The SAS/ACCESS™ to IDMS/R™ software products enable SAS® users to access and modify their IDMS/R data by using the SAS System under the MVS operating system.

IDMS/R is Cullinet Software, Inc.'s data base management system that runs under MVS, VSE, and VM/CMS operating systems. IDMS/R provides both network and relational capabilities in a single system.

Each IDMS data base consists of data records that are grouped into similar record types. Record types are linked together through different logical groups called sets. Using the record types and sets, the DBA defines logical records and logical-record paths in the subschema. Logical records are concatenations of the elements of one or more record types. Logical-record paths contain the necessary data base manipulation commands to access the data in the logical records. Then, the Logical Record Facility (LRF™) is used to access the logical records.

Through the Automatic System Facility (ASF™), data tables and views can be defined. Data tables are two-dimensional tables that consist of rows and columns. Data tables are either stored tables or views. Stored tables are physically stored in the data base and views are derived from one or more data tables but do not actually contain data. The data tables and views can be accessed through the LRF.

The SAS/ACCESS interface to IDMS/R uses the IDMS Logical Record Facility to access the data in a logical record or ASF table. The interface consists of two procedures:

- **PROC IDMSEXT** extracts data from an IDMS/R data base and stores the data into SAS data sets.
- **PROC IDMSUTL** stores, modifies, or erases data from existing IDMS/R data bases using SAS data sets as input.

**PROC IDMSEXT** executes in full-screen mode, line mode, and batch mode. To invoke the procedure in full-screen mode, type:

```
PROC IDMSEXT;
```

The first screen displayed is the DATA ACCESS PANEL (Screen 1). On this screen, enter the information about the data base from which you want to extract data and the SAS data set you want to create.

```
DATA ACCESS PANEL
```

**COMMAND ===>

```
OUTPUT SAS DATA SET:  SAVE SELECTIONS (save:sel): N
SUBSCHEMA NAME:     UNIQUE SAS NAMES (unique): N
SCHEMNA NAME:       SCHEMA VERSION NO.:
RECORD/TABLE NAME:  DICTIONARY NAME:
NODENAME:
```

**Screen 1** DATA ACCESS PANEL for PROC IDMSEXT

In the **OUTPUT SAS DATA SET** field, enter the name of the SAS data set where you want the extracted data to be stored. If no SAS data set is entered, the default data set, WORK.DATAn, is used.

In the **SAVE SELECTIONS** field, specify either that you want the procedure to extract the data or that you want to create a data set that contains the necessary information to do the extraction. The latter choice causes a mapping data set to be created. The mapping data set contains information that is used to map or assign the selected elements to a SAS data set. If an N, the default, is entered, no mapping data set is created, and the procedure extracts the data. If a Y is entered, the mapping data set is created, and no data are extracted. This mapping data set is defined in the **OUTPUT SAS DATA SET** field. This feature is useful when the IDMS logical record or ASF table is large or when the same element extraction process is performed frequently. You can create the mapping data set, save it in a SAS data set, and perform the actual data extraction later in a batch job.

In the **SUBSCHEMA** field, identify the subschema that contains the record or table.

In the **UNIQUE SAS NAMES** field, indicate whether or not you want the procedure to generate unique SAS names from the IDMS element names. The procedure creates SAS names by using the first eight characters of the element names with hyphens removed. Or, you can specify your own SAS names. Enter a Y if you want unique names. If the procedure encounters a duplicate SAS name, it appends a numeric value to the end. If you enter an N, the default, the procedure generates the SAS names, and any duplicate names are flagged as errors.

In the **SCHEMA NAME** and **SCHEMA VERSION NO.** fields, enter the name of the schema and the schema version number that contains the subschema.

In the **RECORD/TABLE NAME** field, specify the IDMS logical record or ASF table to be used for the extraction.

In the **DICTIONARY NAME** field, identify the dictionary that contains the schema. If nothing is entered in this field, the primary dictionary defined to the system is used.

