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(BARS) - BIBLIOGRAPHIC RETRIEVAL SYSTEM*
Sandia Shock Compression (SSC) Database
Shock Physics Index (SPHINX) Database

Vol. 2: UNIX Version User's Guide

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ABSTRACT

The Bibliographic Retrieval System (BARS) is a database management system specially designed to store and retrieve bibliographic references and track documents. The system uses INGRES to manage this database and user interface. It uses forms for journal articles, books, conference proceedings, theses, technical reports, letters, memos, visual aids, as well as a miscellaneous form which can be used for data sets or any other material which can be assigned an access or file number. Sorted output resulting from flexible BOOLEAN searches can be printed or saved in files which can be inserted in reference lists for use with word processors.

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Section 1: Introduction

The Bibliographic Retrieval System (BARS) is a bibliographic and document-handling database application. BARS was developed by RE/SPEC, Inc. and Advanced Software Engineering for Sandia National Laboratories (SNL).

BARS is particularly suited to maintaining collections of bibliographic references using forms for journal articles, books, conference proceedings, theses, technical reports, and miscellaneous publications. BARS is also well suited to tracking letters and memos, technical memos, and can be used for visual aids, data sets, or any other material which is assigned an access of file number. For Sandia use, fields are provided for SAND and AS numbers, classification, and distribution categories. Output resulting from searches can be printed or saved in a file. Saved output can be inserted into reference lists using any word processor.

Two databases are currently available for use with the UNIX version of BARS, the Sandia Shock Compression (SSC) database and the Shock Hydrodynamics Index (SPHINX) database which contain over 13,000 bibliographic references to literature related to shock compression of condensed media. A BARS query guide and system's guide specifically related to these databases are available [2,3]. A PC/DOS version of BARS and the SSC and SPHINX databases is also available [1].

BARS uses INGRES¹ to manage the database and user interface [4-14]. User interaction is through selection menus, fill-in-the-blank forms, and pop-up forms. BARS provides input, update, query, output, and delete capabilities of documents and bibliographic data. The input and update functions check several of the entities against global glossaries to maintain consistency across the database. Select and sort criteria can be specified to retrieve or output any subset of the data in the order specified. There are nine different templates to manage the documents and bibliographic entries information. The user can choose from any of the following templates: book, conference, journal, letter, memo, miscellaneous, thesis, technical report, and Sandia visuals. Global glossaries are available for *affiliation, author's names, category, classification, distribution category, and keyword*.

Software Availability

A copy of the UNIX version of BARS/SSC/SPHINX (for use with INGRES 6.0 or higher) may be obtained by applying to the Director, Energy Science and Technology Software Center, PO Box 1020, Oak Ridge, TN 37831-1020. Installation instructions for the UNIX version are given in the Appendix on page 62. A copy of the PC/DOS runtime version of BARS/SSC/SPHINX is available from the same source. Specify the desired media in your request.

1. INGRES is a relational database management system marketed by Ingres Corporation.

Section 2: How to Start BARS

Before you can run BARS you need to set your search path and define the environment variables used by the software. This is accomplished by making appropriate entries in your .cshrc file. Your Data Base Administrator (DBA) may have done this for you.

The search path needs to include the directory with BARS executable code. The recognized values for environment variables are enclosed in curly brackets next to the environment variable that applies. The default, if any, is underlined. Some are required as noted.

- BARS_HELP indicates where BARS help files are located (required).
- BARS_DBN is the name of the database. If it is undefined, you will be prompted for the database name when you invoke BARS. Ask your DBA for the database name(s) you have access to (optional).
- BARS_SEARCHTYPE {CASEINSENSITIVE, CASESENSITIVE} indicates whether queries to the database should be case sensitive or case insensitive (optional).
- BARS_NAMEMC (USEBICKEL, USENONE) instructs BARS to use Bickel's algorithm for finding different spellings of the same name or to not use it (optional).
- BARS_PATTERN_MATCH {STAR, PERCENT} indicates which set of character pattern matching symbols you want to use. STAR uses the question mark character (?) to match a single character and the star character (*) to match zero or more characters. PERCENT uses the underscore character (_) to match a single character and the percent character (%) to match zero or more characters (optional).

To start BARS, type bars at the operating-system level. After a few minutes, the main menu comes up. From here, you may access any of the capabilities of BARS.

Section 3: Menus and Forms

BARS menus are action options. BARS forms collect or display information. They behave the same way as the INGRES menus and forms. If you are unfamiliar with INGRES menus and forms, refer to the Using Forms and Menus section in [4].

Most of the information presented in this section is also available on line via the Help function.

Main Menu

The main menu (refer to Figure 3-1) allows you to access any of the BARS capabilities. To make a selection place the cursor on your choice and then press the control key associated with the Go option displayed at the bottom of the screen. Or, press the control key associated with the Command option and then type the command abbreviation. The menu options are briefly explained next. Further details are given on the following sections.

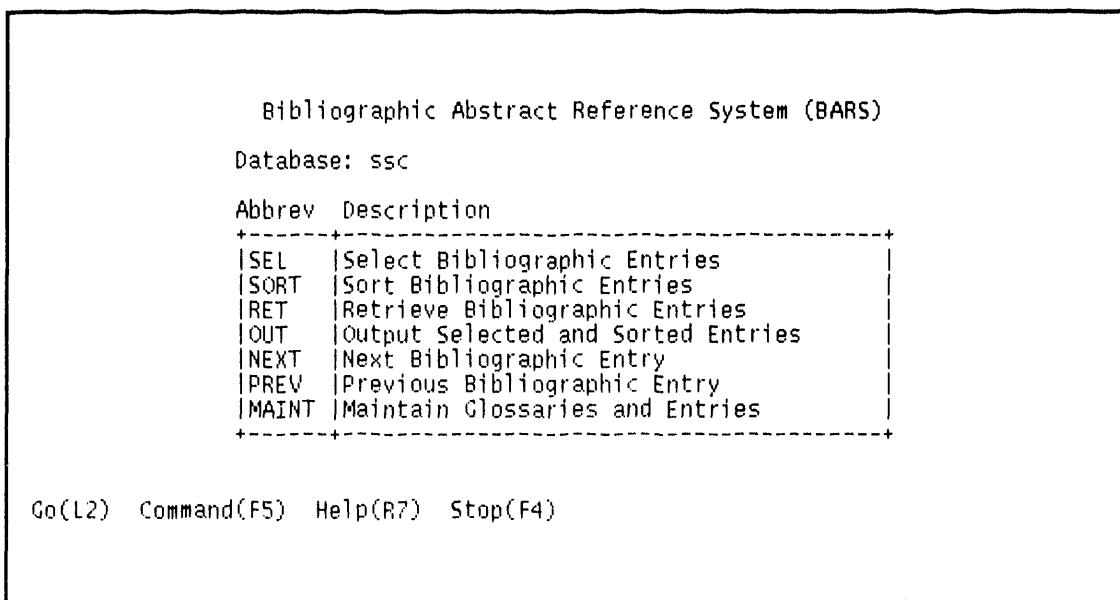


Figure 3-1. BARS main menu.

SEL provides access to the Select Bibliographic Entries submenu which allows you to specify selection criteria. These selection criteria are used to retrieve bibliographic entries when you select the RET or OUT options. All the bibliographic entries in the database will be selected if no selection criterion is specified.

RET retrieves all the bibliographic entries from the database that match the specified selection criteria and displays them on the screen using the specified sort criteria. Enter select and sort criteria before selecting this option or the defaults will be used. Use the SEL and SORT options to specify selection and sort criteria respectively. All the bibliographic entries in the database will be selected if no selection criterion is specified. The entries will be sorted in ascending order by primary *author*, *year*, and *affiliation* if no sort criterion is specified.

SORT allows you to specify sort criteria. These sort criteria are used to sort the bibliographic entries when you select the **RET** or **OUT** options. The entries will be sorted in ascending order by primary *author*, *year*, and *affiliation* if no sort criterion is specified.

OUT provides access to the Output Selected and Sorted Entries submenu where you may select to print or save into a file all the bibliographic entries from the database that match the specified selection criteria sorted by specified sort criteria. Enter select and sort criteria before selecting this option or the defaults will be used. Use the **SEL** and **SORT** options to specify selection and sort criteria respectively. All the bibliographic entries in the database will be selected if no selection criterion is specified. The entries will be sorted in ascending order by primary *author*, *year*, and *affiliation* if no sort criterion is specified.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

MAINT displays the Maintain Glossaries and Entries submenu where you may maintain any of the BARS glossaries and information about any of the entries.

The options displayed at the bottom of the screen (*Go*, *Command*, *Help*, and *Stop*) have an associated control key dependant on your terminal type. *Go* selects the option the cursor is currently on. *Command* prompts for the command abbreviation and selects it. The command abbreviation is listed on the left column of the menu. *Help* displays help text. *Stop* quits the BARS system.

Select Bibliographic Entries Submenu

The Select Bibliographic Entries submenu provides you with the capability to specify selection criteria. These selection criteria are used to retrieve bibliographic entries when you select the **RET** or **OUT** options from the main menu. All the bibliographic entries will be selected if no selection criterion is specified.

Use the *All_Templates* option to specify selection criteria that applies to all templates. This option is helpful when you don't know what kind of template was used. Otherwise, use the *Book*, *Conference*, *Journal*, *Letter*, *Memo*, *Miscellaneous*, *Thesis*, *Technical_Report*, or *Visuals* options to specify selection criteria that applies to the specific template. There is an implicit OR logical operator between the selection criteria specified for each template. The submenu options are as follows.

