HP System Dictionary XL Gen. Ref. Vol. 2

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HP System Dictionary XL Gen. Ref. Vol. 2-Part 1
SDINIT

Printing History

New editions are complete revisions of the manual. Update packages, which are issued between editions, contain additional and replacement pages to be merged into the manual by the customer. The dates on the title page change only when a new edition or a new update is published. No information is incorporated into a reprinting unless it appears as a prior update; the edition does not change when an update is incorporated.

The software code printed alongside the date indicates the version level of the software product at the time the manual or update was issued. Many product updates and fixes do not require manual changes and, conversely, manual corrections may be done without accompanying product changes. Therefore, do not expect a one to one correspondence between product updates and manual updates.

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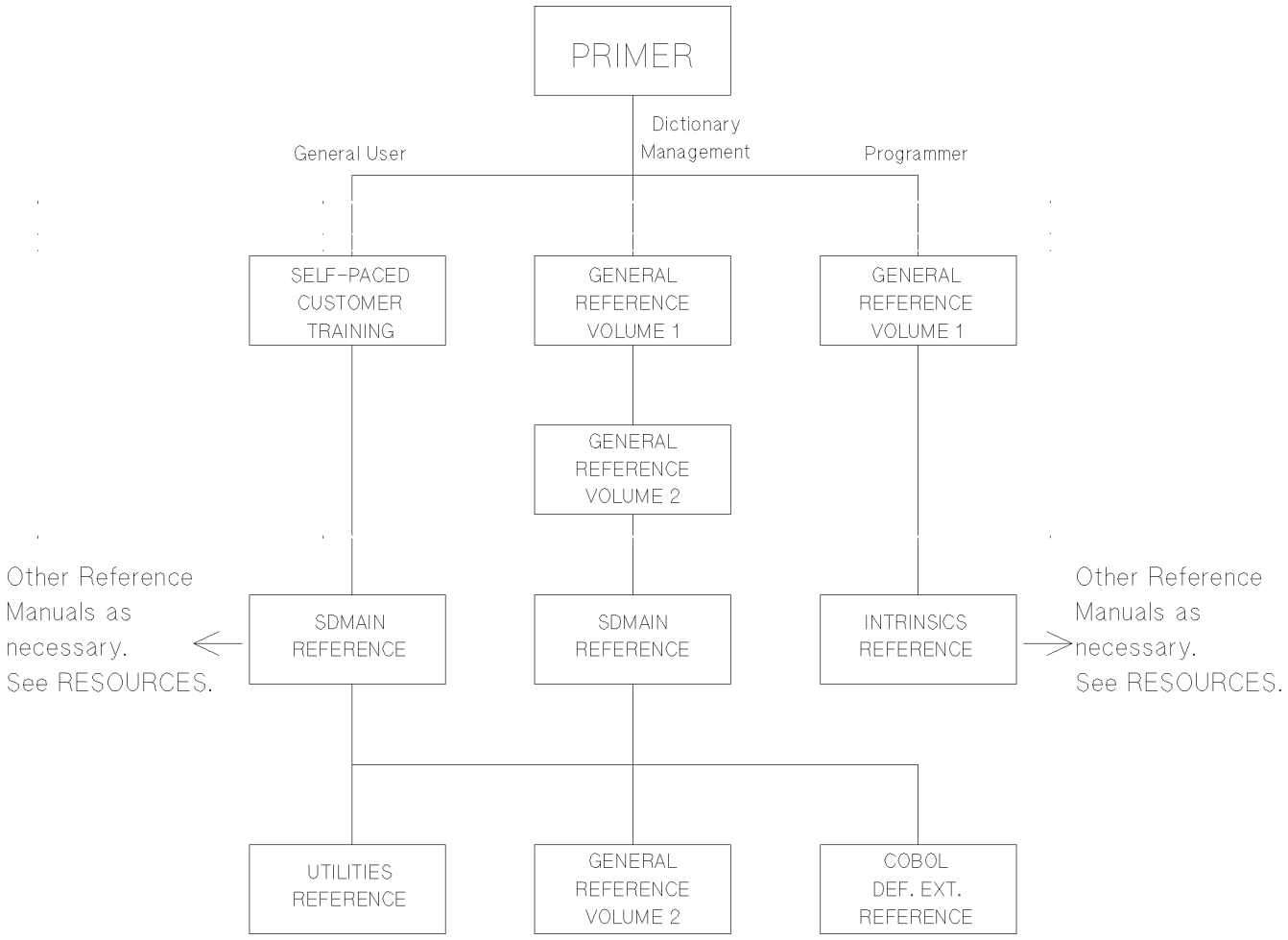
Documentation Map

The following documentation map is intended only as a general guide to the manuals available for HP System Dictionary/XL. Specific users may need information from one or all of the manuals listed here and in the section under "Resources" in the preface of this manual.



Preface

Manual Organization

This manual is the standard reference manual for users of HP System Dictionary utilities listed below. It includes both reference information and step-by-step operating instructions for these utilities.

1 HP System Dictionary/XL Initialization Utility (SDINIT)

2 HP System Dictionary/XL Upgrade Utility (SDUPGRAD)

3 Dictionary/V to HP System Dictionary/XL Conversion Utility (SDCONV)

This manual is organized as follows:

Part 1 The SDINIT Utility

Chapter 1 INTRODUCTION

This chapter provides a brief description of the initialization utility, when and why it's used, and by whom.

Chapter 2 RUNNING THE SDINIT PROGRAM

This chapter describes the SDINIT program and provides step-by-step instructions for its use.

Appendix A SDINIT ERROR MESSAGES

This appendix provides a list of the SDINIT error messages, and includes at least one probable cause for each error and an action to take for each cause.

Part 2 The SDUPGRAD Utility

Chapter 1 INTRODUCTION

This chapter provides an overview of the SDUPGRAD utility and lists the additions to the core set that it provides.

Chapter 2 RUNNING THE SDUPGRAD PROGRAM

This chapter describes the SDUPGRAD program and provides step-by-step instructions for its use.

Appendix A SDUPGRAD ERROR MESSAGES

This appendix provides a list of the SDUPGRAD error messages, and includes at least one probable cause for each error and an action to take for each cause.

Part 3 The SDCONV Utility

Chapter 1 INTRODUCTION TO SDCONV

This chapter provides an overview of the SDCONV utility.

Chapter 2 RUNNING THE SDCONV PROGRAM

This chapter describes the SDCONV program and provides step-by-step instructions for its use.

Chapter 3 SDCONV COMMANDS

This chapter describes the SDCONV commands, and includes their syntax and parameters.

Chapter 4 THE SDCONV LOADING PROCESS

This chapter includes detailed information on how entities and relationships are mapped from Dictionary/V into System Dictionary.

Appendix A SDCONV ERROR MESSAGES

This appendix is a complete list of SDCONV errors, and includes at least one possible cause of each error and a recommended action for each cause.

Appendix B SDCONV COMMAND ABBREVIATIONS

This appendix includes a list of SDCONV command words and their abbreviations.

Part 4 The SDUTIL Utility

Chapter 1 INTRODUCTION TO SDUTIL

This chapter provides an overview of the SDUTIL utility.

Chapter 2 RUNNING THE SDUTIL PROGRAM

This chapter describes the SDUTIL program and provides step-by-step instructions for its use.

Chapter 3 SDUTIL COMMANDS

This chapter describes the SDUTIL commands, and includes their syntax and parameters.

Appendix A SDUTIL ERROR MESSAGES

This appendix is a complete list of SDUTIL errors, and includes at least one possible cause of each error and a recommended action for each cause.

Appendix B SDUTIL COMMAND ABBREVIATIONS

This appendix includes a list of SDUTIL command words and their abbreviations.

Glossary Glossary of System Dictionary terms

Audience

The intended users of this manual will be those individuals who will use the HP System Dictionary/XL utilities described in this manual. These individuals may be:

- Dictionary Administrators
- Database Administrators
- General Users

You may find knowledge of the HP 3000 operating and file systems useful, as well as knowledge of the HP 3000 TurboIMAGE Database Management subsystem.

Resources

In addition to this manual, you may need to consult the following manuals:

Managing Your Information Network: A Data Dictionary Primer

HP System Dictionary/XL SDMAIN Reference Manual

HP System Dictionary/XL Intrinsics Reference Manual

HP System Dictionary/XL Utilities Reference Manual

HP System Dictionary/XL General Reference Manual, Volume 1

HP System Dictionary/XL General Reference Manual, Volume 2

HP System Dictionary/XL COBOL Definition Extractor Reference Manual

TurboIMAGE/XL Reference Manual

SQL Reference Manual

HP SQL Database Administration Guide

VPLUS Reference Manual

QUERY/V Reference Manual

KSAM Reference Manual

Transact/V Reference Manual

HP 3000 General Information Manual

MPE XL Commands Reference Manual

MPE XL Intrinsics Reference Manual

Program Design and Optimization

Programmer's Utilities and Tools

Native Language Support Reference Manual

EDIT/V Reference Manual

Pascal/XL Reference Manual

Pascal/XL Programmer's Guide

COBOL II/XL Reference Manual

COBOL II/XL Programmer's Guide

HP FORTRAN 77 Reference Manual

HP FORTRAN 77/XL Reference Manual Supplement

HP FORTRAN 77/XL Programmer's Guide

HP FORTRAN 77/XL Programmer's Guide Supplement

SPL Reference Manual

Conventions

NOTATION	DESCRIPTION
nonitalics	Words in syntax statements which are not in italics must be entered exactly as shown. Punctuation characters other than brackets, braces and ellipses must also be entered exactly as shown. For example: EXIT;
italics	Words in syntax statements which are in italics denote a parameter which must be replaced by a user-supplied variable. For example: CLOSE *filename*
[ ]	An element inside brackets in a syntax statement is optional. Several elements stacked inside brackets means the user may select any one or none of these elements. For example: [A] [B] User *may* select A or B or neither.
{ }	When several elements are stacked within braces in a syntax statement, the user must select one of those elements. For example: {A} {B} User *must* select A or B or C. {C}

... A horizontal ellipsis in a syntax statement indicates that a previous element may be repeated. For example:

[,*itemname*]...;

In addition, vertical and horizontal ellipses may be used in examples to indicate that portions of the example have been omitted.

, A shaded delimiter preceding a parameter in a syntax statement indicates that the delimiter *must* be supplied whenever (a) that parameter is included or (b) that parameter is omitted and any *other* parameter which follows is included. For example:

itema [,*itemb*][,*itemc*]"

means that the following are allowed:

itema

itema,itemb

itema,itemb,itemc

itema,,itemc

Å When necessary for clarity, the symbol Å may be used in a syntax statement to indicate a required blank or an exact number of blanks. For example:

SET[(*modifier*)] Å (*variable*);

underlining Brackets, braces or ellipses appearing in syntax or format statements which must be entered as shown will be underlined. For example:

LET *var* [[*subscript*]] = *value*

Output and input/output parameters are underlined. A notation in the description of each parameter distinguishes input/output from output parameters. For example:

CREATE (*parm1*, parm2, flags,

error)

shading Shading represents inverse video on the terminal's screen. In addition, it is used to emphasize key portions of an example.

[[ ]] The symbol [[ ]] may be used to indicate a key on the terminal's keyboard. For example, [[Return]] indicates the carriage return key.

[[Control]]*char* Control characters are indicated by [[Control]] followed by the character. For example, [[Control]]Y means the user presses the control key and the character Y simultaneously.

1 Running The SDINIT Program

Overview

This chapter describes the SDINIT program and guides you, step by step, through both the initialization and reinitialization procedures.

SDINIT's Files

The following files are used by the SDINIT program:

SDPASS is a permanent file created by SDINIT which contains initialization/reinitialization information in an internal format. If a file already exists with this name, SDINIT will ask for permission to overwrite the file. If the response is NO, SDINIT will terminate. SDPASS is deleted when SDINIT successfully completes.

SDSTREAM is a permanent file used when either initializing or reinitializing the dictionary. It is the job stream which is submitted to do the actual initialization or reinitialization. If the file exists, SDINIT will ask permission to overwrite it. If the response is NO, SDINIT will terminate. SDSTREAM is deleted if the job is automatically streamed.

SDSTORE is a permanent file used to store core set definitions and is included in the System Dictionary installation tape. This file must exist on disc before SDINIT is run. SDSTORE normally resides in PUB.SYS, and may be redirected by a file equation.

SDRSTORE is a permanent file used when reinitializing the dictionary. It is used if you want to change the dictionary capacities and store the original dictionary contents on disc. During reinitialization, if SDRSTORE already exists, SDINIT will ask if it is all right to overwrite the file. If the response is NO, SDINIT will terminate. SDRSTORE is deleted when SDINIT successfully completes.

SDTEMP1 is a permanent file used when either initializing or reinitializing the dictionary, and changing dictionary capacities. If the file exists, SDINIT will ask for permission to overwrite it. If the response is NO, SDINIT will terminate. SDTEMP1 is deleted when SDINIT successfully completes.

SDTEMP2 is a permanent file used when reinitializing the dictionary and changing only the password. Like SDTEMP1, if this file exists, SDINIT will ask for permission to overwrite it. If the response is NO, SDINIT will terminate. SDTEMP2 is deleted when SDINIT successfully completes.

Job Control Word (JCW)

The Job Control Word (JCW) is a system parameter which indicates the termination condition of the SDINIT program. Upon exiting from SDINIT, the JCW will be set to one of two values:

0 Program terminated normally

32768 Program terminated abnormally (FATAL JCW value)

The JCW allows the batch mode user to test for the termination condition and act accordingly. Information

on job control words is located in the *MPE V Commands Reference Manual*. More information on the JCW, and a sample batch job is located in Chapter 2 of the *HP System Dictionary/XL SDMAIN Reference Manual*.

Running the SDINIT Program

Special Character Responses

When running the SDINIT pr ogram, the following responses have special meaning:

[[CONTROL]] X Causes the line on which the [[CONTROL]] X was entered to be ignored. The system displays three exclamation points (! ! !) and then waits for you to reenter the line.

[[CONTROL]] Y Causes the line on which the [[CONTROL]] Y was entered to be reprompted. If, however, a [[CONTROL]] Y is entered in the middle of prompting for the list of dictionary capacities, the program goes back to the previous level of prompts.

The SDINIT Prompts

The first value in all SDINIT prompts is the default value and can always be used by hitting [[RETURN]]. For example, when [[RETURN]] is pressed in response to the prompt shown below, the Initialization option will be used:

```
Initialization / Reinitialization (I/R) >
```

The SYSDIC Dictionary

It might be helpful here to point out that the name of the dictionary which is always used by the initialization procedure is SYSDIC. You are never prompted to supply a dictionary name.

Although an MPE account may have several dictionaries in existence, there can never be more than one per group. Each of these dictionaries will be named SYSDIC. The ability to achieve the *functionality* of more than one dictionary per user or per group is provided by the **domain** and **version control** capabilities. In this way, you can partition an individual dictionary into different naming spaces and versions and, *in effect* (although not in fact), have more than one dictionary. You will, however, have just one dictionary named SYSDIC. The domain and version control capabilities are described in detail in Chapter 4 of the *HP System Dictionary/XL General Reference Manual, Volume 1*.

The RUN Command

You are now ready to run the initialization program. To run SDINIT, enter the following command:

```
RUN SDINIT.PUB.SYS
```

When [[RETURN]] is entered, SDINIT will respond with the following banner:

```
HP System Dictionary  SDINIT  HP32254v.uu.ff - (C) Hewlett-Packard Co.  1985
```

At this point, you are given two options:

1. to *initialize* the dictionary, or
2. to *reinitialize* an existing dictionary.

The first prompt that appears is shown below:

```
Initialization / Reinitialization (I/R) >
```

Enter [[RETURN]] or "I" to initialize a new dicti onary or "R" to reinitialize an existing dictionary. If you choose Initialization and the dictionary already exists, you will be given a message telling you that the

dictionary already exists and the SDINIT program will terminate. The existing dictionary capacities and/or data will not be overwritten.

If you want to make changes to the existing dictionary capacities or password, you must choose the Reinitialization option.

Initializing the Dictionary

The Dictionary Password

Once you have chosen the Initialization option, you will be asked to supply a password which will be used to create the dictionary. Because the dictionary is, itself, a database, this is the database password which the TurboIMAGE subsystem uses to create the database. It should not be confused with the **scope password** which is the password you specify when accessing the dictionary. For security reasons, the echo is turned off for entry of the password:

Dictionary database password >

If you enter [[RETURN]] instead of a password you will be reprompted. Note that System Dictionary follows the MPE operating system convention of allowing only three incorrect passwords to be entered. The SDINIT program will therefore terminate at the third incorrect entry.

When the correct password is entered, the dictionary will prompt for verification.

Verification of password >

The Verification of password> prompt allows you to check the correctness of the first password entry. If you enter [[RETURN]] or if you do not enter the same password in response to this prompt, the following message will appear and you will again be prompted for the password and verification:

Verification of password failed (SDERR 2205)

Knowledge of this password should be limited to the Dictionary Administrator (DA) in order to protect dictionary security and integrity.

The SDPASS File

At this point, if the file SDPASS already exists, you will be prompted for permission to overwrite.

SDPASS.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

If you answer "N" , SDINIT will terminate. If the answer is "Y" , SDPASS will be overwritten.

Defining the Capacities

The Default Capacities. Once the database password has been entered, System Dictionary displays the following list of the HP-defined dictionary default capacities. You may use all of the default values for these capacities by responding "Y" or [[RETURN]] to the Are the capacities correct? (Y/N) > prompt, or you may choose to change these capacities. If you decide to make changes and respond "N", you will be allowed to alter any or all of the values. See the paragraph below entitled "User-Defined Capacities." A definition of each of the capacities is shown on the following page.

```
|                                                                    |
|     Capacity for ALIASES is 2000                                   |
|     Capacity for user defined ATTRIBUTES is 50                     |
|     Capacity for user defined ENTITY TYPES is 25                   |
|     Capacity for user defined RELATIONSHIP CLASSES is 10           |
```

```
|     Capacity for user defined binary RELATIONSHIP TYPES is 45     |
|     Capacity for user defined N-ary RELATIONSHIP TYPES is 5 *     |
|     Capacity for average no. attributes associated to ET & RT is 2|
|     Capacity for DOMAINS is 16                                    |
|     Capacity for ENTITY names is 3000                             |
|     Capacity for total versions of ENTITIES is 5000               |
|     Capacity for binary RELATIONSHIPS is 4900                     |
|     Capacity for N-ary RELATIONSHIPS is 100                       |
|     Capacity for total versions of RELATIONSHIPS is 7000          |
|     Capacity for FIXED LENGTH ATTRIBUTE DATA is 12000             |
|     Capacity for FIXED LENGTH ATTRIBUTE EDIT DATA is 100          |
|     Capacity for VARIABLE LENGTH DATA is 5000                     |
|     Capacity for SCOPES is 32                                     |
|     Capacity for SCOPE/ENTITY associations is 500                 |
|     Capacity for SCOPE/RELATIONSHIP associations is 500           |
|     Capacity for SCOPE/DOMAIN associations is 100                 |
|     Capacity for VERSIONS is 32                                   |
|     Capacity for VERSION LOGGING is 1000                          |
|                                                                   |
|     Are the capacities correct? (Y/N) >                           |
```

* **N-ary relationship types** are any relationship types involving 3 to 6 entity types, in contrast to **binary relationship types** which are relationship types between only 2 entity types.

Table 1: System Dictionary Capacities

CAPACITY	DESCRIPTION
ALIASES	The total number of alias names for all entity and relationship occurrences.
ATTRIBUTES ENTITY TYPES RELATIONSHIP CLASSES Binary RELATIONSHIP TYPES N-ary RELATIONSHIP TYPES	These are the structural components of the dictionary database and are whatever numbers you want to specify. The total number of these items already defined in the HP-provided core set will be automatically added in.
Average number of attributes associated to ET and RT	The average number of user-defined attributes associated to ENTITY TYPES and RELATIONSHIP TYPES. The total number of HP-defined attribute-type pairs is automatically added in.
DOMAINS	The total number of domain definitions. The total number of HP defined domains is automatically added in.
ENTITY names	The total number of entity names, including synonyms.
Total versions of ENTITIES	The total number of versions of all entities. There can be many versions of the same entity.

Table 1: System Dictionary Capacities

CAPACITY	DESCRIPTION
Binary RELATIONSHIPS N-ary RELATIONSHIPS	The total number of binary or N-ary relationship occurrences.
Total versions of RELATIONSHIPS	The total number of all versions of all binary and N-ary relationships. There can be many versions of a relationship.
FIXED LENGTH ATTRIBUTE DATA	The total number of 40-byte buffers of attribute data for all entity and relationship occurrences. To estimate this capacity, use the following guideline: Capacity for fixed length attribute data = (Average attribute length * Average number of attributes associated to ET and RT/40) [rounded off to next digit] * (Total versions of all entities + Total versions of all relationships).
FIXED LENGTH ATTRIBUTE EDIT DATA	The maximum number of 40-byte buffers for storing additional edit text data that you expect to have in the dictionary. There is a 40-byte buffer associated by default with each attribute defined in the dictionary. This capacity is the total number of additional buffers needed to store attribute edit text in excess of the default.
VARIABLE LENGTH ATTRIBUTE DATA	The maximum number of 80-character lines you expect to have in the dictionary. If you have only one variable length attribute and that attribute has, on the average, 3 lines of text, and 50 definitions use this attribute, this capacity should be (3*50), or 150.
SCOPES	The total number of scope definitions.
SCOPES/ENTITY	The total number of associations between entities and scopes.
SCOPE/RELATIONSHIP associations	The total number of associations between relationships and scopes.
SCOPE/DOMAIN associations	The total number of associations between domains and scopes.
VERSIONS	The total number of version definitions.
VERSION LOGGING	The total number of version status changes to be made to all versions.

User-Defined Capacities. If you answered "N" to the prompt Are the capacities correct? (Y/N) > you will be given the chance to change the capacities with the following prompt (where xxx is the default capacity):

```
|                                                                    |
|     1  ALL                                                         |
|     2  Capacity for ALIASES is xxx                                 |
|     3  Capacity for user defined ATTRIBUTES is xxx                 |
|     4  Capacity for user defined ENTITY TYPES is xxx               |
|     5  Capacity for user defined RELATIONSHIP CLASSES is xxx       |
|     6  Capacity for user defined binary RELATIONSHIP TYPES is xxx  |
```

```
|     7  Capacity for user defined N-ary RELATIONSHIP TYPES is xxx       |
|     8  Capacity for average no. attributes associated to ET & RT is xxx|
|     9  Capacity for DOMAINS is xxx                                     |
|     10 Capacity for ENTITY names is xxx                                |
|     11 Capacity for total versions of ENTITIES is xxx                  |
|     12 Capacity for binary RELATIONSHIPS is xxx                        |
|     13 Capacity for N-ary RELATIONSHIPS is xxx                         |
|     14 Capacity for total versions of RELATIONSHIPS is xxx             |
|     15 Capacity for FIXED LENGTH ATTRIBUTE DATA is xxx                 |
|     16 Capacity for FIXED LENGTH ATTRIBUTE EDIT DATA is xxx            |
|     17 Capacity for VARIABLE LENGTH ATTRIBUTE DATA is xxx              |
|     18 Capacity for SCOPES is xxx                                      |
|     19 Capacity for SCOPE/ENTITY associations is xxx                   |
|     20 Capacity for SCOPE/RELATIONSHIP associations is xxx             |
|     21 Capacity for SCOPE/DOMAIN associations is xxx                   |
|     22 Capacity for VERSIONS is xxx                                    |
|     23 Capacity for VERSION LOGGING is xxx                             |
|     24 DONE                                                            |
|                                                                        |
|     Enter code >                                                       |
|                                                                        |
```

You can now alter the capacity of any item by entering the appropriate code number next to that item. Valid responses are code numbers 1 through 24, [[RETURN]], and [[CONTROL]] Y. Any other response will result in an error and Enter code> will be reprompted.

- If you enter code 1, you will be prompted for a new capacity for each of the dictionary components. After the last item is prompted, the entire capacity list is displayed, giving you another chance to verify its correctness. If you enter [[CONTROL]] Y while being prompted for the capacities, SDINIT will discontinue prompting and list the current capacities, allowing you to verify the list.
- If you enter any number from 2 to 23, you may alter a specific capacity. If, for example, you enter code 3, the prompt will be:

  New Capacity for user defined ATTRIBUTES (xxx) >>

  If you enter [[RETURN]] or [[CONTROL]] Y to this prompt, the default value will be used.
- The prompt Enter code > is repeated until a [[RETURN]], code 24, or [[CONTROL]] Y is entered. If any of these responses are entered, the capacities are listed, allowing you to verify them.

Once the capacities are correct, you are then prompted for external and internal names for the first version in the common domain and the DA scope, and then the password for the DA scope. All of these names are user-supplied. Any names that are meaningful to your particular application can be used. Every definition in the dictionary, whether it is a structural component such as entity type or an actual entity occurrence, has both an **internal name** and an **external name** associated with it. The internal name can never change and is designed to be used by software products which interface with the dictionary and rely on a given name for identification purposes. The external name is intended for end users of the dictionary and can be changed through the SDMAIN program. If not specified, the internal name defaults to the same name as the external name. Once, however, the internal name is chosen, the only way to change the name is to initialize a new dictionary with a different internal name. For a complete discussion of scopes, versions, and domains, refer to Chapter 4 of the *HP System Dictionary/XL General Reference Manual,*

Volume 1. The echo is turned off for entry of the password.

```
|                                                |
|     External name of version in common domain >|
|     Internal name of version in common domain >|
|     External name of DA scope >                |
|     Internal name of DA scope >                |
|     Password for DA scope >                    |
|     Verification of DA password >              |
```

If you enter [[RETURN]] or do not type in the same password at the Verification of DA password> prompt, the following message will appear and you will again be prompted for the password and verification:

Verification of password failed (SDERR 2205)

Once you have supplied names in response to the above prompts, S DINIT will list the names which you have entered (indicated here by xxx's), thus allowing you to verify them:

```
|                                                  |
|     External name of version in common domain is xxx|
|     Internal name of version in common domain is xxx|
|     External name of DA scope is xxx               |
|     Internal name of DA scope is xxx               |
|     Are the names correct? (Y/N) >                 |
```

If you answer "N" to Are the names correct? (Y/N) >, you will then be reprompted starting with

External name of version in common domain >.

If you answer "Y" , and SDTEMP1 exists, you will be prompted for permission to overwrite it, as shown below.

SDTEMP1.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

If you answer "N" to this prompt, SDINIT will terminate.

Submitting the Job Stream

You have now completed the process of supplying the necessary initialization information and the only step that now remains to be done is to submit the job stream which completes the initialization process. If your response was "Y" to the prompt Are the names correct? (Y/N) >, you should now see the following prompt:

Input Priority of Job Stream (8) >

Here, you specify the input priority for the job. If [[RETURN]] is entered, the default value of 8 which is shown in the prompt will be used. Otherwise, you can enter any priority from 1 (the lowest priority) to 13 (the highest priority). You can, therefore, defer the execution of the job if necessary.

You must now specify an output priority for the job stream listing:

Output Priority for Job Stream Listing (8) >

As with the input priority, the default for the output priority is also 8 and will be used if [[RETURN]] is

pressed. Otherwise, priority values from 1 (the lowest priority) to 13 (the highest priority) can be used, allowing you to defer the listing if necessary.

You are now prompted for any passwords which exist at the user, group, and account levels. For security reasons, the echo is turned off for entry of the passwords:

User Password >

Group Password >

Account Password >

If you used passwords at any of these levels when you logged on, you must now enter them. You can specify whether you want the job stream to be automatically submitted or not.

Automatically Submit Job Stream? (Y/N) >

If you answer "N" , the following message will be disp layed on the screen, and SDINIT will terminate.

Submit SDSTREAM job to complete initialization process

If you would like to complete the initialization process on line instead of in batch mode, enter:

RUN SDINIT.PUB.SYS; INFO="BUILD"; PARM=1

If you answer "Y" to the prompt Automatically Submit Job Stream? (Y/N) >and if any of the entered passwords are invalid, you will receive the following message and will again be prompted to enter the valid passwords:

Unable to stream special job stream (SDERR 2264)

Otherwise, you will receive both the MPE job number and the SDINIT job stream message, as follows:

#J383

System Dictionary Initialization Job Stream Submitted

Job Stream Messages. Once the job stream is successfully submitted, you will receive the following messages as long as you remain logged on to the same user and account under which the job was submitted. If, however, you switch users or accounts, you will not receive any of the initialization messages.

When the job begins execution, the following message appears:

System Dictionary Initialization Begins

If SDINIT completes successfully, the following message is displayed:

System Dictionary SYSDIC Created

In addition, an output listing which lists a report on dictionary capacities and core set definitions will be produced.

If any error occurred during initialization, an error message will be displayed at your terminal. Messages are also written to the output listing of SDINIT. If for any reason you did not receive the completion message at your terminal, check the output listing for any errors. If errors occurred, correct them and then run SDINIT again.

Reinitializing the Dictionary

If you currently have a dictionary, but want to change either the password or any of the capacities, then you will need to reinitialize the dictionary using SDINIT. You can only do this, however, if you were the creator of the dictionary. Prior to doing this, it is always advisable to store the dictionary using the

DBSTORE program which resides in the PUB group of the SYS account. Therefore, in the event that some problem occurs during reinitialization, you have a complete back of the current dictionary. Refer to the *TurboIMAGE Reference Manual* for detailed instructions for running DBSTORE. Once the database is stored, you must choose the Reinitialization option in response to the following prompt in order to reinitialize the dictionary:

Initialization / Reinitialization (I/R) >

The Dictionary Password

Before you can begin reinitializing the dictionary, you must supply the dictionary database password. This is the password which the dictionary was given at initialization time. If you enter [[RETURN]] or if you make a mistake when entering the old password, you will be reprompted. If you do not enter the correct password after being prompted three times, SDINIT automatically terminates. For security reasons, the echo will be turned off for the response to the password prompts:

Dictionary database old password >

Once the correct old password is entered, the next prompt that appears allows you to change the dictionary database password:

Dictionary database new password >

Verification of new password >

If you enter [[RETURN]] in response to the new password prompt, the old password will be used. If you enter a new password and do not type in the same password at the Verification of new password > prompt, the following message will appear and you will again be prompted for the new password and verification:

Verification of password failed (SDERR 2205)

The next prompt that appears allows you to change the capacities.

Change dictionary capacities? (N/Y) >

If you want to change the existing capacities , enter "Y", and follow the steps under the heading "New Capacities" (next page).

If you have changed the existing password, but want to keep the existing capacities, enter "N" or [[RETURN]], and follow the steps under the heading "Current Capacities" (next page).

Current Capacities. At this point, if either of the files named SDTEMP1 or SDTEMP2 exists, you will be prompted for permission to overwrite them.

SDTEMP1.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

SDTEMP2.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

If you answer "N" to either of these prompts, SDINIT will terminate, and the password will *not* be changed.

If you answer "Y" to both of these prompts, the password will be changed, and no further user interaction will be required.

New Capacities. At this point, if the file SDPASS already exists, you will then be prompted for permission to overwrite.

SDPASS.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

If you answer "N" to this prompt, SDINIT will terminate.

The next prompt that appears allows you to specify where the current dictionary contents will be stored

while reinitialization is being done:

Dictionary store file on Tape or Disc? (T/D) >

If you have a limited amount of disc space, you may want to request storage of the contents to tape, because the store file can be quite large. If you do choose tape ("T"), SDINIT uses a labeled tape which allows MPE to manage the tape handling. This means that all messages to mount the tape, etc., will appear on the operator's console.

If, however, you enter "D" and a file named SDRSTORE already exists, SDINIT prompts you with:

SDRSTORE.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

If you answer "N", SDINIT will terminate. If you answer "Y" or [[RETURN]], the following prompt will appear displaying the current dictionary capacities (where xxx is the current capacity):

```
|                                                                    |
|     Capacity for ALIASES is xxx                                    |
|     Capacity for user defined ATTRIBUTES is xxx                    |
|     Capacity for user defined ENTITY TYPES is xxx                  |
|     Capacity for user defined RELATIONSHIP CLASSES is xxx          |
|     Capacity for user defined binary RELATIONSHIP TYPES is xxx     |
|     Capacity for user defined N-ary RELATIONSHIP TYPES is xxx      |
|     Capacity for average no. attributes associated to ET & RT is xxx|
|     Capacity for DOMAINS is xxx                                    |
|     Capacity for ENTITY names is xxx                               |
|     Capacity for total versions of ENTITIES is xxx                 |
|     Capacity for binary RELATIONSHIPS is xxx                       |
|     Capacity for N-ary RELATIONSHIPS is xxx                        |
|     Capacity for total versions of RELATIONSHIPS is xxx            |
|     Capacity for FIXED LENGTH ATTRIBUTE DATA is xxx                |
|     Capacity for FIXED LENGTH ATTRIBUTE EDIT DATA is xxx           |
|     Capacity for VARIABLE LENGTH ATTRIBUTE LINES is xxx            |
|     Capacity for SCOPES is xxx                                     |
|     Capacity for SCOPE/ENTITY associations is xxx                  |
|     Capacity for SCOPE/RELATIONSHIP associations is xxx            |
|     Capacity for SCOPE/DOMAIN associations is xxx                  |
|     Capacity for VERSIONS is xxx                                   |
|     Capacity for VERSION LOGGING is xxx                            |
|                                                                    |
|     Are the capacities correct? (Y/N) >                            |
```

For an explanation of each of these capacity prompts, see the paragraphs in this chapter under "Defining the Capacities."

