ABSTRACT
          The workshop had its genesis in the belief that
interactive bibliographic data base searching will become an
essential function of reference service and that there is a need for
indepth training and more communication with suppliers--the on-line
system supplier and the data base supplier. The workshop included
presentations by data base suppliers, and very brief descriptions of
the following files are included: Chemical Abstracts Condensates,
Compendex, ERIC, Inspec, NAL/CAIN, Pandex/Transdex, Predicasts,
Psychological Abstracts, and NTIS. Roger Summit, Manager of Lockheed
Information Systems, summarized the history and background of DIALOG,
described the most recent developments and those planned for the near
future, and then led a discussion with the users. One-hour workshop
sessions gave participants the opportunity to meet personally with
representatives from eight data bases. Out of these sessions grew
suggestions and questions for Lockheed's DIALOG. (KKC)

DIALOG USERS WORKSHOP

August 8-9, 1974

Second Working Conference

FEDERATION OF INFORMATION USERS
1974

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INTRODUCTION

The DIALOG Users Workshop, the second working conference on the Federation of Information Users, sponsored jointly with the Special Libraries Association's Government Information Services Committee and Lockheed Information Systems, was held at the Institute for Defense Analyses in Arlington, Virginia, on Thursday and Friday, August 8 and 9, 1974.

There were 109 participants--13 represented Lockheed and the on-line data bases and 96 were users: representatives of libraries or other information centers, a few search service vendors, and several end users (research men who use the terminals and communicate directly with the data files without a middleman). The meeting was international, with several persons attending from Canada, and one from Italy.

The workshop had its genesis in the firm belief that interactive bibliographic data base searching will become an essential function of reference service. Research librarians at IDA, charged with learning the maximum potential of DIALOG during a six-month evaluation of on-line system retrieval for company use, found there was need for in-depth training and for more communication with the suppliers--the on-line system supplier and the data base supplier. They felt it was important, too, to inject the librarians' influence into the developing art of interactive searching.

Mrs. Joan Sweeney, Research Librarian at IDA Library, suggested the idea of an advanced training and evaluation session to Dr. Roger Summit, Manager of Lockheed Information Systems. He agreed that this was needed and expressed interest in pursuing the idea. Dr. Anthony Debons, President of the Federation of Information Users, was approached as a potential sponsor, and he suggested that this might be an appropriate subject for the Federation's second working conference. Mrs. Ruth S. Smith, Head Librarian of IDA, arranged the joint sponsorship with the Federation, Lockheed Information Systems and the Special Libraries Association's Government Information Services Committee.

Mr. Robert Donati and Mr. Richard Caputo of Lockheed met with Mrs. Smith during the SLA annual conference in Toronto in June, 1974; and the proposed training session grew into a workshop which would be the setting for an exchange among system users, data base representatives and Lockheed Information Systems. Mrs. Regina Nellor and Mrs. Sweeney, both of the IDA Library, did the advance hard work that makes a conference run smoothly--Miss Nellor on local arrangements and Mrs. Sweeney as registrar. The final report was assembled by Mrs. Evelyn Fass, Assistant Librarian of the IDA Library, for distribution to attendees of the conference.

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THE MEETING

Introductory Remarks

The workshop was opened by Ruth S. Smith, Head Librarian of the Institute for Defense Analyses. She spoke of the genesis of this workshop, its purpose, and the program structure of the two days. Dr. Roger Summit, Manager of Lockheed Information Systems, thanked Mrs. Smith and her staff for organizing the meeting and for making the facilities available. He traced briefly the history of DIALOG, from its initiation with a very small group of government users, on the NASA data base. "Since then," he said, "we've seen rather an explosion of on-line information retrieval services into what now is a full fledged industry of sorts.... Our objective is to bring about in the meeting a free interchange between the three major segments* of this industry in order for each of us to gain a better understanding of the problems, of the require-ments, and actually of the potentials that exist for each of us from each of the other segments."

Data Base Suppliers' Presentations

Representatives of the data base suppliers spoke to all the attendees gathered in the auditorium and each gave a broad description of the service. These are the data bases and the speakers who represented them:

CHEMICAL ABSTRACTS CONDENSATES
Thomas McDonald, Chemical Abstracts Services

CA Condensates covers citations and descriptors for documents relevant to chemistry and chemical engineering from 1972 to the present. It is expected that 375,000 records will be added in the coming year. Mr. McDonald said his company would welcome information from users on aids to effective on-line use of the computerized data files.