All_Templates allows you to specify selection criteria that applies to all templates (i.e. book, conference, journal, letter, memo, miscellaneous, thesis, technical report, and visual).

Book, *Conference*, *Journal*, *Letter*, *Memo*, *Miscellaneous*, *Thesis*, *Technical_Report*, and *Visuals* allows you to specify selection criteria for books, conferences, journals, Sandia letters, Sandia memos, miscellaneous entries, thesis, technical reports, and Sandia visuals respectively.

Help displays help text.

End returns to the main menu.

Select Criteria for All Templates Form

The Selection Criteria for All Templates form (refer to Figure 3-2) allows you to specify selection criteria that applies to all entries. The submenu options are as follows.

BARS - Select Criteria (Applies to All Templates)		
Accession:	Year:	Use Pub Year? N (Y/N)
Month:		Day:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
Title:		
Category:		
Class:		
Distrib.:		
Location:		
Org No.:		
RS No.:		
Sand No.:		
Keywords:		
Comments:		

Blank(L2) Last_Select(L3) Select(L4) Help(R7) End(F3)

Figure 3-2. Selection Criteria for All Templates form.

Blank blanks out all the fields in the form.

Last_Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic entries when you select the RET or OUT options from the main menu. There is an implicit AND operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, and keyword). There is an implicit OR logical operator between the rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Books Form

The Select Criteria for Books form (refer to Figure 3-3) allows you to specify selection criteria that applies to book entries. The submenu options are as follows.

BARS - Selection Criteria for Books			
Accession:	Org No.:	Category:	Year:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:	
Chap Title:	Book Title:	Volume:	
Publisher:	Address:	Chapter:	Pages:
Editor(s) Surname:	First and Middle Names:		
Keywords:	Location:		
	Shelf No.:		
	Distrib.:		
	Class:		
Comments:	RS No.:		

Figure 3-3. Selection Criteria for Books form.

Blank blanks out all the fields in the form.

Last Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic book entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, editor's surname, editor's first and middle names, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Conferences Form

The Selection Criteria for Conferences form (refer to Figure 3-4) allows you to specify selection criteria that applies to conference entries. The submenu options are as follows.

BARS - Selection Criteria for Conferences		
Accession:	Org No.:	Category:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
Title:		
Institutn:		
Conf Title:		
Whereheld:	Conf Date:	Conf Year:
Book Title:		
Editor(s) Surname:	First and Middle Names:	
		Volume:
		Pages:
		Pub Year:
Publisher:		
Address:		
Keywords:	Location:	
	Sand No.:	
	Distrib.:	
	Class:	
		RS No.:
Comments:		
Blank(L2) Last_Select(L3) Select(L4) Help(R7) End(F3)		

Figure 3-4. Selection Criteria for Conferences form.

Blank blanks out all the fields in the form.

Last_Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic conference entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, editor's surname, editor's first and middle names, and keyword). There is an implicit OR operator between the rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Journals Form

The Selection Criteria for Journals form (refer to Figure 3-5) allows you to specify selection criteria that applies to journal entries. The submenu options are as follows.

BARS - Selection Criteria for Journals			
Accession: Month:	Org No.:	Category: Year:	
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:	
+-----+-----+-----+-----+			
+-----+-----+-----+-----+			
Title:			
Journal:			
Volume:	Pages:	Series:	Number:
Keywords:	Location:		
+-----+-----+-----+-----+			
+-----+-----+-----+-----+			
Comments:	Sand No.:	Distrib.:	Class:
			RS No.:
Blank(L2) Last_Select(L3) Select(L4) Help(R7) End(F3)			

Figure 3-5. Selection Criteria for Journals form.

Blank blanks out all the fields in the form.

Last_Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic journal entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, and keyword). There is an implicit OR operator between the rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Sandia Letters Form

The Selection Criteria for Sandia Letters form (refer to Figure 3-6) allows you to specify selection criteria that applies to letter entries. The submenu options are as follows.

Figure 3-6. Selection Criteria for Sandia Letters form.

Blank blanks out all the fields in the form.

Last Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic letter entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, recipient's surname, recipient's first and middle names, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Sandia Memos Form

The Selection Criteria for Sandia Memos form (refer to Figure 3-7) allows you to specify selection criteria that applies to memo entries. The submenu options are as follows.

BARS - Selection Criteria for Sandia Memos		
Accession:	Org No.:	Category:
Month:	Day:	Year:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
+-----+-----+-----+		
+-----+-----+-----+		
Recipient(s) Surname:	First and Middle Names:	Affiliation/Organization:
+-----+-----+-----+		
+-----+-----+-----+		
Subject:		
Keywords:	Location:	
+-----+-----+-----+		
+-----+-----+-----+		
Distrib.: Class:		
+-----+-----+-----+		
RS No.:		
Comments:		
Blank(L2) Last_Select(L3) Select(L4) Help(R7) End(F3)		

Figure 3-7. Selection Criteria for Sandia Memos form.

Blank blanks out all the fields in the form.

Last_Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic memo entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, recipient's surname, recipient's first and middle names, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Miscellaneous Form

The Selection Criteria for Miscellaneous form (refer to Figure 3-8) allows you to specify selection criteria that applies to miscellaneous entries. The submenu options are as follows.

BARS - Selection Criteria for Miscellaneous					
Accession:	Category:	Org. No.:			
		Year:			
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:			
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Figure 3-8. Selection Criteria for Miscellaneous form.

Blank blanks out all the fields in the form.

Last Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic miscellaneous entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Thesis Form

The Selection Criteria for Thesis form (refer to Figure 3-9) allows you to specify selection criteria that applies to thesis entries. The submenu options are as follows.

Blank blanks out all the fields in the form.

BARS - Selection Criteria for Thesis		
Accession: Month:	Org No.: Day:	Category: Year:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
+-----+-----+-----+ +-----+-----+-----+		
Title: School: Address: Degree:		
Keywords:	Location: Sand No.: Distrib.: Class:	RS No.:
+-----+-----+ +-----+-----+ Comments:		
Blank(L2) Last_Select(L3) Select(L4) Help(R7) End(F3)		

Figure 3-9. Selection Criteria for Thesis form.

Last_Select displays the last selection criteria specified.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic thesis entries when you select the RET or OUT options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Technical Reports Form

The Selection Criteria for Technical Reports form (refer to Figure 3-10) allows you to specify selection criteria that applies to technical report entries. The submenu options are as follows.

Blank blanks out all the fields in the form.

Last_Select displays the last selection criteria specified.

Figure 3-10. Selection Criteria for Technical Reports form.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic technical report entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Selection Criteria for Sandia Visuals Form

The Selection Criteria for Sandia Visuals form (refer to Figure 3-11) allows you to specify selection criteria that applies to visuals entries. The submenu options are as follows.

Blank blanks out all the fields in the form.

Last Select displays the last selection criteria specified.

BARS - Selection Criteria for Sandia Visuals		
Accession:	Org No.:	Category:
Month:	Day:	Year:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
+-----+-----+-----+		
+-----+-----+-----+		
Subject:		
ID No.:		
Keywords:	Location:	
+-----+-----+-----+		
+-----+-----+-----+		
Comments:	Sand No.:	
	Distrib.:	
	Class:	
	RS No.:	
Blank(L2) Last_Select(L3) Select(L4) Help(R7) End(F3)		

Figure 3-11. Selection Criteria for Sandia Visuals form.

Select saves the selection criteria you just entered and returns to the main menu. These will be used to retrieve bibliographic visual entries when you select the **RET** or **OUT** options from the main menu. There is an implicit AND logical operator between fields and between columns of a table (author's surname, author's first and middle names, affiliation, and keyword). There is an implicit OR operator between rows of a table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the main menu.

Retrieve Bibliographic Entries Option

The **RET** option retrieves all the bibliographic entries from the database that match the specified selection criteria and displays them on the screen using the specified sort criteria. Enter select and sort criteria before selecting this option or the defaults will be used. Use the **SEL** and **SORT** options to specify selection and sort criteria respectively. All the bibliographic entries in the database will be selected if no selection criteria is specified. The entries will be sorted in ascending order by primary *author*, *year*, and *affiliation* if no sort criterion is specified.

The bibliographic entries are displayed on the screen one at a time. Use the **NEXT** and **PREV** options to page forward and backward through all the retrieved entries.

The Book, Conference, Journal, Letter, Memo, Miscellaneous, Thesis, Technical Report, and Visuals Maintenance forms are used to display the bibliographic entries information. For more information on the maintenance forms, see Maintenance Forms on page 31.

Sort Criteria Form

The Sort Criteria form (refer to Figure 3-12) allows you to specify sort criteria. A sort criterion is specified by an ascending order number (1-16) in any of the fields on the form. The data will be sorted first by the field with the smallest order number, then by the field with the second smallest order number, and so on. If no sort criteria is specified, the default will be used. The default is to sort data by primary *author*, *year*, and *affiliation*. The submenu options are as follows.

BARS - Sort Criteria	
Author Surname: First and Middle: Year: Month: Day: Title:	Use Pub Year instead of Conf Year? N (For sorting conferences only)
Accession: Affiliation: Template:	
Category: Class: Distribution: Location: Org No.: RS No.: Sand No.:	
Last(L2) Save(L3) Help(R7) End(F3)	

Figure 3-12. Sort Criteria form.

