



Division of Mines and Mineral Resources — Report 1990/30

Using the slidecat database

by E. L. Martin

Abstract

The slidecat database is an index to the Division of Mines and Mineral Resources collection of 35 mm transparencies. The database was originally developed on the Perkin-Elmer minicomputer using the SEARCH programme for retrieval. It has now been transferred, with minor alterations, to the INGRES relational database running on the SUN Unix system. The database currently contains 3400 records.

INTRODUCTION

The slidecat database forms an index to the Division's collection of 35 mm transparencies. As the slide collection grew it became more time-consuming to use the handwritten listing and a database was set up on the Perkin-Elmer minicomputer using the general purpose FORTRAN retrieval programme SEARCH.

The database has now been transferred to the INGRES relational database running on a SUN 386i Unix system. It currently contains 3400 records.

Details of the various record fields are shown in Table 1.

Table 1. SLIDECAT RECORD FIELDS

Column name	Description	Type
sno	Slide Number	integer*2
yrmon	Year and month (4 digits)	integer*2
me	AMG easting (mE)	integer*4
mn	AMG northing (mN)	integer*4
map	Map sheet(s) – up to four 2-digit numbers	vchar(11)
loc	Locality	vchar(64)
age	Age (s) / stratigraphic symbols(s)	vchar(11)
descr	Description of subject	vchar(128)

USING THE PUBLICATIONS TERMINAL

The Publications terminal has access to the SUN network via TELNET. To logon to the network you must first logon to NFS (select 9 from the main menu, then 1). Normally

this is done on startup but the link may be broken if PSPlot has been used. Then select 9 from the main menu then 2 (TELNET). Press **Enter** three times to accept the defaults. Wait for the login prompt and login.

You should now see the Unix prompt {master1:1} and can enter the appropriate commands outlined in the following sections.

USING INGRES ISQL

- (1) Type **isql mines**
- (2) A statement box will be displayed in which you can type SQL statements. To execute a statement use the keypad **+** key. Statements may either be typed in directly or read in from a file.
 - (a) To enter a statement in the statement box simply type in the appropriate text. Text may be corrected using the arrow keys and either typing over the existing text (default mode is OVERSTRIKE) or by inserting text (type **Ctrl-E** to toggle INSERT mode). The **Delete** key deletes the character before the cursor – use **Ctrl-D** to delete the character above the cursor.
 - (b) To read in a statement from a file select *file* (keypad 6) then *read* (keypad 1). Enter the pathname to read from (e.g. `/home/tmartin/publications/t2f`). Any statement read in may be edited as in 2 (a). Statements may also be written to a file for subsequent recall – use *file* (keypad 6) then *write* (keypad 2).
- (3) To execute a statement in the statement box press the keypad **+** key. If the statement was incorrect you will get an error message (in which case press **F3** and edit your statement); otherwise the results will be displayed.
- (4) The results of your search may not fit onto a single screen. You may scroll left or right by using the **Ctrl-L** and **Ctrl-H** keys and up and down using the keypad – and keypad ***** keys. **Ctrl-J** and **Ctrl-K** can be used to switch between the top and bottom of the listing. The number of records retrieved will be displayed at the end of the retrieved data.
- (5) If you need a print out of the results on the laser printer, then follow this procedure:

```

select sno,map,loc,descr from slidecat where descr like
'%\[Cc\]rack%' escape '\';

```

Go (Enter) Resume (2) Complete (3) Blank (4) Edit (5) File (6) >

Figure 1. An example of an ISQL statement screen. Note the use of the escape character. Several search statements may be typed in the statement box, each terminated by a semicolon.

```

Thu Nov 29 10:00:04 1990
1> select sno,map,loc,descr from slidecat where descr like
2> '%\[Cc\]rack%' escape '\';
-----
|sno  |map  |loc
-----
|  32|41  |St Helens
|  45|30  |Batman Bridge, E Tamar
|  48|30  |Batman Bridge, E Tamar
|  51|30  |Batman Bridge, E Tamar
|  52|30  |Batman Bridge, E Tamar
|  55|30  |Batman Bridge, E Tamar
|  56|30  |Batman Bridge, E Tamar
| 106|39  |Lawrence Vale Rd, Launceston
| 108|39  |Legana, Browns Bluff
| 110|39  |Legana, Browns Bluff
| 114|30  |Deviot
| 134|39  |Browns Bluff, Legana
| 135|38  |N of Bradys Lookout, W Tamar Highway
-----
Top (^K)  Bottom (^J)  File (3)  Help (PF2)  End (PF3) >

```

Figure 2. Result of the execution of the above ISQL statement. The visible screen may be scrolled to reveal the remainder of the data.