COMPENDEX
John W. Carrigy, Engineering Index

COMPENDEX is the computer readable form of the Engineering Index Monthly from 1972 to the present. Though the data base is the same as EI,

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* Data base producers, information retrieval service vendors (e.g. - Lockheed), and information centers (e.g. - libraries).

additional access points facilitate file manipulation. Six to seven thousand
abstracts are added each month. Engineering Index, too, wants feedback from
the users of the computerized data base.

ERIC
Chuck Hoover, National Institute of Education

ERIC includes a broad spectrum of reports and journal literature of
interest to the 'practitioners' in the educational profession in six separate
indexing and abstracting journals. Some of these have been merged for on-line
search resulting in four files in the computer data base covering
1966 to the present. The report literature has approximately 80,000 citations
and is growing at the rate of about 14,000 a year. The journal literature has
about 85,000 citations and is growing at the rate of approximately 20,000 per year.

INSPEC
Donald H. Gieb, Institution of Electrical Engineers

INSPEC-PHYSICS, INSPEC-ELECTRICAL ENGINEERING, and INSPEC-
COMPUTERS AND CONTROL are the three machine-readable files which corres-
pond to the published Science Abstracts A, B, and C from 1969 to the present.
A total of 140,000 items is added per year.

NAL/CAIN
Thomas Crawford, National Agriculture Library

This is the entire bibliographic file of the National Agriculture Library,
covering the breadth of subject interests of a government departmental library,
covering the period 1972 to the present. There are approximately 475,000 records
presently in file, and approximately 120,000 are added each year in monthly
updates. A manual describing NAL's selection policies will soon be available.

PANDEX/TRANSDEX*
Bill J. Funderburk, Macmillan Information Company

PANDEX/TRANSDEX is a combination of the records from PANDEX
(Macmillan Information Company's current index to scientific literature, which
indexes 2400 journals) and TRANSDEX, which indexes the translations published
by the Joint Publications Research Service. The file now includes 900,000 citations
covering the years 1971 and 1972. It has not been updated though it is still

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* Mr. Funderburk was unable to attend. His presentation was made by
Dr. Summit.

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available on-line. Participants were asked to express their wishes about whether to update this file. *

PREDICASTS
Ramune Kubiliunas, Predicasts, Inc.

Predicasts, Inc., a business information and market research firm, is now in the process of putting all its information services into computer accessible form. This should be completed in 1975, and together the five separate files will be known as the Predicasts Abstract Terminal System (PATS). Market Abstracts was available at the time of the workshop, the result of combining Chemical Market Abstracts and Electronics and Equipment Market Abstracts. The F&S INDEXES were announced to go on-line in August, the SOURCE DIRECTORY in September, and the STATISTICAL SERVICES in the fourth quarter of this year. Plans are that in 1975 users will be able to enter their own data and use statistical routines in order to interpolate, extrapolate, correlate, model and forecast.

PSYCHOLOGICAL ABSTRACTS
R. G. Kinkade, American Psychological Association

The machine-readable data base of Psychological Abstracts covers the period from 1967 to the present. The monthly updates add up to about 25,000 records a year, based on about 2000 monographs and 850 journals.

NTIS
Anne Harrison, National Technical Information Service

NTIS provides Government Reports Announcements on-line. This is the index to publicly available technical reports produced or sponsored by the US Government. Approximately 400,000 records from 1964 to the present are on-line. The semi-monthly updates add up to approximately 70,000 additional records per year.

After the data base presentations, questions were asked from the floor and were answered by the appropriate representative or by Dr. Summit. Some of the questions were:

How do the data bases relate to each other? Can we shift our search from one data base to another?

Do you provide 100% coverage of a subject field?

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*Note: This file has been dropped as of 1 February 75 due to a decision by CCM Information Systems to cease production of PANDEX/TRANSDEX.

How does Lockheed choose its files? How are costs affected when we switch files in a search?

What is the availability of thesauri?

Will there be a way to eliminate duplicate items coming up repeatedly in separate files in the same search?

Workshop Sessions

Participants had an opportunity to meet personally with the representatives of the eight data bases in one-hour workshop sessions. These were repeated three times so that each attendee would have the opportunity for exchange of problems and information regarding the three data bases most important to him.

Data base representatives who were involved within their companies with the bibliographic input or the programming were kept busy with questions. The most prevalent subjects for discussion appeared to be the need for adequate thesauri (many did not know what search aids existed) and the need for more dialogue about search techniques for the individual data bases. Here the value of the workshop as an occasion for interchange of information among the participants was evident. Study of the evaluation sheets written by those who attended reveals the wish for a lot more time to do just this.

