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**COMPUTER SOFTWARE FOR THE
ENVIRONMENTAL SECTION'S
OFFSITE CONTACTS PROGRAM**

C. E. Styron

July 24, 1984

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MRC-Mound
Miamisburg, Ohio 45342

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Foreword

This report was prepared by the Environmental Science group of the Administrative Services Department at Monsanto Research Corporation - Mound to document computer software used in maintaining the Environmental Section's offsite contacts program.

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Introduction

The Environmental Science group has maintained the Offsite Contacts Program database since 1974. As with most programs that have had such a long history, the methods used for collecting, processing, and distributing information have undergone significant evolution. Records of offsite contacts were initially gleaned from trip reports, telephone logs, etc. Annually, all of the bits and snips of paper were synthesized into a report. Subsequently, records were kept on Mound's mainframe computer using the Statistical Analysis System(c) (SAS) to process punched cards and generate reports automatically. With the availability of microcomputers, database management software was developed in the PL/I(c) language for an 8-bit S-100 microprocessor. Finally, the PL/I(c) source codes were recompiled for a Corona PC Workstation operating under MS-DOS(c). The programs have continued to facilitate incorporation of updated information, have helped maintain an awareness of the offsite contacts effort among Environmental personnel, and have eased the burden of generating the annual report. This manual is intended to document the software and to provide wider distribution of the software for applications in other areas of Monsanto.

The Offsite Contacts Program was implemented with the following objectives:

1. To enhance opportunities for new business,
2. To increase the offsite sphere of influence of the Environmental Section,
3. To assist Environmental personnel in anticipating areas of environmental health concern so as to prevent these areas from becoming problems for Mound, and
4. To further enhance Mound's image as a concerned and responsible industrial neighbor through routine communications with members of the public.

These efforts have involved letters, telephone conversations, attendance at national meetings, and personal visits. The planned program for offsite contacts complements the normal activities conducted by the Environmental Section at Mound by extending communications on a scheduled basis.

Specific goals for the Offsite Contacts Program are as follows:

1. To identify particular individuals (within local, state, and federal agencies, within various contractor organizations, and within Monsanto) whose responsibilities are in fields of mutual interest to the Environmental Section.

Offsite Contacts Program

2. To acquaint these agencies and representatives with
 - (a) the routine and special environmental programs that are conducted at Mound,
 - (b) the quality of these programs, and
 - (c) the technical and managerial experience and competence of the personnel.This objective is oriented to the establishment of general recognition of Mound as an authority in the environmental field.
3. To impress on the respective target audiences the fact that Mound has talent and resources available
 - (a) to help them resolve problems,
 - (b) to advise them on the design, implementation, and completion of environmental programs, and
 - (c) to let them know that Mound can contract and conduct studies for them.This objective is new-business oriented.
4. To assist Mound departments such as Advanced Devices and Nuclear Operations in securing additional work through contracts in each agency's environmental function.
This objective is also oriented toward new business.
5. To keep the offsite contacts, themselves, advised on a regular basis of the current status and significant changes and developments in Environmental Section programs.

The program identifies those agencies and personnel with health and environmental management responsibilities. Target individuals (e.g., local, state, and federal government, as well as Monsanto and specific private citizens) are included in the scope of the program in order to establish an exchange of information.

Specific individuals are identified whenever possible. The frequency of contact is based on the actual or potential impact the individual may have on Mound operations and on the potential benefit to the Environmental Section from the program. This approach assists in creating opportunities for new business for Nuclear Operations and Advanced Devices, as well as the Environmental Section. The program also assists in anticipating areas of environmental health concern so that we can prevent their becoming problems for Mound. And, finally, the program enhances the sphere of influence of the Environmental Section in the public sector and technical community.

Offsite Contacts Program

When contacting individuals of the various agencies, emphasis is directed toward the following:

1. Identifying additional individuals;
2. Interfacing on a technical, scientific basis and from the standpoint of program management;
3. Being alert for opportunities to assist them and attract new business; and
4. Extending invitations for visits to Mound in order to reinforce the program's thrusts.

Program strategy calls for designated individuals from the Environmental Section to establish selected personal contacts and to maintain them by visits and invitations for visits to Mound on a general frequency of one or two contacts per year, supported by supplemental contacts through letters and telephone calls. Some contacts may be made on a frequency of less than once each year.

The program identifies specific persons in the Environmental Section as having primary responsibility for establishing and maintaining specific contacts. This is not to suggest that for some offsite contacts other persons in the section are relieved of their need or obligation to maintain those contacts necessary for optimum conduct of their business. The program identifies those persons who have primary responsibility to cultivate the designated contacts.

Hardware

The software has been installed on an 8-bit S-100 system operating under CP/M-80(c) and on a 16-bit Corona PC Workstation operating under MS-DOS(c). The programs make no unique system function calls, and they should run on systems for which PL/I(c) compilers are available.

Software

Software was developed for the offsite contacts program as a related set of programs. Each program performs a different function, as outlined below, and these functions were separated in order to improve performance.

CONTACT1(c) creates the data base initially. Each time this program is run the existing data base is erased and a new one is started. Having backup data files would be wise.

Offsite Contacts Program

CONTACT2(c) updates (changes existing observations or adds new ones) the data. CONTACT2 requires specification of a file name at run time (e.g., A>CONTACT2 OFFSITES). The existing filename.DAT is appended to additions in filename.TEM, and a new filename.DAT is generated keyed to k.

CONTACT3(c) generates reports. Facilities for using titles and comments are incorporated after appropriate prompts.

CONTACT4(c) prints a complete listing of an individual's offsite contacts program.

The following files should also be on the disk.

COMMAND.COM(c) - System file.

AGGRP.DAT - List of agencies and groups incorporated in the offsite contacts program.

OFFSITES.DAT - Database for offsite contacts. This is a random access file.

OFFSITES.KEY - This index, or key, file is the one that is sorted during program execution. Values of parameters in this file are used to point to records in the OFFSITES.DAT file.

OFFSITES.TEM - Additions to the database are written to OFFSITES.TEM, and this file is appended to OFFSITES.DAT when the session is finished. If the program fails because of an unrecoverable error (e.g., entry of invalid data) during an updating or adding session, the original OFFSITES.DAT is retained without change. All changes made during the immediate session are discarded.

Operating Instructions

It is assumed that users of this software are generally familiar with operation of their microcomputer, are familiar with the keyboard, and know how to format and care for diskettes. The following examples (screens) were taken from a Corona PC Workstation operating under MS-DOS(c).

Starting the Program

Your PC should be ON and "booted." The program disk should be in the default drive, and the system prompt should be visible. In these examples we will use drive A as the default drive.

Offsite Contacts Program

Decide what your objectives are for a given session. Use CONTACT1(c) or, preferably, CONTACT2(c) to build a data base. Use CONTACT2(c) to update or add records. Use CONTACT3(c) for printing reports on offsite contacts that have been made and on contacts that remain to be made. Use CONTACT4(c) for printing all records (listing both planned and actual contacts) for a given Environmental representative or all records for each Environmental representative. The following example sessions will illustrate use of CONTACT2(c), CONTACT3(c), and CONTACT4(c).

Adding and Updating Records

At the A> prompt, type `CONTACT2 OFFSITES` and carriage return. OFFSITES is the name of the file containing the database. Other databases can be specified in place of OFFSITES if desired. Files will be read and you will be asked to specify whether you want to add observations, update/delete observations, or end execution. You can terminate program operation at any time by pressing `Ctrl-C`, but exiting the program in response to a prompt is preferred for maintaining the integrity of database files.

=====

The IBM Personal Computer DOS
Version 2.00 (C)Copyright IBM Corp 1981, 1982, 1983

A>CONTACT2 OFFSITES

Do you want to ADD observations, UPDATE/DELETE observations,
or END execution? (A,U,E)

=====

In the example below, press A to indicate that you plan to add observations. A list of agencies and key numbers will scroll onto the screen, and you will be asked to select an agency number.

*when needing
to delete, then add,
use update/delete*

Offsite Contacts Program

LIST OF AGENCIES & NUMBERS

1 DOE Headquarters	2 DOE Albuquerque	3 DOE ENL	4 DOE DNA-Las Veg
5 DOE Other	6 Bureau of Mines	7 Dept. of Agricu	8 EPA Headquarter
9 EPA Chicago	10 EPA Cincinnati	11 EPA Las Vegas	12 EPA Region V
13 EPA Research Tr	14 EPA, EERL, Mont	15 EPA Princeton	16 NASA
17 National Scienc	18 NRC Headquarter	19 NRC Atlanta	20 TVA Muscle Shoa
21 US Army Chemica	22 US Army Testing	23 US Army Ballist	24 Other Federal A
25 Argonne	26 Battelle, Colum	27 Battelle, PNL	28 Los Alamos
29 Lawrence Liverm	30 Fernald, OH, Na	31 Oak Ridge Assoc	32 Oak Ridge
33 Pantex	34 Rockwell Intern	35 Savannah River	36 Other DOE Contr
37 Florida Health	38 Polk Co. Health	39 Inst. of Phosph	40 Ohio EPA
41 Ohio Air Qualit	42 Miami Conservan	43 Miami Valley Wa	44 Mont. Co. Combi
45 Corporate	46 NRC Dayton Labo	47 Washington Offi	48 Other Monsanto
49 Air Force Acade	50 Colorado State	51 Cox Heart Insti	52 Emory Universit
53 Georgia Tech Un	54 Kansas State Un	55 New Mexico Stat	56 New York Univer
57 Oregon State Un	58 Purdue Universi	59 Rutgers Univers	60 Savannah River
61 SUNY - Syracuse	62 U. of Californi	63 U. of Cincinnati	64 U. of Florida
65 U. of Georgia	66 U. of Niagra	67 U. of Pittsburg	68 U. of Toronto
69 VPI & SU	70 Woods Hole Ocea	71 Wooster Agricul	72 Alara, Lyons, C
73 City of Miamisb	74 EDA, Inc.	75 Engineering-Sci	76 T. M. Gates, In
77 Other	78 EOF	79	80

To stop adding, enter an Agency Code of 0. Agency Code Number ==>

In this example, we wish to add an observation for a meeting with Clayton Hathaway, Monsanto Corporate Headquarters. "Corporate" is item number 45; so press 45 <cr> to select that agency. The symbol <cr> indicates the carriage return key. To end this session and return to the previous prompt, you could have entered 0<cr> as your response.

After selecting the agency, you will be prompted to specify the name of the contact.

To stop adding, enter an Agency Code of 0. Agency Name Code Number ==>45

GROUP: Monsanto AGENCY: Corporate

Contact Name ==>

In PL/I input format a comma <,> is used to separate data items. It is recommended that you systematically use a single quote '>' to start character string data entries for which a number or specific letter are not requested. In the example below, you would type 'Clayton Hathaway<cr>' in response to the prompt.

Offsite Contacts Program

You will then be prompted for the date of the meeting. By default the date is set to null (""). In PL/I if you do not wish to change the value of a variable upon input, press ,<cr> to advance to the next data field. This feature is useful if you are entering a scheduled or planned meeting or otherwise do not have a date value to enter. If you are updating rather than adding an observation, you can use ,<cr> to step through the data instead of re-entering the entire record. Since the meeting with Clayton Hathaway occurred July 16, you would enter 'July 16, 1984<cr>' as indicated below. You will then be prompted to indicate the number associated with the Environmental representative who made the contact.

