful in putting practices into
   context from a business manager's viewpoint.

   The emphasis is on principles and techniques that
   apply whether or not the system is designed for the
   computer.   The author's concern has been to ex-
   plain the techniques as simply as possible-emphasiz-
   ing their logical relationships.   Contents: forecasting,
   fundamentals of inventory management, the economic
   lot-size, materials control, aggregate inventory
   management, planning production capacity, control-
   ling production capacity, controlling input-scheduling,
   controlling output, feedback and corrective action,
   design and managing the production control system.

   Recommended for office libraries.

Sackman, Harold.
   Time-Sharing versus Batch Processing: The Experimental
   Evidence.   System Development Corporation, SP 2975,
   October 1967.   40 p. (Single copies of paper available
   free from: Document Division, SDC 2500 Colorado
   Avenue., Santa Monica, California 90406.)

RECENT BOOKS

Sackman, Harold.
Time-Sharing versus Batch Processing: The Experimental
Evidence. (cont'd)

The continuing controversy over the relative merits of
time-sharing versus batch processing has taken a new
and siginficant turn from predisciplinary speculation to
applied scientific experimentation. Within the last two
years, five experimental studies have appeared in the
literature, each comparing some form of online and
offline data processing with respect to man-machine
measures of system performance. These five pioneering
studies comprise the first substantive data base for com-
paring and evaluating experimental methodology and
findings bearing on the growing and changing competition
between time-sharing and batch processing systems.
This paper provides a critical review of these five
experiments, summarizes findings, problems and pit-
falls, and offers recommendations for future experimental
work. (author abstract).

Wegner, Peter.
Programming Languages, Information Structures, and
Machine Organization. McGraw-Hill, 1968. 401 p.
$10.95.

IBM Systems Journal

Papers on the structural aspects of the IBM System/360
Model 85 and on economic lot sizing are featured in the
IBM Systems Journal, Volume 7, Number 1 (1968).

TIS has extra copies of this issue for dissemination.

The following page is an order sheet to be used for requesting material
announced in this bulletin.

Also list there any information resources you have used recently which
would be useful to other CUDC personnel and should be a part of the TIS
collection.

TO: Eleanor Crouse-TIS, Mount Kisco

FROM: _____ CUDC Office_____

DATE: _____

Please send me the following items which were announced
in the May 1968 TIS Staff Bulletin.

	Page No.	Short Title	
Manufacturers	1	Honeywell: Education	_____
	2	Auerbach: Digital Plotters	_____
Programs	3	I. C. P. Quarterly	_____
	3	COSMIC	_____
Standards	3	IPS Tech Memo, NBS	_____
	4	Report to CODASYL COBOL	_____
U. S. Government	6	DDC ordering policy	_____
CUDC	6	Trimble. Time-Sharing Bib.	_____
New Books	7-10	List authors for books you would like to borrow.	
	10	IBM Systems Journal System/360 Model 85.	_____

I suggest that TIS acquire the following publication(s), if not already
available.

CUC