System Vendor's Presentation

The second morning was Lockheed's. Robert Donati, Lockheed's east coast marketing representative, did a quick recap of the previous day's activities; then Dr. Summit presented background on the development of Lockheed Information Services and described new and planned-for-future features of DIALOG. A question-answer period followed.

Mr. Donati summarized the information on search aids available or in preparation:

CA Condensates has produced a large amount of information in preparation for a manual but would like some feedback first to know what search aids are needed by information centers.

Engineering Index: Two publications are available for purchase; (1) the SHE manual (Subject Heading in Engineering) at $15, and (2) the PIE (Publications Index for Engineering) at $5.*

American Psychological Association has forthcoming a Thesaurus of Psychological Terms at $12.* They are also in the process of converting old subject terms in their machine processable data base to be compatible with the new thesaurus.

NTIS uses eight different thesauri. Lockheed will list them in CHRONOLOG. The Weekly Government Abstracts category codes are now being reviewed. There will be a smaller proportion with defense orientation. Forthcoming is the Master Dictionary (a frequency list of subject terms). This will be produced in hard copy and will be available for consultation on-line.

INSPEC has a thesaurus available for purchase. Price was not mentioned. The IEE is in the process of putting patents of the US, UK, and NATO countries into the data base.

Lockheed feels that its role is to furnish information via CHRONOLOG** on the available search aids--titles, costs, sources--and to provide direct search (software use) guidance in the users manual appendices.

Dr. Summit summarized the history and background of DIALOG, described the most recent developments and those planned for the near future, and then led a discussion with the users. A condensation follows:

Background

The 1965 prototype information system developed from independent R&D funds in Lockheed and the RECON contract for NASA in 1966 preceded the fast build up of data bases in 1973. There have already been two identifiable eras in on-line history: the period between 1965 and 1969, when the cost was high and users were few, followed by the 1970-74 period in which commercial services moved on-line retrieval into universities, companies and local governments. We are moving toward a time when the end user will be a more prevalent user of the on-line console. (A show of hands indicated there were six attendees at this meeting who were end users.)

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* Prices quoted are tentative and subject to inflationary change.

** The next CHRONOLOG should include a list of these search aids.

The average cost of searches in those two eras plus an estimate of what they may cost in the period to come is as follows:

1965 - 69:	$50 - $100
1970 - 74:	10 - 50
1975 - 79:	1 - 5

New and Coming

New features:

1. Automatic logoff after 10 minutes if the user has stopped communicating but has not logged off.
2. The search/save feature. A search strategy can be saved and used again in searching another file. A parallel is the subroutine in computer programming.
3. Automatic SDI service.
4. Automatic ordering from ISI and NTIS.
5. New command: FIND (replaces SELECT and COMBINE).

New files:

File 17 is the most recent addition: the PREDICAST Chemical and Electronic Abstract Weekly File.

In preparation are the F&S Index file and the Social Science Citation Index and Current Projects Index (CPI) from the National Institute of Education. Psychological Abstracts is doing a revision of its computer tapes to eliminate duplicates and fill in some gaps.

Future negotiations for new files will be guided by suggestions made by workshop participants on the evaluation forms.

New events:

Lockheed Information Systems is making a change in computers this fall--to an IBM 360/65 coupled with a TELEX 3330 disc storage.

A National Science Foundation funded project is getting started to install on-line terminals in four public libraries in the San Francisco bay area to determine feasibility of using these in public libraries.

For the future, additional user conferences are planned (the first to be on the west coast in March) plus regional conferences and instructional seminars.

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User/Producer Exchange

Participants expressed feelings that it is Lockheed's responsibility to let the user know what is to be found in each of the data files.

Dr. Summit felt that the data base supplier has that responsibility. The number of files is growing exponentially, and this task would be unfeasible for Lockheed. He later agreed that Lockheed might produce a product which would be a 'referral guide' to the subject coverage of the various data files.

Concerning pricing--the consensus was that the lower the pricing for on-line service, the more searching would be done and thus the greater speed of word of mouth advertising.

Later, an advanced instruction period led by Mr. Donati was found by many to be useful. He covered the use of EXPAND, the use of an on-line thesaurus, code numbers versus plain language in commands, combining of sets, limited truncation capability in DIALOG, the use of operators and links, and new commands. He also described the new style of recording time in the printouts now given after each END command. This is a useful development for accounting purposes.