=====

GROUP: Monsanto AGENCY: Corporate

Contact Name ==>'Clayton Hathaway

Date of Meeting ==>'July 16, 1984

LIST OF MOUND REPRESENTATIVES & NUMBERS

1 D. T. Abbott	2 C. T. Bishop
3 D. G. Carfagno	4 V. R. Casella
5 C. S. Friedman	6 G. R. Hagee
7 P. H. Jenkins	8 R. A. Neff
9 C. R. Rudy	10 C. E. Styron
11 F. K. Tomlinson	12

ES Representative Number ==>

=====

In this case you would enter 10<cr> to refer to C. E. Styron. This approach saves some typing and reduces the probability of typing errors and inconsistencies in format. You will then be prompted for information on planned frequencies, schedules, and subjects for meetings. Then there is a prompt for whether additional meetings are scheduled or not.

After the last data entry, a summary of the record will be displayed for review. If the items are correct and you want the record written to disk, press y<cr> or press n<cr> to cancel and re-enter the record.

comma
,<CR> = more on

apostrophe
'<CR> = erase

type contact.doc

Contact:

```
Proc options(main);
/*****
/*
/* DOCUMENTATION FOR CREATE C. E. Styron 08-06-82
/*
/*
/* The data base management system for the OFFSITE CONTACT
/* PROGRAM consists of a series of PLI programs to create
/* and update files and to generate reports.
/*
/*
/* Run CONTACT1 to create the data base initially. Each
/* time this program is run the existing data base is
/* erased and a new one is started. Having backup data
/* files would be wise.
/*
/*
/* Run CONTACT2 to update (change existing observations
/* or add new ones) the data. CONTACT2 requires
/* specification of a filename at runtime (e.g.,
/* A0>CONTACT2 OFFSITE ). The existing filename.DAT is
/* appended to additions in filename.TEM, and a new
/* filename.DAT is generated keyed to k.
/*
/*
/* Run CONTACT3 to generate reports. Facilities for
/* using titles and comments are incorporated after
/* appropriate prompts.
/*
/*
/* Run CONTACT4 to print a complete listing of an
/* individual's offsite contacts program.
/*
/*
/* Run PRINTCON to check/print the file.DAT files. Type
/* PRINTCON OFFSITE to print the OFFSITE.DAT file.
/*
/*
*****/
End;
```

A:\>printcon offsites

Bad command or file name

Offsite Contacts Program

=====

Subject of Discussions

==>'Review of Biological and Radiation Safety procedures.

If scheduled meetings have all been made, then

Duty = 1; else Duty = 0. DUTY ==>1

Values for one complete observation have now been entered.

GROUP : Monsanto

AGENCY : Corporate

CONTACT : Clayton Hathaway

ES REPRESENTATIVE : C. E. Styron

DATE OF MEETING : July 16, 1984

FREQUENCY : annually

SCHEDULE :

SUBJECT : Review of Biological and Radiation Safety procedures.

DUTY : Schedule of meetings is met.

If the above items are correct and you

want them written to disk, then press

y RETURN, else press n RETURN to re-enter data. ==>

=====

Whether you accept or reject the record, the list of agencies and numbers will return to the screen. The prompt will ask for a number to specify an additional agency contact or a zero to indicate that this session is over. Assuming that the entry for Clayton Hathaway is the only one for this session, press 0<cr> to stop adding. The screen below will appear with EOF (for End Of File) as the contact. On this screen you may confirm that you wish to end the session by entering y<cr> or you may cancel this record by entering n<cr> to resume adding records.

=====

GROUP: AGENCY:

Values for one complete observation have now been entered.

GROUP :

AGENCY :

CONTACT : EOF

ES REPRESENTATIVE :

DATE OF MEETING :

FREQUENCY :

SCHEDULE :

SUBJECT :

DUTY : Additional meetings are scheduled.

If the above items are correct and you

want them written to disk, then press

y RETURN, else press n RETURN to re-enter data. ==>

=====

Offsite Contacts Program

At the end of a session adding records, the files *.DAT and *.TEM are appended and an abbreviated listing of the records (record number, agency, and Environmental representative) is scrolled onto the screen. This provides additional confirmation that records were added as expected. A blank record is at the end of the file. Following this listing, you will be asked whether you wish to add or update records or end execution. In practice, it is better to end execution at this point and restart the program if you wish to do further editing. This approach will ensure that the new *.KEY file is read in properly. The screen below shows the last few abbreviated record listings and the prompt.

=====

183	DOE Albuquerque	C. S. Friedman
184	DOE Albuquerque	C. S. Friedman
185	DOE Albuquerque	C. S. Friedman
186	Other Federal Agencies	D. T. Abbott
187	DOE Albuquerque	R. A. Neff
188	DOE Albuquerque	R. A. Neff
189	Corporate	R. A. Neff
190	Corporate	R. A. Neff
191	City of Miamisburg	R. A. Neff
192	Other	C. E. Styron
193	Other	C. E. Styron
194	Fernald, OH, National Lead	C. R. Rudy
195	Fernald, OH, National Lead	C. R. Rudy
196	Corporate	C. E. Styron
197		

Do you want to ADD observations, UPDATE/DELETE observations,
or END execution? (A,U,E)E

End of Execution

A>

=====

Records can be updated by calling CONTACT2(c) and the database name (OFFSITES in this example) and responding U<cr> for update when the prompt appears. You will then be asked to specify how you would like the records searched: by agency, Environmental representative, or by both categories.

=====
End of Execution
A>contact2 offsites

Do you want to ADD observations, UPDATE/DELETE observations,
or END execution? (A,U,E)U

Would you like to search by Agency,
Ea&p representative, Both agency & ea&p rep,
or None of these? (A, E, B, N) ===>

=====
If you specify N<cr> for neither, you will be returned to the
previous prompt (add, update, or end).

If you specify A<cr> for agency, you will see a list of agencies
and numbers on the screen and you will be asked to select one.
Following your selection, all records for that agency will be
presented for review and updating. To accept the value of a
given data item, press ,<cr> to go to the next data item. To
change the data, type in the updated information as you would for
adding the information.

If you specify E<cr> for Environmental representative, you will
then see a list of representatives' names on the screen and you
will be asked to select one. Following your selection, all
records for that individual will be presented for review and
updating.

If you specify B<cr> for both agency and Environmental
representative, you will first see a list of agencies and be
asked to select one. Then you will see a list of Environmental
representatives and be prompted to select one. Those records
which meet both the agency and representative criteria will be
presented on the screen for review and updating.

In the example below, we want to update the previously entered
record for Clayton Hathaway at Monsanto Corporate Headquarters.
Press B<cr> to search by both categories. Select the agency by
pressing 45<cr> (Monsanto Corporate), and select the
representative by pressing 10<cr> (C. E. Styron). All records in
OFFSITES.DAT for C. E. Styron's contacts at Monsanto Corporate
will be presented for update and review. The first one is for
Clayton Hathaway.

Offsite Contacts Program

=====

To end updating by Agency & ES Rep, enter an Agency Number of 0.
Otherwise specify a non-0 value. FIND AGENCY NUMBER ==>45

Corporate

EA&P REPRESENTATIVES & NUMBERS

1 D. T. Abbott	2 C. T. Bishop
3 D. G. Carfagno	4 V. R. Casella
5 C. S. Friedman	6 G. R. Hagee
7 P. H. Jenkins	8 R. A. Neff
9 C. R. Rudy	10 C. E. Styron
11 F. K. Tomlinson	12

To end the search, enter an ES Rep Number of 0. Otherwise, enter
ES REPRESENTATIVE NUMBER TO FIND ==>10

ES Rep: C. E. Styron

GROUP: Monsanto

AGENCY: Corporate

CONTACT: Clayton Hathaway ==>

LIST OF MOUND REPRESENTATIVES & NUMBERS

1 D. T. Abbott	2 C. T. Bishop
3 D. G. Carfagno	4 V. R. Casella
5 C. S. Friedman	6 G. R. Hagee
7 P. H. Jenkins	8 R. A. Neff
9 C. R. Rudy	10 C. E. Styron
11 F. K. Tomlinson	12

ES REPRESENTATIVE: C. E. Styron ES Representative Number ==>

DATE OF MEETING: NEW DATE ==>

LIST OF FREQUENCIES & NUMBERS

0	1 monthly	2 quarterly
3 semiannually	4 annually	5

FREQUENCY: annually NEW FREQUENCY NUMBER ==>

SCHEDULE: NEW SCHEDULE ==>

SUBJECT: Radioisotope Handling Audit for Monsanto Research Center.
==>

DUTY = 0 if not met; 1 if met.

DUTY: 0 NEW DUTY VALUE ==>

=====

Offsite Contacts Program

Once the record has been found, you can mark it for deletion by entering an Environmental representative number of zero 0<cr>. At the conclusion of the next session in which records are added, records having representative number zero are not incorporated in the new database.

When the search for records meeting the specified criteria has been completed, the lists of agencies and representatives will again scroll onto the screen and you will be asked to specify additional criteria for searching or to end the search by entering an agency number of zero. In the example below, the search is concluded by entering 0<cr> for agency number. You will be returned to the previous menu and asked to specify whether the next search should be by agency, Environmental representative, both, or neither. N<cr> is specified below to end that level of searching. Finally, the prompt appears regarding whether you wish to add, update, or end. Press E<cr> to end execution.

```
=====
73 City of Miamisb  74 EDA, Inc.          75 Engineering-Sci  76
77 Other            78 EOF                79                80
=====
```

To end updating by Agency & ES Rep, enter an Agency Number of 0. Otherwise specify a non-0 value. FIND AGENCY NUMBER ==>0

Would you like to search by Agency,
Ea&p representative, Both agency & ea&p rep,
or None of these? (A, E, B, N) ==>N

Do you want to ADD observations, UPDATE/DELETE observations,
or END execution? (A,U,E)E

End of Execution

Printing Annual and Quarterly Reports

Annual and quarterly reports on offsite contacts can be prepared with CONTACT3(c). The program is called at a system prompt by typing CONTACT3 OFFSITES<cr> as illustrated below. The first part of the program prints a listing of contacts that have been made, sorted by agency. Titles for the report are entered as follows.

Offsite Contacts Program

=====

A>CONTACT3 OFFSITES

Titles may be input now for printing with the report on meetings that have occurred. Titles are printed in order, Title(0) through Title(9).

This first set of titles is for printing the report sorted by group, agency, and contact.

Do you want title # 0 ? (Y/N)Y

Do you want title # 0 Centered or Left justified? (C/L)C

Title(0)

==>'ENVIRONMENTAL SECTION

Do you want title # 1 ? (Y/N)Y

Do you want title # 1 Centered or Left justified? (C/L)C

Title(1)

==>'Offsite Contacts Program

=====

After all desired titles have been entered, answer N<cr> to the prompt "Do you want title # _) ? (Y/N)". Printing will begin and will continue until all meetings have been listed. A sample first page follows.

ENVIRONMENTAL SECTION
Offsite Contacts Program

Preliminary Second Quarter Report

July 19, 1984

The following contacts have been reported during CY 1984.

GROUP: Federal Agencies

AGENCY: DOE Albuquerque

CONTACT: A. Griego

ES REP: C. S. Friedman
SUBJECT: Environmental programs.

MET ON: March 14, 1984

CONTACT: R. Miller, OS

ES REP: C. S. Friedman
SUBJECT: Environmental programs.

MET ON: March 14, 1984

CONTACT: A. Griego

ES REP: C. S. Friedman
SUBJECT: Environmental programs.

MET ON: March 22, 1984

CONTACT: J. Arthur, UMTRA

ES REP: C. S. Friedman
SUBJECT: Radon Program.