If your answer is "N" to the prompt Are the capacities correct? (Y/N) >, the following prompt will appear (where xxx is current capacity):

```
|                                                                    |
```

```
|     1  ALL                                                          |
|     2  Capacity for ALIASES is xxx                                  |
|     3  Capacity for user defined ATTRIBUTES is xxx                  |
|     4  Capacity for user defined ENTITY TYPES is xxx                |
|     5  Capacity for user defined RELATIONSHIP CLASSES is xxx        |
|     6  Capacity for user defined binary RELATIONSHIP TYPES is xxx   |
|     7  Capacity for user defined N-ary RELATIONSHIP TYPES is xxx    |
|     8  Capacity for average no. attributes associated to ET & RT is xxx|
|     9  Capacity for DOMAINS is xxx                                  |
|     10 Capacity for ENTITY names is xxx                             |
|     11 Capacity for total versions of ENTITIES is xxx               |
|     12 Capacity for binary RELATIONSHIPS is xxx                     |
|     13 Capacity for N-ary RELATIONSHIPS is xxx                      |
|     14 Capacity for total versions of RELATIONSHIPS is xxx          |
|     15 Capacity for FIXED LENGTH ATTRIBUTE DATA is xxx              |
|     16 Capacity for FIXED LENGTH ATTRIBUTE EDIT DATA is xxx         |
|     17 Capacity for VARIABLE LENGTH ATTRIBUTE DATA is xxx           |
|     18 Capacity for SCOPES is xxx                                   |
|     19 Capacity for SCOPE/ENTITY associations is xxx                |
|     20 Capacity for SCOPE/RELATIONSHIP associations is xxx          |
|     21 Capacity for SCOPE/DOMAIN associations is xxx                |
|     22 Capacity for VERSIONS is xxx                                 |
|     23 Capacity for VERSION LOGGING is xxx                          |
|     24 DONE                                                         |
|                                                                     |
|     Enter code >                                                    |
```

As you did when initializing the dictionary, you are now free to change any of the capacities. You can alter the capacity of any item by entering the appropriate code number next to that item. Valid responses are code numbers 1 through 24, [[RETURN]], and [[CONTROL]] Y. Any other response will result in an error and Enter code> will be reprompted.

- If you enter code 1, you will be prompted for a new capacity for each of the dictionary components. After the last item is prompted, the entire capacity list is displayed, giving you another chance to verify its correctness.
  If you enter [[CONTROL]] Y while being prompted for the capacities, SDINIT will discontinue prompting and list the current capacities, allowing you to verify the list.
- If you enter any number from 2 to 23, you may alter a specific capacity. If, for example, you enter code 3, the prompt will be:

  New Capacity for user defined ATTRIBUTES (xxx) >>

  If you enter [[RETURN]] or [[CONTROL]] Y to this prompt, the default value will be used.
- The prompt Enter code > is repeated until a [[RETURN]], code 24, or [[CONTROL]] Y is entered. If any of these responses are entered, the capacities are listed, allowing you to verify them.

Once all desired changes have been made, if the file SDTEMP1 already exists, you will be prompted for permission to overwrite it as shown below.

SDTEMP1.groupname.accountname already exists. Is it okay to overwrite (N/Y)?

If you respond "N" , SDINIT will terminate.

You are now ready to submit the job stream.

Submitting the Job Stream

Once all changes are complete, the following prompt is displayed:

Input Priority of Job Stream (8) >

Specify the input priority for the job stream using a value from 1 (the lowest priority) to 13 (the highest priority). The default priority is 8 and is entered if you hit [[RETURN]]. If, therefore, you want to defer the job, enter a low input priority number, such as 3.

The next prompt that appears enables you to specify the output priority of the job stream:

Output Priority of Job Stream Listing (8) >

As with the input priority, the output priority default is 8, with valid responses of 1 (the lowest priority) to 13 (the highest priority). The default is used if [[RETURN]] is entered.

You are now prompted for passwords at the user, group, and account levels. If you used passwords at any of these levels when you logged on, you must now enter them. For security reasons, the echo is turned off for entry of the passwords:

User Password >

Group Password >

Account Password >

You can specify whether you want the job stream to be automatically submitted or not.

Automatically Submit Job Stream? (Y/N) >

If you answer "N", the following message will be displayed on the screen, and SDINIT will terminate.

Submit SDSTREAM job to complete reinitialization process

If you would like to complete the reinitialization process on line instead of in batch mode, enter:

RUN SDINIT.PUB.SYS; INFO="BUILD"; PARM=3

If you answer "Y" to the prompt Automatically Submit Job Stream? (Y/N) > and if any of the entered passwords are invalid, you will receive the following message and will again be prompted to enter the valid passwords:

Unable to stream special job stream (SDERR 2264)

You will receive both the MPE job number and the SDINIT job stream message:

#J383

System Dictionary Reinitialization Job Stream Submitted

Job Stream Messages. Once the job stream is successfully submitted, you will receive the following messages as long as you remain logged on to the same user and account under which the job was submitted. If, however, you switch users or accounts, you will not receive any of the reinitialization messages.

When the job stream begins execution, the following message will appear:

System Dictionary Reinitialization Begins

At this point, if you requested tape storage of the database, the tape handling messages will appear on the operator's console. Refer to the system operator's manual *Storing and Restoring Files* for instructions concerning these messages.

If reinitialization is completed successfully, the following message is displayed:

System Dictionary Reinitialization Completed

In addition, an output listing which prints out a report on dictionary capacities will be produced. If any error occurred during reinitialization, a recovery message will be displayed at your terminal. If, however, you do not receive a message at your terminal, check the output listing since messages are also written to $STDLIST.

Sequence of Operations

There are three possible reinitialization changes which you may make to a dictionary:

1) Change *only* the database password, 2) Change *only* the dictionary capacities, and 3) Change *both* the password and the capacities.

If only the password is changed, reinitialization will be complete as soon as all of the prompts are answered. If, however, either the capacities alone, or the capacities *and* the password are changed, SDINIT initiates the following sequence of operations:

1. The contents of the dictionary are unloaded.
2. The DBUTIL utility is run to purge the existing dictionary.
3. The dictionary is rebuilt with a new password and/or capacities.
4. The dictionary contents are reloaded.

Although these operations are totally transparent to you, if an error occurs during reinitialization, the point at which it occurred determines how you are to recover. This is explained below under the heading "SDINIT Reinitialization Recovery" .

2 SDUPGRAD Overview

SDUPGRAD is a utility program provided w ith the A.00.01 and later versions of System Dictionary. It allows you to upgrade System Dictionary to the most current version provided by **HP**.

Note that the current version of this utility will include the functions of all previous versions also. This means that you can run SDUPGRAD against any version of the dictionary and it will modify the dictionary as necessary to bring it up to the current version.

For example, if you run SDUPGRAD against a version A.00.00 dictionary, it will update the dictionary directly to the current level. These modifications will extend the core set of System Dictionary version A.00.00 to accommodate the following:

- **HP SQL**
- **HP IMAGE**
- Level 88 declarations in COBOL

The new core set definitions are listed in Table 1-1 through Table 1-4, on the following pages.

If, however, you run SDUPGRAD against a version A.00.01 dictionary, it will modify only the dictionary database structure. SDUPGRAD holds user data while the database structure is being modified and reloads the data afterward. Note that the coreset file SDCOREST.PUB.SYS is not needed by A.00.02 or later versions of SDUPGRAD to extend the core set of an A.00.00 version of the dictionary. If it exists, you may purge this file.

You must run SDUPGRAD separately on each dictionary to be upgraded. Hewlett-Packard recommends that one person (e.g., the Dictionary Administrator) be designated to locate all the dictionaries on the system and ensure that the SDUPGRAD utility is run against each dictionary. For some sites, this may mean that one person performs all the upgrades; at other sites, where the number of dictionaries is large or where security is crucial, several users may perform the upgrades in different MPE accounts.

Additions to the Core Set

The following tables list the additions which are made to System Dictionary core set when upgrading a dictionary from version A.00.00 to any later version. Note that these core set definitions are already included in dictionaries which were created by version A.00.01 (or any later version) of SDINIT

Table 2: New Core Entity Types

HP-CONDITION-NAME HPDBE-FILE HPDBE-FILESET HPDBE-LOGFILE HBDBENVIRONMENT	HPSQL-AUTH-NAME HPSQL-INDEX HPSQL-TABLE HPSQL-VIEW

Table 3: New Core Set Relationship Types

ELEMENT contains HP-CONDITION-NAME
HPDBENVIRONMENT contains HPSQL-AUTH-NAME
HPDBENVIRONMENT contains HPDBE-FILESET
HPDBENVIRONMENT contains HPDBE-LOGFILE
HPDBENVIRONMENT contains HPSQL-TABLE
HPDBENVIRONMENT contains HPSQL-VIEW
HPDBENVIRONMENT contains IMAGE-DATBASE
HPDBE-FILE contains FILE
HPDBE-FILESET contains HPDBE-FILE
HPDBE-FILESET contains HPSQL-TABLE
HPDBE-LOGFILE contains FILE
HPSQL-AUTH-NAME contains USER MPE-ACCOUNT
HPSQL-AUTH-NAME contains HPSQL-AUTH-NAME
HPSQL-AUTH-NAME accesses ELEMENT HPSQL-TABLE
HPSQL-AUTH-NAME accesses ELEMENT HPSQL-VIEW
HPSQL-AUTH-NAME accesses HPSQL-TABLE
HPSQL-AUTH-NAME accesses HPSQL-VIEW
HPSQL-AUTH-NAME accesses MODULE
HPSQL-AUTH-NAME owns HPSQL-AUTH-NAME
HPSQL-AUTH-NAME owns HPSQL-TABLE
HPSQL-AUTH-NAME owns HPSQL-VIEW
HPSQL-AUTH-NAME owns MODULE
HPSQL-INDEX contains ELEMENT
HPSQL-TABLE contains RECORD
HPSQL-TABLE key HPSQL-INDEX
HPSQL-VIEW contains RECORD
IMAGE-DATASET contains HPDBE-FILE
INFORM-GROUP contains ELEMENT
HPSQL-TABLE HPDBENVIRONMENT
LOCATION contains HPDBENVIRONMENT

Table 4: New Core Attributes

HP-CONDITION-VALUE	HPSQL-CONNECT-AUTH
HPDBE-FILE-TYPE	HPSQL-DBA-AUTH
HPDBE-LOG-BUFFERS	HPSQL-DELETE-AUTH
HPDBE-MAX-TRANSACTIONS	HPSQL-INDEX-AUTH
HPDBE-MULTI-USERS	HPSQL-INSERT-AUTH
HPDBE-PAGES	HPSQL-LOCK-MODE
HPBDE-PAGE-BUFFERS	HPSQL-RESOURCE-AUTH
HPSQL-ALIAS	HPSQL-SELECT-AUTH
HPSQL-ALTER-AUTH	HPSQL-SELECT-COMMAND
HPSQL-AUTH-NAME-TYPE	HPSQL-UPDATE-AUTH
HPSQL-CLUSTERING	

Table 5: Additional Core Set Edit Values for Existing Attributes

Existing Attributes	Additional Edit Values
CONSTANT-TYPE	D
ELEMENT-TYPE	D, D+
FILE-TYPE	LOG
IMAGE-DATABASE-TYPE	HP IMAGE
IMAGE-DATASET-TYPE	RELATION

3 Running the SDUPGRAD Program

Overview

This chapter describes the SDUPGRAD program and guides you, step by step, through the upgrade procedure. A typical SDUPGRAD session lasts about five to thirty minutes depending on the size of the dictionary and the system load. SDUPGRAD may be run either interactively or in batch mode.

SDUPGRAD Files

The following files are used by the SDUPGRAD program:

SDTEMP1 is a "permanent" type MPE file created by SDUPGRAD. It is used to pass information to the TurboIMAGE utility DBUTIL, which purges and creates the dictionary database. If this file already exists when you run SDUPGRAD, it will prompt you for permission to overwrite the file. (The file may be left on the disc from a previous attempt to run SDUPGRAD.) If you enter "NO", SDUPGRAD will terminate. This file is purged when SDUPGRAD successfully runs to completion.

SDSCHEMA is a "temporary" type MPE file created by SDUPGRAD. It is used to pass the dictionary database schema to the TurboIMAGE utility DBSCHEMA. If this file already exists when you run SDUPGRAD, it will prompt you for permission to overwrite the file. (The file may be left on the disc from a previous attempt to run SDUPGRAD.) If you enter "NO" , SDUPGRAD will terminate. This file is purged when SDUPGRAD successfully runs to completion.

STORE is a tape file opened by SDUPGRAD if you select tape as the storage medium for the dictionary store file. The store file is used to hold the dictionary contents while the dictionary database is being purged and recreated. If you select disc as the storage medium, an unnamed new file is used as the store file. The unnamed file is deleted when the program terminates.

SDUSTORE is a permanent file opened by SDUPGRAD if you select disc as the storage medium. The store file is used to hold the dictionary contents while the dictionary database is being purged and recreated. You can specify a file equation to expand the file size.

The Upgrade Procedure

The System Dictionary upgrade procedure consists of the following steps.*Note that steps 5 and 6 are done only when upgrading an A.00.00 version of the dictionary.*

1. Locate all dictionaries to be upgraded.
2. Store backup copies of the dictionaries on tape.
3. Log on as the dictionary creator.
4. Run SDUPGRAD and reply to the prompts.
5. Delete any conflicting structures in each dictionary. (If necessary.)
6. Run SDUPGRAD with INFO="CORESET". (If necessary.)

These steps are described in detail below.

Locating Dictionaries

The first step is to locate all dictionaries to be u pgraded. Because the System Dictionary database is named SYSDIC, you can easily locate all dictionaries on a system by entering the command:

```
:LISTF SYSDIC.@.@,1
```

A sample output from the LISTF command is shown below:

```
ACCOUNT=  ADMIN       GROUP=  PUB
FILENAME  CODE  ------------LOGICAL RECORD--------
                  SIZE  TYP        EOF      LIMIT
SYSDIC    PRIV    128W  FB          25         25
ACCOUNT=  SDUSER      GROUP=  RPG
FILENAME  CODE  ------------LOGICAL RECORD--------
                  SIZE  TYP        EOF      LIMIT
SYSDIC    PRIV    128W  FB          25         25
:
```

In this example, the output shows that th ere are two dictionaries on the system, one in the PUB group of the ADMIN account and one in the RPG group in account SDUSER. Note that the SYSDIC file is an IMAGE database root file with the file code "PRIV" .

Storing Dictionaries on Tape

The second step is to store all dictionaries that are to be upgraded on a backup tape. This should be done before running SDUPGRAD.

WARNING If SDUPGRAD fails during the upgrade process, you may not be able to recover the dictionary except from a backup tape.

You can make backup copies of all the dictionaries on a syst em by entering the following commands:

```
:FILE T; DEV=TAPE
:STORE SYSDIC@.@.@;*T
```

Note that the at-signs (@) in SYSDIC@.@.@ cause the :STORE command to capture all the System Dictionary files in all groups and accounts on the system. For more information on the :STORE command, refer to the *MPE/XL Commands Reference Manual*

Logging On

The third step is to log on as the creator of t he dictionary that will be upgraded. It is necessary to log on as the dictionary creator because the TurboIMAGE subsystem which is called by the SDUPGRAD procedure to purge and recreate the SYSDIC database will only allow that database to be purged by its creator. For example, if the dictionary was created in the PUB group of the ADMIN account by the user MGR, you must log on as MGR.ADMIN,PUB. SDUPGRAD does not prompt you for a dictionary name. It automatically accesses the dictionary named SYSDIC in the logon group and account.

Running SDUPGRAD

The fourth step, after logging on to the appropriate group and account, is to run SDUPGRAD and respond to a series of prompts.

The RUN Command. To run SDUPGRAD, enter the command:

```
:RUN SDUPGRAD.PUB.SYS
```

SDUPGRAD then displays the following banner:

```
HP System Dictionary   SDUPGRAD   HP32256v.uu.ff - (C) Hewlett-Packard Co. 1985
```

SDUPGRAD Prompts. SDUPGRAD first prompts to determine if a backup copy of the dictionary has been stored on tape:

```
Has a backup for SYSDIC been made? (N/Y) >
```

If you reply "NO" to this prompt, SDUPGRAD will terminate.

NOTE Hewlett-Packard strongly recommends that you back up your dictionary before running SDUPGRAD, as the program does *not* do a backup for you. It simply gives you the opportunity to stop and back up your dictionary before upgrading it. If SDUPGRAD fails, there may be no way to recover your dictionary except from a back-up tape.

SDUPGRAD next prompts for the password of the Dic tionary Administrator scope:

```
DA scope password >   (Password will not be echoed to the screen)
```

If you fail to supply the correct password after thr ee tries, SDUPGRAD will terminate. For security reasons, SDUPGRAD does not echo the password to the list device. SDUPGRAD then prompts for the desired store file medium:

```
Store file to tape or disc? (T/D) >
```

The store file is used f or temporary storage of the dictionary contents during the upgrade process. If you enter "D" (disc) for the storage medium, SDUPGRAD will create an unnamed new file for the store file. If you enter "T" (tape), SDUPGRAD will instruct you to mount a tape and reply at the console. SDUPGRAD will issue a console request using the tape file name STORE.

If there is a shortage of disc space in the group, account, or system where the dictionary resides, you should select "TAPE" for the store file.

Upgrade Operation. After you respond to the prompts, SDUPGRAD begins the upgrade operation. The contents of your dictionary are unloaded to the store file on tape or disc, as you specified. Two messages are displayed during the unloading operation:

```
System Dictionary Unloading Begins
System Dictionary Unloading Ends
```

Next, SDUPGRAD purges the dictionary database (SYSDIC) and creates a new one. The new database will have expanded capacities to accommodate the new core set if upgrading a version A.00.00 dictionary. SDUPGRAD invokes the TurboIMAGE utility DBSCHEMA, which displays these messages:

```
HP32215v.uu.ff
NUMBER OF ERROR MESSAGES: 0
ROOT FILE SYSDIC CREATED
```

SDUPGRAD then loads the contents of the store file into the expanded dictionary. Two messages are displayed during the loading operation:

```
System Dictionary Loading Begins
System Dictionary Loading Ends
```

If upgrading a version A.00.00 dictionary, SDUPGRAD next adds the core set extensions listed in Table 1-1 through Table 1-4. During the core set additions, these messages are displayed:

```
System Dictionary Core Set Additions Begins
```

```
New edit values added to attribute CONSTANT-TYPE
New edit values added to attribute ELEMENT-TYPE
New edit values added to attribute FILE-TYPE
New edit values added to attribute IMAGE-DATABASE-TYPE
New edit values added to attribute IMAGE-DATASET-TYPE
System Dictionary Core Set Additions Ends
```

When an upgrad e from a version A.00.00 dictionary is complete, SDUPGRAD displays these messages:

```
Core Set Attributes Added           : 21
Core Set Entity Types Added         : 9
Core Set Relationship Classes Added : 0
Core Set Relationship Types Added   : 29
Core Set Domains Added              : 0
```

The dictionary is now ready for use. The upgraded dictionary can b e used with existing System Dictionary applications and utilities. You can also modify their applications to use the new core set definitions for HPSQL, HPIMAGE, or COBOL Level 88, if desired.

SDUPGRAD Example

A sample SDUPGRAD session is sho wn below. In this example, the user replied "YES" to the backup prompt. The user then entered (but SDUPGRAD did not echo) the password of the Dictionary Administrator scope. The user then chose disc storage as the store file medium. Note that the first three lines after the banner are prompts requiring responses from the user. The rest is program output.

```
:run sdupgrad.pub.sys
HP System Dictionary SDUPGRAD HP32256v.uu.ff -(C) Hewlett-Packard Co. 1985
Has a backup for SYSDIC been made? (N/Y) > y
DA scope password >  (Password will not be echoed to the screen)
Store file to tape or disc? (T/D) > d
System Dictionary Unloading Begins
System Dictionary Unloading Ends
HP32215v.uu.ff
NUMBER OF ERROR MESSAGES: 0
ROOT FILE SYSDIC CREATED.
System Dictionary Loading Begins
System Dictionary Loading Ends
```

The following information will be sent to the screen only if upgra ding from a version A.00.00 dictionary.

```
System Dictionary Core Set Additions Begins
New edit values added to attribute CONSTANT-TYPE
New edit values added to attribute ELEMENT-TYPE
New edit values added to attribute FILE-TYPE
New edit values added to attribute IMAGE-DATABASE-TYPE
New edit values added to attribute IMAGE-DATASET-TYPE
System Dictionary Core Set Additions Ends
Core Set Attributes Added           : 21
Core Set Entity Types Added         : 9
Core Set Relationship Classes Added : 0
```

```
Core Set Relationship Types Added   : 29
Core Set Domains Added              : 0
END OF PROGRAM    (Will always be sent to the screen.)
:
```

Conflicting Structures

NOTE This step is required only when upgrading a version A.00.00 dictionary. Skip this step if your dictionary is version A.00.01 or later.

The purpose of this step is to dele te all existing structures which have the same names as any structures which will be added to the dictionaries by the upgrade procedure. These include customized entity types, relationship types, or attributes that conflict with the new additions to the core set which are listed in Table 1-1 through Table 1-4. You may also need to delete additional custom definitions from a dictionary if it contains nearly the maximum number of entity types, relationship types, or attributes allowed.

Information on deleting attributes and entity types is located in the descriptions of the DELETE ATTRIBUTE and DELETE ENTITY-TYPE commands in the *HP System Dictionary/XL SDMAIN Reference Manual*..

NOTE Any relationship types in the dictionary which are listed in Table 1-2 will automatically be deleted when the entity types listed in Table 1-1 are deleted. Deleting an entity type or relationship type causes all entities or relationships of that type to be deleted also.

The REPORT ENTITY and REPORT RELATIONSHIP commands may be u sed to get a listing of those entities and relationships which belong to specific entity types or relationship types. These reports can be sent to the line printer to keep a record of these entities or relationships. There are two reasons for deleting the conflicting definitions:

1. System Dictionary maintains tw o sets of internal numbers, one for the core set and one for user customizations. User customized definitions that match any of the structures in Table 1-1 through Table 1-3 must be deleted so that the internal numbers will be consistent for all dictionaries.
2. Hewlett-Packard reserves the prefix "HP" for extensions to the core set. To ensure that your dictionary can be upgraded in future versions, do not use the prefix "HP" when creating customized entity types, relationship classes, attributes, scopes, or domains.

Making Room For the Core Set. The maximum n umber of entity types, relationship types, and attributes allowed in System Dictionary are listed in Table 2-1.

Table 6: System Dictionary Maximums

Dictionary Structures	Added in A.00.02	Maximum
Attributes	21	1024
Entity Types	9	256
Relationship Types	29	512

In the unlikely event that a dictionary is already a pproaching any of these limits, you may have to delete some of the entity types, relationship types, or attributes to make room for the new core set. The "Added" column in table 1-5 indicates the number of new structures that will be added by SDUPGRAD. If this number causes one of the maximums to be exceeded, SDUPGRAD will terminate with an error.

SDUPGRAD appends new attribute edit values to the edit lists of certain existing core set attributes (see Table 1-4). The edit list of an attribute cannot exceed 256 bytes. Thus, if an attribute has a byte length of 8, it can have up to 32 edit values. If you have added a large number of edit values to any of the attributes in Table 1-4, some of them may have to be deleted to make room for the new core set edit values. To determine an attribute's byte length and number of edit values, use the DISPLAY ATTRIBUTE command as described in the *HP System Dictionary SDMAIN Reference Manual*.

Running With INFO='CORESET'

SDUPGRAD includes an INFO option that allows a dic tionary upgrade to be resumed after an error condition has been encountered and corrected.

When to Use the Info Option. SDUPGRAD w ill fail if it encounters any of these conditions:

- The dictionary contains structures that conflict with the new core set (SDERR 5306, 5307, 5310, or 5311).
- The addition of the new core set structures would exceed one of the dictionary maximums listed in Table 2-1, or would cause an attribute edit list to exceed 256 bytes (SDERR 5321, 5322, 5323, or 5325).

For each of these error conditions, the recommended action is to correct the problem and continue the upgrade by running SDUPGRAD with INFO="CORESET" .

WARNING Do not run SDUPGRAD with IN FO="CORESET" unless you encounter one of the errors mentioned above. Other uses of the INFO option may cause SDUPGRAD to fail. After the failure the dictionary may only be recoverable from a backup tape.

How to Use the INFO Option. To run SDUPGRAD with the INFO="CORESET" option, enter the command:

```
:RUN SDUPGRAD.PUB.SYS;INFO="CORESET"
```

When INFO="CORESET" is invoked, SDU PGRAD simply loads the new core set structures into the existing dictionary database "as is." No attempt is made to expand the dictionary capacities, since this was already done in the previous SDUPGRAD run (before it encountered the error).

INFO='CORESET' Example

The following example shows a sample SDUPGRAD sessi on using INFO="CORESET" , and upgrading a version A.00.00 dictionary.

```
:RUN SDUPGRAD.PUB.SYS;INFO="CORESET"
HP System Dictionary SDUPGRAD HP32256v.uu.ff -(C) Hewlett-Packard Co. 1985
DA scope password >  (Password will not be echoed to the screen)
System Dictionary Core Set Additions Begins
New edit values added to attribute CONSTANT-TYPE
New edit values added to attribute ELEMENT-TYPE
New edit values added to attribute FILE-TYPE
New edit values added to attribute IMAGE-DATABASE-TYPE
New edit values added to attribute IMAGE-DATASET-TYPE
System Dictionary Core Set Additions Ends
Core Set Attributes Added           : 21
Core Set Entity Types Added         : 9
Core Set Relationship Classes Added : 0
Core Set Relationship Types Added   : 29
Core Set Domains Added              : 0
```

```
END OF PROGRAM
:
```

Note that you are required to make only one entry: the sco pe password of the Dictionary Administrator. When you enter the correct password, SDUPGRAD proceeds with the core set upgrade.

4 Running the SDCONV Program

Running the Program

Enter the following command to run the conversion utility:

```
RUN SDCONV.PUB.SYS
```

No file equations are required. However, if you wish to redirect input and/or report output, you may use the file equations provided by the program.

When the program is successfully loaded, it issues the following banner

```
System Dictionary SDCONV HP32254v.uu.ff - (c) Hewlett Packard Co. 1985
```

You can start entering commands at the '>' prompt.

SDCONV Files

The Input File

As mentioned above, SDCONV can take input from an MPE file instead of $STDINX if a file exists with the formal designator, SDIN. SDCONV takes input from this file one record at a time. SDIN should be a fixed length record ASCII file with record size 80. The whole line of record is used for input; therefore, the file should be unnumbered.

Note that the file output format for SDLOG (see "The Log File", next page) is fully compatible with the input format of SDIN. Therefore, you can run a session of SDCONV, save and rename the log file, and immediately use it as input without having to modify anything.

When file input is used, that particular session of SDCONV is considered to have a non-interactive input/list pair with non-duplicative input. Therefore, the CONTROL Y trap is disabled, and the input is echoed by SDCONV.

The List File

SDCONV opens $STDLIST for the output of the error and prompt messages. When running the program, the "STDLIST = " clause can be used on the RUN command to redirect the $STDLIST output to a disc file. When specifying "STDLIST = <*old file name* >", you should make sure that the file exists in the permanent domain and that it is large enough to contain all the output. If you are creating a new file through "STDLIST = <*new file name* >, NEW", make sure that the file does not exist either in the temporary domain or in the permanent domain. When the program terminates, the file will be created both in the temporary and permanent domain. The one in the temporary domain mainly contains the MPE file system error messages, while the one in the permanent domain contains all the other output made by the program.

The Output File

When the definition loading process begins, the destination System Dictionary domain is assumed to be empty. Therefore, no conflict should occur during the loading process. However, if the domain is not empty and conflicts do occur, SDCONV issues an error message for each conflict, and summarizes the error into a file with formal designator SDOUT. When opening SDOUT, SDCONV first sees if a file equate exists for SDOUT, or if SDOUT itself exists. If so, and if the input/list pair is interactive, a prompt is issued asking whether or not to overwrite the old file. If the input/list pair is non-interactive, the old file is automatically overwritten. If the old file does not exist, then the file equate, if any, is used to create an SDOUT file as a

permanent file. If all of the above fails, i.e., if no such a file exists, the error report information is collected in a temporary file and listed to $STDLIST upon termination of the program.

Conflicting entities will be reported in the following format:

```
< entity name  > < entity type  > < error message  >
```

On the other hand, conflicting relationships are reported as follows:

```
< list of entities involved  >< relationship class  > < error message  >
```

With the error report information in SDOUT, you are expected to make necessary corrections to System Dictionary via the SDMAIN program. The program is explained in the *HP System Dictionary/XL SDMAIN Reference Manual*.

The Log File

SDCONV is equipped with a logging facility. The log file has the formal designator SDLOG. It records your input, so that the same set of input can later be used as input to SDCONV. You can also examine SDLOG to see what commands were issued in the previous session of SDCONV. SDCONV first searches the temporary domain for SDLOG. If it finds the file, it issues a prompt asking whether or not to overwrite the old file. If you respond negatively to the prompt, the logging facility is disabled during that session of SDCONV.

If SDCONV finds no SDLOG in the temporary domain, it searches the permanent domain. Again, if it is found, a prompt is issued asking whether to overwrite it. If no SDLOG was found, it is created in the temporary domain.

Note that, if you issue the REDO command (see Chapter 3) in an interactive session, then the REDO command itself is not logged. Instead, the command which was edited through the REDO command is logged. Furthermore, invalid commands and passwords entered through password prompting are not logged into SDLOG. If the log file was newly created, a message informing you to save the temporary file is issued upon termination of the program.

SDCONV's Run Options

SDCONV provides you with a run option. If you enter a positive run option and the number of errors detected reaches the run option parameter, the program terminates with an error message.

The run option can be specified during run time with the PARM parameter on the RUN command. For example, if you wish to terminate the program when 5 errors are found, simply issue the RUN command as follows:

```
RUN SDCONV.PUB.SYS;PARM=5
```

Some special run options are recognized:

```
run option = -1 (parse only option)
           =  0 (execute until the EXIT command, or a fatal error)
```

If the run option is -1, the commands are parsed only, and no other action is taken. This run option is helpful when some commands need to be verified for correct syntax.

Run option = 0 is the default. Under this run option, the program continues until the EXIT command is issued, or a fatal error is encountered.

The positive run options are not recognized when the program is run in session mode. Positive run options are, however, recognized in batch mode. A run option of -1 is recognized in both session mode and batch mode.

Error Handling

SDCONV makes distinctions among three categories of errors.

The first is the *syntax errors*. These are errors caused by typographical errors and illegal command syntax constructions. When these errors are detected, a caret is displayed beneath the erroneous command line where the error was discovered, and an error message is issued. If the command issued is an invalid command, it is not logged into the log file.

The second category consists of *operational errors*. These errors are caused by commands that request invalid operations. For example, requesting LOAD when no System Dictionary is open is an operational error. Error messages will be displayed in response to these errors.

The third category consists of *fatal errors*. These are usually file system related errors that the program has very little or no control over. When such an error is detected, the program is usually terminated. Failure to open $STDINX is such an error.

Control Y Handling

CONTROL Y is enabled when any of the following is true:

1. Standard input is interactive and SDCONV is expecting a command.
2. Standard input is interactive and SDCONV is in the REDO command.
3. Standard input is interactive and SDCONV is displaying help messages.

Note that once the definition loading process starts, CONTROL Y is disabled until the completion of the loading process.

If you enter CONTROL Y, SDCONV displays:

```
< Control Y >
```

and reissues the first level command prompt ('>').

Session Mode vs, Job Mode

SDCONV can be run in batch mode. When running SDCONV in batch mode, the input/list pair is considered non-interactive and non-duplicative.

The following differences between SDCONV in session mode and SDCONV in job mode should be noted: In job mode, the CONTROL Y and the REDO command are both disabled. In session mode, positive run options are ignored. Thus, if the $STDINX is used for input in a session, any run option other than -1 or 0 is always ignored.

Therefore, in a job, the input is echoed to $STDLIST by SDCONV.

5 SDCONV Commands

Overview

This chapter includes descriptions of all SDCONV commands with their syntax and parameters.

A HELP command is provided for a quick reference to SDCONV commands. Using this command, you can get either a list of all available commands, or a detailed description of a particular command.

NOTE Throughout this section, the Dictionary/V dictionary may also be referred to as "the dictionary", while HP System Dictionary/V is referred to as "System Dictionary".

SYSDIC Command

The SYSDIC command is used to open System Dictionary, and has the following format:

```
SYSDIC parameter-1meter-2;...meter-n.
```

The ending period signals completion of the command, and the sequence of the parameters has no significance at all. Upon receiving this command, SDCONV opens System Dictionary as specified. The parameters accepted by the SYSDIC command are described below.

NAME Parameter

This parameter specifies the particular System Dictionary to open, and has the following format:

```
NAME = <System Dictionary name>
```

The default value is SYSDIC.

SCOPE Parameter

This parameter specifies the scope used to open System Dictionary, and has the following format:

```
SCOPE = <scope name>
```

There is no default value for this parameter. You will get an error if you attempt to open System Dictionary without a scope name.