Last displays the last sort criteria specified.

Save saves the sort criteria you entered and returns to the main menu. These will be used to sort the selected bibliographic entries when you select the RET or OUT options from the main menu. If no sort criterion is specified, the entries will be sorted in ascending order by primary *author*, *year*, and *affiliation*.

Help displays help text.

End returns to the main menu without saving the sort criteria.

Output Selected and Sorted Entries Submenu

The Output Selected and Sorted Entries submenu allows you to print or save into a file all the bibliographic entries from the database that match the specified selection criteria sorted by specified sort criteria. Enter select and sort criteria before selecting this option or the defaults will be used. Use the SEL and SORT options from the main menu to specify selection and sort criteria respectively. All the bibliographic entries in the database will be selected if no selection criterion is specified. The entries will be sorted in ascending order by primary *author*, *year*, and *affiliation* if no sort criterion is specified. The submenu options are as follows.

Save displays the save submenu and returns to the main menu.

Print displays the print submenu and returns to the main menu.

Help displays help text.

End returns to the main menu.

Save Output Submenu

The Save Output submenu allows you to save the output into a file using any of the following formats: *AskSam_Format*, *Short_Format*, and *T_EX_Format*.

The *AskSam_Format* saves the output in the specified file using the AskSam format (refer to Figure 3-13a and Figure 3-13b) and returns to the main menu.

The *Short_Format* saves the output in the specified file using the short format (refer to Figure 3-14) and returns to the main menu.

The *T_EX_Format* saves the output in the specified file using the T_EX format (refer to Figure 3-15) and returns to the main menu.

Print Output Submenu

The Print Output submenu allows you to print the output using any of the following formats: *AskSam_Format*, *Short_Format*, and *T_EX_Format*. The output is sent to your installation's default printer.

The *AskSam_Format* prints the output using the AskSam format (refer to Figure 3-13a and Figure 3-13b) and returns to the main menu.

The *Short_Format* prints the output using the short format (refer to Figure 3-14) and returns to the main menu.

The *T_EX_Format* prints the output using the T_EX format (refer to Figure 3-15) and returns to the main menu.

Book entries format:

TEMPLATE[<i>@book</i>]	CAT[<i>category</i>]
ACCESS#[<i>access</i>]	
AUTHOR[<i>authors</i>]	
AFFILIATN[<i>affiliations</i>]	
CHAPTITLE[<i>chaptile</i>]	
BOOKTITLE[<i>booktitle</i>]	
PUBLISHER[<i>publisher</i>]	
ADDRESS[<i>address</i>]	
VOLUME[<i>volume</i>]	YEAR[<i>year</i>]
KEYWORDS[<i>keywords</i>]	PAGES[<i>pages</i>]
SANDNO[<i>sand no.</i>]	CHAPTER[<i>chapter</i>]
ORGNO[<i>org no.</i>]	DIST[<i>distrib.</i>]
LOCATN[<i>location</i>]	RSNO[<i>rs no.</i>]
NOTES[<i>comments</i>]]	CLASS[<i>class</i>]

Conference entries format:

TEMPLATE[<i>@conference</i>]	CAT[<i>category</i>]
ACCESS#[<i>access</i>]	
AUTHOR[<i>authors</i>]	
AFFILIATN[<i>affiliations</i>]	
TITLE[<i>title</i>]	
INSTITUTN[<i>institutn</i>]	
CONFTITLE[<i>conftitle</i>]	
WHEREHELD[<i>whereheld</i>]	DATE[<i>date</i>]
BOOKTITLE[<i>booktitle</i>]	YEAR[<i>year</i>]]
EDITORS[<i>editors</i>]	
PUBLISHER[<i>publisher</i>]	PAGES[<i>pages</i>]
ADDRESS[<i>address</i>]	VOLUME[<i>volume</i>]
KEYWORDS[<i>keywords</i>]	
SANDNO[<i>sand no.</i>]	DIST[<i>distrib.</i>]
ORGNO[<i>org no.</i>]	RSNO[<i>rs no.</i>]
LOCATN[<i>location</i>]	CLASS[<i>class</i>]
NOTES[<i>comments</i>]]	

Journal entries format:

TEMPLATE[<i>@article</i>]	CAT[<i>category</i>]
ACCESS#[<i>access</i>]	
AUTHOR[<i>authors</i>]	
AFFILIATN[<i>affiliations</i>]	
TITLE[<i>title</i>]	
JOURNAL[<i>journal</i>]	SERIES[<i>series</i>]
VOLUME[<i>volume</i>]	NUMBER[<i>number</i>]
MONTH[<i>month</i>]	YEAR[<i>year</i>]]
KEYWORDS[<i>keywords</i>]	
SANDNO[<i>sand no.</i>]	DIST[<i>distrib.</i>]
ORGNO[<i>org no.</i>]	RSNO[<i>rs no.</i>]
LOCATN[<i>location</i>]	CLASS[<i>class</i>]
NOTES[<i>comments</i>]]	

Figure 3-13a. AskSam_Format template. Italics denote data.

Miscellaneous entries format:

TEMPLATE[<i>@miscellaneous</i>]	CAT[<i>category</i>]
ACCESS#[<i>access</i>]	
AUTHOR[<i>authors</i>]	
AFFILIATN[<i>affiliations</i>]	
TITLE[<i>title</i>]	
REFERENCE[<i>reference</i>]	
YEAR[<i>year</i>]	
KEYWORDS[<i>keywords</i>]	
SANDNO[<i>sand no.</i>]	DIST[<i>distrib.</i>]
ORGNO[<i>org no.</i>]	RSNO[<i>rs no.</i>]
LOCATN[<i>location</i>]	
NOTES[<i>comments</i>]]	CLASS[<i>class</i>]

Technical Report entries format:

TEMPLATE[<i>@techreport</i>]	CAT[<i>category</i>]
ACCESS#[<i>access</i>]	
AUTHOR[<i>authors</i>]	
AFFILIATN[<i>affiliations</i>]	
TITLE[<i>title</i>]	
INSTITUTN[<i>institutn</i>]	
ADDRESS[<i>address</i>]	
TYPE[<i>type</i>]	NUMBER[<i>number</i>]
MONTH[<i>month</i>]	YEAR[<i>year</i>]
PUBLISHER[<i>publisher</i>]	PAGES[<i>pages</i>]
ADDRESS[<i>address</i>]	VOLUME[<i>volume</i>]
KEYWORDS[<i>keywords</i>]	
SANDNO[<i>sand no.</i>]	DIST[<i>distrib.</i>]
ORGNO[<i>org no.</i>]	RSNO[<i>rs no.</i>]
LOCATN[<i>location</i>]	
NOTES[<i>comments</i>]]	CLASS[<i>class</i>]

Thesis entries format:

TEMPLATE[<i>@thesis</i>]	CAT[<i>category</i>]
ACCESS#[<i>access</i>]	
AUTHOR[<i>authors</i>]	
AFFILIATN[<i>affiliations</i>]	
TITLE[<i>title</i>]	
SCHOOL[<i>school</i>]	
ADDRESS[<i>address</i>]	
TYPE[<i>type</i>]	YEAR[<i>year</i>]
MONTH[<i>month</i>]	
KEYWORDS[<i>keywords</i>]	
SANDNO[<i>sand no.</i>]	DIST[<i>distrib.</i>]
ORGNO[<i>org no.</i>]	RSNO[<i>rs no.</i>]
LOCATN[<i>location</i>]	
NOTES[<i>comments</i>]]	CLASS[<i>class</i>]

Figure 3-13b. AskSam_Format template. Italics denote data.

Book entries format:
authors, chapter, in booktitle, ed. editors, Vol. volume, Chap. chapter, pp. pages, publisher, address, year.

Conference entries format:
authors, title, institution conftitle, whereheld, date, year, in booktitle, ed. editors, Vol. volume, pp. pages, publisher, address, pubyear.

Journal entries format:
authors, title, journal, Ser. series, Vol. volume, No. number, pp. pages, month, year.

Letter entries format:
author org, subject to recipient, address, month/day/year.

Memo entries format:
author org, subject to recipient org, month/day/year.

Miscellaneous entries format:
authors, title, reference.

Technical Report entries format:
authors, title, institutn, address, type number, month, year.

Thesis entries format:
authors, title, type Thesis, school, address, month, year.

Visuals entries format:
author, subject, ID No., month/day/year.

Figure 3-14. *Short Format* template. Italics denote data.

Book entries format:
`\refrnce{authors}{chapter}{in}{booktitle}{ed. editors}{Vol. volume}{Chap. chapter}{pp. pages}{publisher}{address}{year}{accession}{SAND No.}{keywords}`

Conference entries format:
`\refrnce{authors}{title}{institution}{conftitle}{whereheld}{date}{year}{in}{booktitle}{ed. editors}{Vol. volume}{pp. pages}{publisher}{address}{pubyear}{accession}{SAND No.}{keywords}`

Journal entries format:
`\refrnce{authors}{title}{journal}{Ser. series}{Vol. volume}{No. number}{pp. pages}{month}{year}{accession}{-SAND No.}{keywords}`

Letter entries format:
`\refrnce{author org}{subject}{to recipient}{address}{month/day/year}{accession}{SAND No.}{keywords}`

Memo entries format:
`\refrnce{author org}{subject}{to recipient org}{month/day/year}{accession}{SAND No.}{keywords}`

Miscellaneous entries format:
`\refrnce{authors}{title}{reference}{accession}{SAND No.}{keywords}`

Technical Report entries format:
`\refrnce{authors}{title}{institutn}{address}{type number}{month}{year}{accession}{SAND No.}{keywords}`

Thesis entries format:
`\refrnce{authors}{title}{type Thesis}{school}{address}{month}{year}{accession}{SAND No.}{keywords}`

Visuals entries format:
`\refrnce{author}{subject}{ID No.}{month day}{year}{accession}{SAND No.}{keywords}`

Figure 3-15 *TeX Format* template. Italics denote data.