MET ON: January 5, 1984

CONTACT: J. Arthur, UMTRA

ES REP: C. S. Friedman
SUBJECT: Radon Program.

MET ON: January 10, 1984

CONTACT: J. Morley, UMTRA

ES REP: C. S. Friedman
SUBJECT: Radon Program.

MET ON: March 6, 1984

CONTACT: J. Morley, UMTRA

ES REP: C. S. Friedman
SUBJECT: Radon Program.

MET ON: March 14, 1984

CONTACT: P. M. Rasey, OS

ES REP: R. A. Neff
SUBJECT: Environmental programs.

MET ON: March 14, 1984

CONTACT: R. Miller, OS

ES REP: R. A. Neff
SUBJECT: Environmental programs.

MET ON: March 14, 1984

GROUP: Federal Agencies

AGENCY: US Army Testing and Evaluation Com.

CONTACT: Major David Parmer

ES REP: C. E. Styron
SUBJECT: New business in aquatic toxicology.

MET ON: January 5, 1984

GROUP: Federal Agencies

AGENCY: Other Federal Agencies

CONTACT: Mr. Richard Crews, Eglin AFB

ES REP: D. T. Abbott
SUBJECT: New business in environmental assessment.

MET ON: March 6, 1984

Offsite Contacts Program

When printing is completed for contacts that have been made, you will be prompted for titles to be used with each individual's report on scheduled contacts that have not been recorded. A typical exchange is illustrated below.

=====

Titles may now be input for printing
the report for meetings that are scheduled.

Do you want title # 0 ? (Y/N)

Title(1)

==> Offsite Contacts Program

Do you want title # 2 ? (Y/N)y

Do you want title # 2 Centered or Left justified? (C/L)c

Title(2)

==> Preliminary Second Quarter Report

Do you want title # 3 ? (Y/N)y

Do you want title # 3 Centered or Left justified? (C/L)c

Title(3)

==> July 19, 1984

Do you want title # 4 ? (Y/N)y

Do you want title # 4 Centered or Left justified? (C/L)c

Title(4)

==> The following meetings are on your schedule for this year.

Do you want title # 5 ? (Y/N)n

=====

Files will be searched for meetings that do not have a date specified. The printout will list the proposed meetings, grouped by Environmental representative. A typical first page follows.

ENVIRONMENTAL SECTION
Offsite Contacts Program

Preliminary Second Quarter Report

July 19, 1984

The following meetings are on your schedule for this year.

ES REPRESENTATIVE: D. T. Abbott

GROUP: Federal Agencies
AGENCY: DOE DMA-Las Vegas
CONTACT: Paul Dunaway
FREQUENCY: annually
SUBJECT: New business in Test Site research. w/CES

GROUP: Federal Agencies
AGENCY: Dept. of Agriculture, Forest Service
CONTACT: Wayne Swank
FREQUENCY:
SUBJECT: Ecological research.

GROUP: Federal Agencies
AGENCY: EPA Headquarters
CONTACT: Richard Cothorn
FREQUENCY:
SUBJECT: Radionuclides in drinking water. w/CES

CONTACT: Vince Nabholz
FREQUENCY:
SUBJECT: New business in environmental research.

GROUP: Federal Agencies
AGENCY: NASA
CONTACT: Pat Fleebe, Langley Res. Ctr.
FREQUENCY:
SUBJECT: Ecological research.

GROUP: Federal Agencies
AGENCY: National Science Foundation
CONTACT: Elizabeth Blood
FREQUENCY:
SUBJECT: Ecology.

CONTACT: Tom Callahan
FREQUENCY:
SUBJECT: Radioecology.

Offsite Contacts Program

Printing an Individual's File

A listing of the to total file for an individual can be generated using CONTACT4(c). This type of report is helpful when you would like to have each representative check all of the records in his file for accuracy. A typical exchange is shown below.

=====

A>CONTACT4 OFFSITES

Titles may be input now for printing with the report.
Titles are printed in order, Title(0) through Title(9).
Titles 0 & 1 are printed double wide.

The titles are for printing a report on the full program of an individual.

Do you want title # 0 ? (Y/N) ==>Y

Do you want title # 0 Centered or Left justified? (C/L) ==>C

Title(0)
==>'ENVIRONMENTAL SECTION

Do you want title # 1 ? (Y/N) ==>Y

Do you want title # 1 Centered or Left justified? (C/L) ==>C

Title(1)
==>'Offsite Contacts Program

Do you want title # 2 ? (Y/N) ==>y

Do you want title # 2 Centered or Left justified? (C/L) ==>c

Title(2)
==>'Preliminary Second Quarter Report

Do you want title # 3 ? (Y/N) ==>y

Do you want title # 3 Centered or Left justified? (C/L) ==>c

Title(3)
==>'July 19, 1984

Do you want title # 4 ? (Y/N) ==>y

Do you want title # 4 Centered or Left justified? (C/L) ==>c

Title(4)
==>'This report lists information on hand for your programs.

Do you want title # 5 ? (Y/N) ==>n

=====

Offsite Contacts Program

When all titles have been entered for the report, you will be asked to specify whether you want to print reports for one, all, or no individuals. If you specify no individuals, the program will terminate. If you specify a report for all representatives, printing will begin. If you indicate that you want a report for only one individual, a list of Environmental representatives will scroll onto the screen and you will be prompted to select one. In the sample below, a report for number 10 was requested.

```
=====
Do you want title #          4 ? (Y/N) ===>y
Do you want title #          4 Centered or Left justified? (C/L) ===>c
Title(          4 )
===>'This report lists information on hand for your programs.
Do you want title #          5 ? (Y/N) ===>n
Do you want reports for ONE, ALL, or NO individual(s)? (O/A/N) ===>O

LIST OF ES REPRESENTATIVES
1 D. T. Abbott                2 C. T. Bishop
3 D. G. Carfagno              4 V. R. Casella
5 C. S. Friedman              6 G. R. Hagee
7 P. H. Jenkins               8 R. A. Neff
9 C. R. Rudy                  10 C. E. Styron
11 F. K. Tomlinson            12
13                             14
15                             16

Enter Number of ES Representative that you want found. ===>10
=====
```

The first page of a typical printout follows.

ENVIRONMENTAL SECTION
Offsite Contacts Program

Preliminary Second Quarter Report

July 19, 1984

This report lists information on hand for your programs.

ES REPRESENTATIVE: C. E. Styron

GROUP: Federal Agencies
AGENCY: DOE Headquarters
CONTACT: Charles Grua

MET ON:

FREQUENCY: annually
SUBJECT: Final Report on Western Coal.

CONTACT: William Fedarko

MET ON:

FREQUENCY: annually
SUBJECT: New business in coal (analysis and mineral recovery).

GROUP: Federal Agencies
AGENCY: DOE DMA-Las Vegas
CONTACT: Paul Dunaway

MET ON:

FREQUENCY: annually
SUBJECT: New business in Test Site research. w/DTA

GROUP: Federal Agencies
AGENCY: EPA Headquarters
CONTACT: C. Richard Cothern

MET ON:

FREQUENCY: annually
SUBJECT: Radioactivity in drinking water.

GROUP: Federal Agencies
AGENCY: EPA Cincinnati
CONTACT: Jon P. Longtin

MET ON:

FREQUENCY:
SUBJECT: New business on radon in drinking water.

GROUP: Federal Agencies
AGENCY: EPA Research Triangle Park
CONTACT: Richard Rhoderick, HERL

MET ON:

FREQUENCY: annually
SUBJECT: New business in environmental research.

Offsite Contacts Program

When printout has been completed, you will be prompted for whether you want reports for one, all, or no individuals. In the example below, execution of the program was terminated by specifying `n<cr>`.

=====

LIST OF ES REPRESENTATIVES

1	D. T. Abbott	2	C. T. Bishop
3	D. G. Carfagno	4	V. R. Casella
5	C. S. Friedman	6	G. R. Hagee
7	P. H. Jenkins	8	R. A. Neff
9	C. R. Rudy	10	C. E. Styron
11	F. K. Tomlinson	12	
13		14	
15		16	

Enter Number of ES Representative that you want found. ===>10

Do you want reports for ONE, ALL, or NO individual(s)? (O/A/N) ===>n

End of Execution

A>

=====

APPENDIX - PROGRAM LISTING

CONTACT.DOC

Contact:

```

Proc options(main);
/*****
/*
/*  DOCUMENTATION FOR CONTACT  C. E. Styron  08-06-82      */
/*
/*  The data base management system for the OFFSITE CONTACTS */
/*  PROGRAM consists of a series of PL/I programs to create  */
/*  and update files and to generate reports.                */
/*
/*  Run CONTACT1 to create the data base initially.  Each   */
/*  time this program is run the existing data base is      */
/*  erased and a new one is started.  Having backup data    */
/*  files would be wise.                                     */
/*
/*  Run CONTACT2 to update (change existing observations     */
/*  or add new ones) the data. CONTACT2 requires            */
/*  specification of a filename at runtime (e.g.,           */
/*  A>CONTACT2 OFFSITE ).  The existing filename.DAT is     */
/*  appended to additions in filename.TEM, and a new        */
/*  filename.DAT is generated keyed to k.                   */
/*
/*  Run CONTACT3 to generate reports.  Facilities for        */
/*  using titles and comments are incorporated after         */
/*  appropriate prompts.                                     */
/*
/*  Run CONTACT4 to print a complete listing of an          */
/*  individual's offsite contacts program.                   */
/*
/*
*****/
End;

```

CONTACT1.PLI

Contact1:

```

Proc options(main);
/*****
/*
/* CONTACT1      C. E. Styron      01-18-83      */
/*
/* CONTACT1 is run to create the data base for EA&P's
/* OFFSITE CONTACT PROGRAM.  Each time this program is run
/* the existing data base is erased and a new one is
/* created.  Having backup data files (copied with PIP, for
/* example) would be wise.
/*
/* Run CONTACT2 to update (change existing observations
/* or add new ones) the data.
/*
/* Run CONTACT3 to generate reports.  Facilities for using
/* titles and comments are incorporated after appropriate
/* prompts.
/*
*****/

```

```

%replace
      true by '1'b,
      false by '0'b;

```

```

dcl
1 meeting static,
  2 duty fixed,
  2 group fixed,
  2 agency fixed,
  2 contact character (40) varying,
  2 eap_rep fixed,
  2 met_on character (20) varying,
  2 freq fixed,
  2 schedule character (40) varying,
  2 subject character (80) varying;

```

```

dcl
  what character (1) static initial(''),
  i fixed;

```

```

dcl
1 prompt static,
  2 ag (0:100) character (50) varying initial (''),
  2 grp (0:100) character (50) varying initial (''),
  2 rep (0:15) character (30) varying initial (''),
  2 fre (0:10) character (20) varying initial ('');

```

```

dcl
  (agent, output) file;

```

Fix1:

```

open file(output) keyed output environment(f(200),b(8000))
  title ('OFFSITE.DAT');
open file(agent) stream environment(b(1000))
  title('AGGRP.DAT');

On endfile(agent) go to endage;

/*  Set values for prompting and pointing */
rep(0)='';
rep(1)='D. T. Abbott';
rep(2)='C. T. Bishop';
rep(3)='D. G. Carfagno';
rep(4)='V. R. Casella';
rep(5)='C. S. Friedman';
rep(6)='G. R. Hagee';
rep(7)='P. H. Jenkins';
rep(8)='R. A. Neff';
rep(9)='C. R. Rudy';
rep(10)='C. E. Styron';
rep(11)='F. K. Tomlinson';

On error(1)
  Begin;
  Put skip list ('Invalid data item. ');
  Put skip list ('Files have been closed and ');
  Put list (' processing stopped. ');
  Close file(output);
  Stop;
End;

Do i = 1 to 100;
  get file(agent) list (ag(i), grp(i));
End;

endage:
  Close file(agent);

  fre(0)='';
  fre(1)='monthly';
  fre(2)='quarterly';
  fre(3)='semiannually';
  fre(4)='annually';

  Do while(true);

  /*  Set values for meeting to default */
  duty=0;
  group=0;
  agency=0;
  contact='';
  eap_rep=0;
  met_on='';
  freq=0;
  schedule='';