PASSWORD Parameter

This parameter specifies the scope password used to open the dictionary, and has the format:

```
PASSWORD = <password>
```

There is no default for this parameter. If you omit this parameter when the scope is specified, you will be prompted for it.

DOMAIN Parameter

This parameter is used to specify the System Dictionary domain, and has the format:

```
DOMAIN = <domain name>
```

If you leave the value of this parameter blank ("DOMAIN="), then the common domain will be opened. The common domain is represented by a blank entry in the SHOW display also. The default value for this parameter is the common domain.

VERSION Parameter

This parameter specifies the version of the System Dictionary domain, and has the format:

```
VERSION = <version name>
```

If you specify a blank as the value of this parameter, or enter no value, the latest test version (the default value for this parameter) will be selected.

OPEN-MODE Parameter

This parameter specifies the update mode for System Dictionary, and has the following format:

```
OPEN-MODE = SHARED-UPDATE or EXCLUSIVE-UPDATE
```

The default value for the parameter is SHARED-UPDATE.

NAME-MODE Parameter

This parameter specifies whether the internal or external names will be used, and has the following format:

```
NAME-MODE = INTERNAL or EXTERNAL
```

The default is EXTERNAL.

DICT3000 COMMAND

The DICT3000 command is used to specify the Dictionary/V dictionary whose definitions are to be converted into the System Dictionary format. It also enables you to enter other parameters related to the definition loading process. It is assumed that the person running SDCONV is the creator of the dictionary. If this is not the case, the command will fail.

Note that the DICT3000 command will attempt to use defaults for any two of the NAME, PASSWORD, and OPEN-MODE parameters if they are not specified in the command. In other words, you must actually specify at least one of the three to open the dictionary. Otherwise, the command will fail. The command has the following format:

```
DICT3000 parameter-1meter-2;...parameter-n.
```

As in the SYSDIC command, the ending period completes the command. The following parameters are accepted by this command:

NAME Parameter

This parameter specifies the name of the Dictionary/V dictionary whose definitions are to be converted. It has the format:

```
NAME = <Dictionary/V dictionary name>
```

OPEN-MODE Parameter

This parameter is used to specify the Dictionary/V dictionary open mode, and has the following format:

```
OPEN-MODE = <open mode>
```

As with the PASSWORD or NAME parameter, this parameter causes any open dictionary to be closed, and the dictionary with the new open-mode to be opened. The value should be between 1 and 8 as explained in the TurboIMAGE/V manual. The default for this parameter is 8.

SCOPE-OWNER Parameter

When loading Dictionary/V definitions into the System Dictionary, a number of items may be mapped into

the scope-owner System Dictionary attribute. Most of the Dictionary/V entity definitions have the xxxx_RESP field which contains the name of the user who is responsible for maintaining the particular entity. On the other hand, every Dictionary/V entity and relationship has the IDENTITY-CREATE field. Through the SCOPE-OWNER parameter, you can have the RESPONSIBLE field, IDENTITY-CREATE field, or the current logon scope name mapped into the scope-owner attribute. This parameter takes the following form:

```
SCOPE-OWNER = RESPONSIBLE or IDENTITY-CREATE or LOGON
```

If RESPONSIBLE is assigned, the responsible user's name will be first examined. If it is blank, then the value of the IDENTITY-CREATE field will be used for the scope-owner attribute. If IDENTITY-CREATE is specified, the value of that field will automatically be used. If LOGON is assigned, then the System Dictionary logon scope (the value of SCOPE parameter for the SYSDIC command) is used. Note that if either RESPONSIBLE or IDENTITY-CREATE is specified, value of the field is examined to see if such a scope exists in the System Dictionary. If not, the new scope is first created, the System Dictionary scope is switched to the new one, and then the definition is loaded. The default for this parameter is LOGON.

NOTE Do not specify the RESPONSIBLE and IDENTITY-CREATE if the logon scope does not have the capability to create scope (secure scope capability). Specifying either one of these without the capability will result in an operational error at loading time.

BACK-REFERENCE Parameter

This parameter enables you to link the attri butes of the RECORD contains ELEMENT relationship or ELEMENT contains ELEMENT relationship to the child ELEMENT entity's attributes. If this switch is ON, the *back-reference-flag* attribute of the relationship is set to *true,* and the attributes that have corresponding attributes on the element entity will contain undefined values. On the other hand, if BACK-REFERENCE = OFF, then the *back-reference-flag* attribute is set to *false,* and the relationship attributes that have corresponding attributes on the child ELEMENT entity will be initialized with values of the entity attributes. The attributes common between the relationship and the entity are listed below:

element-type

display-length

decimal

blank

justify

edit-mask (variable length attribute)

entry-text (variable length attribute)

heading-text (variable length attribute)

Note that no matter what the value of BACK-REFERENCE parameter is, the description variable length attribute on the relationship will always contain the description text from the Dictionary/V dictionary, i.e., SDCONV assumes that the description attribute never "back-references."

This parameter has the following format:

```
BACK-REFERENCE = ON or OFF.
```

The default is ON.

ALIAS Parameter

In Dictionary/V, only some relationship types have the ALIAS field, while in the System Dictionary, each entity/relationship can have a number of aliases associated to it. Therefore, when mapping this

Dictionary/V ALIAS field, SDCONV must choose the most appropriate System Dictionary alias field for the particular relationship. For example, if you are converting an entry from the FILE-ELEMENT detail set (relationship) with the file type = MAST, then the obvious System Dictionary destination alias is the image-alias, since the file in question is an TurboIMAGE/V file. However, for some others, the destination is not so clear. Hence, SDCONV provides the ALIAS parameter with which you can specify which System Dictionary alias will be the destination of the Dictionary/V ALIAS field with unclear destination. Check the description of detail set conversion to see whether a particular ALIAS field in Dictionary/V has a fixed alias destination.

The format of the parameter is

```
ALIAS = COBOL, IMAGE, PASCAL, STANDARD, VPLUS or HPSQL
```

The table below shows what each parameter value stands for.

parm value	destination alias
COBOL	cobol-alias
IMAGE	image-alias
PASCAL	pascal-alias
STANDARD	standard-alias
VPLUS	vplus-alias
HPSQL	hpsql-alias

The default for this parameter is STANDARD.

SENSITIVITY Parameter

This parameter specifies the sensitivity attribute with which each System Dictionary definition is created. You can assign READ, MODIFY, or PRIVATE to the sensitivity parameter in the following fashion:

```
SENSITIVITY = READ or MODIFY or PRIVATE
```

If you issue LOAD with PRIVATE SENSITIVITY and SCOPE-OWNER = RESPONSIBLE or IDENTITY-CREATE, SDCONV will issue an error message and does not proceed with the loading process, because such a combination may cause problems while creating relationships. For example, If entity E1 created by scope S1 , entity E2 by scope S2 , then, S2 needs at least the READ sensitivity to establish a relationship between E1 and E2 . Hence, the PRIVATE sensitivity will be considered invalid altogether if SCOPE-OWNER is not LOGON. The default for this parameter is READ.

PACK-DESCRIPTION Parameter

This parameter specifies how the DESCRIPTION text which is r eturned from Dictionary/V will be converted to System Dictionary. This parameter has the following form:

```
PACK DESCRIPTION = ON or OFF
```

If ON is specified, extra trailing blanks will be removed from each line of text, and, to save storage space, line boundaries will be ignored. If OFF is specified, text will be converted line by line as it is stored in the dictionary. Although it requires more storage space than ON, OFF is useful for maintaining column or outline format when converting text. The default for this parameter is OFF.

QUIET/VERBOSE Switch

Sometimes, it is helpful to see how the loading process is proceeding. If you specify the VERBOSE switch, a message will be given for each entity and relationship processed. The QUIET switch, on the other hand, suppresses the report of successful entity/relationship definition loading. QUIET/VERBOSE switch is specified in the following fashion:

```
QUIET; or VERBOSE;
```

The default is QUIET.

SHOW COMMAND

SHOW displays the values of all the SYSDIC and DICT3000 parameters. Some of them contain the default values because you did not specify any. If a required parameter without any default value (e.g. SCOPE parameter for the SYSDIC command) is missing, '***' is displayed. SHOW is a one line command.

MAP COMMAND

The MAP command allows you to specify new values for characters contained in the names stored in Dictionary/V which are not allowed in System Dictionary names. The MAP command has the following format:

```
MAP [character [mapping]] [.]
```

If MAP is issued with no fields, a display of the current set of mappings is produced, including the default value for illegal characters. If only the *character* field is specified, then any existing mapping for that character is deleted. If a request is made for deletion of a nonexistent mapping, a warning message is issued.

When both *character* and *mapping* are specified, SDCONV adds this new mapping to its set of mappings for special characters. If a mapping already exists, then the previous one is replaced with the new one. When SDCONV retrieves a name from Dictionary/V, it searches the mapping table and replaces any occurrences of special characters with their corresponding map values found in the table.

Each character mapping may have a maximum length of 12 characters. If replacement of characters with their mapping values causes the name to become longer than 32 characters, the name is truncated to 32 characters and a warning message is issued. There may be a total of 32 mappings specified in the map table, including the default mappings for the 13 illegal characters mentioned above.

CHARACTER Field

The special character to be mapped. It may be enclosed within double quotation marks (""), if desired. However, if either a blank or a period is desired, then double quotes are required. If a period is desired as the special character to be mapped and it is not enclosed within double quotes, the command will be interpreted as the MAP command without any parameters, causing the program to display the current state of the map table. If a *single* double quote (") is desired as the character to be mapped, it must be entered as *two* double quotation marks ("") enclosed within a pair of double quotation marks, i.e., (" " " ").

MAPPING Field

The mapping to be associated with the character field. It may be up to 12 characters in length and may not be surrounded by double quotation marks. This field must also contain only those characters valid in System Dictionary names. The following characters which are illegal in System Dictionary will automatically have a default value assigned to them: , ; : . ( ) " = < > ^ ! plus the space character. These

defaults are listed below:

Special Character	Default Value
,	-COM-
;	-SC-
:	-COL-
.	-DOT-
(	-LP-
)	-RP-
"	-DQ-
=	-EQ-
>	-GT-
<	-LT-
^	-UA-
!	-EX-
Space	-SP-

You may change these default values, but should be careful not to delete them. If an illegal character is encountered during loading, but does not have a mapping defined, then a warning message will be issued.

Example. The following examples map the special character "(" into the string "L-PAREN".

```
>MAP ( L-PAREN.
>MAP "(" L-PAREN
```

LOAD COMMAND

The LOAD command starts the definition loading process. It is a one line command. See Chapter 4 for a detailed description of the loading process.

HELP COMMAND

HELP is a one line command that invokes the help messages. It has the following format:

```
HELP [<subject>]
```

If no subject is specified, the general help messages briefly describing each command is displayed. If you want more detailed information about a command, you must specify the command as a subject.

When the screen gets full with the help messages while running with an interactive input, a

```
Continue (Y/N) >
```

prompt will be displayed. Enter 'Y' or hit <CR> if you wish to see more help messages.

If your help command contains a subject with no help message available, an error message is issued, and

the general help messages are displayed.

RESET COMMAND

This command resets all the SYSDIC and DICT3000 parameters to the initial state. If a parameter has a default value, the default value is assigned to it. If a parameter has no default value, the parameter value becomes void (as represented by '***' in the SHOW command). System Dictionary and the Dictionary/V dictionary are both closed.

MPE COMMANDS

MPE commands may be entered from within SDCONV but must begin with a ':'. They can be extended to more than one line by attaching the line extender, '&' character, at the end of the line. However, unlike other SDCONV multi-line commands, you should not attach the ending period.

COMMENT COMMAND

The COMMENT command lets you enter comments. It is a one line command. When the COMMENT command is issued the line will simply be ignored.

REDO COMMAND

The REDO command allows you to correct errors or to modify a command previously issued. It applies to the last command you entered whether it was syntactically incorrect or successfully executed. In order to perform modification, move the cursor to the character which you wish to modify by repeatedly entering the space character. This position will be referred to as the 'edit position.' You can perform a variety of operations at the edit position; you may insert, delete, or replace the characters at the edit position. The following subcommands are processed in the REDO mode:

A	Appends characters at the end of the current line. If the text is too long to accommodate additional characters, a warning message is issued and no append occurs.
B	Breaks the line into two lines at the edit position. After the break, the second line becomes the current line. The edit position is placed at the first character of the second line. This subcommand is used when a line needs to be inserted.
E	Exits the redo mode. All the edits you have made within the REDO are annulled, and the command is not executed.
L	Lists the edited command. The current line will be marked by an asterisk after the line number.
X	Stops the redo mode and executes the edited command.
+[n]	Moves n lines forward. '+' moves forward by one line.
-[n]	Moves n lines backward. '-' moves backward by one line.
D	Deletes the character at the edit position. If you wish to delete more than one character, either repeat the D's, or mark the string you want to delete with the beginning D and ending D with spaces embedded. If you delete all the characters in the line, the line itself is deleted.
I	Inserts the characters following it at the edit position. This is the only subcommand that can be issued following the D subcommand.
R	Replaces the characters at the edit position with the characters following the R.

H Brings up the help messages for the REDO command.

If one of the command characters is not entered, any other character entered will simply replace the character above it, as the default editing mode is the "replace" mode.

EXIT COMMAND

EXIT exits out of SDCONV.

6 The Loading Process

Overview

This section includes detailed information on how entities and relationships are mapped from Dictionary/V into System Dictionary.

Loading Definitions

When the LOAD command is issued, the data residing in the Dictionary/V dictionary is retrieved through the IMAGE intrinsics. SDCONV first converts the entity definitions in the Dictionary/V database. After all the entity definitions are loaded, the relationships contained in the detail data sets of the Dictionary/V dictionary are loaded into the System Dictionary. The following paragraphs provide detailed information about how the Dictionary/V data is mapped into the System Dictionary data.

Loading Entities

SDCONV retrieves entity definitions from the data sets in the following sequence:

DATA-ELEMENT

DATA-FILE

DATA-CATEGORY

DATA-GROUP

DATA-CLASS

DATA-PROCEDURE

DATA-LOCATION

The master data sets listed above are read serially by the DBGET intrinsic. Some of these data sets contain passive links, e.g. the DESCRIPTION-KEY on most of the data sets above. For these passive links, a chained read into the linked detail sets (FILE-PATH, FILE-SORT, DESCRIPTION-TEXT) is performed to retrieve the actual value. The following paragraphs describe, in detail, the loading process for entities.

DATA-ELEMENT. This data set contains the definitions of elements. Entries in this data set are assigned the ELEMENT entity type. Each field is mapped according to the following table:

ELEMENT	entity name
ELEMENT-NAME	entity-long-name attribute
ELEMENT-TYPE	element-type attribute
ELEMENT-SIZE	display-length attribute
ELEMENT-DEC	decimal attribute
ELEMENT-LENGTH	byte-length attribute

ELEMENT-COUNT	count attribute
ELEMENT-UNITS	units attribute
ELEMENT-RESP	scope-owner attribute*1
ELEMENT-HEADING	heading-text attribute
ELEMENT-ENTRY	entry-text attribute
ELEMENT-EDIT	edit-mask attribute
ELEMENT-SIGN	sign attribute
ELEMENT-BLANK	blank attribute
ELEMENT-JUST	justify attribute
ELEMENT-SYNC	synchronize attribute
DATE-CREATE	See note 2
DATE-CHANGE	See note 2
IDENTITY-CREATE	scope-owner attribute*3
IDENTITY-CHANGE	See note 4
DESCRIPTION-KEY	description attribute*5

Notes

1 Only if SCOPE-OWNER = RESPONSIBLE and ELEMENT-RESP is not empty.

2 The date-created and date-changed System Dictionary attributes are set by the System Dictionary intrinsics. Therefore, DATA-CREATE and DATE-CHANGE are not mapped.

3 Only if SCOPE-OWNER = IDENTITY-CREATE or SCOPE-OWNER = RESPONSIBLE and the responsible user field is blank.

4 Scope-changed is assigned the same value as scope-owner by the System Dictionary intrinsics. Therefore, IDENTITY-CHANGE is not mapped to the scope-changed attribute.

5 The passive link will be searched to get the actual description.

DATA-FILE. This data set contains the definitions of files. The entity type depends on the value of the FILE-TYPE field. Each field in this set is mapped according to the following table:

FILE	entity name
FILE-NAME	entity-long-name attribute
FILE-TYPE	See note 1
FILE-RESP	scope-owner attribute*2
DATA-CREATE	Not mapped. See DATA-ELEMENT
DATE-CHANGE	Not mapped. See DATA-ELEMENT
IDENTITY-CREATE	scope-owner attribute*3

IDENTITY CHANGE	Not mapped. See DATA-ELEMENT
DESCRIPTION-KEY	description attribute*4
FILE-REC-FORMAT	record-format*5
FILE-DATA-TYPE	char-type*6
FILE-REC-MODE	recording-mode*7
FILE-REC-SIZE	min-record-size*8 and max-record-size
FILE-BK-FACTOR	blocking-units*9 and blocking-min and blocking-max
FILE-DEVICE	FILE uses DEVICE*10
FILE-DEV-CLASS	FILE uses DEVICE CLASS*11
FILE-CCTL	cctl-flag*12

Notes

1 The following mapping will be used:

FILE-TYPE	entity type	attributes to set
BASE	IMAGE-DATABASE	***
MAST	IMAGE-DATASET	image-dataset-type = MANUAL
AUTO	IMAGE-DATASET	image-dataset-type = AUTOMATIC
DETL	IMAGE-DATASET	image-dataset-type = DETAIL
KSAM	KSAMFILE	***
MPEF	FILE	file-type = SEQUENTIAL
MPER	FILE	file-type = RELATIVE
VPLS	FORMSFILE	***
FORM	FORM	***

If FILE-TYPE is not 'BASE', 'VPLS', or 'FORM', then the file name is used to create a RECORD entity. The byte-length attribute will be filled in later when the FILE-ELEMENT detail set is converted.

2 Only if SCOPE-OWNER = RESPONSIBLE and FILE-RESP is not empty.

3 Only if SCOPE-OWNER = IDENTITY-CREATE or SCOPE-OWNER = RESPONSIBLE and the responsible user field is blank.

4 The passive link will be searched to get the actual description.

5 The value of this field is converted to the System Dictionary format only if the destination entity

type is FILE or KSAMFILE. If so, following mapping will be used:

FILE-REC-FORMAT	record-format
0	FIXED
1	VARIABLE
2	UNDEFINED
4	SPANNED

6 The value of this field is ignored, unless the destination entity type is FILE. If it is FILE, the following mapping is used:

FILE-DATA-TYPE	char-type
0	ASCII
1	EBCDIC

7 The value of this field is ignored, unless the destination entity type is FILE. If it is FILE, the following mapping is used:

FILE-REC-MODE	recording-mode
0	ASCII
1	BINARY

8 The FILE-REC-SIZE field has two sub-items. The first sub-item will be mapped to the min-record-size attribute in the System Dictionary. It is zero if the file has fixed or spanned record format. The second sub-item is mapped to the max-record-size attribute. The mapping just described will occur, only if the destination entity type is FILE or KSAMFILE. Otherwise, this field is ignored.

9 FILE-BK-FACTOR has three sub-items; the first one is mapped to the blocking-units attribute in the System Dictionary; 0 is mapped to RECORDS and 1 to CHARACTERS. The second sub-item is mapped to the blocking-min attribute. The third sub-item is mapped to the blocking-max attribute. The mapping just described will occur, only if the destination entity type is FILE or KSAMFILE. Otherwise, this field is ignored.

10 If the destination entity type is FILE, FILE-DEVICE field in Dictionary/V is used as the DEVICE-CLASS name in the FILE uses DEVICE-CLASS relationship. Otherwise, this field is ignored. If the DEVICE-CLASS does not exist in System Dictionary, it will be created. Then, the FILE uses DEVICE-CLASS relationship is created with the cctl-flag attribute initialized as shown in 12.

11 If the destination entity ty pe is FILE, FILE-DEV-CLASS is mapped to the file-dev-class attribute. Otherwise, this field is ignored. For FILEs, the value of FILE-DEV-CLASS is mapped to the file-dev-class attribute according to the following table:

FILE-DEV-CLASS	file-dev-class	meaning
0	A	Mass storage device
1	R	Unit record device (e.g. card reader)

FILE-DEV-CLASS	file-dev-class	meaning
2	T	Utility device (e.g. tape drive)

12 This field is used only for the FILE entity type; it is used to initialize the cctl-flag attribute on the FILE uses DEVICE-CLASS relationship. If the value of this field is 1, cctl-flag is set to TRUE. Otherwise, it is set to FALSE.

DATA-CATEGORY. This data set contains the definitions of categories. Entries in this data set are mapped to the CATEGORY entity type in the System Dictionary. Each field in the data set is mapped according to the following table:

CATEGORY	entity name
CATEGORY-NAME	entity-long-name attribute
CATEGORY-TYPE	category-type attribute
CATEGORY-RESP	scope-owner attribute
DATA-CREATE	Not mapped. See DATA-ELEMENT
DATE-CHANGE	Not mapped. See DATA-ELEMENT
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See DATA-ELEMENT
DESCRIPTION-KEY	description attribute

DATA-GROUP. This data set contains the definitions of Inform groups. Entries in this data set are assigned the INFORM-GROUP entity type. Each field is mapped according to the following table:

GROUP	entity name
GROUP-NAME	entity-long-name attribute
GROUP-TYPE	inform-group-type attribute
GROUP-RESP	scope-owner attribute
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE-CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See DATA-ELEMENT.
DESCRIPTION-KEY	description attribute

DATA-CLASS. This data set contains the definit ions of IMAGE and Inform user classes. It is also used to document the MPE, VPLUS forms file, and KSAM file lockwords. In order to map the entries in this data set correctly, the following method is used: First, the value of the CLASS-TYPE field is examined. If it is INFO, then the entry is mapped to the INFORM-CLASS entity type. If not, the value of FILE-KEY is examined. If the key is not zero, the entry is mapped to the IMAGE-CLASS entity type. Otherwise, the

value of CLASS is used to search the CLASS-FILE detail data set to see if the class is related with an IMAGE database or data set. If so, the class is mapped to the IMAGE-CLASS entity type. If the class is only related to non-IMAGE files, the entry is merely documenting a file lockword. In this case, no entity is created in System Dictionary and the file's lockword will be updated when the CLASS-FILE data set is mapped. If no file is related to this class, i.e., no entry is found in CLASS-FILE, the entry will be assumed to be an IMAGE-CLASS. Each field in this set is mapped according to the following table:

CLASS	entity name
CLASS-NAME	entity-long-name attribute
CLASS-TYPE	image-class-type attribute*1
CLASS-PASSWORD	password attribute
CLASS-RESP	scope-owner attribute
FILE-KEY	IMAGE-DATABASE contains IMAGE-CLASS*2
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE-CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See DATA-ELEMENT.
DESCRIPTION-KEY	description attribute

Notes

1 Only if the entity type is dete rmined to be IMAGE-CLASS, will this mapping be performed.

2 Only if FILE-KEY is non-zero, will FILE-PATH data set be searched to create this relationship. The FILE-PATH detail set is searched to find the name of the IMAGE-DATABASE.

DATA-PROCEDURE. This data set contains the de finitions of program modules. Entries in this data set are assigned the MODULE entity type. Each field is mapped according to the following table:

PROCEDURE	entity name
PROCEDURE-LANG	language attribute
PROCEDURE-NAME	entity-long-name attribute
PROCEDURE-TYPE	module-type attribute
PROCEDURE-RESP	scope-owner attribute
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE-CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See DATA-ELEMENT.
DESCRIPTION-KEY	description attribute

DATA-LOCATION. This data set contains the definitions of locations. Entries in this data set are assigned the LOCATION entity type. Each field is mapped according to the following table:

LOCATION	entity name
LOCATION-NAME	entity-long-name attribute
LOCATION-GROUP	See note 1
LOCATION-ACCOUNT	See note 1
LOCATION-CPU	See note 2
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE-CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See DATA-ELEMENT.
DESCRIPTION-KEY	description attribute

Notes

1 SDCONV first examines the contents of LOCATION-GROUP and LOCATION-ACCOUNT. If both of them are blank, then no LOCATION names MPE-GROUP MPE-ACCOUNT relationship is created. If not, then SDCONV uses the non-blank field values to create MPE-GROUP and/or MPE-ACCOUNT, if they did not already exist in System Dictionary. Then, the LOCATION names MPE-GROUP MPE-ACCOUNT relationship is created.

2 If this field is non-blank, the value is used to create a NODE entity, if it did not already exist. Then, the LOCATION names NODE NETWORK-DOMAIN NETWORK-ORGANIZATION four-way relationship is created, with blank entries for the NETWORK-DOMAIN and NETWORK-ORGANIZATION.

Loading Relationships

The relationship data is retrieved from the following Dictionary/V detail sets:

ELEMENT-ELEMENT

ELEMENT-REFTYPE

FILE-ELEMENT

FILE-EL-SECOND

FILE-FILE

CATEGORY-CATEGORY

CATEGORY-ELEMENT

GROUP-GROUP

GROUP-ELEMENT

CLASS-GROUP

CLASS-ELEMENT

CLASS-CLASS

CLASS-FILE

PROCEDURE-ELEMEN

PROCEDURE-PROCED

PROCEDURE-LOCATI

FILE-LOCATION

REPORT-LIST

When converting relationship data, note that the POSITION field is not mapped. SDCONV simply reads the entries from detail sets in the sorted sequence (by POSITION) and writes to the System Dictionary in the same order. Therefore, the relationship-position System Dictionary attribute automatically generated by the intrinsics is sufficient.

The following paragraphs describe, in detail, the loading process for relationships from the Dictionary/V data sets to the System Dictionary data sets.

ELEMENT-ELEMENT. This data set contains the information about relationships between two elements. This data set requires special handling since it is the data set which contains information about redefining COBOL elements in Dictionary/V. SDCONV first reads the DATA-ELEMENT master set serially, and, with the name of the element, chains into the ELEMENT-PARENT search item of this ELEMENT-ELEMENT detail set. If the element does not have a child element of the name $REDEFINES, then each detail set entry retrieved is mapped to the ELEMENT contains ELEMENT relationship, and each field in the data set is mapped to the corresponding System Dictionary attribute according to the following table:

ELEMENT-PARENT	entity name of the left operand
ELEMENT-CHILD	entity name of the right operand
ELEMENT-POSITION	byte-offset attribute
DATA-CREATE	See note 1
DATE-CHANGE	See note 2
IDENTITY-CREATE	scope-owner attribute*3
IDENTITY-CHANGE	See note 4
DESCRIPTION-KEY	description attribute*5
POSITION	Not mapped
ELEMENT-ALIAS-E	alias as specified by the ALIAS parameter

Notes

1 date created is reset by the system dictionary intrinsics.

2 date changed is reset by the system dictionary intrinsics.

3 Only if SCOPE-OWNER = IDENTITY-CREATE or SCOPE-OWNER = RESPONSIBLE.

4 Scope-changed is assigned the same value as scope-owner by the System Dictionary intrinsics.

5 The passive link will be searched to get the actual description.

6 If the BACK-REFERENCE parameter is OFF, then some of the child ELEMENT entity's attributes are retrieved to initialize the following relationship attributes:

relationship attribute	value assigned
back-reference-flag	false
element-type	ELEMENT-TYPE from child ELEMENT
display-length	ELEMENT-SIZE from child ELEMENT
decimal	ELEMENT-DEC from child ELEMENT
blank	ELEMENT-BLANK from child ELEMENT
justify	ELEMENT-JUST from child ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

If the parent element does have a child element named $REDEFINES, the following will occur:

- All children which appear before the $REDEFINES child will be loaded according to the above method.
- When reaching the $REDEFINES, SDCONV will create an entity of type ELEMENT, with attributes corresponding to the table above, and with the addition of the BYTE-ELEMENT attribute. The name of this entity will be contained in ELEMENT-ALIAS from the ELEMENT-ELEMENT relationship.
- An ELEMENT redefines ELEMENT relationship will then be created between the created element and the parent element.

The same process can occur for all following children with one exception: since there is only one child element named $REDEFINES, and therefore only one ELEMENT-ALIAS name to create redefining elements with, the ELEMENT-ALIAS name will be suffixed and incremented as needed, as shown below.

```
name-1, name-2, name-3, etc.
```

ELEMENT-REFTYPE. This data set contains the relationships that describe how one element references another element. SDCONV reads the DATA-ELEMENT master set serially and chains into the ELEMENT search item of this detail set. Each entry retrieved is mapped to the ELEMENT references ELEMENT relationship. Each field in the data set is mapped to System Dictionary attributes according to the following table:

ELEMENT	entity name of the left operand
ELEMENT-RTYPE	entity name of the right operand

The following table is used to initialize some of the attributes associated with the relationship:

attribute	value to assign
scope-owner	ogon scope of the dictionary
date-created	provided by the SD intrinsic
date-changed	provided by the SD intrinsic

attribute	value to assign
scope-changed	logon scope of the dictionary
sensitivity	sensitivity specified in the DICT3000 command

FILE-ELEMENT. This data set contains all the relatio nships between files and elements. As such, a careful analysis is made to determine the correct destination relationship type; hence, this data set is further broken down according to the file type of the file. The file type is obtained from the FILE-TYPE field of DATA-FILE. Note that the file type cannot be BASE or VPLS. Entries in this data set are retrieved by first reading the DATA-FILE master set serially, and then chaining into the detail set.

MAST File Type. If the FILE-TYPE field in DATA-FILE contains 'MAST', the file in question is an TurboIMAGE manual master data set. In that case, the FILE-KEY field in the detail set contains either 0 or -1. The following definitions are created:

1 IMAGE-DATASET contains RECORD relationship

2 RECORD contains ELEMENT relationship

3 IMAGE-DATASET key ELEMENT, if FILE-KEY = -1

The fields are mapped according to the following table:

FILE	entity name for the FILE entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	image-alias for RECORD contains ELEMENT
FILE-KEY	See note 2
ELEMENT-KEY	Not mapped
ELEMENT-PRIMARY	Not mapped
DATA-CREATE	Not mapped. See DATA-ELEMENT
DATE-CHANGE	Not mapped. See DATA-ELEMENT
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT
DESCRIPTION-KEY	description attribute
POSITION	Not mapped
FILE-POSITION	Not mapped
KEY-DUPLICATES	Not mapped
FILE-FIELD-NO	Not mapped

Notes

1 ELEMENT is us ed as the element name in the RECORD contains ELEMENT relationship. It is also used as the search key into DATA-ELEMENT data set. The element entity information retrieved from DATA-ELEMENT is used to initialize the relationship attributes if the BACK-REF-

ERENCE = OFF. In that case, the following mapping is used:

attribute	value assigned
element-type	ELEMENT-TYPE from DATA-ELEMENT
byte-offset	generated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE from DATA-ELEMENT
decimal	ELEMENT-DEC from DATA-ELEMENT
byte-length	ELEMENT-LENGTH from DATA-ELEMENT
count	ELEMENT-COUNT from DATA-ELEMENT
units	ELEMENT-UNITS from DATA-ELEMENT
sign	ELEMENT-SIGN from DATA-ELEMENT
blank	ELEMENT-BLANK from DATA-ELEMENT
justify	ELEMENT-JUST from DATA-ELEMENT
synchronize	ELEMENT-SYNC from DATA-ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

2 When the file type is MAST, FILE-KEY can have either 0 or -1. If it is -1, the element is the search item for the master; hence, the IMAGE-DATASET key ELEMENT relationship is established with the attributes initialized in the normal manner.

AUTO File Type. If the FILE-TYPE field in DATA-FILE contains 'AUTO', the file in question is an IMAGE automatic master data set. The following definitions are created:

1 IMAGE-DATASET contains RECORD relationship

2 RECORD contains ELEMENT relationship

3 IMAGE-DATASET key ELEMENT

The fields are mapped according to the following table:

FILE	entity name for the FILE entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	image-alias on RECORD contains ELEMENT
FILE-KEY	Not mapped
ELEMENT-KEY	Not mapped
ELEMENT-PRIMARY	Not mapped
DATA-CREATE	Not mapped. See DATA-ELEMENT.

DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped
FILE-POSITION	Not mapped
KEY-DUPLICATES	Not mapped
FILE-FIELD-NO	Not mapped

Notes

1 ELEMENT is us ed as the element name in the RECORD contains ELEMENT relationship. It is also used as the search key into DATA-ELEMENT data set. The element entity information retrieved from DATA-ELEMENT is used to initialize the relationship attributes if the BACK-REFERENCE = OFF. In that case, the following mapping is used:

attribute	value assigned
element-type	ELEMENT-TYPE from DATA-ELEMENT
byte-offset	generated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE from DATA-ELEMENT
decimal	ELEMENT-DEC from DATA-ELEMENT
byte-length	ELEMENT-LENGTH from DATA-ELEMENT
count	ELEMENT-COUNT from DATA-ELEMENT
units	ELEMENT-UNITS from DATA-ELEMENT
sign	ELEMENT-SIGN from DATA-ELEMENT
blank	ELEMENT-BLANK from DATA-ELEMENT
justify	ELEMENT-JUST from DATA-ELEMENT
synchronize	ELEMENT-SYNC from DATA-ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

2 Note that automatic master se ts contain only one element and that element is used to create the IMAGE-DATASET key ELEMENT relationship.