GROUP EVALUATIONS

The schedule called for concurrent evaluation group meetings to sum up the conference. Participants chose among five groups of related disciplines-- Science and Technology (general), Chemistry and Agriculture, Education and Psychology, Social Science and Psychology, or User Aids and Manuals.

The purpose was to discuss the data bases, the service, the total search capabilities for each data base, to compare their criticisms and praise, and to point out changes and additions they felt were needed.

Each group elected its own chairman and spent approximately an hour in discussion before the attendees reconvened in the auditorium to hear the evaluation summaries, which were as follows:

SOCIAL SCIENCE AND BUSINESS

Chairman: James R. Bowers
Allied Chemical Corp.
Morristown, NJ

More information is needed about the ABI data base (Abstracted Business Information) which has recently been added to DIALOG.

It would be of value to learn what other data bases are available that are not now on-line. Basically, these are the needs:

Macro Information

Reports which forecast future economic trends.
Industry overviews.

Micro Information

Data on capacities, price trends, product information, shipments and specific product applications along product lines.
Information on end use markets as well as commodity markets.

EDUCATION AND PSYCHOLOGY

Chairman: Erika Robinson
Research Information Center
D.C. Public Schools, Washington, DC

Re AIM & ARM:

It should be remembered this data base is limited to vocational and technical education.

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Most frequent mode of access is via ERIC descriptors, not author or corporate source.

Re ERIC:

Want return to search technique where MAJOR in last command does not limit both clusters.

Want truncation capability.

Want descriptors and identifiers to be split; subject approach is used most frequently.

Want update of thesaurus including related terms.

Want regular and more frequent issuance of posting list of descriptors and identifiers.

Want identification of population in index phrase (as in Psychological Abstracts).

RE Psychological Abstracts:

There was unanimous praise for the thesaurus, recently produced.

The index phrase is useful in searching.

Re DIALOG:

There should be a way to eliminate the first EXPAND command when searcher wishes to go direct to second EXPAND.

It would be useful to be able to list search/saves on the terminal, to have a sort capability, correction of errors, full text searching.

On printouts these aids for the ultimate user are needed: titles for each part of the search, blank sheet between parts, descriptive set close to the front, showing which file was searched.

SCIENCE AND TECHNOLOGY   Chairman: Betty Miller
                                          Calspan Corp., Buffalo, NY

The INSPEC thesaurus was adequate; Subject Headings in Engineering was causing some problems.

INSPEC files were useful; PANDEX was not.

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Re DIALOG:

Lockheed should compose a ready reference chart describing which fields were searchable in what files.

Lockheed should print a message on-line about printout difficulties in a particular file before the user starts a search in that file.

The major portion of this meeting was spent in questions to Mr. Donati on search techniques.

CHEMISTRY AND AGRICULTURE   Chairman: Peter Parrish
                                   Lockheed Missile System Division
                                   Sunnyvale, CA

Discussed relative value of frequency lists vs. EXPAND command. (No preference shown in report.)

Users manual should include two glossaries:

1) System level DIALOG characteristics,
2) Things that are unique to various data bases.

Need a better explanation of data bases and their content.

Need a DIALOG file that is a guide to the other files.

Concerning system reliability: Hardware terminal does not notify acceptance of password. There is a lag in response time depending on the type of terminal being used. Users are not notified of system crashes when they occur. There was a question on what happens to billing at the time a crash occurs.

Index words common to all data bases should be developed.

How many years of a file will be kept on-line as time goes by?

USERS MANUALS, SEARCH AIDS, ETC.   Chairman: Mary Ann Archer
                                          Eastman Kodak, Rochester, NY

Suggestions about the Users Manual:

It should be indexed, be in looseleaf format rather than spiral. Looseleaf update pages could be included in Chronolog.

There should be more complete narrative descriptions of the data bases in the manual.

A list of search aids should be provided.

More format examples should be provided.

Data base vendors might each provide a sheet outlining scope and limitations of each data base.

If necessary, a $10 charge could be made for the manual.

More copies of Chronolog should be provided so that each searcher in an information center might have his own file.

There should be a way for users to communicate to each other the new search techniques they discover and the errata they might find in the manual. A tear-out sheet or card, pre-addressed to Lockheed, might be included in the back of the users manual. Messages can be sent to Lockheed this way for inclusion in the Chronolog.

An on-line index to data bases was a worthy idea rejected as impractical.

For in-house promotion, an announcement brochure provided by the data bases would be useful.