```

```

subject='';

Retry:
  Put skip list ('LIST OF AGENCIES & NUMBERS');
  Do i = 1 to 100 by 4 while (ag(i) ^= 'EOF');
  Put skip edit (i,ag(i),i+1,ag(i+1),i+2,ag(i+2),
    i+3,ag(i+3))(4(f(2),X(1),a(15),X(2)));
  If ag(i+1) = 'EOF' ! ag(i+2) = 'EOF' !
    ag(i+3) = 'EOF' then i = 100;
  End;
  Put skip;
  what='';
  Put skip list ('To end it all, enter an Agency Name Code
    of 0. ');
  Put list ('Agency Name Code Number ==>');
  Get list (agency);
  group=agency;
  Put skip list ('GROUP: ', grp(agency), ' AGENCY: ',
    ag(agency));
  If agency=0 then do;
    contact='EOF';
    go to wrapup;
  end;
  Put skip;
  Put skip list ('Contact Name ==>');
  Get list (contact);
  Put skip list ('Date of Meeting ==>');
  Get list (met_on);
  Put skip list ('LIST OF MOUND REPRESENTATIVES & NUMBERS');
  Do i = 1 to 12 by 2;
  Put skip edit (i, rep(i), i+1, rep(i+1))
    (2(f(2),X(2),a(30),X(2)));
  End;
  Put skip list ('ES Representative Number ==>');
  Get list (eap_rep);
  Put skip list (rep(eap_rep));
  Do i=0 to 4 by 3;
    Put skip edit (i, fre(i), i+1, fre(i+1),i+2,fre(i+2))
      (3(f(2),X(2),a(15),X(2)));
    end;
  Put skip list ('Planned Frequency of Meetings Number ==>');
  Get list (freq);
  Put skip list ('Planned Schedule of Meetings ==>');
  Get list (schedule);
  Put skip list ('Subject of Discussions ');
  Put skip list ('==>');
  Get list (subject);
  Put skip list ('If scheduled meetings have all been made, then');
  Put skip list ('Duty = 1; else Duty = 0. DUTY ==>');
  Get list (duty);
wrapup:
  what='';
  Put skip list ('Values for one complete observation have now');
  Put skip list (' been entered. If the following items are ');
  Put skip list (' correct and you want them written to disk,');

```

```

Put skip list (' then press Y RETURN to continue; ');
Put skip list (' else press N RETURN to re-enter data. ');
Put skip list (' GROUP : ', grp(agency));
Put skip list (' AGENCY : ', ag(agency));
Put skip list (' CONTACT : ', contact);
Put skip list (' ES REPRESENTATIVE : ', rep(eap_rep));
Put skip list (' DATE OF MEETING : ', met_on);
Put skip list (' FREQUENCY : ', fre(freq));
Put skip list (' SCHEDULE : ', schedule);
Put skip list (' SUBJECT : ', subject);
If duty=0 then
  put skip list (' DUTY : Additional meetings are scheduled. ');
  else put skip list (' DUTY : Schedule of meetings is met. ');
Get list (what);
If what='n' then go to retry;
Call write();
If contact='EOF' then stop;
End;

write:
  procedure;
  write file(output) from (meeting);
  end write;

End Contact1;

```

CONTACT2.PLI

Contact2:

```

Proc options(main);
/*****
/*
/* CONTACT2      C. E. Styron      01-18-83
/*
/*
/* CONTACT2 is run to update data for EA&P's OFFSITE
/* CONTACT PROGRAM, i.e., changing existing observations or
/* adding new ones. At runtime, specify A0>CONTACT2 filename.
/*
/*
/* Run CONTACT1 to create the data base for EA&P's
/* OFFSITE CONTACT PROGRAM. Each time this program is run
/* the existing data base is erased and a new one is
/* created. Having backup data files (copied with PIP, for
/* example) would be wise.
/*
/*
/* Run CONTACT3 to generate reports. Facilities for using
/* titles and comments are incorporated after appropriate
/* prompts.
/*
/*
/*
*****/

```

```

%replace
    true by '1'b,
    false by '0'b;

```

```

dcl
    1 meeting static,
      2 duty fixed,
      2 group fixed,
      2 agency fixed,
      2 contact character (40) varying,
      2 eap_rep fixed,
      2 met_on character (20) varying,
      2 freq fixed,
      2 schedule character (40) varying,
      2 subject character (80) varying;

```

```

dcl
    what character (1) static initial(''),
    i fixed,
    k fixed;

```

```

dcl
    1 prompt static,
      2 ag (0:100) character (50) varying initial (''),
      2 rep (0:15) character (30) varying initial (''),
      2 fre (0:10) character (20) varying initial (''),
      2 grp (0:100) character (50) varying initial ('');

```

```

dcl

```

```

1 keylist(500) static,
2 keyag fixed initial(0),
2 keyrep fixed initial(0),
2 keyval fixed initial(0);

dcl
endlist fixed,
eolist bit(1) static initial('0'b),
matchag fixed,
matchrep fixed;

dcl
(agent, input, intake, output, temp, keys) file;

/* Set values for prompting and pointing */

On endfile(agent) go to endage;

Open file(agent) stream environment(b(1000))
title('AGGRP.DAT');

rep(0)='';
rep(1)='D. T. Abbott';
rep(2)='C. T. Bishop';
rep(3)='D. G. Carfagno';
rep(4)='V. R. Casella';
rep(5)='C. S. Friedman';
rep(6)='G. R. Hagee';
rep(7)='P. H. Jenkins';
rep(8)='R. A. Neff';
rep(9)='C. R. Rudy';
rep(10)='C. E. Styron';
rep(11)='F. K. Tomlinson';

Do i = 1 to 100;
get file(agent) list (ag(i), grp(i));
End;

endage:
Close file(agent);

fre(0)='';
fre(1)='monthly';
fre(2)='quarterly';
fre(3)='semiannually';
fre(4)='annually';

Sel:

Put skip list ('Do you want to ADD observations, ');
Put list ('UPDATE/DELETE observations, ');
Put skip list (' or END execution? (A,U,E)');
Get list (what);
If what = 'a' ! what = 'A' then go to Add;
If what = 'u' ! what = 'U' then go to Update;

```


Else stop;

Add:

```

/*    Add observations to filename.DAT                                */
Open file(input) keyed environment (f(200),b(5000))
  title('$1.DAT');
Open file(temp) keyed output environment (f(200))
  title('$1.TEM');

On endfile(input) go to Setup;

On error(1)
  Begin;
  Put skip list ('Invalid data item. ');
  Put skip list ('Files have been closed, and control ');
  Put list (' has been returned to the beginning of ');
  Put skip list (' the program. ');
  Close file(intake);
  Close file(input);
  Close file(output);
  Close file(temp);
  Go to Sel;
  End;

```

contact = '';

```

Do while (true);
  Read file(input) into (meeting);
  If eap_rep ^= 0 then
    Write file(temp) from (meeting);
  End;

```

Do while(true);

```

/*    Set values for meeting to default                                */

```

Setup:

```

duty=0;
group=0;
agency=0;
contact='';
eap_rep=0;
met_on='';
freq=0;
schedule='';
subject='';

```

Retry:

```

Put skip list ('LIST OF AGENCIES & NUMBERS');
Do i = 1 to 100 by 4 while (ag(i) ^= 'EOF');

```

```

      Put skip edit (i,ag(i),i+1,ag(i+1),i+2,ag(i+2),
        i+3,ag(i+3))(4(f(2),X(1),a(15),X(2)));
      If ag(i+1) = 'EOF' ! ag(i+2) = 'EOF' !
        ag(i+3) = 'EOF' then i=100;
      End;
    Put skip;
    what="";
    Put skip list ('To stop adding, enter an Agency Code of 0. ');
    Put list ('Agency Name Code Number ==>');
    Get list (agency);
    group=agency;
    Put skip list ('GROUP: ', grp(agency), ' AGENCY: ', ag(agency));
    If agency=0 then do;
      contact='EOF';
      go to wrapup;
    end;
    Put skip;
    Put skip list ('Contact Name ==>');
    Get list (contact);
    Put skip list ('Date of Meeting ==>');
    Get list (met_on);
    Put skip list ('LIST OF MOUND REPRESENTATIVES & NUMBERS');
    Do i = 1 to 12 by 2;
      Put skip edit (i, rep(i), i+1, rep(i+1))
        (2(f(2),X(2),a(30),X(2)));
    End;
    Put skip list ('ES Representative Number ==>');
    Get list (eap_rep);
    Put skip list (rep(eap_rep));
    Put skip list ('LIST OF FREQUENCIES & NUMBERS');
    Do i=0 to 4 by 3;
      Put skip edit (i, fre(i), i+1, fre(i+1), i+2, fre(i+2))
        (3(f(2),X(2),a(15),X(2)));
    end;
    Put skip list ('Planned Frequency of Meetings Number ==>');
    Get list (freq);
    Put skip list ('Planned Schedule of Meetings ==>');
    Get list (schedule);
    Put skip list ('Subject of Discussions ');
    Put skip list ('==>');
    Get list (subject);
    Put skip list ('If scheduled meetings have all been made, then');
    Put skip list ('Duty = 1; else Duty = 0. DUTY ==>');
    Get list (duty);

wrapup:

  what="";
  Put skip list ('Values for one complete observation have now');
  Put list ('been entered. ');
  Put skip;
  Put skip list ('GROUP : ',grp(agency));
  Put skip list ('AGENCY : ',ag(agency));
  Put skip list ('CONTACT : ',contact);
  Put skip list ('ES REPRESENTATIVE : ',rep(eap_rep));

```

```

Put skip list ('DATE OF MEETING : ',met_on);
Put skip list ('FREQUENCY : ',fre(freq));
Put skip list ('SCHEDULE : ',schedule);
Put skip list ('SUBJECT : ',subject);
If duty=0 then
    put skip list ('DUTY : Additional meetings are scheduled.');
```

else put skip list ('DUTY : Schedule of meetings is met.');

```

Put skip;
Put skip list ('If the above items are correct and you');
Put skip list (' want them written to disk, then press');
Put skip list (' y RETURN, else press n RETURN to');
Put list (' re-enter data. ==>');
Get list (what);
If what='n' ! what = 'N' then go to Retry;
Call write();
If contact='EOF' then go to Keypr;
```

End;

Keypr:

```
/* Combine new and old data files; develop new key file */
```

```

Close file (temp);
Close file (input);
```

```

Open file (intake) input keyed environment(f(200),b(5000))
    title('$1.TEM');
```

```
Open file (keys) stream output linesize(60) title('$1.KEY');
```

```

Open file (output) keyed output environment(f(200))
    title('$1.DAT');
```

```
On endfile(intake) go to Fix;
```

```
Do while (true);
```

```
    Read file(intake) into (meeting) keyto(k);
```

```
    Put skip edit (k, ag(agency), rep(eap_rep))(f(5), x(2),
        a(40), a(30));
```

```
    Put file(keys) list (agency, eap_rep, k);
```

```
    Write file(output) from (meeting);
```

```
End;
```

