

1988/28. CARP - Computer-assisted retrieval of plans (Revision 3).**R. G. Richardson***Abstract*

The program suite described is used for adding entries to an index of plans, changing entries, sorting the index, searching the index, and producing plan labels. The data are entered from the plan register and most of the details entered may be searched. This revision adds extra search options.

INTRODUCTION

The Department of Mines Cartographic Drafting Room holds several thousand plans. The plans are listed numerically in the plan register, and by quadrangle in a card index. Selecting all plans relating to a particular subject, especially where a number of quadrangles may be involved, is extremely difficult and time consuming. CARP provides a convenient method of searching the plan index.

The programs used for CARP are written in FORTRAN 77 and are run on the Geological Survey Perkin-Elmer mini-computer. It is assumed that the user is familiar with the operating system and the standard editing facilities.

USING THE PROGRAMS*Data base maintenance*

Data are input by typing PLANADD. The program requests the following:

- (i) PLAN - the plan number (up to 4 digits and two letters)
- to finish input type END here.
- (ii) TITLE - the plan title (up to 80 characters).
- (iii) LOCALITY - the locality covered by the plan (up to 16 characters).
- (iv) QUADRANGLE NUMBER - from one to four quadrangle numbers separated by commas
- e.g. 43, 44, 55, 56
- plans covering more than four quadrangles should be given the number 00.
- (v) CATEGORY - one or two characters specifying one of the standard categories in CATEGORY.DAT. This item is checked by the program for validity.
- (vi) AUTHOR - the initials of the author of the plan (up to 4 characters). This item is checked by the program against a standard list in AUTHOR.DAT.
- (vii) YEAR - the year of drafting (4 digits).

- (viii) DRAFTSMAN - the initials of the drafter of the plan (up to 4 characters). This item is checked by the program against a standard list in DRAFTS.MEN.
- (ix) REMARKS - up to 17 characters of remarks.
- (x) MASTER FILM NUMBER - up to 3 digits specifying the master film number. A prefix of MIDO/GS/GP/ is presumed.
- (xi) PLAN SIZE - two characters describing the plan size.

At the end of input, a proof-sheet is output and the data saved in file PLANTEMP.TMP. Corrections may be made to this file using the standard editing facilities and a new proof-sheet printed and checked.

The new data in PLANTEMP.TMP must be added to the end of the existing data base by typing PLANMIX. To ensure that the file remains in plan number order, it should be sorted periodically using the PLANSORT command.

Data may be changed by typing PLANCHGE. The program requests:

- (i) PLAN NUMBER - the number of the plan for which alterations are required.
- to finish input type END here.
- (ii) A series of opportunities to change particular data values then follow. The plan number cannot be changed.

Film numbers for plans on one master film may be added by typing FILMADD. The program requests:

- (i) MASTER FILM NUMBER - the three digit master film number.
- (ii) PLAN NUMBER - the plan numbers on the master film.
- to finish input type END here.

Data base searching

The search phase is entered by typing PLANSRCH. An entry will be retrieved only if the specified search options are matched. If a device name is specified after PLANSRCH output is sent to that device.

The program requests the following data:

- (i) FIRST TITLE SELECTION - one or more groups of words on a single line, each group of words terminated by /. If this option is not required leave the line blank.
e.g. GOLDEN GATE/TASMANIA MINE/LEFROY/
Golden Gate or Tasmania Mine or Lefroy.

(ii) SECOND TITLE SELECTION - as for the first title selection. Both title selections must be satisfied during a search if further items are to be checked, and this provides a 'logical and' for the title search. For example it is possible to look for surface plans from either the Golden Gate, Tasmania Mine or Lefroy by making the first title selection.

GOLDEN GATE/TASMANIA MINE/LEFROY/

and the second title selection

SURFACE PLAN/

(iii) LOCATION - details as for the first title selection.

(iv) QUADRANGLE - one or more quadrangle numbers on a single line, each terminated by a /. Leave blank if not required.
To search regional plans use a quadrangle number of 00.
e.g. 27/ only quadrangle 27
27/32/ quadrangle 27 or quadrangle 32
27/32/00 quadrangle 27, quadrangle 32, or any regional plan.

(v) CATEGORY - one or more single character standard category numbers on a single line, each terminated by a /. Leave blank if not required.

(vi) SUB-CATEGORY - one or more single character standard sub-category numbers on a single line, each terminated by a /. Leave blank if not required.

(vii) AUTHOR - one or more standard author abbreviations arranged in the same manner as the first title selection.

(viii) YEAR - details as for quadrangle.

(ix) DRAFTSMAN - one or more standard drafter abbreviations arranged in the same manner as the first title selection.

(x) REMARKS - one or more groups of characters on a single line, each group terminated by ;. If this option is not to be searched leave the line blank.
e.g. BULL 60;U/R 1984/20;

(xi) PROCEED WITH THIS SEARCH - if the search options entered are incorrect type N here, otherwise type return.