DETL File T ype. If the FILE-TYPE field in DATA-FILE contains 'DETL', the file in question is an IMAGE detail data set. The following definitions are created:

1 IMAGE-DATASET contains RECORD relationship

2 RECORD contains ELEMENT relationship

3 IMAGE-DATASET ELEMENT IMAGE-DATASET IMAGE-DATABASE chains relationship, if FILE-KEY > 0

The fields are mapped according to the following table:

FILE	entity name for the FILE entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	image-alias on RECORD contains ELEMENT
FILE-KEY	See note 2
ELEMENT-KEY	See note 3
ELEMENT-PRIMARY	primary-flag attribute
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped
FILE-POSITION	Not mapped
KEY-DUPLICATES	Not mapped
FILE-FIELD-NO	Not mapped

Notes

1 ELEMENT is used as the element name in the RECORD contains ELEMENT relationship. It is also used as the search key into DATA-ELEMENT data set. The element entity information retrieved from DATA-ELEMENT is used to initialize the relationship attributes if the BACK-REFERENCE = OFF. In that case, the following mapping is used:

attribute	value assigned
element-type	ELEMENT-TYPE from DATA-ELEMENT
byte-offset	generated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE from DATA-ELEMENT
decimal	ELEMENT-DEC from DATA-ELEMENT
byte-length	ELEMENT-LENGTH from DATA-ELEMENT
count	ELEMENT-COUNT from DATA-ELEMENT

attribute	value assigned
units	ELEMENT-UNITS from DATA-ELEMENT
sign	ELEMENT-SIGN from DATA-ELEMENT
blank	ELEMENT-BLANK from DATA-ELEMENT
justify	ELEMENT-JUST from DATA-ELEMENT
synchronize	ELEMENT-SYNC from DATA-ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

2 When the file type is DETL, FILE-KEY can have any non-negative value. If it is 0, the element is not a search item for the detail data set. Therefore, no chain relationship is created. On the other hand, if it is >0, then the element is a search item for the data set, and the chain relationship involving IMAGE-DATASET, ELEMENT, ELEMENT, IMAGE-DATASET, and IMAGE-DATABASE is created. In the relationship, the first IMAGE-DATASET is the detail data set; the data set name is taken from the FILE field. The next entity (ELEMENT) is the search item for the detail set; the element name is taken from the ELEMENT field. The next is the sort item for the path, whose name can be retrieved through the ELEMENT-KEY field. If it is 0, the sort item is left blank. Otherwise, the FILE-SORT detail data set is searched with the key to find the sort item's actual name. The next entity is the master data set of the path. The file link in FILE-KEY is used to search the FILE-PATH detail set, in order to find the master data set's actual name. The last entity is the database to which the path belongs. In order to find the database name, the FILE-FILE data set is searched with FILE-CHILD = the detail set name. For each database related to the detail set, SDCONV checks to see if the database also contains the master set. If so, the chain relationship is created. Therefore, many chain relationships involving different databases can be created.

3 This field contains the link for the sort item. See above.

MPEF or MPER File Type. If the FILE-TYPE field in DATA-FILE contains 'MPEF' or 'MPER', the file in question is an MPE sequential or an MPE relative file. The following definitions are created:

1 FILE contains RECORD relationship

2 RECORD contains ELEMENT relationship

The fields are mapped according to the following table:

FILE	entity name for the FILE entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	See note 2
FILE-KEY	Not mapped
ELEMENT-KEY	Not mapped
ELEMENT-PRIMARY	Not mapped
DATA-CREATE	Not mapped. See DATA-ELEMENT

DATE CHANGE	Not mapped. See DATA-ELEMENT
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT
DESCRIPTION-KEY	description attribute
POSITION	Not mapped
FILE-POSITION	Not mapped
KEY-DUPLICATES	Not mapped
FILE-FIELD-NO	Not mapped

Notes

1 ELEMENT is used a s the element name in the RECORD contains ELEMENT relationship. It is also used as the search key into DATA-ELEMENT data set. The element entity information retrieved from DATA-ELEMENT is used to initialize the relationship attributes if the BACK-REFERENCE = OFF. In that case, the following mapping is used:

attribute	value assigned
element-type	ELEMENT-TYPE from DATA-ELEMENT
byte-offset	generated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE from DATA-ELEMENT
decimal	ELEMENT-DEC from DATA-ELEMENT
byte-length	ELEMENT-LENGTH from DATA-ELEMENT
count	ELEMENT-COUNT from DATA-ELEMENT
units	ELEMENT-UNITS from DATA-ELEMENT
sign	ELEMENT-SIGN from DATA-ELEMENT
blank	ELEMENT-BLANK from DATA-ELEMENT
justify	ELEMENT-JUST from DATA-ELEMENT
synchronize	ELEMENT-SYNC from DATA-ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

2 The destination ali as is determined from the value of the ALIAS parameter of the DICT3000 command.

3 The primary-record attribute of the FILE contains RECORD relationship is initialized to TRUE.

KSAM File Ty pe. If the FILE-TYPE field in DATA-FILE contains 'KSAM', the file in question is a

KSAM file. The following definitions are created:

1 KSAMFILE contains RECORD relationship

2 RECORD contains ELEMENT relationship

3 KSAMFILE key ELEMENT, if FILE-KEY = -1

The fields are mapped according to the following table:

FILE	entity name for the FILE entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	See note 2
FILE-KEY	See note 3
ELEMENT-KEY	Not mapped
ELEMENT-PRIMARY	primary-flag attribute*4
DATA-CREATE Not"	mapped.See DATA-ELEMENT
DATE CHANGE Not	mapped.See DATA-ELEMENT
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped.See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped
FILE-POSITION	Not mapped
KEY-DUPLICATES	unique attribute*5
FILE-FIELD-NO	Not mapped

Notes

1 ELEMENT is used as the element name in the RECORD contains ELEMENT relationship. It is also used as the search key into DATA-ELEMENT data set. The element entity information retrieved from DATA-ELEMENT is used to initialize the relationship attributes if the BACK-REFERENCE = OFF. In that case, the following mapping is used:

attribute	value assigned
element-type	ELEMENT-TYPE from DATA-ELEMENT
byte-offset	generated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE from DATA-ELEMENT
decimal	ELEMENT-DEC from DATA-ELEMENT
byte-length	ELEMENT-LENGTH from DATA-ELEMENT
count	ELEMENT-COUNT from DATA-ELEMENT

attribute	value assigned
units	ELEMENT-UNITS from DATA-ELEMENT
sign	ELEMENT-SIGN from DATA-ELEMENT
blank	ELEMENT-BLANK from DATA-ELEMENT
justify	ELEMENT-JUST from DATA-ELEMENT
synchronize	ELEMENT-SYNC from DATA-ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

2 The destination alias is determined from the value of the ALIAS parameter of the DICT3000 command.

3 If FILE-KEY = -1, then the element is a key for the KSAM file. In this case, the KSAMFILE key ELEMENT relationship is created with the attributes initialized as follows:

attribute	value to assign
relationship-position	set by SD intrinsic
primary-flag	true if ELEMENT-PRIMARY = 1 false if ELEMENT-PRIMARY = 0
unique	true if KEY-DUPLICATES = 0 false if KEY-DUPLICATES = 1

4 The primary-record attribute is initialized to TRUE.

FORM File Type. If the FILE-TYPE field in DATA-FILE contains 'FORM', the file in question is a VPLUS form. The following definitions are created:

1 FORM contains ELEMENT.

The fields are mapped according to the following table:

FILE	entity name for the FORM entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	vplus-alias attribute
FILE-KEY	Not mapped
ELEMENT-KEY	Not mapped
ELEMENT-PRIMARY	Not mapped
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.

IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT
DESCRIPTION-KEY	description attribute
POSITION	Not mapped
FILE-POSITION	Not mapped
KEY-DUPLICATES	Not mapped
FILE-FIELD-NO	field-number attribute

Notes

1 For the FORM contains ELEMENT relati onship type, the back-reference-flag attribute is not included as one of the relationship attributes. Therefore, the value of the BACK-REFERENCE parameter will be ignored.

2 Note that some relationship attribute values are retrieved from the ELEMENT's entity level attributes as shown below:

relationship attribute	value assigned
element-type	ELEMENT-TYPE field from DATA-ELEMENT
byte-offset	calculated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE field from DATA-ELEMENT
decimal	ELEMENT-DEC field from DATA-ELEMENT
field-number	FILE-FIELD-NO field from FILE-ELEMENT
edit-mask (variable)	ELEMENT-EDIT field from DATA-ELEMENT
entry-text (variable)	ELEMENT-ENTRY field from DATA-ELEMENT
heading-text (variable)	ELEMENT-HEAD field from DATA-ELEMENT

FILE-EL-SECOND. This de tail data set contains the secondary record format definitions for MPER, MPEF, and KSAM file types. Note that the primary-record attribute is always set to FALSE in the FILE/KSAMFILE contains RECORD relationship, since the record format contained in this data set is not primary.

- If the file type is KSAM, the following relationships are created:
  1 RECORD entity, if it does not exist in System Dictionary
  2 KSAMFILE contains RECORD relationship
  3 RECORD contains ELEMENT relationship
- If the file type is MPEF or MPER, the following relationships are created:
  1 RECORD entity, if it does not exist in System Dictionary
  2 FILE contains RECORD relationship
  3 RECORD contains ELEMENT relationship

SDCONV performs a serial read through DATA-FILE, and chains into the FILE search item in FILE-EL-SECOND. The value of each field is mapped to the System Dictionary according to the following:

FILE	entity name for the FILE entity
ELEMENT	entity name for the ELEMENT entity*1
ELEMENT-ALIAS	See note 2
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

Notes

1 ELEMENT is u sed first to create a RECORD entity if it does not exist already. When creating it, the byte-length attribute is initialized with the value of the ELEMENT's ELEMENT-LENGTH. Then, ELEMENT is used as the second entity of the entity list in the RECORD contains ELE-MENT relationship. Note that if BACK-REFERENCE= OFF, then the ELEMENT entity informa-tion retrieved from DATA-ELEMENT is used to initialize some of the relationship attributes. The following table shows how the attributes are initialized if BACK-REFERENCE = OFF:

attribute	value assigned
type	ELEMENT-TYPE from DATA-ELEMENT
byte-offset	generated by SDCONV (starts from 1)
display-length	ELEMENT-SIZE from DATA-ELEMENT
decimal	ELEMENT-DEC from DATA-ELEMENT
byte-length	ELEMENT-LENGTH from DATA-ELEMENT
count	ELEMENT-COUNT from DATA-ELEMENT
units	ELEMENT-UNITS from DATA-ELEMENT
sign	ELEMENT-SIGN from DATA-ELEMENT
blank	ELEMENT-BLANK from DATA-ELEMENT
justify	ELEMENT-JUST from DATA-ELEMENT
synchronize	ELEMENT-SYNC from DATA-ELEMENT
edit-mask (variable)	ELEMENT-EDIT from child ELEMENT
entry-text (variable)	ELEMENT-ENTRY from child ELEMENT
heading-text (variable)	ELEMENT-HEAD from child ELEMENT

2 The destination alias is determined from the value of the ALIAS parameter of the DICT3000 command.

FILE-FILE. This data set contains the parent-child relationships between two files. The parent files in this data set should have either the BASE or VPLS type. If the parent file type is BASE, then the child file type is either MAST, AUTO, or DETL. If it is VPLS, the child type should be FORM. According to the parent and child file type, either:

IMAGE-DATABASE contains IMAGE-DATASET

or

FORMSFILE contains FORM

relationshi p is created. SDCONV first reads DATA-FILE serially, and then chains into FILE-PARENT in FILE-FILE. The fields are mapped according to the following table:

FILE-PARENT	parent file name*1
FILE-CHILD	child file name*2
FILE-ALIAS-F	See note 3
FILE-SIZE	capacity attribute*4
FILE-BLOCK	blocking-factor attribute*5
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

Notes

1 FILE-PARENT is used as the IMAGE-DATABASE/FORMSFILE entity name.

2 FILE-CHILD is used as the IMAGE-DATASET/FORM entity name.

3 FILE-ALIAS-F is use d as the image-alias attribute if the relationship to create is IMAGE-DATABASE contains IMAGE-DATASET. If the relationship is FORMSFILE contains FORM, then this field is mapped to the vplus-alias attribute.

4 FILE-SIZE is mapped to the capacity attribute only if the relationship is IMAGE-DATABASE contains IMAGE-DATASET.

5 FILE-BLOCK is mapped to the blocking-factor attribute only if the relationship is IMAGE-DATABASE contains IMAGE-DATASET.

CATEGORY-CATEGORY. This data set relates one category to another. Entries in this data set are retrieved through chained read on CATEGORY-PARENT and are mapped to the CATEGORY contains CATEGORY relationship. The fields are mapped according to the following table:

CATEGORY-PARENT	parent CATEGORY entity name

CATEGORY-CHILD	child CATEGORY entity name
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

CATEGORY-ELEMENT. This data set relates a CATEGORY to ELEMENTs. Therefore, entries are mapped to the CATEGORY contains ELEMENT relationships and are retrieved through chained read on CATEGORY. The fields are mapped according to the following table:

CATEGORY	entity name for CATEGORY
ELEMENT	entity name for ELEMENT
ELEMENT-ALIAS-C	alias as specified by the ALIAS parameter
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

Note that when converting CATEGORY-CATEGORY and CATEGORY-ELEMENT detail sets, SDCONV reads serially through DATA-CATEGORY, and then, with each CATEGORY name found, chains into CATEGORY-PARENT in CATEGORY-CATEGORY and into CATEGORY in CATEGORY-ELEMENT, i. e., SDCONV alternates between these two sets and converts definitions.

GROUP-GROUP. This data set relates one group to another. Entries in the data set are retrieved through chained read on GROUP-PARENT and are mapped to the INFORM-GROUP contains INFORM-GROUP relationship. The fields are mapped according to the following table:

GROUP-PARENT	parent INFORM-GROUP entity name
GROUP-CHILD	child INFORM-GROUP entity name
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.

DESCRIPTION-KEY	description attribute
POSITION	Not mapped

GROUP-ELEMENT. This data set contains information about relationships between GROUPs and ELEMENTs. Entries in the data set are retrieved through chained read on GROUP. The destination relationship type depends on a number of factors:

1 If FILE-KEY field contains 0, then the entry is mapped to a INFORM-GROUP contains ELEMENT FILE three-way relationship.

2 If FILE-KEY field contains a non-zero value, then the key value is used to chain into the FILE-PATH detail set. Then the file name found is used to find the FILE-TYPE from DATA-FILE.

3 If the FILE-TYPE is either MAST, AUTO, or DETL, the INFORM-GROUP contains ELEMENT IMAGE-DATASET IMAGE-DATABASE relationship is created. If the FILE-PARENT-KEY field is non-zero, that number is used to retrieve the IMAGE-DATABASE name.

4 If the FILE-TYPE is KSAM, then the INFORM-GROUP contains ELEMENT KSAMFILE relationship is created.

5 Otherwise, the INFORM-GROUP contains ELEMENT FILE relationship is created.

The fields are mapped according to the following table:

GROUP	entity name for GROUP
ELEMENT	entity name for ELEMENT
ELEMENT-ALIAS	alias as specified by the ALIAS parameter
FILE-KEY	See GROUP-ELEMENT.
FILE-PARENT-KEY	See GROUP-ELEMENT.
LINK-VALUE	link-value attribute
ELEMENT-DISPLAY	element-display attribute*1
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

Notes

1 If the value of t his field is 0, the element-display attribute is set to TRUE. Otherwise, it is set to FALSE.

Note that when converting GROUP-GROUP and GROUP-ELEMENT detail sets, SDCONV reads serially through DATA-GROUP and, for each GROUP found, chains into GROUP-GROUP and GROUP-ELEMENT, i.e., SDCONV alternates between these two files and converts definitions.

CLASS-GROUP. This data set relates Inform user classes to Inform groups. Entries in the data set are

retrieved through chained read on CLASS and are mapped to the INFORM-CLASS contains INFORM-GROUP relationship. The fields are mapped according to the following table:

CLASS	entity name for CLASS
GROUP	entity name for GROUP
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

CLASS-ELEMENT. This data set relates Inform classes to elements. The entries are retrieved through chained read on CLASS and are mapped to the ELEMENT contains IMAGE-CLASS relationship. The fields are mapped according to the following table:

CLASS	entity name for IMAGE-CLASS
ELEMENT	entity name for ELEMENT
ELEMENT-ACCESS	access attribute
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

CLASS-CLASS. This data set relates Inform classes to IMAGE user classes. The entries are retrieved through chained read on CLASS-PARENT and are mapped to the INFORM-CLASS contains IMAGE-CLASS relationships. The fields are mapped according to the following table:

CLASS-PARENT	entity name for INFORM-CLASS
CLASS-CHILD	entity name for IMAGE-CLASS
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.

DESCRIPTION-KEY	description attribute
POSITION	Not mapped

CLASS-FILE. This data set relates Inform/IMAGE classes to files. The FILE field in this data set is used to obtain the type of the file, which determines the relationship to map. The following table shows the variety of relationships that can map to entries of this data set:

file type	relationship to map
BASE	IMAGE-DATABASE contains IMAGE-CLASS*1
MAST AUTO DETL	IMAGE-DATASET contains IMAGE-CLASS
KSAM MPEF MPER VPLS	No relationship.*2

Note the following:

1 The IMAGE-DATABASE contains IMAGE-CLASS relati onship may have already been created when DATA-CLASS was mapped. (See the "Data-Class" section under "Loading Entities".) In that case, no new relationship is created.

2 In these cases the file's lockword is initialized with the CLASS-PASSWORD field value in DATA-CLASS.

Entries in the data set are retrieved through chain ed read on CLASS. The fields are mapped according to the following table:

CLASS	See note 1
FILE	See note 2
FILE-ACCESS	access attribute*3
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

Notes

1 As explained above, if the fil e type is IMAGE-DATABASE or IMAGE-DATASET, the value in this field is used as the IMAGE-CLASS name. Otherwise, this field is not mapped.

2 The value of this field is used to search DATA-FILE. Then, the file type found in the DATA-FILE

master data set is used to determine the destination relationship type.

3 This mapping occurs only if the file is an IMAGE data set of the type MAST, AUTO, or DETL.

4 Note that SDCONV reads serially through DATA-CLASS, and, for each CLASS found, chains into CLASS-GROUP, CLASS-ELEMENT, CLASS-CLASS, and CLASS-FILE, i. e., SDCONV alternates among these sets and converts definitions.

PROCEDURE-ELEMEN. This data set relates proced ures, or program modules, with elements. The entries are retrieved through chained read on PROCEDURE and are mapped to the MODULE processes ELEMENT relationship. The fields are mapped according to the following table:

PROCEDURE	entity name for MODULE
ELEMENT	entity name for ELEMENT
ELEMENT-ALIAS-P	alias as specified by the ALIAS parameter
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

PROCEDURE-PROCED. This data set contains parent-child relationships among program modules. The entries are retrieved through chained read on PROCEDURE-PARENT and are mapped to the MODULE contains MODULE relationships. The fields are mapped according to the following table:

PROCEDURE-PARENT	entity name for the parent MODULE
PROCEDURE-CHILD	entity name for the child MODULE
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

PROCEDURE-LOCATI. This data set relates program m odules to locations. The entries are retrieved through chained read on PROCEDURE and are mapped to the LOCATION contains MODULE relationships. The fields are mapped according to the following table:

LOCATION	entity name for LOCATION
PROCEDURE	entity name for MODULE

PROCEDURE-ALIAS	alias as specified by the ALIAS parameter
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

Note that SDCONV first reads serially through the DATA-PROCEDURE master set, and, for each PROCEDURE found, chains into PROCEDURE-ELEMEN, PROCEDURE-PROCED, and PROCEDURE-LOCATI, i. e., SDCONV alternates among these sets and converts definitions.

FILE-LOCATION. This data set relates files to locations. The entries are mapped to a variety of relationships in the System Dictionary. The destination relationship is determined by the file type, as explained in the table below:

file type	relationship to map
BASE	LOCATION contains IMAGE-DATABASE
VPLS	LOCATION contains FORMSFILE
KSAM	LOCATION contains KSAMFILE
MPER	LOCATION contains FILE
MPEF	LOCATION contains FILE

SDCONV reads serially through DATA-FILE, and, for each FILE, chains into FILE-LOCATION. The fields are mapped according to the following table:

LOCATION	entity name for LOCATION
FILE	entity name for FILE
FILE-ALIAS	alias as specified by the ALIAS parameter
FILE-SIZE	Not mapped
DATA-CREATE	Not mapped. See DATA-ELEMENT.
DATE CHANGE	Not mapped. See DATA-ELEMENT.
IDENTITY-CREATE	scope-owner attribute
IDENTITY-CHANGE	Not mapped. See ELEMENT-ELEMENT.
DESCRIPTION-KEY	description attribute
POSITION	Not mapped

REPORT-LIST. This data set contains information about INFORM-REPORTs SDCONV reads the DATA-REPORTLOC master set serially, and then chains into REPORT-LIST through the REPORT-LOC search item. Each entry in REPORT-LIST is converted to IMAGE-REPORT entities in the System Dictionary. The data items in the detail set are mapped as follows:

REPORT-LOC	See note 1
REPORT	entity name for INFORM-REPORT
REPORT-NAME	description attribute
DATA-CREATE	Not mapped
IDENTITY-CREATE	scope-owner attribute

Notes

1 REPORT-LOC specifies the location in the <*group* >.<*account* > format. SDCONV first attempts to create MPE-GROUP and MPE-ACCOUNT with the group/account name. Because a period (.) is an illegal System Dictionary character, it will be mapped according to the value associated with it in the current mapping table.

2 REPORT is used to create an INFORM-REPORT entity. Then, a LOCATION contains INFORM-REPORT relationship is created.

7 Introduction

Documentation Overview

This part of Volume 2 of the General Reference Manual describes the HP System Dictionary Utility, SDUTIL, and provides detailed operating information and instructions for its use.

- "**Introduction**",provides a description of the features and benefits of the program.
- "**Running the SDUTIL Program** " , describes the files required by the program, its run options, operating modes, and user input rules.
- "**SDUTIL Commands** " , describes the SDUTIL commands and their syntax. Each command description includes a description of each of the parameters used in that command.
- **Appendix A** provides a list of the error messages for SDUTIL, and includes at least one possible cause for each error and an action to take for each cause given.
- **Appendix B** provides a listing of the SDUTIL commands and the abbreviation for each command.

SDUTIL Overview

The HP System Di ctionary/V Utility (SDUTIL) is a general purpose program which provides you with the capability to

- create compiled dictionaries.
- merge dictionary data.
- rename a compiled dictionary.
- purge a dictionary.

These functions are described below.

Compiled Dictionaries

System Dicti onary now includes two types of dictionaries which contain metadata:

- **Master Dictionaries**. A master dictionary consists of a TurboIMAGE database which can be accessed by all System Dictionary intrinsics and SDMAIN commands. Because of its complexity, however, the response time while using a master dictionary may be a problem for some subsystems, especially those which must read from the dictionary at run-time.
- **Compiled Dictionaries**. A compiled dictionary contains metadata extracted from a master dictionary. Like a compiled program, a compiled dictionary cannot be modified. It is therefore a *read-only* dictionary which can be accessed by those System Dictionary intrinsics and commands which *only* read dictionary metadata.

Compiled dictionaries provide faster dictionary read access and are intended to be used by subsystems and applications that need *only* to read the metadata. A compiled dictionary is less complex than a master dictionary and is compacted into one or more flat files. It therefore requires less disk storage space, and provides a more efficient means of transporting dictionary data to other groups, accounts, or systems.

Merging Dictionaries

SDUTIL provides you with the capability to selectively m erge certain dictionary data into appropriate areas of the same or other dictionaries as follows:

- Dictionary structure definitions can be merged into the structure of another dictionary.

- Occurrences from a version in a dictionary can be merged into another version in the same or another dictionary.
- Security definitions from one dictionary can be merged into the security scheme in another dictionary.

SDUTIL all ows you to preview the results of the merge operation and provides you with information about conflicts which will occur if the merge is allowed to continue. You can then decide whether or not to do the actual merge operation. Note that it is also possible to merge dictionary data and compile it during the same session.

Renaming a Compiled Dictionary

Unlike master dictionaries, compiled dictionaries do not have to be named SYSDIC. Therefore, SDUTIL provides you with the capability of renaming a compiled dictionary. This function may be particularly useful to prevent name conflicts with other dictionaries when moving a compiled dictionary to another group, account, or system.

Purging a Dictionary

SDUTIL provides you with the capability of purging either master or compiled dictionaries. Note that if a master dictionary is purged, all files associated with that dictionary (SYSDICxx) will also be purged.

8 Running the SDUTIL Program

Overview

This chapter provides infor mation about the files needed to run SDUTIL and detailed instructions on using SDUTIL in either session or batch mode, entering SDUTIL commands, and how to use the compile and merge functions of the SDUTIL program.

SDUTIL's Files

SDUTIL uses the formal file designators SDIN as th e input file, SDOUT as the output file, and SDLOG as the response log file. File equates are allowed for all of these files.

SDIN SDUTIL accepts input from the file SDIN. The default for SDIN is $STDINX. Redirecting SDIN to a file causes SDUTIL, whether executed in session or batch mode, to accept input from the specified file. The specified file must be an unnumbered file or SDUTIL will not execute correctly. Redirection is achieved by using the following MPE file equation:

:FILE SDIN = <command file>

The next time SDUTIL is executed, the input will be accepted from the file, command file.

SDOUT SDUTIL's reporting information is written to the output file called SDOUT. The default for this file is $STDLIST, which for sessions is the terminal. The reporting information may be redirected via the following file equation:

:FILE SDOUT = <output file>

If the file does not exist, then SDUTIL will create a permanent ASCII file with a record size of 80 bytes. If the file already exists, then SDUTIL will ask for permission to overwrite it.

SDLOG When SDUTIL is executed, all valid commands except the REDO command are logged to the file SDLOG. A valid command is a command without parse errors. If <Control Y> is entered in the middle of a command, then the entire command is not logged. SDLOG gives you the foundation for running SDUTIL with previously inputted commands.

When SDLOG is redirected to a file other than itself, all input entered for that session will be saved in the specified file. If the file does not exist, then SDUTIL will build it as a temporary ASCII file with a fixed-length record size 80 bytes. If the file already exists, SDUTIL will ask for permission to overwrite it. To improve performance, logging can be disabled by redirecting SDLOG to $NULL. To redirect SDLOG to a file, use the following MPE commands:

:FILE SDLOG = <command file>

:RUN SDUTIL.PUB.SYS

If SDLOG is not redirected, o r is redirected to a temporary file, it is only session temporary. An MPE SAVE command may be used to save SDLOG as a permanent file, as shown in the following example.

:RUN SDUTIL.PUB.SYS

:SAVE SDLOG

:RENAME SDLOG,LOGFILE

The file LOGFILE now contains the previously entered input.

SDMCOM When you are merging a version to another existing version, the target version may contain extra occurrences that do not exist in the source version. If you preview the merge process, SDMAIN commands to delete the extra occurrences will be generated and stored in the file SDMCOM. This file may then be used as input to SDMAIN to delete the extra occurrences without having to enter SDMAIN commands manually. If SDMCOM does not exist, SDUTIL will create it as a fixed length permanent file with record size 80 bytes. If it does already exist, SDUTIL will ask for permission to purge and re-create it. Note that this command generation feature can be disabled by redirecting SDMCOM to $NULL. SDCOM may be redirected to a file via the following file equation:

:FILE SDMCOM = <command file>

Running SDUTIL

SDUTIL may be run in either session or batch mode. These are explained further on in this chapter. The following information applies to both session and batch mode.

Run Options

When you run SDUTIL, you can specify one of several options through the use of the PARM parameter. These options deal with the processing of the commands and the handling of any errors encountered. The parameter values and their meanings are shown in following table.

SDUTIL Run Options

-1	Parse Only	When SDUTIL is run with the parse-only option, no dictionary or files are opened and no definitions are copied. The commands issued are only parsed to catch syntax errors.
0	Execute and do not abort (Default)	If the PARM parameter is not specified, the default is not to abort regardless of the number of errors encountered. All the errors are reported, but non-fatal errors will not terminate the program.
1	Execute and abort on the first error	Aborts on first syntactical or operational error.
>1	Execute and abort only if the specified number of errors are found	Aborts at user-specified number of syntactical or operational errors. May abort before the error count is reached if a fatal error is encountered.

Note that the execute and abort options allow flexibility for you to specify the exact number of errors that are considered acceptable.

Command Language

The general format of SDUTIL commands is eit her:

- a command, or

- one or more keyword oriented clauses (if required)

The System Dictionary Command Language is free formatted, i.e., the command and keyword clauses may appear on a single line or on multiple lines. For example, you can enter the DICTIONARY= keyword clause on the same line as the FROM command as shown below,

```
>FROM DICTIONARY=sysdic.pub;
```

or you could enter it on a second line, like this:

```
>FROM
>>DICTIONARY=sysdic.pub;
```

Phrases. Commands and keyword clauses both are consi dered to be phrases, and are defined as follows:

command An SDUTIL de fined name which specifies the action to be taken.

keyword clause An SDUTIL defined name which specifies a qualifying value. It is a keyword followed by an ++=++ followed by a keyword value list. A keyword value list is zero or more values separated by commas. Values are *user* defined names. Keyword clauses are separated by semicolons.

Note that the order of these phrases is important. The command must precede the keyword clauses. Keyword clauses, however, may be entered in any order. For example, two keyword clauses 1) which specifies the dictionary name, and 2) which specifies the scope, may be entered as shown in either example 1 or 2.

Example 1

```
>FROM
>>DICTIONARY=sysdic.pub;
>>SCOPE=dict;
```

Example 2

```
>FROM
>>SCOPE=dict;
>>DICTIONARY=sysdic.pub;
```

Punctuation Character s. The following characters are legal for use when punctuating SDUTIL commands or keyword clauses:

Character	**Description**
.	Command terminator. The period is used to signify the end of a string of characters denoting a command. It is optional for the commands: COMMENT, COMPILE, EXIT, HELP, MERGE, PREVIEW, REDO, SHOW.
,	Separates items in a list. The comma is used to separate values in a keyword value list.
;	Separates keyw ord clauses. If there are two or more keyword clauses, there must be semicolons between them.
=	Specifies a keyword and a keyword value pair. e.g. DICTIONARY = sysdic
"	Optional around passwords as long as the value can be accepted as a valid System Dictionary name (ie. no punctuation or invalid characters embedded); otherwise, it is required. Use two

quotes to represent an embedded quotation mark in the password.

!	Defaults target value(s) to the source value(s).
[[ ]]	Blanks must be used to separate a command and its keyword clauses. Any number of blanks may appear between any name and any punctuation character.
[[RETURN]]	Treated the same as a blank. Wherever a blank is legal, a [[RETURN]] is legal except within a quoted password.

Running SDUTIL in Session Mode

To run the program, enter the following MPE command:

:RUN SDUTIL.PUB.SYS

SDUTIL will respond with the banner:

HP System Dictionary SDUTIL HP32256v.uu.ff -(C) Hewlett-Packard Co. 1985

A prompt character (>) is displayed (SDUTIL prompts are described below), indicating that SDUTIL is ready for a command. At this point, you may enter one of the following commands:

COMMENT	MERGE-OPTIONS
COMPILE-OPTIONS	MERGE-TO
COMPILE-TO	PURGE
EXIT	REDO
FROM	RENAME
HELP	SHOW
	: (any MPE Command)

If any other command is en tered, SDUTIL will issue an error message. The functions and abbreviations of these commands are listed in the table at the beginning of Chapter 3.

SDUTIL Prompts. The following prompts are used by SDUTIL:

Prompt	Description
>	Command prompt. SDUTIL is expecting a command.
>>	Command cont inuation prompt. SDUTIL is expecting a clause to complete the command.

Special Character Responses. The following characters have special meanings when used in response to an SDUTIL prompt:

Character	Description
< Control X >	Ignores the line on which the < Control X > was typed. The system types three exclamation points (!!!) and then waits for you to reenter the data for the line.
< Control Y >	Prints the message "< Control Y >" and returns to the highest prompt (>) level. In response to the >> prompt, the command is terminated without executing. In response to the > prompt, no action is taken, but the > pr ompt is reissued. During a merge or preview, hitting < Control Y > will terminate the merge or preview process. During a compile < Control Y > is disabled.

Running SDUTIL in Batch Mode

SDUTIL may be r un in batch mode, via a job file. An example of a job file is shown below. In this example, SDUTIL reads commands from an input file SDIN, which in the example has been redirected to the file COMMANDS.

The PARM parameter is used to specify the action of the job if an error is encountered. In the example, the program is aborted if 10 errors are found. Refer to the text earlier in this chapter for details on the various run options.

Finally, the JCW job control word shows whether the system executed successfully or terminated abnormally.

```
!JOB SDJOB,DICK/WRITER.SDUSER
!FILE SDIN = COMMANDS
!CONTINUE
!RUN SDUTIL.PUB.SYS;PARM=10
!IF JCW = FATAL THEN
!  TELL DICK.SDUSER  Fatal Dictionary Error
!ELSE
!  TELL DICK.SDUSER  Dictionary Job Completed
!ENDIF
!EOJ
```

Merging and Compiling

The two major functions of SDUTIL, merging dictionary data and compiling dictionaries, are discussed on the following pages. Two other functions, purging a dictionary and renaming a compiled dictionary, are explained in the descriptions for the commands PURGE and RENAME, in Chapter 3. Both major functions of SDUTIL have a common requirement, that the source and target dictionaries be defined. The commands which define the dictionary environments are:

- **FROM**, which defines a master or compiled source dictionary.
- **MERGE-TO**, which defines a master target dictionary.
- **COMPILE-TO**, which defines a compiled target dictionary.