Fix:

```
Close file(intake);
```

```
Close file(output);
```

```
Close file(keys);
```

```
Go to Sel;
```

Update:

```
/* Update or delete observations
```

```
*/
```

```
Open file(keys) stream environment(b(4000)) title('$1.KEY');
```

```

Do i = 1 to 500 while (^eolist);
  Get file(keys) list (keyag(i), keyrep(i), keyval(i));
  eolist = keyag(i) = 0;
End;
Close file(keys);

```

Kind:

```

Put skip list ('Would you like to search by Agency, ');
Put list ('Ea&p representative, Both agency & ea&p rep,');
Put skip list (' or None of these? (A, E, B, N) ==>');
Get list (what);
If what = 'A' ! what = 'a' then go to Kind1;
If what = 'E' ! what = 'e' then go to Kind2;
If what = 'B' ! what = 'b' then go to Kind3;
Else go to Sel;

```

Kind1:

```

/* Search for all files for a given AGENCY */

Open file(input) update direct environment(f(200),b(5000))
  title('$1.DAT');

Do while (true);
  Put skip list ('LIST OF AGENCIES & NUMBERS');
  Do i = 1 to 100 by 4 while (ag(i) ^= 'EOF');
    Put skip edit (i, ag(i), i+1, ag(i+1), i+2, ag(i+2),
      i+3, ag(i+3))(4(f(2), x(1), a(15), x(2)));
    If ag(i+1) = 'EOF' ! ag(i+2) = 'EOF' !
      ag(i+3) = 'EOF' then i=100;
  End;
  Put skip;
  Put skip list ('To end updating by agency, enter an ');
  Put list ('Agency Number of 0. ');
  Put skip list ('Otherwise, enter the number of the ');
  Put list ('AGENCY you want found. ==>');
  Get list (matchag);
  Put skip list ('AGENCY = ', ag(matchag));
  If matchag = 0 then go to Fix1;
  Do i = 1 to 500 while (keyag(i) ^= 0);
    if matchag = keyag(i) then
      Do;
        Read file(input) into (meeting) key(keyval(i));
      Put skip;
      Put skip list ('CONTACT: ', contact, ' ==>');
      Get list (contact);
      Put skip;
      Put skip list ('TO DELETE AN OBSERVATION, enter an ');
      Put list ('ES Representative Number of 0 below. ');
      Put skip;
      Put skip list ('LIST OF MOUND REPRESENTATIVES & NUMBERS');
      Do k = 1 to 12 by 2;
        Put skip edit (k, rep(k), k+1, rep(k+1))
          (2(f(2), x(2), a(30), x(2)));
      End;
    End;
  End;
End;

```

```

End;
Put skip;
Put skip list ('ES REPRESENTATIVE: ', rep(eap_rep));
Put list (' ES Representative Number ==>');
Get list (eap_rep);
If eap_rep = 0 then go to Norep;
Put skip;
Put skip list ('DATE OF MEETING: ', met_on, ' NEW DATE ==>');
Get list (met_on);
Put skip;
Put skip list ('LIST OF FREQUENCIES & NUMBERS');
Do k = 0 to 4 by 3;
  Put skip edit (k, fre(k), k+1, fre(k+1), k+2, fre(k+2))
    (3(f(2), x(2), a(20), x(2)));
End;
Put skip list ('FREQUENCY: ', fre(freq), 'NEW FREQUENCY ');
Put list ('NUMBER ==>');
Get list (freq);
Put skip;
Put skip list ('SCHEDULE: ', schedule, 'NEW SCHEDULE ==>');
Get list (schedule);
Put skip;
Put skip list ('SUBJECT: ', subject);
Put skip list ('==>');
Get list (subject);
Put skip;
Put skip list ('DUTY = 0 if not met; 1 if met. ');
Put skip list ('DUTY:', duty, 'NEW DUTY VALUE ==>');
Get list (duty);
Put skip;
Go to Report;

```

Norep:

```

duty=0;
contact='';
met_on='';
freq=0;
schedule='';
subject='';

```

Report:

```

Write file(input) from (meeting) keyfrom(keyval(i));
End;
End;
End;

```

Fix1:

```

Close file(input);
Go to Kind;

```

Kind2:

```

/* Search for all files for a given ES REPRESENTATIVE */
Open file(input) update direct environment(f(200),b(5000))
title('$1.DAT');

Do while (true);
Put skip list ('LIST OF ES REPRESENTATIVES & NUMBERS');
Do i = 1 to 12 by 2;
    Put skip edit (i, rep(i), i+1, rep(i+1))
        (2(f(2), x(2), a(30), x(2)));
End;
Put skip;
Put skip list ('To end search, enter an ES Rep Number');
Put list (' of 0. Otherwise, enter the Number');
Put skip list ('of the ES Representative you');
Put list (' want found. ==>');
Get list (matchrep);
If matchrep = 0 then go to Fix2;
Put skip list (rep(matchrep));
Put skip;
Do i = 1 to 500 while (keyag(i) ^= 0);
    If matchrep = keyrep(i) then
        Do;
            Read file(input) into (meeting) key(keyval(i));
            Put skip list ('LIST OF AGENCIES & NUMBERS');
            Do k = 1 to 100 by 4 while (ag(i) ^= 'EOF');
                Put skip edit (k, ag(k), k+1, ag(k+1), k+2, ag(k+2),
                    k+3, ag(k+3))(4(f(2), x(1), a(15), x(2)));
                If ag(k+1) = 'EOF' ! ag(k+2) = 'EOF' !
                    ag(k+3) = 'EOF' then k=100;
            End;
            Put skip;
            Put skip list ('To end updating by ES Representative,');
            Put list (' enter an Agency Number of 0. ');
            Put skip list ('To change AGENCY for the observation');
            Put list (' below, specify a non-0 value. ');
            Put skip list ('AGENCY: ', ag(agency), ' Number ==>');
            Get list (agency);
            If agency = 0 then go to Fix2;
            Put skip;
            Put skip list ('CONTACT: ', contact, ' ==>');
            Get list (contact);
            Put skip;
            Put skip list ('TO DELETE AN OBSERVATION, enter an ');
            Put list ('ES Representative Number of 0 below. ');
            Put skip list ('LIST OF MOUND REPRESENTATIVES & NUMBERS');
            Do k = 1 to 12 by 2;
                Put skip edit (k, rep(k), k+1, rep(k+1))
                    (2(f(2), x(2), a(30), x(2)));
            End;
            Put skip list ('ES REPRESENTATIVE: ', rep(eap_rep));
            Put list (' ES Representative Number ==>');
            Get list (eap_rep);
            If eap_rep = 0 then go to Norepo;
        End;

```

```

Put skip;
Put skip list ('DATE OF MEETING: ', met_on, ' NEW DATE ==>');
Get list (met_on);
Put skip;
Put skip list ('LIST OF FREQUENCIES & NUMBERS');
Do k = 0 to 4 by 3;
    Put skip edit (k, fre(k), k+1, fre(k+1), k+2, fre(k+2))
        (3(f(2), x(2), a(20), x(2)));
End;
Put skip list ('FREQUENCY: ', fre(freq), 'NEW FREQUENCY ');
Put list ('NUMBER ==>');
Put skip;
Get list (freq);
Put skip list ('SCHEDULE: ', schedule, 'NEW SCHEDULE ==>');
Get list (schedule);
Put skip;
Put skip list ('SUBJECT: ', subject);
Put skip list ('==>');
Get list (subject);
Put skip;
Put skip list ('DUTY = 0 if not met; 1 if met. ');
Put skip list ('DUTY:', duty, 'NEW DUTY VALUE ==>');
Get list (duty);
Put skip;
Go to Repor;

```

Norepo:

```

duty=0;
contact='';
met_on='';
freq=0;
schedule='';
subject='';

```

Repor:

```

Write file(input) from (meeting) keyfrom(keyval(i));
End;
End;
End;

```

Fix2:

```

Close file(input);
Go to Kind;

```

Kind3:

```

/* Search for all files for a given combination of */
/* AGENCY & ES REPRESENTATIVE */

Open file(input) update direct environment(f(200),b(5000))
title('%1.DAT');

```

```

Do while (true);
Put skip list ('LIST OF AGENCIES & NUMBERS');
Do i = 1 to 100 by 4 while (ag(i) ^= 'EOF');
    Put skip edit (i, ag(i), i+1, ag(i+1), i+2, ag(i+2),
        i+3, ag(i+3))(4(f(2), x(1), a(15), x(2)));
    If ag(i+1) = 'EOF' ! ag(i+2) = 'EOF' !
        ag(i+3) = 'EOF' then i=100;
End;
Put skip;
Put skip list ('To end updating by Agency & ES Rep, ');
Put list ('enter an Agency Number of 0. ');
Put skip list ('Otherwise specify a non-0 value. ');
Put list ('FIND AGENCY NUMBER ==> ');
Get list (matchag);
Put skip list (ag(matchag));
If matchag = 0 then go to Fix3;
Put skip;
Put skip list ('EA&P REPRESENTATIVES & NUMBERS');
Do i = 1 to 12 by 2;
    Put skip edit (i, rep(i), i+1, rep(i+1))
        (2(f(2), x(2), a(30), x(2)));
End;
Put skip list ('To end the search, enter an ES Rep');
Put list (' Number of 0. Otherwise, enter ');
Put skip list ('ES REPRESENTATIVE NUMBER TO FIND ==> ');
Get list (matchrep);
If matchrep = 0 then go to Fix3;
Put skip list ('ES Rep: ', rep(matchrep));
Put skip;
Do i = 1 to 500 while (keyag(i) ^= 0);
    If matchag = keyag(i) & matchrep = keyrep(i) then
        Do;
            Read file(input) into (meeting) key(keyval(i));
            Put skip list ('GROUP: ', grp(group));
            Put skip list ('AGENCY: ', ag(agency));
            Put skip list ('CONTACT: ', contact, ' ==> ');
            Get list (contact);
            Put skip list ('TO DELETE AN OBSERVATION, enter an ');
            Put list ('ES Representative Number of 0 below. ');
            Put skip;
            Put skip list ('LIST OF MOUND REPRESENTATIVES & NUMBERS');
            Do k = 1 to 12 by 2;
                Put skip edit (k, rep(k), k+1, rep(k+1))
                    (2(f(2), x(2), a(30), x(2)));
            End;
            Put skip list ('ES REPRESENTATIVE: ', rep(eap_rep));
            Put list (' ES Representative Number ==> ');
            Get list (eap_rep);
            Put skip;
            If eap_rep = 0 then go to Norepor;
            Put skip list ('DATE OF MEETING: ', met_on, ' NEW DATE ==> ');
            Get list (met_on);
            Put skip;
            Put skip list ('LIST OF FREQUENCIES & NUMBERS');

```



```

Do k = 0 to 4 by 3;
  Put skip edit (k, fre(k), k+1, fre(k+1), k+2, fre(k+2))
    (3(f(2), x(2), a(20), x(2)));
  End;
  Put skip list ('FREQUENCY: ', fre(freq), 'NEW FREQUENCY ');
  Put list ('NUMBER ==>');
  Get list (freq);
  Put skip;
  Put skip list ('SCHEDULE: ', schedule, 'NEW SCHEDULE ==>');
  Get list (schedule);
  Put skip;
  Put skip list ('SUBJECT: ', subject);
  Put skip list ('==>');
  Get list (subject);
  Put skip;
  Put skip list ('DUTY = 0 if not met; 1 if met. ');
  Put skip list ('DUTY:', duty, 'NEW DUTY VALUE ==>');
  Get list (duty);
  Put skip;
  Go to Repo;

Norepor:

  duty=0;
  contact='';
  met_on='';
  freq=0;
  schedule='';
  subject='';

Repo:

  Write file(input) from (meeting) keyfrom(keyval(i));
  End;
  End;
  End;

Fix3:

  Close file(input);
  Go to Kind;

write:

  procedure;
  write file(temp) from (meeting);
  end write;

End Contact2;

