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USER'S MANUALS
FOR
FOREST FIRE CONTROL
EQUIPMENT INVENTORY AND PERSONNEL PROGRAMS

By

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Résumé en français

Abstract

Three user's manuals are presented. The first manual describes how to use the general equipment inventory program GEN, which maintains a running tabulation of twenty-one equipment categories by location and status. The second manual describes how to use the specific equipment inventory program EIP, which keeps track of each individual unit of equipment for six equipment categories. The third manual describes how to use the personnel program PERSON. PERSON maintains up to two hundred personnel records, which contain personal information (age, address, phone, etc.) and fire control information (experience, fire work classification, ability rating, availability, etc.). A general overview of the programs can be obtained from reading the intrcduction of each manual.

Résumé

On y présente trois guides pour utilisateurs. Le premier décrit la manière d'utiliser le programme GEN, programme général d'inventaire du matériel. Le matériel est classé, selon son emplacement et son état, en vingt et une catégories continuellement mises à jour. Dans le deuxième guide est décrit le mode d'emploi du programme EIP, qui est utilisé lors de l'inventaire spécifique du matériel et qui donne des renseignements précis sur chaque pièces d'équipement appartenant à six catégories de matériel. Quant au troisième, il énonce la manière d'utiliser le programme PERSON. Celui-ci renferme jusqu'à 200 dossiers des employés, dans lesquels on trouve des renseignements d'ordre personnel (âge, adresse, numéro de téléphone, etc.) et des données sur la lutte contre les incendies (expérience, classification, aptitude, disponibilité, etc. de l'employé). On peut obtenir un aperçu général des programmes en lisant l'introduction de chaque guide.

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USER'S MANUAL
FOREST FIRE CONTROL
GENERAL EQUIPMENT INVENTORY PROGRAM

I. INTRODUCTION

The program GEN provides a report on the distribution of fire control equipment in the Société de Conservation de l'Outaouais. With minor modifications, GEN can be used in any fire control organization that corresponds in responsibilities with a Sociéte (Quebec) or a region (Ontario) that has a central fire control equipment warehouse.

The Maniwaki version of GEN maintains twenty-one equipment classifications (Appendix B). The equipment may be placed in the following locations and states of readiness (Appendix A):

1. Available at the warehouse
2. Unavailable (for various reasons) at the warehouse
3. At any of the seven districts in the Sociéte
4. Available in caches (one total for each equipment type)
5. On fire (one total for each equipment type)

The equipment is represented by a number for each location. This number is the total number of units of the equipment type at that location. For example, the program will tell the user there are 10 pumps at the warehouse, but will not tell the user which 10 pumps are at the warehouse. The program EIP[1] provides the specific unit information for some equipment categories.

Movement of equipment from location to location is recorded by updating the information on the computer. When equipment is dispatched, the movement of the equipment is coded and then typed on a remote terminal which transmits the information to the program on the PDP-11 mini-computer at the Forest Fire Research Institute in Ottawa. A report can then be taken showing the new distribution of equipment in the Société.

This program had its first test period during the last half of the 1976 fire season in Maniwaki. The program performed satisfactorily and will be tested again for the entire 1977 fire season in Maniwaki.

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[1] See "User's Manual - Forest Fire Control Specific Equipment Inventory Program".

II. HOW TO USE GEN

GEN resides on a PDP-11 mini-computer. To access GEN, it is necessary to make a telephone connection with the computer from your remote terminal. The telephone number for the PDP-11 is 996-_ _ _ _. Dial this number, listen for the tone and connect the receiver to the data set. If a connection has been made, the computer will prompt your terminal with the symbol >. You are now ready to execute the program GEN.

GEN is an interactive program. It will ask the user a question, wait for a response and then proceed to do the task requested. In the following examples, the underlined portion of a line is what the user types.

In order to initiate GEN after receiving the > (see above), type the following:

>SET /UIC=[User identification number]

>RUN CK1:GEN

Having typed the above lines, the computer will respond with a series of questions which you will answer:

TYPE R FOR REPORT, U TO UPDATE, OR E TO END THE RUN>

If you wish a report, type R, hit the return key and the computer will generate a report like the following:

TYPE R FOR REPORT, U TO UPDATE, OR E TO END THE RUN>R

SOCIETE DE CONSERVATION DE L'OUTAOUAIS   12/21/76
EQUIPMENTS - GENERAL

ITEM	ENTR	NOND	MAKI	SJOV	WAKE	DAVE	DORV	PART	OTTA	CACH	VECH	FEUX	TOTAL
BATAUX	9	0	1	1	1	0	1	0	0	0	0	0	13
BIDONS	329	0	0	0	0	0	0	0	0	0	0	0	329
CANOTS	24	0	0	1	0	0	0	1	0	0	0	0	26
HACHES	439	0	0	0	0	0	0	0	0	0	0	0	439
PELLES	710	0	0	0	0	0	0	0	0	0	0	0	710
LEFAMS	8	0	0	0	0	0	0	0	0	0	0	0	8
HORBOR	23	0	0	0	0	0	0	0	0	0	0	0	23
POPUMP	226	7	0	0	0	0	0	0	0	0	0	0	233
RESEAU	582	0	0	0	0	0	0	0	0	0	0	0	582
BTRATN	200	0	0	0	0	0	0	0	0	0	0	0	200
SCIMEC	69	2	0	0	0	0	1	0	0	0	0	0	72
BOYAUX	3388	0	0	0	0	0	0	0	0	0	0	0	3388
RAD10W	70	0	0	0	0	0	0	0	0	0	0	0	70
RADTEK	34	0	0	0	0	0	0	0	0	0	0	0	34
BTEOU2	24	0	0	0	0	0	0	0	0	0	0	0	24
BTEOU3	48	0	0	0	0	0	0	0	0	0	0	0	48
BTEOU6	48	0	0	0	0	0	0	0	0	0	0	0	48
BTEOU9	24	0	0	0	0	0	0	0	0	0	0	0	24
BOYSAC	666	0	0	0	0	0	0	0	0	0	0	0	666
EXTINR	44	0	0	2	2	2	2	2	2	0	6	0	62
VEHCUL	6	0	0	0	0	0	0	0	0	0	0	0	6