The fol lowing table provides information on the commands which are used in merging and compiling, and the functions they perform.

Table 7: MERGE AND COMPILE COMMANDS

From	To	Command
master dictionary	master dictionary	FROM MERGE-TO MERGE-OPTIONS MERGE/PREVIEW
master dictionary	compiled dictionary	FROM COMPILE-TO COMPILE-OPTIONS COMPILE

Table 7: MERGE AND COMPILE COMMANDS

From	To	Command
compiled dictionary	master dictionary	FROM MERGE-TO MERGE-OPTIONS MERGE/PREVIEW
compiled dictionary	compiled dictionary	NOT ALLOWED

Name Modes

When dictionaries are either compiled or merged, both the internal and external names are affected, regardless of the name mode that is specified. The name mode parameter of the FROM and MERGE-TO commands allows you to specify either the internal or external names for the scope name, domain name and version name when opening the dictionary. When merging, however, SDUTIL checks only internal names to determine whether or not a definition exists. Internal names are used because they can never be changed, while external names can be.

Open Modes

SDUTIL allows you to choose the open mode with which to open the source and target dictionaries in the FROM and MERGE-TO commands.

The FROM command is used to define the source environment for both compiling and merging.

If you are compiling, open the source dictionary in either Exclusive-Update mode or Read-Allow-Read mode, unless you are compiling structure only. If you are compiling structure only, you may open the source dictionary in Exclusive-Update mode, Read-Allow-Read mode, or Customization mode.

If you are merging, the source dictionary can be opened in any mode. Some general guidelines for source dictionary open modes used while merging are:

- Open the source dictionary in Customization mode if you only want to merge the complete dictionary structure and do not want to specify a version and domain when opening the dictionary.
- Open the source dictionary in either Read-Only mode or Shared-Update mode if you do not care if someone is modifying the dictionary while you are merging either structure-only or a version.
- Open the source dictionary in either Exclusive-Update mode or Read-Allow-Read mode if you do not want anyone to modify the dictionary while you are merging either structure-only or a version.

The MERGE-TO command is used to define the tar get environment for merging only. You can open the target dictionary in Read-Only mode only if you are previewing the merge process. Otherwise use the following guidelines for target dictionary open modes.

- Open the target dictionary in Customization mode if yo u are merging structure only and want exclusive access to the target dictionary.
- Open the target dictionary in Exclusive-Update mode if you are merging a version and expect structure changes are to be involved. This will ensure that no one else is accessing the dictionary during the merge, and the dictionary can be switched to Customization mode when updating the structure. The switch is done automatically, so you don't have to merge structure separately first, and then merge occurrences, but can do them both at once.
- Open the dictionary in Shared-Update mode if you are merging a version, do not expect structure changes, and do not need exclusive access to the target dictionary while you are merging.

Compile / Merge Options

You can set various options for the compile/merge process via two commands: The COMPILE-OPTIONS command, which allows you to set the options for the compiling process, and the MERGE-OPTIONS command, which allows you to set the options for the merging process. Note that these options must be specified *before* the COMPILE or MERGE command is given.

Compiling / Merging Multiple Versions

You can compile or merge more than one version when running SDUTIL by issuing multiple COMPILE or MERGE commands and specifying the appropriate source and target environments as necessary. Note that multiple versions can be compiled into the same compiled dictionary until the compiled dictionary is closed.

Compiling a Dictionary

When you are compiling, the dictionary structure and the security schemes are automatically included in the compiled dictionary. However, you have an option to specify whether or not you want common links to be compiled. If this option is set true, and the version to compile is in the local domain and it is linked to a version in the common domain, then the linked version in the common domain will also be compiled in addition to the version in the local domain. The occurrence linking will then be preserved in the compiled dictionary as in the source master dictionary. You also have an option to specify what variable length attributes you want to compile. You can include all, none or selected variable length attributes in your compiled dictionary.

Closing the Compiled Dictionary File. The compiled dictionary is closed when you

- enter an EXIT command.
- change the source dictiona ry to a different dictionary specified by the FROM command.
- change the compiled dictionary file name to a different file name, specified by the COMPILE-TO command.

Merging Dictionary Data

You can merge either dictionary structure from one dictionary to another, or a version from the source dictionary to a new or existing target version in the same or a different dictionary. Since only read access is allowed for a compiled dictionary, the target dictionary must be a master dictionary.

Previewing a Merge Option. The PREVIEW command is provided to allow you to see the results of a potential merge before the merge actually takes place. You can then choose how any reported conflicts between structure or occurrence definitions in the source and target dictionaries should be handled before the target dictionary is changed.

Merging Structure Vs. Occurrence. Structure is merged only when the source dictionary is not also the target dictionary. Occurrences, however, can be merged between versions within the same dictionary or between two different dictionaries.

When occurrences are merged within the same dictionary, no structure changes are involved because both versions already use the same structure. When they are merged into different dictionaries, however, the source dictionary structure will be merged into the target dictionary. This is necessary because System Dictionary requires a structure definition to support each type of occurrence in the dictionary. For example, there cannot be any entities of type RECORD in a dictionary if there is no entity type RECORD in the dictionary structure. Refer to the *HP System Dictionary/V General Reference Manual, Volume 1* for a complete explanation of dictionary structure and occurrences.

The COMPLETE-STRUCTURE option is provided so that when me rging dictionary structure, you can specify whether to merge the whole dictionary structure, or only those structures in the source dictionary

that are needed in the target dictionary to support the occurrences that will be merged into it.

When you merge structure, SDUTIL copies the following structure definitions:

- Attributes
- Entity Types and their associated attributes
- Relationship Classes
- Relationship Types and their associated attributes

When you merge a version, SDUTIL copies the following data:

- E ntities and their attribute values including those of type alias and variable length, synonyms, and common version links if needed
- Relationships and their attribute values including those of type alias and variable length, and common version links if needed

Merging Security. In addition to occurrenc es you can also merge dictionary security information. For the first release merging security information will be limited to the DA since only the DA has full capability to retrieve information about all other scopes and occurrences owned by them. If the option to merge security is chosen, then the following security information will be copied:

- scopes and their passwords and scope rights
- scope entity associations
- scope relationship associations

If you decide not to copy security, you can specify whether to copy just the occurrences owned by the scope, or all occurrences *accessible* to the scope. If you specify the option to merge only the occurrences owned by the scope, then only those occurrences owned by the logon scope will be copied. If you specify the option to merge all occurrences accessible to the scope, then all occurrences owned by the logon scope, accessible through the sensitivity attribute values of public read and public modify, and accessible through explicit scope-entity and scope-relationship associations will be copied.

Handling Conflicts. When you merge data into an existing dictionary, SDUTIL may not always create an exact replica of the source dictionary. If it did, it could cause some unwanted and possibly damaging side effects to the dictionary, especially when structure changes are involved. As a general rule, SDUTIL will take the approach of merging data with no damaging side effects. The following text explains how SDUTIL handles various kinds of conflicts.

STRUCTURE CONFLICTS. When you merge structure, it is possible that a structure definition exists, but its external names are different. Changing the external name of the target structure definition may not always be appropriate, because programs may exist which rely on external names of the dictionary structure. For this reason, when there is a structure name conflict, SDUTIL will report the difference, but won't change it. The name conflict in structure can occur for attribute names, relationship class names and entity type names.

Attributes can have different data types, lengths and edit values. If the difference between the attributes in the source and target dictionaries is the attribute's data type, SDUTIL will terminate the merge process because changing the type is not allowed in the dictionary. Although the target attribute could be deleted and recreated, this procedure will delete all the existing values of the attribute in the dictionary, and is not recommended. If the difference is in the length, then the source and target lengths will be compared. If the target attribute length is shorter than the source, then the target attribute length will be modified to have the same length as the source. If the target length is longer than the source, then SDUTIL will report the difference, but not modify the target attribute length. This is because when an attribute length is shortened, all values of the attribute may be truncated or modified depending upon the type. If the difference is in the edit values, SDUTIL will preserve the existing edit values and add the ones that are in

the source but not in the target.

The number of attributes associated with a particular entity type or relationship type in the source dictionary may be different than the number of attributes associated with the same entity type or relationship type in the target dictionary. If so, SDUTIL will preserve the ones that are already associated in the target definition and add those that exist in the source dictionary, but not in the target dictionary. Again, the reason for doing this is because deleting the attributes also deletes the attribute values of the entities and relationships. All the above differences will be reported. You may make changes as desired after SDUTIL completes the merge.

SCOPE CONFLICTS. The DA can merge security data such as scopes, scope entity associations and scope relationship associations. When scopes are being merged, SDUTIL checks for the internal name of the source scope in the target dictionary. If it does not exist, SDUTIL will create it with the same characteristics as the source scope. However, if the scope already exists and the passwords and scope rights are the same, SDUTIL will not change the target scope. If the external names or passwords are different, SDUTIL will report the difference(s), but will not change the external name or the password. If the scope-rights are different, SDUTIL will take its consistent approach of preserving the existing scope-rights of the target dictionary scope, and add those from the source scope that do not exist in the target scope. Again, the differences will be reported and you may make changes later as desired.

OCCURRENCE CONFLICTS. SDUTIL checks internal names to determine whether or not an entity exists in the target dictionary.

- **If an entity (internal name) already exists** in the target dictionary, but its external name is different than the external name in the source dictionary, SDUTIL will not change the external name in the target dictionary. The reasons for not changing the external names are 1) it could cause conflicts with other existing external names, 2) it will preserve external names on which some applications may depend, and 3) changing the entity names will also change the relationships that involve the changed entity names, which may be undesirable.
  It is possible for an occurrence in the target dict ionary to have the same internal name as an occurrence in the source dictionary, but have a different set of attribute values. When this happens, you will be given a set of options to choose from to handle this conflict. These options are explained in detail in the INCOMPATIBLE-DEFINITION option in the description of the MERGE-OPTIONS command in Chapter 3.
- **If an entity (internal name) does not exis t**, SDUTIL will create it. Note that even though the internal name of a new entity may not exist, there may be an existing entity that has the same *external* name as the entity being created. When this happens, SDUTIL will take the action based upon the NAME-CONFLICT option. See the description of the MERGE-OPTIONS command in Chapter 3 for details about this option.

Common Version Linking. The local (source) version may be linked to a version in the common domain, and occurrences in that local version may be linked to occurrences in a version in the common domain. When you merge a version with links, you have the option of either keeping the links intact, or not including them in the merge. If you do keep the links (set the link option to TRUE) and the target version exists, it will be linked to the version being merged in. Occurrences will be created in this version as necessary to support the links in the version being merged in, and those links will be copied as in the source dictionary. If the target version does not exist, a new version containing the occurrences needed by the links will be created in the common domain of the target dictionary. A link from the merged-in version to this new common domain version will also be created. The occurrence linking will then be copied as in the source dictionary.

If you set the link option to TRUE, the external name differences will be checked both on the local entity and the common entity in the common domain. The linking structure of occurrences will be copied or removed based on the source occurrences. If, for any reason, an occurrence cannot be linked to an occurrence in the common domain, then the occurrence will exist as a local occurrence and will not be linked to the occurrence in to the common version. Note that if you set the link option to TRUE while the source version is *not* linked to a common version, any existing links to occurrences in the target version

will be removed.

If you set the link option to FALSE, the attribute values for the linked occurrences will be incorporated into the local definition and no links from common occurrences to local occurrences will be created.

The following tables explain in detail, the actions taken by SDUTIL based upon user specified options. In general, if there are problems modifying the target common occurrence, then the occurrence linking will be removed and the target occurrence will be kept as local.

Table 8: LINK OPTION FALSE

Source	Target	Action
LINKED	LINKED	If the occurrences are compatible then no action is necessary. If they are incompatible then the INCOMPATIBLE-DEFINITION option will determine whether or not to replace the common occurrence attributes.
LINKED	NOT LINKED	If the attribute values of the common occurrence from the source is compatible with the target local occurrence attribute values, then nothing needs to be done. If they are incompatible then the value of INCOMPATIBLE-DEFINITION option will determine whether or not to modify the target local occurrence attribute values.
NOT LINKED	LINKED	The value of the INCOMPATIBLE-DEFINITION option will determine whether or not to modify the target common occurrence attribute values if any action is necessary.
NOT LINKED	NOT LINKED	The INCOMPATIBLE-DEFINITION option will determine the action if any is necessary.

Table 9: LINK OPTION TRUE

Source	**Target**	**Action**
LINKED	LINKED	If the occurrences are compatible then no action is necessary. If they are incompatible then the INCOMPATIBLE-DEFINITION option will determine whether or not to replace the common occurrence attributes. If replacing the common occurrence fails then the target link will be broken and the local occurrence will be modified to have the source values.

Table 9: LINK OPTION TRUE

Source	Target	Action
LINKED	NOT LINKED	If the common occurrence does not exist in the target version, the common occurrence will be created and linking will be established. The common occurrence attribute values are determined by the target local attribute values and the INCOMPATIBLE-DEFINITION option. If the common occurrence exists, the following table shows the actions taken. Local Common Action *C C Link to common occurrence C *IC If REPLACE specified, replace common occurrence and link it IC C If REPLACE specified, link it IC IC If REPLACE specified, replace common occurrence and link it *C means compatible *IC means incompatible If the common occurrence cannot be modified, then the occurrence will be kept as local and its attribute values will be determined by the INCOMPATIBLE-DEFINITION action.
NOT LINKED	LINKED	The link will be removed. If the definition is compatible, the common occurrence attribute values will be kept in the local version. If it is incompatible, then the INCOMPATIBLE-DEFINITION option will determine the local occurrence attribute values.
NOT LINKED	NOT LINKED	The INCOMPATIBLE-DEFINITION option will determine the action if any is necessary.

SDUTIL Examples

The following examples demonstrate user input for some typical operations which may be done while using SDUTIL, and are provided for your guidance.

NOTE In these examples, SDUTIL keywords and commands are shown in uppercase, and user-defined variables are shown in lowercase. Note that System Dictionary does *not* require you to use upper and lower case as shown here. You may enter commands, keywords, variables, and their abbreviations in whichever case you choose, as System Dictionary automatically upshifts everything except passwords. Passwords, therefore, must be entered exactly as defined in the dictionary.

Compiling / Archiving a dictionary

Frequently used versions can be compiled into a compiled dictionary for faster performance. You may also compile selected versions of different domains into a compiled dictionary for archival.

Example. The following example shows compiling/archiving two versions into a compiled dictionary named 'acctng'.

```
>FROM DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>VERSION=general-ledger;
>>DOMAIN=accounting;
>>OPEN-MODE=read-allow-read.
>
```

```
>COMPILE-TO DICTIONARY=acctng.
>
>COMPILE
>
>FROM version=payroll.
>
>COMPILE
>
```

Merging a Version

A version in a domain can be merged into a new or an existing version.

Example 1. This ex ample shows merging a source version into a new target version. If the version exists on the target, do not merge but skip it.

```
>FROM DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=accounting;
>>VERSION=version2;
>>OPEN-MODE=read-only.
>
>MERGE-TO DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=accounting;
>>VERSION=version1;
>>OPEN-MODE=exclusive-update.
>
>MERGE-OPTIONS VERSION-CONFLICT=skip.
>
>MERGE
>
```

Exa mple 2. This example shows merging a source version into an existing target version. The target version name is the same as the source version name. If the version exists in the target, merge source occurrences in.

```
>FROM DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=acct1;
>>VERSION=version1;
>>OPEN-MODE=read-only.
>
>MERGE-TO DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
```

```
>>DOMAIN=acct2;
>>VERSION=!;
>>OPEN-MODE=exclusive-update.
>
>MERGE-OPTIONS VERSION-CONFLICT=merge.
>
>MERGE
>
```

Merging Structure

Structure can only be merged, if the source and target dictionaries are not the same. You can either merge structure only or occurrences as well.

Example 1. This example shows merging a source version to another version and at the same time, merging the structure. Since complete-structure is not specified, only the structure involving the occurrences of the source version will be merged.

```
>FROM DICTIONARY=acctng;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=accounting;
>>VERSION=version1;
>>OPEN-MODE=read-only.
>
>MERGE-TO DICTIONARY=sysdic;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=!;
>>VERSION=!;
>>OPEN-MODE=exclusive-update.
>
>MERGE
>
```

Example 2. This example shows merging the complete structure of the source compiled dictionary into the target dictionary.

```
>FROM DICTIONARY=acctng;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=accounting;
>>VERSION=version1;
>>OPEN-MODE=read-only.
>
>MERGE-TO DICTIONARY=sysdic;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>OPEN-MODE=customization.
```

```
>
>MERGE-OPTIONS COMPLETE-STRUCTURE=true.
>
>MERGE STRUCTURE-ONLY
>
```

Merging a Version across Systems

If the target dictionary cannot be accessed directly, yo u can compile the source version(s) into a compiled dictionary, transport the compiled dictionary to the target system and then merging the versions into the target system.

Example. This example shows compiling a source version into a compiled dictionary and then merge the version from the compiled dictionary to the target dictionary. Only the variable length attribute 'edit-mask' is merged.

```
>FROM DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=accounting;
>>VERSION=version1;
>>OPEN-MODE=read-allow-read.
>
>COMPILE-TO DICTIONARY=acctng.
>
>COMPILE-OPTIONS INCLUDE-VAR-ATTRIBUTE=edit-mask.
>
>COMPILE
>
```

The compiled dictionary 'acctng' is then transp orted to the target system and the version is merged to the same version and domain name as the source.

```
>FROM DICTIONARY=acctng;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=accounting;
>>VERSION=version1;
>>OPEN-MODE=read-only.
>
>MERGE-TO DICTIONARY=sysdic;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>DOMAIN=!;
>>VERSION=!;
>>OPEN-MODE=exclusive-update.
>
>MERGE
>
```

Previewing a Merge

You can preview the results of a merge, before the a ctual merge takes place.

Example. This example shows previewing a merge operation.

```
>FROM DICTIONARY=sysdic.pub;
>>SCOPE=accounting-manager;
>>PASSWORD=amgr;
>>VERSION=accounts-payable;
>>DOMAIN=accounting;
>>OPEN-MODE=read-only.
>
>MERGE-TO DICTIONARY=sysdic.accting;
>>SCOPE=personnel-manager;
>>PASSWORD=pmgr;
>>VERSION=payroll;
>>DOMAIN=personnel;
>>OPEN-MODE=read-only.
>
>PREVIEW
>
```

9 SDUTIL Commands

Overview

This chapter provides a quick-reference to all th e SDUTIL commands, and includes an alphabetically ordered, complete description of each SDUTIL command.

Conventions

In addition to the conventions listed in the prefix of this manual, the following conventions apply to all SDUTIL command syntax descriptions and examples as shown on the following pages.

NOTATION	DESCRIPTION
{ }	An element inside braces is required.
UPPERCASE	SDUTIL defined element. It may be either a command or keyword.
Lowercase	User defined variable. The parameter must be replaced by a user supplied variable.

Note that System Dictionary does not require you to *enter* the parameters in upper and lower case as shown here. You may enter commands, keywords, variables, and their abbreviations in whichever case you choose, as System Dictionary automatically upshifts everything except passwords. Passwords, therefore, must be entered exactly as defined in the dictionary.

MPE Commands

MPE commands can be issued without leaving SDU TIL. Whenever the prompt for a command (>) is present, an MPE command can be issued by entering a colon (:) followed by the command desired. SDUTIL passes the command on to the operating system to be processed. After the command has been completed, control is returned and you are prompted (>) to continue.

MPE commands that can be issued from SDUTIL are those which are supported by the MPE 'COMMAND' intrinsic. Refer to the MPE Intrinsics Reference Manual for a list of these commands.

Quick Reference Guide

A table which contains a list of commands accepted by SDUTIL and a brief description of each is located on the next page. Detailed descriptions of each command follow the table.

Table 10: SDUTIL COMMANDS

COMMAND	ABBR.	DESCRIPTION
COMMENT	COM	Provides a line of comment text in the command stream
COMPILE	C	Initiates the compile process
COMPILE-OPTIONS	COP	Defines compile process options
COMPILE-TO	CT	Defines the target compiled dictionary environment
EXIT	E	Terminates the program

Table 10: SDUTIL COMMANDS

COMMAND	ABBR.	DESCRIPTION
FROM	F	Defines the source dictionary environment
HELP	H	Displays commands
MERGE	M	Initiates the merge process
MERGE-OPTIONS	MOP	Defines merge process options
MERGE-TO	MT	Defines the target master dictionary environment
PREVIEW	PREV	Previews the merge process
PURGE	PUR	Purges a master or compiled dictionary
REDO	REDO	Edits and executes the previous command
RENAME	REN	Renames a compiled dictionary
SHOW	SH	Displays the status of the current environment

NOTE A complete listing of all SDUTIL keywords and their abbreviations is located in Appendix B.

COMMENT

Allows you to enter description text into the command stream.

Syntax

COMMENT [.]

Parameters

None

Discussion

This command allows the use of text to docume nt what is happening in the stream without having any affect on the operation of the system. The COMMENT command may be used whenever the command for a prompt (>) is present. The command is a very simple one. It consists of the command word COMMENT followed by zero or more characters. The system ignores all characters on the line and simply writes them to the log file for documentation. The system then prompts for the next command. Note that this command does not need to end in a period and so must be contained on a single line (can have a multi-line comment by having multiple lines each beginning with a COMMENT command).

Example

```
>comment
>comment
>comment   This command file is used to compile the
>comment   production version of the dictionary.
>comment
>
```

COMPILE

Initiates the compile process.

Syntax

COMPILE [STRUCTURE-ONLY] [.]

Parameters

STRUCTURE -ONLY If this parameter is specified, then only the dictionary structure will be compiled. This parameter, if specified, must be on the same line as the COMPILE command.

Discussion

It uses the environments which w ere initialized by the FROM, COMPILE-TO and COMPILE-OPTIONS commands.

Example

```
>COMPILE.
>
```

COMPILE-OPTIONS

Specifies various options for the compile process.

Syntax

```
COMPILE-OPTIONS [;LINK=common-link-option]
                [;INCLUDE-VAR-ATTR=var-attribute-list]
                {.}
```

Parameters

common- link-option This parameter specifies whether or not to include the linking struc ture in the compiled dictionary. This option is only valid if you are *not* in the common domain. Valid values are:

TRUE
FALSE

If this parameter is set to TRUE, the comm on version will also be automatically compiled if it has not been already. The default for this option is TRUE.

var- attribute-list This parameter specifies the list of var iable length attributes whose values to include in the compiled dictionary. To have all of the variable length attributes included, specify INCLUDE-VAR-ATTR=!. If none are to be compiled, specify INCLUDE-VAR-ATTR=. Otherwise, enter them one at a time separated by commas. The default is to include them all.

Discussion

Once a parameter in the COMPILE -OPTIONS is specified, its value will be retained until a new value is specified.

Example

```
>COMPILE-OPTIONS link=true;
>>INCLUDE-VAR-ATTR=edit-mask.
>
```

COMPILE-TO

Specifies the compiled dictionary.

Syntax

```
COMPILE-TO {[;]DICTIONARY=compiled-dictionary-filename} {.}
```

Parameters

compiled-dictionary-filename Filename of the compiled dictionary to be created. There is no default for this param eter. When the COMPILE command is specified, if the file already exists, an error message will be written to $STDLIST, telling you that it already exists. If you are running SDUTIL in session mode, you can then reenter the COMPILE-TO command, specifying a different filename for the compiled dictionary. Alternately, you can either purge or rename the existing dictionary and then reenter the COMPILE command. Note that it is *not* necessary to respecify the compiled dictionary file name, as this environment still exists from the previous entry.

If you are running SDUTIL in batch mode and the file already exists, the COMPILE command will fail, but SDUTIL will continue to process other SDUTIL commands.

Discussion

Before starting a batch mode job, you may want to make sure that the target dictionary does not already exist by using the PURGE or RENAME command. You can, instead, include one of these commands in the batch job command file before the COMPILE-TO command.

Note that the names of both master and compiled dictionaries are limited to six characters instead of the MPE limit of eight, as System Dictionary appends two characters to these names.

Example 1

```
>COMPILE-TO dictionary=comp1.
>
```

Example 2

```
>COMPILE-TO dictionary=comp2
>COMPILE.
Dictionary file already exists (SDERR 5804)
>PURGE comp2
>COMPILE.
>
```

EXIT

Terminates SDUTIL

Syntax

```
EXIT  [.]
```

Parameters

None

Discussion

Closes opened files before terminating the program.

Example

```
>EXIT.
:(back to MPE )
```

FROM

Specifies the source dictionary.

Syntax

FROM [;DICTIONARY=dictionary-filename]

[;SCOPE=scope-name]

[;PASSWORD=[scope-password]]

[;NAME-MODE=name-mode]

[;OPEN-MODE=open-mode]

[;DOMAIN=[domain-name]]

[;VERSION=version-name]

[;STATUS=version-status]

{.}

Parameters

dictionary-filename Filename of the source dictionary to be opened. The dictionary can be either a master or a compiled dictionary and the default for this parameter is SYSDIC if not specified when opening the dictionary.

scope-name Name of the scope to retr ieve definitions from. This parameter is required when opening the dictionary.

scope-password Gives access to the scope. Any characters are allowed in a password. If a character in the password is NOT valid in other System Dictionary names (ie. is in the restricted list), the password must be entered inside a pair of quotes to allow recognition of the 'restricted' characters.

If the SCOPE parameter is specified and the PASSWORD parameter is not, you will be prompted for the password. For security reasons, the echo is turned off and you are given three chances to enter the correct password. If you're running the program interactively and the correct password is not entered after three tries, the FROM command will terminate and you will be returned to the highest prompt level. If you're running the program in batch mode and the correct password is not entered after three tries, the program will terminate. The password is always read from $STDINX.

name-mode Specifies which name mode to open the dictionary with. The valid choices are:

Internal

External

The default is to use the external n ame mode. See Chapter 2 for more details regarding name modes.

open-mode Specifies which mode to open the dictionary with. The valid choices are:

Read-Allow-Read

Read-Only

Shared-Update

Exclusive-Update

Customization

The default is to open the dictionary in read-only mode. After the dictionary is opened, this parameter can be used to change the open mode. See Chapter 2 for more details regarding open modes.

domain-name Name of the dictionary domain to merge or compile definitions from. If not specified the default is the common domain. If you are in another domain and you want to get back to the common domain, specify DOMAIM= with no value.

version-name Name of the version to be used when merging or compiling definitions. If not specified, the version status parameter is used to determine the default version.

version-status Used to default the version to the latest test, production, or archival version of definitions. The valid choices are:

Test

Production

Archival

The default is to the production version of definitions.

Discussion

The environment from which the def initions or structure are to be merged or compiled must be defined before the merge or compile process can begin. The source dictionary can be either a master or a compiled dictionary. Once a parameter in the FROM command is specified, its value will be retained, until a new value is specified.

Example

```
>FROM DICTIONARY=sysdic.pub;
>>SCOPE=manager;
>>PASSWORD=mgr*;
>>VERSION=version-1;
>>OPEN-MODE=exclusive-update.
>
```

HELP

Provides des quick reference of SDUTIL commands, and can also be used to retrieve a detailed description of a specific command.

Syntax

HELP [command] [.]

Parameters

command Name of the command

Example 1

Quick reference of commands

```
>HELP
```

The output of the above command will look like this.

```
COMMENT              <COM >        -Provide a line of comment text in the command stream
COMPILE              <C >          -Begin the compile process
COMPILE-OPTIONS      <COP >        -Set up options used during compile process
COMPILE-TO           <CT >         -Define the target compiled dictionary environment
EXIT                 <E >          -Terminate the program
FROM                 <F >          -Define the source dictionary environment
HELP                 <H >          -Display commands
MERGE                <M >          -Begin the merge process
MERGE-OPTIONS        <MOP >        -Set up options used during merge process
MERGE-TO             <MT >         -Define the target master dictionary environment
PREVIEW              <PREV>        -Preview the merge process
PURGE                <PUR >        -Purge a master or compiled dictionary
REDO                 <REDO>        -Edit and execute the previous command
RENAME               <REN >        -Rename a compiled dictionary
SHOW                 <SH >         -Display the status of the current environment
Enter 'HELP command-name' for more information
```

Example 2

Syntax for the FROM command

```
>HELP FROM.
```

The output of the above command will look like this:

```
FROM - Define the source dictionary environment
SYNTAX:      FROM <F>  [;DICTIONARY <DICT> = dictionary-filename]
             [;SCOPE <S> = scope-name]
             [;PASSWORD <P> = [scope-password]]
             [;NAME-MODE <NM> = name-mode]
             [;OPEN-MODE <OM> = open-mode]
             [;DOMAIN <D> = [domain-name]]
             [;VERSION <V> = version-name]
             [;STATUS <STAT> = version-status]
```

.

name-mode = INTERNAL <INT> or EXTERNAL <EXT>

open-mode = READ-ALLOW-READ <RAR>, READ-ONLY <RO>,

SHARED-UPDATE <SU>, EXCLUSIVE-UPDATE <EU> or

CUSTOMIZATION <CU>

version-status = TEST <T>, PRODUCTION <P> or

ARCHIVAL <A>

MERGE

Initiates the merging process.

Syntax

MERGE [STRUCTURE-ONLY] [.]

Parameters

STRUCTURE- ONLY If this parameter is specified, then only the dictionary structure will be merged. This parameter, if specified, must be on the same line as the MERGE command.

Discussion

This command uses the environments which were initialize d by the FROM, MERGE-TO and MERGE-OPTIONS commands.

Example

>MERGE.

>

MERGE-OPTIONS

Sets various options to take during the merge and preview processes.

Syntax

MERGE-OPTIONS [;COMPLETE-STRUCTURE=complete-structure-option]

[;SECURITY=security-option]

[;VERSION-CONFLICT=version-conflict-action]

[;NAME-CONFLICT=name-conflict-action]

[;INCOMPATIBLE-DEFINITION=incompatible-defn-action]

[;COMPARE-VAR-ATTR=var-attribute-list]

[;LINK=common-link-option]

{.}

Parameters

complete-structure-option This option allows you to specify whether or not you want to merge the complete structure of the dictionary you are in. Valid options are:

TRUE

FALSE

The default is FALSE which means that when you are merging a version in a domain, only those structures that involve occurrences in the specified version will be merged.

security-option This option allows you to specify how to handle the merging of security to a dictionary. Valid options are:

COMPLETE

OWNED

ACCESSIBLE

Option COMPLETE allows you to merge all security information. Occurrence ownership will be maintained by their ownerships as in the source dictionary. In addition scope entity and scope relationship associations will be merged also. This option can be used only if you are the DA.

Option OWNED allows you to mer ge the occurrences owned by the logon scope only.

Option ACCE SSIBLE allows you to merge all occurrences accessible to the logon scope regardless of who owns it. This is the default option.

When either OWNED or AC CESSIBLE is specified, no security will be merged. Both of these options will merge the occurrences to the target logon scope, so the scope ownership in the source and target dictionaries may not be the same.

version-conflict-action When a version is merged into a dictionary, the same version may already exist in the dictionary. This option allows you to take appropriate action when this occurs. Valid options are:

EXIT

MERGE

NEW

PROMPT

SKIP

Option EXIT wil l end the program. Option MERGE allows you to merge definitions into the same version leaving the existing occurrences in the version. Option NEW will prompt for a new version name. If you are not in the common domain, and LINK option is true, you will be prompted for the common version name as well. Option PROMPT will issue this prompt:

```
Version xxx exists.  Exit, Merge, enter New name
or Skip (E/M/N/S)?
```

Enter the option of your choice. Option SKIP will skip merging this version. The default is PROMPT if you are running in session mode and SKIP if you are running in batch mode.

name-conflict-action When creating a new entity in the target dictionary, the external name may conflict with an existing external name. This option allows you to take the appropriate action to resolve the external name conflict. Valid values are:

EXIT

NEW

PROMPT

SKIP

TERMINATE

Option EXIT w ill end the program. Option NEW will prompt you to enter a new external name. Option PROMPT will issue the following prompt for action:

```
Exit, enter New name, Skip, Terminate (E/N/S/T)?
```

Option SKI P will skip the entity, option TERMINATE will terminate the merge process and continue to read the next SDUTIL command.