It would also be useful to:

1. Know what training aids are available from Lockheed.
2. Improve the physical format of the manual.
3. Provide a list of attendees of the conference with their affiliation.

INDIVIDUAL EVALUATIONS

Before the meeting concluded, participants were asked to comment on the workshop. The list of questions provided by Lockheed and a summary of the individual responses are attached as an appendix.

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LESSONS LEARNED

The salient fact which emerged from this workshop is that DIALOG users want to learn, and in some cases desperately need to learn, more about the DIALOG system and the on-line data bases. These users feel that Lockheed and the data base suppliers have a real obligation to provide detailed information about the services and products they sell.

This obligation extends far beyond the basic training course and manual, or the brief descriptions of the data bases provided to new users. Users want a detailed, well indexed manual which includes a subject guide to the files on-line, a series of detailed search strategies, a listing of thesauri available, as well as the more routine explanations and examples (in depth) of the commands available. The manual should give equally clear instructions for use of a CRT terminal and a hard-copy thermal-printer terminal. All commands available in the program should be explained in depth and several examples of the use of each command should be given. Users want a clear understanding of how the DIALOG system can and cannot be used to manipulate the on-line files.

The biggest need expressed by the users was for more information on the data bases, their structure and the best way to use them. Here it was felt that the obligation to provide this information is shared by Lockheed and the data base suppliers. Thesauri, descriptions of subject scope, analysis of structure, and selection criteria for the data bases seem to be the areas of prime concern; and the users indicated that if the data base vendors don't meet their obligation to provide information in these areas, Lockheed must make the effort to gather the information and make it available.

Above all, the workshop provided an arena for interaction between the data base representatives and users; between the system vendors and users; and most rewarding, among the users. This user-to-user interaction, exchanging ideas, gripes, short-cuts, and helpful hints was seen by many of the attendees as the most valuable feature of the workshop.

The workshop provided an opportunity for the data base suppliers to come face-to-face with the users of the data bases. The interchange of ideas and problems which took place during the two day session helped the users to understand the data bases more fully and helped the suppliers to appreciate the requirements of users, re-emphasizing the need for sensitivity to user feedback on search problems, end user needs, successes and failures.

The representatives from Lockheed learned that users don't bite and that system vendors have an obligation to act as the intermediary between the users and the data base suppliers.

DIALOG USER'S WORKSHOP

Evaluation Form

1. List features particularly useful to you.

   - The sessions with the data base representatives in practical discussion.
   - Dr. Summit's presentation on Friday morning featuring DIALOG's new
     and future developments and the user/producer dialog.
   - Interaction among users.
   - Practical information on manipulation of DIALOG.
   - Lockheed's availability and willingness to discuss user concerns.
   - Descriptions of data bases other than those users had most contact with.
   - The NAL/CAIN on-line demonstration.

2. List activities and presentations you would like to have included in next meeting.

   - Experienced user panels discussing useful experiences, in-house
     promotion of service, distribution of charges.
   - More time for informal exchange.
   - Longer and more comprehensive tutorial sessions--with the data base
     representatives and with the Lockheed staff.
   - Display of search aids, types of terminals.
   - Detailed update of services available since last workshop.
   - More opportunity to practice on-line, more demonstrations.
   - Opportunity to cover more than three workshop sessions.
   - Presence of a representative from Tymshare.
   - Presentation from PREDICASTS.

3. Where should the next meeting be held?

   Palo Alto, Washington, Chicago, Houston, New York, not New York,
   Boston, Paris, London, Tokyo, regional, west coast, east coast,
   ski country.

4. Should a training session be incorporated into the next meeting?

   Yes, but optional and separate (additional day). New users and old
   users meet separately.

5. List additional operating features you would like to see included in DIALOG.

   - Additional printout refinements: English only, citation only, printout
     on magnetic tape.
   - On-line thesauri for all files.
   - Improved users manual with: a) better instruction on use of DIALOG,
     b) better instruction on retrieval of individual data base content.

- Index to users manual.
- Consecutive numbering of citations in the printouts.
- Truncation.
- Ability to erase unnecessary sets in disc storage, or more disc storage.

6. List data bases you would like to see added to the DIALOG service.

- Dissertation Abstracts
- Biological Abstracts
- Science Citation Index--the remaining portion
- Current Contents
- Smithsonian Science Information Exchange
- Medical--mental health material
- Legal material
- Educational statistics
- Earlier files of current data bases
- Census data
- SPIN (American Institute of Physics)
- Sources of bibliographies
- Full NASA tapes
- CA Patents of Concordance