In the **NODENAME** field, specify the central version that is to process the procedure's data base requests. This field needs to be completed only if you are running in a Distributed Data Base System (DDS™).

Once you have entered all of the appropriate information on the DATA ACCESS PANEL, press ENTER. If the information you entered is correct, the procedure displays the DATA EXTRACTION PANEL (Screen 2). This panel lists the records and elements that are contained in the record or table specified on the previous screen.

To select an element for extraction, enter an S in the **FUNC** field beside that element name. Record names have **"*** in the SAS NAME field. To select all of the elements in a particular record, enter an S in the **FUNC** field beside the record name. Group elements have **GRP ELEM** in the **SAS NAME** field. All elements in that group are indented under the group element's name. To
select all of the elements in a group element, enter an S in the FUNC field beside the group element name. When you select an element, the SAS NAME field is either completed by the procedure or you can enter your own SAS name. The SAS name is generated from the first eight nonblank characters of the element name with hyphens removed. The FORMAT for each element is derived from the characteristics of the IDMS element. You can change the format of any element displayed on the screen. SAS DATE formats can be entered for date elements. If the IDMS date value is not a YYMMDD value, follow the DATE format specified with a slash (/) and one of the following DATE formats that describes the date element: YYMMDD, MMDDYY, or DDMMYY.

IDMS/R INTERFACE
RECORD/TABLE NAME: SASDEMO-EHPSKILL
DATA EXTRACTION PANEL SAS DATA SET: WORK.EMPDATA

COMMAND====>

<table>
<thead>
<tr>
<th>FUNC ELEMENT NAME</th>
<th>SAS NAME</th>
<th>FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYEE</td>
<td>***</td>
<td>0 ***</td>
</tr>
<tr>
<td>EMP-ID</td>
<td></td>
<td>6.0</td>
</tr>
<tr>
<td>EMP-NAME</td>
<td>GRP ELEM</td>
<td></td>
</tr>
<tr>
<td>EMP-FIRST-NAME</td>
<td></td>
<td>10.</td>
</tr>
<tr>
<td>EMP-LAST-NAME</td>
<td></td>
<td>15.</td>
</tr>
<tr>
<td>EMP-ADDRESS</td>
<td>GRP ELEM</td>
<td></td>
</tr>
<tr>
<td>EMP-STREET</td>
<td></td>
<td>20.</td>
</tr>
<tr>
<td>EMP-CITY</td>
<td></td>
<td>15.</td>
</tr>
<tr>
<td>EMP-STATE</td>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>EMP-ADDRESS-1ST-FIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP-ADDRESS-LAST-FOUR</td>
<td></td>
<td>5.</td>
</tr>
<tr>
<td>SS-NUMBER</td>
<td></td>
<td>11.0</td>
</tr>
<tr>
<td>START-DATE</td>
<td>GRP ELEM</td>
<td></td>
</tr>
<tr>
<td>START-YEAR</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>START-MONTH</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>START-DAY</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>EXPERTISE</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>SKILL-LEVEL</td>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>EXPERTISE-DATE</td>
<td>GRP ELEM</td>
<td></td>
</tr>
<tr>
<td>EXPERTISE-YEAR</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>EXPERTISE-MONTH</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>EXPERTISE-DAY</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>SKILL</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>SKILL-ID</td>
<td></td>
<td>6.0</td>
</tr>
<tr>
<td>SKILL-NAME</td>
<td></td>
<td>12.</td>
</tr>
<tr>
<td>SKILL-DESCRIPTION</td>
<td></td>
<td>60.</td>
</tr>
</tbody>
</table>

--- WHERE CRITERIA ---

Screen 2 DATA EXTRACTION PANEL for PROC IDMSEXT

When you press the ENTER key, any format changes are displayed and SAS names are generated for the elements for which you did not supply a SAS name. If you decide that you do not want to extract an element after you have selected it, enter a D in the FUNC field or blank out the SAS name. To reset all of your selections for a record or group element, enter an R in the FUNC field beside that element name.