The default for this para meter is PROMPT if you are running in session, and SKIP if you are running in batch.

incompatible-defn-action When an oc currence (entity or relationship) is merged into a dictionary, it may have already existed. If the definition in the dictionary has the same attribute values as the one to be merged, then it is considered compatible and no action will take place for that occurrence. However, if the source and target occurrences have different attribute values then you will be given the following options to handle the conflict:

EXIT

PROMPT

REPLACE

SKIP

TERMINATE

Option EXIT will en d the SDUTIL program. Option PROMPT will issue the following prompt:

```
Exit, Replace, Skip or Terminate (E/R/S/T)?
```

Optio n REPLACE will replace the existing definition's attributes with the source definition's attributes. Option SKIP allows you to skip over the conflicting definition leaving the existing definition in the dictionary. Option TERMINATE will terminate the merge process and continue to read the next SDUTIL command. The default is PROMPT if you are running in session, and SKIP if you are running in batch.

var-attribute-list Comparing variable length attribute values to determine the compatibility is very time consuming. Therefore, SDUTIL will automatically merge (replace) the variable length attribute values from the source. If you need to compare the variable length attribute values to take the INCOMPATIBLE-DEFINITION action, enter the attribute name(s) in a list format separated by commas. If the source dictionary is not also the target dictionary, then the names entered correspond to the names of the variable length attributes found in the source dictionary. If the values are compatible, SDUTIL will not take any action. If they are incompatible, SDUTIL will take the action specified in the INCOMPATIBLE-DEFINITION option. If you wish to compare all of the variable length attrib utes, specify COMPARE-VAR-ATTR=!. If you don't wish to compare any, specify COMPARE-VAR-ATTR=. The default is not to compare any.

common-link-option This option allows you to specify that if a source occurrence is linked to an occurrence

in a version in the common domain, the target occurrence is to be linked also. It is only applicable if the source or target is not in the common domain and is linked to a version in the common domain. Valid options are:

TRUE

FALSE

The default is TRUE.

Discussion

Once a parameter in the MERGE-OPTIONS is specified, its value will be retained until a new value is specified. See Chapter 2 for more details regarding merge options.

Example

```
>MERGE-OPTIONS INCOMPATIBLE-DEFINITION = replace;

>>COMPARE-VAR-ATTR = edit-mask;

>>VERSION-CONFLICT = merge.

>
```

MERGE-TO

Specifies the target dictionary.

Syntax

MERGE-TO [;DICTIONARY=dictionary-filename]

[;SCOPE=scope-name]

[;PASSWORD=[scope-password]]

[;NAME-MODE=name-mode]

[;OPEN-MODE=open-mode]

[;DOMAIN=[domain-name]]

[;VERSION=version-name]

[;STATUS=version-status]

[;COMMON=common-version-name] {.}

Parameters

dictionary- filename Filename of the dictionary to be opened. The default for this parameter is SYSDIC if not specified when opening the dictionary.

scope-name Name of the scope to open the dictionary with. This parameter is required when opening the dictionary.

scope-password Gives access to the scope. Any characters are allowed in a password. If a character in the password is NOT valid in other System Dictionary names (ie. is in the restricted list), the password must be entered inside a pair of quotes to allow recognition of the 'restricted' characters.

If the SCOPE parameter is specified and the PASSWORD parameter is not, you will be prompted for the password. For security reasons, the echo is turned off and you are given only three chances to enter the correct password. If you're running the program interactively and the correct password is not entered after three tries, the MERGE-TO command will terminate and you will be returned to the highest prompt level. If you're running the program in batch mode and the correct password is not entered, the program will terminate. The password is always read from $STDINX.

The scope that you chose should give you enough capabilities to complete the merge process. For example, if structure changes are involved when merging a version, the scope that you open the dictionary must have *Extend* capability. Another example is when you are merging definitions, the scope that you open the dictionary should have modify access to the occurrences in the version so the merge procedure will not fail due to the dictionary security.

name-mode Specifies which name mode to open the dictionary with. The valid choices are:

Internal

External

The default is to use the external name mode.

open-mode Specifies which mode to open the dictionary with. The valid choices are:

Read-Allow-Read

Read-Only

Shared-Update

Exclusive-Update

Customization

If not specified, the default is Shared-Update mode. After the dictionary is opened, this parameter can be used to change the open mode. Customization should only be used if you are merging only the structure. When merging occurrences that involve structure changes, you should open the dictionary in exclusive-update mode. This is because SDUTIL will have to switch to customization mode during structure update, and it may not be successful unless the dictionary was opened exclusively.

domain-name Name of the dictionary domain to merge definitions to. If not specified the default is (will be) the same as the source domain at merge time. If you are in another domain and you want to get back to the common domain, specify DOMAIN= with no value. If you are in another domain (specified by you) and you want to default to the source domain, specify DOMAIN= !. Once an exclamation point "!' is specified, it will remain defaulted to the source until you specify another domain. The domain specified must already exist in the target dictionary, otherwise the merge process will not be successful.

version-name Name of the version to be used when merging definitions. If not specified, the version status parameter is used to determine the default version. If both the version-name and the version status are not specified, then the default is (will be) the same as the source version at merge time. If you are in another version specified by you, and you want to default to the source version specify VERSION = !. Once a version is defaulted to the source, it will remain defaulting to the source at merge time, until you specify another version. If the version specified does not exist, a new version will be created at merge time.

version-status Used to default the version to the latest test, production, or archival version of definitions. The valid choices are:

Test

Production

Archival

Note that the production and archival status are valid only if you are previewing the data and not merging. The status is determined by the version-name parameter.

common-version-name Name of the version in the common domain to be linked to the specified version. This parameter is used only if you are actually merging, the target version is not in the common domain, and LINK option is true. The default is the same as the source. If you are in another common-version and want to default to the source common version name, specify COMMON=!. Once the common-version-name is default to the source, it will remain defaulting, until you specify another common-version-name. For more information concerning the linking of versions, refer to Chapter 2.

Discussion

Before the merge process can begin, the environment to which the definitions or structure are to be merged must be defined. The target dictionary must be a master dictionary. Once a parameter in the MERGE-TO command is specified, its value will be retained until a new value is specified.

Example

```
>MERGE-TO DICTIONARY=sysdic.pub;
>>SCOPE=manager;
>>PASSWORD=mgr*;
>>VERSION=version-1;
>>OPEN-MODE=shared-update.
>
```

PREVIEW

Provides a preview of the results of a proposed merge, before the actual merge takes place.

Syntax

```
PREVIEW [STRUCTURE-ONLY] [.]
```

Parameters

STRUCTURE- ONLY If this parameter is specified, then only the dictionary structure will be previewed. This parameter, if specified, must be on the same line as the PREVIEW command.

Discussion

This command allows you to see the consequences of a merge without actually modifying a dictionary. Note that the preview process can only be used if the target dictionary is a master dictionary. This commands generates a report that shows the results of the merge. If structure is being previewed, the report will contain the following information:

- Differences in the external names of entity types, relationship classes and attributes.

- Differences in attribute data-types, lengths, and edit values.
- Differences between attributes which belong to each entity type's and relationship type's attribute list.

When previewing versions, the structure differences, if any, will be reported as described above. Unless the COMPLETE-STRUCTURE option is selected, the preview will be limited to the structure pertinent to the version only. In addition to the structure differences report, the following will be reported:

- Differences in the external names of scopes if security is previewed.
- Differences in attribute values of the entities and relationships.

If you are previewing a dictionary version, the PREVIEW process will also create SDMAIN commands and store them in the file SDMCOM. These commands include the DEFINE command(s) which define the environment from which occurrences are to be deleted. They also include the SDMAIN commands 'DELETE RELATIONSHIP' and 'DELETE ENTITY', which will delete any occurrences which exist in the target dictionary but not in the source. Note that you can then modify this file and use it as input to SDMAIN if desired.

Example

```
>PREVIEW.

>
```

PURGE

Purges either a master or compiled dictionary.

Syntax

PURGE {dictionary-filename} {.}

Parameters

dictionary-filename This parameter specifies either the master or compiled dictionary to be purged. If the dictionary is a master dictionary, all associated dictionary files will also be purged.

Example

```
>PURGE sysdic.

>
```

REDO

Allows you to make corrections to commands before reentering them. The REDO command allows you to reenter the last command entered after correcting it or making modifications to it. The REDO command only applies to the last command you issued. When you issue the REDO command, you will enter an editing mode and the first line of the command will be displayed for modification.

To modify the command, position the cursor using the space bar, under the character to be modified and enter one of the subcommands listed below. SDUTIL interprets any character other than the ones listed below as a replacement character. For example, if you type TIME below a character, since T is not a valid edit command, TIME will replace the characters on the line above..

SUB COMMAND	DESCRIPTION
A	Append one or more characters to the end of the current line.

SUB COMMAND	DESCRIPTION
B	Break the line into two lines moving the character that is above the cursor and all following characters to the next line. The second line becomes the current edit line.
D	Delete the character above the D. If you repeat D, each character above each D is deleted. You may also use a D below the first and last character to be deleted and spaces in between.
E	Exit the redo editing mode without executing the edited command. The command that you were editing when you entered E is still considered to be the last one.
H	List all available editing subcommands in redo mode. Your current editing line is then redisplayed.
I	Inserts one or more characters immediately preceding the character that is above the cursor. You can combine a delete and insert edit by using D's followed by an I and the characters to be inserted
L	List the complete command as it is currently edited and then redisplay the line you are currently editing.
R	Replaces the characters above the cursor with the new characters you enter. The first character to be replaced is the one above the R.
X	Execute the current command as it has been edited.
+n	Move forward the number of lines specified by the number n in the command you are editing. If no number is entered, the default is move forward one line.
-n	Move backward the number of lines specified by the number n in the command you are editing. If no number is entered, the default is move backward one line.
[[Return]]	If the command line displayed is not the last line, forward to the next line of the command you are editing. If the command line is the last line, execute the command line as it has been edited.

Example

```
>FROM DICT=sysdic;
>>SCOPPE=manager;
>>PASSWORD=mgr*;
>>OPEN-MODE=exclusive-update.
FROM DICT=sysdict;
SCOPPE=manager;
    ^
Invalid keyword (SDERR 5645)
>REDO
FROM  DICTsysdict;
+
```

```
SCOPPE=manager;
  d
SCOPE=manager;
x
```

RENAME

Changes the name of a compiled dictionary.

Syntax

```
RENAME {old-compiled-dictname, new-compiled-dictname} {.}
```

Parameters

old- compiled-dictname The name of the compiled dictionary you wish to rename.

new- compiled-dictname The new name for the compiled dictionary.

Discussion

Note that the names of both master and compiled dictionaries are limited to six characters instead of the MPE limit of eight, as System Dictionary appends two characters to these names.

Example

```
>RENAME comp1, comp2.
>
```

SHOW

Shows the current state of the environment.

Syntax

```
SHOW [.]
```

Parameters

None

Example

```
>show
From         : SYSDIC.PUB
Merge-to     : SYSDIC.MYGROUP
Compile-to   : ACCT01
               From Dictionary        To Dictionary
Scope        : MANAGER                MANAGER
Name-mode    : EXTERNAL                 EXTERNAL
Open-mode    : READ-ONLY                EXCLUSIVE-UPDATE
Domain       : ACCOUNTING               TEST
```

```
Version        : VERSION1                  TEST-VERSION
Version-status : PRODUCTION                TEST
Common         : ACCOUNTING-COMMON-VERSION     TEST-COMMON-VERSION
Merge Options
  Complete-struct : TRUE
  Security        : OWNED
  Version-conflict: PROMPT
  Name-conflict   : REPLACE
  Incompat-action : PROMPT
  Link            : TRUE
  Compare-var-attr: EDIT-MASK
Compile Options
  Link            : TRUE
  Include-var-attr: DESCRIPTION, EDIT-MASK
>
```

A Glossary

This appendix provides a glossary of System Dictionary terms.

Access The right to read or manipulate a dictionary domain or occurrence.

Access Rights The rights of a scope to read or manipulate a domain or occurrence, as determined by whether that scope is the owner of the item, or is just associated with it.

Alias Name Different names associated with different external subsystem uses of an occurrence, including a difference in programming syntax (e.g. the use of the underscore (_) instead of the hyphen (-) in names).

Association An explicit access assigned between a scope and a domain, entity, or relationship, which has been granted to that scope by the owner scope of the domain, entity, or relationship.

Attribute An object in the dictionary structure that is a piece of information describing an entity type or relationship type.

Attribute Edit A value or range of values used for determining if input attribute values are valid when creating or modifying an occurrence. Also used to specify the default attribute value to use when an occurrence is created.

Attribute Prompting A facility that prompts for attribute values whenever you issue a CREATE, MODIFY, or REPORT command without the ATTRIBUTE-LIST parameter. (SDMAIN only)

Attribute Value The specific information (e.g. text, numbers, etc) assigned to an attribute, describing a particular *occurrence* of an entity type or relationship type.

Binary Relationship A relationship involving two entities.

Child Entity The second entity in a relationship.

Command The SDMAIN-defined name that specifies the action to be taken.

Common Domain The primary name space for dictionary occurrences. It is provided with System Dictionary, is represented by a blank name, is owned by the core set, has a sensitivity of *Public*, and can never be modified or deleted.

Compiled Dictionary A read-only dictionary that contains metadata extracted from the master dictionary. A compiled dictionary consists of one or more flat files.

Core Set A predefined set of entity types, relationship types, relationship classes, attributes, and domains that are provided with System Dictionary. It also includes the scope CORESET, which owns everything in the core set. A second scope, the Dictionary Administrator scope, is included in the core set, and is also owned by the scope CORESET.

DA scope See Dictionary Administrator Scope.

DCB See Dictionary Control Block.

Dictionary Administrator Scope A special scope provided with the System Dictionary core set, which has unlimited access to all items in the dictionary, and ultimate authority.

Dictionary Control Block An array of data which contains information about the current status of the dictionary to an intrinsic.

Dictionary Environment The dictionary environment includes the name of the dictionary that is open,

the scope, the open mode, the name mode, the domain, version, and version status that are used for creating and retrieving definitions.

Domain A name space within the dictionary. See Common Domain and Local Domain.

E-R Model See Entity-Relationship model.

Entity An entity is a description of an object in the information network, and belongs to a specific Entity Type.

Entity List The ordered list of entities that make up a relationship.

Entity Type An object in the dictionary structure that classifies entity occurrences. Each entity type is further defined by an associated set of attributes.

Entity-Relationship Model A logical structure that is general enough that it can describe most, if not all, of the information processing done on a computer network. The entity-relationship model is composed of entity types, relationship types, relationship classes and attributes.

Environment The computer system hardware and software required for the operation of System Dictionary.

Extended Set The user-created set of structure definitions within the dictionary; an extension of the Core Set.

External Name One of two names (see also Internal Name) assigned to every item in the dictionary. It is a customizable and localizable reference that is intended for dictionary end users.

Homonym The same name used for conceptually different entity occurrences of the same entity type.

Internal Name One of two names (see also External Name) assigned to every item in the dictionary. An internal name is not changeable, and is intended for use by software products used with System Dictionary which rely on specific names for identification purposes.

Internal Number An identification number automatically assigned to all dictionary components when they are created. These numbers may be read from the Status array (parameter) of intrinsics used for creation and retrieval of dictionary components and, when used, can greatly increase the efficiency and speed of some dictionary operations.

Keyword-Clause A keyword clause can be either a single keyword or a keyword followed by an equal sign (=) that is followed by either nothing, a single value, or a list of values separated by commas. The keywords are SDMAIN-defined, while their values are either SDMAIN defined or user-defined. Keyword clauses are separated by semicolons.

List Terminator A semicolon (**;**) that indicates to the intrinsic using a specific list, that there are no more entries in the list.

Local Domain A user-created name space that separates a set of names, which includes names used for a different purpose. See also Common Domain.

Locking A process that allows only one user at a time to access the dictionary. System Dictionary provides two types of locking: automatic, which protects individual operations, and manual, which can protect a sequence of operations.

Logging A process that can automatically create a log of all dictionary transactions, providing a means to repeat those transactions in the event of data loss.

Macro A user-defined set of commands that you can save in a file and call using macro names. When you call the macro, each defined command is executed in the same way that it would have been had you entered each command individually. (SDMAIN only)

Master Dictionary A dictionary that consists of a database and multiple files. A master dictionary can be accessed by any of the System Dictionary intrinsics and commands.

Merge A process that combines structure, security, and occurrence date of one dictionary into the same or other dictionaries.

Metadata Descriptive information about data, but not the data itself. Example: a file card in a library, which contains information about a book, but is not the book itself; an address of a building, which provides information about its location, but is not the location itself.

N-ary Relationship A relationship that involves **N** entities, where **3<=N<=6** (see also Binary Relationship).

Name mode A parameter set while opening the dictionary, used to cause intrinsics to reference either internal or external names when accessing dictionary items.

Name set A group of names within the dictionary that includes names for any one of the following types of dictionary definitions: domains, versions in the same domain, entity types, relationship classes, attributes, scopes, and entity occurrences of a specific type that are located in the same domain.

Object-Clause The user-defined name of the object. This is the specific target of the action specified by the command.

Occurrence A specific instance of an entity or relationship.

Open mode One of five dictionary operating modes, set when opening the dictionary for use.

Owner scope A scope that is directly associated with an object in the dictionary and has all rights to it, because the scope has either created that object, or has been given ownership by the scope that created it or previously owned it.

Parent Entity The first entity in a relationship.

Password A combination of up to 32 special or alphanumeric characters, and/or blanks used for user identification purposes to limit access to data or objects within the dictionary.

Preview A process that allows the potential results of a merge operation to be seen before the actual merge operation is performed.

Primary Name The principal name of an entity, not a synonym, that is initially assigned when the entity is created. Whenever an entity name is returned by System Dictionary, the primary name is returned.

Relationship A logically connected, ordered series of two to six entities, which belongs to a specific Relationship Type.

Relationship class The specific class of association or logical connection between the entities in a relationship.

Relationship position The logical order of a child entity (the second entity in a relationship) relative to all other child entities for the same parent entity (the first entity in a relationship) of the same relationship type.

Relationship type An object in the dictionary structure that classifies relationship occurrences; a logical connection between entity types specified by a series of two to six ordered entity types and a relationship class. Each relationship type is further defined by an associated set of attributes.

Restructuring A process similar to compiling. Restructuring incorporates all changes made to the dictionary structure in a single session into the working dictionary, and reformats any dictionary occurrences that are affected by those structure changes.

Scope A security definition within the dictionary environment that sets the level of access a user has to all

objects in the dictionary. It includes up to six scope rights.

Scope Right One of six specific capabilities associated with a scope. The scope right specifies which dictionary components that scope is allowed to manipulate.

Security A protection scheme within System Dictionary that limits access to objects in the dictionary to authorized users. The primary elements of dictionary security are scopes In addition, dictionary domains and occurrences each have a sensitivity, which further define their access by a specific scope.

Sensitivity An access right associated with a dictionary domain or occurrence.

Special Attributes The set of attributes that are automatically assigned to entity types and relationship types when the types are created.

Status Information about the success or failure of an intrinsic call. The status is returned as the final parameter of intrinsic calls.

Structure The part of System Dictionary that includes both core set and extended set entity types, relationship types, relationship classes, and attributes.

Subcommand The SDMAIN-defined name hat specifies the general target of the action.

Synonym An alternate name for an entity in the dictionary. A synonym must uniquely identify a given entity.

Variable Length Attribute An attribute whose value must be explicitly defined, and whose length is dependent upon that value. Example: an attribute *description*, whose value is sixty bytes of text. Therefore, the length of the attribute is sixty.

Version A set of occurrences within a domain, set apart from other sets within the domain.

B Initialization Error Messages

The following is a listing of System Dictionary SDINIT error messages, listed in order by error number. The list includes at least one possible cause for each error and a recommended action for each cause. The list is divided into the following groups:

Message Number	Error Type
2001 - 2100	File System
2101 - 2150	IMAGE
2151 - 2200	System Dictionary Intrinsics
2201 - 2250	Prompting
2251 - 2300	Miscellaneous

NOTE Some of the messages list an action of "Refer to the associated error." With these messages, SDINIT will display an additional message related to a System Dictionary intrinsic, the MPE XL file system, the Pascal Run-Time Library, the Native Language Subsystem, or TurboIMAGE. Refer to the documentation on these subsystems for additional information on the problem.
Some of the messages list a cause as "Internal error." If this is one of the causes for the error message you have received, System Dictionary has probably encountered an error in TurboIMAGE, COBOL II, VPLUS, SORT, or EDIT. It is also possible that System Dictionary has detected a system error (MPE XL). The user should report this problem to the Dictionary Administrator, who should try to determine its cause and fix it if possible. If assistance is needed, the System Manager may contact an HP Response Center. Some of the messages, as shown in this manual, include an exclamation point (!). When the actual message is displayed, this substitution character will be replaced by appropriate information, such as a file name or subsystem error number.

File System Messages (2001-2100)

2001 MESSAGE **Unable to retrieve information about file I/O error (SDERR 2001)**

CAUSE A file system error occurred, but detailed information could not be retrieved through the FCheck Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

2002 MESSAGE **Unable to retrieve an MPE file error message (SDERR 2002)**

CAUSE A file system error occurred, but the associated message could not be retrieved through the FErrMsg Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

2003 MESSAGE **Unable to open file ! (SDERR 2003)**

CAUSE Could not open the specified file.

ACTION Refer to the associated file error and correct the indicated problem.

2004 MESSAGE **Unable to close file ! (SDERR 2004)**

	CAUSE	Could not close the specified file.
	ACTION	Refer to the associated file error and correct the indicated problem.
2005	MESSAGE	**Unable to purge file ! (SDERR 2005)**
	CAUSE	Could not purge the specified file.
	ACTION	Refer to the associated file error and correct the indicated problem.
2006	MESSAGE	**Unable to purge the dictionary (SDER 2006)**
	CAUSE	Could not purge the dictionary.
	ACTION	Refer to the associated file error and correct the indicated problem.
2007	MESSAGE	**! file is full (SDERR 2007)**
	CAUSE	The specified file is full.
	ACTION	Notify the Dictionary Administrator.
2008	MESSAGE	**Unable to write to file ! (SDERR 2008)**
	CAUSE	Could not write to the specified file. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
2009	MESSAGE	**Unable to read from $STDINX (SDERR 2009)**
	CAUSE	Could not read from the input file.
	ACTION	Refer to the associated file error and correct the indicated problem.
2010	MESSAGE	**Unable to read from SDSTORE.PUB.SYS (SDERR 2010)**
	CAUSE	Unable to read from the store file.
	ACTION	Refer to the associated file error and correct the indicated problem.
2011	MESSAGE	**Unable to create file SDRSTORE (SDERR 2011)**
	CAUSE	Unable to create the store file for reinitialization.
	ACTION	Refer to the associated file error and correct the indicated problem.
2012	MESSAGE	**Unable to retrieve actual file designator for $STDINX (SDERR 2012)**
	CAUSE	Unable to retrieve information about the input file through the FGetInfo Intrinsic. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
2013	MESSAGE	**Unable to retrieve actual file designator for SDSTORE.PUB.SYS (SDERR 2013)**
	CAUSE	Unable to retrieve information about the store file through the FGetInfo Intrinsic. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
2014	MESSAGE	**Unable to create the dictionary password file (SDERR 2014)**
	CAUSE	Unable to create the dictionary password file, SYSDICPW, required by the System Dictionary Intrinsics.
	ACTION	Refer to the associated file error and correct the indicated problem.
2015	MESSAGE	**Must be the creator to reinitialize the dictionary (SDERR 2015)**
	CAUSE	The dictionary creator is the only user who can reinitialize the dictionary. This is an IMAGE restriction.

ACTION Log on as the dictionary creator.

2016 MESSAGE **Unable to change the dictionary password (SDERR 2016)**

CAUSE Unable to change the dictionary password with DBUTIL.

ACTION Refer to the associated file error and correct the indicated problem.

2017 MESSAGE **Unable to update the dictionary password file (SDERR 2017)**

CAUSE The dictionary has already been updated with the new password, but the dictionary password file cannot be updated.

ACTION Refer to the associated file error and correct the indicated problem.

2018 MESSAGE **Unable to turn the echo facility off (SDERR 2018)**

CAUSE Unable to turn the echo facility off when prompting for passwords through the FControl Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

2019 MESSAGE **Unable to turn the echo facility on (SDERR 2019)**

CAUSE Unable to turn the echo facility on after prompting for passwords through the FControl Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

2020 MESSAGE **Unable to open tape file (SDERR 2020)**

CAUSE Unable to open the tape file to store the dictionary contents while reinitializing the dictionary.

ACTION Refer to the associated file error and correct the indicated problem.

2021 MESSAGE **Unable to do file equate for DBSTEXT (SDERR 2021)**

CAUSE Unable to issue the file equate for the text file for DBSCHEMA. Internal error.

ACTION Notify the Dictionary Administrator.

2022 MESSAGE **Unable to do file equate for DBSLIST (SDERR 2022)**

CAUSE Unable to issue the file equate for the output listing file for DBSCHEMA. Internal error.

ACTION Notify the Dictionary Administrator.

2023 MESSAGE **Unable to create the process DBSCHEMA to create the schema file (SDERR 2023)**

CAUSE Unable to create the process to run DBSCHEMA through the Create Intrinsic. Internal error.

ACTION Notify the Dictionary Administrator.

2024 MESSAGE **Unable to create a dictionary (SDERR 2024)**

CAUSE Unable to create a dictionary with DBUTIL. Internal error.

ACTION Notify the Dictionary Administrator.

2025 MESSAGE **Unable to activate the process to create the schema file (SDERR 2025)**

CAUSE Unable to activate the process to run DBSCHEMA through the Activate Intrinsic. Internal error.

ACTION Notify the Dictionary Administrator.

2026 MESSAGE **Dictionary cannot be opened (SDERR 2026)**

CAUSE 1. Unable to open the dictionary to unload the contents during reinitialization. 2. Unable to open the dictio-

nary to load the contents from the store file.

ACTION Refer to the associated IMAGE error and correct the indicated problem.

2027 MESSAGE **Dictionary cannot be closed (SDERR 2027)**

CAUSE 1. Unable to close the dictionary after unloading its contents to the store file. 2. Unable to close the dictionary after printing out the Core Set during initialization. 3. Unable to close the dictionary during termination.

ACTION Refer to the associated IMAGE error and correct the indicated problem.

2028 MESSAGE **Unable to open the dictionary to print Core Set (SDERR 2028)**

CAUSE Unable to open the dictionary to print the Core Set during initialization.

ACTION Refer to the associated dictionary error and correct the indicated problem.

2029 MESSAGE **DBSCHEMA failed (SDERR 2029)**

CAUSE The DBSCHEMA program terminated in an error state. Internal error.

ACTION Notify the Dictionary Administrator.

2030 MESSAGE **Must be the dictionary creator to create a store file (SDERR 2030)**

CAUSE The dictionary creator is the only user who can create a store file from the dictionary.

ACTION Log on as the dictionary creator.

2031 MESSAGE **CreateProcess Intrinsic error number ! (SDERR 2031)**

CAUSE Unable to run DBUTIL through the CreateProcess Intrinsic. Internal error.

ACTION Get the associated error and notify the Dictionary Administrator.

2032 MESSAGE **Unable to read from SDRSTORE (SDERR 2032)**

CAUSE Unable to read from the store file SDRSTORE.

ACTION Refer to the associated dictionary error and correct the indicated problem.

IMAGE Messages (2101-2150)

2101 MESSAGE **Unable to rewind data set number ! (SDERR 2101)**

CAUSE 1. Unable to rewind the specified detail data set while unloading the dictionary data. Internal error. 2. Unable to rewind the specified detail data set while loading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2102 MESSAGE **Unable to rewind master set number ! (SDERR 2102)**

CAUSE Unable to rewind the specified master data set while unloading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2103 MESSAGE **Unable to serially read from data set number ! (SDERR 2103)**

CAUSE Unable to serially read from the specified data set while unloading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2104 MESSAGE **Unable to retrieve information about data set number ! (SDERR 2104)**

CAUSE Unable to retrieve information about the specified data set while unloading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2105 MESSAGE **Unable to read from master set number ! (SDERR 2105)**

CAUSE Unable to read from the specified master data set while unloading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2106 MESSAGE **Unable to locate entries from detail set number ! (SDERR 2106)**

CAUSE Unable to locate entries from the specified detail data set while unloading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2107 MESSAGE **Unable to put entry to data set number ! (SDERR 2107)**

CAUSE Unable to put an entry into the specified data set while loading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2108 MESSAGE **Chained read error on data set number ! (SDERR 2108)**

CAUSE Unable to chain read from the specified data set while unloading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator. Internal error.

2109 MESSAGE **Broken chain encountered while unloading data set number ! (SDWARN 2109)**

CAUSE A broken chain was encountered while unloading the specified data set.

ACTION No action is needed.

2110 MESSAGE **Unable to read from data set number ! (SDERR 2110)**

CAUSE Unable to read from the specified data set while loading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

2111 MESSAGE **Unable to delete an entry from data set number ! (SDERR 2111)**

CAUSE Unable to delete an entry from the specified data set while loading the dictionary data. Internal error.

ACTION Get the associated IMAGE error and notify the Dictionary Administrator.

Dictionary Intrinsics Messages (2151-2200)

This section includes SDINIT error messages related to the intrinsics used during the initialization procedure. A complete listing of all System Dictionary intrinsic error messages is located in Appendix A of the *HP System Dictionary/XL Intrinsics Reference Manual.*

2151 MESSAGE **Unable to retrieve information about an attribute (SDERR 2151)**

CAUSE Unable to retrieve information about an attribute while printing out the Core Set during initialization. Internal error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

2152 MESSAGES **Unable to retrieve attribute list (SDERR 2152)**

CAUSE Unable to retrieve attribute list while printing out the Core Set during initialization. Internal error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

2153 MESSAGE **Unable to retrieve attribute for entity type (SDERR 2153)**

CAUSE Unable to retrieve attribute for an entity type while printing out the Core Set during initialization. Internal error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

2154 MESSAGE **Unable to retrieve entity type list (SDERR 2154)**

CAUSE Unable to retrieve the entity type list while printing out the Core Set during initialization. Internal error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

2155 MESSAGE **Unable to retrieve relationship class list (SDERR 2155)**

CAUSE Unable to retrieve the relationship class list while printing out the Core Set during initialization. Internal error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

2156 MESSAGE **Unable to retrieve relationship type list (SDERR 2156)**

CAUSE Unable to retrieve the relationship type list while printing out the Core Set during initialization. Internal error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

2157 MESSAGE **Unable to retrieve attribute for relationship type (SDERR 2157)**

CAUSE Unable to retrieve an attribute for a relationship type while printing out the Core Set during initialization. Internal Error.

ACTION Get the associated dictionary error and notify the Dictionary Administrator.

Prompting MESSAGE (2201-2250)

2201 MESSAGE **The number is not a 16 bit integer (SDERR 2201)**

CAUSE The indicated number is greater than 32767.

ACTION Change the number so it is less than or equal to 32767.

CAUSE The indicated number is less than -32768.

ACTION Change the number so it is greater than or equal to -32768.

2202 MESSAGE **Illegal character encountered (SDERR 2202)**

CAUSE A character not allowed in a number was found.

ACTION Remove the illegal character from the number.

2203 MESSAGE **Too many characters for an MPE name (SDERR 2203)**

CAUSE The indicated name is greater than 8 characters.

ACTION Change the name so it has a maximum of 8 characters.

2204 MESSAGE **Invalid character for an IMAGE name (SDERR 2204)**

CAUSE A character not allowed in an IMAGE name was found.

ACTION Remove the indicated character from the name.

2205 MESSAGE **Verification of password failed (SDERR 2205)**

CAUSE The same password was not entered in response to the verify prompt as to the password prompt.

ACTION Enter the same password in response to the verify prompt as to the password prompt.

2206 MESSAGE **Too many characters, maximum limit is 32 (SDERR 2206)**

CAUSE The indicated name is greater than 32 characters.

ACTION Change the name so it has a maximum of 32 characters.

2207 MESSAGE **Code is out of range (SDERR 2207)**

CAUSE The code to select the capacity to be changed was not within the allowable range of 1 to 24.

ACTION Change the code so it is within the allowable range of 1 to 24.

2208 MESSAGE **Too many characters for a System Dictionary name (SDERR 2208)**

CAUSE The indicated name is greater than 32 characters.

ACTION Change the name so it has a maximum of 32 characters.

2209 MESSAGE **Invalid character for a System Dictionary name (SDERR 2209)**

CAUSE A character not allowed in a System Dictionary name was found.

ACTION Remove the indicated character from the name.

2210 MESSAGE **Input priority is out of range (SDERR 2210)**

CAUSE The input priority for the job stream is not within the allowable range of 1 to 13.

ACTION Change the priority so it is within the allowable range of 1 to 13.

2211 MESSAGE **Output priority is out of range (SDERR 2211)**

CAUSE The output priority for the job stream listing is not within the allowable range of 1 to 13.

ACTION Change the priority so it is within the allowable range of 1 to 13.

2212 MESSAGE **Capacity was defaulted to ! (SDWARN 2212)**

CAUSE The value specified was less than the minimum allowable value for the capacity.

ACTION No action is needed. The capacity was defaulted to the minimum allowable value.

CAUSE The value specified was greater than the maximum allowable value for the capacity.

ACTION No action is needed. The capacity was defaulted to the maximum allowable value.

2213 MESSAGE **Invalid capacity encountered (SDERR 2213)**

CAUSE The default value for a capacity from the message catalog was an invalid value.

ACTION Ask the Dictionary Administrator to install a copy of the message catalog with valid default values for the capacities.

2214 MESSAGE **Capacity header missing. Unable to print capacities (SDWARN 2214)**

CAUSE Unable to retrieve a capacity header from the message catalog.

ACTION No action is needed for this run. Ask the Dictionary Administrator to install a copy of the message catalog which includes the missing capacity header, for the next run.

2215 MESSAGE **Capacity title missing. Unable to print capacities (SDWARN 2215)**

CAUSE Unable to retrieve a capacity title from the message catalog.