TYPE R FOR REPORT, U TO UPDATE, OR E TO END THE RUN>

The user may now wish to make an update or terminate the program. To do so, just type U to update or E to terminate GEN. Let us continue with a series of updates:

TYPE R FOR REPORT, U TO UPDATE, OR E TO END THE RUN>U

The computer will respond:

ENTER UPDATES
FROM   TO   EQUIP   AMT
AAAA AAAA AAAAAA NNNN

The lines above specify the format of all updates. Equipment is sent _from_ one location _to_ another (see Appendix A for location codes and Appendix B for equipment codes). The update to send 2 power pumps (POPUMP) from the warehouse (ENTR) to the district DORVAL (DORV) is:

ENTER UPDATES
FROM   TO   EQUIP   AMT
AAAA AAAA AAAAAA NNNN
ENTR DORV POPUMP 0002

3

Notice the preceding zeros in the amount. The amount figure is a four digit number and it is necessary to fill out the number. Thus, 999 should be typed 0999.

GEN will now edit the update and if it does not find any errors, it will perform the update requested and write the following message:

2 POPUMP FROM ENTR TO DORV

The computer will now wait for the user to type another update or the end of update symbol E. There are two types of updates other than from location to location. These are adding new equipment to the inventory and deleting old equipment (destroyed or lost, etc.) from the inventory. To perform these updates, place either the code NEWW or DELE (to add or delete respectively) in the FROM position, the location code to or from which equipment is to be added or deleted in the TO position, the equipment code in the EQUIP position and the amount to be added or deleted in the AMT position.

To continue on with our example, we will add one boat (BATAUX) to Maniwaki (MAKI) and delete 20 axes (HACHES) from the warehouse (ENTR), then terminate updating, take another report and terminate the run.

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```
ENTER UPDATES
FROM   TO   EQUIP   AMT
AAAA  AAAA  AAAAAA  NNNN
ENTR  DORV  POPUMP  0002
2 PCPUMP FROM ENTR TO DORV
NEWW  MAKI  BATAUX  0001
1 BATAUX ADDED TO MAKI
DELE  ENTR  HACHES  0020
20 HACHES DELETED FROM ENTR
E
```

TYPE R FOR REPORT, U TO UPDATE, OR E TO END THE RUN>R

        SOCIETE DE CONSERVATION DE L'OUTAOUAIS   12/21/76
                    EQUIPMENTS - GENERAL

ITEM	ENTR	NOND	MAKI	SJOV	WAKE	DAVE	DORV	PART	OTTA	CACH	VECH	FEUX	TOTAL
BATAUX	9	0	2	1	1	0	1	0	0	0	0	0	14
BIDONS	329	0	0	0	0	0	0	0	0	0	0	0	329
CANOTS	24	0	0	1	0	0	0	1	0	0	0	0	26
HACHES	419	0	0	0	0	0	0	0	0	0	0	0	419
PELLES	710	0	0	0	0	0	0	0	0	0	0	0	710
LEFAMS	8	0	0	0	0	0	0	0	0	0	0	0	8
HORBOR	23	0	0	0	0	0	0	0	0	0	0	0	23
POPUMP	224	7	0	0	0	0	2	0	0	0	0	0	233
RESEAU	582	0	0	0	0	0	0	0	0	0	0	0	582
BTRATN	200	0	0	0	0	0	0	0	0	0	0	0	200
SCIMEC	69	2	0	0	0	0	1	0	0	0	0	0	72
BOYAUX	3388	0	0	0	0	0	0	0	0	0	0	0	3388
RAD10W	70	0	0	0	0	0	0	0	0	0	0	0	70
RADTEK	34	0	0	0	0	0	0	0	0	0	0	0	34
BTEOU2	24	0	0	0	0	0	0	0	0	0	0	0	24
BTEOU3	48	0	0	0	0	0	0	0	0	0	0	0	48
BTEOU6	48	0	0	0	0	0	0	0	0	0	0	0	48
BTEOU9	24	0	0	0	0	0	0	0	0	0	0	0	24
BOYSAC	666	0	0	0	0	0	0	0	0	0	0	0	666
EXTINR	44	0	0	2	2	2	2	2	2	0	6	0	62
VEHCUL	6	0	0	0	0	0	0	0	0	0	0	0	6