- (a) Press *file* (keypad 3) and enter the pathname you wish to save to. Press **Enter**. The complete results of the search (not just the visible screen) will be saved.
- (b) Press **F3** then **F4** to exit INGRES, then logout.
- (c) On the DOS system locate the file on the **M:** drive.
- (d) Type **unix2dos filename outfile** (where *filename* is the name of the file you saved and *outfile* is a new filename). Unix files have no CR's and will not print properly under DOS).
- (e) Switch to laser printer, set mode to 8.
- (f) Type **print4l outfile**. (other versions of print are available, **print4l** is best used for long records and sets the printer mode to landscape.
- (g) Delete filename and outfile if no longer required.
- (6) To return to the Unix prompt press **F4** (you may have to press **F3** first). You may now logout.

ADDING RECORDS TO THE SLIDECAT DATABASE

- (1) Using the SQL **copy** command. This is the best method when adding more than a few entries. You also update the backup text file at the same time.
- (a) Under DOS use VEDIT to add records at the end of the slidecat file. The slidecat file is on drive M: in the PUBLICATIONS directory (this is the Unix name the DOS name will be PUBLI~AA or similar. Use DIR to confirm).

Make sure that the fields are properly aligned. Use **Ctrl-Q Ctrl-J** instead of **ENTER** at the end of each record. If you forget you should switch to command mode before saving the file by moving the cursor to the beginning of the added text, switching to command mode (**Ctrl-E**) and typing **#s/Ctrl-Q Ctrl-M//** (this will display as **#s/<CR>/**). Press **V** to return to insert mode.

Use the block command **Alt-B** to select the beginning and end of the text to be added to the database then select **Alt-B** again to save this text to a new file.

Then save main file by typing **Alt-F** and selecting **Exit (save)**.

- (b) Under Unix type **isql mines**.
- (c) Select *file* (keypad 6) and *read* (keypad 1). When prompted for pathname enter **/home/tmartin/publications/f2t** and modify the pathname at the end of the text to point to the file of additions you created.
- (d) Press keypad **+** to execute statement. If there are no errors you will see a message indicating the number of rows that have been added.
- (2) If only a few records are to added this may be done using **qbf**.

- (a) Type **qbf mines slidecat -t**.
- (b) Select *update* (keypad 3).
- (c) Enter the records on the displayed form. Use the **Tab** key to move to the next field and **Enter** at the end of each record. To return to a previous field of the same record type **Ctrl-P**. To switch between records use the arrow keys.
- (d) When finished select *save* (keypad 0). The number of records saved will be displayed.
- (e) Exit *qbf* by pressing **F3**.
- (f) Logout.

SEARCHING USING QBF

Simple searches may be done using *qbf* (query by forms).

- (a) Type **qbf mines slidecat -t**.
- (b) Select *retrieve* (keypad 2).
- (c) Enter the keywords to be retrieved in the appropriate columns.
- (d) When finished select *go* (keypad +). The records found will be displayed. Use **Tab** or **Enter** to scroll left and **Ctrl-P** to scroll right, and the arrow keys or keypad **-** and keypad ***** to move up and down the records which have been found.
- (e) The visible screen may be printed on the laser printer (set to mode 8) by pressing **Shift-Print Screen**.
- (f) Exit *qbf* by pressing **F3**.
- (g) Logout.

SEARCHING USING SQL

- (1) From Unix prompt type **isql mines**.
- (2) A statement box will be displayed.
- (3) Enter *sql* statements to define your search. If you are unfamiliar with *sql* then refer to the INGRES/SQL Reference Manual. Remember that the first four fields are numeric, all the others are text and so must be accessed differently. Some examples of search statements are given below:
 - (a) To display record 1540 type:
select * from slidecat where sno = 1540
The asterix signifies all fields of the table.
 - (b) To display the slide number and locality fields from records 1540 to 1549 type:
select sno,loc from slidecat where sno between 1540 and 1549

- (c) To display the slide number, locality and description of all slides depicting Jurassic dolerite type:
select sno,loc,descr from slidecat where map like '%75%' and age like '%Jdl%'
% is the wildcard character.
- (d) To display records containing a reference to cracks or cracking type:
select * from slidecat where descr like '%\[Cc\]rack%' escape '\'
(note the use of the backslash as an escape character to enable both uppercase and lowercase letters to be found).
- (4) Use **Ctrl-L** and **Ctrl-H** to scroll horizontally and keypad **-** and keypad ***** to scroll up and down the displayed results. Type **F3** to get back to statement box. You may press keypad **4** to *blank* the box and enter a new statement. Press **F4** to exit to Unix
- (5) See the USING INGRES ISQL section, step (5) if you wish to print the results of a search.

[30 November 1990]