The area under the WHERE CRITERIA heading can be used to enter the IDMS WHERE CLAUSE. At this time, only a subset of the WHERE CLAUSE syntax can be used. Features that cannot be used are parentheses and the following arithmetic expressions: +, -, *, and /. The Boolean operators (AND, OR, and NOT) can be used. Keywords can be used if they have been specified by the DBA in the subschema. Character literals must be enclosed in single quotes and must be entered in upper- or lowercase, or both, exactly as the data appear on the data base. Blank spaces must be inserted between all operators and operands.

After you have selected the elements to be extracted with the SAS names and formats, and the WHERE CLAUSE has been completed, press the END key. The screen is redisplayed if there are any errors. If not, the data are extracted and written to the SAS data set. If you chose the SAVE SELECTIONS feature, the mapping data set is created. The DATA ACCESS PANEL is redisplayed where you see statistics indicating the number of observations and variables in the SAS output data set. You can browse the SAS data set that was just created by entering the BROWSE command. You can either enter new information to extract more data or terminate the procedure by entering the EXIT or END command.

To invoke PROC IDMSEXT in line mode, enter the PROC statement with all of the required options and any of the additional options. The options can also be entered as individual statements. The following options are required:

- RECORD=logical record or ASP table name
- SCHEMA=schema name
- SUBSCHEMA=subschema name
- VERSION=version number

A line mode example that creates a mapping data set follows.

```sas
4? PROC IDMSEXT;
NOTE: PROFILE LIBRARY HAS NOT BEEN SPECIFIED.
NOTE: TEMPORARY PROFILE HAS BEEN OPENED.
5> RECORD=SASDEMO-EHPSKILL;
6> SCHEMA=EMPSCHM;
7> SUBSCHEMA=SASDEMO;
8> VERSION=100;
9> UNIQUE;
10> OUT=DATAMAP;
11> SAVESEL;
12> LIST REC;
SASDEMO-EHPSKILL......IDMS LOGICAL RECORD ELEMENTS
0001 EMPLOYEE
0002 EMP-ID
0003 EMP-NAME GRP ELEM
0004 EMP-FIRST-NAME
0005 EMP-LAST-NAME
0006 EMP-ADDRESS GRP ELEM
0007 EMP-STREET
0008 EMP-CITY
0009 EMP-STATE
0010 EMP-ZIP GRP ELEM
0011 EMP-ZIP-FIRST-FIVE
0012 EMP-ZIP-LAST-FOUR
0013 SS-NUMBER
0014 START-DATE GRP ELEM
0015 START-YEAR
0016 START-MONTH
0017 START-DAY
0018 EXPERTISE***
0019 SKILL-LEVEL
0020 EXPERTISE-DATE GRP ELEM
0021 EXPERTISE-YEAR
0022 EXPERTISE-MONTH
0023 EXPERTISE-DAY
0024 SKILL***
0025 SKILL-ID
0026 SKILL-NAME
0027 SKILL-DESCRIPTION

13> SELECT EMP-ID EMP-NAME SKILL-LEVEL SKILL
14> WHERE SKILL-LEVEL > '02' AND SKILL-ID = 2040
15> LIST ALL;
```
If the logical record name or the ASF table name, the subschema name, or the schema name entered as options in the PROC IDMSEXT statement contains more than one hyphen, the name must be enclosed in quotes. If the options are entered as individual statements and the names contain more than one hyphen, quotes are not needed.

There are several additional statements available in batch mode and interactive line mode.

LIST ALL(RECORD)OPTIONS
   The LIST statement displays information about the IDMS data elements selected. LIST ALL displays all of the elements that were selected and their respective sequence numbers, SAS names, and formats. LIST RECORD lists all of the data elements in the logical record or ASF table used. LIST OPTIONS lists all of the options specified during the procedure and their values or current defaults.

DELETE number
   The DELETE statement enables you to delete an IDMS data element from the group of selected elements. Number is the number displayed by the LIST statement for the corresponding IDMS data element.