```
TYPE R FOR REPORT, U to UPDATE, OR E TO END THE RUN>E
END OF RUN
TT2 -- STOP
```

This example covers all the ways of using the program. There is
no limit to the number of updates that can be processed in a
single run of the program. The program edits the user's entries
and if it detects an error, it will either terminate the job or
write a message explaining the error and request the user to
retype the entry.

III. SUMMARY

GEN was designed to provide managers with a quick overview of the dispersement of their equipment. The accuracy of this overview is entirely dependent upon the efficiency and accuracy of the updating procedure employed by the fire organization. This procedure must be well defined before the fire season begins and must be followed throughout the season.

Throughout the test period, constructive criticism of the program and the updating procedure is necessary and welcome. Any suggestions you have to enable the system to better meet your particular needs, should be forwarded to the Forest Fire Research Institute, 240 Bank Street, Ottawa, Ontario, c/o L. J. Middleton (613-996-0611).

APPENDIX A

LOCATION CODES FOR GEN

Codes	Location
ENTR	WAREHOUSE - available
NOND	WAREHOUSE - unavailable
MAKI	MANIWAKI
SJOV	ST. JOVIT
WAKE	WAKEFIELD
DAVE	DAVIDSON
DORV	DORVAL
PART	PARENT
OTTA	OTTAWA
CACH	Fire Caches
VECL	Vehicles
FEUX	Fires

APPENDIX B

EQUIPMENT CODES FOR GEN

Codes	Location
BATAUX	Boats
BIDONS	Gas Cans (plastic/metal - 5 gals.)
CANOTS	Canoes
HACHES	Axes
PEILES	Shovels
LFLAMS	Burnout Torches
HORBOR	Outboard Motors
POPUMP	Power Pumps
RESEAU	Backpack - water with pump
BTRATN	Ration Box
SCIMEC	Power Saw
BOYAUX	1 1/2 inch Hose (100 ft. units)
RAD1OW	Radio - 10 watts
RADTEK	Radio - portable (Hand held)
BTEOU2	Hand Tools - 2 man
BTEOU3	Hand Tools - 3 man
BTEOU6	Hand Tools - 6 man
BTEOU9	Hand Tools - 9 man
BOYSAC	Pack Sacks - hose-laying
EXTINR	Extinguishers
VEHCUL	Vehicles

USER'S MANUAL
FOREST FIRE CONTROL
SPECIFIC EQUIPMENT INVENTORY PROGRAM

I. INTRODUCTION

The program, <u>EIP</u>, keeps track of the location and status of specific units of equipment and provides a number of methods for obtaining this information in report form. EIP has been designed for the Société de Conservation de l'Outaouais but with minor modifications, can be used in any fire control organization that corresponds in responsibilities with a Société (Quebec) or a Region (Ontario) and has a central fire control warehouse.

The Maniwaki version of EIP has six equipment categories (Appendix A). The program keeps track of each unit of equipment (i.e. pump number 50 is represented as PUMO50) within the six major equipment categories. Using EIP in conjunction with the program <u>GEN</u>[1] allows the user to keep track of both the location and status of individual units of the major equipment categories and maintain a record of the distribution of the equipment in all categories by maintaining the total number of units per location and status level.

Movement of equipment from location to location is recorded by updating information on the computer. When equipment is dispatched, the movement of the equipment is coded and then typed on a remote terminal, which transmits the information to the program. The program resides on a PDP-11 mini-computer at the Forest Fire Research Institute in Ottawa. The program can be interrogated by requesting one or more of the information reports the program provides.

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[1] See "User's Manual - Forest Fire Control General Equipment Inventory Program".

II. HOW TO USE EIP

EIP resides on a PDP-11 mini-computer. To access EIP, it is necessary to make a telephone connection with the computer from your remote terminal. The telephone number for the PDP-11 is 996-_ _ _ _. Dial this number, listen for the tone and connect the receiver to the data set. If a connection has been made, the computer will prompt your terminal with the symbol >. You are now ready to execute the program EIP.

EIP is an interactive program. It will ask the user a question, wait for a response and then proceed to perform the task requested. In the following examples, the underlined portion of a line is what the user types.

In order to initiate EIP after receiving the > (see above), type the following:

>SET /UIC=[User identification number]

>RUN DK1:EIP

Having typed the above lines, the computer will respond with a series of questions, which the user will answer:

REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>

The user will answer this question by typing R if he wishes to request a report, U if he wishes to make updates or E if he wishes to terminate the program.

Generating Reports

In response to the above question, suppose we type R.

REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>R

The computer will respond:

TYPE OF REPORT ? ENTER R/F/S>

The program is asking the user what type of report does he wish, R - a regular report, F - a fire report or S - a single item report.

A regular report tells the user what units of equipment are at various locations (Appendix B). The user tells the program what equipment categories (Appendix A) and what locations he wants reported. The program then writes a report containing all units of equipment that meet the user's constraints.

A fire report is a list of all fires, presently entered with the program. These fires usually have equipment at or near them, and are used as dispatching locations.

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A single item report provides the location and/or status of any single unit cf equipment.

Following, there is an example for each of the three report types. The first is a regular report example.

```
TYPE OF REPORT?ENTER R/F/S>R
TYPE OF EQUIPMENT - ENTER P/S/H/V/R/E/A>
```

See Appendix A for equipment codes. In response to the question, the user can request a report for any single equipment category or for all the equipment categories by typing the appropriate letter. We will report on power saws (S).

```
TYPE OF EQUIPMENT - ENTER P/S/H/V/R/E/A>S
ENTER LCCATION TO BE REPORTED AA FOR ALL LOCATIONS>
```

See Appendix B for location codes. The code AA stands for all regular locations (Appendix B locations 1-10). The user responds, with the location to be reported or AA if all locations are to be reported. We will report on all locations. Note that only locations that have the equipment type requested will be reported.

