Development of an Ada Programming Support Environment Database SEAD (Software Engineering and Ada Database)

Administration Manual

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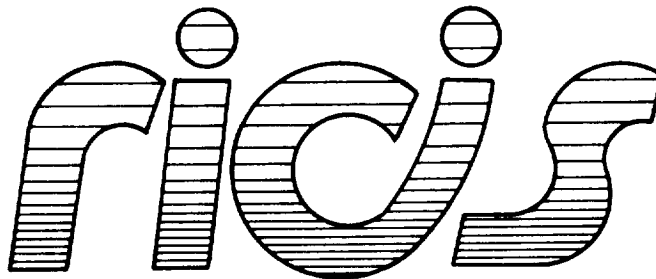
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GHG Corporation

December 1988

The RICIS Concept

The University of Houston-Clear Lake established the Research Institute for Computing and Information systems in 1986 to encourage NASA Johnson Space Center and local industry to actively support research in the computing and information sciences. As part of this endeavor, UH-Clear Lake proposed a partnership with JSC to jointly define and manage an integrated program of research in advanced data processing technology needed for JSC's main missions, including administrative, engineering and science responsibilities. JSC agreed and entered into a three-year cooperative agreement with UH-Clear Lake beginning in May, 1986, to jointly plan and execute such research through RICIS. Additionally, under Cooperative Agreement NCC 9-16, computing and educational facilities are shared by the two institutions to conduct the research.

The mission of RICIS is to conduct, coordinate and disseminate research on computing and information systems among researchers, sponsors and users from UH-Clear Lake, NASA/JSC, and other research organizations. Within UH-Clear Lake, the mission is being implemented through interdisciplinary involvement of faculty and students from each of the four schools: Business, Education, Human Sciences and Humanities, and Natural and Applied Sciences.

Other research organizations are involved via the "gateway" concept. UH-Clear Lake establishes relationships with other universities and research organizations, having common research interests, to provide additional sources of expertise to conduct needed research.

A major role of RICIS is to find the best match of sponsors, researchers and research objectives to advance knowledge in the computing and information sciences. Working jointly with NASA/JSC, RICIS advises on research needs, recommends principals for conducting the research, provides technical and administrative support to coordinate the research, and integrates technical results into the cooperative goals of UH-Clear Lake and NASA/JSC.

The Development of an Ada Programming Support Environment Database

SEAD (Software Engineering and Ada Database)

Administration Manual

Preface

This research was conducted under the auspices of the Research Institute for Computing and Information Systems by Morris Liaw, Assistant Professor of Computer Science at the University of Houston-Clear Lake, and Donna Evesson of GHG Corporation.

The views and conclusions contained in this report are those of the author and should not be interpreted as representative of the official policies, either express or implied, of NASA or the United States Government.

**UNIVERSITY
of HOUSTON**

CLEAR LAKE
Houston, Texas

Research Order   SE-1

The Development of an
Ada Programming Support Environment Database

S E A D
Software Engineering and Ada Database

ADMINISTRATION MANUAL

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University of Houston, Clear Lake

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GHG Corporation

December 1, 1988

S E A D

ADMINISTRATION MANUAL

PART I. OVERVIEW OF SEAD

Chapter 1.   <u>Purpose And Contents</u>

S E A D
Software Engineering and Ada Database

PURPOSE:

SEAD has been developed to provide an information resource to NASA and NASA contractors with respect to Ada-based resources and activities which are available or underway either in NASA or elsewhere in the worldwide Ada community. The sharing of such information will reduce duplication of effort while improving quality in the development of future software systems.

CONTENT:

SEAD data is organized into five major areas:

1) Information regarding education and training resources which are relevant to the life cycle of Ada-based software engineering projects such as those in the Space Station Program.

2) Research publications relevant to NASA projects such as the Space Station Program. Conferences relating to Ada technology.

3) The latest progress reports on Ada projects completed or in progress both within NASA and throughout the free world.

4) Ada compilers and other commercial products that support Ada software development.

5) Reusable Ada components generated both within NASA and from elsewhere in the free world. This classified listing of reusable components shall include descriptions of tools, libraries and other components of interest to NASA.

Sources for the data include technical newsletters and periodicals, conference proceedings, the Ada Information Clearinghouse, product vendors, and project sponsors and contractors.

USER INTERFACE:

The SEAD user interface consists of a set of menu-driven interactive panels which allow searches on any field. The user may construct a query using a single value, a range of values, or a logical combination of values. The system will search the database for all records that match the query and retrieve them. The user may "browse" through the retrieved data, viewing the records one at a time.

**SEAD is accessible via NASA/JSC CIN. Interested NASA personnel and contractors may contact the Data Administrator at (713) 488-8806.

Chapter 2.   <u>Database Organizational Outline</u>

S E A D
Software Engineering and Ada Database

=====DATABASE ORGANIZATIONAL OUTLINE=====

MAIN MENU

1. **EDUCATION AND TRAINING RESOURCES**

    1. Course Information
        -   Each course record has 5 screens: course, sponsor, audience, format, and material.
    2. Book Information
        -   Each book record has 4 screens: book, location, publisher, and author/author information.

2. **PUBLICATIONS AND CONFERENCES**

    1. Publication Information
        -   Each publication record has ten screens: publication, location, author/author information, category and subject, general term, keyword, project cross-reference, product cross-reference, compiler cross-reference and package cross-reference.

    2. Conference Information
        -   Each Conference record has six screens: conference, conference sponsor, coordinator/coordinator information, conference charge, presentation, presenter/presenter information.

3. **PROJECTS**
        -   Each Project record has eight screens: project, contact_person/contact_person information, sub_project, project keyword, publication cross-reference, compiler cross-reference, and package cross-reference.

4. **COMPILERS AND OTHER PRODUCTS**

   1. Compiler Information
      - Each Compiler record has eight screens: compiler, vendor, host system, target system, performance/evaluator information, publication cross-reference, project cross-reference, and package cross-reference.

   2. Product Information
      - Each Product record has seven screens: product, vendor, host system, target system, publication cross-reference, project cross-reference, and package cross-reference.

5. **REUSABLE PACKAGE INFORMATION**

   - Each Reusable Package record has twelve screens: reusable package, contact_person/contact_person information, creator/creator information, host system, target system, revise history, performance/performance evaluator information, package keyword(s), publication cross-reference, project cross-reference, product cross-reference, and compiler cross-reference.

*Note: Each screen and each data item has on-line help available.

Chapter 3.   **Hierarchical Maps Of Menus**

MAIN

EDUCATION AND TRAINING RESOURCES

PUBLICATIONS AND CONFERENCES

PROJECTS

COMPILERS AND OTHER PRODUCTS

REUSABLE PACKAGES

COURSE MANAGEMENT

BOOK MANAGEMENT

COURSE

SPONSOR

AUDIENCE

FORMAT

MATERIAL

BOOK

BOOK LOCATION

BOOK PUBLISHER

BOOK AUTHOR
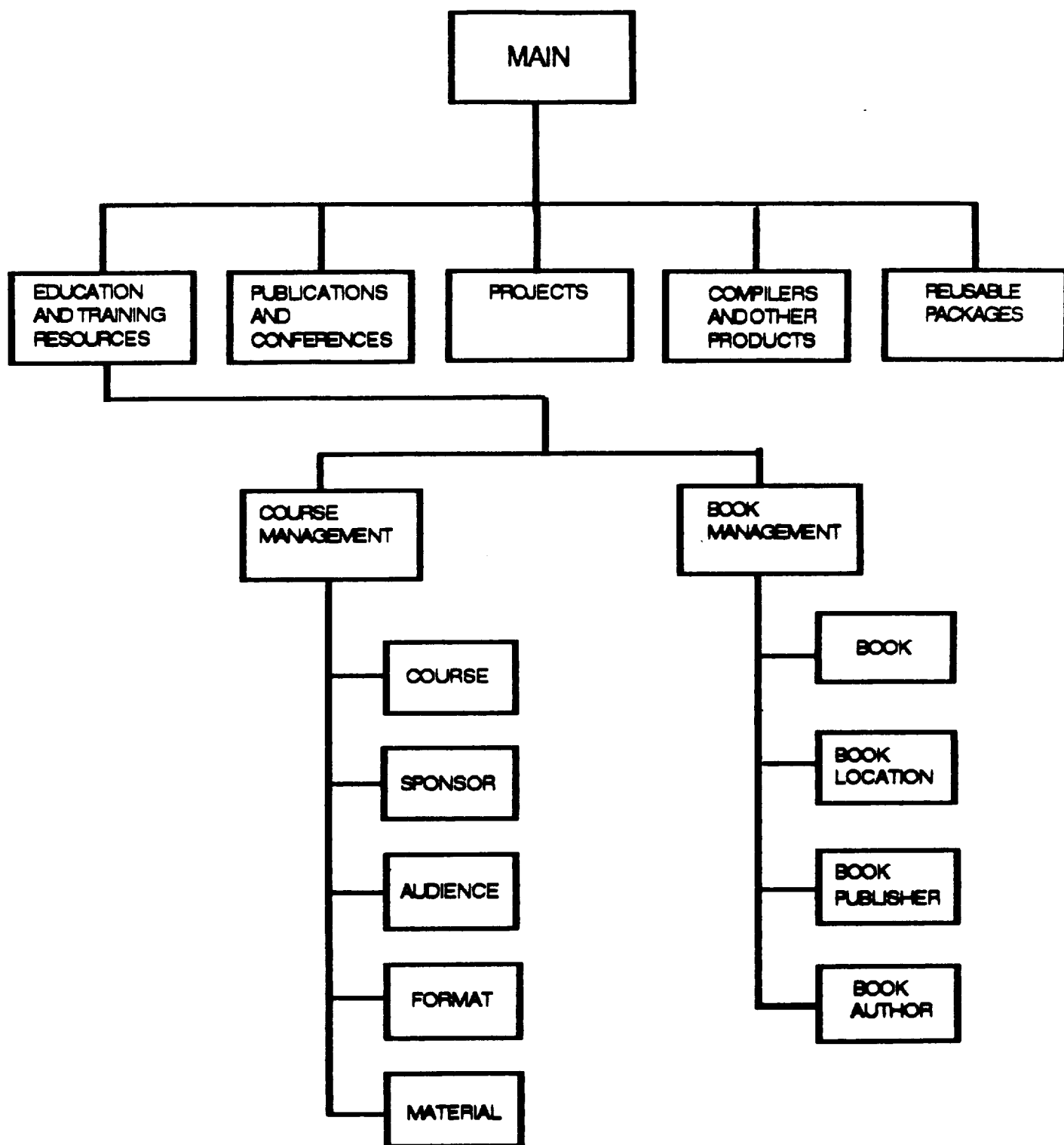
HIERARCHICAL MAP OF MENUS FOR
EDUCATION AND TRAINING RESOURCES

```
                        ┌──────────────────┐
                        │      MAIN        │
                        └──────────────────┘
                                 │
    ┌────────────┬───────────────┼───────────────┬────────────┐
    │            │               │               │            │
┌─────────┐ ┌──────────┐ ┌────────────┐ ┌────────────┐ ┌──────────┐
│EDUCATION│ │PUBLICA-  │ │  PROJECTS  │ │ COMPILERS  │ │ REUSABLE │
│AND      │ │TIONS AND │ │            │ │ AND OTHER  │ │ PACKAGES │
│TRAINING │ │CONFER-   │ │            │ │ PRODUCTS   │ │          │
│RESOURCES│ │ENCES     │ │            │ │            │ │          │
└─────────┘ └──────────┘ └────────────┘ └────────────┘ └──────────┘
                                 │
                        ┌──────────────────┐
                        │     PROJECT      │
                        │   MANAGEMENT     │
                        └──────────────────┘
                                 │
```

PROJECT

CONTACT PERSON

SUB-PROJECT

PROJECT KEYWORD

PROJECT CROSS-REFERENCE

PRODUCT CROSS-REFERENCE

COMPILER CROSS-REFERENCE

PACKAGE CROSS-REFERENCE
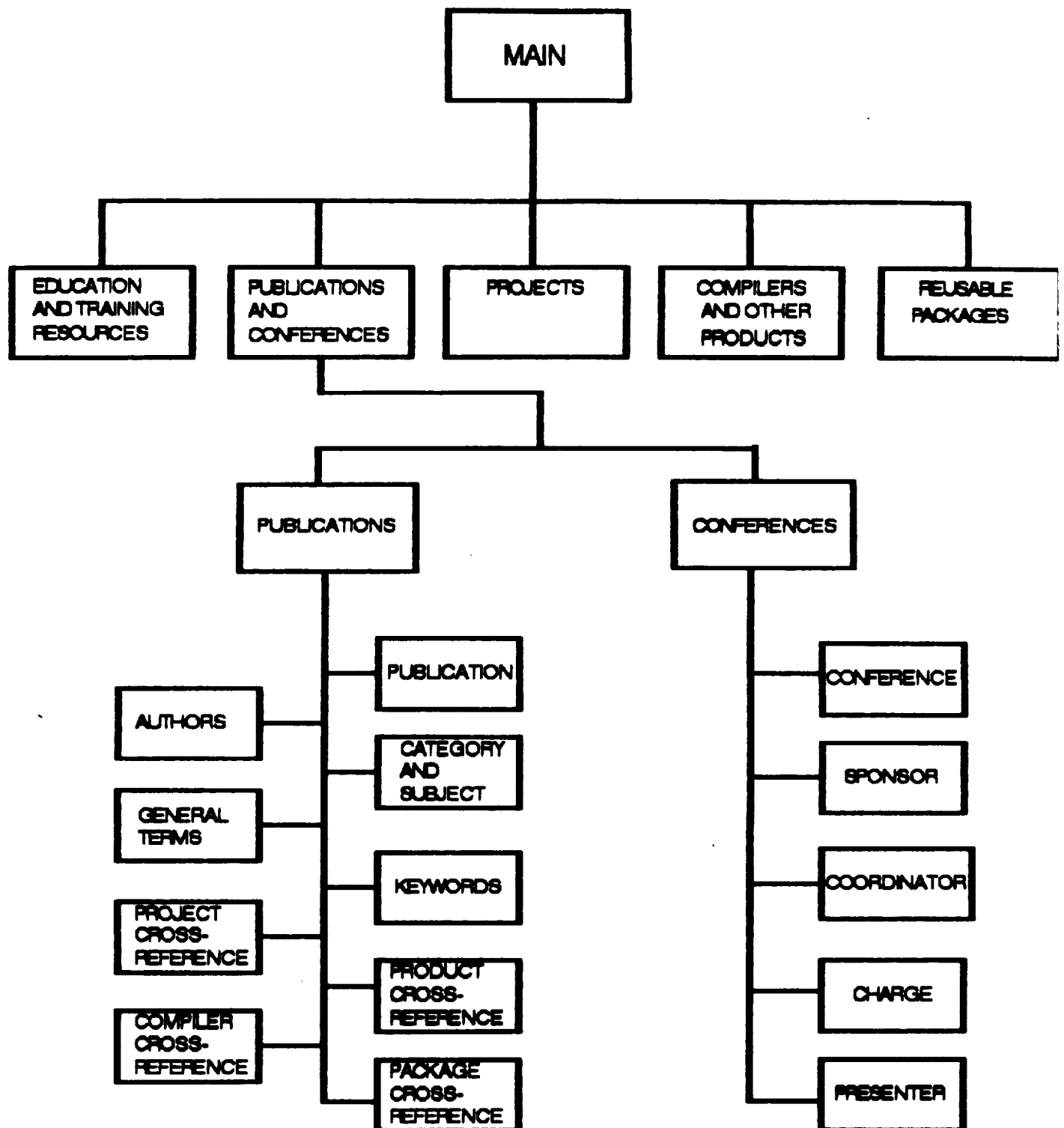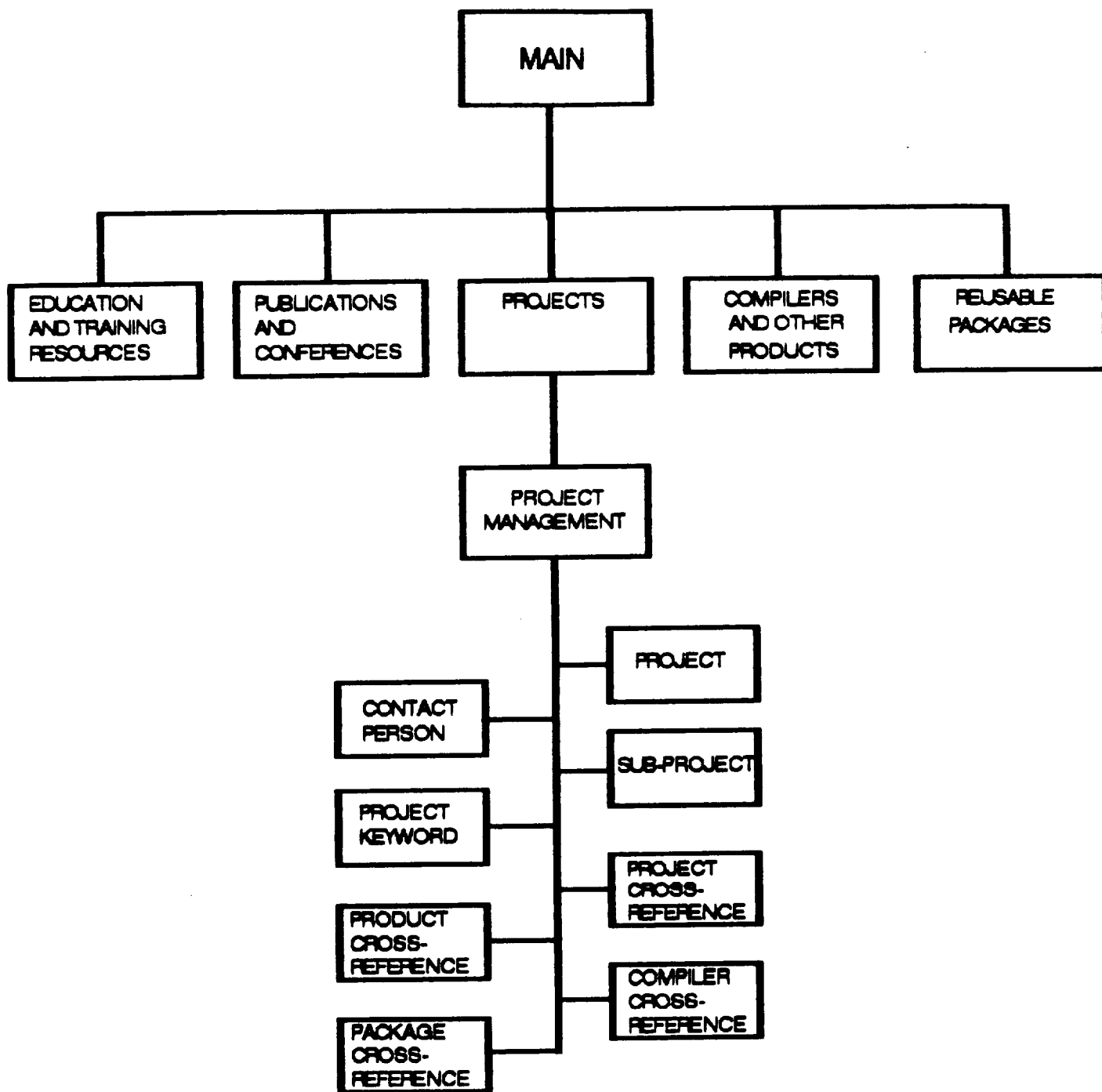
<u>HERARCHICAL MAP OF MENUS FOR</u>
<u>PROJECTS</u>