EXIT
   The EXIT statement enables you to exit the procedure.

FMT number=format
   The FMT statement enables you to assign SAS formats to IDMS data elements.

RENAME number=SASname
   The RENAME statement enables you to specify a SAS name for the IDMS data element specified by number.

RESET
   The RESET statement clears all previous data element selections.

SELECT IDMS name=SASname
   The SELECT statement causes the IDMS data element named to be selected for the output SAS data set.

WHERE IDMS WHERE clause
   The WHERE statement enables you to enter an IDMS WHERE CLAUSE. The restrictions mentioned above apply here as well.

The MAPIN= statement can also be used when executing the procedure in line mode. It is used when the SAVE SELECTIONS option was specified in a previous execution and the mapping data set was created. The MAPIN= statement defines the mapping data set to be used for the extraction.

Batch processing uses the same statements as line mode. Batch execution is advantageous when the IDMS logical record or ASF table is large. In a previous execution, you specified the SAVE SELECTIONS option and created a mapping data set. The mapping data set is used as an input data set in the MAPIN= or IN= statement in a batch job.

To update an existing IDMS/R data base, use PROC IDMSUTL. The procedure executes in full-screen mode, line mode, and batch mode. To invoke the procedure in full-screen mode, type

PROC IDMSUTL;
RUN;

The DATA ACCESS PANEL (Screen 3) is displayed. On this screen, enter the information about the data base to be updated and the type of function to perform. The valid functions that you can enter are STORE, MODIFY, or ERASE.

DATA ACCESS PANEL

SELECT IDMS name=SASname
WHERE IDMS WHERE clause

If the logical record name or the ASF table name, the subschema name, or the schema name entered as options in the PROC IDMSEXT statement contains more than one hyphen, the name must be enclosed in quotes. If the options are entered as individual statements and the names contain more than one hyphen, quotes are not needed.

There are several additional statements available in batch mode and interactive line mode.

LIST ALL(RECORD)OPTIONS
   The LIST statement displays information about the IDMS data elements selected. LIST ALL displays all of the elements that were selected and their respective sequence numbers, SAS names, and formats. LIST RECORD lists all of the data elements in the logical record or ASF table. LIST OPTIONS lists all of the options specified during the procedure and their values or current defaults.

DELETE number
   The DELETE statement enables you to delete an IDMS data element from the group of selected elements. Number is the number displayed by the LIST statement for the corresponding IDMS data element.

EXIT
   The EXIT statement enables you to exit the procedure.

FMT number=format
   The FMT statement enables you to assign SAS formats to IDMS data elements.

RENAME number=SASname
   The RENAME statement enables you to specify a SAS name for the IDMS data element specified by number.

RESET
   The RESET statement clears all previous data element selections.

If the logical record name or the ASF table name, the subschema name, or the schema name entered as options in the PROC IDMSEXT statement contains more than one hyphen, the name must be enclosed in quotes. If the options are entered as individual statements and the names contain more than one hyphen, quotes are not needed.

There are several additional statements available in batch mode and interactive line mode.

LIST ALL(RECORD)OPTIONS
   The LIST statement displays information about the IDMS data elements selected. LIST ALL displays all of the elements that were selected and their respective sequence numbers, SAS names, and formats. LIST RECORD lists all of the data elements in the logical record or ASF table. LIST OPTIONS lists all of the options specified during the procedure and their values or current defaults.

DELETE number
   The DELETE statement enables you to delete an IDMS data element from the group of selected elements. Number is the number displayed by the LIST statement for the corresponding IDMS data element.

EXIT
   The EXIT statement enables you to exit the procedure.

FMT number=format
   The FMT statement enables you to assign SAS formats to IDMS data elements.

RENAME number=SASname
   The RENAME statement enables you to specify a SAS name for the IDMS data element specified by number.

RESET
   The RESET statement clears all previous data element selections.