```
ENTER LOCATION TO BE REPORTED AA FOR ALL LOCATIONS>AA
```

See Figure 1 for the report resulting from the above report request.

The second report example is the list of fires report. We return to the point where the program asks for the type of report.
This time, suppose we request the current list of fires.

```
TYPE OF REPORT?R/F/S/>F
```

This is all the information necessary to obtain the fire report. See Figure 2.

Figure 1

```
>RUN DK1:EIP
REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>R
TYPE OF REPORT? ENTER R/F/S/>R
TYPE OF EQUIPMENT-ENTER P/S/H/V/R/E/A>S
ENTER LOCATION TO BE REPORTED - AA FOR ALL LOCATIONS>AA


SOCIETE DE CONSERVATION DE L'OUTAOUAIS    1/11/77
        SCI000'S AT ENTRPT
    SCI001     SCI005     SCI006     SCI007
    SCI008     SCI009     SCI010     SCI011
    SCI012     SCI013     SCI014     SCI015
    SCI016     SCI017     SCI018     SCI019
    SCI020     SCI021     SCI023     SCI024
    SCI026     SCI027     SCI028     SCI029
    SCI030     SCI031     SCI032     SCI033
    SCI034     SCI035     SCI036     SCI037
    SCI038     SCI039     SCI040     SCI042
    SCI043     SCI049     SCI050     SCI051
    SCI052     SCI053     SCI055     SCI056
    SCI057     SCI058     SCI059     SCI060
    SCI061     SCI062     SCI063     SCI064
    SCI068     SCI069     SCI070     SCI071
    SCI072     SCI073     SCI074     SCI075
    SCI076     SCI077     SCI078     SCI079
    SCI080     SCI082     SCI083     SCI084
    SCI085


SOCIETE DE CONSERVATION DE L'OUTAOUAIS   1/11/77
        SCI000'S AT NONDBL
    SCI025     SCI053


SOCIETE DE CONSERVATION DE L'OUTAOUAIS   1/11/77
        SCI000'S AT DORVAL
    SCI081
REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>E
TTO -- STOP
>
```

Figure 2

```
>RUN DK1:EIP
REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>R
TYPE OF REPORT? ENTER R/F/S>F


SOCIETE DE CONSERVATION DE L'OUTAOUAIS  1/12/77
          LIST OF FIRES
    FX0001      FX0002     FX0004     FX0006     FX0009
    FX0010      FX0013     FX0015     FX0017     FX0018
    FX0019
REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>E
TTO -- STOP
```

The third report example is the single item report. This report is generated when the user is trying to locate a specific piece of equipment. Again, we return to the point where the program asks for the type of report.

```
TYPE OF REPORT?R/F/S/>S
ENTER ITEM NAME/TYPE EE TO EXIT-AFTER>
```

The program has now entered its single item report section and is requesting the equipment code (Appendix A) of the unit that the user wishes to locate. The program will accept several single item requests but each request will be on a separate line following the symbol >. The program will continue to prompt with > until it receives the code EE. When you are finished requesting single item reports, type EE to return control to the main program. See Figure 3 for a series of single item reports.

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Figure 3