(xii) Screen listing required - Y if required, N otherwise. At the end of each screen a choice is made as to whether to list more on the screen or not.

(xiii) Printout required - Y if required, N otherwise.

(xiv) Further searches - Y if required, N otherwise.

Data base listing

To produce a listing type PLANLIST. A list of the entire data base may be produced, or listed from any particular plan number. The data base should be sorted before listing. If a device name is specified after PLANLIST the listing is sent to that device.

The program requests the following data:

STARTING PLAN NUMBER - either the plan number to start listing from or a blank to list the entire data base.

ENDING PLAN NUMBER - either the last plan number to be listed or a blank to list the remainder of the data base.

Label printing

To produce labels for the aperture cards from one or more master films the command PLANLABEL may be used.

The program requests the following data:

ROLL NUMBER - the roll number for which labels are to be printed. A zero or blank will terminate the run.

Commands are also required when printing the labels.

THE PROGRAMS

Planadd

This program accepts data from the keyboard and copies it to a file in a format suitable for editing. Prompts are used to guide the user. The file created (PLANTEMP.TMP) may be edited using the standard editing facilities. PLANADD uses three files of standard abbreviations - CATEGORY.DAT, AUTHOR.DAT and DRAFTS.MEN. Appendix 1 shows an example of CATEGORY.DAT and it should be noted that any line with the first 4 columns blank is ignored by the program and can be used for comments. The same is true of AUTHOR.DAT and DRAFTS.MEN.

Planmix

The data from PLANTEMP.TMP are read and the basic data converted to the format of the data base and put in file PLANMAIN.DAT. Accidental data loss is prevented by copying to intermediate files.

Plansort

The data are sorted into ascending plan number order using a temporary work file.

Planchge

This pair of programs reads data from PLANMAIN.DAT and allows the user to change the data. The temporary work file is then merged with the main file.

Plansrch

The data base is searched for the occurrence of specified strings or numeric values. The output is an extract from the data held for each plan.

Planlist

For producing a complete list of all plan information.

Planlabl

For producing labels for aperture cards.

Filmadd

For adding master film numbers to existing plan records. A temporary main file is used to avoid accidental data loss.

[14 September 1988]

APPENDIX 1

Example of standard abbreviations, CATEGORY.DAT

- 1 ENGINEERING GEOLOGY
 - 10 GROUND WATER
 - 11 DAMSITES / TUNNELS
 - 12 LANDSLIDES
 - 13 ROAD,RAIL AND PIPELINES
 - 14 FOUNDATIONS
 - 15 QUARRIES AND ROCK FACES
 - 16 GEOPHYSICS (seismic,resistivity etc.)
 - 17 DISPOSAL SITES / TAILINGS DUMPS
 - 19 MISCELLANEOUS

- 2 ECONOMIC GEOLOGY
 - 20 GEOLOGICAL MAP / SECTIONS
 - 21 MINE PLAN / SECTIONS (includes UG plans,locality of mines & prospects etc.)
 - 22 METALLOGENIC (shows Au,Ag,Zn,Pb etc es, eg scheelite des)
 - 23 FUELS (e.g. coal,oil shale)
 - 24 INDUSTRIAL / CONSTRUCTION MATERIALS (e.g. gravels,sandstone,slate)
 - 25 PETROLOGICAL,GEOCHEMICAL
 - 26 PRODUCTION FIGURES
 - 27 STRUCTURAL DIAGRAMS
 - 28 ORE/MINERAL RESERVES
 - 29 MISCELLANEOUS

- 3 REGIONAL GEOLOGY
 - 30 REGIONAL GENERAL
 - 31 STRUCTURAL
 - 32 SECTIONS
 - 33 COLUMNS
 - 34 SAMPLE LOCALITIES
 - 35 GEOCHEMICAL
 - 39 MISCELLANEOUS

- 4 GEOPHYSICS
 - 40 SEISMIC
 - 41 GRAVITY
 - 42 MAGNETICS
 - 43 AEROMAGNETICS
 - 44 RESISTIVITY
 - 49 MISCELLANEOUS

- 5 GEOCHEMICAL
 - 5 GEOCHEMICAL

- 6 PALAEOONTOLOGICAL
 - 6 PALAEOONTOLOGICAL

7 PETROLOGICAL/MINERALOGICAL

- 70 MINERAL DATA / COMPOSITIONS
- 71 TRIANGULAR DIAGRAMS
- 72 ISOTOPE DATA
- 73 PETROLOGY DIAGRAMS
- 79 MISCELLANEOUS

8 MISCELLANEOUS

- 80 ENGINEERING
- 81 DANGEROUS GOODS
- 82 CHEMICAL/METALLURGICAL
- 83 ADMINISTRATION
- 84 TOPOGRAPHICAL
- 89 MISCELLANEOUS