I-11

MAIN

EDUCATION AND TRAINING RESOURCES

PUBLICATIONS AND CONFERENCES

PROJECTS

COMPILERS AND OTHER PRODUCTS

REUSABLE PACKAGES

COMPILER INFORMATION

VENDOR

TARGET SYSTEM

PUBLICATION CROSS-REFERENCE

PACKAGE CROSS-REFERENCE

COMPILER

HOST SYSTEM

PERFORMANCE EVALUATOR

PROJECT CROSS-REFERENCE

PRODUCT INFORMATION

VENDOR

TARGET SYSTEM

PROJECT CROSS-REFERENCE

PRODUCT

HOST SYSTEM

PUBLICATION CROSS-REFERENCE

PACKAGE CROSS-REFERENCE

HIERARCHICAL MAP OF MENUS FOR COMPILERS AND OTHER PRODUCTS

```
                    ┌───────────────┐
                    │     MAIN      │
                    └───────┬───────┘
                            │
     ┌──────────┬───────────┼───────────┬──────────┐
┌────┴─────┐┌───┴──────┐┌───┴────┐┌─────┴────┐┌────┴─────┐
│EDUCATION ││PUBLICATIONS││PROJECTS││COMPILERS ││REUSABLE  │
│AND TRAINING││AND      ││        ││AND OTHER ││PACKAGES  │
│RESOURCES ││CONFERENCES││       ││PRODUCTS  ││          │
└──────────┘└──────────┘└────────┘└──────────┘└────┬─────┘
```

CONTACT PERSON	REUSABLE PACKAGE
HOST SYSTEM	CREATOR
REVISE HISTORY	TARGET SYSTEM
PACKAGE KEYWORDS	PERFORMANCE EVALUATOR
PROJECT CROSS-REFERENCE	PUBLICATION CROSS-REFERENCE
COMPILER CROSS-REFERENCE	PRODUCT CROSS-REFERENCE
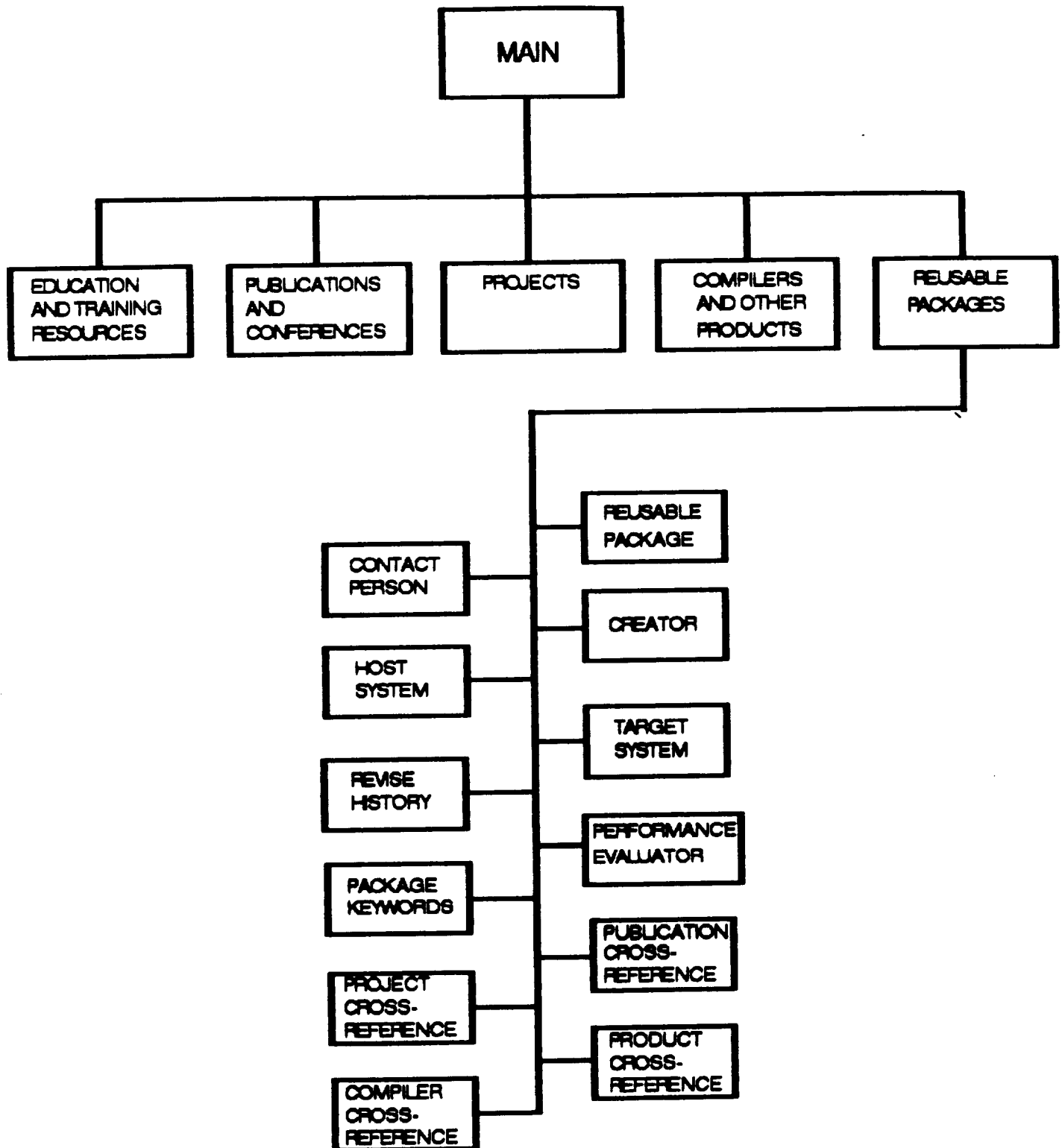
HIERARCHICAL MAP OF MENUS FOR
REUSABLE PACKAGES

I-13

PART II.   GETTING STARTED

Chapter 1. <u>Logging In And Logging Out</u>

S E A D

SOFTWARE ENGINEERING AND ADA* DATABASE
UNIVERSITY OF HOUSTON, CLEAR LAKE--NASA JOHNSON SPACE CENTER
GHG CORPORATION

Chapter 1.   **Logging In And Logging Out**

You must have access to a user account in the NASA/JSC Center Information Network (CIN) Environment in order to log in with a userid. You are identified to the Environment through a userid and a password. If you do not have a valid userid and password, see your systems manager or call the SEAD DBA at the users help desk at (713) 488-8806.

You can log into the (CIN) account from an IBM 3270, or an emulated VT100 terminal. Logging in follows the same steps, regardless of the terminal type.

The Basic Login Process:

To log in, you must respond to a series of login prompts. Note that:

-    You will need to learn how to use a communications software program to dial into the (CIN) account to invoke SEAD.

-    You can enter login information in uppercase or lowercase letters.

-    You must press **[Return]** to complete each response and display the next prompt.

-    If you discover an error before you press Return, you can press <-- (backspace) to delete your entry.

To Log in:

1. Make sure your terminal is on.

2. **Press Return twice** when terminal connects.

3. The system responds with a prompt that requests that a data line be entered.

```
ENTER NUMBER:
```

4. **Enter CIN1 and press Return.**

```
ENTER NUMBER:
CIN1
[PRESS RETURN]
```

5. If the data line is busy, the system will respond with the following message:

```
ENTER NUMBER:
CIN1
[PRESS RETURN]
ALL DATA LINES ARE BUSY

ENTER NUMBER:
```

6.   **Enter CIN2 and press Return.**

```
ENTER NUMBER:
CIN1[PRESS RETURN]
ALL DATA LINES ARE BUSY

ENTER NUMBER:
CIN2
[PRESS RETURN]
```

7.   If the incorrect number has been entered, the system will
     respond with the following message:

```
ENTER NUMBER:
CIN1H
[PRESS RETURN]
CIN1H  IS NOT A DATA LINE

ENTER NUMBER:
```

8.   **Enter CIN1 or CIN2 again and press Return.**   It is a
     possibility that you might have misspelled or entered the
     wrong keys.

9.   The system responds with a prompt that request a terminal
     type.

```
enter terminal type:
```

10. **Press the Return key**, this will give you a listing of the
    available terminal types to choose from. **Enter the terminal
    type vt100**.

```
enter terminal type:
[PRESS RETURN]
VALID TYPES ARE:
DM1520        DM3045
IBM3101       IBM31ALT
IBMPC         VT100          GIGI
TV1912        TV1950         TV1950R
ADM3A         ADM31
enter terminal type: VT100
```

11. The system will connect to the Johnson Space Center/Center
    Information Network Dial-in Facility.

```
        W E L C O M E   T O   J O H N S O N   S P A C E

        C E N T E R   H O U S T O N   T E X A S

        C E N T E R   I N F O R M A T I O N   N E T W O R K

        C I N - B   D I A L - I N   F A C I L I T Y


    FOR NASA AUTHORIZED USERS ONLY-UNAUTHORIZED USE IS A
    VIOLATION OF FEDERAL LAW

        CALL (713) 280-4800 IF YOU NEED HELP



        PRESS ENTER THEN CLEAR KEY TO PROCEED
```

12. **Press the Enter key**. At this point, the screen is blank.

13. **Enter CISA and your userid and press Return.**

```
 CISA USERID
 [PRESS RETURN]                             .
```

14. The system will respond with a prompt that request a logon
    password:

```
  LOGON      USERID
  VMXACI104R  Enter logon password:
```

15. **Enter your password at the prompt and press Return.**

```
  LOGON      UHCLORC
  VMXACI104R  Enter logon password: airplane **
  [PRESS ENTER]


  **You will not be able to see your password as
    you enter it.  This is only an example.
```

16. If your user id and password are accepted, the system responds with a Ready; prompt meaning that the system is Ready and waiting for the next command.

    Notice that the system does not display your password. This is security for the user so that your account can only be accessed by you.

```
LOGON      USER ID
VMXACI104R  Enter logon password:
VMXACI108I  Last logon at 23:52:47 CDT Sunday 09/25/88
from LK7755E.
LOGON AT 14:38:27 CDT WEDNESDAY 09/28/88
VM/SP 5.0 8801 CMS
DMSACC724I  319 replaces P (319)
DMSACP723I  P (319) R/O
DMSACP723I  B (291) R/O
DMSACP723I  C (391) R/O
Ready;
```

17. If your userid or user password are not accepted, the system responds with the following messages:

```
LOGON      USER ID
VMXACI104R  Enter logon password: aitplane  **
[PRESS ENTER]
DMKLOG050E LOGON unsuccessful--incorrect password

Enter one of the following commands:

LOGON userid          (Example: LOGON VMUSER1)
DIAL userid           (Example: DIAL VMUSER2)
MSG userid message    (Example: MSG VMUSER2 GOOD MORNING
LOGOFF
```

18. To continue, enter your userid as follows: **LOGON userid,
     press Return**.

    Enter one of the following commands:

    LOGON userid   (Example: LOGON VMUSER1)
    DIAL userid   (Example: DIAL VMUSER2)
    MSG userid message (Example: MSG VMUSER2 GOOD MORNING)
    LOGOFF

    **LOGON userid
    [Press Return]**

---

19. The systems responds with a prompt that request a password.
     Enter your password and press Return.

    VMXACI104R Enter logon password: **airplane   ★★**
    [PRESS RETURN]

---

20. The system responds with the logon time and date, and also
     tells the user if there was an invalid logon attempt since
     the last logon. The system is now at the Ready; prompt
     waiting for the next command.

To invoke the SEAD program:

21. **Enter SEAD at the Ready; prompt and press Return.**

```
LOGON      USER ID
VMXACI104R  Enter logon password:
VMXACI108I  Last logon at 23:52:47 CDT Sunday 09/25/88
from LK7755E.
LOGON AT 14:38:27 CDT WEDNESDAY 09/28/88
VM/SP 5.0 8801 CMS
DMSACC724I  319 replaces P (319)
DMSACP723I  P (319) R/O
DMSACP723I  B (291) R/O
DMSACP723I  C (391) R/O
Ready;




SEAD      [PRESS RETURN]
```

22. The SEAD logo will appear on the screen.

```
NASA / JSC

@@    @     @    @@@@@     @        @ @@@@@ @@@@@   @@@@
@ @   @    @ @     @      @ @      @  @     @      @    @
@  @  @  @@@@@  @@@@@@  @@@@@     @      @  @@@@@@ @
@   @@  @     @      @     @     @  @ @     @ @
@    @ @       @ @@@@@@ @      @ @    @@@@   @@@@@  @@@@

OOOOOOOOOO OOOOOOOOOO          OOOOO          OOOOOOOO
OOOOOOOOOO OOOOOOOOOO        OOO OOO         OOOOOOOOOO
OOO        OOO             OOO   OOO         OOO   OOO
OOO        OOO            OOO     OOO        OOO    OOO
OOOOOOOOOO OOOOOOO        OOOOOOOOOOOOO      OOO     OOO
OOOOOOOOOO OOOOOOO         OOOOOOOOOOOOO     OOO     OOO
      OOO OOO             OOO         OOO    OOO   OOO
      OOO OOO            OOO           OOO   OOO  OOO
OOOOOOOOOO OOOOOOOOOO  OOO                OOO OOOOOOOOOO
OOOOOOOOOO OOOOOOOOOO OOO                  OOO OOOOOOOO

Welcome to SEAD!   Please type <ENTER> to continue.
```

23. **[PRESS RETURN]** at the SEAD logo, and the Open Main Menu of SEAD will appear.

```
┌─────────────────────────────────────────────────────────────────┐
│                                                                   │
│  NASA / JSC                    S E A D                            │
│                                                                   │
│     Software Engineering and ADA Database System                  │
│                                                                   │
│                  B.      Bulletin Board                           │
│                                                                   │
│                  I.      Beginner Information                      │
│                                                                   │
│                  K.      Function Keymap                           │
│                                                                   │
│                  C.      Continue with SEAD                        │
│                                                                   │
│                  P.      Change VM Password                        │
│                                                                   │
│                  E.      Exit SEAD                                 │
│                                                                   │
│                                                                   │
│     Please enter your selection ==>                               │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

24. For instructions on selecting from the Open Main Menu, please see PART II - Chapter 2 of this users manual.

Logging Out:

1. At the Open Main Menu, **enter the letter <E>Exit to exit the SEAD program.** This will return the system back to the Ready; prompt.