Glossary and Entry Maintenance Submenu

The Glossary and Entry Maintenance submenu allows you to maintain any of the BARS glossaries and information about any of the entries.

Glossaries provides access to the Glossary Maintenance submenu where you can maintain the affiliation, category, classification, distribution category, keyword, and person glossaries. You may perform global updates, eliminate duplicate terms or add a list of terms to any of the glossaries.

There are nine different templates to manage the documents and bibliographic entries information: book, conference, journal, letter, memo, miscellaneous, thesis, technical report, and visuals. The submenu options *Book*, *Conference*, *Journal*, *Letter*, *Memo*, *Miscellaneous*, *Thesis*, *Technical_Report*, and *Visuals* provide maintenance to these templates respectively.

Glossary Maintenance Submenu

The Glossary Maintenance submenu allows you to maintain any of the BARS glossaries. You can perform global updates, eliminate duplicate terms, add a list of terms, correct misspellings and more. The submenu options are as follows.

Affiliation displays the affiliation glossary maintenance form where you can maintain this glossary.

Category displays the category glossary maintenance form where you can maintain this glossary.

Classification displays the classification glossary maintenance form where you can maintain this glossary.

Distribution_Category displays the distribution category glossary maintenance form where you can maintain this glossary.

Keyword displays the keyword glossary maintenance form where you can maintain this glossary.

Person displays the person glossary maintenance form where you can maintain authors, editors, and recipients names.

Help displays help text.

End returns to the main menu.

Affiliation Glossary Maintenance Form

The Affiliation Glossary Maintenance form (refer to Figure 3-16) allows you to maintain the terms in the affiliation glossary. The submenu options are as follows.

Blank blanks out all the fields in the form.

BARS - Affiliation Glossary Maintenance	
Affiliation	Correction/Duplicate Term

Figure 3-16. Affiliation Glossary Maintenance form.

Add inserts new terms into the glossary.

Misspell corrects misspellings. The *affiliation* is entered in the Affiliation column and the correction is entered in the Correction/Duplicate Term column. Tips: Use the *Copy_Column* option (see below) to make a copy of the term; use the INGRES Mode command in [4] to switch from overstrike to insert mode.

Retire removes the specified *affiliations* from the glossary permanently. A term can not be retired if it is referenced by any bibliographic entry.

Eliminate_Dup eliminates the specified duplicate terms. Enter the *affiliation* in the Affiliation column and its duplicate in the Correction/Duplicate Term column.

Last Select displays the last selection criteria specified.

Select retrieves all the terms from the affiliation glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Affiliation column. There is an implicit OR operator between rows. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Copy Row copies the current row to the end of the table field.

Copy_Column copies the *affiliation* term associated with the current row to the Correction/Duplicate Term column.

Print/Store displays the *print/store* submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Help displays help text.

End returns to the main menu.

Category Glossary Maintenance Form

The Category Glossary Maintenance form (refer to Figure 3-17) allows you to maintain the terms in the category glossary. The submenu options are as follows.

BARS - Category Glossary Maintenance		
Category	Description	Cor/Dup

Blank(L2) Add(L3) Misspell(L4) Retire(R1) Eliminate_Dup(R2) Last_Select(R3)
Select(R4) Copy_Row(R5) Copy_Column(R6) Print/Store Help(R7) End(F3)

Figure 3-17. Category Glossary Maintenance form.

Blank blanks out all the fields in the form.

Add inserts new terms into the glossary.

Misspell corrects misspellings. The *category* is entered in the Category column and the correction is entered in the Correction/Duplicate Term column. The *description* correction is entered in the Description column. Tips: Use the *Copy Column* option (see below) to make a copy of the

term; use the INGRES Mode command in [4] to switch from overstrike to insert mode.

Retire removes the specified *categories* from the glossary permanently. A term can not be retired if it is referenced by any bibliographic entry.

Eliminate_Dup eliminates the specified duplicate terms. Enter the *category* in the Category column and its duplicate in the Correction/Duplicate Term column.

Last_Select displays the last selection criteria specified.

Select retrieves all the terms from the category glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Category and/or Description columns. There is an implicit AND operator between columns and an implicit OR operator between rows. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Copy_Row copies the current row to the end of the table field.

Copy_Column copies the *category* associated with the current row to the Correction/Duplicate Term column.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Help displays help text.

End returns to the main menu.

Classification Glossary Maintenance Form

The Classification Glossary Maintenance form (refer to Figure 3-18) allows you to maintain the terms in the class glossary. The submenu options are as follows.

Blank blanks out all the fields in the form.

Add inserts new terms into the glossary.

Misspell corrects misspellings. The *classification* is entered in the Class column and the correction is entered in the Correction/Duplicate Term column. The *description* correction is entered in the Description column. Tips: Use the *Copy_Column* option (see below) to make a copy of the term; use the INGRES Mode command in [4] to switch from overstrike to insert mode.

Retire removes the specified *classifications* from the glossary permanently. A term can not be retired if it is referenced by any bibliographic entry.

Eliminate_Dup eliminates the specified duplicate terms. Enter the *classification* in the Class column and its duplicate in the Correction/Duplicate Term column.

Last_Select displays the last selection criteria specified.

BARS - Classification Glossary Maintenance

Class	Description	Cor/Dup

Blank(L2) Add(L3) Misspell(L4) Retire(R1) Eliminate_Dup(R2) Last_Select(R3)
Select(R4) Copy_Row(R5) Copy_Column(R6) Print/Store Help(R7) End(F3)

Figure 3-18. Classification Glossary Maintenance form.

Select retrieves all the terms from the class glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Class and/or Description columns. There is an implicit AND operator between columns and an implicit OR operator between rows. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Copy Row copies the current row to the end of the table field.

Copy_Column copies the *classification* associated with the current row to the Correction/Duplicate Term column.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Help displays help text.

End returns to the main menu.

Distribution Glossary Maintenance Form

The Distribution Glossary Maintenance form (refer to Figure 3-19) allows you to maintain the terms in the distribution category glossary. The submenu options are as follows.

BARS - Distribution Glossary Maintenance

Distribution	Description	Cor/Dup

Blank(L2) Add(L3) Misspell(L4) Retire(R1) Eliminate_Dup(R2) Last_Select(R3)
 Select(R4) Copy_Row(R5) Copy_Column(R6) Print/Store Help(R7) End(F3)

Figure 3-19. Distribution Glossary Maintenance form.

Blank blanks out all the fields in the form.

Add inserts new terms into the glossary.

Misspell corrects misspellings. The *distribution* is entered in the Distribution column and the correction is entered in the Correction/Duplicate Term column. The *description* correction is entered in the Description column. Tips: Use the *Copy_Column* option (see below) to make a copy of the term; use the INGRES Mode command in [4] to switch from overstrike to insert mode.

Retire removes the specified *distributions* from the glossary permanently. A term can not be retired if it is referenced by any bibliographic entry.

Eliminate_Dup eliminates the specified duplicate terms. Enter the *distribution* in the Distribution column and its duplicate in the Correction/Duplicate Term column.

Last_Select displays the last selection criteria specified.

Select retrieves all the terms from the distribution glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Distribution and/or Description columns. There is an implicit AND operator between columns and an implicit OR operator between rows. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on

page 51.

Copy_Row copies the current row to the end of the table field.

Copy_Column copies the *distribution* associated with the current row to the Correction/Duplicate Term column.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Help displays help text.

End returns to the main menu.

Keyword Glossary Maintenance Form

The Keyword Glossary Maintenance form (refer to Figure 3-20) allows you to maintain the terms in the keyword glossary. The submenu options are as follows.

BARS - Keyword Glossary Maintenance	
Keyword	Correction/Duplicate Term

Blank(L2) Add(L3) Misspell(L4) Retire(R1) Eliminate_Dup(R2) Last_Select(R3)	
Select(R4) Copy_Row(R5) Copy_Column(R6) Print/Store Help(R7) End(F3)	

Figure 3-20. Keyword Glossary Maintenance form.

Blank blanks out all the fields in the form.

Add inserts new terms into the glossary.

Misspell corrects misspellings. The *keyword* is entered in the Keyword column and the correction is entered in the Correction/Duplicate Term column. Tips: Use the *Copy_Column* option (see below) to make a copy of the term; use the INGRES Mode command in [4] to switch from overstrike to insert mode.

Retire removes the specified *keywords* from the glossary permanently. A term can not be retired if it is referenced by any bibliographic entry.

Eliminate_Dup eliminates the specified duplicate terms. Enter the *keyword* in the Keyword column and its duplicate in the Correction/Duplicate Term column.

Last_Select displays the last selection criteria specified.

Select retrieves all the terms from the keyword glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Keyword column. There is an implicit OR operator between rows. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Copy_Row copies the current row to the end of the table field.

