

A Brief Introduction to Using the
Sybase Data Workbench for Data Entry
--Ernest Szeto Revised 4/11/89

This document will present steps that the data entry operator could use for doing data entry into a Sybase database using the Data Workbench (DWB) on a vt100 (or vt100 emulator). It presents a subset of commands found in the official Sybase documentation. Doing data entry via the DWB may be necessary because, it may take quite a bit of time for the application programmers to develop customized data entry forms and menus, especially for a large database (~80 tables) such as the SSC_CABLE database.

Since the DWB is a generic utility for editing data, a minimum number of restrictions is placed on the type of editing that can be done. The data entry operator should be extra careful about entering data accurately. At this early stage of database definition, validation rules have not been developed either via triggers, user defined datatypes, Sybase "rules", or customized screen forms.

This document contains the following instructions:

- (1) Logging into the SUN Operating System via a guest account and starting DWB.
- (2) Notes on Sybase terminal keys and conventions. A brief description of what is meant by "table" and other relational database terms.
- (3) Inserting new data into a table.
- (4) Searching for old data from a table.
- (5) Modifying data found from the above search.
- (6) Deleting data found from the above search.

1. Logging into the Guest Account to run DWB.

Currently, Sybase v4.0 for the SSC/CDG runs on a SUN/4 called "grumpy". You can connect with "grumpy" using telnet or rlogin on your host computer (assuming it is defined on your host machine). (The commands shown here do not apply to a Macintosh. Nevertheless, the same principles apply.)

For example, you can type...

```
rlogin grumpy.ee.lbl.gov -l mdbuser
```

(i.e., type lowercase "L", not "one", for "login mdbuser") or

```
telnet grumpy.ee.lbl.gov
```

to connect with grumpy. The username for the guest account is "mdbuser" (don't type the quotes). (This document will not disclose the password. Contact Ernest Szeto or Bob Leedy for the password.)

After you login to grumpy, you should be set for a vt100 (unless you are on a SUN). If you have problems with the erase key, you can redefine it to the desired key by typing...

```
tset -e<erase_key>
```

where <erase_key> is the desired erase key or delete key typed immediately after the "-e".

To use the standard Sybase Data Workbench, type...

```
dwb
```

Note that both Sybase and unix are case sensitive. Commands should be typed in the case shown.

DWB will prompt a login (username again is "mdbuser") and prompt for the Sybase password. Currently, no password is required. Just hit <carriage-return> at the prompt for password. Use the arrow keys to move to the menu item called "Data Entry!". Hit <carriage-return> to select it.

To logout, type...

```
logout
```

Note that <carriage-return> follows all the above commands that are typed into the terminal keyboard.

2. Notes on Sybase Keys and Conventions.

The following keys are a subset of useful keys to know when using the standard Sybase interface:

- (1) control-r (^r): The Sybase screen (and screen programs written in that style) is divided into two regions: 1) the MENU region. 2) the DATA ENTRY fields region. Typing control-r (i.e., holding down the control key and typing "r" at the same time) will allow the cursor to switch between these two regions whenever access to both is allowed.
- (2) arrow keys: These keys are used for moving the cursor among MENU choices.
- (3) <carriage-return>: This means "select" the current item, i.e., the item where the cursor is positioned. This usually applies to the MENU region.
- (4) <tab>: This is for moving the cursor among fields ("downwards" or "forward") in the DATA ENTRY region. (This is the same as control-n (^n), i.e., "next" field.)
- (5) control-p (^p): This is for moving the cursor "backwards" or to the "previous" field in the DATA ENTRY region. It is the opposite of <tab> (or of control-n).
- (6) control-d (^d): ReDraw the screen in case it gets defaced by line noise.

The following are notes on conventions for menu items:

- (1) <top menu item>!: A menu item at the top with a "!" at the end means that there are no pull down menu items underneath. Selecting this menu option executes the option immediately.
- (2) X - e"X"it: This generally means exit the current screen. (In some uses it also means "execute" the screen. The Sybase "Data Workbench", DWB, usually allows the user to "apply", i.e., execute the options on the screen, or "cancel" upon exiting the screen.)
- (3) ? - help: This provides context sensitive help.
- (4) Scroll Icon on the upper right. This is for scrolling up/down, right/left if there is more data than can be shown in one screen. Use ^r to revert to the MENU region, the arrow keys to position on the direction icon, and <carriage-return> to select the icon.