```
NASA / JSC
                              S E A D

         Software Engineering and ADA Database System


                    B.      Bulletin Board

                    I.      Beginner Information

                    K.      Function Keymap

                    C.      Continue with SEAD

                    P.      Change VM Password

                    E.      Exit SEAD



      Please enter your selection ==> E     [PRESS RETURN]
```

2. The system exits out of SEAD and is at the Ready; prompt waiting for a command. **Enter LOGOFF at the Ready; prompt and press Return.**

   Ready; **LOGOFF**

3. The system will logoff your userid and password from the SEAD account and return to the Center Information Network.

4. At this point you will need to follow the instructions on your communications software to hang-up from the system.

Chapter 2.   <u>Description Of The Open Main Menu</u>

Chapter 2.   Description of the Open Main Menu.

B.   Bulletin Board –

Enables the user to browse the following Ada
information: Conferences, Workshops, Meetings, etc.

I.   Beginner Information –

Enables the first time user to browse instructions
explaining about the structure of the database and how
to retrieve information from the database.

K.   Function Keymap –

Enables the user to browse the function keys available
to use while in the database.

C.   Continue with SEAD –

Enables the user to continue research by browsing
through the database for the following information:
Education and Training Resources, Publications and
Conferences, Project, Compilers and Other Products, and
Reusable Packages.

P.   Change VM Password –

Enables the user to change his/her password within SEAD
without logging out of the VM System. This function is
only temporarily available.

E.   Exit –

Enables the user to exit out of SEAD.

Chapter 3.   <u>Function Key Descriptions For</u>
                     <u>The IBM3270 And The VT100.</u>

Chapter 3.   <u>Function Key Descriptions for the IBM 3270 and the VT100.</u>

TERMS AND CONCEPTS

RECORD   A representation of a single row from the database table.

FIELD   A portion of a form used for entering and/or displaying a single item of information. Fields most often represent columns from database tables, but may also represent other information.

FUNCTION KEYS

The following function keys are available while running a form; they are grouped here by function type.

You can display the function key assignments for your terminal by pressing PF1 (SHOW FUNCTION KEYS). A key map of the VT100 keys corresponding to the IBM 3270 keys is included at the end of this section.

Ask your Database Administrator for the exact keystrokes required by your particular terminal type.

NOTES: The function-key descriptions listed below are based on the default function key assignments. Since any of these functions can be redefined by the DBA, some of these functions may work differently, or may not be available to you at all.

A. Cursor Movement

<u>IBM3270</u>	<u>VT100</u>		
<==	<==	**LEFT**	Moves the cursor one character to the left.
PF23	ESC [	**SCROLL LEFT**	Moves the cursor left through the block you are currently in until there is no more data to browse.

IBM3270	VT100		
PF2	ESC 2	**MENU**	Displays a list of blocks in the current form.
PF11	ESC -	**NEXT BLOCK**	Moves the cursor to the next block in the current form.
<ENTER>	<ENTER>	**NEXT FIELD**	Tabs forward to the next field in the current record, based on an order established by the forms designer. Fields designated by the designer as "non-enterable" are skipped by the NEXT FIELD function.
PF20	ESC I	**NEXT PRIMARY KEY FIELD**	Tabs forward to the next field in the block that has been designated as part of the "primary key"--those fields that uniquely identify a particular row of a database table.
PF8	ESC 8	**NEXT RECORD**	If a query has been executed in a block displaying only one record, displays the next record that satisfies the query. In a block displaying multiple records, moves the cursor to the next record in the block. If the current record is the last record displayed in a multiple record block, moves other records up to make room for a new one.
PF9	ESC 9	**NEXT SET OF RECORDS**	If a query is active in a block displaying multiple records, displays the next set of retrieved records.
PF10	ESC 0	**PREVIOUS BLOCK**	Moves the cursor to the previous block of the current form.
PF19	ESC U	**PREVIOUS FIELD**	Tabs back to the previous field of the current record, skipping those fields designated as "non-enterable" by the designer.
PF7	ESC 7	**PREVIOUS RECORD**	Displays the previous record in the current block.

IBM3270	VT100		
==>	==>	**RIGHT**	Moves the cursor one character to the right.
PF22	ESC P	**SCROLL RIGHT**	Moves the cursor right through the block until there is no more data to browse.

B. Editing Data

IBM3270	VT100		
Del	Del	**CHARACTER DELETE**	Deletes the character at the current cursor position.
Insert		**CHAR INSERT/ REPLACE**	Toggles between Insert Character mode and Replace mode.
PF17	ESC T	**CLEAR BLOCK**	Erases all records from the current block and initializes the fields with default values. Undoes all uncommitted update inserts, and deletes from the current block.
PF12+PF19	ESC = + ESC U	**CLEAR FIELD**	Erases the contents of a field form the current form, beginning at the current cursor position.
PF18	ESC Y	**CLEAR FORM/ ROLLBACK**	Erases data from all blocks of the current form. Undoes all uncommitted updates, inserts and deletes from all blocks of the form.
PF12+PF20	ESC = + ESC Y	**CLEAR RECORD**	Erases all fields of the current record from the form. If an uncommitted record has been updated, undoes the updated and erases the record from the screen. If a query is active, erases the current record and displays the next retrieved record.

C. Query Processing

IBM3270	VT100		
PF16	ESC R	**ABORT QUERY**	Terminates the current query or stops the LIST OF FIELD VALUES function.
PF12+PF13	ESC = + ESC Q	**COUNT QUERY**	Displays the number of records satisfying the current query. To see the actual retrieved records, use the EXECUTE QUERY function.
PF4	ESC 4	**ENTER QUERY**	Notifies SQL*Forms that query criteria are about to be entered.
PF5	ESC 5	**EXECUTE QUERY**	Used alone, retrieves all records for the current block. Used in conjunction with ENTER QUERY, retrieves all records satisfying the query.

D. Maintaining the Database
(These are to be used only by the SEAD DBA)

IBM3270	VT100		
PF6	ESC 6	**COMMIT**	Permanently enters all changes into the database as a unit of work.
PF12+PF14	ESC = + ESC W	**CREATE RECORD**	Initializes a record for insertion.
PF12+PF17	ESC = + ESC T	**DELETE RECORD**	Deletes a retrieved record.
PF12+PF16	ESC = + ESC R	**DUPLICATE RECORD**	Duplicates the previous record.
PF12 + PF18	ESC = + ESC Y	**ENABLE RECORD UPDATE**	Enables you to update a retrieved record.

E. User Aids

IBM3270	VT100		
PF13	ESC Q	**DISPLAY ERROR**	Displays an error message and help information for the field where the last error occurred.
PF12+PF15	ESC = + ESC E	**DUPLICATE FIELD**	Copies the field value from the same field of the previous record into the current field.
PF3	ESC 3	**EXIT**	Exits the current form and returns to the SQL*Forms main prompt.
PF14	ESC W	**HELP**	Displays information about the current field. If the HELP function is issued a second time, displays complete attributes for the field.
PF15	ESC E	**LIST OF FIELD VALUES**	Displays the possible values for the current field. To see subsequent values, press NEXT FIELD; to stop, press ABORT QUERY.
(*DISABLED)		**PRINT FORM**	Creates a file of the current screen page, all the pages of the form, the key sequences for the functions, or the entire help information for a specified field.
<CLEAR>	CTRL +	**REDISPLAY PAGE**	Restores the screen image.
PF1	ESC 1	**SHOW FUNCTION KEYS**	Displays the function key assignments for the current terminal type.

Chapter 4.   **Function Keymaps For The IBM3270 And The VT100.**

Chapter 4.   Function Keymaps for the IBM3270 and the VT100.

KEYMAP FOR THE IBM 3270

FUNCTION	KEYSTROKE(S)	FUNCTION	KEYSTROKE(S)
Transmit	PF21	**Execute Query**	**PF5**
Scroll Right	PF22	Block Menu	PF2
Next Field	PF20	Enter	ENTER
Next Record	PF8	Commit Transaction	PF6
Next Set of Records	PF9	**Exit/Cancel**	**PF3**
Next Block	PF11	No Operation	PF16
Scroll Left	PF23	Redisplay Page	CLEAR for VM
Previous Field	PF19		PA2 for MVS
Previous Record	PF7	**Help**	**PF14**
Previous Block	PF10	List Field Values	PF15
Clear Field	PF12+PF19	**Display Error**	**PF13**
Clear Record	PF12+PF20	Enable Record Update	PF12+PF18
Clear Block	PF17	**Show Function Keys**	**PF1**
Clear Form/Rollback	PF18		
Delete Record	PF12+PF17		
Create Record	PF12+PF14		
Duplicate Field	PF12+PF15		
Duplicate Record	PF12+PF16		
Enter Query	**PF4**		
Count Query Hits	PF12+PF13		

KEYMAP FOR THE VT100 TERMINAL

FUNCTION	KEYSTROKE(S)	FUNCTION	KEYSTROKE(S)
Transmit	ESC O	**Execute Query**	**ESC 5**
Scroll Right	ESC P	Block Menu	ESC 2
Next Field	ESC I	Enter	ENTER
Next Record	ESC 8	Commit Transaction	ESC 6
Next Set of Records	ESC 9	**Exit/Cancel**	**ESC 3**
Next Block	ESC -	No Operation	PF16
Scroll Left	PF23	Redisplay Page	CLEAR for VM
Previous Field	ESC U		PA2 for MVS
Previous Record	ESC 7	**Help**	**ESC 14**
Previous Block	ESC 0	List Field Values	ESC E
Clear Field	ESC = + ESC U	**Display Error**	**ESC Q**
Clear Record	ESC = + ESC Y	Enable Record Update	ESC = +
Clear Block	ESC T		ESC Y
Clear Form/Rollback	ESC Y	**Show Function Keys**	**ESC 1**
Delete Record	ESC = + ESC T		
Create Record	ESC = + ESC W		
Duplicate Field	ESC = + ESC E		
Duplicate Record	ESC = + ESC R		
Enter Query	**ESC 4**		
Count Query Hits	ESC = + ESC Q		

Note: All function keys on the VT100 correspond to the function keys on the IBM 3270. Example: PF12 on the IBM 3270 is ESC 12 or ESC = on the VT100 keyboard.

Chapter 5. Procedures For Display

Chapter 5. Procedures For Display

To display all records in a table:
   Press **EXECUTE QUERY <PF5>**.
   Press **NEXT RECORD <PF8>** to display each subsequent record.
To retrieve records by matching values:
   Press **ENTER QUERY <PF4>**;
   enter the values you want to match into the appropriate
   fields
      (a value can be exactly as JONES, or, _ON%, where "_"
      represents any character and "%" represents any string);
   press **COUNT QUERY HITS <PF12+PF13>** to find the number of
   records matched;
   press **ENTER QUERY <PF5>**.
   Press **NEXT RECORD <PF8>** to view subsequent records retrieved by
   the query.
To retrieve records by entering a **WHERE** condition:
   Press **ENTER QUERY <PF4>**;
   move the cursor to the field where you want to enter a
   variable; type &, followed by a variable name (for example,
   &SAL);
   press **EXECUTE QUERY <PF5>**;
   When prompted with "Query where ... ?, enter any **WHERE**
   condition.
      (for example: &FEE > 1000;   &DATE < 31-NOV-87;
      &SAL = 45000 or   &NAME like "KERRY") then press **ENTER**.
Return to **Menu <PF2>**

PART III.   **DATABASE ADMINISTRATION**

Chapter 1.   <u>**Procedures For Using SQL Menus**</u>

Chapter 1.   **Procedures For Using SQL Menus**

There are several procedures that are common for all SQL menus. They are as follows:

ENTERING DATA:

- To enter data into a field, press <NEXT FIELD> after typing in the information. The cursor will then be positioned at the next field to be entered.

- Some fields on the SQL menu may be skipped if data is not required or available by the user. This may be done by pressing <ENTER>. If data must be entered, then the message "Field must be entered" will appear at the bottom of the screen.

- If you are not sure of the type of data that needs to be entered for a particular field, pressing the <HELP> key while the cursor is at the field will display a brief help message at the bottom of the screen. Pressing the <HELP> key a second time will display a more detailed help screen for the field

- Because the screen can only display 80 characters per line, some of the fields cannot display its entire contents at once. To view the contents, each field can be scrolled horizontally by using the <SCROLL LEFT> and <SCROLL RIGHT> keys.

- To access a different SQL menu other than the one that is currently being used, pressing <NEXT BLOCK> will display the next SQL menu. An alternative way is by pressing the <MENU> key. This will display a submenu listing of the SQL menus that are available. From there you can select the menu you need.

- To display the function key map, press <SHOW FUNCTION KEYS>.

RETRIEVING, INSERTING, UPDATING, AND DELETING RECORDS:

- To display all records in a table:
  Press <EXECUTE QUERY>. Press <NEXT RECORD> to display each subsequent record. If there is no data in the database for the particular SQL menu, then the message "Query caused no records to be retrieved" will appear at the bottom of the screen. Data can be cleared from the SQL menu by pressing the <CLEAR RECORD> key.

- To retrieve records by matching exact values:
  Press <ENTER QUERY>; enter the values you want to match into the appropriate fields; press <EXECUTE QUERY>. Press <NEXT RECORD> to view subsequent records retrieved by the query.

- To retrieve records by entering a WHERE condition:
  Press <ENTER QUERY>; move the cursor to the field where you want to enter a variable; type & followed by a variable name (for example, &SAL); press <EXECUTE QUERY>; when prompted with Query where...? enter any WHERE condition, (for example, &SAL > 10000.

- To insert a new record:
  Press <CREATE RECORD>; enter the field values; press <COMMIT>. The message "Transaction completed - 1 records processed" will appear at the bottom of the screen. To insert additional records, repeat the sequence.

- To update a record:
  Retrieve the desired record; move the cursor to the field(s) to be updated, press <ENABLE RECORD UPDATE>, change the necessary values; press <COMMIT>. To update additional records, repeat the sequence.

- To delete a record:
  Retrieve the record to be deleted; press <DELETE RECORD>, press <COMMIT>. To delete additional records, repeat the sequence.

Chapter 2. <u>Content And Layout Of Menus</u>

Chapter 2.   Contents And Layout Of Menus

To invoke the SEAD program, at the systems Ready; prompt type **XSEAD1**.
The SEAD logo will appear on the screen. Follow the instructions in
PART II, Chapter 1 on Logging In and Logging Out.

```
 NASA / JSC


 @@   @     @      @@@@@@     @              @ @@@@@@ @@@@@@    @@@@
 @ @  @    @ @     @          @ @            @     @  @           @
 @  @ @   @@@@@    @@@@@@    @@@@@     @      @   @@@@@@ @
 @   @@ @      @        @   @     @    @     @  @         @  @
 @     @ @     @ @@@@@@ @        @ @       @@@@   @@@@@@    @@@@

 OOOOOOOOOOO OOOOOOOOOO         OOOOO          OOOOOOOOO
 OOOOOOOOOOO OOOOOOOOOO        OOO OOO         OOOOOOOOOO
 OOO         OOO             OOO    OOO        OOO    OOO
 OOO         OOO             OOO     OOO       OOO     OOO
 OOOOOOOOOOO OOOOOOO        OOOOOOOOOOOOO       OOO      OOO
 OOOOOOOOOOO OOOOOOO        OOOOOOOOOOOOOO      OOO      OOO
         OOO OOO           OOO         OOO      OOO      OOO
         OOO OOO          OOO           OOO     OOO     OOQ
 OOOOOOOOOOO OOOOOOOOOO   OOO              OOO OOOOOOOOOO
 OOOOOOOOOOO OOOOOOOOOO OOO               OOO OOOOOOOOO


 Please Enter Username ==>
 Please Enter Password ==>
```

Once the username and password have been entered, the open main menu
will appear. See PART II, Chapter 2 for detailed descriptions of the
open main menu.

```
 NASA / JSC


                           S E A D

          Software Engineering and Ada Database System

                      B.     Bulletin Board

                      I.     Beginner Information

                      K.     Function Keymap

                      C.     Continue with SEAD

                      P.     Change VM Password

                      E.     Exit SEAD


   Please enter your selection ==>
```

[Enter C] Continue with SEAD. The main menu will appear.

```
                           S E A D

          Software Engineering and Ada Database System

                  1.     Education and Training Resources

                  2.     Publications and Conferences

                  3.     Projects

                  4.     Compilers and Other Products

                  5.     Reusable Packages


                  R.     Return

        Please Enter Selection ==>
```

This menu consists of six main selections:

- Selection 1, **"Education and Training Resources"**, allows you to obtain detailed information concerning courses and books.

- Selection 2, **"Publications and Conferences"**, allows you to obtain detailed information concerning publications and various conferences.

- Selection 3, **"Projects"**, allows you to obtain detailed information concerning projects.

- Selection 4, **"Compilers and Other Products"**, allows you to obtain detailed information concerning compilers and other products.

- Selection 5, **"Reusable Packages"**, allows you to obtain detailed information concerning packages.

- Selection R, **"Return"**, allows you to return to the main menu.

At this point, we will go through the attributes of each field in each SQL Menu.

At the main menu, **select 1** , the SQL Menu **"Education and Training Resources"** will appear on the screen.

```
                          S E A D


                Education and Training Resources


                      1.   Course Information

                      2.   Book Information




                      R.   Return




  Please Enter Selection ==>
```

This menu allows you to select from two areas of information, **"Course Information and Book Information"**. From the "Education and Training Resources" menu, **select option 1, "Course Information"**, and the **"COURSE INFORMATION"** submenu will appear on the screen.

```
                        COURSE INFORMATION

    1   COURSE
    2   COURSE SPONSOR
    3   COURSE AUDIENCE
    4   COURSE FORMAT
    5   COURSE MATERIAL
    6   HELP
    7   PROCEDURES FOR DISPLAY
    8   KEY MAP FOR VT100 TERMINAL
    9   ----
   10   ----


    ----------------------------------------------------------------
    Enter selection #  __
```

When we selected option 1, "Course Information", from the "Education and
Training Resources" menu, the SQL menu, submenu "COURSE INFORMATION"
automatically appeared on the screen. This will hold true for all
cases, that is, the SQL menus submenu will always appear on the screen.

At the "COURSE INFORMATION" submenu, select option 2, "COURSE SPONSOR",
and this menu will appear on the screen.

```
                ========  COURSE SPONSOR  ========

    Course Sponsor Id  _____

        Sponsor Name  _____

           Address  _____

              City  _____  State  _____  ZIP  _____

    Contact Person  _____

           Phone  _____
```

This particular menu must be selected first so that the Course Sponsor
Id can be entered, this is necessary for the first menu "Course".

When this menu appears, the cursor will always be positioned at the
first field (in this case it is at "Course Sponsor Id"). The first
field of every SQL menu must be entered while some of the proceeding
fields give you the option of entering or not entering data.

This particular SQL menu contains detailed information concerning a particular course sponsor. For the procedures to enter data and retrieve, insert, update, and delete records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The course sponsor id consists of the first 2 letters of the first 4 words of the sponsor name. This field may be a maximum of 8 characters.

2. The sponsor name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

3. The street address may be a maximum of 48 characters.

4. The city name may be a maximum of 15 characters.

5. The state name may be a maximum of 16 characters.

6. The zip code may be a maximum of 10 characters.

7. The name of the sponsor's contact person may be a maximum of 32 characters.

8. The sponsor's phone number may be a maximum of 24 characters.

Press PF2 to display the "COURSE INFORMATION" submenu and **select** option 1, "**COURSE**". The SQL menu for "**COURSE**" looks like this.

```
========= COURSE =========
      Course Id _____                                            .
          Title _____
       Abstract _____
      Objective _____
          Level _____      Type _____
            Fee _____             Duration _____
      Frequency _____   Location _____
         Series _____     Credit _____
   Prerequisite _____
     Instructor _____
       Comments _____
     Sponsor Id _____
           Name _____
```

This particular SQL menu contains detailed information concerning a particular course. For the procedures to enter data and retrieve, insert, update, and delete records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The course id consists of the first 2 letters of the first 4 words of the course title. This field may be a maximum of 8 characters.

2. The title of the course may be a maximum of 64 characters but only 55 characters will be displayed at a time.

3. The abstract of the course may be a maximum of 240 characters but only 66 characters will be displayed at a time.

4. The objective of the course may be a maximum of 240 characters but only 66 characters will be displayed at a time.

5. The level of the course (e.g. Introductory, Intermediate, or Advanced, etc.) may be a maximum of 24 characters.

6. The course type (e.g. Software Engineering, Ada, etc.) may be a maximum of 24 characters.

7. The registration fee of the course may be a real number with a maximum length of 10.

8. The duration of the course (e.g. 1 day, 5 days, 2 weeks, etc.) may be a maximum of 24 characters.

9. The frequency of the course (e.g. semester, 1 time/year, 2-5 times/year, etc.) may be a maximum of 24 characters.

10. The location where the course is held (e.g. Audience site, campus, trainer's site, etc.) may be a maximum of 24 characters.

11. The course series (e.g. University degree, CEU, company sequence, etc.) may be a maximum of 24 characters.

12. The course credit (e.g. participation, corporate, university, etc.) may be a maximum of 24 characters.

13. The prerequisite for the course may be a maximum of 62 characters.

14. The course instructor's name may be a maximum of 32 characters.

15. Comments for the course may be a maximum of 240 characters but only 66 characters will be displayed at a time.

16. The sponsor id consists of the first 2 letters of the first 4 words of the course sponsor's name. This id must have been stored in the database using the "COURSE SPONSOR" menu. This field may be a maximum of 8 characters.

17. The sponsor name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

To go to the next block **Press PF11**, or **Press PF2** to display the "COURSE INFORMATION" submenu and **select option 3, "COURSE AUDIENCE"**. To return to the **"Education and Training Resources"** menu, **Press PF3**.

The SQL menu for **"COURSE AUDIENCE"** looks like this.

```
                  ========  AUDIENCE  ========                          .