Copy_Column copies the *keyword* associated with the current row to the Correction/Duplicate Term column.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under than name.

Help displays help text.

End returns to the main menu.

Person Glossary Maintenance Form

The Person Glossary Maintenance form (refer to Figure 3-21) allows you to maintain the names of authors, editors, and recipients in the person glossary. The submenu options are as follows.

Blank blanks out all the fields in the form.

Add inserts new names into the glossary.

Misspell corrects misspellings. The *surname* and *first and middle names* are entered in the Surname and First/Middle columns respectively. The corrections are entered in the Cor/Duplicate Term columns. Tips: Use the *Copy_Column* option (see below) to make a copy of the term; use the INGRES Mode command in [4] to switch from overstrike to insert mode.

Retire removes the specified persons from the glossary permanently. A name can not be retired if it is referenced by any bibliographic entry.

BARS - Person Glossary Maintenance			
Surname	First/Middle	<----- Cor/Duplicate Term ----->	
		Surname	First/Middle

Figure 3-21. Person Glossary Maintenance form.

Eliminate_Dup eliminates the specified duplicate names. Enter the name in the Surname and First/Middle columns and its duplicate in the Cor/Duplicate Term columns.

Last Select displays the last selection criteria specified.

Select retrieves all the names from the person glossary that match specified criteria and displays them in ascending alphabetical order by surname. All the names are displayed if no selection criterion is specified. You can enter selection criteria in the Surname and/or First/Middle columns. There is an implicit AND operator between columns and an implicit OR operator between rows. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Copy Row copies the current row to the end of the table field.

Copy_Column copies the name associated with the current row to the Cor/Duplicate Term columns.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Help displays help text.

End returns to the main menu.

Book Maintenance Form

The Book Maintenance form (refer to Figure 3-22) allows you to maintain book entry information. The menu options are as follows.

BARS - Book Maintenance			
Accession: 0	Year: 0	Org No.: 0	Category:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:	
Chap Title:			
Book Title:			
Publisher:			
Address:			
Editor(s) Surname:	First and Middle Names:	Volume:	
		Chapter:	
		Pages:	
Keywords:	Location:		
	Sand No.:		
	Distrib.:		
	Class:		
	RS No.:		
Comments:			
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6) Print/Store Help(R7) End(F3) NEXT PREV			

Figure 3-22. Book Maintenance form.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution category*, *keyword*, *author's name*, and *editor's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, editor's name, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, editor's name, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Conference Maintenance Form

The Conference Maintenance form (refer to Figure 3-23) allows you to maintain conference entry information. The menu options are as follows.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution category*, *keyword*, *author's name*, and *editor's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, editor's name, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

BARS - Conference Maintenance		
Accession: 0	Org No.: 0	Category:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
+	+	+
Title:		
Institutn:		
Conf Title:		
Whereheld:	Conf Date:	Conf Year: 0
Book Title:		
Editor(s) Surname:	First and Middle Names:	Volume:
		Pages:
		Pub Year: 0
Publisher:		
Address:		
Keywords:	Location:	
	Sand No.:	
	Distrib.:	
	Class:	
Comments:	RS No.:	
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6) Print/Store Help(R7) End(F3) NEXT PREV		

Figure 3-23. Conference Maintenance form.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, editor's name, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Journal Maintenance Form

The Journal Maintenance form (refer to Figure 3-24) allows you to maintain journal entry information. The menu options are as follows.

Figure 3-24. Journal Maintenance form.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution*, *category*, *keyword*, and *author's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the data-

base. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Sandia Letter Maintenance Form

The Sandia Letter Maintenance form (refer to Figure 3-25) allows you to maintain letter entry information. The menu options are as follows.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution*, *category*, *keyword*, *author's name*, and *recipient's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, recipient's name, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, recipient's name, and keyword.

BARS - Sandia Letter Maintenance															
Accession: 0	Month: 0	Day: 0	Year: 0	Org No.: 0	Category:										
Author(s) Surname:	First and Middle Names:		Affiliation/Organization:												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 33.33%;"></td><td style="width: 33.33%;"></td><td style="width: 33.33%;"></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table>															
Recipient(s) Surname:	First and Middle Names:														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 33.33%;"></td><td style="width: 33.33%;"></td><td style="width: 33.33%;"></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table>															
Address:															
Subject:															
Keywords:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: right;">Location:</td></tr> <tr><td></td><td>Sand No.:</td></tr> <tr><td></td><td>Distrib.:</td></tr> <tr><td></td><td>Class:</td></tr> <tr><td></td><td>RS No.:</td></tr> </table>						Location:		Sand No.:		Distrib.:		Class:		RS No.:
	Location:														
	Sand No.:														
	Distrib.:														
	Class:														
	RS No.:														
Comments:															
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6) Print/Store Help(R7) End(F3) NEXT PREV															

Figure 3-25. Sandia Letter Maintenance form.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Sandia Memo Maintenance Form

The Sandia Memo Maintenance form (refer to Figure 3-26) allows you to maintain memo entry information. The menu options are as follows.

BARS - Sandia Memo Maintenance					
Accession: 0	Month: 0	Day: 0	Year: 0	Org No.: 0	Category:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:			
+-----+-----+-----+-----+-----+-----+					
+-----+-----+-----+-----+-----+-----+					
+-----+-----+-----+-----+-----+-----+					
Recipient(s) Surname: First and Middle Names: Affiliation/Organization:					
+-----+-----+-----+-----+-----+-----+					
+-----+-----+-----+-----+-----+-----+					
+-----+-----+-----+-----+-----+-----+					
Subject:					
Keywords:	Location:				
+-----+-----+-----+-----+-----+-----+					
+-----+-----+-----+-----+-----+-----+					
+-----+-----+-----+-----+-----+-----+					
Keywords: Location: Sand No.: Distrib.: Class: RS No.: Comments:					
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6) Print/Store Help(R7) End(F3) NEXT PREV					

Figure 3-26. Sandia Memo Maintenance form.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution category*, *keyword*, *author's name*, and *recipient's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the *author's name*, *affiliation*, *recipient's name*, and *keyword*.

Delete deletes this bibliographic entry. The entry will be permanently removed from the data-

base. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, recipient's name, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Miscellaneous Maintenance Form

The Miscellaneous Maintenance form (refer to Figure 3-27) allows you to maintain miscellaneous entry information. The menu options are as follows.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution*, *category*, *keyword*, and *author's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, and keyword.

BARS - Miscellaneous Maintenance						
Accession: 0	Year: 0	Category:	Org No.: 0			
Author(s) Surname:		First and Middle Names:	Affiliation/Organization:			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33.33%;"></td> <td style="width: 33.33%;"></td> <td style="width: 33.33%;"></td> </tr> </table>						
Title: Reference:						
Keywords: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: right;">Location:</td> </tr> </table>			Location:	Location: Sand No.: Distrib.: Class: RS No.:		
	Location:					
Comments:						
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6) Print/Store Help(R7) End(F3) NEXT PREV						

Figure 3-27. Miscellaneous Maintenance form.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Thesis Maintenance Form

The Thesis Maintenance form (refer to Figure 3-28) allows you to maintain thesis entry information. The menu options are as follows.

BARS - Thesis Maintenance					
Accession: 0	Month: 0	Day: 0	Year: 0	Org No.: 0	Category:
Author(s) Surname:		First and Middle Names:		Affiliation/Organization:	
+-----+-----+-----+-----+-----+-----+					
Title:					
School:					
Address:					
Degree:					
Keywords:				Location:	
				Sand No.:	
				Distrib.:	
					Class:
					RS No.:
Comments:					
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6)					
Print/Store Help(R7) End(F3) NEXT PREV					

Figure 3-28. Thesis Maintenance form.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution*, *category*, *keyword*, and *author's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Technical Report Maintenance Form

The Technical Report Maintenance form (refer to Figure 3-29) allows you to maintain technical report entry information. The menu options are as follows.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution category*, *keyword*, and *author's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

Delete_Row deletes the current row. It only applies to table fields such as the author's name, affiliation, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

BARS - Technical Report Maintenance					
Accession: 0	Month: 0	Day: 0	Year: 0	Org No.: 0	Category:
Author(s) Surname:	First and Middle Names:		Affiliation/Organization:		
+-----+-----+-----+ +-----+-----+-----+					
Title:					
Institutn:					
Address:					
Rep Type:					
Number:					
Keywords:	Location:				
+-----+-----+ +-----+-----+					
	Sand No.:				
	Distrib.:				
	Class:				
	RS No.:				
Comments:					
Blank(L3) Add(L4) Save(R1) Delete(R2) Retire(R3) Copy_Row(R5) Glossary(R6) Print/Store Help(R7) End(F3) NEXT PREV					

Figure 3-29. Technical Report Maintenance form.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Sandia Visuals Maintenance Form

The Sandia Visuals Maintenance form (refer to Figure 3-30) allows you to maintain visual entry information. The menu options are as follows.

BARS - Sandia Visuals Maintenance															
Accession: 0	Month: 0	Day: 0	Year: 0	Org No.: 0	Category:										
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>															
Subject:															
ID No.:															
Keywords:	Location:														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 66%;"></td> <td style="width: 33%;"></td> </tr> <tr> <td> </td> <td> </td> </tr> </table>															
	Sand No.:														
	Distrib.:														
	Class:														
	RS No.:														
Comments:															

Figure 3-30. Sandia Visuals Maintenance form.