```
>RUN [K1:EIP
REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>R
TYPE OF REPORT? ENTER R/F/S>S
ENTER ITEM NAME/TYPE EE TO EXIT-AFTER >
>SCI052
SCI052 IS AT ENTRPT
>PUM071
PUM071 IS AT NONDBL
>RPM402
RPM402 IS AT ENTRPT
>EE
REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>E
TTO -- STOP
```

The above examples cover the three types of reports that can
be obtained. The fire report and single item report are very
simple and straight forward. The regular report, however, is
more complicated and further study may be required. For example,
if the user wishes to find out what equipment is on a truck or at
a fire, he should specify the truck or fire code as the location
to be reported. Remember, that equipment located on trucks or at
fires is only reported when the specific location code is used.
The code AA means all the district locations; not trucks and
fires.

As the user works with the program, he may find that the
program does not contain a report that he feels is useful or that
the present reports are not in the best format for field work.
Please record any such criticisms and forward them to L.
Middleton at the Forest Fire Research Institute.

Entering Updates

To enter the update portion of the program, we return to the
following prompt from the program and this time suppose we answer
by typing U.

REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>U

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The program will respond:

ENTER UPDATES USING THE FOLLCWING FORMAT (TYPE EE TO TERMINATE UPDATES)
 FROM   TO   ITEM
AAAAAA AAAAAA AAAAAA

The program is now ready to accept updates. There are several types of updates that can be made. Here is a list of the types of updates:

1.   Movement of equipment from one location to another. For example, from the warehouse to a fire.

2.   Adding equipment to the inventory. For example, the purchase of new equipment.

3.   Deleting equipment from the inventory. For example, equipment lost on fire, worn out or stolen.

4.   Add a new fire to the list of fires. For example, when equipment is to be sent to a fire that is not on the present fire list.

5.   Delete a fire from the list of fires. For example, when all equipment is returned from a fire and the fire is declared out or when the maximum of 150 fires on the list at one time is reached.

We will now give an example of each of the above updates.

ENTER UPDATES USING THE FOLLOWING FORMAT (TYPE EE TO TERMINATE UPDATES)
 FROM   TO   ITEM
AAAAAA   AAAAAA   AAAAAA
ENTRPT   FX0002   PUM002
PUM002 FROM ENTRPT TO FX0002
NNEEWW   ENTRPT   SCI099
SCI099 HAS BEEN ENTEREC AT ENTRPT
DELETE   ENTRPT   SCI085
SCI085 HAS BEEN DELETED FROM ENTRPT
NNEEWW   FX0011
FX0011 HAS EEEN ADDED TO THE LIST OF FIRES
DELETE   FX0001
FX0001 HAS BEEN DELETED FROM THE LIST OF FIRES
EE
REPORT OR UPCATE-ENTER R/U OR ENTER E TO END THE JOB>E

We will now explain the updates, in order. Location codes are found in Appendix B and equipment codes in Appendix A. In the first update the power pump 002 (PUM002) is being moved from the warehouse (ENTRPT) to fire number 2 (FX0002). The program then responds with a message informing the user that the update has been performed. The second update adds a new power saw numbered 99 (SCI099) to the power saw inventory and places it at the warehouse. The third update removes power saw 85 from the

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inventory of power saws. The saw was located at the warehouse. The fourth update adds fire number eleven (FX0011) to the list of fires. Equipment can now be sent to the location FX0011. The final update removes fire number one (FX0001) from the list of fires. All equipment must be removed from FX0001 before it can be deleted. Note, that FX0001 is no longer available as a location unless it is again added to the list of fires. Having entered all the updates we wish to perform, we type EE to terminate updating. The program now asks if we wish to continue (either reporting or updating) or stop and we have terminated the job by typing E.

The above examples cover the full range of updates that may be made. There is, however,one equipment category and/or location that has special rules. The VHCL_ _ (vehicle) equipment units and locations can neither be added nor deleted by the normal update procedures described above. If a vehicle must be added or deleted, it will be necessary to contact L. Middleton at the Forest Fire Research Institute.

III. SUMMARY

EIP was designed to provide fire control personnel with the location and status of specific units of equipment. The accuracy of this information is entirely dependent upon the efficiency and accuracy of the updating procedure employed by the fire control organization. This procedure must be well defined before the fire season begins and must be followed throughout the season.

Throughout the test period, constructive criticism of the program and the updating procedure is necessary and welcome. Any suggestions you have to enable the system to better meet your particular needs, should be forwarded to the Forest Fire Research Institute, 240 Bank Street, Ottawa, Ontario, c/o L.J. Middleton (613-996-0811).

APPENDIX A

EQUIPMENT CATEGORY CODES

1. CODES FOR REQUESTING REPORTS

Codes	Categories
P	Power Pumps
S	Power Saws
H	Outboard Motors
V	Vehicles
R	Radios
E	Extinguishers
A	All of the above

2. CODES FOR UPDATING

Codes	Categories
PUM _ _ _	Power Pumps
SCI _ _ _	Power Saws
HOR _ _ _	Outboard Motors
VHCL _ _	Vehicles
RPM2 _ _	Radios - 10 watts
RPM4 _ _	Radios - portable (hand held)
EXT _ _ _	Extinguishers

Note 1: The spaces are to be filled in with unique equipment numbers for each unit of equipment in a category, i.e. pump number 15 is PUM015.

Note 2: Radios have only one category but two codes to indicate the radio type.

LOCATICN CODES

Codes		Locations
1.	ENTRPT	Warehouse - available
2.	NONCBL	Warehouse - not available
3.	MANWKI	Maniwaki
4.	SJOVIT	St. Jovit
5.	WAKEFD	Wakefield
6.	DAVESN	Dave
7.	DORVAL	Dorval
8.	PARENT	Parent
9.	OTTAWA	Ottawa
10.	CACHES	Caches
11.	VHCL01	52 Vehicles
12.	VHCL02	
13.	VHCL03	
14.	VHCL04	
15.	VHCL05	
16.	VHCL06	
17.	VHCL07	
18.	VHCL08	
19.	VHCL09	
20.	VHCL10	
21.	VHCL20	
22.	VHCL21	
23.	VHCL22	
24.	VHCL23	
25.	VHCL24	
26.	VHCL25	
27.	VHCL26	
28.	VHCL27	
29.	VHCL48	
30.	VHCL49	
31.	VHCL53	
32.	VHCL54	
33.	VHCL55	
34.	VHCL56	
35.	VHCL57	
36.	VHCL58	
37.	VHCL59	
38.	VHCL60	
39.	VHCL61	
40.	VHCL62	
41.	VHCL63	
42.	VHCL64	
43.	VHCL65	
44.	VHCL66	
45.	VHCL67	
46.	VHCL68	
47.	VHCL69	
48.	VHCL70	