      Course Id _____

  Course Title _____

    Sponsor Id _____

  Sponsor Name _____

 Audience Type _____
```

This particular SQL menu contains detailed information concerning the audience of a particular course. For the procedures to enter data and retrieve, insert, update, and delete records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The course id consists of the first 2 letters of the first 4 words of the course title. This id must have previously been stored in the database using the "COURSE" menu. This field may be a maximum of 8 characters.

2. The course title may be a maximum of 64 characters but only 55 characters will be displayed.

3. The sponsor id consists of the first 2 letters of the first 4 words of the sponsor's name. This id must have previously been stored in the database using the "COURSE SPONSOR" menu. This field may be a maximum of 8 characters.

4. The sponsor name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The course audience type (e.g. Manager, System Programmer, etc.) may be a maximum of 24 characters.

To go to the next block **Press PF11**, or **Press PF2** to display the "COURSE INFORMATION" submenu and select option 4, **"COURSE FORMAT"**. To return to the **"Education and Training Resources"** menu, **Press PF3**.

The SQL menu for **"COURSE FORMAT"** looks like this.

```
================ FORMAT ================

    Course Id _____

  Course Title _____

    Sponsor Id _____

  Sponsor Name _____

        Format _____
```

This particular SQL menu contains detailed information concerning the format for a particular course. For the procedures to enter data and retrieve, insert, update, and delete records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The course id consists of the first 2 letters of the first 4 words of the course title. This id must have previously been stored in the database using the "COURSE" menu. This field may be a maximum of 8 characters.

2. The course title may be a maximum of 64 characters but only 55 characters will be displayed.

3. The sponsor id consists of the first 2 letters of the first 4 words of the sponsor's name. This id must have previously been stored in the database using the "COURSE SPONSOR" menu. This field may be a maximum of 8 characters.

4. The sponsor name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The course format (e.g. lecture, lab, simulation, etc.) may be a maximum of 24 characters.

To go to the next block **Press PF11**, or **Press PF2** to display the "COURSE INFORMATION" submenu and **select option 5, "COURSE MATERIAL"**. To return to the **"Education and Training Resources"** menu, **Press PF3**.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                     │
│              ========  MATERIAL  ========                           │
│                                                                     │
│     Course Id  _____                                          .   │
│                                                                     │
│   Course Title  _____│
│                                                                     │
│     Sponsor Id  _____                                             │
│                                                                     │
│   Sponsor Name  _____│
│                                                                     │
│       Material  _____                        │
│                                                                     │
└─────────────────────────────────────────────────────────────────────┘
```

This particular SQL menu contains detailed information concerning the material(s) required for a particular course. For the procedures to enter data and retrieve, insert, update, and delete records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The course id consists of the first 2 letters of the first 4 words of the course title. This id must have previously been stored in the database using the "COURSE" menu. This field may be a maximum of 8 characters.

2. The course title may be a maximum of 64 characters but only 55 characters will be displayed.

3. The sponsor id consists of the first 2 letters of the first 4 words of the sponsor's name. This id must have previously been stored in the database using the "COURSE SPONSOR" menu. This field may be a maximum of 8 characters.

4. The sponsor name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The course material(s) required (e.g. textbook, manual, etc.) may be a maximum of 24 characters.

We have looked at all of the SQL menus available for selection 1, "Course Information", of the "Education and Training Resources" menu. Use submenu "COURSE INFORMATION" options 6)for help and 7)for procedures for display 8)Keymap for a VT100 Terminal. For instructions on the procedures to insert, update and delete records in the database refer to PART II - PART IV of this manual.

Press PF3 to return to the "Education and Training Resources" menu.

From the "Education and Training Resources" menu, **select option 2**, "Book Information", and the "**BOOK INFORMATION**" submenu will appear.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│                        BOOK INFORMATION                    .          │
│                                                                       │
│   1   BOOK                                                            │
│   2   BOOK LOCATION                                                   │
│   3   BOOK PUBLISHER                                                  │
│   4   BOOK AUTHOR                                                     │
│   5   BOOK AUTHOR INFORMATION                                         │
│   6   HELP                                                            │
│   7   PROCEDURES FOR DISPLAY                                          │
│   8   KEY MAP FOR VT100 TERMINAL                                      │
│   9   ----                                                            │
│                                                                       │
│                                                                       │
│                                                                       │
│                                                                       │
│                                                                       │
│   ──────────────────────────────────────────────────────────────    │
│                                                                       │
│   Enter selection #  __                                               │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

This submenu is very similar to the "COURSE INFORMATION" submenu seen earlier except that now we can select SQL menus that contain information on **books**.

From the "BOOK INFORMATION" submenu, **select option 1**, "**BOOK**", and this SQL menu will appear.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│                     ========  BOOK  ========                          │
│                                                                       │
│      Book Id  _____                                            │
│                                                                       │
│        Title  _____      │
│                                                                       │
│     Abstract  _____      │
│                                                                       │
│    Publisher  _____      │
│                                                                       │
│      Edition  __           Year  ____           Price  _____      │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning a particular book. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The book id is the ISBN number for the book. This field may be a maximum of 13 characters.

2. The book title may be a maximum of 64 characters but only 63 characters will be displayed at a time.

3. The abstract of the book may be a maximum of 240 characters but only 63 characters will be displayed at a time.

4. The name of the publisher may be a maximum of 64 characters but only 63 characters will be displayed at a time.

5. The edition of the book may be a maximum of 2 characters.

6. The year of publication may be a maximum of 4 characters.

7. The price of the book may be a real number with a maximum length of 10.

To go to the next block **Press PF11**, or **Press PF2** to display the "BOOK INFORMATION" submenu and **select option 2, "BOOK LOCATION"**.

The SQL menu for **"BOOK LOCATION"** looks like this.

```
+-----------------------------------------------------------------------+
|                                                                       |
|                 ========  BOOK LOCATION  ========                     |
|                                                                       |
|     Book Id  _____                                          |
|                                                                       |
|      Title  _____  |
|                                                                       |
|  Location  _____   |
|                                                                       |
+-----------------------------------------------------------------------+
```

This SQL menu contains detailed information concerning a particular location of a book. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The book id is the ISBN number for the book. This id must have previously been stored in the database using the "BOOK" menu. This field may be a maximum of 13 characters.

2. The book title may be a maximum of 64 characters but only 63 characters will be displayed at a time.

3. The book location may be a maximum of 64 characters but only 63 characters will be displayed at a time.

To go to the next block **Press PF11**, or **Press PF2** to display the "BOOK INFORMATION" submenu and **select option 3, "BOOK PUBLISHER"**.

The SQL menu for **"BOOK PUBLISHER"** looks like this.

```
========= BOOK PUBLISHER =========

Publisher Name  _____

      Address   _____

         City   _____

        State   _____        Zip  _____

Contact Person  _____

        Phone   _____
```

This SQL menu contains detailed information concerning a particular publisher. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The name of the publisher may be a maximum of 64 characters.

2. The street address may be a maximum of 48 characters.

3. The city name may be a maximum of 24 characters.

4. The state name may be a maximum of 15 characters.

5. The zip code may be a maximum of 10 characters.

6. The name of the contact person may be a maximum of 32 characters.

7. The phone number may be a maximum of 24 characters.

To go to the next block **Press PF11**, or **Press PF2** to display the "BOOK INFORMATION" submenu and **select option 4**, **"BOOK AUTHOR"**. To return to the **"Education and Training Resources"** menu, **Press PF3**.

The SQL menu for **"AUTHOR"** and **"AUTHOR INFORMATION"** looks like this.

```
========= BOOK AUTHOR =======

      Book Id  _____
        Title  _____
    Last Name  _____    First Name  _____

         ========= AUTHOR INFORMATION =========

    Last Name  _____    First Name  _____
     Position  _____
     Division  _____
 Organization  _____
      Address  _____
         City  _____  State  _____  ZIP  ____
        Phone  _____  Electronic Mail Code  _____
```

The AUTHOR menu may be used if you **select option 4** from the "BOOK INFORMATION" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains the author's name for a particular book. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The book id is the ISBN number for the book. This id must have previously been stored in the database using the "BOOK" menu. This field may be a maximum of 13 characters.

2. The book title may be a maximum of 64 characters but only 63 characters will be displayed at a time.

3. Both the last and first name of the author may be a maximum of 16 characters each.

The **"AUTHOR INFORMATION"** menu may be used if you **select option 5** from the "BOOK INFORMATION" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains detailed information on a particular author. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. Both the last and first name of the author may be a maximum of 16 characters each.

2. The author's position (e.g. Director, Manager, Professor, etc.) may be a maximum of 48 characters.

3. The division (e.g. Software Engineering, Technical Support, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The company or organization name the author is associated with may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code may be a maximum of 10 characters.

9. The phone number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

We have looked at all of the SQL menus available for selection 2, "Book Information", of the "Education and Training Resources" menu. Use submenu "BOOK INFORMATION" options 6)Help, 7)Procedures For Display and 8)Key Map For VT100 Terminal to display instructions for each particular SQL menu. For instructions to insert, update and delete records in the database refer to PART II - PART IV of this manual.

We have now completed main menu selection 1, "Education and Training Resources". Press PF3 to return to the "Education and Training Resources" menu and then Press <R>Return to return to the "main" menu.

From the main menu, **select** option 2, **"PUBLICATIONS AND CONFERENCES"**, and this SQL menu will appear.

```
                              S E A D

                    Publications and Conferences


                    1.  Publication Information

                    2.  Conference Information


                    R.  Return




 Enter Selection ==>:
```

This menu allows you to select from three areas of information, **"Publication Information"**, **"Conference Information"** and a command to **Return** to the **"main"** menu.

From the "Publications and Conferences" menu, **select option 1,**
"Publication Information" and the **"BIBLIOGRAPHY"** submenu will appear on
the screen.

```
                              BIBLIOGRAPHY

    1  PUBLICATION
    2  LOCATION
    3  AUTHOR
    4  AUTHOR INFORMATION
    5  CATEGORY AND SUBJECT
    6  GENERAL TERM
    7  KEYWORD
    8  PROJECT CROSS-REFERENCE
    9  PRODUCT CROSS-REFERENCE
   10  COMPILER CROSS-REFERENCE
   11  PACKAGE CROSS-REFERENCE
   12  HELP
   13  PROCEDURES FOR DISPLAY
   14  KEY MAP FOR VT100 TERMINAL
   15  ----


    Enter selection # __
```

From the "BIBLIOGRAPHY" submenu, **select option 1,** **"PUBLICATION"**, and
this SQL menu will appear.

```
                   ======== PUBLICATION ========

        Publication Id _____
         Article Title _____
              Abstract _____

             Publisher _____
     Publication Title _____
         Volumn Number _____
          Issue Number ____
                 Month _____
                  Year ____
            Page Range _____
```

This SQL menu contains detailed information concerning a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATE86a). This field may be a maximum of 7 characters.

2. The title of the article may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. The abstract of the article may be a maximum of 240 characters but only 58 characters will be displayed at a time.

4. The publisher of the publication (e.g. ACM, IEEE, etc.) may be a maximum of 48 characters.

5. The type of publication (e.g. Computer Surveys or Communication, etc.) may be a maximum of 48 characters.

6. The volume number of the publication may be an integer with a maximum length of 7 but only 5 numbers will be displayed at a time.

7. The issue number of the publication may be an integer with a maximum length of 7 but only 4 numbers will be displayed at a time.

8. The month the publication was published may be a maximum of 9 characters.

9. The year of publication may be a maximum of 4 characters.

10. The page range of the publication (e.g. 237-298) may be a maximum of 9 characters.

To go to the next block, **Press PF11** or **Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 3, "AUTHOR"**.

The SQL menu for **"AUTHOR"** and **"AUTHOR INFORMATION"** looks like this.

```
============ AUTHOR ============

Publication Id _____
        Title _____
    Last Name _____        First Name _____


============ AUTHOR INFORMATION ============

        Last Name _____        First Name _____
        Position _____
    Organization _____
        Division _____
        Address _____
            City _____  State _____  ZIP _____
            Phone _____  Electronic Mail Code _____
```

The AUTHOR menu may be used if you **select option 3** from the "BIBLIOGRAPHY" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains the author's name for a particular book. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. Both the last and first name of the author may be a maximum of 16 characters each.

The **"AUTHOR INFORMATION"** menu may be used if you **select option 4** of the "BIBLIOGRAPHY" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains detailed information concerning a particular author. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. Both the last and first name of the author may be a maximum of 16 characters each.

2. The author's position (e.g. Director, Manager, Professor, etc.) may be a maximum of 48 characters.

3. The division (e.g. Software Engineering, Technical Support, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The company or organization name the author is associated with may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code may be a maximum of 10 characters.

9. The phone number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

To go to the next block **Press PF11**, or **Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 5, "CATEGORY AND SUBJECT"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"CATEGORY AND SUBJECT"** looks like this.

```
========= CATEGORY and SUBJECT ========

    Publication Id _____
      Article Title _____

        Category Id _
          Category _____

  Sub_Category1 Id _
     Sub_Category1 _____

  Sub_Category2 Id __
     Sub_Category2 _____

           Subject _____
```

This SQL menu contains detailed information concerning the category and subject of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed.

3. The category id may be a maximum of 1 character (any letter from A to Z).

4. The category name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The sub_category1 id may be a maximum of 1 digit number.

6. The sub_category1 title may be a maximum of 64 characters but only 60 characters will be displayed at a time.

7. The sub_category2 id may be a maximum of 2 characters (any number or M for misc.).

8. The sub_category2 title may be a maximum of 80 characters but only 61 characters will be displayed at a time.

9. The subject description of the publication may be a maximum of 48 characters.

To go to the next block **Press PF11**, or **Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 6, "GENERAL TERM"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"GENERAL TERM"** looks like this.

```
+---------------------------------------------------------------+
|                                                               |
|              ========  GENERAL TERM  ========                 |
|                                                               |
|   Publication Id _____                                     |
|                                                               |
|    Article Title _____|
|                                                               |
|     General Term _____    |
|                                                               |
+---------------------------------------------------------------+
```

This SQL menu contains detailed information concerning the general term of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. The general term(s) for the publication may be a maximum of 48 characters.

To go to the next block **Press PF11, or Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 7, "PUBLICATION KEYWORD"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"PUBLICATION KEYWORD"** looks like this.

```
======== KEYWORD ========

Publication Id  _____

 Article Title  _____

      Keyword  _____
```

This SQL menu contains detailed information concerning the keyword(s) of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. The keyword(s) for the publication may be a maximum of 48 characters.

To go to the next block **Press PF11, or Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 8, "PROJECT CROSS-REFERENCE"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"PROJECT CROSS-REFERENCE"** looks like this.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│            ========   PROJECT CROSS-REFERENCE   ========             │
│                                                                       │
│      Publication Id  _____                                          │
│                                                                       │
│              Title  _____        │
│                                                                       │
│         Project Id  _____                                           │
│                                                                       │
│               Name  _____        │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning the project cross-reference of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

4. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

To go to the next block **Press PF11**, or **Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 9, "PRODUCT CROSS-REFERENCE"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for "PRODUCT CROSS-REFERENCE" looks like this.

```
┌─────────────────────────────────────────────────────────────────┐
│                                                                   │
│          ========   PRODUCT CROSS-REFERENCE   ========           .│
│                                                                   │
│   Publication Id  _____                                         │
│                                                                   │
│          Title  _____  │
│                                                                   │
│      Product Id  _____                                         │
│                                                                   │
│          Name  _____               │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning the product cross-reference of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters buy only 58 characters will be displayed at a time.

3. The product id consists of the first 2 letters of the first 4 words of the product name. This field may be a maximum of 8 characters.

4. The name of the product may be a real number with a maximum length of 10.

To go to the next block **Press PF11**, or **Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 10**, **"COMPILER CROSS-REFERENCE"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for "COMPILER CROSS-REFERENCE" looks like this.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│             ========  COMPILER CROSS-REFERENCE  ========              │
│                                                              .        │
│   Publication Id _____                                             │
│                                                                       │
│            Title _____ │
│                                                                       │
│      Compiler Id _____                                             │
│                                                                       │
│             Name _____    │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning the compiler cross-reference of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

4. The name of the compiler may be a maximum of 48 characters.

To go to the next block **Press PF11**, or **Press PF2** to display the "BIBLIOGRAPHY" submenu and **select option 11, "PACKAGE CROSS-REFERENCE"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"PACKAGE CROSS-REFERENCE"** looks like this.

```
========  PACKAGE CROSS-REFERENCE  ========

Publication Id  _____                                          .

        Title  _____

    Package Id  _____

         Name  _____
```

This SQL menu contains detailed information concerning the package cross-reference of a particular publication. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

4. The package name may be a maximum of 48 characters.

We have now completed main menu selection 2, **"Publications and Conferences"**. **Use submenu BIBLIOGRAPHY options 12)Help, 13)Procedures For Display and 14)Key Map For VT100 Terminal** for information corresponding to each particular SQL menu. For instructions to insert, update and delete records in the database, refer to PART II - PART IV of this manual.

Press PF3 to return to the **"Publications and Conferences"** menu.

From the "Publications and Conferences" menu, select option 2, "Conference Information", and the "CONFERENCE INFORMATION" submenu will appear.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                              ·        │
│                        CONFERENCE INFORMATION                        │
│                                                                       │
│  1  CONFERENCE                                                        │
│  2  CONFERENCE SPONSOR                                                │
│  3  COORDINATOR                                                       │
│  4  COORDINATOR INFORMATION                                           │
│  5  CONFERENCE CHARGE                                                 │
│  6  PRESENTATION                                                      │
│  7  PRESENTER                                                         │
│  8  PRESENTER INFORMATION                                             │
│  9  HELP                                                              │
│  10 PROCEDURES FOR DISPLAY                                            │
│  11 KEY MAP FOR VT100 TERMINAL                                        │
│  12 ----                                                              │
│  13 ----                                                              │
│                                                                       │
│                                                                       │
│                                                                       │
│ ───────────────────────────────────────────────────────────────     │
│                                                                       │
│  Enter selection #  __                                                │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

From the "CONFERENCE INFORMATION" submenu, select option 1, "CONFERENCE", and this SQL menu will appear.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│                   ======== CONFERENCE ========                       │
│                                                                       │
│   Conference Id _____                                              │
│                                                                       │
│          Name _____   │
│                                                                       │
│       Location _____   │
│                                                                       │
│          Date _____    Duration _____    Frequency _____   │
│                                                                       │
│       Abstract _____   │
│                                                                       │
│           Type _____                                   │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning a particular conference. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The conference id consists of the first 2 letters of the first 4 words of the conference name. This field may be a maximum of 8 characters.

2. The conference name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

3. The location of the conference may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The beginning date of the conference, in the DD-MON-YY format, may be a maximum of 9 characters.

5. The duration of the conference (e.g. 3 day, 5 days, etc.) may be a maximum of 9 characters.

6. The frequency of the conference (e.g. 2 times/year, 3-4 times/year, etc.) may be a maximum of 16 characters.

7. The sponsor name of the conference (e.g. University of Houston, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

8. The abstract of the conference may be a maximum of 240 characters but only 60 characters will be displayed at a time.

9. The type of the conference (e.g. Artificial Intelligence, etc.) may be a maximum of 24 characters.

To go to the next block **Press PF11**, or **Press PF2** to display the "CONFERENCE INFORMATION" submenu and **select option 2, "CONFERENCE SPONSOR"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"CONFERENCE SPONSOR"** looks like this.