Add adds a new bibliographic entry. Fill out the form and blank out any unwanted information before activating this function. The information is checked for correctness. If there are any problems you need to correct them and try again. The *affiliation*, *category*, *classification*, *distribution*, *category*, *keyword*, and *author's name* are checked against the corresponding glossaries to maintain consistency. If the term is not found in the glossary, you will be able to define a new term, update the term, or select another term at this time. The *accession number* is exclusively managed by the system. A new *accession number* is automatically assigned.

Blank blanks out all the fields in the form. You may want to blank out all the fields in the form before adding a new entry.

Copy_Row copies the current row to the end of the table field. It only applies to table fields such as the author's name, affiliation, and keyword.

Delete deletes this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* is added to a pool where it will become available for reuse.

Delete Row deletes the current row. It only applies to table fields such as the author's name, affiliation, and keyword.

Glossary displays the glossary, if any, associated with the field where the cursor is positioned. The glossary forms are described later in this section.

Retire retires this bibliographic entry. The entry will be permanently removed from the database. The associated *accession number* will not be reused.

Save saves all the changes made to this entry.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

NEXT displays the next retrieved bibliographic entry.

PREV displays the previous retrieved bibliographic entry.

Help displays help text.

End returns to the main menu.

Affiliation Glossary Form

The Affiliation Glossary form (refer to Figure 3-31) allows you to add a new term to the glossary, choose a term from the existing list, edit the input, find a term, and print/store a copy of the form. The submenu options are as follows.

You entered:	Affiliation
--------------	-------------

Blank(L2) Choice(L3) Add(L4) Print/Store(R1) Find(R2) Help(R7) End(F3)

Figure 3-31. Affiliation Glossary form.

Blank blanks out all the rows in the affiliation table.

Choice selects the term where the cursor is positioned and returns to the maintenance form.

Add inserts the new term into the glossary and returns to the maintenance form. The new term is displayed next to the 'You entered:' prompt.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Find finds all the terms from the affiliation glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Affiliation column. There is an implicit OR operator between the rows of the table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the maintenance form without choosing or adding a new term to the glossary.

Category Glossary Form

The Category Glossary form (refer to Figure 3-32) allows you to add a new term to the glossary, choose a term from the existing list, edit the input, find a term, and print or store a copy of the form. The submenu options are as follows.

Category	Description

Figure 3-32. Category Glossary form.

Blank blanks out all the rows in the category table.

Choice selects the term where the cursor is positioned and returns to the maintenance form.

Add inserts the new term into the glossary and returns to the maintenance form. The new category and its description are displayed next to the 'You entered:' and 'Description:' prompts respectively.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current

form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Find finds all the terms from the category glossary that match specified criteria and displays them in ascending alphabetical order by the specified sequence. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Category and Description columns. There is an implicit OR operator between the rows of the table and an AND operator between the columns of the table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the maintenance form without choosing or adding a new term to the glossary.

Classification Glossary Form

The Classification Glossary form (refer to Figure 3-33) allows you to add a new term to the glossary, choose a term from the existing list, edit the input, find a term, and print or store a copy of the form. The submenu options are as follows.

Class	Description

Figure 3-33. Classification Glossary form.

Blank blanks out all the rows in the class table.

Choice selects the term where the cursor is positioned and returns to the maintenance form.

Add inserts the new term into the glossary and returns to the maintenance form. The new *class* and its *description* are displayed next to the 'You entered:' and 'Description:' prompts respectively.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Find finds all the terms from the class glossary that match specified criteria and displays them in ascending alphabetical order by the specified sequence. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Classification and Description columns. There is an implicit OR operator between the rows of the table and an AND operator between the columns of the table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the maintenance form without choosing or adding a new term to the glossary.

Distribution Glossary Form

The Distribution Glossary form (refer to Figure 3-34) allows you to add a new term to the glossary, choose a term from the existing list, edit the input, find a term, and print or store a copy of the form. The submenu options are as follows.

Figure 3-34. Distribution Glossary form.

Blank blanks out all the rows in the distribution table.

Choice selects the term where the cursor is positioned and returns to the maintenance form.

Add inserts the new term into the glossary and returns to the maintenance form. The new *distribution* and its *description* are displayed next to the 'You entered:' and 'Description:' prompts respectively.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Find finds all the terms from the distribution glossary that match specified criteria and displays them in a table.

plays them in ascending alphabetical order by the specified sequence. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Distribution and Description columns. There is an implicit OR operator between the rows of the table and an AND operator between the columns of the table. For details on how to specify selection criteria, see [Section 4: Specifying Selection Criteria on page 51](#).

Help displays help text.

End returns to the maintenance form without choosing or adding a new term to the glossary.

Keyword Glossary Form

The Keyword Glossary form (refer to Figure 3-35) allows you to add a new term to the glossary, choose a term from the existing list, edit the input, find a term, and print or store a copy of the form. The submenu options are as follows.

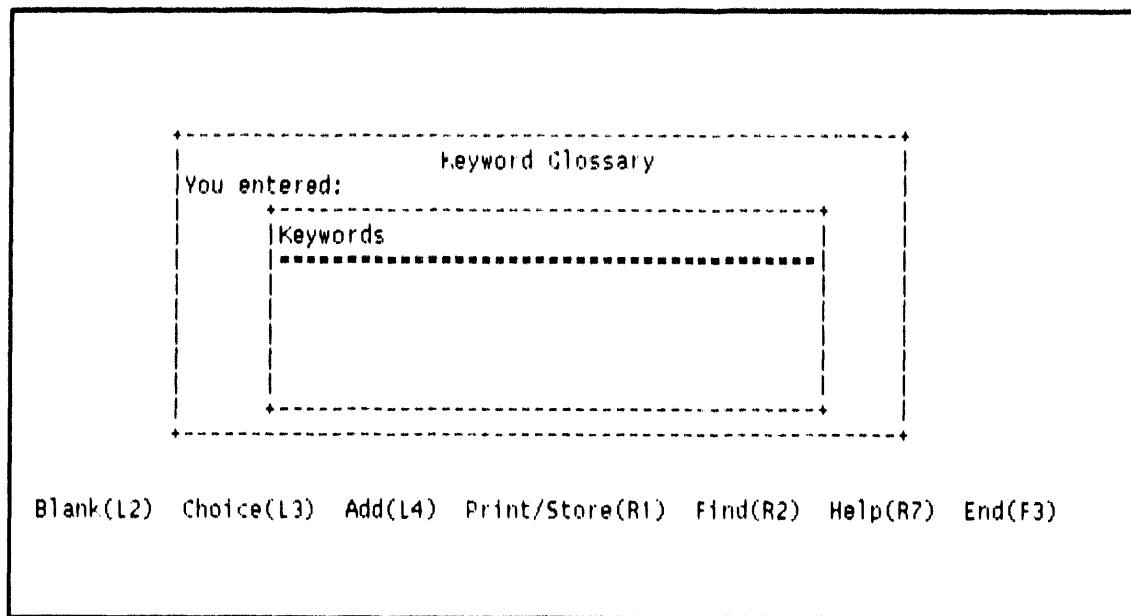


Figure 3-35. Keyword Glossary form.

Blank blanks out all the rows in the keyword table.

Choice selects the term where the cursor is positioned and returns to the maintenance form.

Add inserts the new term into the glossary and returns to the maintenance form. The new term is displayed next to the 'You entered:' prompt.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Find finds all the terms from the keyword glossary that match specified criteria and displays them in ascending alphabetical order. All the terms are displayed if no selection criterion is speci-

fied. You can enter selection criteria in the Keyword column. There is an implicit OR operator between the rows of the table. For details on how to specify selection criteria, see Section 4: Specifying Selection Criteria on page 51.

Help displays help text.

End returns to the maintenance form without choosing or adding a new term to the glossary.

Person Glossary Form

The Person Glossary form (refer to Figure 3-36) allows you to add a new term to the glossary, choose a term from the existing list, edit the input, find a term, and print or store a copy of the form. The submenu options are as follows.

You entered: Person Glossary

Surname	First/Middle
---------	--------------

Blank(L2) Choice(L3) Add(L4) Print/Store(R1) Find(R2) Help(R7) End(F3)

Figure 3-36. Person Glossary form.

Blank blanks out all the rows in the person table.

Choice selects the term where the cursor is positioned and returns to the maintenance form.

Add inserts the new term into the glossary and returns to the maintenance form. The new name is displayed next to the 'You entered:' prompt.

Print/Store displays the print/store submenu. The *Print* option sends a copy of the current form to your installation's default printer. The *Store* option prompts you for a file name and then saves a copy of the current form under that name.

Find finds all the terms from the person glossary that match specified criteria and displays them in ascending alphabetical order by the specified sequence. All the terms are displayed if no selection criterion is specified. You can enter selection criteria in the Surname and First and Middle Names columns. There is an implicit OR operator between the rows of the table and an AND

operator between the columns of the table. For details on how to specify selection criteria, see **Section 4: Specifying Selection Criteria on page 51**.

Help displays help text.

End returns to the maintenance form without choosing or adding a new name to the glossary.

Section 4: Specifying Selection Criteria

To retrieve a group of bibliographic entries from the database and display it on the screen, print it, or save it into a file, you specify search qualifications. The data will be sorted according to supplied sort criteria. For more information about sort criteria, see Sort Criteria Form on page 17.