```
    49.    VHCL71
    50.    VHCL72
    51.    VHCL80
    52.    VHCL81
    53.    VHCL82
    54.    VHCL83
    55.    VHCL84
    56.    VHCL85
    57.    VHCL86
    58.    VHCL87
    59.    VHCL88
    60.    VHCL89
    61.    VHCL98
    62.    VHCI99
63-212     FX_ _ _ _  up to 150 Fires (at any one time)
```

Note 1. Vehicles may have been entered as locations and not as equipment. Be sure when assigning equipment to a vehicle that it exists both as a location and as equipment. Contact L. Middleton if you wish new vehicles added either as equipment or locations.

Note 2. The spaces in the fire location codes may be filled with regular fire numbers. This allows for 999 fires in a Société per season and one space to identify the Société or all four spaces can be used as a number (since we are presently dealing with only one Société) to allow for 9,999 fires.

I.   INTRODUCTION

The program **PERSON** provides a number of reports pertaining to fire ccntrol personnel. This particular version of PERSON has been written for the Société de Conservation de l'Outaouais. With minor modifications, PERSON can be used in any fire control organization that corresponds in responsibilities with a Sociête (Quebec) or a region (Ontario). PERSON could also be modified to deal with a provincial level fire control organization.

The program maintains a personnel record on each person who has applied for seasonal fire control work in the Société de Conservation de l'Outaouais. A maximum of 200 records has been arbitrarily set.   These records maintain both personal information (age, address, phone, etc.) and fire control information (job classification, ability rating, fires worked, availability, etc.).   The report section of the program allows the user to access the information in a variety of ways and for a variety of purposes.   The update section of the program allows the user to record changes and thereby maintain a current record of the personnel situation within the Sociêtê.

Providing personnel availability information to the fire control manager is the main, but not the only, use for the program.   PERSON can also provide a record of which peoples' salaries were charged to a given fire or a record of all fires to which an individual's salary was charged.   This information should be useful to payroll and accounting systems as a check to detect any errors in information passed to the respective systems from the field.

In summary, the program is new and was designed with a specific goal in mind. However, there already appears to be some side benefits and with extensive field testing more benefits may arise. It is strongly suggested that the user organization test the program with the idea of using the information in as many different ways as possible. If it is found that the information is reliable and can be used in several areas, it may be possible to integrate these areas and provide a comprehensive management information system.

II. HOW TO USE PERSON

PERSON resides on a PDP-11 mini-computer. To access PERSON, it is necessary to make a telephone connection with the computer from your remote terminal. The telephone number for the PDP-11 is 996-_ _ _ _. Dial this number, listen for the tone and connect the receiver to the data set. If a connection has been made, the computer will prompt your terminal with the symbol>.

PERSON is an interactive program. It will ask the user a question; wait for a response; and then proceed to do the task requested. In the following examples, the underlined portion of a line is what the user types.

In order to initiate PERSON after receiving the > (see above), type the following:

>SET /UIC=[User identification number]

>RUN DK1:PERSON

Having typed the above lines, the computer will respond with a series of questions, which you will answer:

REPORT OR UPDATE-ENTER R/U OR ENTER E TO END THE JOB>

How to Request Reports

If you wish to generate a report, type R in response to the above question. The program will ask for the type of report to be generated.

REPORT OR UPDATE-ENTER R/U OR ENTER E TO END THE JOB>R
WHAT TYPE OF REPORT DO YOU WANT? 1. FULL, 2. AVAILABILITY, 3. INDIVIDUAL, 4. CLASS, 5. FIRE REPORT, 6. NAMES LIST - (ENTER 1/2/3/4/5/6)>

There are six types of reports that can be generated.

1. Full Report - contains all the information available on all the personnel entered in the program. This report should be taken only periodically and, if possible, should be directed to the line printer.

    Example: Type the number 1 for the type of report wanted and the program will respond.

DO YOU WISH THE REPORT TO BE PRINTED ON THE LINE PRINTER? Y/N>Y

    The program will now generate a full report on the line printer.

2. Availability Report - reports all personnel, with specified qualifications, that are available for work. The program asks the user to specify the qualifications.

   Example: Type the number 2 for the type of report wanted and the program will respond:

   ENTER WORKER CLASSIFICATION. (IE:BOSS)>COOK
   ENTER ABILITY LEVEL. A-EXCELLENT, B-ACCEPTABLE, C-UNKNOWN>A

   The program will now produce a report containing all cooks with an ability rating of excellent and who are not already working. See Appendix A (Field FE) for worker classification codes.

3. Individual Report - the user specifies the record number of the person to be reported and the program responds with the individual's complete record.

   Example: Type the number 3 for the type of report wanted and the program will respond:

   ENTER THE RECORD # OR ENTER 999 TO END PROMPTING>124

   The program will now write out record number 124 and then request another record number. Type 999, if you do not wish any further Individual Reports.

4. Class C Report - provides the user with a report of all personnel with an unknown ability rating.

   Example: Type the number 4 for the type of report wanted. The program will now produce the report.

5. Fire Report - the user specifies a fire number and the program informs the user of the personnel who have been, or are now being charged to the fire specified. The report also informs the user if the person is still at the fire, at the warehouse or is no longer assigned to the fire specified.

   Example: Type the number 5 for the type of report wanted. The program will respond:

   ENTER FIRE # TO BE REPORTED>0001

   The program will now produce a report containing the names of all personnel that have been, or are now being charged to fire number one (the fire number must be a four digit number).

6. Names List Report - provides a brief report of all personnel presently registered with the program.

Example: Type the number 6 for the type of report wanted. The program will now produce the report.

The above examples cover all the methods of obtaining information reports from the program. The manner in which the program is written facilitates the addition or deletion of reports. If the user finds some report not being used, or has ideas for new reports, he should forward his suggestions to the Forest Fire Research Institute.

How to Perform Updates

There are three types of updates - 1) addition of a record to the personnel file, 2) deletion of a record from the personnel file and 3) modification of a record that is presently part of the personnel file. To enter updates the following questions must be answered.

REPORT OR UPDATE - ENTER R/U OR ENTER E TO END THE JOB>U

TYPE OF UPDATE?ENTER A-ADDITION/D-DELETION/R-REGULAR/E-TO END UPDATE>A

The first update example will show how to add a new personnel record to the personnel file. A description of the fields that make up the record is in Appendix A. The program will ask a series of questions regarding the personnel record to be created. The user should press the return key and proceed to the next question if he does not have the information necessary to answer. The program will leave a blank in the record and proceed to the next question. Answer the following questions to enter a new record:

ENTER NAME>BROWN JOHN

Note: The name should be entered last name first. If there are two names the same, the user can add a number or a letter to distinguish the names. The user must answer the name question.

ENTER AGE>30

Note: The program limits the age to between 16 and 65.

ENTER TOWN>320 DEVLIN MKI

Note: Enter the full address where necessary.

ENTER PHONE>4497417

Note: The user may enter a dash, ie. 449-7417.

ENTER S.I.N.>240711029

Note: The user may _not_ enter the dashes for the social
           insurance number.

ENTER CODE FOR USUAL WORK>_LB_

Note: The user must establish a set of two letter codes
           to represent the job classifications he wishes to
           maintain, i.e. LB-laborer, ST-student, etc. These
           classifications must be followed for the entire
           season.

ENTER CODE FOR FIRE WORK>_QCCM_

Note: See Appendix A (field FE) for codes. Some workers
           are qualified for more than one classification. It
           will be up to the user to determine the proper one
           to enter.

ENTER # OF FIRES WORKED (FROM 0-999)>_10_

Note: This number represents the total number of fires
           the person has ever fought for the user
           organization. The number represents the person's
           fire experience.

ENTER ABILITY RATING-A/B/C>_B_

Note: The user agency must rate the personnel - A for
           excellent, B for acceptable and C for unknown.

DOES THE PERSON HAVE A DRIVER'S LICENSE?Y/N>_Y_

Note: If the answer is no, the following question will
           not be asked.

ENTER TYPE OF LICENSE (O-OPERATORS, C-CHAUFFEUR, B-BUS)>_C_

DOES THE PERSON HAVE TRANSPORTATION?Y/N>_Y_

Note: If the answer is no, the following question will
           not be asked.

ENTER TYPE OF TRANSPORTATION (C-CAR, T-TRUCK, 4-4X4, B-BUS, O-OTHER)>_4_

DOES THE PERSON HAVE A CHAINSAW?Y/N>_N_

IS THE PERSON NOW ON DUTY?Y/N>_Y_

Note: If the answer is no, the following questions will
           not be asked.

IS THE PERSON AT THE WAREHOUSE?Y/N>_Y_

Note: If the answer is no, the following two questions would not be asked.

ENTER THE FIRE NUMBER TO BE CHARGED>0010

Note: There must be four digits in the fire number.

ENTER THE DAY AND MONTH STARTED (DD/MM)>23/06

If the question, IS THE PERSON AT THE WAREHOUSE?Y/N, was answered N instead of Y the following question would have been asked.

ENTER THE FIRE#>0010

Note: This tells the program that the person is working on fire number 10. The fire number must have four digits.

All of the questions have been answered. The program will now display the new record and inform the user that the record has been added to the list.