```

CONTACT3.PLI

Contact3:

```

Proc options(main);
/*****
/*
/* DOCUMENTATION FOR CONTACT3.PLI C. E. Styron 01-18-83
/*
/* CONTACT3 is run to generate reports. Facilities for
/* using titles and comments are incorporated after
/* appropriate prompts. Data filename.DAT is specified
/* when invoking the compiled and linked CONTACT3 by typing
/* CONTACT3 FILENAME. If the data are in file OFFSITE.DAT,
/* then type CONTACT3 OFFSITE.
/*
/* Run CONTACT1 to create the data base for EA&P's
/* OFFSITE CONTACT PROGRAM. Each time this program is run
/* the existing data base is erased and a new one is
/* created. Having backup data files (copied with PIP, for
/* example) would be wise.
/*
/* Run CONTACT2 to update (change existing observations
/* or add new ones) the data. CONTACT2 requires
/* specification of a filename at runtime (e.g.,
/* A0>CONTACT2 OFFSITE ). The existing filename.DAT is
/* appended to additions in filename.TEM, and a new
/* filename.DAT is generated keyed to k.
/*
/* Run CONTACT4 to print a complete listing of an
/* individual's offsite contacts program.
/*
/*
*****/

```

%replace

```

true by '1'b,
false by '0'b;

```

dcl

```

1 meeting static,
2 duty fixed,
2 group fixed,
2 agency fixed,
2 contact character (40) varying,
2 eap_rep fixed,
2 met_on character (20) varying,
2 freq fixed,
2 schedule character (40) varying,
2 subject character (80) varying;

```

dcl

```

what character (1) static initial(''),
1 fixed,

```

```

m fixed,
n fixed,
p fixed,
q fixed,
r fixed,
k fixed,
i fixed;

```

```

dcl
1 prompt static,
  2 ag (0:100) character (50) varying initial (''),
  2 grp (0:100) character (50) varying initial (''),
  2 rep (0:15) character (30) varying initial (''),
  2 fre (0:10) character (20) varying initial ('');

```

```

dcl
title(0:9) char (80) var static initial (''),
j char (80) var static initial ('');

```

```

dcl
1 keylist(500) static,
  2 keyag fixed initial(0),
  2 keyrep fixed initial(0),
  2 keyval fixed initial(0);

```

```

dcl
endlist fixed,
eolist bit(1) static initial ('0'b),
matchag fixed,
matchrep fixed;

```

```

dcl
repflag char(3) var static initial(''),
agflag char(3) var static initial('');

```

```

dcl
(input, agent, keys, print) file;

```

Fix:

```

open file(input) input direct environment(f(200),b(10000))
  title ('$1.DAT');
open file(print) print title('$LST');
open file(keys) stream environment (b(4000)) title('$1.KEY');
open file(agent) stream environment(b(1000))
  title('AGGRP.DAT');

```

```

On endfile(agent) go to endage;

```

```

On error(1)
  Begin;
  Close file(agent);
  Close file(input);
  Close file(keys);

```

```

    Put skip list ('Invalid data entry. ');
    Put skip list ('Files have been closed and control ');
    Put list (' returned to the beginning. ');
    Go to Fix;
    End;

/* Set values for prompting and pointing */
rep(0)='';
rep(1)='D. T. Abbott';
rep(2)='C. T. Bishop';
rep(3)='D. G. Carfagno';
rep(4)='V. R. Casella';
rep(5)='C. S. Friedman';
rep(6)='G. R. Hagee';
rep(7)='P. H. Jenkins';
rep(8)='R. A. Neff';
rep(9)='C. R. Rudy';
rep(10)='C. E. Styron';
rep(11)='F. K. Tomlinson';

Do i = 1 to 100;
    get file(agent) list (ag(i), grp(i));
End;

endage:
    Close file(agent);

    fre(0)='';
    fre(1)='monthly';
    fre(2)='quarterly';
    fre(3)='semiannually';
    fre(4)='annually';

/* Input values for titles */
Put skip list ('Titles may be input now for printing with');
Put list (' the report on meetings that ');
Put skip list (' have occurred. Titles are printed in');
Put list (' order, Title(0) through Title(9). ');
Put skip list (' Titles 0 & 1 are printed double wide. ');
Put skip;
Put skip(2) list ('This first set of titles is for ');
Put list ('printing the report sorted by group, agency, ');
Put skip list (' and contact. ');

i=-1;

Tit:
    what='';
    i=i+1;
    Put skip list ('Do you want title # ', i, ' ? (Y/N) ');
    Get list (what);
    If what = 'N' ! what = 'n' then go to Next1;
    Put skip list ('Do you want title #', i, ' Centered or ');
    Put list ('Left justified? (C/L) ');
    Get list (what);
    Put skip list ('Title(', i, ') ');

```

```

Put skip list ('==>');
Get list (title(i));
If what = 'L' ! what = '1' then go to Tit;
If i < 2 then
  Do;
    j = '';
    k = length(title(i));
    k = (40 - k)/2;
    Do l = 1 to k;
      j = j !! ' ';
    End;
    title(i) = j !! title(i);
  End;
Else
  Do;
    j = '';
    k = length(title(i));
    k = (80 - k)/2;
    Do l = 1 to k;
      j = j !! ' ';
    End;
    title(i) = j !! title(i);
  End;
If i = 9 then go to Next1;
Go to Tit;

```

Next1:

```

/* Read in key for selecting specific file records */
Do i = 1 to 500 while (^eolist);
  Get file(keys) list (keyag(i), keyrep(i), keyval(i));
  eolist = keyag(i) = 0;
End;

```

Ptit:

```

/* Print titles for meetings that have occurred */
Put file(print) page;
Do i = 0 to 1 while (title(i) ^= '');
  Put file(print) skip(2) edit (ascii(27)!!ascii(71),
    ascii(14),title(i))(a,a,a);
End;
Do i = 2 to 9 while (title(i) ^= '');
  Put file(print) skip(2) edit (ascii(27)!!ascii(69),
    title(i))(a,a);
End;
Put file(print) skip list (('_' do k = 1 to 40));
Put file(print) list (ascii(27)!!ascii(70),
  ascii(27)!!ascii(72));

```

Byage:

```

/*   Print data by group, agency, contact,eap_rep   */

Do i = 1 to 100 while (ag(i) ^= '');
  agflag = '';
  Do k = 1 to 15 while (rep(k) ^= '');
    Do l = 1 to 500 while (keyag(l) ^= 0);
      If i = keyag(l) & k = keyrep(l) then
        Do;
        Read file(input) into (meeting) key(keyval(l));
        If met_on ^= '' then
          Do;
            If agflag = '' then
              Do;
                Put file(print) skip;
                If lineno(print) > 55 then put file(print) page skip(2);
                Put file(print) skip edit (ascii(27)!!ascii(69),
                  ascii(27)!!ascii(71), 'GROUP: ', grp(group))(a,a,a,a);
                Put file(print) skip edit ('AGENCY: ', ag(agency))
                  (x(3),a,a);
                End;
                agflag = 'set';
                If lineno(print) > 57 then put file(print) page skip(2);
                Put file(print) skip edit (ascii(27)!!ascii(69),
                  ascii(27)!!ascii(71), 'CONTACT: ', contact,
                  ascii(27)!!ascii(70))(a,a,x(6), a(10), a(60),a);
                Put file(print) skip edit ('ES REP: ', rep(eap_rep),
                  'MET ON: ', met_on, ascii(27)!!ascii(72))
                  (x(9), a(11), a(30), a(9), a(20),a);
                Put file(print) skip edit ('SUBJECT: ', subject)
                  (x(12), a,a);
                End;
              End;
            Do m = (l + 1) to 500 while (keyag(m) ^= 0);
              If i = keyag(m) & k = keyrep(m) then
                Do;
                Read file(input) into (meeting) key(keyval(m));
                If met_on ^= '' then
                  Do;
                    If agflag = '' then
                      Do;
                        Put file(print) skip;
                        If lineno(print) > 55 then put file(print) page skip(2);
                        Put file(print) skip edit (ascii(27)!!ascii(69),
                          ascii(27)!!ascii(71), 'GROUP: ', grp(group))(a,a,a,a);
                        Put file(print) skip edit ('AGENCY: ', ag(agency))
                          (x(3),a,a);
                        End;
                        agflag = 'set';
                        If lineno(print) > 57 then put file(print) page skip(2);
                        Put file(print) skip edit (ascii(27)!!ascii(69),
                          ascii(27)!!ascii(71), 'CONTACT: ', contact,
                          ascii(27)!!ascii(70))(a, a,x(6), a(10), a(60), a);
                        Put file(print) skip edit ('ES REP: ', rep(eap_rep),
                          'MET ON: ', met_on, ascii(27)!!ascii(72))

```

```

(x(9), a(11), a(30), a(9), a(20),a);
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);
    End;
    End;
    End;
    l = m;
    End;
    Do n = (k + 1) to 15 while (rep(n) ^= '');
        Do l = 1 to 500 while (keyag(l) ^= 0);
            If i = keyag(l) & n = keyrep(l) then
                Do;
Read file(input) into (meeting) key(keyval(l));
If met_on ^= '' then
                Do;
                    If agflag = '' then
                        Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
    ascii(27)!!ascii(71), 'GROUP: ', grp(group))(a,a,a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
    (x(3),a,a);
                        End;
                        agflag = 'set';
If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
    ascii(27)!!ascii(71), 'CONTACT: ', contact,
    ascii(27)!!ascii(70))(a,a, x(6), a(10), a(60), a);
Put file(print) skip edit ('ES REP: ', rep(eap_rep),
    'MET ON: ', met_on, ascii(27)!!ascii(72))
    (x(9), a(11), a(30), a(9), a(20),a);
Put file (print) skip edit ('SUBJECT: ', subject)
    (x(12), a,a);
                        End;
                    End;
                Do m = (l + 1) to 500 while (keyag(m)
                    ^= 0);
                    If i = keyag(m) & n = keyrep(m)
                        then
                            Do;
Read file(input) into (meeting) key(keyval(m));
If met_on ^= '' then
                            Do;
                                If agflag = '' then
                                    Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
    ascii(27)!!ascii(71), 'GROUP: ', grp(group))(a,a,a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
    (x(3),a,a);
                                    End;
                                    agflag = 'set';
If lineno(print) > 57 then put file(print) page skip(2);