Search qualifications are values that the user supplies in the fields of the select forms to select a group of bibliographic entries from the database that matches the specified criterion. For more information about the select forms, see Select Bibliographic Entries Submenu on page 6.

Operators and Expressions

Retrievals may be qualified by the use of logical operators, comparison operators, character pattern matching, and bracket expressions.

Logical Operators: AND, OR, NOT

The AND operator retrieves those entries that meet all specified criteria. The OR operator retrieves those entries that meet any of the specified criteria. There is an implicit AND operator between fields and between columns of a table. There is an implicit OR operator between rows of a table. The NOT operator retrieves those entries that do not meet the specified criteria.

Comparison Operators: =, !=, <, <=, >, >=

The comparison operators are used to select a range of values or to compare two values. Table 1 shows the list of operators and a short description for each.

Table 1: Comparison Operators

Operator	Description
=	equal to
!=	not equal to
<	less than
<=	less than or equal to
>	greater than
>=	greater than or equal to

Character Pattern Matching: ?, *

Pattern matching is used to match any number of characters with the use of wild cards. The question mark character (?) matches a single character while the star character (*) matches zero or more characters. Pattern matching may only be used with character fields and the equal (=) and not equal (!=) comparison operators. The backslash character (\) removes the special meaning of

the question mark (?) and star (*) characters.

Bracket Expressions: \[, \]

Bracket expressions may be used in conjunction with pattern matching to further qualify retrievals. If, for instance, you know that the *author's surname* starts with P or S then you can enter '\[PS\]*' in the field. Such a query would retrieve all the entries whose *author's surname* starts with P or S. Table 2 summarizes the pattern-matching and bracket-expression characters.

Table 2: Pattern-Matching Characters

Character(s)	Description
?	matches a single character
*	matches zero or more characters
\	removes special meaning of special characters
\[...\]	matches any characters between the brackets

Example 1

Figure 4-1 shows the search qualifications to retrieve all the entries after 1980 for Duvall and Taylor that contains the words 'Shock Waves' in the *title* field. Notice the use of the pattern-matching character star to match any preceding or trailing arbitrary characters in the *title*. There is an implicit OR operator between the rows of the *author* table and an implicit AND operator

BARS - Select Criteria (Applies to All Templates)

Accession:	Year: >= 1980	Use Pub Year? N (Y/N)
	Month:	Day:
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:
+-----+-----+-----+	+-----+-----+-----+	+-----+-----+-----+
Duvall		
Taylor		
+-----+-----+-----+	+-----+-----+-----+	+-----+-----+-----+
Title: *Shock Waves*		
Category:		
Class:		
Distrib.:		
Location:		
Org No.:		
RS No.:		
Sand No.:		
Keywords:		
+-----+-----+-----+		
Comments:		

Figure 4-1 Select criteria for example 1.

between the *author's surname*, *title*, and *year* fields. This query will translate into something like: "(*year* >= 1980 AND (*author's surname* = 'Duvall' OR *author's surname* = Taylor') AND (*title* = '*shock waves*'))".

The criteria specified in Figure 4-1 applies to all templates since it was requested from the 'Select Criteria (Applies to All Templates)' form. This form is accessed by selecting the *All_Templates* option from the Select Bibliographic Entries submenu. For more information about the submenu, see Select Bibliographic Entries Submenu on page 6.

The output will be sorted by *title* and *author's surname* as specified in Figure 4-2. For more information about the form, see Sort Criteria Form on page 17.

BARS - Sort Criteria	
Author Surname:	2
First and Middle:	
Year:	
Month:	
Day:	
Title:	1
Accession:	
Affiliation:	
Template:	
Category:	
Class:	
Distribution:	
Location:	
Org. No.:	
RS. No.:	
Sand. No.:	

Figure 4-2 Sort criteria for example 1.

To request a copy of the output use the Save or Print option from the Output Selected and Sorted Entries submenu. For more information about the submenu, see Output Selected and Sorted Entries Submenu on page 18. The following is a copy of the output using the *Short_Format*.

Hixson, R. S., Bellamy, P. M., Duvall, G. E., and Wilson, C. R. Effect of Shock Waves on the Absorption Spectrum of Ruby, Shock Waves in Condensed Matter-1981, edited by Nellis, W. J., Seaman, L. and Graham, R. A. (American Institute of Physics, New York, 1982), pp. 282-286.

Taylor, P. A. Growth and Decay of One-Dimensional Shock Waves in Chemically Reacting Multiphase Mixtures, Sandia National Laboratories Report No. SAND83-0730, Albuquerque, NM, 70 pp., April 1983.

Example 2

Figure 4-3 shows the search qualifications to retrieve all the entries between 1985 and 1990 from USSR that contains the words 'Shock Loading' in the *title* field. Notice the use of the pattern-matching character star to match any preceding or trailing arbitrary characters in the *title*. There is an implicit AND operator between the *year*, *affiliation*, and *title* fields. This query will translate into something like: "(*year* >= 1985 AND *year* <= 1990 AND *affiliation* = '*USSR*' AND *title* = '*Shock Loading*')".

BARS - Select Criteria (Applies to All Templates)			
Accession:	Year: >= 1985 and <= 1990	Use Pub Year? N (Y/N)	
Month:		Day:	
Author(s) Surname:	First and Middle Names:	Affiliation/Organization:	
		+-----+-----+-----+-----+	
		+-----+-----+-----+-----+	
	Title: '*Shock Loading'		
Category:		+-----+-----+-----+-----+	
Class:			
Distrib.:		+-----+-----+-----+-----+	
Location:			
Org No.:		+-----+-----+-----+-----+	
RS No.:			
Sand No.:		+-----+-----+-----+-----+	
Keywords:			
Comments:		+-----+-----+-----+-----+	

Figure 4-3 Select criteria for example 2.

The criteria specified in Figure 4-3 applies to all templates since it was requested from the 'Select Criteria (Applies to All Templates)' form. This form is accessed by selecting the *All_Templates* option from the Select Bibliographic Entries submenu. For more information about the submenu, see Select Bibliographic Entries Submenu on page 6.

No sort criteria was specified for this output. Hence, the output will be sorted using the default criteria: *author*, *year*, and *affiliation*. For more information about sort criteria, see Sort Criteria Form on page 17.

To request a copy of the output use the Save or Print option from the Output Selected and Sorted Entries submenu. For more information about the submenu, see Output Selected and Sorted Entries Submenu on page 18. The following is a copy of the output using the *AskSam_Format*.

```
@@
TEMPLATE[ @miscellaneous]
ACCESS#[ 13636]      CAT[ ]
AUTHOR[ Egorova, N. V.; Chernyi, V. G.; Chernyi, G. I.]
```

AFFILIATN[Kiev, USSR]
TITLE[Viscosity of Soils Under Shock Loadings]
REFERENCE[J. Appl. Mech. & Tech. Phys. 26 (1), 147-149 (1985)]
YEAR[1985]
KEYWORDS[EMPH:experimental analysis; EMPH:experimental data; MATL:clay;
MATL:geophysical; MATL:loam; MATL:loess; MATL:sand; MATR:mechanical; PHEN:shock
viscosity; PHEN:stress-volume; PROP:rheologic; PROP:viscosity;
THEO:elastic-plastic; THEO:elastic-viscoplastic]

SANDNO[] DIST[] CLASS[]
ORGNO[0] RSNO[]
LOCATN[]
NOTES[SSC3636, PAPER ID: 85E001, FULL KEYWORDING]

Section 5: Dictionary

This section briefly describes each field on the book, conference, journal, letter, memo, miscellaneous, thesis, technical report, and visual templates. Table 3 lists all the fields that are common to all the templates. Tables 4 through 12 lists the fields that apply to each template.

Table 3: All Templates

Field Name	Length	Description
<i>Accession number</i>	4 byte integer	Uniquely identifies each bibliographic entry. The <i>accession number</i> is managed exclusively by the system. The system generates an <i>accession number</i> at the time a new entry is entered from a pool of previously deleted <i>accession numbers</i> or one higher than the highest <i>accession number</i> used so far.
<i>Category</i>	5 chars	Indicates the type of the bibliographic entry. For instance, the entry may refer to a report, an article, a conference paper, a journal paper, or a published abstract. Dynamic glossary is available.
<i>Classification</i>	8 chars	Indicates type of classification assigned to Sandia National Laboratories' documents. Dynamic glossary is available.
<i>Comment</i>	240 chars	May contain miscellaneous remarks pertaining to the bibliographic entry. For example, you can note whether the document is on hand, requested from the library, or lent out to someone.
<i>Distribution category</i>	6 chars	The code associated with a list to be used for distribution of a SAND report. Dynamic glossary is available.
<i>Keyword</i>	40 chars	Significant word from the title or the content of the document. Dynamic glossary is available.
<i>Location</i>	240 chars	Refers to the physical location of the document.
<i>Organization number</i>	4 digits	Indicates the division number to which this entry belongs.
<i>RS number</i>	15 chars	Contains the alpha-numeric string assigned to classified SAND documents and to SNL internal memoranda.
<i>SAND number</i>	15 chars	Contains the alpha-numeric string assigned to many Sandia National Laboratories' manuscripts and documents such as abstracts, articles, reports, and papers.