If the logical record name or the ASF table name, the subschema name, or the schema name entered as options in the PROC IDMSEXT statement contains more than one hyphen, the name must be enclosed in quotes. If the options are entered as individual statements and the names contain more than one hyphen, quotes are not needed.

There are several additional statements available in batch mode and interactive line mode.

LIST ALL(RECORD)OPTIONS
   The LIST statement displays information about the IDMS data elements selected. LIST ALL displays all of the elements that were selected and their respective sequence numbers, SAS names, and formats. LIST RECORD lists all of the data elements in the logical record or ASF table. LIST OPTIONS lists all of the options specified during the procedure and their values or current defaults.

DELETE number
   The DELETE statement enables you to delete an IDMS data element from the group of selected elements. Number is the number displayed by the LIST statement for the corresponding IDMS data element.

EXIT
   The EXIT statement enables you to exit the procedure.

FMT number=format
   The FMT statement enables you to assign SAS formats to IDMS data elements.

RENAME number=SASname
   The RENAME statement enables you to specify a SAS name for the IDMS data element specified by number.

RESET
   The RESET statement clears all previous data element selections.

If the logical record name or the ASF table name, the subschema name, or the schema name entered as options in the PROC IDMSEXT statement contains more than one hyphen, the name must be enclosed in quotes. If the options are entered as individual statements and the names contain more than one hyphen, quotes are not needed.

There are several additional statements available in batch mode and interactive line mode.

LIST ALL(RECORD)OPTIONS
   The LIST statement displays information about the IDMS data elements selected. LIST ALL displays all of the elements that were selected and their respective sequence numbers, SAS names, and formats. LIST RECORD lists all of the data elements in the logical record or ASF table. LIST OPTIONS lists all of the options specified during the procedure and their values or current defaults.

DELETE number
   The DELETE statement enables you to delete an IDMS data element from the group of selected elements. Number is the number displayed by the LIST statement for the corresponding IDMS data element.

EXIT
   The EXIT statement enables you to exit the procedure.

FMT number=format
   The FMT statement enables you to assign SAS formats to IDMS data elements.

RENAME number=SASname
   The RENAME statement enables you to specify a SAS name for the IDMS data element specified by number.

RESET
   The RESET statement clears all previous data element selections.
from a SAS data set. The MODIFY function enables you to modify data in a logical record or ASF table with new data from a SAS data set. The ERASE function enables you to delete data from a logical record or ASF table.

The MULTIPLE UPDATE field is used with the MODIFY or ERASE functions and the WHERE CLAUSE. Enter a 1 if you want only to change or delete the first occurrence that matched the criteria specified in the WHERE CLAUSE. The default, 0, changes or deletes all occurrences.

In the SUBSCHEMA field, identify the subschema that contains the logical record or ASF table.

In the SCHEMA NAME and SCHEMA VERSION NO. fields, specify the name of the schema and the schema version number that contains the subschema.

In the RECORD/TABLE NAME field, indicate the IDMS logical record or ASF table you want to use for the update.

In the DICTATION NAME field, specify the dictionary that contains the schema. If nothing is entered in this field, the primary dictionary defined to the system is used.

In the NODENAME field, specify the central version that processes the procedure's data base requests. This field needs to be completed only if you are running in a DDS.

Press the ENTER key if the information on the DATA ACCESS PANEL is complete. If there are no errors, one of the Data Mapping Panels is displayed.

There are three Data Mapping Panels: the DATA MAPPING PANEL, the DATA DISPLAY PANEL, and the WHERE ENTRY PANEL. If the function is STORE or MODIFY, the procedure displays the DATA MAPPING PANEL. If the function is ERASE, the procedure displays the WHERE ENTRY PANEL. You can access the panels through the SELECT field on the screen. The three panels can be displayed simultaneously on one screen.

The DATA MAPPING PANEL (Screen 4) lists the names and formats of the SAS variables in your input SAS data set. Use this panel to map (assign) values from SAS variables in the input SAS data set to IDMS elements in the logical record or ASF table.