```
========  CONFERENCE SPONSOR  ========

Conference Id _____

        Name _____

Sponsor Name _____

     Address _____

        City _____ State _____ ZIP _____

Contact Person _____

       Phone _____
```

This SQL menu contains detailed information concerning a sponsor of a particular conference. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The conference id consists of the first 2 letters of the first 4 words of the conference name. This id must have previously been stored in the database using the "CONFERENCE" menu. This field may be a maximum of 8 characters.

2. The conference name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

3. The sponsor name may be a maximum of 64 characters

4. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

5. The city name may be a maximum of 24 characters.

6. The state name may be a maximum of 15 characters.

7. The zip code may be a maximum of 10 characters.

8. The contact person may be a maximum of 32 characters.

9. The phone number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

To go to the next block **Press PF11**, or **Press PF2** to display the "CONFERENCE INFORMATION" submenu and **select option 3, "COORDINATOR"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for "COORDINATOR" and "COORDINATOR INFORMATION" looks like this.

```
=========  COORDINATOR  =========

Conference Id  _____
        Name  _____
   Last Name  _____         First Name  _____

         =========  COORDINATOR INFORMATION=========

   Last Name  _____         First Name  _____
    Position  _____
Organization  _____
    Division  _____
     Address  _____
        City  _____      State  _____  ZIP  _____
       Phone  _____      Electronic Mail Code  _____
```

This SQL menu contains detailed information concerning a coordinator of a particular conference. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The conference id consists of the first 2 letters of the first 4 words of the conference name. This id must have previously been stored in the database using the "CONFERENCE" menu. This field may be a maximum of 8 characters.

2. The conference name may be a maximum of 64 characters but only 60 characters will be displayed at a time.

3. Both the last and first name of the coordinator may be a maximum of 16 characters each.

The "COORDINATOR INFORMATION" menu may be used if you select option 4, from the "CONFERENCE INFORMATION" submenu, or by Pressing PF11 while in the previous SQL menu. This SQL menu contains detailed information concerning a particular coordinator. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. Both the last and first name of the coordinator may be a maximum of 16 characters each.

2. The coordinator's position (e.g. Director, Manger, Professor, etc.) may be a maximum of 48 characters.

3. The company or organization name the coordinator is associated with may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The division (e.g. Software Engineering, Technical Support, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code may be a maximum of 10 characters.

9. The phone number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

To go to the next block **Press PF11, or Press PF2** to display the "CONFERENCE INFORMATION" submenu and **select option 5, "CONFERENCE CHARGE"**. To return to the **"Publications and Conferences"** menu, **Press PF3**.

The SQL menu for **"CONFERENCE CHARGE"** looks like this.

```
========= CONFERENCE CHARGE =========

        Conference Id _____

              Name _____

Type of Registration _____

               Fee _____
```

This SQL menu contains detailed information concerning a particular conference charge. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The conference id consists of the first 2 letters of the first 4 words of the conference name. This id must have previously been stored in the database using the "CONFERENCE" menu. This field may be a maximum of 8 characters.

2. The conference name may be a maximum of 64 characters.

3. The type of registration for the conference (e.g. Software Engineering, etc.) may be a maximum of 24 characters but only 15 characters will be displayed at a time.

4. The conference fee may be a real number with a maximum length of 10.

To go to the next block **Press PF11,** or **Press PF2** to display the "CONFERENCE INFORMATION" submenu and **select option 6, "PRESENTATION"**. To return to the **"Publications and Conferences"** menu, **Press PF3**.

The SQL menu for **"PRESENTATION"** looks like this.

```
======== PRESENTATION ========

Conference Id _____

        Name  _____

    Article Id _____

        Title  _____

     Abstract  _____
```

This SQL menu contains detailed information concerning the presentation of a particular conference. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The conference id consists of the first 2 letters of the first 4 words of the conference name. This id must have previously been stored in the database using the "CONFERENCE" menu. This field may be a maximum of 8 characters.

2. The conference name may be a maximum of 64 characters.

3. The presentation id consists of the first 4 letters of the author's last name (or first author if there are more than one), plus the last 2 digits of the year of the article. This field may be a maximum of 7 characters.

4. The title of the article may be a maximum of 128 characters but only 63 characters will be displayed at a time.

5. The abstract of the article may be a maximum of 240 characters but only 63 characters will be displayed at a time.

To go to the next block **Press PF11**, or **Press PF2** to display the "CONFERENCE INFORMATION" submenu and **select option 7, "PRESENTER"**. To return to the **"Publications and Conferences"** menu, **Press PF3**.

The SQL menu for **"PRESENTER"** and **"PRESENTER INFORMATION"** looks like this.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                   ·   │
│                  ======== PRESENTER ========                          │
│                                                                       │
│    Article Id _____                                                │
│         Title _____       │
│     Last Name _____      First Name _____       │
│                                                                       │
│                ======== PRESENTER INFORMATION ========                │
│                                                                       │
│     Last Name _____      First Name _____       │
│      Position _____        │
│  Organization _____       │
│      Division _____       │
│       Address _____                    │
│          City _____ State _____ Zip _____    │
│         Phone _____ Electronic Mail Code _____    │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

The "PRESENTER" menu may be used if you **select option 7**, from the "CONFERENCE INFORMATION" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains detailed information concerning a particular presenter. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II – PART IV of this manual.

1. The article id will consists of the first 4 letters of the author's last name (or first author if there are more than one), plus the last 2 digits of the year of the article. This id must have previously been stored in the database using the "PRESENTATION" menu. This field may be a maximum of 7 characters.

2. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

3. Both the last and first name of the presenter may be a maximum of 16 characters each.

The **"PRESENTER INFORMATION"** menu may be used if you **select option 8**, from the "CONFERENCE INFORMATION" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains detailed information concerning a particular presenter. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II – PART IV of this manual.

1. Both the last and first name of the presenter may be a maximum of 16 characters each.

2. The presenter's position (e.g. Director, Manager, Professor, etc.) may be a maximum of 48 characters.

3. The company or organization that the presenter is associated with may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The presenter's division name (e.g. Software Engineering, Computer Science Dept., etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code may be a maximum of 10 characters.

9. The phone number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

We have looked at all of the SQL menus available for selection 2, "Conferences" of the "Publications and Conferences" menu. Use the "CONFERENCE INFORMATION" submenu, options 9)Help, 10)Procedures For Display and 11)Key Map For VT100 Terminal for information corresponding to each particular SQL menu. For instructions to insert, update and delete records in the database, refer to PART II - PART IV of this manual.

Press PF3 to return to the "Publications and Conferences" menu. Press <R>Return to return to the "main" menu.

From the main menu, **select option 3, "Projects"**, and the **"PROJECT INFORMATION"** submenu will appear.

```
            ====== PROJECT INFORMATION ========
 1  PROJECT
 2  CONTACT_PERSON
 3  CONTACT PERSON INFORMATION
 4  SUB_PROJECT
 5  PROJECT KEYWORD
 6  PUBLICATION CROSS-REFERENCE
 7  COMPILER CROSS-REFERENCE
 8  PACKAGE CROSS-REFERENCE
 9  HELP
10  PROCEDURES FOR DISPLAY
11  KEY MAP FOR VT100 TERMINAL
12  ----



────────────────────────────────────────────────────────
 Enter selection #  __
```

From the "PROJECT INFORMATION" submenu, select option 1, **"PROJECT"**, and this SQL menu will appear.

```
            ========  PROJECT  ========
         Project Id _____
               Name _____
        Description _____
         Start Date _____      Completion Date _____
       Lines of Code _____      Status _____
 Expected Life Time _____
      Host Machines _____
    Target Machines _____
           Compiler _____
            Sponsor _____
         Contractor _____
           Comments _____
```

This SQL menu contains detailed information concerning a particular project. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. The description of the project may be a maximum of 240 characters but only 60 characters will be displayed at a time.

4. The date on which the project started may be a maximum of 9 characters.

5. The date on which the project was completed may be a maximum of 9 characters.

6. The number of lines of code may be a maximum length of 12.

7. The status of the project (e.g. planned, development, completed, or other) may be a maximum of 16 characters.

8. The expected life time of the project (e.g. 5 years, 10 years, or indefinite) may be a maximum of 12 characters.

9. The host machine(s) that the project will run on (e.g. VAX 785/VMS 4.1) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

10. The target machine(s) that the project will run on (e.g. IBM 4381/UTS) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

11. The compiler used (e.g. DEC VAXAda) may be a maximum of 48 characters.

12. The name of the project's sponsor (e.g. NASA, Navy, Air Force, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

13. The name of the organization(s) involved in the project may be a maximum of 64 characters but only 60 characters will be displayed at a time.

14. Comments for the project may be a maximum of 240 characters but only 60 characters will be displayed at a time.

To go to the next block, you may **select option 2, "CONTACT PERSON",** or **Press PF11** while in the previous SQL menu. To return to the **"Project"** menu, **Press PF3.**

The SQL menu for **"CONTACT PERSON"** and **"CONTACT PERSON INFORMATION"** looks like this.

```
========  CONTACT PERSON  ========

   Project Id _____
 Project Name _____
    Last Name _____      First Name _____

========  CONTACT PERSON INFORMATION  ========

    Last Name _____      First Name _____
     Position _____
 Organization _____
     Division _____
      Address _____
         City _____      State _____  Zip _____
        Phone _____  Electronic Mail Code _____
```

The "CONTACT PERSON" menu may be used if you **select option 2,** from the "PROJECT INFORMATION" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains information concerning the contact person for a particular project. For the procedures to enter data and insert, update, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECTS" menu. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. Both the last and first name of the project's contact person may be a maximum of 16 characters each.

The **"CONTACT PERSON INFORMATION"** menu may be used if you **Press PF2** to display the "PROJECT INFORMATION" submenu, and **select option 3,** or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains detailed information concerning the contact person for a particular project. For the procedures to enter data and insert, update, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. Both the last and first name of the contact person may be a maximum of 16 characters each.

2. The contact person's position (e.g. Director, Manager, Professor, etc.) may be a maximum of 48 characters.

3. The name of the company or organization the contact person is associated with may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The division name of the contact person (e.g. Research - Development, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code number may be a maximum of 10 characters.

To go to the next block, **Press PF11**, **or you may Press PF2** to display the "PROJECT INFORMATION" submenu and **select option 4**, **"SUB_PROJECT"**. To return to the **"Projects"** menu, **Press PF3**.

The SQL menu for **"SUB_PROJECT"** looks like this.

```
========  SUB_PROJECT  ========

        Project Id _____

      Project Name _____

    Sub_Project Id _____

  Sub_Project Name _____
```

This SQL menu contains detailed information concerning a particular sub_project. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECTS" menu. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. The sub_project id consists of the first 2 letters of the first 4 words of the sub_project name. This id must have previously been stored in the database using the PROJECT menu. This field may be a maximum of 8 characters.

4. The sub_project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "PROJECT INFORMATION" submenu and **select option 5, "PROJECT KEYWORD"**. To return to the **"Projects"** menu, **Press PF3**.

The SQL menu for **"PROJECT KEYWORD"** looks like this.

```
            ========  PROJECT KEYWORD  ========

   Project Id  _____

Project Name  _____

      Keyword  _____
```

This SQL menu contains detailed information concerning a particular project keyword. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. The keyword(s) of the project (e.g. Space Station, etc.) may be a maximum of 24 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "PROJECT INFORMATION" submenu and **select option 6, "PUBLICATION CROSS-REFERENCE"**. To return to the **"Projects"** menu, **Press PF3**.

The SQL menu for **"PUBLICATION CROSS-REFERENCE"** looks like this.

```
========  PUBLICATION CROSS-REFERENCE  ========

     Project Id _____

          Name _____

Publication Id _____

         Title _____
```

This SQL menu contains detailed information concerning the publication cross-reference for a particular project. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

4. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "PROJECT INFORMATION" submenu and **select option 7, "COMPILER CROSS-REFERENCE"**. **To return to the "Projects" menu, Press PF3**.

The SQL menu for **"COMPILER CROSS-REFERENCE"** looks like this.

```
--------  COMPILER CROSS-REFERENCE  --------

   Project Id _____


         Name _____


Compiler Id _____


         Name _____
```

This SQL menu contains detailed information concerning the compiler cross reference for a particular project. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

4. The name of the compiler may be a maximum of 48 characters.

To go to the next block, Press PF11, or you may Press PF2 to display the "PROJECT INFORMATION" submenu and select option 8, "PACKAGE CROSS-REFERENCE". To return to the "Projects" menu, Press PF3.

The SQL menu for **"PACKAGE CROSS-REFERENCE"** looks like this.

```
======== PACKAGE CROSS-REFERENCE ========

Project Id _____

      Name _____

Package Id _____

      Name _____
```

This SQL menu contains detailed information concerning the package cross-reference of a particular project. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

2. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

3. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

4. The package name may be a maximum of 48 characters.

We have looked at all of the SQL menus available from the **"PROJECT"** menu. **Use the PROJECT INFORMATION submenu, options 9)Help, 10)Procedures For Display and 11)Key Map For VT100 Terminal** for information corresponding to each particular SQL menu. For instructions to insert, update and delete records in the database, refer to PART II - PART IV of this manual.

Press PF3 to return to the **"Project"** menu. **Press <R>Return** to return to the **"main"** menu.

At the main menu, **select option 4**, the SQL Menu **"Compilers and Other Products"** will appear on the screen.

```
                           S E A D


                    Compilers and Other Products


                       1.  Compiler Information

                       2.  Product Information

                       R.  Return



 Please Enter Selection ==>
```

This menu allows you to select from two areas of information, **"Compiler Information"** and **"Product Information"**. From the "Compilers and Other Products" menu, **select option 1, "Compiler Information"**, and the **"COMPILER INFORMATION"** submenu will appear.

```
                        COMPILER INFORMATION

   1  COMPILER
   2  VENDOR
   3  HOST SYSTEM
   4  TARGET SYSTEM
   5  PERFORMANCE
   6  EVALUATOR  INFORMATION
   7  PUBLICATION CROSS-REFERENCE
   8  PROJECT CROSS-REFERENCE
   9  PACKAGE CROSS-REFERENCE
  10  HELP
  11  PROCEDURES FOR DISPLAY
  12  KEY MAP FOR VT100 TERMINAL
  13  ----
  14  ----




  Enter selection #  __
```

From the "COMPILER INFORMATION" submenu, **select option 1, "COMPILER"**, and this SQL menu will appear.

```
                 ======== COMPILER ========

       Compiler Id _____

             Name _____

            Price _____

  Version Number _____   ACVC Version Number _____ ACVC Date _____

          Comment _____

        Vendor Id _____

             Name _____
```

This SQL menu contains detailed information concerning a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4
    words of the compiler name. This field may be a maximum of 8
    characters.

2. The name of the compiler may be a maximum of 48 characters.

3. The price of the compiler may be a real number with a maximum of
    10 characters.

4. The version number of the compiler may be a maximum of 8
    characters.

5. The ACVC version number of the compiler may be a maximum of 8
    characters.

6. The ACVC date, in the MM-DD-YY format, may be a maximum of 9
    characters.

7. Comments about the compiler may be a maximum of 60 characters.

8. The vendor id consists of the first 2 letters of the first 4 words
    of the vendors name. This id must have previously been stored in
    the database using the "VENDOR" menu. This field may be a maximum
    of 8 characters.

9. The vendor name may be a maximum of 48 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the
"COMPILER INFORMATION" submenu and **select option 2, "VENDOR"**. To return
to the **"Compiler Information"** menu, **Press PF3**.

The SQL menu for **"VENDOR"** looks like this.

```
========= VENDOR =========


  Vendor Id _____


Vendor Name _____


    Address _____


       City _____  State _____  ZIP _____


      Phone _____
```

This SQL menu contains detailed information concerning a particular
vendor. For the procedures to enter data and insert, update, delete,
and retrieve records in the database, refer to the instructions in PART
II - PART IV of this manual.

1. The vendor id consists of the first 2 letters of the first 4 words of the vendor name. This field may be a maximum of 8 characters.

2. The name of the vendor may be a maximum of 48 characters.

3. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

4. The city name may be a maximum of 24 characters.

5. The state name may be a maximum of 15 characters.

6. The zip code number may be a maximum of 10 characters but only 20 characters will be displayed at a time.

7. The phone number may be a maximum of 24 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "COMPILER INFORMATION" submenu and **select option 3, "HOST SYSTEM"**. To return to the **"Compiler Information"** menu, **Press PF3**.

The SQL menu for **"HOST SYSTEM"** looks like this.

```
========  HOST SYSTEM  ========

        Compiler Id _____

              Name _____

      Host Machine _____

  Operating system _____
```

This SQL menu contains detailed information concerning a particular host system. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

2. The name of the compiler may be a maximum of 48 characters.

3. The host computer (e.g. VAX8600, IBM 370, etc.) may be a maximum of 48 characters.

4. The operating system for the host computer (e.g. UNIX, VMS, VM/CMS, etc.) may be a maximum of 48 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "COMPILER INFORMATION" submenu and **select option 4, "TARGET SYSTEM"**. To return to the **"Compiler Information"** menu, **Press PF3**.

The SQL menu for **"TARGET SYSTEM"** looks like this.

```
========= TARGET SYSTEM =========

        Compiler Id _____

              Name _____

    Target Machine _____

  Operating System _____
```

This SQL menu contains detailed information concerning a particular target system. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

2. The name of the compiler may be a maximum of 48 characters.

3. The target computer (e.g. VAX11/780, etc.) may be a maximum of 16 characters.

4. The operating system for the target computer (e.g. UNIX, VMS, VM/CMS, etc.) may be a maximum of 16 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "COMPILER INFORMATION" submenu and **select option 5, "PERFORMANCE"**. To return to the **"Compiler Information"** menu, **Press PF3**.

The SQL menu for **"PERFORMANCE"** and **"EVALUATOR INFORMATION"** looks like this.