```

```

Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'CONTACT: ', contact,
  ascii(27)!!ascii(70))(a,a, x(6), a(10), a(60), a);
Put file(print) skip edit ('ES REP: ', rep(eap_rep),
  'MET ON: ', met_on, ascii(27)!!ascii(72))
  (x(9), a(11), a(30), a(9), a(20),a);
Put file(print) skip edit ('SUBJECT: ', subject)
  (x(12), a,a);

      End;
      End;
      End;
      l = m;
      End;
      End;
      k = n;
      End;
      End;

/*   Clear old titles and input new ones for meetings   */
/*   that have not occurred yet                           */

Do i = 0 to 9;
  Title(i) = '';
End;

Put skip list ('Titles may now be input for printing ');
Put list ('the report for meetings that are scheduled.');
```

i=-1;

```

Titl:
  what='';
  i=i+1;
  Put skip list ('Do you want title # ',i,' ? (Y/N)');
  Get list (what);
  If what = 'N' ! what = 'n' then go to Next2;
  Put skip list ('Do you want title #', i, ' Centered or ');
  Put list ('Left justified? (C/L)');
  Get list (what);
  Put skip list ('Title(',i,')');
  Put skip list ('==>');
  Get list (title(i));
  If what = 'L' then go to Titl;
  If i < 2 then
    Do;
      j = '';
      k = length(title(i));
      k = (40 - k)/2;
      Do l = 1 to k;
        j = j !! ' ';
      End;
      title(i) = j !! title(i);
    End;
  Else
```



```

Do;
  j = '';
  k = length(title(i));
  k = (80 - k)/2;
  Do l = 1 to k;
    j = j !! ' ';
  End;
  title(i) = j !! title(i);
End;
If i = 9 then go to Next2;
Go to Titl;

Next2:

/* Key file has already been read in */

/* Print titles for meetings that have not occurred */
/* and page by eap_rep */

/* Print data by eap_rep, group, agency, contact */

Do i = 1 to 15 while (rep(i) ^= '');
repflag = '';

Put file(print) page;
Do q = 0 to 1 while (title(q) ^= '');
  Put file(print) skip(2) edit (ascii(27)!!ascii(70),
    ascii(27)!!ascii(71), ascii(14), title(q))(a,a,a,a);
  End;
Do q = 2 to 9 while (title(q) ^= '');
  Put file(print) skip(2) edit (title(q))(a);
  End;

Put file(print) skip list ((' ' do r = 1 to 40));
Put file(print) skip list (ascii(27)!!ascii(72));

Do k = 1 to 100 while (ag(k) ^= '');
  agflag = '';
  Do l = 1 to 500 while (keyag(l) ^= 0);
    If k = keyag(l) & i = keyrep(l) then
      Do;
Read file(input) into (meeting) key(keyval(1));
      If met_on = '' then
        Do;

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
  (a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;

```

```

        If agflag = '' then
            Do;
                Put file(print) skip;
                If lineno(print) > 55 then put file(print) page skip(2);
                Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
                Put file(print) skip edit ('AGENCY: ', ag(agency))
                    (x(3),a,a);
                End;
                agflag = 'set';

            If lineno(print) > 57 then put file(print) page skip(2);
            Put file(print) skip edit (ascii(27)!!ascii(69),
                'CONTACT: ', contact, ascii(27)!!ascii(70))
                (a,x(6), a(10), a(60),a);
            Put file(print) skip edit ('FREQUENCY: ', fre(freq))
                (x(9), a(12), a(30));
            Put file(print) skip edit ('SUBJECT: ', subject)
                (x(12), a,a);
            End;
            End;
            Do m = (1 + 1) to 500 while (keyag(m) ^= 0);
                If k = keyag(m) & i = keyrep(m) then
                    Do;
                        Read file(input) into (meeting) key(keyval(m));
                        If met_on = '' then
                            Do;
                                If repflag = '' then
                                    Put file(print) skip edit (ascii(27)!!ascii(69),
                                        ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
                                        rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
                                        (a,a, a(22), a(30), a,a);
                                    repflag = 'set';
                                    Put file(print) skip;
                                End;
                                If agflag = '' then
                                    Do;
                                        Put file(print) skip;
                                        If lineno(print) > 55 then put file(print) page skip(2);
                                        Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
                                        Put file(print) skip edit ('AGENCY: ', ag(agency))
                                            (x(3),a,a);
                                        End;
                                        agflag = 'set';

                                        If lineno(print) > 57 then put file(print) page skip(2);
                                        Put file(print) skip edit (ascii(27)!!ascii(69),
                                            'CONTACT: ', contact, ascii(27)!!ascii(70))
                                            (a, x(6), a(10), a(60), a);
                                        Put file(print) skip edit ('FREQUENCY: ', fre(freq))
                                            (x(9), a(12), a(30));
                                        Put file(print) skip edit ('SUBJECT: ', subject)

```

```

(x(12), a,a);
      End;
    End;
  End;
  l = m;
End;
Do n = (k + 1) to 100 while (ag(n) ^= '');
  agflag = '';
  Do l = 1 to 500 while (keyag(l) ^= 0);
    If n = keyag(l) & i = keyrep(l) then
      Do;
Read file(input) into (meeting) key(keyval(l));
If met_on = '' then
      Do;

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71),'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
  (a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;

      If agflag = '' then
        Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
  (x(3),a,a);
      End;
      agflag = 'set';

If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
  'CONTACT: ', contact, ascii(27)!!ascii(70))
  (a, x(6), a(10), a(60), a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
  (x(9), a(12), a(30));
Put file (print) skip edit ('SUBJECT: ', subject)
  (x(12), a,a);
      End;
    End;
  Do m = (l + 1) to 500 while (keyag(m)
    ^= 0);
    If n = keyag(m) & i = keyrep(m) then
      Do;
Read file(input) into (meeting) key(keyval(m));
If met_on = '' then
      Do;

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71),'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))

```

CONTACT3.PLI

```

(a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;

      If agflag = '' then
      Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
(x(3),a,a);
      End;
      agflag = 'set';

If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
'CONTACT: ', contact, ascii(27)!!ascii(70))
(a, x(6), a(10), a(60), a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
(x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);
      End;
      End;
      End;
      l = m;
      End;
      End;
      k = n;
      End;
      End;
Put file(print) page;
End Contact3;

```

CONTACT4.PLI

Contact4:

```

Proc options(main);
/*****
/*
/* DOCUMENTATION FOR CONTACT4.PLI  C. E. Styron 01-18-83
/*
/* CONTACT4 is run to print a complete listing of an
/* individual's offsite contacts program.
/*
/* Run CONTACT1 to create the data base for EA&P's
/* OFFSITE CONTACT PROGRAM.  Each time this program is run
/* the existing data base is erased and a new one is
/* created.  Having backup data files (copied with PIP, for
/* example) would be wise.
/*
/* Run CONTACT2 to update (change existing observations
/* or add new ones) the data.  CONTACT2 requires
/* specification of a filename at runtime (e.g.,
/* A0>CONTACT2 OFFSITE ).  The existing filename.DAT is
/* appended to additions in filename.TEM, and a new
/* filename.DAT is generated keyed to k.
/*
/* Run CONTACT3 to generate reports.  Facilities for
/* using titles and comments are incorporated after
/* appropriate prompts.  Data filename.DAT is specified
/* when invoking the compiled and linked CONTACT3 by typing
/* CONTACT3 FILENAME.  If the data are in file OFFSITE.DAT,
/* then type CONTACT3 OFFSITE.
/*
/*
/*
*****/

%replace
    true by '1'b,
    false by '0'b;

dcl
    1 meeting static,
      2 duty fixed,
      2 group fixed,
      2 agency fixed,
      2 contact character (40) varying,
      2 eap_rep fixed,
      2 met_on character (20) varying,
      2 freq fixed,
      2 schedule character (40) varying,
      2 subject character (80) varying;

dcl
    what character (1) static initial(''),
    1 fixed,

```

```

m fixed,
n fixed,
p fixed,
q fixed,
r fixed,
k fixed,
i fixed;

```

```
dcl
```

```

1 prompt static,
  2 ag (0:100) character (50) varying initial (''),
  2 grp (0:100) character (50) varying initial (''),
  2 rep (0:15) character (30) varying initial (''),
  2 fre (0:10) character (20) varying initial ('');

```

```
dcl
```

```

title(0:9) char (80) var static initial (''),
j char (80) var static initial ('');

```

```
dcl
```

```

1 keylist(500) static,
  2 keyag fixed initial(0),
  2 keyrep fixed initial(0),
  2 keyval fixed initial(0);

```

```
dcl
```

```

endlist fixed,
eolist bit(1) static initial ('0'b),
matchag fixed,
matchrep fixed;

```

```
dcl
```

```

repflag char(3) var static initial(''),
agflag char(3) var static initial('');

```

```
dcl
```

```

(input, agent, keys, print) file;

```

```
Fix:
```

```

open file(input) input direct environment(f(200),b(10000))
  title ('$1.DAT');
open file(print) print title('$LST');
open file(keys) stream environment (b(4000)) title('$1.KEY');
open file(agent) stream environment(b(1000))
  title('AGGRP.DAT');

```

```
On endfile(agent) go to endage;
```

```
On error(1)
```

```

Begin;
Close file(agent);
Close file(input);
Close file(keys);

```

```

Put skip list ('Invalid data entry.');
```

```

Put skip list ('Files have been closed and control');
```

```

Put list (' returned to the beginning.');
```

```

Go to Fix;
```

```

End;
```

```

/* Set values for prompting and pointing */
rep(0)='';
rep(1)='D. T. Abbott';
rep(2)='C. T. Bishop';
rep(3)='D. G. Carfagno';
rep(4)='V. R. Casella';
rep(5)='C. S. Friedman';
rep(6)='G. R. Hagee';
rep(7)='P. H. Jenkins';
rep(8)='R. A. Neff';
rep(9)='C. R. Rudy';
rep(10)='C. E. Styron';
rep(11)='F. K. Tomlinson';

Do i = 1 to 100;
  get file(agent) list (ag(i), grp(i));
End;
```

```

endage:
  Close file(agent);

  fre(0)='';
  fre(1)='monthly';
  fre(2)='quarterly';
  fre(3)='semiannually';
  fre(4)='annually';

  /* Input values for titles */

  Put skip list ('Titles may be input now for printing with');
  Put list (' the report.');
```

```

  Put skip list (' Titles are printed in');
```

```

  Put list (' order, Title(0) through Title(9).');
```

```

  Put skip list (' Titles 0 & 1 are printed double wide.');
```

```

  Put skip;
```

```

  Put skip(2) list ('The titles are for printing a report');
```

```

  Put list ('on the full program of an individual.');
```

```

  i=-1;
```

```

Tit:
  what='';
  i=i+1;
  Put skip list ('Do you want title # ',i,' ? (Y/N) ==>');
  Get list (what);
  If what = 'N' ! what = 'n' then go to Next1;
  Put skip list ('Do you want title #', i, ' Centered or ');
  Put list ('Left justified? (C/L) ==>');
  Get list (what);
  Put skip list ('Title(',i,')');
```

```

  Put skip list ('==>');
```

```

Get list (title(i));
If what = 'L' ! what = '1' then go to Tit;
If i < 2 then
  Do;
    j = '';
    k = length(title(i));
    k = (40 - k)/2;
    Do l = 1 to k;
      j = j !! ' ';
    End;
    title(i) = j !! title(i);
  End;
Else
  Do;
    j = '';
    k = length(title(i));
    k = (80 - k)/2;
    Do l = 1 to k;
      j = j !! ' ';
    End;
    title(i) = j !! title(i);
  End;
If i = 9 then go to Next1;
Go to Tit;

```

Next1:

```

/* Read in key for selecting specific file records */

Do i = 1 to 500 while (^eolist);
  Get file(keys) list (keyag(i), keyrep(i), keyval(i));
  eolist = keyag(i) = 0;
End;

```

Next3:

```

/* Select whether you want ONE individual's report */
/* or ALL individuals' reports */

Put skip list ('Do you want reports for ONE, ALL, ');
Put list ('or NO individual(s)? (O/A/N) ==>');
Get list (what);
If what = 'N' ! what = 'n' then stop;
If what = 'O' ! what = 'o' then
  Do;
    Put skip(2) list ('LIST OF ES REPRESENTATIVES');
    Do i = 1 to 15 by 2;
      Put skip edit (i, rep(i), i+1, rep(i+1))
        (2(f(2), x(2), a(30), x(2)));
    End;
    Put skip;
    Put skip list ('Enter Number of ES Representative');
    Put list (' that you want found. ==>');
    Get list (i);
  End;