ACTION No action is needed for this run. Ask the Dictionary Administrator to install a copy of the message catalog which includes the missing capacity title, for the next run.

2216 MESSAGE **Attribute data type missing. Unable to print Core Set (SDWARN 2216)**

CAUSE Unable to retrieve an attribute data type from the message catalog.

ACTION No action is needed for this run. Ask the Dictionary Administrator to install a copy of the message catalog

which includes the missing attribute data type, for the next run.

2217 MESSAGE **Header missing. Unable to print Core Set (SDWARN 2217)**

CAUSE Unable to retrieve a header from the message catalog.

ACTION No action is needed for this run. Ask the Dictionary Administrator to install a copy of the message catalog which includes the missing header, for the next run.

2218 MESSAGE **Title missing. Unable to print Core Set (SDWARN 2218)**

CAUSE Unable to retrieve a title from the message catalog.

ACTION No action is needed for this run. Ask the Dictionary Administrator to install a copy of the message catalog which includes the missing title, for the next run.

2219 MESSAGE **Exceeded the maximum number of tries for a valid password (SDERR 2219)**

CAUSE Unable to reinitialize the dictionary because the valid dictionary database password was not specified within 3 tries.

ACTION Specify the correct dictionary database password.

2220 MESSAGE **The number is not a 32 bit integer (SDERR 2220)**

CAUSE The indicated number is greater than 2147483647.

ACTION Change the number so it is less than or equal to 2147483647.

CAUSE The indicated number is less than -2147483648.

ACTION Change the number so it is greater than or equal to -214783648.

2221 MESSAGE **Attribute edit value TRUE missing. Unable to print Core Set (SDWARN 2221)**

CAUSE Unable to retrieve the attribute edit value TRUE from the message catalog to print out the Core Set attributes.

ACTION Ask the Dictionary Administrator to install a copy of the message catalog which includes the attribute edit value TRUE.

2222 MESSAGE **Attribute edit value FALSE missing. Unable to print Core Set (SDWARN 2222)**

CAUSE Unable to retrieve the attribute edit value FALSE from the message catalog to print out the Core Set attributes.

ACTION Ask the Dictionary Administrator to install a copy of the message catalog which includes the attribute edit value FALSE.

Miscellaneous MESSAGE (2251-2300)

2251 MESSAGE **Dictionary already exists (SDERR 2251)**

CAUSE While trying to initialize a dictionary, a dictionary already exists in the group.

ACTION If an entirely new dictionary is desired, run DBUTIL to purge the existing dictionary and rerun SDINIT to initialize a dictionary. If a different dictionary database password or different capacities are desired, run SDINIT and reinitialize the existing dictionary.

2252 MESSAGE **Unable to initialize the dictionary (SDERR 2252)**

CAUSE Unable to create the dictionary while initializing.

ACTION Refer to the associated file or IMAGE error and correct the indicated problem.

2253 MESSAGE **Catalog error ! encountered during catalog read (SDERR 2253)**

CAUSE An error was encountered while retrieving information from the message catalog. Internal error.

	ACTION	Notify the Dictionary Administrator. Remember to supply the catalog error number.
2254	MESSAGE	**Could not find message set ! in the catalog (SDERR 2254)**
	CAUSE	The indicated message set could not be found in the message catalog.
	ACTION	Ask the Dictionary Administrator to install a new message catalog which includes the indicated set.
2255	MESSAGE	**Could not find message number ! in message set ! (SDERR 2255)**
	CAUSE	Unable to retrieve the specified message in the specified message set from the message catalog.
	ACTION	Ask the Dictionary Administrator to install a new message catalog which includes the indicated message.
2256	MESSAGE	**User must have batch capability to Init/Reinit a dictionary (SDERR 2256)**
	CAUSE	The user must have batch capability to initialize or reinitialize a dictionary since SDINIT submits a special job stream.
	ACTION	Ask the Dictionary Administrator to give the user batch capability.
2258	MESSAGE	**Dictionary is in a non-recoverable state (SDERR 2258)**
	CAUSE	Tried to recover before receiving the message from SDINIT that recovery is possible. Internal error.
	ACTION	Run SDINIT without info = "RECOVER" and either initialize a dictionary if a dictionary does not exist in the group or reinitialize the dictionary if a dictionary already exists in the group.
	CAUSE	Unable to recover after receiving the message that recovery is possible and after correcting the specified error.
	ACTION	Notify the Dictionary Administrator.
2259	MESSAGE	**Invalid info string (SDERR 2259)**
	CAUSE	The info string specified is not one which is recognized by the program.
	ACTION	Run SDINIT either without an info string or with a valid info string.
2260	MESSAGE	**Unable to find the Banner message in the catalog (SDERR 2260)**
	CAUSE	Unable to retrieve the Banner message from the message catalog.
	ACTION	Ask the Dictionary Administrator to install a new message catalog which includes the Banner message.
2261	MESSAGE	**Native language error (SDERR 2261)**
	CAUSE	An error was detected during a call to a Native Language Intrinsic. Internal error.
	ACTION	Notify the Dictionary Administrator.
2262	MESSAGE	**Dictionary not reinitialized, no changes specified (SDWARN 2262)**
	CAUSE	The dictionary was to be reinitialized, but neither the password or capacities were changed.
	ACTION	No action is needed.
2263	MESSAGE	**Invalid character in the language number (SDERR 2263)**
	CAUSE	The language number specified in the message catalog contains an invalid character.
	ACTION	Ask the Dictionary Administrator to install a new copy of the catalog which includes a valid language number.
2264	MESSAGE	**Unable to stream special job stream (SDERR 2264)**
	CAUSE	Unable to stream the special job stream because invalid logon passwords were specified.
	ACTION	Specify the valid logon passwords.

2265 MESSAGE **SDPASS file is corrupt (SDERR 2265)**

CAUSE The SDPASS file has been corrupted.

ACTION Notify the Dictionary Administrator.

2266 MESSAGE **Specified capacity is too small for dictionary data (SDERR 2266)**

CAUSE The dictionary data will not fit into a dictionary with the specified capacities.

ACTION Reinitialize the dictionary with larger capacities.

2267 MESSAGE**Invalid store label (SDERR 2267)**

CAUSE The store file while initializing a dictionary is an invalid SDINIT store file. Internal error.

ACTION Ask the Dictionary Administrator to get a new valid store file.

CAUSE The store file while reinitializing a dictionary is an invalid SDINIT store file. Internal error.

ACTION Notify the Dictionary Administrator.

2268 MESSAGE **Recovery failed (SDERR 2268)**

CAUSE Unable to submit the special job stream to recover. Internal error.

ACTION Notify the Dictionary Administrator.

2269 MESSAGE **Language number not configured onto the system (SDERR 2269)**

CAUSE The language number specified in the message catalog is not configured onto the system.

ACTION Ask the Dictionary Administrator to configure the desired language number onto the system or change the language number in the message catalog to one which is already configured on the system.

2270 MESSAGE **Database SYSDIC exists. Purge it with DBUTIL (SDERR 2270)**

CAUSE The dictionary already exists in the group while trying to recover.

ACTION Run DBUTIL to purge the existing dictionary before running SDINIT with "RECOVER" .

2271 MESSAGE **Abbreviation for command word is missing (SDERR 2271)**

CAUSE Unable to retrieve an abbreviation for a command word from the message catalog.

ACTION Ask the Dictionary Administrator to install a new copy of the message catalog which includes the missing abbreviation.

2272 MESSAGE **Command word is missing (SDERR 2272)**

CAUSE Unable to retrieve a command word from the message catalog.

ACTION Ask the Dictionary Administrator to install a copy of the message catalog which includes the missing command word.

2273 MESSAGE **Wild card character is missing (SDERR 2273)**

CAUSE Unable to retrieve a wild card character from the message catalog.

ACTION Ask the Dictionary Administrator to install a copy of the message catalog which includes the missing wild card character.

2274 MESSAGE **SDINIT and Dictionary Intrinsics versions not compatible (SDERR 2274)**

CAUSE The version of the SDINIT program and the System Dictionary Intrinsics are not compatible when initializing a dictionary.

ACTION Ask the Dictionary Administrator to install the newest version of the SDINIT program and the Intrinsics.

CAUSE The version of the SDINIT program and the System Dictionary Intrinsics are not compatible when reinitializing a dictionary.

ACTION Ask the Dictionary Administrator to install the version of the SDINIT program which is compatible with the installed version of the Intrinsics.

2275 MESSAGE **Unable to create the dictionary during recovery (SDERR 2275)**

CAUSE Unable to create the dictionary while trying to recover.

ACTION Refer to the associated file or IMAGE error and correct the indicated problem.

2276 MESSAGE **Unable to set the number of buffers in the DBCB (SDWARN 2276)**

CAUSE Unable to set the number of buffers to be allocated by IMAGE in the DBCB to the number specified in the message catalog.

ACTION Refer to the IMAGE error and correct the indicated problem.

2277 MESSAGE **The default number of buffers was allocated in the DBCB (SDWARN 2277)**

CAUSE 1. Unable to retrieve the number of buffers to be allocated by IMAGE in the DBCB from the message catalog. 2. Unable to convert the number of buffers to be allocated by IMAGE to a binary number.

ACTION No action is needed for this run since the IMAGE default was used. Ask the Dictionary Administrator to install a copy of the message catalog which includes a valid number of buffers, for the next run.

2278 MESSAGE **Unable to reinitialize, dictionary does not exist (SDERR 2278)**

CAUSE There was no dictionary in the logon group to reinitialize.

ACTION Log on to the group where the dictionary exists to reinitialize it.

2279 MESSAGE **The dictionary cannot be redirected (SDERR 2279)**

CAUSE File equates are not allowed for the dictionary.

ACTION Reset the dictionary so it is not redirected.

2280 MESSAGE **No separator found when checking the dictionary qualifier (SDERR 2280)**

CAUSE While checking to make sure the dictionary was not redirected, the '.' separating either the filename and group or group and account was not found. Internal error.

ACTION Notify the Dictionary Administrator.

2281 MESSAGE **Unable to reinitialize the dictionary (SDERR 2281)**

CAUSE Unable to open the dictionary to reinitialize it.

ACTION Refer to the associated file or IMAGE error and correct the indicated problem.

2282 MESSAGE **Library error ! encountered (SDERR 2282)**

CAUSE A Pascal error was encountered. Internal error.

ACTION Get the library error number and notify the Dictionary Administrator.

2283 MESSAGE **Store file is not compatible with dictionary version (SDERR 2283)**

CAUSE The version of the store file and the current dictionary database are not compatible.

ACTION Ask the Dictionary Administrator to get the version of the store file which is compatible with the current version of the dictionary database structure.

2284 MESSAGE **Store file does not contain the current core set version. (SDERR 2284)**

CAUSE The store file does not contain the most current version of the core set.

ACTION Ask the Dictionary Administrator to get the version of the store file which contains the most current version of the dictionary core set.

2285 MESSAGE **Dictionary version and SDINIT version are not compatible (SDERR 2285)**

CAUSE The SDINIT software is not compatible with the dictionary database.

ACTION Ask the Dictionary Administrator to install the newest version of the SDINIT software and to run the SDUPGRAD program if the dictionary database needs to be upgraded.

C SDUPGRAD Error Messages

The following is a complete list of SDUPGRAD errors listed in order by error number. The list includes at least one possible cause of each error and a recommended action for each cause. The list is divided into the following groups:

Message Number	Error Type
5001-5050	File System
5051-5100	TurboIMAGE
5101-5150	Initialization
5151-5200	Prompt
5201-5250	Message Catalog
5251-5300	Miscellaneous
5301-5350	Core Set Change

NOTE Some of these messages list an action of "Refer to the associated error." With these messages, SDUPGRAD will display an additional message related to a System Dictionary intrinsic, the MPE XL file system, the Pascal Run-Time Library, the Native Language Subsystem, or TurboIMAGE/XL. Refer to the documentation on these subsystems for additional information on the problem. Some of these messages list an action of "Notify the Dictionary Administrator." In this case, SDUPGRAD has encountered an error that requires the attention of the Dictionary Administrator or System Manager. If the DA or System Manager needs assistance in solving the problem, they should contact the Hewlett-Packard Response Center.
Some of the messages, as shown in this manual, include an exclamation point (!). When the actual message is displayed, this substitution character will be replaced by appropriate information, such as a file name or subsystem error number.

File System Messages (5001-5050)

5001 MESSAGE **Unable to open $STDINX (SDERR 5001)**

CAUSE Could not open $STDINX.

ACTION Get the associated file error and notify the Dictionary Administrator.

5002 MESSAGE **Unable to read from $STDINX (SDERR 5002)**

CAUSE Could not read from $STDINX.

ACTION Get the associated file error and notify the Dictionary Administrator.

5003 MESSAGE **Unable to retrieve information about $STDINX (SDERR 5003)**

CAUSE Unable to retrieve information about $STDINX through the FGETINFO Intrinsic.

ACTION Get the associated file error and notify the Dictionary Administrator.

5004 MESSAGE **Unable to close $STDINX (SDERR 5004)**

	CAUSE	Could not close $STDINX.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5005	MESSAGE	**Unable to open $STDLIST (SDERR 5005)**
	CAUSE	Could not open $STDLIST.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5006	MESSAGE	**Unable to retrieve information about $STDLIST (SDERR 5006)**
	CAUSE	Unable to retrieve information about $STDLIST through the FGETINFO Intrinsic.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5007	MESSAGE	**Unable to open the store file (SDERR 5007)**
	CAUSE	Could not open the file to store the dictionary contents during an unload.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5008	MESSAGE	**Unable to read from the store file (SDERR 5008)**
	CAUSE	Could not read from the file which contains the dictionary contents during a load.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5009	MESSAGE	**Unable to rewind the store file (SDERR 5009)**
	CAUSE	Could not rewind the file which contains the dictionary contents.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5010	MESSAGE	**Unable to write to the store file (SDERR 5010)**
	CAUSE	Could not write to the file which contains the dictionary contents.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5011	MESSAGE	**Unable to close the store file (SDERR 5011)**
	CAUSE	Could not close the file which contains the dictionary contents.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5012	MESSAGE	**Unable to open the tape file (SDERR 5012)**
	CAUSE	Could not open the tape file to store the dictionary contents.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5013	MESSAGE	**Unable to open the schema file (SDERR 5013)**
	CAUSE	Could not open the schema file.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5014	MESSAGE	**Unable to write to the schema file (SDERR 5014)**
	CAUSE	Could not write to the schema file.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5015	MESSAGE	**Unable to close the schema file (SDERR 5015)**
	CAUSE	Could not close the schema file.

	ACTION	Get the associated file error and notify the Dictionary Administrator.
5016	MESSAGE	**Unable to open SDTEMP1 (SDERR 5016)**
	CAUSE	Could not open SDTEMP1.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5017	MESSAGE	**Unable to write to SDTEMP1 (SDERR 5017)**
	CAUSE	Could not write to SDTEMP1.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5018	MESSAGE	**Unable to close SDTEMP1 (SDERR 5018)**
	CAUSE	Could not close SDTEMP1.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5019	MESSAGE	**Unable to open the password file (SDERR 5019)**
	CAUSE	Could not open the dictionary password file, SYSDICPW.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5020	MESSAGE	**Unable to read from the password file (SDERR 5020)**
	CAUSE	Could not read from the dictionary password file, SYSDICPW.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5021	MESSAGE	**Unable to close the password file (SDERR 5021)**
	CAUSE	Could not close the dictionary password file, SYSDICPW.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5022	MESSAGE	**Unable to retrieve information about an MPE error (SDERR 5022)**
	CAUSE	A file system error occurred, but detailed information could not be retrieved through the FCHECK Intrinsic.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5023	MESSAGE	**Unable to retrieve an MPE file error message (SDERR 5023)**
	CAUSE	A file system error occurred, but the associated message could not be retrieved through the FERRMSG Intrinsic.
	ACTION	Notify the Dictionary Administrator.
5024	MESSAGE	**Unable to retrieve information about the file to be overwritten (SDERR 5024)**
	CAUSE	Could not retrieve file name through the FGETINFO Intrinsic.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5025	MESSAGE	**SDUSTORE file is of an invalid device type (SDERR 5025)**
	CAUSE	The SDUSTORE file was not redirected to a disc file.
	ACTION	Redirect the SDUSTORE file to a disc file.

TurboIMAGE Messages (5051-5100)

5051	MESSAGE	**Unable to retrieve the capacity for data set ! (SDERR 5051)**

	CAUSE	Unable to retrieve information about the specified data set.
	ACTION	Get the associated TurboIMAGE error and notify the Dictionary Administrator.
5052	MESSAGE	**Must be the dictionary creator to upgrade the dictionary (SDERR 5052)**
	CAUSE	The dictionary creator is the only user who can upgrade the dictionary. (This is an TurboIMAGE restriction.)
	ACTION	Logon as the dictionary creator.
5053	MESSAGE	**Unable to open the dictionary (SDERR 5053)**
	CAUSE	Unable to open the dictionary during loading or unloading of the store file.
	ACTION	Refer to the associated TurboIMAGE or file error and correct the indicated problem.
5054	MESSAGE	**Unable to close dictionary (SDERR 5054)**
	CAUSE	Unable to close the dictionary after unloading to the store file or during program termination.
	ACTION	Refer to the associated TurboIMAGE error and correct the indicated problem.
5055	MESSAGE	**Unable to rewind detail data set ! (SDERR 5055)**
	CAUSE	Unable to rewind the specified detail data set while loading the dictionary data.
	ACTION	Get the associated TurboIMAGE error and notify the Dictionary Administrator.
5056	MESSAGE	**Unable to retrieve information about detail data set ! (SDERR 5056)**
	CAUSE	Unable to retrieve information about the specified detail data set while unloading the dictionary data.
	ACTION	Get the associated TurboIMAGE error and notify the DictionaryAdministrator.
5057	MESSAGE	**Unable to retrieve information about data item ! (SDERR 5057)**
	CAUSE	Unable to retrieve information about the specified data item while unloading the dictionary data.
	ACTION	Get the associated TurboIMAGE error and notify the Dictionary Administrator.
5058	MESSAGE	**Unable to retrieve information about data item ! (SDERR 5058)**
	CAUSE	Unable to retrieve information about the specified data item while loading the dictionary data.
	ACTION	Get the associated TurboIMAGE error and notify the Dictionary Administrator.
5059	MESSAGE	**Unable to serially read from detail data set ! (SDERR 5059)**
	CAUSE	Unable to serially read from the specified detail data set while unloading the dictionary data.
	ACTION	Get the associated TurboIMAGE error and notify the Dictionary Administrator.
5060	MESSAGE	**Unable to chain read from detail data set ! (SDERR 5060)**
	CAUSE	Unable to chain read from the specified detail data set while unloading the dictionary data.
	ACTION	Get the associated TurboIMAGE error and notify the Dictionary Administrator.
5061	MESSAGE	**Broken chain encountered while unloading detail data set ! (SDWARN 5061)**
	CAUSE	A broken chain was encountered while unloading the specified detail data set.
	ACTION	No action is needed.
5062	MESSAGE	**Unable to read from master data set ! (SDERR 5062)**
	CAUSE	Unable to read from the specified master data set while unloading the dictionary data.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5063 MESSAGE **Unable to locate entries from detail data set ! (SDERR 5063)**

CAUSE Unable to locate entries from the specified detail data set while unloading the dictionary data.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5064 MESSAGE **Unable to put entry to detail data set ! (SDERR 5064)**

CAUSE Unable to put entries into the specified detail data set while loading the dictionary data.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5065 MESSAGE **Unable to set flags to rebuild extra data segment files (SDERR 5065)**

CAUSE After adding the new core set definitions, SDUPGRAD was unable to set flags in the dictionary database control record to indicate that restructuring is needed.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5066 MESSAGE **Unable to get dictionary database structure version (SDERR 5066)**

CAUSE Unable retrieve the dictionary database structure version from the control record to test for compatibility with the upgrade program.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5067 MESSAGE **Unable to retrieve the DA scope password (SDERR 5067)**

CAUSE Unable retrieve the DA scope password from the dictionary.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

Initialization Messages (5101-5150)

5101 MESSAGE **Unable to find the Banner message in the catalog (SDWARN 5101)**

CAUSE Unable to retrieve the Banner message from the message catalog.

ACTION Ask the Dictionary Administrator to install a new message catalog which contains the Banner message.

5102 MESSAGE **SDUPGRAD and Intrinsics versions are incompatible (SDERR 5102)**

CAUSE The version of the SDUPGRAD program and the System Dictionary Intrinsics are not compatible.

ACTION Ask the Dictionary Administrator to install the newest version of the SDUPGRAD program and the Intrinsics.

5103 MESSAGE **Invalid language number (SDERR 5103)**

CAUSE The language number specified in the message catalog is invalid.

ACTION Ask the Dictionary Administrator to install a new copy of the message catalog which includes a valid language number.

5104 MESSAGE **Language number not configured onto the system (SDERR 5104)**

CAUSE The language number specified in the message catalog is not configured onto the system.

ACTION Ask the Dictionary Administrator to configure the desired language number onto the system or change the language number in the message catalog to one which is already configured on the system.

5105 MESSAGE **Language number configuration check failed (SDERR 5105)**

CAUSE An error occurred during a call to Native Language Intrinsic NLInfo when determining if the language number in the message catalog is one which is configured onto the system.

	ACTION	Notify the Dictionary Administrator.
5106	MESSAGE	**Unable to retrieve the upshift table (SDERR 5106)**
	CAUSE	An error occurred during a call to Native Language Intrinsic NLInfo when retrieving the upshift table.
	ACTION	Notify the Dictionary Administrator.
5107	MESSAGE	**Abbreviation for command word ! is missing (SDERR 5107)**
	CAUSE	Unable to retrieve the abbreviation for the specified command word from the message catalog.
	ACTION	Ask the Dictionary Administrator to install a new copy of the message catalog which includes the missing abbreviation.
5108	MESSAGE	**Command word for the abbreviation ! is missing (SDERR 5108)**
	CAUSE	Unable to retrieve the command word for the specified abbreviation from the message catalog.
	ACTION	Ask the Dictionary Administrator to install a new copy of the message catalog which includes the missing command word.

Prompt Messages (5151-5200)

5151	MESSAGE	**Unable to turn the echo facility off (SDERR 5151)**
	CAUSE	Unable to turn the echo facility off when prompting for passwords through the FCONTROL Intrinsic.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5152	MESSAGE	**Unable to turn the echo facility on (SDERR 5152)**
	CAUSE	Unable to turn the echo facility on after prompting for passwords through the FCONTROL Intrinsic.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5153	MESSAGE	**Too many characters, maximum limit is 32 (SDERR 5153)**
	CAUSE	The input response was greater than 32 characters.
	ACTION	Input a response which is less than or equal to 32 characters.
5154	MESSAGE	**Dictionary does not exist (SDERR 5154)**
	CAUSE	There was no dictionary in the logon group to upgrade.
	ACTION	Logon to the group where the dictionary exists to upgrade it.
5155	MESSAGE	**Exceeded maximum number of tries for a valid scope password (SDERR 5155)**
	CAUSE	The correct DA scope password was not specified with 3 tries.
	ACTION	Find out the correct DA scope password and rerun SDUPGRAD.
5156	MESSAGE	**Make a backup of the dictionary before upgrading (SDERR 5156)**
	CAUSE	A backup copy of the dictionary has not been made.
	ACTION	Make a backup copy of the dictionary before upgrading since there is no way to recover if anything goes wrong.
5157	MESSAGE	**Invalid scope password. Remember case counts (SDWARN 5157)**
	CAUSE	An invalid password for the DA scope was entered.
	ACTION	Enter the correct DA scope password.

Message Catalog Messages (5201-5250)

5201 MESSAGE **Catalog error ! encountered during catalog read (SDERR 5201)**

CAUSE An error occurred while retrieving a message from the message catalog.

ACTION Get the associated error and notify the Dictionary Administrator.

5202 MESSAGE **Could not find message set ! in the catalog (SDERR 5202)**

CAUSE The indicated message set could not be found in the message catalog.

ACTION Ask the Dictionary Administrator to install a new message catalog which includes the specified message set.

5203 MESSAGE **Could not find message (set:number) ! in the catalog (SDERR 5203)**

CAUSE Unable to retrieve the specified message in the specified message set from the message catalog.

ACTION Ask the Dictionary Administrator to install a new message catalog which includes the specified message.

Miscellaneous Messages (5251-5300)

5251 MESSAGE **Library trap error ! encountered (SDERR 5251)**

CAUSE A Pascal error was encountered.

ACTION Get the library error number and notify the Dictionary Administrator.

5252 MESSAGE **The number is not a 16 bit integer (SDERR 5252)**

CAUSE The number is greater than 32767 or less than -32768.

ACTION Change the number so it is in the range -32768 to 32767.

5253 MESSAGE **Illegal character encountered (SDERR 5253)**

CAUSE A character not allowed in a number was found.

ACTION Remove the illegal character from the number.

5254 MESSAGE **Unable to issue file equate for DBSTEXT (SDERR 5254)**

CAUSE Unable to issue the file equate for the text file for DBSCHEMA.PUB.SYS.

ACTION Notify the Dictionary Administrator.

5255 MESSAGE **Unable to issue file equate for DBSLIST (SDERR 5255)**

CAUSE SDUPGRAD was unable to issue a file equation to redirect the DBSCHEMA output file DBSLIST.

ACTION Notify the Dictionary Administrator.

5256 MESSAGE **Unable to create the process to create the schema file (SDERR 5256)**

CAUSE Unable to create the process to run DBSCHEMA.PUB.SYS through the Create Intrinsic.

ACTION Notify the Dictionary Administrator.

5257 MESSAGE **Unable to activate the process to create the schema file (SDERR 5257)**

CAUSE Unable to activate the process to run DBSCHEMA.PUB.SYS through the Activate Intrinsic.

ACTION Notify the Dictionary Administrator.

5258 MESSAGE **The default number of buffers was allocated in the DBCB (SDWARN 5258)**

CAUSE The System Dictionary message catalog SDCAT contains a message that indicates the number of buffers to be allocated by TurboIMAGE in the DBCB. This error means that the message could not be retrieved, or the number in the message could not be converted to binary format.

ACTION No action is needed for this run since the TurboIMAGE default was used. Ask the Dictionary Administrator to install a copy of the message catalog which includes a valid number of buffers, if someone else needs to upgrade their dictionary.

5259 MESSAGE **Unable to purge the dictionary (SDERR 5259)**

CAUSE Could not purge the dictionary.

ACTION Get the associated error and notify the Dictionary Administrator.

5260 MESSAGE **CreateProcess Intrinsic error number ! (SDERR 5260)**

CAUSE Unable to run DBUTIL.PUB.SYS through the CreateProcess Intrinsic.

ACTION Get the associated error and notify the Dictionary Administrator.

5261 MESSAGE **Unable to create a dictionary (SDERR 5261)**

CAUSE Unable to create the dictionary with DBUTIL.PUB.SYS.

ACTION Notify the Dictionary Administrator.

5262 MESSAGE **Unable to set the number of buffers in the DBCB (SDERR 5262)**

CAUSE Unable to set the number of buffers to be allocated by TurboIMAGE in the DBCB to the number specified in the message catalog.

ACTION Refer to the associated TurboIMAGE error and correct the indicated problem.

5263 MESSAGE **Unable to open dictionary to add additional core set (SDERR 5263)**

CAUSE Could not open the dictionary to add the additional core set structure.

ACTION Refer to the associated System Dictionary Intrinsic error and correct the indicated problem. Run SDUPGRAD with INFO="CORESET" to add in the additional core set structure.

5264 MESSAGE **Unable to open dictionary to update extra data segment files (SDERR 5264)**

CAUSE Could not open the dictionary to update the extra data segment files.

ACTION Refer to the associated System Dictionary Intrinsic error and correct the indicated problem. Run the User Interface program, SDMAIN. Open the dictionary in customization mode and exit to update the extra data segment files.

5265 MESSAGE **Dictionary database structure version check failed (SDERR 5265)**

CAUSE If SDUPGRAD was run with INFO="CORESET", the dictionary database structure version is not the most current version.

ACTION Run SDUPGRAD without INFO="CORESET".

CAUSE If SDUPGRAD was run without INFO="CORESET", the dictionary database structure version is not supported by the SDUPGRAD version.

ACTION Notify the Dictionary Administrator.

5266 MESSAGE **Dictionary already contains latest structure and core set (SDERR 5266)**

CAUSE The user tried to upgrade a dictionary which already contains the current version of the dictionary structure and core set.

ACTION No action is needed.

5267 MESSAGE **The dictionary cannot be redirected (SDERR 5267)**

CAUSE File equates are not allowed when upgrading a dictionary.

ACTION Reset the dictionary so it is not redirected.

5268 MESSAGE **No separator found when checking the dictionary qualifier (SDERR 5268)**

CAUSE While checking to make sure the dictionary was not redirected, the '.' separating either the dictionary and group names or group and account names was not found.

ACTION Notify the Dictionary Administrator.

Core Set Change Messages (5301-5350)

5303 MESSAGE **No core set additions (SDERR 5303)**

CAUSE There are no additional core set structures to add for this upgrade.

ACTION No action is needed.

5304 MESSAGE **! is an invalid core set header (SDERR 5304)**

CAUSE The specified header is not one of the valid core set headers.

ACTION Get the associated error and notify the Dictionary Administrator.

5305 MESSAGE **Unable to add core set additions (SDERR 5305)**

CAUSE Unable to add the additional core set structures into the dictionary.

ACTION Refer to the associated error and correct the indicated problem. Then to complete the upgrade process, run SDUPGRAD with INFO="CORESET" .

5306 MESSAGE **Attribute ! exists in internal name mode (SDERR 5306)**

CAUSE The specified attribute is one of the core set attributes being added with this upgrade. A user defined attribute with the same internal name already exists in the dictionary.

ACTION Delete the specified attribute and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5307 MESSAGE **Attribute ! exists in external name mode (SDERR 5307)**

CAUSE The specified attribute is one of the core set attributes being added with this upgrade. A user defined attribute with the same external name already exists in the dictionary.

ACTION Rename the specified attribute and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5308 MESSAGE **Core set check failed for attribute ! (SDERR 5308)**

CAUSE An unexpected subsystem error occurred when checking if the specified attribute already exists.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5310 MESSAGE **Entity type ! exists in internal name mode (SDERR 5310)**

CAUSE The specified entity type is one of the core set entity types being added with this upgrade. A user defined entity type with the same internal name already exists in the dictionary.

ACTION Delete the specified entity type and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5311 MESSAGE **Entity type ! exists in external name mode (SDERR 5311)**

CAUSE The specified entity type is one of the core set entity types being added with this upgrade. A user defined entity type with the same external name already exists in the dictionary.

ACTION Rename the specified entity type and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5312 MESSAGE **Core set check failed for entity type ! (SDERR 5312)**

CAUSE An unexpected subsystem error occurred when checking if the specified entity type already exists.

ACTION Get the associated error and notify the Dictionary Administrator.

5313 MESSAGE **Attribute ! has an invalid attribute type (SDERR 5313)**

CAUSE The specified attribute is one of the core set attributes to be added with this upgrade and it has an invalid attribute type.

ACTION Get the associated error and notify the Dictionary Administrator.

5314 MESSAGE **Attribute ! has an invalid attribute length (SDERR 5314)**

CAUSE The specified attribute is one of the core set attributes to be added with this upgrade and it has an invalid attribute length.

ACTION Get the associated error and notify the Dictionary Administrator.

5315 MESSAGE **Unable to create core set attribute ! (SDERR 5315)**

CAUSE An unexpected subsystem error occurred while trying to create the specified core set attribute.

ACTION Get the associated error and notify the Dictionary Administrator.

5316 MESSAGE **Edit values for attribute ! left unchanged (SDWARN 5316)**

CAUSE An unexpected subsystem error occurred while trying to append new edit values to the existing edit values for the specified core set attribute.

ACTION No action is needed.

5318 MESSAGE **Unable to get edit values for attribute ! to update (SDERR 5318)**

CAUSE An unexpected subsystem error occurred while trying to get the edit values for the specified core set attribute.

ACTION Get the associated error and notify the Dictionary Administrator.

5319 MESSAGE **Unable to create core set ent type ! (SDERR 5319)**

CAUSE An unexpected subsystem error occurred while trying to create the specified core set entity type.

ACTION Get the associated error and notify the Dictionary Administrator.

5320 MESSAGE **Unable to create core set rt with rc ! and (SDERR 5320)**

CAUSE An unexpected subsystem error occurred while trying to create the a core set relationship type. This message is followed by continuation messages that identify the relationship type.

ACTION Get the associated error and notify the Dictionary Administrator.

5321 MESSAGE **Maximum capacity exceeded. Delete ! attributes (SDERR 5321)**

CAUSE Not enough room in the dictionary for the new core set attributes (hard-coded maximum).

ACTION Delete the specified number of attributes. Then refer to the associated rerun message to complete the upgrade process.

5322 MESSAGE**Maximum capacity exceeded. Delete ! entity types (SDERR 5322)**

CAUSE Not enough room in the dictionary for the new core set entity types (hard-coded maximum).

ACTION Delete the specified number of entity types. Then refer to the associated rerun message to complete the upgrade process.

5323 MESSAGE **Capacity check failed for ent type/attr associations (SDERR 5323)**

CAUSE An unexpected subsystem error occurred when checking the number of existing entity type/attribute association.