```
          =========    PERFORMANCE    =========

 Compiler Id  _____
        Name  _____
     Comment  _____
Evaluator Id  _____
        Name  _____


          =========  EVALUATOR INFORMATION  =========
Evaluator Id  _____
        Name  _____
     Address  _____
        City  _____  State  _____  ZIP  _____
       Phone  _____
```

This SQL menu contains detailed information concerning the performance of a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

2. The name of the compiler may be a maximum of 48 characters.

3. Comments about the compiler may be a maximum of 240 characters but only 66 characters will be displayed at a time.

4. The evaluator id consists of the first 2 letters of the first 4 words of the evaluators name. This field may be a maximum of 8 characters.

5. The name of the evaluator may be a maximum of 48 characters.

The **"EVALUATOR INFORMATION"** menu may be used if you **Press PF2** to display the "COMPILER INFORMATION" submenu, and **select option 6**, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains information concerning the evaluator information for a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The evaluator id consists of the first 2 letters of the first 4 words of the evaluators name. This field must have previously been stored in the database using the "PERFORMANCE" menu. This field may be a maximum of 8 characters.

2. The name of the evaluator may be a maximum of 48 characters.

3. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

4. The city name may be a maximum of 24 characters.

5. The state name may be a maximum of 15 characters.

6. The zip code number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

7. The phone number may be a maximum of 24 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "COMPILER INFORMATION" submenu and **select option 7, "PUBLICATION CROSS-REFERENCE"**. To return to the **"Compiler Information"** menu, **Press PF3**.

The SQL menu for **"PUBLICATION CROSS-REFERENCE"** looks like this.

```
========  PUBLICATION CROSS-REFERNCE  ========

   Compiler Id _____


          Name _____

Publication Id _____


         Title _____
```

This SQL menu contains detailed information concerning the publication cross-reference of a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

2. The name of the compiler may be a maximum of 48 characters.

3. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

4. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "COMPILER INFORMATION" submenu and **select option 8, "PROJECT CROSS-REFERENCE"**. To return to the "Compiler Information" menu, **Press PF3**.

The SQL menu for **"PROJECT CROSS-REFERENCE"** looks like this.

```
======== PROJECT CROSS-REFERNCE ========


Compiler Id _____


       Name _____


Project Id _____


       Name _____
```

This SQL menu contains detailed information concerning the project cross-reference of a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

2. The name of the compiler may be a maximum of 48 characters.

3. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

4. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "COMPILER INFORMATION" submenu and **select option 9, "PACKAGE CROSS-REFERENCE"**. To return to the "Compiler Information" menu, **Press PF3**.

The SQL menu for **"PACKAGE CROSS-REFERENCE"** looks like this.

```
--------  PACKAGE CROSS-REFERNCE  --------

Compiler Id  _____

        Name  _____

Package Id  _____

        Name  _____
```

This SQL menu contains detailed information concerning the package cross-reference of a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The compiler id consists of the first 2 letters of the first 4 words of the compiler name. This id must have previously been stored in the database using the "COMPILER" menu. This field may be a maximum of 8 characters.

2. The name of the compiler may be a maximum of 48 characters.

3. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

4. The package name may be a maximum of 48 characters.

We have looked at all of the SQL menus available for selection 1, "Compiler Information" from the "Compilers and Other Products" menu. Use the COMPILER INFORMATION submenu, options 10)Help, 11)Procedures For Display and 12)Key Map For VT100 Terminal for information corresponding to each particular SQL menu. For instructions to insert, update and delete records in the database, refer to PART II - PART IV of this manual.

Press PF3 to return to the **"Compilers and Other Products"** menu.

From the "Compilers and Other Products" menu, **select option 2**, "**Other Products**", and the "**PRODUCT INFORMATION**" submenu will appear.

```
            ======== PRODUCT INFORMATION ========
 1  PRODUCT
 2  VENDOR
 3  HOST SYSTEM
 4  TARGET SYSTEM
 5  PUBLICATION CROSS-REFERENCE
 6  PROJECT CROSS-REFERENCE
 7  PACKAGE CROSS-REFERENCE
 8  HELP
 9  PROCEDURES FOR DISPLAY
10  KEY MAP FOR VT100 TERMINAL
11  ----
12  ----




 _____
 Enter selection # __
```

From the "PRODUCT INFORMATION" submenu, **select option 1**, "**PRODUCT**", and this SQL menu will appear.

```
             ========  PRODUCT  ========

 Product Id _____

      Name _____

     Price _____  Type _____  Version Number _____

   Comment _____

 Vendor Id _____

Vendor Name _____
```

This SQL menu contains information concerning a particular product. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The product id consists of the first 2 letters of the first 4 words of the product name. This field may be a maximum of 8 characters.

2. The name of the product may be a maximum of 48 characters.

3. The price of the product may be a real number with a maximum length of 10.

4. The type of the product (e.g. compiler, etc.) may be a maximum of 24 characters but only 15 characters will be displayed at a time.

5. The version number may be a real number with a maximum of 8 characters.

6. Comments about the product may be a maximum of 240 characters but only 60 characters will be displayed at a time.

7. The vendor id consists of the first 2 letters of the first 4 words of the vendor name. This id must have previously been stored in the database using the "VENDOR" menu. This field may be a maximum of 8 characters.

8. The name of the vendor may be a maximum of 48 characters.

To go to the next block, **Press PF2** to display the "PRODUCT INFORMATION" submenu and, **select option 2, "VENDOR"**. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

The SQL menu for **"VENDOR"** looks like this.

```
             ======== VENDOR ========

  Vendor Id _____

Vendor Name _____

    Address _____

       City _____ State _____ Zip _____

      Phone _____
```

This SQL menu contains information concerning the vendor of a particular product. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The vendor id consists of the first 2 letters of the first 4 words of the vendor name. This field may be a maximum of 8 characters.

2. The name of the vendor may be a maximum of 48 characters.

3. The street address may be a maximum of 48 characters.

4. The city name may be a maximum of 24 characters but only 15 .
   characters will be displayed at a time.

5. The state name may be a maximum of 15 characters.

6. The zip code may be a maximum of 10 characters.

7. The phone number may be a maximum of 24 characters.

To go to the next block, **select option 3, "HOST SYSTEM"**, from the
"PRODUCT INFORMATION" submenu. You may also go to the next block by
Pressing PF11 while in the previous SQL menu.

The SQL menu for **"HOST SYSTEM"** looks like this.

```
+--------------------------------------------------------------------+
|                                                                    |
|              ========  HOST SYSTEM ========                        |
|                                                                    |
|        Product Id _____                                         |
|                                                                    |
|                                                                    |
|              Name _____          |
|                                                                    |
|      Host Machine _____          |
|                                                                    |
|  Operating System _____          |
|                                                                    |
+--------------------------------------------------------------------+
```

This SQL menu contains information concerning a particular host system.
For the procedures to enter data and insert, update, delete, and
retrieve records in the database, refer to the instructions in PART II –
PART IV of this manual.

1. The product id consists of the first 2 letters of the first 4
   words of the product name. This id must have previously been
   stored in the database using the "PRODUCT" menu. This field may
   be a maximum of 8 characters.

2. The name of the product may be a maximum of 48 characters.

3. The host computer (e.g. VAX8600, IBM 370, etc.) may be a maximum
   of 48 characters.

4. The operating system for the host computer (e.g. UNIX, VMS,
   VM/CMS, etc.) may be a maximum of 48 characters.

To go to the next block, **select option 4, "TARGET SYSTEM"**, from the "PRODUCT INFORMATION" submenu. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

The SQL menu for **"TARGET SYSTEM"** looks like this.

```
                    ========  TARGET SYSTEM  ========

        Product Id _____

              Name _____

    Target Machine _____

  Operating System _____
```

This SQL menu contains information concerning the target system for a particular product. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The product id consists of the first 2 letters of the first 4 words of the product name. This id must have previously been stored in the database using the "PRODUCT" menu. This field may be a maximum of 8 characters.

2. The name of the product may be a maximum of 48 characters.

3. The target computer (e.g. VAX11/780, etc.) may be a maximum of 48 characters.

4. The operating system for the target computer (e.g. UNIX, VMS, VM/CMS, etc.) may be a maximum of 48 characters.

To go to the next block, **select option 5, "PUBLICATION CROSS-REFERENCE"**, from the "PRODUCT INFORMATION" submenu. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

The SQL menu for **"PUBLICATION CROSS-REFERENCE"** looks like this.

```
========== PUBLICATION CROSS-REFERNCE ==========

      Product Id _____

            Name _____

  Publication Id _____

           Title _____
```

This SQL menu contains information concerning the publication cross-reference on a particular product. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The product id consists of the first 2 letters of the first 4 words of the product name. This id must have previously been stored in the database using the "PRODUCT" menu. This field may be a maximum of 8 characters.

2. The name of the product may be a maximum of 48 characters.

3. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

4. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

To go to the next block, **select option 6, "PROJECT CROSS-REFERENCE"**, from the "PRODUCT INFORMATION" submenu. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

The SQL menu for **"PROJECT CROSS-REFERENCE"** looks like this.

```
             ========  PROJECT CROSS-REFERNCE  ========


Product Id  _____


      Name  _____


Project Id  _____


      Name  _____
```

This SQL menu contains information concerning the project cross-reference on a particular product. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The product id consists of the first 2 letters of the first 4 words of the product name. This id must have previously been stored in the database using the "PRODUCT" menu. This field may be a maximum of 8 characters.

2. The name of the product may be a maximum of 48 characters.

3. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

4. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

To go to the next block, **select option 7, "PACKAGE CROSS-REFERENCE"**, from the "PRODUCT INFORMATION" submenu. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

This SQL menu for **"PACKAGE CROSS-REFERENCE"** looks like this.

```
========  PACKAGE CROSS-REFERNCE  ========

Product Id _____


     Name _____


Package Id _____


     Name _____
```

This SQL menu contains information concerning a package cross-reference on a particular product. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The product id consists of the first 2 letters of the first 4 words of the product name. This id must have previously been stored in the database using the "PRODUCT" menu. This field may be a maximum of 8 characters.

2. The name of the product may be a maximum of 48 characters.

3. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

4. The package name may be a maximum of 48 characters.

We have looked at all of the SQL menus available for selection 2, "Product Information" from the "Compilers and Other Products" menu. Use the PRODUCT INFORMATION submenu, options 8)Help, 9)Procedures For Display and 10)Key Map For VT100 Terminal for information corresponding to each particular SQL menu. For instructions to insert, update and delete records in the database, refer to PART II - PART IV of this manual.

We have now completed main menu option 4, "Compilers and Other Products". Press PF3 to return to the "Compilers and Other Products" menu, and then Press <R>Return to return to the "main" menu.

From the main menu, **select option 5, "Reusable Packages"**, and the **"REUSABLE PACKAGES"** submenu will appear.

```
┌─────────────────────────────────────────────────────────────────┐
│                                                                   │
│          ═══════ REUSABLE PACKAGE INFORMATION ═══════   .         │
│                                                                   │
│    1  REUSABLE PACKAGE                                            │
│    2  CONTACT_PERSON                                              │
│    3  CONTACT PERSON INFORMATION                                  │
│    4  CREATOR                                                     │
│    5  CREATOR INFORMATION                                         │
│    6  HOST SYSTEM                                                 │
│    7  TARGET SYSTEM                                               │
│    8  REVISE HISTORY                                              │
│    9  PERFORMANCE                                                 │
│   10  PERFORMANCE EVALUATOR INFORMATION                          │
│   11  PACKAGE KEYWORD                                             │
│   12  CROSS REFERENCE FOR PUBLICATION                            │
│   13  CROSS REFERENCE FOR PROJECT                                │
│   14  CROSS REFERENCE FOR PRODUCT                                │
│   15  CROSS REFERENCE FOR COMPILER                               │
│   16  HELP                                                        │
│   17  PROCEDURES FOR DISPLAY                                     │
│   18  KEY MAP FOR VT100 TERMINAL                                 │
│   19  ----                                                        │
│                                                                   │
│                                                                   │
│                                                                   │
│  ───────────────────────────────────────────────────────────    │
│   Enter selection #  __                                          │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

From the "REUSABLE PACKAGES" submenu, **select option 1**, **"REUSABLE PACKAGE"**, and this SQL menu will appear.

```
+-----------------------------------------------------------------------+
|                                                                       |
|             ======== REUSABLE PACKAGE ========                   .    |
|                                                                       |
|       Package Id  _____                                            |
|             Name  _____     |
|                                                                       |
|         Abstract  _____ |
|                                                                       |
|        Copyright  _                                                   |
|                                                                       |
|   Version Number  _____                                               |
|                                                                       |
|     Release Date  _____                                          |
|                                                                       |
|         Comments  _____ |
|                                                                       |
+-----------------------------------------------------------------------+
```

This SQL menu contains information concerning a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The abstract of the package may be a maximum of 240 characters but only 60 characters will be displayed at a time.

4. The package copyright status may be a maximum of 1 character (Y or N).

5. The version number of the package may be a maximum of 5 characters.

6. The release data of the package may be in the MM/DD/YY format and has a maximum length of 9 characters.

7. Any comments for the package may be a maximum of 240 characters.

To go to the next block, **select option 2,** **"CONTACT_PERSON"**, from the "REUSABLE PACKAGE INFORMATION" submenu. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

The SQL menu for **"CONTACT_PERSON"** looks like this.

```
             ======== CONTACT PERSON ========

   Package Id _____
         Name _____
    Last Name _____    First Name _____

         ======== CONTACT PERSON INFORMATION ========

    Last Name _____    First Name _____
     Position _____
 Organization _____
     Division _____
      Address _____
         City _____ State _____ Zip _____
        Phone _____ Electronic Mail Code _____
```

This SQL menu contains information concerning a contact person of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. Both the last and first name of the project's contact person may be a maximum of 16 characters each.

The **"CONTACT PERSON INFORMATION"** menu may be used if you **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu, and **select option 3**, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains information concerning the contact person for a particular package. For the procedures to enter data and insert, update, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. Both the last and first name of the contact person may be a maximum of 16 characters each.

2. The contact person's position (e.g. Director, Manager, Professor, etc.) may be a maximum of 48 characters.

3. The name of the company or organization the contact person is associated with may be a maximum of 64 characters but only 60 characters will be displayed at a time.

4. The division name of the contact person (e.g. Research - Development, etc.) may be a maximum of 64 characters but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code number may be a maximum of 24 characters but only 20 characters will be displayed at a time.

9. The phone number may be a maximum of 24 characters.

10. The electronic mail code may be a maximum of 16 characters.

To go to the next block, **select option 4, "CREATOR"**, from the "REUSABLE PACKAGE INFORMATION" submenu. You may also go to the next block by **Pressing PF11** while in the previous SQL menu.

The SQL menu for **"CREATOR"** looks like this.

```
======== CREATOR ========

Package Id _____
      Name _____
 Last Name _____    First Name _____

======== CREATOR INFORMATION ========

 Last Name _____    First Name _____
  Position _____
Organization _____
  Division _____
   Address _____
      City _____ State _____ ZIP _____
     Phone _____ Electronic Mail Code _____
```

This SQL menu contains information concerning the Creator of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. Both the last and first name of the creator may be a maximum of 16 characters each.

The **"CREATOR INFORMATION"** menu may be used if you **select option 5** from the "REUSABLE PACKAGE INFORMATION" submenu, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains detailed information concerning the creator of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. Both the last and first name of the creator may be a maximum of 16 characters each.

2. The creator's position (e.g. Director, Manager, Professor, etc.) may be a maximum of 48 characters.

3. The name of the company or organization the   creator   is associated with may be a maximum of 64 characters in length but only 60 characters will be displayed at a time.

4. The division name of the creator (e.g. Research - Development, etc.) may be a maximum of 64 characters in length but only 60 characters will be displayed at a time.

5. The street address may be a maximum of 48 characters in length but only 32 characters will be displayed at a time.

6. The city name may be a maximum of 24 characters.

7. The state name may be a maximum of 15 characters.

8. The zip code may be a maximum of 10 characters.

9. The phone number of the creator may be a maximum of 24 characters in length but only 20 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select option 6, "HOST SYSTEM"**. To return to the "main" menu, **Press PF3**.

The SQL menu for "HOST SYSTEM" looks like this.

```
========= HOST SYSTEM =========

        Package Id _____

              Name _____

      Host Machine _____

  Operating System _____
```

This SQL menu contains information concerning the host system for a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The host computer (e.g. VAX8600, IBM 370, etc.) may be a maximum of 48 characters.

4. The operating system for the host computer (e.g. UNIX, VMS, VM/CMS, etc.) may be a maximum of 48 characters.

To go to the next block, Press PF11, or you may Press PF2 to display the "REUSABLE PACKAGE INFORMATION" submenu and select option 7, "TARGET SYSTEM". To return to the main menu, Press PF3.

The SQL menu for "TARGET SYSTEM" looks like this.

```
========= TARGET SYSTEM =========

        Package Id _____

              Name _____

    Target Machine _____

  Operating System _____
```

This SQL menu contains information concerning the target system for a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The target computer (e.g. VAX 11/785, etc.) may be a maximum of 48 characters.

4. The operating system for the target computer (e.g. UNIX, VMS, VM/CSM, etc.) may be a maximum of 48 characters.

To go to the next block, **Press PF11, or you may Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select option 8, "REVISE HISTORY"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"REVISE HISTORY"** looks like this.

```
┌─────────────────────────────────────────────────────────────┐
│                                                              │
│               ========  REVISE HISTORY  ========            │
│                                                              │
│      Package Id  _____                                   │
│                                                              │
│            Name  _____        │
│                                                              │
│     Description  _____  │
│                                                              │
│     Revise Date  _____        Version Number  ____       │
│                                                              │
│         Revisor  _____                │
│                                                              │
└─────────────────────────────────────────────────────────────┘
```

This SQL menu contains information concerning the revision of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The description of the package may be a maximum of 240 characters but only 60 characters will be displayed at a time.

4. The revision date, in the MM-DD-YY format, may be a maximum of 9 characters.

5. The package version number may be a maximum of 5 characters but only 4 characters will be displayed at a time.

6. The name of the revisor may be a maximum of 32 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select** option 9, **"PERFORMANCE"**. To return to the "main" menu, **Press PF3**.

The SQL menu for **"PERFORMANCE"** looks like this.

```
                ========  PERFORMANCE  ========

    Package Id _____
          Name _____
       Comment _____
  Evaluator Id _____
          Name _____

                ========  EVALUATOR INFORMATION  ========
  Evaluator Id _____
          Name _____
       Address _____
          City _____ State _____ Zip _____
         Phone _____
```

This SQL menu contains information concerning the performance of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. Comments about the compiler may be a maximum of 240 characters but only 66 characters will be displayed at a time.

4. The evaluator id consists of the first 2 letters of the first 4 words of the evaluators name. This field may be a maximum of 8 characters.

5. The name of the evaluator may be a maximum of 48 characters.

The **"EVALUATOR INFORMATION"** menu may be used if you **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu, and **select option 10**, or by **Pressing PF11** while in the previous SQL menu. This SQL menu contains information concerning the evaluator information for a particular compiler. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The evaluator id consists of the first 2 letters of the first 4 words of the evaluators name. This field must have previously been stored in the database using the "PERFORMANCE" menu. This field may be a maximum of 8 characters.