<table>
<thead>
<tr>
<th>IDMS/R INTERFACE</th>
<th>RECORD/TABLE NAME: SASDEMO-EMPSKILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA MAPPING PANEL</td>
<td>SAS DATA SET: WORK.EMPDATA</td>
</tr>
<tr>
<td>SELECT: MAP</td>
<td></td>
</tr>
<tr>
<td>COMMAND: ***</td>
<td></td>
</tr>
<tr>
<td>MAPTO ELEMENT/COLUMN NAME</td>
<td>ACTION: SAS NAME</td>
</tr>
<tr>
<td>DATA TYPE</td>
<td></td>
</tr>
</tbody>
</table>

Screen 4 DATA MAPPING PANEL for PROC IDMSUTL

In the MAPTO ELEMENT/COLUMN NAME field, enter the IDMS element name or number from the DATA DISPLAY PANEL. If the MODIFY function is entered, you need only to map to the IDMS elements(s) to be changed.

If the STORE function is entered, place a D under the ACTION column beside the SAS variable name that is not to be mapped, if you do not want to map all of the variables in the SAS data set to IDMS elements.

The SAS NAME and FORMAT fields display the SAS variable name and format from the input SAS data set.

At the top of the screen is the SELECT field. You can access the other data mapping panels by entering DISPLAY or D for the DATA DISPLAY PANEL, MAP or M for the DATA MAPPING PANEL, or WHERE or W for the WHERE ENTRY PANEL in that field. Place the cursor at the position on the screen where you want the current panel to split and press ENTER. If the cursor is not below the first entry line, the current panel is replaced by the requested panel.

If the function is MODIFY, the WHERE ENTRY PANEL must also be completed by entering WHERE or W in the SELECT field. A WHERE CLAUSE may be entered with the STORE function in the same manner.

After completing the DATA MAPPING PANEL (and the WHERE ENTRY PANEL if the MODIFY function was entered), press the END key. The DATA ACCESS PANEL is displayed with statistics indicating the number of SAS observations read from the input data set and the number of IDMS records modified. If you entered a SAS data set in the MAP DATA SET field, a mapping data set is created.

The DATA DISPLAY PANEL (Screen 5) displays the names and types of the IDMS elements in the specified logical record or ASF table. The NUM field contains numbers corresponding to the IDMS elements that can be used in the MAPTO ELEMENT/COLUMN NAME field on the DATA MAPPING PANEL. Elements within a group are indicated under the group element name.

<table>
<thead>
<tr>
<th>IDMS/R INTERFACE</th>
<th>RECORD/TABLE NAME: SASDEMO-EMPSKILL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA DISPLAY PANEL</td>
<td>SAS DATA SET: WORK.EMPDATA</td>
</tr>
<tr>
<td>SELECT: DISPLAY</td>
<td></td>
</tr>
<tr>
<td>COMMAND: ***</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>ELEMENT/COLUMN NAME</td>
</tr>
<tr>
<td>DATA TYPE</td>
<td></td>
</tr>
</tbody>
</table>

Screen 5 DATA DISPLAY PANEL for PROC IDMSUTL

The WHERE ENTRY PANEL (Screen 6) is required for the ERASE and MODIFY functions. By default, this panel is displayed after
the DATA ACCESS PANEL for the ERASE function. At this time, only a subset of the WHERE CLAUSE syntax can be used. Features that cannot be used are parentheses and the following arithmetic expressions: +, -, *, and /. The Boolean operators (AND, OR, and NOT) can be used. Keywords may be used if they have been specified by the OBA in the subschema. Character literals must be enclosed in single quotes and must be entered in upper- or lower-case, of.both, exactly as the data appear on the data base. Blank spaces must be inserted between all operators and operands. SAS variable names from the input SAS data set can be entered in the WHERE CLAUSE. The variable name must be preceded by a percent sign. Only those occurrences of the IDMS element that match the value of the SAS variable are changed.