```
RECORD#: 11  NAME:BROWN JOHN
1.AGE:30 2.TOWN:320 DEVLIN MKI
3.PHONE:4497417  4.SIN:240711029  5.USUAL WORK:LB
6.FIRE WORK:QCOM 7.EXPERIENCE: 10 8.ABILITY:B
9.LICENSE:C 10.TRANSPORTATION:4 11.CHAINSAW:N
12.WORKING AT:ENTP DATE STARTED 23/06 FIRE CHARGED 0010
13.FIRES WORKED ON:NONE
```

THIS RECORD HAS BEEN ADDED TO THE LIST

TYPE OF UPDATE?ENTER A-ADDITION/D-DELETION/R-REGULAR/E-TO END UPDATE>D

In answering the above question with the deletion code we come to the next type of update. The program now determines the record to be deleted:

ENTER RECORD NUMBER TO BE UPDATED>15

The program will now write out record number 15 and ask the user to ensure that this is the correct record.

```
RECORD#:15 NAME:CONRAD J.
1.AGE:20 2.TOWN:MANIWAKI
3.PHONE:4495252 4.SIN:240194256 5.USUAL WORK:ST
6.FIRE WORK:COOK 7.EXPERIENCE: 1 8.ABILITY:C
9.LICENSE:N 10.TRANSPORTATION:N 11.CHAINSAW:N
12.WORKING AT:    DATE STARTED    /    FIRE CHARGED
13.FIRES WORKED ON:0002


IS THIS THE CORRECT RECORD?Y/N>Y
RECORD #15 HAS BEEN DELETED


TYPE OF UPDATE?ENTER A-ADDITION/D-DELETION/R-REGULAR/E-TO END UPDATE>R
```

We now look at the last type of updating: the regular update. The regular update involves the modification of individual sections of a record. A personnel record consists of the record number, the name and thirteen fields (sections) that are numbered 1 to 13. A regular update allows the user to change any of the thirteen numbered fields. The name field cannot be modified. If an error is made in the name, the record must be deleted and re-added to the list using the addition procedure. A person's record number will change as records are added and deleted. The name list report allows the user to keep track of record numbers without listing the full personnel record of each person on the file. For a regular update request the program responds:

```
ENTER RECORD NUMBER TO BE UPDATED>11


RECORD#: 11  NAME:BROWN JOHN
1.AGE:30 2.TOWN:320 DEVLIN MKI
3.PHONE:4497417  4.SIN:240711029 5.USUAL WORK:LB
6.FIRE WORK:QCOM 7.EXPERIENCE: 10 8.ABILITY:B
9.LICENSE:C 10.TRANSPORTATION:4 11.CHAINSAW:N
12.WORKING AT:ENTP DATE STARTED 23/06 FIRE CHARGED 0010
13.FIRES WORKED CN:NONE


IS THIS THE CORRECT RECORD?Y/N>Y
ENTER THE # OF THE ITEM TO BE UPDATED/TYPE 99 TO END UPDATING>12
```

We are going to modify this person's working status. At present he is working at the warehouse and his salary is being charged to fire number ten.