2. The name of the evaluator may be a maximum of 48 characters.

3. The street address may be a maximum of 48 characters but only 32 characters will be displayed at a time.

4. The city name may be a maximum of 24 characters.

5. The state name may be a maximum of 15 characters.

6. The zip code number may be a maximum of 10 characters but only 20 characters will be displayed at a time.

7. The phone number may be a maximum of 24 characters.

To go to the next block, **Press PF11, or you may Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select option 11, "PACKAGE KEYWORD"**. To return to the **"main"** menu, **Press PF3**.

The SQL menu for **"PACKAGE KEYWORD"** looks like this.

```
+--------------------------------------------------------------+
|                                                              |
|              ========  PACKAGE KEYWORD  ========             |
|                                                              |
|   Package Id _____                                        |
|                                                              |
|        Name _____          |
|                                                              |
|     Keyword _____          |
|                                                              |
+--------------------------------------------------------------+
```

This SQL menu contains information concerning the keyword(s) for a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The keyword(s) of the package may be a maximum of 48 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select option** 12, **"PUBLICATION CROSS-REFERENCE"**. To return to the "main" menu, **Press PF3**.

The SQL menu for **"PUBLICATION CROSS-REFERENCE"** looks like this.

```
========= PUBLICATION CROSS-REFERENCE =========

        Package Id _____

             Name _____


    Publication Id _____

            Title _____
```

This SQL menu contains information concerning the publication cross-reference for a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The publication id consists of the first 4 letters of the author's name (or first author if there are more than one), plus the last 2 digits of the year of publication, plus a letter (e.g. DATA86a). This id must have previously been stored in the database using the "PUBLICATION" menu. This field may be a maximum of 7 characters.

4. The article title may be a maximum of 128 characters but only 58 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select option 13, "PROJECT CROSS-REFERENCE"**. To return to the **"Reusable Packages"** menu, **Press PF3**.

The SQL menu for **"PROJECT CROSS-REFERENCE"** looks like this.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│                  ========  PROJECT CROSS-REFERENCE  ========         │
│                                                                       │
│      Package Id _____                                             │
│                                                                       │
│            Name _____            │
│                                                                       │
│      Project Id _____                                             │
│                                                                       │
│            Name _____            │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning the project cross-reference of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The project id consists of the first 2 letters of the first 4 words of the project name. This id must have previously been stored in the database using the "PROJECT" menu. This field may be a maximum of 8 characters.

4. The project name may be a maximum of 72 characters but only 49 characters will be displayed at a time.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the "REUSABLE PACKAGE INFORMATION" submenu and **select option 14, "PRODUCT CROSS-REFERENCE"**. To return to the **"Reusable Packages"** menu, **Press PF3**.

The SQL menu for **"PRODUCT CROSS-REFERENCE"** looks like this.

```
========  PRODUCT CROSS-REFERENCE  ========
    Package Id  _____

          Name  _____

 Product Id  _____

       Name  _____
```

This SQL menu contains detailed information concerning the product cross-reference of a particular package. For the procedures to enter data and insert, update, delete, and retrieve records in the database, refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4 words of the package name. This id must have previously been stored in the database using the "REUSABLE PACKAGE" menu. This field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The product id consists of the first 2 letters of the first 4 words of the product name. This field may be a maximum of 8 characters.

4. The name of the product may be a maximum of 48 characters.

To go to the next block, **Press PF11**, or you may **Press PF2** to display the
"REUSABLE PACKAGE INFORMATION" submenu and **select option 15**, **"COMPILER
CROSS-REFERENCE"**. To return to the **"Reusable Packages"** menu, **Press PF3**.

The SQL menu for **"COMPILER CROSS-REFERENCE"** looks like this.

```
┌────────────────────────────────────────────────────────────────────┐
│                                                                      │
│                   ======== COMPILER CROSS-REFERENCE  ========        │
│                                                                      │
│       Package Id _____                                            │
│                                                                      │
│              Name _____                   │
│                                                                      │
│      Compiler Id _____                                            │
│                                                                      │
│              Name _____                   │
│                                                                      │
│                                                                      │
└────────────────────────────────────────────────────────────────────┘
```

This SQL menu contains detailed information concerning the compiler
cross-reference of a particular package. For the procedures to enter
data and insert, update, delete, and retrieve records in the database,
refer to the instructions in PART II - PART IV of this manual.

1. The package id consists of the first 2 letters of the first 4
    words of the package name. This id must have previously been
    stored in the database using the "REUSABLE PACKAGE" menu. This
    field may be a maximum of 8 characters.

2. The package name may be a maximum of 48 characters.

3. The compiler id consists of the first 2 letters of the first 4
    words of the compiler name. This id must have previously been
    stored in the database using the "COMPILER" menu. This field may
    be a maximum of 8 characters.

4. The name of the compiler may be a maximum of 48 characters.

We have looked at all of the SQL menus available for main menu selection
5, **"Reusable Packages"**. **Use the "REUSABLE PACKAGE INFORMATION" submenu,
options 16)Help, 17)Procedures For Display and 18)Key Map For VT100
Terminal** for information corresponding to each particular SQL menu. For
instructions to insert, update and delete records in the database, refer
to **PART II - PART IV** of this manual.

We have now completed main menu option 5, **"Reusable Packages"**, and have
completed the content and layout of menus and the attributes of each
field in each SQL menu. **Press PF3** to return to the main menu. To exit
out of SEAD, **Press <R>Return** and then **Press <E>Exit**.

PART IV.   **DATABASE TUTORIAL**
(To Be Used Only As A Reference)

Chapter 1.   <u>**Basic Concept**</u>

BASIC TUTORIAL FOR SQL*Forms

Chapter 1.   Basic Concepts

A FORM is a "fill-in-the-blanks" arrangement of database data
that allows easier data entry, update, and query. Although a
form may be displayed on one or more PAGES, only one page is
visible on the terminal screen at a time.

A form consists of one or more BLOCKS. Each block corresponds
to a single table in the ORACLE database. For each block, the
form will display one or more RECORDS (or rows) from the
database table. Each record consists of one or more FIELDS,
which may correspond to columns in the database. See Figure
I-1.
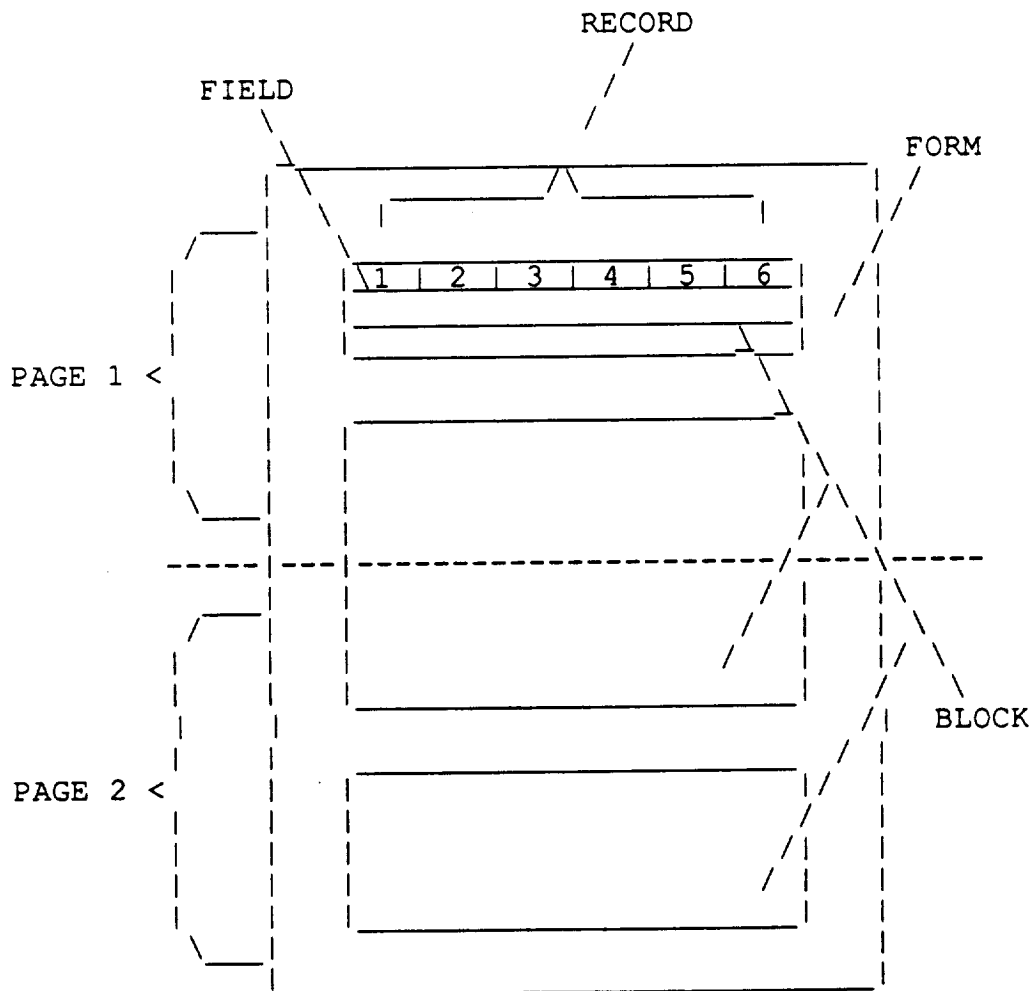
Figure I-1
Basic Concepts

Chapter 2.   <u>**Running A Form**</u>

You can use a form to enter new information into an ORACLE database or to issue a query that retrieves and displays existing information. Once information is displayed on the screen, you can view it, change it, or remove it from the database entirely.

Chapter 2.   Running a Form

To enter SQL*Forms and run an existing form, follow these steps:
***This tutorial is not available on-line at this time, but can be used as a guide for using SEAD. Logon to SEAD using the directions in PART II - Chapter 1 of this users manual, please use this tutorial as a reference.**

1.   Log on to your system in the normal manner.

2.   At the system command prompt, you have to enter IAP, the name of the form you want to run, and your ORACLE user name and password in the following format:

IAP form_name username/password

For this tutorial, type

IAP EMPLOYEE SCOTT/TIGER

and press ENTER.

After completing these steps, SQL*Forms displays the sample form on your screen (Figure I-2).

```
 _____
|                                                                |
|                                                             .  |
|               ========  EMP  ========                          |
|                                                                |
|                                                                |
|      EMPNO  |‾‾‾‾|                    ENAME  |‾‾‾‾‾‾|            |
|                                                                |
|        JOB |‾‾‾‾‾‾|                     MGR  |‾‾‾‾‾|            |
|                                                                |
|   HIREDATE  |‾‾‾‾‾‾‾|                    SAL |‾‾‾‾‾|            |
|                                                                |
|       COMM |‾‾‾|                      DEPTNO |‾‾|              |
|                                                                |
|                                                                |
|                                                                |
|                                                                |
| _____ |
| _____ |
|                                                                |
|  Char Mode: Replace   Page 1                  Count: *0        |
|_____|
```

Figure I-2
Displaying the Sample Form

The sample is based on the EMP table from ORACLE's sample database, and contains information about the employees numbers, names, job titles, managers, hire dates, salaries and commissions, and department numbers.

Chapter 3.   **<u>Retrieving All Records</u>**

.

Chapter 3.   <u>**Retrieving All Records**</u>

Currently, the sample form has no information displayed in its fields. To retrieve all the records stored in EMP, press the **[EXECUTE QUERY]** key (for a list of the keys, see **Chapter 7. HELP WITH FUNCTION KEY DEFINITIONS or PART II Chapters 3-4**). SQL*Forms displays the first record on the screen (Figure I-3).

Note: If you or someone else (in a multiuser environment) have previously done the exercises in the Tutorial, permanent changes may have been made to the sample Oracle tables. In that case, the data you see on your screen may differ somewhat from the data shown in the screen images of this Tutorial.

```
|---------------------------------------------------------------------|
|                                                                     |
|                   ========  EMP  ========                           |
|                                                                     |
|                                                                     |
|     EMPNO |7369|                     ENAME |SMITH  |                 |
|                                                                     |
|       JOB |CLERK   |                   MGR |7902   |                 |
|                                                                     |
|  HIREDATE |17-DEC-80|                  SAL |800    |                 |
|                                                                     |
|      COMM |    |                    DEPTNO |20 |                     |
|                                                                     |
|                                                                     |
|                                                                     |
|                                                                     |
|  -----------------------------------------------------------------  |
|  -----------------------------------------------------------------  |
|                                                                     |
|  Char Mode: Replace  Page 1                      Count:  1          |
|---------------------------------------------------------------------|
```

Figure I-3
Displaying the First Record

Chapter 4.   <u>Moving Around The Form</u>

Chapter 4.   Moving Around The Form

Each displayed field on the screen corresponds to a column in the database. You can move from field to field by using the **[NEXT FIELD]** and **[PREVIOUS FIELD]** keys. For example:

1. Press **[NEXT FIELD]** three times.

    The cursor should be positioned on the MGR field.

2. Press **[PREVIOUS FIELD]** three times, to position the cursor back on the EMPNO field.

3. Press **[NEXT FIELD]** seven times, until you reach the DEPTNO field.

4. Press **[NEXT FIELD]** once more.

    The cursor should be positioned on the EMPNO field.

Notice that the **[NEXT FIELD]** key cycles through all the employee fields in a forward direction. The **[PREVIOUS FIELD]** key cycles through all the fields in the opposite direction.

Just as **[NEXT FIELD]** and **[PREVIOUS FIELD]** cycle through fields, **[NEXT RECORD]** and **[PREVIOUS RECORD]** cycle through the retrieved records. To view the remaining employee records, press the **[NEXT RECORD]** key once for each succeeding record. For example, when you press **[NEXT RECORD]** once, SQL*Forms displays the record for Employee 7499 (Figure I-4).

```
 _____
|                                                                |
|                                                                |
|                  ======== EMP ========                         |
|                                                                |
|                                                                |
|      EMPNO |7499|                  ENAME |ALLEN   |            |
|                                                                |
|        JOB |SALESMAN|                MGR |7698    |            |
|                                                                |
|   HIREDATE |20-FEB-81|               SAL |1600    |            |
|                                                                |
|       COMM |111 |                 DEPTNO |30 |                 |
|                                                                |
|                                                                |
|                                                                |
|                                                                |
|    _____    |
|    _____    |
|                                                                |
|   Char Mode: Replace   Page 1              Count:  2           |
|_____|
```

Figure I-4
Retrieving the Next Record

You can continue pressing **[NEXT RECORD]** until the last record is displayed. At this point the message, "Last row of query retrieved," appears in the message area and the fields on the screen are set to their default values (blank, in this example).

To display preceding records, use the **[PREVIOUS RECORD]** function key. If you continue pressing **[PREVIOUS RECORD]** until the first record is redisplayed, SQL*Forms issues the message, "At first record."

Note: Besides **[NEXT FIELD]**, **[PREVIOUS FIELD]**, **[NEXT RECORD]**, and **[PREVIOUS RECORD]**, SQL*Forms provides several other functions for cursor movement. For a list of available cursor-movement functions, see the SQL*Forms User's Quick Reference.

Exercises:

1. If you are currently in the employee record for Allen (Figure I-4) and the cursor is positioned at the HIREDATE field, how do you get to the ENAME field?

2. Suppose the database currently contains two employee records: Smith (Figure I-3) and Allen (Figure I-4) in that order. If you are currently in the first record, Smith, what steps are necessary to get to the JOB field for Allen?

3. If you are in the record for Allen, what steps are necessary to get to the SAL field for Smith?

Chapter 5. <u>Retrieving Specific Records</u>

Chapter 5.   Retrieving Specific Records

If your database contains a large number of records, it is time-consuming to retrieve all the records and look through them one at a time to find a particular one. Instead, when you want to retrieve specific records, you can specify criteria you want those records to meet and SQL*Forms will retrieve all records matching your specification.

Suppose you want to see the records of all employees whose job is MANAGER. You can do this by entering the value you want to match directly on the form:

1. Press the **[ENTER QUERY]** key.

    SQL*Forms displays the message, "Enter a query, then press QUERY key to execute it."

2. Press **[NEXT FIELD]** two times, until the cursor is positioned on the Job field.

3. Type MANAGER in the JOB field.

    If you make a mistake when entering your query, you can use the **[CHARACTER DELETE]** function key to delete the character to the left of the cursor. Or, you can use the functions **[RIGHT]** or **[LEFT]** to move the cursor in either direction horizontally without changing any characters; and then type the desired character over the incorrect one.

4. Press the **[EXECUTE QUERY]** key.

SQL*Forms displays the first record that satisfies your query
(Figure I-5).

```
|-------------------------------------------------------------------|
|                                                                   |
|                ========  EMP  ========                 .          |
|                                                                   |
|                                                                   |
|     EMPNO  |7566|                    ENAME  |Jones  |             |
|                                                                   |
|       JOB  |MANAGER |                  MGR  |7839   |             |
|                                                                   |
|  HIREDATE  |02-APR-81|                 SAL  |2975   |             |
|                                                                   |
|      COMM  |____|                   DEPTNO  |20 |                 |
|                                                                   |
|                                                                   |
|                                                                   |
|                                                                   |
|                                                                   |
|  -------------------------------------------------------------    |
|  -------------------------------------------------------------    |
|                                                                   |
|  Char Mode: Replace   Page 1                  Count:   1          |
|                                                                   |
|-------------------------------------------------------------------|
```

Figure I-5
Retrieving Records that Match a Specific Value

As always, pressing **[NEXT RECORD]** and **[PREVIOUS RECORD]** displays
the other records retrieved by the query.

Note: Although this example showed a value entered in only
      one field, you can also specify values for several fields.
      For example, entering MANAGER in the JOB field and 30 in
      the DEPTNO field would retrieve the record for the manager
      of Department 30.

Exercises:

1.   If you are currently in the EMPNO field of a record
     and you want to display the employee record for Jones,
     how would you do this?

2.   If you are currently in the COMM field of a record
     and you want to display all the employee records that
     have employee number 7566 as their manager, how would
     you do this?

3.   Suppose you are currently in the ENAME field of a
     record, what steps are necessary to find all the
     salesmen in department 20?

Chapter 6.   <u>The [HELP] Function</u>   .

Chapter 6.   The [HELP] Function

The **[HELP]** function displays information about the current field.
[HELP] can display information in two forms:

1.   a brief description of the field, displayed on the message line.

2.   a screenful of information about the field, which replaces the current page of the form on the display.

If the designer of the form provided a brief description of the current field, that description appears when you press **[HELP]**. If you want to see the screenful of information, press **[HELP]** a second time.

If the designer of the form did not provide a brief description of the current field, the screenful of information appears when you press **[HELP]** the first time.