**IDMS/R INTERFACE RECORD/TABLE NAME: SASDEKO-EMPSKILL**

**IOKS WHERE ENTRY PANEL SAS DATA SET: WORK.EKPDATA**

**SELECT: WHERE**

**COMKAND: ==></**

**IOKS WHERE CLAUSE:**

**Screen 6 WHERE ENTRY PANEL for PROC IDMSUTL**

To invoke PROC IDMSUTL in line mode or batch mode, enter the PROC statement with all of the required options and any of the additional options. The options can also be entered as individual statements. The following options are required:

- **FUNCTION=** name of function
- **RECORD=** logical record or ASF table name
- **SCHEMA=** schema name
- **SUBSCHEMA=** subschema name
- **VERSION=** version number
- **IN=** SAS dataset

A line mode example that creates a mapping data set follows.

22> PROC IDMSUTL;

NOTE: PROFILE LIBRARY HAS NOT BEEN SPECIFIED.

NOTE: TEMPORARY PROFILE HAS BEEN OPENED.

23> RECORD=SASDEMO-EMPLOYEE;

24> SCHEMA=IDMSR;

25> SUBSCHEMA=RLOO0 117;

26> VERSION=1;

27> DICTIONARY=ASFDICT;

28> FUNCTION=STORE;

29> IN=UTL;

30> MAPTO=UTLHAP;

31> LIST REC;

SASDEMO-EMPLOYEE •••••• IDMS LOGICAL RECORD ELEMENTS

0001 EMP-ID
0002 EMP-FIRST-NAME
0003 EMP-LAST-NAME
0004 SALARY-AMOUNT
0005 OVERTIME
0006 FILLER

32> MAPTO 1=EMPID 2=EMPFIRST 3=EMPLASTN 4=SALARYAM 5=OVERTIKE 6=FILLER;

33> LIST ALL;

**-------------------------USER SPECIFIED----------------------------**

**NUMBER IDMS ELEMENT NAME SAS NAME FORMAT**

0001 EMP-ID EMPID 11.8
0002 EMP-FIRST-NAME EMPFIRST $20.
0003 EMP-LAST-NAME EMPLASTN $20.
0004 SALARY-AMOUNT SALARYAM 11.2
0005 OVERTIME OVERTIKE 11.2
0006 FILLER FILLER $1.

The **IN=DATA=** statement is required for the STORE and MODIFY functions. It is used with the ERASE function if the WHERE CLAUSE is based on conditions of the values of the variables in the SAS data set.

If the logical record name or the ASF table name, the subschema name, or the schema name entered as options in the PROC IDMSUTL statement contains more than one hyphen, the name must be enclosed in quotes. If the options are entered as individual statements and the names contain more than one hyphen, quotes are not needed.

There are several additional statements available in batch mode and interactive line mode.

**LIST ALL/RECORD/OPTIONS**

The **LIST ALL** statement displays all of the mapping specifications. The **LIST RECORD** statement lists all of the data elements in the logical record or ASF table with their corresponding number. The **LIST OPTIONS** statement lists all of the options specified during the procedure and their values or current defaults.

**DELETE SASname**

The **DELETE** statement enables you to delete a SAS variable from the input SAS data set from the list of variables to be mapped.

**EXIT**

The **EXIT** statement enables you to exit from the procedure.

**MAPTO IDMS name=SASname/IDMSnumber=SASname**

The **MAPTO** statement enables you to specify the SAS variable names to be mapped to the IDMS element name or number.

**WHERE IDMS where clause**

The **WHERE** statement enables you to enter an IDMS WHERE CLAUSE. The restrictions mentioned above apply here as well.
The MAPOUT= statement is used only in line mode or batch mode. It identifies the SAS data set that is to contain the mapping specifications to be used in a later update.

The MAPIN= statement is used only when executing the procedure in line mode or batch mode. It defines the mapping data set to be used for the update.

Using the SAS/ACCESS to IDMS/R software enhances your capability to manage your data. PROC IDMSEXT and PROC IDMSUTL provide easy access to your IDMS data while providing the power of the SAS System for data analysis.