Table 3: All Templates

Field Name	Length	Description
<i>Surname</i> <i>First & Middle Names</i>	20 chars, 25 chars	Constitute the name of the author and is collectively referred in this document as <i>author's name</i> . Dynamic glossary is available.
<i>Year</i>	4 digits	Indicates the year the bibliographic entry was published or presented.

Table 4: Book Template

Field Name	Length	Description
<i>Chap Title</i>	240 chars	Indicates the chapter title in a book.
<i>Book Title</i>	240 chars	Indicates the book title.
<i>Publisher</i>	80 chars	Indicates the book publisher.
<i>Address</i>	240 chars	Refers to the address of the publisher.
<i>Editor's Surname</i> <i>First & Middle Names</i>	20 chars 25 chars	Indicates the name of the editors, if any.
<i>Volume</i>	10 chars	Indicates the volume number in a multivolume set.
<i>Chapter</i>	5 chars	Indicates the chapter number in a book.
<i>Pages</i>	12 chars	The page range or starting page number.

Table 5: Conference Template

Field Name	Length	Description
<i>Title</i>	240 chars	Title of the conference proceeding.
<i>Institutn</i>	80 chars	The name of the institution sponsoring the conference.
<i>Conf Title</i>	240 chars	The title of the conference.
<i>Whereheld</i>	240 chars	The conference location.
<i>Conf Date</i>	35 chars	The range of dates for the conference without the year.
<i>Conf Year</i>	4 digits	The year for the conference.

Table 5: Conference Template

Field Name	Length	Description
<i>Book Title</i>	240 chars	The name of the conference proceeding if it has been published and if different than the title.
<i>Editor's Surname First & Middle Names</i>	20 chars, 25 chars	The name of the editor if the conference proceeding has been published with an editor list.
<i>Publisher</i>	80 chars	The publisher if the conference proceeding has been published as a book.
<i>Address</i>	240 chars	The address of the publisher.
<i>Volume</i>	10 chars	The volume number if the conference proceeding has been published in a multivolume set.
<i>Pages</i>	12 chars	The page range or starting page number of the conference proceeding.
<i>Pub Year</i>	4 digits	The publication year if the conference proceeding was published.

Table 6: Journal Template

Field Name	Length	Description
<i>Title</i>	240 chars	The title of the journal article.
<i>Volume</i>	10 chars	The journal volume number.
<i>Pages</i>	12 chars	The page range or starting page number.
<i>Series</i>	10 chars	The journal series, if any.
<i>Number</i>	10 chars	The journal number, if any.

Table 7: Letter Template

Field Name	Length	Description
<i>Month</i>	2 digits	The month of the letter.
<i>Day</i>	2 digits	The day of the letter.
<i>Recipient's Surname First & Middle Names</i>	20 chars, 25 chars	The name of the recipient. Dynamic glossary is available

Table 7: Letter Template

Field Name	Length	Description
<i>Address</i>	240 chars	The recipient's address.
<i>Subject</i>	240 chars	The subject of the letter.

Table 8: Memo Template

Field Name	Length	Description
<i>Month</i>	2 digits	The month of the memo.
<i>Day</i>	2 digits	The day of the memo.
<i>Recipient's Surname First & Middle Names</i>	20 chars, 25 chars	The name of the recipient. Dynamic glossary is available.
<i>Affiliation/ Organization</i>	80 chars	The recipient's organization. Dynamic glossary is available.
<i>Subject</i>	240 chars	The subject of the memo.

Table 9: Miscellaneous Template

Field Name	Length	Description
<i>Title</i>	240 chars	Title of the miscellaneous bibliographic entry.
<i>Reference</i>	240 chars	Reference of the miscellaneous bibliographic entry.

Table 10: Thesis Template

Field Name	Length	Description
<i>Month</i>	2 digits	The month of the thesis.
<i>Day</i>	2 digits	The day of the thesis.
<i>Title</i>	240 chars	The title of the thesis.
<i>School</i>	80 chars	The name of the school.
<i>Address</i>	240 chars	The address of the school.
<i>Degree</i>	15 chars	Type of thesis, e.g. "MS", "PhD".

Table 11: Technical Report Template

Field Name	Length	Description
<i>Month</i>	2 digits	The publication month.
<i>Day</i>	2 digits	The publication day.
<i>Title</i>	240 chars	The title of the technical report.
<i>Institution</i>	80 chars	The name of the institution.
<i>Address</i>	240 chars	The address of the institution.
<i>Rep Type</i>	40 chars	The type of report, e.g. "Research Report", "Status Report", "Technical Memorandum Report", etc.
<i>Number</i>	20 chars	The report number. The report number

Table 12: Visuals Template

Field Name	Length	Description
<i>Month</i>	2 digits	The month on the visual aid.
<i>Day</i>	2 digits	The day on the visual aid.
<i>Subject</i>	240 chars	The subject or descriptive title of this entry.
<i>ID No.</i>	20 chars	Identification number assigned to this entry. For example, ID number, negative number, Genographics number or series number.

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Appendix

Follow the installation instructions in the order given below.

1. Loading the BARS databases

The data tapes contain all the files needed to completely load the bars databases. It takes about 20 Mbytes. Follow these steps to read the tapes, create and reload the databases:

1. Create a UNIX account for the bars administrator. Name this user 'bars'. Set the search path and environment variable for INGRES in the user .cshrc file. For example,

```
setenv II_SYSTEM /usr/local/r6
set path = ($II_SYSTEM/ingres/{bin,utility} $path)
```

Define INGRES terminal type in your .login file. For example, the following lines set up INGRES terminal type to sunf if working on a SUN workstation.

```
if ($TERM == "sun") then
    setenv TERM_INGRES sunf
endif
```

2. This user will also be the DBA (Database Administrator) for the databases you'll create. Grant 'bars' super user access to INGRES as follows:

a) Login as INGRES.

b) Type

```
> accessdb
```

c) Use the 'User' function to add a new user named 'bars' with the following permissions:

```
Create Databases: y
Update System Catalogs: n
Set Trace Flags: n
Super User: y
```

3. Login as 'bars' and use the createdb INGRES command to create the databases. (The load scripts are set up to load data into databases named SSC and SPHINX. If you name the databases something else, you'll have to adjust the scripts as described later on.)

4. Create the sscdata and sphinxdata directories. It is recommended to create them under /home.

5. Read in the sscdata tape.

```
cd /home/sscdata
tar -Xvf (your drivename)
```

Read in the sphinxdata tape.

```
cd /home/sphinxdata
tar -xvf (your drivename)
```

6. Replace path names, if needed, in the script files `reload.ing`, `cpbars.in` and `cpbars.cat` (these script files are located in each data directory) as follows:

<code>/home/sscdata</code>	<i>directory where you copied the ssc data</i>
<code>/home/sphinxdata</code>	<i>directory where you copied the sphinx data</i>
<code>/usr/local/r6</code>	<i>location pointed to by the INGRES environment variable</i> <u>II_SYSTEM</u>

7. Replace database name 'ssc or sphinx' in the script file `reload.ing` with your database name.
8. Execute the `reload.ing` script for each database (ssc or sphinx).
9. (Optional) Verify that all tables, views, forms, and associated permissions and indexes in the database were loaded.

- a) You may compare your forms catalog to the list in the 'forms' file. At the OS level Type

```
> vifred (your database name)
```

- b) To obtain a list of tables, views, indexes and associated information type

```
> lsql (your database name)
```

select the 'File' option

select the 'Read' option to load the `check.script` file located in this directory. You need to specify full pathnames

select the 'Go' option to execute script

select the 'Bottom' option to run request to completion

select the 'File' option to save this output to a file

Now you may compare the output to the content of `tables.views.idx`

2. Installing BARS in a UNIX system

The BARS software requires about 10 Mbytes disk space and INGRES. The C compiler and linker are needed if installing on a system with an application architecture different than sun4. To find out the application architecture of your machine use the "arch" command.

To install the software do the following:

1. Create the **bdbsys** directory. It is recommended to create it under **/home**.

2. Read in the software tape.

```
> cd /home/bdbsys  
> tar -xvf (your drivename)
```

3. Define environment variables used by BARS.

a) For development, include the following in your **.login** file:

```
> /home/bdbsys/barsdev_login
```

b) For users, include the following in your **.login** file:

```
> /home/bdbsys/barsuser_login
```

4. Now, source the **.login** for definitions to take effect.

```
> source .login
```

5. Compile and link BARS if installing on a system with an application architecture other than sun4.

```
> cd $bdb batbars  
(batbars submits a job to the batch queue.)
```

6. The INGRES environment variable **II_HELP_EDIT** needs to be set if you want to edit the help files. To do so, you need to be an INGRES super-user. Login as super user and type:

```
> ingsetenv II_HELP_EDIT true
```

7. Now you are ready to start the Bibliographic Database Application. Type:

```
> bars
```

Distribution List

Sandia National Laboratories:

1020 W. Herrmann (5)
1153 G. A. Samara
1425 J. H. Biffle
1431 J. M. McGlaun
1432 M. E. Kipp
1432 P. Yarrington
1433 D. E. Grady
1433 M. B. Boslough
1433 M. D. Furnish
1433 P. L. Stanton
1561 H. S. Morgan
1561 M. Rashid
2863 T. Parker (5)
7141 Technical Library
7151 Technical Publications
7613-2 Document Processing for DOE/OSTI
8523-2 Central Technical Files
8743 D. J. Bamann
8743 M. L. Callabresi
8745 R. J. Kee

**DATE
FILMED**

12 / 8 / 93

END