To leave the screenful of help information and redisplay the current page of the form, press any function key except **[HELP]**.

From the basic tutorial, if you were at the screen in Figure I-2 and the cursor is positioned at the first field, EMPNO, pressing the **[HELP]** key once would display:

```
 _____
|                                                                |
|                                                                |
|               ======== EMP  ========                           |
|                                                                |
|                                                                |
|      EMPNO |____|                    ENAME  |_____|           |
|                                                                |
|        JOB |_____|                  MGR  |_____|           |
|                                                                |
|   HIREDATE |_____|                  SAL  |_____|           |
|                                                                |
|       COMM |____|                   DEPTNO  |__|               |
|                                                                |
|                                                                |
|                                                                |
|                                                                |
|_____ |
| Enter value for : EMPNO                                        |
|                                                                |
| Char Mode: Replace  Page 1                 Count: **0          |
|_____|
```

To get to the help screen, press the **[HELP]** key a second time to display:

```
 _____
|   _____      |
|  |                                                   |
|  |  Help Screen for Column: EMPNO Value:      · |
|  |                                                   |
|  |  Block: EMP12  Table: EMP  Prompt: EMPNO    |
|  |                                                   |
|  |  Explanatory Text                           |
|  |  Enter value for :  EMPNO                    |
|  |                                                   |
|  |  Type      Format                           |
|  |  NUMBER    \+-!9999999999\.9999999999!\E\+-!99!  |
|  |                                                   |
|  |  Length: 6                                  |
|  |                                                   |
|  |  Characteristics                            |
|  |  Displayed Enterable Mandatory Primary      |
|  |                                                   |
|  |                                                   |
|  |                                                   |
|  |  < Hit any (function) key to return to form >    |
|  |_____ |
|_____|
```

Pressing the **[HELP]** key once while at the ENAME field will display:

```
 _____
|                                                         |
|                                                         |
|                ======== EMP  ========                   |
|                                                         |
|                                                         |
|      EMPNO |_____|              ENAME  |_____|        |
|                                                         |
|        JOB |_____|            MGR  |_____|         |
|                                                         |
|   HIREDATE |_____|          SAL  |_____|         |
|                                                         |
|       COMM |_____|             DEPTNO  |___|             |
|                                                         |
|                                                         |
|                                                         |
|                                                         |
|_____|
| Enter value for :  ENAME                                |
|                                                         |
| Char Mode: Replace   Page 1           Count: *0         |
|_____|
```

Chapter 7. **[HELP] With Function Keys**

Pressing the [HELP] key a second time will display:

```
 _____
|                                              |
|   Help Screen for Column: ENAME Value:       |
|                                              |
|   Block: EMP12  Table: EMP  Prompt: ENAME    |
|                                              |
|   Explanatory Text                           |
|   Enter value for :   ENAME                  |
|                                              |
|   Type        Format                         |
|   CHAR        1 or more printable symbols     |
|                                              |
|   Length: 10                                 |
|                                              |
|   Characteristics                            |
|   Displayed Enterable Updatable              |
|                                              |
|                                              |
|                                              |
|   < Hit any (function) key to return to form >|
|_____|
```

You can also display a help screen by pressing [DISPLAY ERROR].
This key displays information about the field or operation in
which an error most recently was detected, whether or not that is
the current field.   It never displays the one-line field
description.

Chapter 7.   Help With Function Key Definitions

You can display the keyboard map that corresponds to your
computer by pressing [SHOW FUNCTION KEYS]. This is PF1 or ESC1
in most, but not all, keyboard maps.

KEYMAP FOR THE IBM 3270

FUNCTION	KEYSTROKE(S)
Transmit	PF21
Scroll Right	PF22
Next Field	PF20
Next Record	PF8
Next Set of Records	PF9
Next Block	PF11
Scroll Left	PF23
Previous Field	PF19
Previous Record	PF7
Previous Block	PF10
Clear Field	PF12+PF19
Clear Record	PF12+PF20
Clear Block	PF17
Clear Form/Rollback	PF18
Delete Record	PF12+PF17
Create Record	PF12+PF14
Duplicate Field	PF12+PF15
Duplicate Record	PF12+PF16
Enter Query	**PF4**
Count Query Hits	PF12+PF13

FUNCTION	KEYSTROKE(S)
Execute Query	**PF5**
Block Menu	PF2
Enter	ENTER
Commit Transaction	PF6
Exit/Cancel	**PF3**
No Operation	PF16
Redisplay Page	CLEAR for VM PA2 for MVS
Help	**PF14**
List Field Values	PF15
Display Error	**PF13**
Enable Record Update	PF12+PF18
Show Function Keys	**PF1**

KEYMAP FOR THE VT100

FUNCTION	KEYSTROKE(S)
Transmit	ESC O
Scroll Right	ESC P
Next Field	ESC I
Next Record	ESC 8
Next Set of Records	ESC 9
Next Block	ESC -
Scroll Left	PF23
Previous Field	ESC U
Previous Record	ESC 7
Previous Block	ESC 0
Clear Field	ESC = + ESC U
Clear Record	ESC = + ESC Y
Clear Block	ESC T
Clear Form/Rollback	ESC Y
Delete Record	ESC = + ESC T
Create Record	ESC = + ESC W
Duplicate Field	ESC = + ESC E
Duplicate Record	ESC = + ESC R
Enter Query	**ESC 4**
Count Query Hits	ESC = + ESC Q

FUNCTION	KEYSTROKE(S)
Execute Query	**ESC 5**
Block Menu	ESC 2
Enter	ENTER
Commit Transaction	ESC 6
Exit/Cancel	**ESC 3**
No Operation	PF16
Redisplay Page	CLEAR for VM / PA2 for MVS
Help	**ESC 14**
List Field Values	ESC E
Display Error	**ESC Q**
Enable Record Update	ESC = + ESC Y
Show Function Keys	**ESC 1**

Note: All function keys on the VT100 correspond to the function keys on the IBM 3270. Example: PF12 on the IBM 3270 is ESC 12 or ESC = on the VT100 keyboard.

Chapter 8.   Help With A Field With A List Of Values

If the current field has a list of valid values, you can display the first possible value by pressing **[LIST OF FIELD VALUES]**. A two-character state name field is one example of a field that might well have such a list of values.

Chapter 9.   Help Form A Form

Some forms can provide additional kinds of help at your request. Where additional help is available, it usually takes the form of a box or screenful of information that you can display by pressing a certain function key or making a certain selection from a menu. The instructions for using a form may tell you whether that form can provide any additional help, and if so, how to request it.

Chapter 10.   Leaving SQL*Forms

Once you have completed your work with a particular form, press the **[EXIT]** function key. This ends the session.

APPENDIX A

UNIVERSITY
of HOUSTON
==
CLEAR LAKE
Houston, Texas

.

S E A D
Software Engineering and Ada Database
University of Houston, Clear Lake-NASA Johnson Space Center
GHG Corporation

=====GENERAL INFORMATION=====

=====QUICK REFERENCE FOR LOGGING INTO SEAD=====

UNIVERSITY
of HOUSTON
==
CLEAR LAKE
Houston, Texas

S E A D
Software Engineering and Ada Database
University of Houston, Clear Lake-NASA Johnson Space Center
GHG Corporation

=====GENERAL INFORMATION=====

=====QUICK REFERENCE FOR LOGGING INTO SEAD=====

TO:_____

     Your user I.D. (username) is _____.
You may access the SEAD through the NASA/JSC Center
Information Network (CIN).

     If you do not have the capability to directly connect to
the CIN, you may dial in at 713/483-2500. You should use or
emulate a VT100 terminal. Once you are connected, follow the
procedure outlined on the following pages. If you do have a
direct connection, simply type SEAD followed by your username
at the CIN Menu. For direct connection, it is best to have
or emulate an IBM3270. Please be aware that the SEAD relies
on the function keys (ESC sequence on the VT100) and, if you
or your communications software have redefined these keys to
some other functions, you will have difficulty using the
database.

     The first time you sign on, your password will be the
same as your username. The system will immediately prompt
you to enter a new password. Your new password must be from
6 to 8 characters and can contain alpha and numeric
characters. You will be asked to type the new password twice
to verify it. Please remember your new password, as this is
what you will use for your next logon.

     After you get to the main menu of SEAD, you should be
able to follow the on-line menus, comments, and help. When
you are ready to quit, return to the main menu and select <E>
to exit, then hang up.

     If you encounter any problems, call the SEAD
Administrator at (713) 488-8806. We also welcome any
comments or suggestions you may have regarding the structure,
content, and usability of the SEAD.

==

==

<cr>
<cr>

ENTER NUMBER:

cin1 <cr>

CALLING 61247

CALL COMPLETE

<cr>

==

YALE ASCII TERMINAL COMMUNICATIONS SYSTEM V2.1

ENTER TERMINAL TYPE: **vt100 <cr>**

==

W E L C O M E   T O   J O H N S O N   S P A C E

C E N T E R   H O U S T O N   T E X A S

C E N T E R   I N F O R M A T I O N   N E T W O R K

C I N - B   D I A L - I N   F A C I L I T Y

FOR NASA AUTHORIZED USERS ONLY-UNAUTHORIZED USE IS A
VIOLATION OF FEDERAL LAW

CALL (713)-280-4800 IF YOU NEED HELP

PRESS ENTER THEN CLEAR KEY TO PROCEED   **<cr>**

==

sead username <cr>

==

LOGON USERNAME
VMXACI104R ENTER LOGON PASSWORD:

password <cr>

```
==================================================================

  NASA / JSC
@@   @     @      @@@@@@      @          @  @@@@@  @@@@@   @@@@
@  @  @      @  @     @          @  @         @    @   @    @       @
@   @  @   @@@@@    @@@@@@   @@@@@     @          @   @@@@@@ @
@    @@  @      @          @  @       @    @     @  @       @  @
@     @  @     @  @@@@@@ @       @  @    @@@@   @@@@@   @@@@

00000000000 00000000000        00000          000000000
00000000000 00000000000       000 000         0000000000
000         000             000    000        000      000
000         000            000      000       000       000
00000000000 0000000       0000000000000       000        000
00000000000 0000000      000000000000000      000        000
        000 000          000            000   000       000
        000 000         000              000  000      000
00000000000 00000000000 000                000 0000000000
00000000000 00000000000 000                 000 000000000


  Welcome to SEAD!    Please type <ENTER> to continue.  <cr>

==================================================================
  NASA / JSC
  10/19/88
                          S E A D


       Software Engineering and ADA Database System

              B.    Bulletin Board

              I.    Beginner Information

              K.    Function Keymap

              C.    Continue with SEAD

              P.    Change VM Password

              E.    Exit SEAD

  Please enter your selection ==>  I  <cr>
```

Description of the Open Main Menu.

B.   Bulletin Board -

Enables the user to browse the following Ada
information: Conferences, Workshops, Meetings, etc.

I.   Beginner Information -

Enables the first time user to browse instructions
explaining about the structure of the database and how
to retrieve information from the database.

K.   Function Keymap -

Enables the user to browse the function keys available
to use while in the database.

C.   Continue with SEAD -

Enables the user to continue research by browsing
through the database for the following information:
Education and Training Resources, Publications and
Conferences, Project, Compilers and Other Products, and
Reusable Packages.

P.   Change VM Password -

Enables the user to change his/her password within SEAD
without logging out of the VM System. This function is
only temporarily available.

E.   Exit -

Enables the user to exit out of SEAD.

To display all records in a table:
    Press **EXECUTE QUERY <PF5>**.
    Press **NEXT RECORD <PF8>** to display each subsequent record.
To retrieve records by matching values:
    Press **ENTER QUERY <PF4>**;
    enter the values you want to match into the appropriate
    fields
        (a value can be exactly as JONES, or, _ON%, where " "
        represents any character and "%" represents any string);
    press **COUNT QUERY HITS <PF12+PF13>** to find the number of
    records matched;
    press **ENTER QUERY <PF5>**.
    Press **NEXT RECORD <PF8>** to view subsequent records retrieved
    by the query.
To retrieve records by entering a **WHERE** condition:
    Press **ENTER QUERY <PF4>**;
    move the cursor to the field where you want to enter a
    variable; type &, followed by a variable name (for example,
    &SAL);
    press **EXECUTE QUERY <PF5>**;
    When prompted with "Query where ... ?, enter any **WHERE**
    condition.
        (for example: &FEE > 1000;   &DATE < 31-NOV-87;
      &SAL = 45000 or &NAME like "KERRY") then press **ENTER**.
Return to **Menu <PF2>**

KEYMAP FOR THE IBM 3270

FUNCTION	KEYSTROKE(S)	FUNCTION	KEYSTROKE(S)
Transmit	PF21	**Execute Query**	**PF5**
Scroll Right	PF22	Block Menu	PF2
Next Field	PF20	Enter	ENTER
Next Record	PF8	Commit Transaction	PF6
Next Set of Records	PF9	**Exit/Cancel**	**PF3**
Next Block	PF11	No Operation	PF16
Scroll Left	PF23	Redisplay Page	CLEAR for VM
Previous Field	PF19		PA2 for MVS
Previous Record	PF7	**Help**	**PF14**
Previous Block	PF10	List Field Values	PF15
Clear Field	PF12+PF19	**Display Error**	**PF13**
Clear Record	PF12+PF20	Enable Record Update	PF12+PF18
Clear Block	PF17	**Show Function Keys**	**PF1**
Clear Form/Rollback	PF18		
Delete Record	PF12+PF17		
Create Record	PF12+PF14		
Duplicate Field	PF12+PF15		
Duplicate Record	PF12+PF16		
Enter Query	**PF4**		
Count Query Hits	PF12+PF13		

KEYMAP FOR THE VT100 TERMINAL

FUNCTION	KEYSTROKE(S)	FUNCTION	KEYSTROKE(S)
Transmit	ESC O	**Execute Query**	**ESC 5**
Scroll Right	ESC P	Block Menu	ESC 2
Next Field	ESC I	Enter	ENTER
Next Record	ESC 8	Commit Transaction	ESC 6
Next Set of Records	ESC 9	**Exit/Cancel**	**ESC 3**
Next Block	ESC -	No Operation	PF16
Scroll Left	PF23	Redisplay Page	CLEAR for VM
Previous Field	ESC U		PA2 for MVS
Previous Record	ESC 7	**Help**	**ESC 14**
Previous Block	ESC 0	List Field Values	ESC E
Clear Field	ESC = + ESC U	**Display Error**	**ESC Q**
Clear Record	ESC = + ESC Y	Enable Record Update	ESC = +
Clear Block	ESC T		ESC Y
Clear Form/Rollback	ESC Y	**Show Function Keys**	**ESC 1**
Delete Record	ESC = + ESC T		
Create Record	ESC = + ESC W		
Duplicate Field	ESC = + ESC E		
Duplicate Record	ESC = + ESC R		
Enter Query	**ESC 4**		
Count Query Hits	ESC = + ESC Q		

Note: All function keys on the VT100 correspond to the function keys on the IBM 3270. Example: PF12 on the IBM 3270 is ESC 12 or ESC = on the VT100 keyboard.

S E A D
Software Engineering and Ada Database

=====DATABASE ORGANIZATIONAL OUTLINE=====

MAIN MENU

1. **EDUCATION AND TRAINING RESOURCES**

    1. Course Information
        - Each course record has 5 screens: course, sponsor, audience, format, and material.
    2. Book Information
        - Each book record has 4 screens: book, location, publisher, and author/author information.

2. **PUBLICATIONS AND CONFERENCES**

    1. Publication Information
        - Each publication record has ten screens: publication, location, author/author information, category and subject, general term, keyword, project cross-reference, product cross-reference, compiler cross-reference and package cross-reference.

    2. Conference Information
        - Each Conference record has six screens: conference, conference sponsor, coordinator/coordinator information, conference charge, presentation, presenter/presenter information.

3. **PROJECTS**

    Each Project record has eight screens: project, contact_person/contact_person information, sub_project, project keyword, publication cross-reference, compiler cross-reference, compiler cross-reference, and package cross-reference.

4. COMPILERS AND OTHER PRODUCTS

1. Compiler Information
   - Each Compiler record has eight screens:
     compiler, vendor, host system, target system,
     performance/evaluator information,
     publication cross-reference, project cross-
     reference, and package cross-reference.

2. Product Information
   - Each Product record has seven screens:
     product, vendor, host system, target system,
     publication cross-reference, project cross-
     reference, and package cross-reference..

5. REUSABLE PACKAGE INFORMATION

Each Reusable Package record has twelve
screens: reusable package,
contact_person/contact_person information,
creator/creator information, host system,
target system, revise history,
performance/performance evaluator
information, package keyword(s), publication
cross-reference, project cross-reference,
product cross-reference, and compiler cross-
reference.

*Note: Each screen and each data item has on-line help
available.

APPENDIX B

USING THE KEYBOARD

The following tables show what keys to press to perform various actions within the database. The keys below are listed for the IBM3270 keyboard and the VT100 keyboard.

For Cursor Movement

	Press	
	IBM3270	VT100
Left	<--	<--
Right	-->	-->
Scroll Left	PF23	ESC [
Scroll Right	PF22	ESC P
Menu	PF2	ESC 2
Next Block	PF11	ESC -
Next Field	ENTER	ENTER
Next Primary Key Field	PF20	ESC I
Next Record	PF8	ESC 8
Next Set of Records	PF9	ESC 9
Previous Block	PF10	ESC 0
Previous Field	PF19	ESC U
Previous Record	PF7	ESC 7

To Edit Data

	Press	
	IBM3270	VT100
Character Delete	DEL	DEL
Character Insert	INS	INS
Clear Block	PF17	ESC T
Clear Field	PF12 + PF19	ESC = + ESC U
Clear Form/Rollback	PF18	ESC Y
Clear Record	PF12 + PF20	ESC = + ESC Y

Query Processing
(To Retrieve Records)   **Press**

	IBM3270	VT100
Abort Query	PF16	ESC R
Count Query	PF12 + PF13	ESC = + ESC Q
Enter Query	PF4	ESC 4
Execute Query	PF5	PF5

Maintaining the Database   **Press**

	IBM3270	VT100
Commit (Saves Changes)	PF6	ESC 6
Create Record	PF12 + PF14	ESC = + ESCW
Delete Record	PF12 + PF17	ESC = + ESC T
Duplicate Record	PF12 + PF16	ESC = + ESC R
Enable Record Update	PF12 + PF18	ESC = + ESC Y

To   **Press**

	IBM3270	VT100
Display Error	PF13	ESC Q
Duplicate Field	PF12 + PF15	ESC = + ESC E
EXIT	PF3	ESC 3
HELP	PF14	ESC W
List of Field Values	PF15	ESC E
Print Form	Disabled	Disabled
Redisplay Page	<CLEAR>	CTRL +
Show Function Keys	PF1	ESC 1