```



```

Go to Next2;
End;

/* Print all data by eap_rep, group, agency, contact */

Do i = 1 to 15 while (rep(i) ^= '');
repflag = '';

Put file(print) page;
Do q = 0 to 1 while (title(q) ^= '');
Put file(print) skip(2) edit (ascii(27)!!ascii(70),
  ascii(27)!!ascii(71), ascii(14), title(q))(a,a,a,a);
End;
Do q = 2 to 9 while (title(q) ^= '');
Put file(print) skip(2) edit (title(q))(a);
End;

Put file(print) skip list (('_' do r = 1 to 40));
Put file(print) skip list (ascii(27)!!ascii(72));

Do k = 1 to 100 while (ag(k) ^= '');
agflag = '';
Do l = 1 to 500 while (keyag(l) ^= 0);
If k = keyag(l) & i = keyrep(l) then
Do;
Read file(input) into (meeting) key(keyval(l));

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
(a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;
If agflag = '' then
Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
(x(3),a,a);
End;
agflag = 'set';

If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
  'CONTACT: ', contact, 'MET ON: ', met_on,
  ascii(27)!!ascii(70))(a,x(6), a(10), a(35),
  a(8), a(20), a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
(x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);
End;

```

```

      Do m = (l + 1) to 500 while (keyag(m) ^= 0);
        If k = keyag(m) & i = keyrep(m) then
          Do;
Read file(input) into (meeting) key(keyval(m));

      If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
  (a,a, a(22), a(30), a,a);
      repflag = 'set';
Put file(print) skip;

          If agflag = '' then
            Do;
Put file(print) skip;
      If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
  (x(3), a,a);
            End;
            agflag = 'set';

      If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
  'CONTACT: ', contact, 'MET ON: ', met_on,
  ascii(27)!!ascii(70))(a, x(6), a(10), a(35),
  a(8), a(20), a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
  (x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
  (x(12), a,a);
      End;
      End;
      l = m;
      End;
      Do n = (k + 1) to 100 while (ag(n) ^= '');
        agflag = '';
        Do l = 1 to 500 while (keyag(l) ^= 0);
          If n = keyag(l) & i = keyrep(l) then
            Do;
Read file(input) into (meeting) key(keyval(l));

      If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
  (a,a, a(22), a(30), a,a);
      repflag = 'set';
Put file(print) skip;

          If agflag = '' then
            Do;
Put file(print) skip;

```

```

If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
(x(3),a,a);

End;
agflag = 'set';

If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
'CONTACT: ', contact, 'MET ON: ', met_on,
ascii(27)!!ascii(70))(a, x(6), a(10), a(35),
a(8), a(20),a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
(x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);

End;
Do m = (1 + 1) to 500 while (keyag(m)
^= 0);
If n = keyag(m) & i = keyrep(m) then
Do;
Read file(input) into (meeting) key(keyval(m));

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
(a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;

If agflag = '' then
Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
(x(3),a,a);

End;
agflag = 'set';

If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
'CONTACT: ', contact, 'MET ON: ', met_on,
ascii(27)!!ascii(70))(a, x(6), a(10), a(35),
a(8), a(20), a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
(x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);

End;
End;
l = m;
End;
End;

```

```

                                k = n;
                                End;
                                End;
                                Go to Next3;
Next2:
    /* Print data for one eap_rep by group, agency, contact */
    repflag = '';

    Put file(print) page;
    Do q = 0 to 1 while (title(q) ^= '');
    Put file(print) skip(2) edit (ascii(27)!!ascii(70),
        ascii(27)!!ascii(71), ascii(14), title(q))(a,a,a,a);
    End;
    Do q = 2 to 9 while (title(q) ^= '');
    Put file(print) skip(2) edit (title(q))(a);
    End;

    Put file(print) skip list (('_' do r = 1 to 40));
    Put file(print) skip list (ascii(27)!!ascii(72));

    Do k = 1 to 100 while (ag(k) ^= '');
    agflag = '';
    Do l = 1 to 500 while (keyag(l) ^= 0);
    If k = keyag(l) & i = keyrep(l) then
        Do;
    Read file(input) into (meeting) key(keyval(l));

    If repflag = '' then
    Put file(print) skip edit (ascii(27)!!ascii(69),
        ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
        rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
        (a,a, a(22), a(30), a,a);
    repflag = 'set';
    Put file(print) skip;

                                If agflag = '' then
                                Do;
    Put file(print) skip;
    If lineno(print) > 55 then put file(print) page skip(2);
    Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
    Put file(print) skip edit ('AGENCY: ', ag(agency))
        (x(3),a,a);
                                End;
                                agflag = 'set';

    If lineno(print) > 57 then put file(print) page skip(2);
    Put file(print) skip edit (ascii(27)!!ascii(69),
        'CONTACT: ', contact, 'MET ON: ', met_on,
        ascii(27)!!ascii(70))(a,x(6), a(10), a(35),
        a(8), a(20), a);
    Put file(print) skip edit ('FREQUENCY: ', fre(freq))

```

```

(x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);
End;
Do m = (l + 1) to 500 while (keyag(m) ^= 0);
  If k = keyag(m) & i = keyrep(m) then
    Do;
Read file(input) into (meeting) key(keyval(m));

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
(a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;

      If agflag = '' then
        Do;
Put file(print) skip;
If lineno(print) > 55 then put file(print) page skip(2);
Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
Put file(print) skip edit ('AGENCY: ', ag(agency))
(x(3),a,a);
      End;
      agflag = 'set';

If lineno(print) > 57 then put file(print) page skip(2);
Put file(print) skip edit (ascii(27)!!ascii(69),
  'CONTACT: ', contact, 'MET ON: ', met_on,
  ascii(27)!!ascii(70))(a, x(6), a(10), a(35),
  a(8), a(20), a);
Put file(print) skip edit ('FREQUENCY: ', fre(freq))
(x(9), a(12), a(30));
Put file(print) skip edit ('SUBJECT: ', subject)
(x(12), a,a);
End;
End;
l = m;
End;
Do n = (k + 1) to 100 while (ag(n) ^= '');
  agflag = '';
  Do l = 1 to 500 while (keyag(l) ^= 0);
    If n = keyag(l) & i = keyrep(l) then
      Do;
Read file(input) into (meeting) key(keyval(l));

If repflag = '' then
Put file(print) skip edit (ascii(27)!!ascii(69),
  ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
  rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
(a,a, a(22), a(30), a,a);
repflag = 'set';
Put file(print) skip;

```

```

        If agflag = '' then
            Do;
                Put file(print) skip;
                If lineno(print) > 55 then put file(print) page skip(2);
                Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
                Put file(print) skip edit ('AGENCY: ', ag(agency))
                    (x(3),a,a);
                End;
                agflag = 'set';

                If lineno(print) > 57 then put file(print) page skip(2);
                Put file(print) skip edit (ascii(27)!!ascii(69),
                    'CONTACT: ', contact, 'MET ON: ', met_on,
                    ascii(27)!!ascii(70))(a, x(6), a(10), a(35),
                    a(8), a(20), a);
                Put file(print) skip edit ('FREQUENCY: ', fre(freq))
                    (x(9), a(12), a(30));
                Put file(print) skip edit ('SUBJECT: ', subject)
                    (x(12), a,a);
                End;
                Do m = (1 + 1) to 500 while (keyag(m) ^= 0);
                    If n = keyag(m) & i = keyrep(m) then
                        Do;
                            Read file(input) into (meeting) key(keyval(m));

                            If repflag = '' then
                                Put file(print) skip edit (ascii(27)!!ascii(69),
                                    ascii(27)!!ascii(71), 'ES REPRESENTATIVE: ',
                                    rep(eap_rep), ascii(27)!!ascii(72), ascii(27)!!ascii(70))
                                    (a,a, a(22), a(30), a,a);
                                repflag = 'set';
                                Put file(print) skip;

                                If agflag = '' then
                                    Do;
                                        Put file(print) skip;
                                        If lineno(print) > 55 then put file(print) page skip(2);
                                        Put file(print) skip edit ('GROUP: ', grp(group))(a,a);
                                        Put file(print) skip edit ('AGENCY: ', ag(agency))
                                            (x(3),a,a);
                                        End;
                                        agflag = 'set';

                                        If lineno(print) > 57 then put file(print) page skip(2);
                                        Put file(print) skip edit (ascii(27)!!ascii(69),
                                            'CONTACT: ', contact, 'MET ON: ', met_on,
                                            ascii(27)!!ascii(70))(a, x(6), a(10), a(35),
                                            a(8), a(20), a);
                                        Put file(print) skip edit ('FREQUENCY: ', fre(freq))
                                            (x(9), a(12), a(30));
                                        Put file(print) skip edit ('SUBJECT: ', subject)
                                            (x(12), a,a);
                                        End;
                                    End;
                                End;
                            End;
                        End;
                    End;
                End;
            End;

```

```
        l = m;  
      End;  
    End;  
    k = n;  
  End;  
  Put file(print) page;  
  Go to Next3;  
End Contact4;
```

AGGRP.DAT

'DOE Headquarters'	'Federal Agencies'
'DOE Albuquerque'	'Federal Agencies'
'DOE EML'	'Federal Agencies'
'DOE DMA-Las Vegas'	'Federal Agencies'
'DOE Other'	'Federal Agencies'
'Bureau of Mines, Denver'	'Federal Agencies'
'Dept. of Agriculture, Forest Service'	'Federal Agencies'
'EPA Headquarters'	'Federal Agencies'
'EPA Chicago'	'Federal Agencies'
'EPA Cincinnati'	'Federal Agencies'
'EPA Las Vegas'	'Federal Agencies'
'EPA Region V'	'Federal Agencies'
'EPA Research Triangle Park'	'Federal Agencies'
'EPA, EERL, Montgomery'	'Federal Agencies'
'EPA Princeton'	'Federal Agencies'
'NASA'	'Federal Agencies'
'National Science Foundation'	'Federal Agencies'
'NRC Headquarters'	'Federal Agencies'
'NRC Atlanta'	'Federal Agencies'
'TVA Muscle Shoals'	'Federal Agencies'
'US Army Chemical Systems Laboratory'	'Federal Agencies'
'US Army Testing and Evaluation Com.'	'Federal Agencies'
'US Army Ballistic Research Laboratory'	'Federal Agencies'
'Other Federal Agencies'	'Federal Agencies'
'Argonne'	'DOE Contractors'
'Battelle, Columbus'	'DOE Contractors'
'Battelle, PNL'	'DOE Contractors'
'Los Alamos'	'DOE Contractors'
'Lawrence Livermore'	'DOE Contractors'
'Fernald, OH, National Lead'	'DOE Contractors'
'Oak Ridge Associated Universities'	'DOE Contractors'
'Oak Ridge'	'DOE Contractors'
'Pantex'	'DOE Contractors'
'Rockwell International'	'DOE Contractors'
'Savannah River Plant'	'DOE Contractors'
'Other DOE Contractors'	'DOE Contractors'
'Florida Health Department'	'State of Florida'
'Polk Co. Health Department'	'State of Florida'
'Inst. of Phosphate Research'	'State of Florida'
'Ohio EPA'	'State of Ohio'
'Ohio Air Quality Development Authority'	'State of Ohio'
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