```
IS THE PERSON NOW ON DUTY?Y/N>Y
IS THE PERSON AT THE WAREHOUSE?Y/N>N
ENTER THE FIRE #>0011
ENTER THE DAY AND MONTH STARTED (DD/MM) >24/06
ENTER THE # OF THE ITEM TO BE UPDATED/TYPE 99 TO END UPDATING>99
```

```
RECORD#:11   NAME:BROWN JOHN
1.AGE:30 2.TCWN:320 DEVLIN MKI
3.PHONE:4497417  4.SIN:240711029  5.USUAL WORK:LB
6.FIRE WORK:QCOM 7.EXPERIENCE:10 8.ABILITY:B
9.LICENSE:C 10.TRANSPORTATION:4 11.CHAINSAW:N
12.WORKING AT:0011 DATE STARTED 24/06 FIRE CHARGED 0011
13.FIRES WORKED ON:0010

IS THIS RECORD CORRECT?Y/N>Y
RECORD#11 IS UPDATED

TYPE OF UPDATE?ENTER A-ADDITION/D-DELETION/R-REGULAR/E-TO END UPDATE>E
REPORT OR UPDATE-ENTER R/U OR ENTER E TO END THE JOB>E
END OF RUN
TTO - - STOP
>
```

In the above example, we have changed record number eleven to
indicate that Mr. Brown is working on fire number eleven. Notice
that while Mr. Brown did not work on fire number ten, his time at
the warehouse has been charged to it and consequently fire number
ten has been entered on his list of fires worked on. Mr. Brown's
experience field has   not   been   increased   because   he   did   not
actually   work   on   the   fire.   The   program displays the entire
record when we are finished updating it. The user   should   check
the   record to ensure that it is correct. The program will write
the record on the personnel file and issue   a   message   informing
the   user   that the update is complete. The remaining statements
in the example terminate the program.

The   regular   update   will be used extensively in maintaining
the availability of   the   user   organization's   personnel.   This
information,   if it is kept accurate and up to date, will provide
the fire manager with a valuable tool for decision making.

Effective Use of the Program

PERSON   is   a   test   program   and   has never been used in the
field. As a result there is no strictly   defined   procedure   for
its   use.   The user organization should run pre-fire season tests
to establish a tentative procedure for the program's   use.   When
this procedure is established, it should be employed and strictly
followed for the season. Only severe or   obvious   errors   should
justify a change in the procedure.

III. SUMMARY

PERSON was designed to provide managers with detailed information concerning the availability, qualifications and work history of the personnel under their direction. The program may also be used in conjunction with administrative functions such as payroll and accounting. For the program to perform these functions effectively, a well-defined operational procedure must be established by the user organization and followed throughout the entire fire season.

Throughout the test period, constructive criticism of the program and the operational procedure is necessary and welcome. Any suggestions, you might have to better enable the system meet your particular needs, should be forwarded to the Forest Fire Research Institute, 240 Bank Street, Ottawa, Ontario, c/o L. J. Middleton (613-996-0811).

THE PERSONNEL RECORD

Field	Size	Remarks
NAME	30 characters	Contains the person's name, last name first.
AGE	2 characters	Contains person's age. Age must be between 16 and 65.
TOWN	26 characters	Contains person's address.
PHONE	8 characters	Contains person's phone number. The dash may or may not be included.
SIN	9 characters	Contains person's social insurance number. Dashes may not be included.
UE	2 characters	Contains code for person's usual employment. These codes are made up by the user organization.
FE	4 characters	Contains code for person's fire employment classification. These codes are:

BOSS - fire boss
COOK - cook
CLER - clerk
QCOM - qualified fire fighter
SCOM - non qualified fire fighter
blank - unknown

EX	3 characters	Contains the number of fires the person has fought for the user organization (all years). The number must be between 0-999.
ABIL	1 character	Contains the person's ability rating. This rating is assigned by the user organization. The ratings are:

A - excellent
B - acceptable
C - unknown

LIC	1 character	Contains code concerning person's driving license.

N - does not have a license
O - operator's license

		C - chauffeur's license B - bus license
TRANS	1 character	Contains code concerning person's own transportation.
		N - no transportation C - car T - truck 4 - 4X4 B - bus O - other
SAW	1 character	Specifies if the person has a chainsaw.
		Y - yes N - no
PFIRE	4 characters	Specifies person's present work status.
		ENTP - working at the warehouse. fire number - four digit number specifying the fire the individual is working on. blank - the person is not presently working.
FDAY	2 characters	In conjunction with FMONTH specifies the date the individual started working. Left blank if the individual is not working.
FMONTH	2 characters	See FDAY above.
CFIRE	4 characters	Contains the fire number that the person's salary is being charged to.
FIRES	Contains 75, four character entries	Maintains a list of all fires to which the person's salary has been charged for the present fire season. Maximum of 75 fires.