The following is a very brief explanation of relational database terminology:

A TABLE consists of COLUMNS and ROWS. The COLUMNS show the categories and types of information kept in a TABLE. ROWS are individual entries consisting of contents of COLUMNS. A ROW shows one set of entered data. This format is not too similar to what often appears in standard database reports. For instance, a TABLE with people's addresses may consist of the following COLUMNS: Last Name, First Name, Lab, Building, Room, Phone Extension. The ROWS for these columns may be the following:

Lname	Fname	Lab	Bld.	Rm.	Ext.
-----	-----	---	----	---	----
Szeto	Ernest	LBL	B46	R206	x6411
Ferbel	Tom	SSC	B90	R2056E	x4716
Leedy	Bob	SSC	B90	R2056	x6073

The COLUMNS in a report may be shown left to right at the top of the page. The ROWS are shown vertically, one for each entry, as one reads down the page. The terms ROW and RECORD are used synonymously in this document. The terms COLUMN and FIELD are also synonymous. In the the Data Entry Section of the Data Workbench, COLUMNS are displayed vertically instead of horizontally. Each screenful of COLUMNS represent one ROW in the DWB. A DATABASE is a collection of TABLES that are meant to be used together.

3. Using the Data Workbench.

When you select "Data Entry!" from DWB, it will prompt for a table. If you know the table name, enter it. (Remember, Sybase is case sensitive. It makes the distinction between upper and lower case. For e.g., "Cb_Prod_Inventory" is not the same as "cb_prod_inventory", or "CB_PROD_INVENTORY".) If you don't know the table name, have Sybase show you all the available table names by doing the following:

- (1) Select e"X"it, then "Apply", followed by a <carriage-return> in the MENU region. (As with all menu item selections, use control-r to revert back to the MENU region if you are not already there. Use the arrow keys to position the cursor on the intended menu item and <carriage-return> to select it.)
- (2) You will be presented with a window of valid entries. Use the up/down arrow key to position the cursor. Use <carriage-return> to select your desired table. It will be automatically highlighted when it is selected.
- (3) Select e"X"it, then "Apply", followed by a <carriage-return> to use the highlighted table.

To INSERT new data, do the following:

- (1) (If your screen has garbage or old data in it, select CLEAR to clear the screen first.)
- (2) Enter the data for each of the fields. Hit <tab> to move to the next field.
- (3) When all the fields have been entered, select MODIFY DATA, then select INSERT, to insert new data.

To SEARCH for old data, do the following:

- (1) Clear the screen using the menu item CLEAR.
- (2) Enter the matching value in the field that you want to search. For instance, you may want to search for a ROW with the field cable_id containing the value "SSC-O-F-00005-01". Enter this value into that field ("column"). (Note that you can also use the wildcard, "%", which means "match zero or more characters". Hence, if you enter "SSC-O-F%", this is interpreted to mean SEARCH for anything that begins with "SSC-O-F". You can also enter "%-O-%", which means search for anything containing "-O-".)
- (3) Select FIND to find the first matching record (row).
- (4) You can find other matches to the match value, by selecting VIEW RECORD, and then selecting NEXT. You can move forward and backwards in the collection of matching records using NEXT and PREVIOUS in the VIEW RECORD menu. You can move to the top and bottom record of this collection using FIRST and

LAST in the VIEW RECORD menu.

To MODIFY an existing record, do the following:

- (1) SEARCH for the intended record using the steps described above.
- (2) Select MODIFY DATA and UPDATE from the menus.

To DELETE an existing record, do the following:

- (1) SEARCH for the intended record using the steps described above.
- (2) Select MODIFY DATA and DELETE from the menus.

To exit DWB, select e"X"it and Exit from DWB as many times as necessary to leave all the open windows. (There are multiple windows opened, but this is not apparent with a vt100 since they are stacked on top of each other.)