ACTION Get the associated error and notify the Dictionary Administrator.

5324 MESSAGE **Maximum capacity exceeded. Delete ! relationship classes (SDERR 5324)**

CAUSE Not enough room in the dictionary for the new core set relationship classes (hard-coded maximum).

ACTION Delete the specified number of relationship classes. Then refer to the associated rerun message to complete the upgrade process.

5325 MESSAGE **Maximum capacity exceeded. Delete ! relationship types (SDERR 5325)**

CAUSE Not enough room in the dictionary for the new core set relationship types (hard-coded maximum).

ACTION Delete the specified number of relationship types. Then refer to the associated rerun message to complete the upgrade process.

5326 MESSAGE **Attribute capacity exceeded (SDERR 5326)**

CAUSE The dictionary capacities do not allow enough room for the new core set attributes (user-specified capacity).

ACTION Run SDUPGRAD without INFO="CORESET" . The attribute capacity will automatically be expanded.

5327 MESSAGE **Entity type capacity exceeded (SDERR 5327)**

CAUSE The dictionary capacities do not allow enough room for the new core set entity types (user-specified capacity).

ACTION Run SDUPGRAD without INFO="CORESET" . The entity type capacity will automatically be expanded.

5328 MESSAGE **Type / attr association capacity exceeded (SDERR 5328)**

CAUSE The dictionary capacities do not allow enough room for the new core set type/attribute associations (user-specified capacity).

ACTION Run SDUPGRAD without INFO="CORESET" . The type/attribute association capacity will automatically be expanded.

5329 MESSAGE **Relationship class capacity exceeded (SDERR 5329)**

CAUSE The dictionary capacities do not allow enough room for the new core set relationship classes (user-specified capacity).

ACTION Run SDUPGRAD without INFO="CORESET" . The relationship class capacity will automatically be expanded with this upgrade.

5330 MESSAGE **Relationship type capacity exceeded (SDERR 5330)**

CAUSE The dictionary capacities do not allow enough room for the new core set relationship types (user-specified capacity).

ACTION Run SDUPGRAD without INFO="CORESET" . The relationship type capacity will automatically be expanded with this update.

5331 MESSAGE **Unable to create association between entity type ! (SDERR 5331)**

CAUSE An unexpected subsystem error occurred while trying to create the association between the specified entity type and attribute.

ACTION Get the associated error and notify the Dictionary Administrator.

5332 MESSAGE **Unable to create assoc. between rt and rc ! and (SDERR 5332)**

CAUSE An unexpected subsystem error occurred while trying to create the association between the specified relation-

ship type and attribute.

ACTION Get the associated error and notify the Dictionary Administrator.

5333 MESSAGE **Rel class ! exists in internal name mode (SDERR 5333)**

CAUSE The specified relationship class is one of the core set relationship classes being added with this upgrade. A user defined relationship class with the same internal name already exists in the dictionary.

ACTION Delete the specified domain and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5334 MESSAGE **Rel class ! exists in external name mode (SDERR 5334)**

CAUSE The specified relationship class is one of the core set relationship classes being added with this upgrade. A user defined relationship class with the same external name already exists in the dictionary.

ACTION Rename the specified relationship class and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5335 MESSAGE **Core set check failed for rel class ! (SDERR 5335)**

CAUSE An unexpected subsystem error occurred when checking if the specified relationship class already exists.

ACTION Get the associated error and notify the Dictionary Administrator.

(cont.)

5336 MESSAGE **Unable to create core set rel class ! (SDERR 5336)**

CAUSE An unexpected subsystem error occurred while trying to create the specified core set relationship class.

ACTION Get the associated error and notify the Dictionary Administrator.

5337 MESSAGE **Delete ! attributes from et ! (SDERR 5337)**

CAUSE Not enough room per type for the new core set entity type/attribute associations (hard-coded maximum).

ACTION Delete the specified number of entity type/attribute associations from the specified entity type. Then refer to the associated rerun message to complete the upgrade process.

NOTE If you have received error message SDERR 5348, then in addition to the number of entity type/attribute associations specified here, you need to delete the number specified in SDERR 5348 minus the number specified here. For example, say you receive SDERR 5348 telling you to delete a total of 100 entity type/attribute associations from the dictionary. Then you receive the above error message twice, telling you to delete 10 entity type/attribute associations from entity type F001 and 20 entity type/attribute associations from entity type F002. In addition to deleting the 10 and 20 entity type/attribute associations from F001 and F002 respectively, you need to delete 70 other entity type/attribute associations from the dictionary.

5338 MESSAGE **Delete ! attributes from rt with rc ! (SDERR 5338)**

CAUSE Not enough room per type for the new core set relationship type/attribute associations (hard-coded maximum).

ACTION Delete the specified number of relationship type/attribute associations from the specified relationship type. Then refer to the associated rerun message to complete the upgrade process.

NOTE If you have received error message SDERR 5349, then in addition to the number of relationship type/attribute associations specified here, you need to delete the number specified in SDERR 5349 minus the number specified here. See note in SDERR 5337 and substitute relationship type for entity type.

5339 MESSAGE **Domain ! exists in internal name mode (SDERR 5339)**

CAUSE The specified domain is one of the core set domains being added with this upgrade. A user defined domain

with the same internal name already exists in the dictionary.

ACTION Delete the specified domain and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5340 MESSAGE **Domain ! exists in external name mode (SDERR 5340)**

CAUSE The specified domain is one of the core set domains being added with this upgrade. A user defined domain with the same external name already exists in the dictionary.

ACTION Rename the specified domain and run SDUPGRAD with INFO="CORESET" to complete the upgrade process.

5341 MESSAGE **Core set check failed for domain ! (SDERR 5341)**

CAUSE An unexpected subsystem error occurred when checking if the specified domain already exists.

ACTION Get the associated TurboIMAGE error and notify the Dictionary Administrator.

5342 MESSAGE **Unable to create core set domain ! (SDERR 5342)**

CAUSE An unexpected subsystem error occurred while trying to create the specified core set domain.

ACTION Get the associated error and notify the Dictionary Administrator.

5343 MESSAGE **Maximum capacity exceeded. Delete ! domains (SDERR 5343)**

CAUSE The addition of the new core set domains would cause the number of domains in the dictionary to exceed the maximum number of domains allowed in a dictionary.

ACTION Delete the specified number of domains. Then run SDUPGRAD; INFO="CORESET" to complete the upgrade process.

5344 MESSAGE **Domain capacity exceeded (SDERR 5344)**

CAUSE The addition of the new core set domains would cause the number of domains in the dictionary to exceed the current capacity.

ACTION Run SDUPGRAD without INFO="CORESET" to expand the capacities to accommodate the additional core set entity types being added with this upgrade.

5345 MESSAGE **Unable to modify the owner scope for assoc et ! (SDERR 5345)**

CAUSE An unexpected subsystem error occurred while trying to modify the owner scope to the core set scope for the specified entity type/attribute association.

ACTION Get the associated error and notify the Dictionary Administrator.

5346 MESSAGE **Unable to modify the owner scope for assoc rt with rc ! (SDERR 5346)**

CAUSE An unexpected subsystem error occurred while trying to modify the owner scope to the core set scope for the specified relationship type/attribute association.

ACTION Get the associated error and notify the Dictionary Administrator.

5347 MESSAGE **Unable to modify rt with rc ! (SDERR 5347)**

CAUSE An unexpected subsystem error occurred while trying to modify the specified relationship type.

ACTION Get the associated error and notify the Dictionary Administrator.

5348 MESSAGE **Maximum capacity exceeded. Delete ! ent type/attr assoc (SDERR 5348)**

CAUSE There is not enough room in the dictionary for the new core set entity type/attribute associations (hard-coded maximum).

ACTION Delete the specified number of entity type/attribute associations. Then refer to the associated rerun message to complete the upgrade process.

5349 MESSAGE **Maximum capacity exceeded. Delete ! rel type/attr assoc (SDERR 5349)**

CAUSE There is not enough room in the dictionary for the new core set relationship type/attribute associations (hard-coded maximum).

ACTION Delete the specified number of relationship type/attribute associations. Then refer to the associated rerun message to complete the upgrade process.

D SDCONV Error Messages

The following is a complete list of SDCONV errors listed in order by error number. The list includes at least one possible cause of each error and a recommended action for each cause.

Message Number	Error Type
3501 - 3602	SDCONV Warning Messages
3603 - 3937	SDCONV Error Messages

NOTE Some of these messages list an action of "Refer to the associated error." With these messages, SDCONV will display an additional message related to a System Dictionary intrinsic, the MPE XL file system, the Pascal Run-Time Library, the Native Language Subsystem, or TurboIMAGE. Refer to the documentation on these subsystems for additional information on the problem.
Some of these messages list an action of "Notify the Dictionary Administrator." In this case, SDCONV has encountered an error that requires the attention of the Dictionary Administrator or System Manager. If the DA or System Manager needs assistance in solving the problem, they should contact the Hewlett-Packard Response Center.
Some of the messages, as shown in this manual, include an exclamation point (!). When the actual message is displayed, this substitution character will be replaced by appropriate information, such as a file name or subsystem error number.

SDCONV Warning Messages (3501 - 3602)

3501 MESSAGE **Logging disabled (SDWARN 3501)**

CAUSE SDCONV will not log the user's commands, because it could not open SDLOG.

ACTION None necessary. If command logging is essential for you, exitthe program immediately, correct any problem, and reinvoke theprogram.

3502 MESSAGE **New log file ! is temporary. Save it for future use (SDWARN 3502)**

CAUSE SDCONV is informing the user that the log file is temporary.

ACTION Save the log file if you want to keep it.

3503 MESSAGE **Mapping does not exist. No delete done (SDWARN 3503)**

CAUSE You used the MAP command to delete the mapping for a characterfor which no mapping was defined.

ACTION None necessary. If you mistyped the command, however, then usethe REDO command or retype it.

3504 MESSAGE **Map table full. Mapping not inserted (SDWARN 3504)**

CAUSE The map table already contained the maximum number of mappingsallowed before you tried to insert a new mapping.

ACTION Display the map table and delete any mappings which are nolonger necessary. You can then insert the desired mapping.

3505 MESSAGE **Name too long truncated to ! (SDWARN 3505)**

CAUSE Mapping the name according to the mappings specified in the maptable caused the length of the mapped name to exceed the maximumname length.

	ACTION	Use name returned in message when referring to that name.
3506	MESSAGE	**Name mapped to ! (SDWARN 3506)**
	CAUSE	Name contained special characters which were replaced with theircorresponding mappings specified in the map table.
	ACTION	Use name returned in message when referring to that name.
3601	MESSAGE	**Unknown SDCONV command (SDERR 3601)**
	CAUSE	The command issued is not a valid SDCONV command.
	ACTION	Check your command and see if it is one of the SDCONV commands.
3602	MESSAGE	**Text from the error to the end of command ignored (SDWARN 3602)**
	CAUSE	SDCONV ignores the rest of the command from the first syntaxerror.
	ACTION	Use REDO to fix the command, or reenter the command with theerror fixed.

SDCONV Error Messages (3603 -3937)

3603	MESSAGE	**Expecting 'Y' or 'N' answer (SDERR 3603)**
	CAUSE	You entered something other than 'Y' or 'N' at a yes/noquestion.
	ACTION	Answer with 'Y' or 'N' at the question.
3604	MESSAGE	**Command ending period is missing (SDERR 3604)**
	CAUSE	You issued a command without a command ending period.
	ACTION	Issue the REDO command and attach a command ending period.
3605	MESSAGE	**Expecting equal sign (SDERR 3605)**
	CAUSE	An equal sign is missing. The place where SDCONV expects anequal sign is pointed to by '^'.
	ACTION	Issue the REDO command to insert the equal sign.
3606	MESSAGE	**Parameter separating semi-colon missing (SDERR 3606)**
	CAUSE	A command is issued with parameters not properly separated by asemi-colon.
	ACTION	Issue the REDO command to insert the semi-colon.
3607	MESSAGE	**Superfluous parameters found after command ending period (SDERR 3607)**
	CAUSE	An extraneous token is found after the command ending period.
	ACTION	Issue the REDO command to delete the token after the commandending period.
3608	MESSAGE	**Found more arguments than command requires (SDERR 3608)**
	CAUSE	An extraneous token is found after a one word command.
	ACTION	Issue the REDO command to delete the extraneous token.
3610	MESSAGE	**Unknown SYSDIC parameter (SDERR 3610)**
	CAUSE	A sysdic command is issued with an unrecognizable parameter.
	ACTION	Check the command you just issued and see if the parameter hasbeen misspelled.
3611	MESSAGE	**Expecting System Dictionary name (SDERR 3611)**

	CAUSE	The SYSDIC NAME parameter is specified with no actual SystemDictionary name.
	ACTION	Issue the REDO command to insert the dictionary name.
3612	MESSAGE	**Expecting scope name (SDERR 3612)**
	CAUSE	The SCOPE parameter is specified with no actual scope name.
	ACTION	Issue the REDO command to insert the scope name.
3614	MESSAGE	**Illegal open mode (SDERR 3614)**
	CAUSE	Value of the OPEN-MODE parameter is not valid.
	ACTION	Issue the REDO command to replace the value of OPEN-MODE toeither SHARED-UPDATE or EXCLUSIVE-UPDATE.
3615	MESSAGE	**Illegal name mode (SDERR 3615)**
	CAUSE	Value of the NAME-MODE parameter is not valid.
	ACTION	Issue the REDO command to replace the value of NAME-MODE toeither INTERNAL or EXTERNAL.
3620	MESSAGE	**Unknown DICT3000 parameter (SDERR 3620)**
	CAUSE	A DICT3000 command is issued with an unrecognizable parameter.
	ACTION	Check the command you just issued and see if the parameter hasbeen misspelled.
3621	MESSAGE	**Expecting Dictionary/V database name (SDERR 3621)**
	CAUSE	The DICT3000 NAME parameter is specified with no actual Dict/Vdictionary name.
	ACTION	Issue the REDO command to insert the Dict/V dictionary name.
3623	MESSAGE	**Expecting Dictionary/V database open mode (SDERR 3623)**
	CAUSE	The DICT3000 OPEN-MODE parameter is specified with no actualopen mode value. The OPEN-MODE value should be between 1 and 8as explained in the TurboIMAGE/XL manual.
	ACTION	Issue the REDO command to insert the Dict/V dictionary openmode.
3624	MESSAGE	**Illegal Dictionary/V database open mode (SDERR 3624)**
	CAUSE	Value of the DICT3000 OPEN-MODE parameter is not acceptable.
	ACTION	Issue the REDO command to replace the incorrect value with avalue between 1 and 8.
3625	MESSAGE	**Expecting ON/OFF switch (SDERR 3625)**
	CAUSE	A DICT3000 parameter that requires ON/OFF switch is assigned avalue other than ON or OFF.
	ACTION	Issue the REDO command to replace the parameter value with ON orOFF.
3626	MESSAGE	**Illegal sensitivity value (SDERR 3626)**
	CAUSE	The SENSITIVITY DICT3000 parameter is assigned an invalid value.
	ACTION	Issue the REDO command to replace the incorrect value witheither READ, MODIFY, or PRIVATE.
3627	MESSAGE	**Illegal value for scope owner parameter (SDERR 3627)**
	CAUSE	The SCOPE-OWNER DICT3000 parameter is assigned an invalid value.
	ACTION	Issue the REDO command to replace the incorrect value to eitherRESPONSIBLE, IDENTITY-CREATE, or LOGON.
3628	MESSAGE	**Illegal value for alias parameter (SDERR 3628)**

	CAUSE	The ALIAS DICT3000 parameter is assigned an invalid value.
	ACTION	Issue the REDO command to replace the incorrect value to eitherCOBOL, IMAGE, PASCAL, STANDARD, or VPLUS.
3629	MESSAGE	**Illegal value for character field (SDERR 3629)**
	CAUSE	The value specified was not a valid special character.
	ACTION	Issue the REDO command to replace the incorrect value in thecharacter field.
3630	MESSAGE	**Space expected but not found (SDERR 3630)**
	CAUSE	Space missing between character and mapping field.
	ACTION	Issue the REDO command to add missing space.
3631	MESSAGE	**Illegal character in mapping field (SDERR 3631)**
	CAUSE	Character within mapping field not valid in System Dictionarynames.
	ACTION	Issue the REDO command to replace character with a valid one.
3632	MESSAGE	**Closing quote not found where expected for quote pair (SDERR 3632)**
	CAUSE	Closing quote either missing or not where expected.
	ACTION	Issue the REDO command to correct.
3633	MESSAGE	**Mapping name too long. No mapping occurred (SDERR 3633)**
	CAUSE	Mapping field of command was longer than the maximum.
	ACTION	Issue the REDO command to change mapping field.
3634	MESSAGE	**Mismatched quotes (SDERR 3634)**
	CAUSE	Closing quote not found on same line as opening quote inPASSWORD parameter of the SYSDIC command.
	ACTION	Issue the REDO command to correct.
3700	MESSAGE	**Could not close the System Dictionary database (SDERR 3700)**
	CAUSE	SDClose intrinsic call failed.
	ACTION	Notify the Dictionary Administrator of this problem.
3701	MESSAGE	**Could not open the System Dictionary (SDERR 3701)**
	CAUSE	SDOpen intrinsic call failed. The following are possiblecauses.Another user is accessing the System Dictionary in anincompatible dictionary open mode. For example, if another useris accessing the dictionary in the exclusive-update mode, youwill be denied any access to the dictionary.
	ACTION	Request other users to reopen the dictionary in open modes thatare compatible with yours.
	CAUSE	The specified dictionary does not exist.
	ACTION	Make sure that any file equate which exists for your dictionaryname is correct. Then, make sure that the specified dictionaryexists.
	CAUSE	The native language of the dictionary data is not same as thatof the utility.
	ACTION	If the dictionary's native language ID is different from yours,you cannot open the dictionary. For any future initializationof dictionaries make sure that the SDINIT utility uses the samemessage catalog as your utility's.
	CAUSE	Some other error.
	ACTION	Act according to the additional error messages issued. If aserious problem is suspected, notify the System

Manager.

3702 MESSAGE **No System Dictionary opened (SDERR 3702)**

CAUSE An attempt was made to load definitions with no SystemDictionary opened.

ACTION Issue the SYSDIC command to open the System Dictionary, and thenload the definitions.

3703 MESSAGE **Could not close the Dictionary/V database (SDERR 3703)**

CAUSE DBClose TurboIMAGE/XL intrinsic call failed.

ACTION Notify the System Manager of the problem.

3704 MESSAGE **Could not open the Dictionary/V database (SDERR 3704)**

CAUSE DBOpen intrinsic call failed.

ACTION Act according to the additional error messages issued. If a serious problem is suspected, notify the System Manager.

3705 MESSAGE **No Dictionary/V database opened (SDERR 3705)**

CAUSE An attempt was made to access the Dict/V dictionary with noactual dictionary opened.

ACTION Issue the DICT3000 command to open a Dict/V dictionary, and thenaccess it.

3706 MESSAGE **SCOPE-OWNER and SENSITIVITY parm values conflict (SDERR 3706)**

CAUSE When SCOPE-OWNER = RESPONSIBLE or IDENTITY-CREATE, SENSITIVITYcannot be PRIVATE. See SDCONV manual for more explanation.

ACTION Either change SCOPE-OWNER to LOGON, or SENSITIVITY to MODIFY orREAD.

3710 MESSAGE **Error while opening old SDLOG. Logging disabled (SDERR 3710)**

CAUSE 1. The old SDLOG is being accessed by some other userexclusively.2. Some other error.

ACTION Since logging is disabled, and SDLOG is not opened at all, youare not required to take any action. However, if the commandlogging is essential for you, exit the program immediately, takecare of the problem, and re-enter SDCONV. If a system error issuspected, notify the System Manager.

3711 MESSAGE **Error while creating new SDLOG. Logging disabled (SDERR 3711)**

CAUSE Insufficient disc space.

ACTION Build a small file and equate SDLOG to it. Notify the SystemManager of the insufficient disc space.

CAUSE Some other error.

ACTION Since logging is disabled, and SDLOG is not opened at all, youare not required to take any action. However, if the commandlogging is essential, exit the program, take care of theproblem, and reenter SDCONV. Further, following actions aresuggested:Use a file equate to equate SDLOG to some other file and tryagain. If a system error is suspected, notify the SystemManager.

3712 MESSAGE **Error while opening old SDOUT. Report defaulting to $STDLIST (SDERR 3712)**

CAUSE Old SDOUT could not be opened. The SDOUT report informationwill be output to $STDLIST upon termination of the program.

ACTION Since SDOUT report information is collected and reported to$STDLIST, you do not have to take any action. However, if thereport information needs to be saved away in a disc file, exitthe program immediately, locate and remedy the problem, and thenreinvoke the program.

3713 MESSAGE **Error while creating new SDOUT. Report defaulting to $STDLIST (SDERR 3713)**

CAUSE Insufficient disc space.

ACTION Build a smaller SDOUT.

CAUSE Some other error.

ACTION Report the error to System Manager.

3714 MESSAGE **Error while opening temporary SDOUT. SDOUT not opened (SDERR 3714)**

CAUSE An MPE file system error happened while opening SDOUT. No reportinformation will be recorded in SDOUT.

ACTION If a serious file system error is suspected, notify the SystemManager.

3715 MESSAGE **Error while setting EOF on message buffer file (SDREDO: SDERR 3715)**

CAUSE An MPE file system error is encountered while setting the"end offile" to the message buffer file. The message buffer file isused to fetch multi-lined messages from the message catalog.SDCONV uses the temporary file SDREDO as the message bufferfile.

ACTION SDCONV will not be able to access this multi-line message. If aserious problem is suspected, notify the System Manager.

3716 MESSAGE **Error while reading from message buffer file (SDREDO: SDERR 3716)**

CAUSE An MPE file system error is encountered while reading from themessage buffer file.

ACTION SDCONV will immediately begin processing this multi-linemessage. If a serious problem is suspected, notify the SystemManager.

3718 MESSAGE **Scope has no secure capability. Change SCOPE-OWNER parm to LOGON (SDERR 3718)**

CAUSE You have specified SCOPE-OWNER = RESPONSIBLE or IDENTITY-CREATE, but the current scope has no secure capability. Sincethe current scope cannot create any new scopes, the value of theSCOPE-OWNER parameter is improper. If the current scope doesnot have the secure capability, only LOGON is allowed.

ACTION Change the value of the SCOPE-OWNER parameter to LOGON.

3719 MESSAGE **Error while creating ! scope (SDERR 3719)**

CAUSE An error occurred while creating a new scope.

ACTION Notify the Dictionary Administrator of the problem. Ifpossible, change the value of SCOPE-OWNER parameter to LOGON andreload.

3720 MESSAGE **Error while adjusting System Dictionary scope on entity ! (SDERR 3720)**

CAUSE An error occurred while switching scope on an entity.

ACTION Notify the Dictionary Administrator of the problem. Ifpossible, change the value of SCOPE-OWNER parameter to LOGON andreload.

3721 MESSAGE **Error while creating ELEMENT definition for ! (DATA-ELEMENT, SDERR 3721)**

CAUSE A System Dictionary error occurred while creating an ELEMENTdefinition.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3722 MESSAGE **Error while creating var length attr's for ELEMENT ! (SDERR 3722)**

CAUSE A System Dictionary error occurred while creating variablelength attributes for the ELEMENT. These attributes areedit-mask, entry-text, and heading-text.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3723 MESSAGE **Error while writing description text for entity ! (SDERR 3723)**

CAUSE A System Dictionary error occurred while translating thedescription text associated with the entity.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3724 MESSAGE **Error while converting ! entry from DATA-FILE detail set (SDERR 3724)**

CAUSE A System Dictionary error occurred while converting an entryfrom DATA-FILE.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3725 MESSAGE **Error while creating DEVICE-CLASS definition for ! (DATA-FILE, SDERR 3725)**

CAUSE A System Dictionary error occurred while creating DEVICE- CLASSentity definition from FILE-DEVICE DATA-FILE's entry.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3726 MESSAGE **Error while creating CATEGORY definition for ! (DATA-CATEGORY, SDERR 3726)**

CAUSE A System Dictionary error occurred while converting an entryfrom DATA-CATEGORY.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3727 MESSAGE **Error while creating INFORM-GROUP definition for ! (DATA-GROUP, SDERR 3727)**

CAUSE A System Dictionary error occurred while converting an entryfrom DATA-GROUP.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3728 MESSAGE **Error while converting ! entry from DATA-CLASS detail set (SDERR 3728)**

CAUSE A System Dictionary error occurred while converting an entryfrom DATA-CLASS.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3729 MESSAGE **Error while creating MODULE definition for ! (DATA-PROCEDURE, SDERR 3729)**

CAUSE A System Dictionary error occurred while converting an entryfrom DATA-PROCEDURE.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3730 MESSAGE **Error while creating LOCATION definition for ! (DATA-LOCATION, SDERR 3730)**

CAUSE A System Dictionary error occurred while converting an entryfrom DATA-LOCATION.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3731 MESSAGE **Error while creating MPE-GROUP definition for ! (DATA-LOCATION, SDERR 3731)**

CAUSE A System Dictionary error occurred while creating an MPE- GROUPdefinition from the LOCATION-GROUP field of DATA- LOCATION.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3732 MESSAGE **Error while creating MPE-ACCOUNT definition for ! (DATA-LOCATION, SDERR 3732)**

CAUSE A System Dictionary error occurred while creating an MPE-ACCOUNT definition from the LOCATION-ACCT field of DATA-LOCATION.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3733 MESSAGE **Error while creating NODE definition for ! (DATA-LOCATION, SDERR 3733)**

CAUSE A System Dictionary error occurred while creating a NODEdefinition from the LOCATION-CPU field of

DATA-LOCATION.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3734 MESSAGE **Error while creating RECORD definition for ! (DATA-FILE, SDERR 3734)**

CAUSE A System Dictionary error occurred while creating a RECORDdefinition from a file definition in DATA-FILE.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3735 MESSAGE **Error while creating INFORM-REPORT definition for ! (REPORT-LIST, SDERR 3735)**

CAUSE A System Dictionary error occurred while creating an INFORM-REPORT definition from the REPORT-LIST data set's entry.

ACTION Notify the Dictionary Administrator if a serious error issuspected. If the error is a simple one, e.g., duplicateentity, delete or rename the old entity and manually convert theentity's definition yourself.

3736 MESSAGE **Error while retrieving scope-owner attribute for ! (SDERR 3736)**

CAUSE A System Dictionary error occurred while retrieving scope-ownerattribute for the listed element.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3737 MESSAGE **Error while writing entity-long-name attribute for ! (SDERR 3737)**

CAUSE A System Dictionary error occurred while writing theentity-long-name for the listed entry.

ACTION Notify the Dictionary Administrator if a serious error issuspected. definition yourself.

3740 MESSAGE **Error while adjusting scope for above relationship entry (SDERR 3740)**

CAUSE A System Dictionary error occurred while switching scope for theabove relationship.

ACTION Notify the Dictionary Administrator if a serious error issuspected.

3741 MESSAGE **Error while rewinding data set ! (SDERR 3741)**

CAUSE In order to chain into detail sets in Dict/V, SDCONV re-readsthe manual set. An error occurred while rewinding the manualset to read.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3742 MESSAGE **Error while writing description text for above rel entry (SDERR 3742)**

CAUSE A System Dictionary error occurred while converting thedescription text for the listed relationship.

ACTION Notify the Dictionary Administrator if a serious problem issuspected.

3745 MESSAGE **Error while creating above FILE uses DEVICE-CLASS relationship (SDERR 3745)**

CAUSE A System Dictionary error occurred while creating a relationshipbetween a FILE and a DEVICE-CLASS.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3746 MESSAGE **Error while creating above IMAGE-DATABASE contains IMAGE-CLASS rel (SDERR 3746)**

CAUSE A System Dictionary error occurred while creating a relationshipbetween an IMAGE-DATABASE and IMAGE-CLASS.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity

and reload therelationship.

3750 MESSAGE **Error while creating LOCATION contains MPE-GROUP MPE-ACCOUNT rel (SDERR 3750)**

CAUSE A System Dictionary error occurred while creating a relationshipinvolving a LOCATION, MPE-GROUP, and MPE-ACCOUNT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3752 MESSAGE **Error while creating above LOCATION contains NODE rel (SDERR 3752)**

CAUSE A System Dictionary error occurred while creating a relationshipbetween a LOCATION and NODE.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3755 MESSAGE **Error while creating above ELEMENT contains ELEMENT rel (SDERR 3755)**

CAUSE A System Dictionary error occurred while creating a relationshipbetween two ELEMENTs.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3756 MESSAGE **Error while creating var length attr for above ELEM con ELEM rel (SDERR 3756)**

CAUSE A System Dictionary error occurred while creating variablelength attributes on the listed ELEMENT contains ELEMENTrelationship. The variable length attributes are edit-mask,entry-text, and heading-text.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3757 MESSAGE **Error while creating chains rel for above path definition (SDERR 3757)**

CAUSE A System Dictionary error occurred while creating a chaindefinition involving the listed entities.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3758 MESSAGE **Error while creating above IMAGE-DATASET contains RECORD rel (SDERR 3758)**

CAUSE A System Dictionary error occurred while creating a relationshipbetween an IMAGE-DATASET and RECORD.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3759 MESSAGE **Error while creating above IMAGE-DATASET key ELEMENT rel (SDERR 3759)**

CAUSE A System Dictionary error occurred while creating a "key"relationship between an IMAGE-DATASET and ELEMENT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

(cont.)

3760 MESSAGE **Error while creating above FILE contains RECORD rel (SDERR 3760)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a FILE and RECORD.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3761 MESSAGE **Error while creating above KSAMFILE contains RECORD rel (SDERR 3761)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a KSAMFILE and RECORD.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3762 MESSAGE **Error while creating above KSAMFILE key ELEMENT rel (SDERR 3762)**

CAUSE A System Dictionary error occurred while creating a "key"relationship between a KSAMFILE and ELEMENT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3763 MESSAGE **Error while creating above FORM contains ELEMENT rel (SDERR 3763)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a FORM and ELEMENT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3764 MESSAGE **Error while creating var length attr for above FORM con ELEM rel (SDERR 3764)**

CAUSE A System Dictionary error occurred while creating variablelength attributes on the listed FORM contains ELEMENTrelationship. The variable length attributes are edit-mask,entry-text, and heading-text.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3765 MESSAGE **Error while retrieving ELEMENT data for above relationship (SDERR 3765)**

CAUSE A System Dictionary error occurred while retrieving ELEMENTattribute data from Dict/V to initialize attributes for a FORMcontains ELEMENT relationship occurrence.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3766 MESSAGE **Error while creating above RECORD contains ELEMENT rel (SDERR 3766)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a RECORD and ELEMENT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3767 MESSAGE **Error while creating var length attr for above REC con ELEM rel (SDERR 3767)**

CAUSE A System Dictionary error occurred while creating variablelength attributes on the listed ELEMENT contains ELEMENTrelationship. The variable length attributes are edit-mask,entry-text, and heading-text.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3768 MESSAGE **Error while modifying RECORD attributes for ! (SDERR 3768)**

CAUSE A System Dictionary error occurred while modify byte-lengthattribute of a RECORD.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3769 MESSAGE **Error while creating above KSAMFILE contains RECORD rel (SDERR 3769)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a KSAMFILE and RECORD.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3770 MESSAGE **Error while creating above FILE contains RECORD rel (SDERR 3770)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a FILE and RECORD.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3771 MESSAGE **Error while creating contains rel between above two files (SDERR 3771)**

CAUSE A System Dictionary error occurred while converting a data entryfrom the FILE-FILE data set.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3772 MESSAGE **Error while creating above CATEGORY contains CATEGORY rel (SDERR 3772)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between two categories.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3773 MESSAGE **Error while creating above CATEGORY contains ELEMENT rel (SDERR 3773)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a CATEGORY and ELEMENT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3774 MESSAGE **Error while creating above INFORM-GROUP contains INFORM-GROUP rel (SDERR 3774)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between two INFORM-GROUPs.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3775 MESSAGE **Error while creating above INFORM-GROUP contains ELEMENT rel (SDERR 3775)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship among INFORM-GROUP, ELEMENT, and FILE/KSAMFILE/IMAGE-DATASET.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3776 MESSAGE **Error while creating above INFORM-CLASS contains INFORM-GROUP rel (SDERR 3776)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between an INFORM-CLASS and INFORM-GROUP.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3777 MESSAGE **Error while creating above ELEMENT contains IMAGE-CLASS rel (SDERR 3777)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between an ELEMENT and IMAGE-CLASS.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3778 MESSAGE **Error while creating above INFORM-CLASS contains IMAGE-CLASS rel (SDERR 3778)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between an INFORM-CLASS and IMAGE-CLASS.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3779 MESSAGE **Error while creating above IMAGE-DATASET contains IMAGE-CLASS rel (SDERR 3779)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between an IMAGE-DATASET and IMAGE-CLASS.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3780 MESSAGE **Error while modifying file lockword attribute for ! (SDERR 3780)**

CAUSE A System Dictionary error occurred while modifying the lockwordattribute for the listed file from the CLASS-PASSWORD field ofDATA-CLASS.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3781 MESSAGE **Error while creating above MODULE processes ELEMENT rel (SDERR 3781)**

CAUSE A System Dictionary error occurred while creating a "processes"relationship between a MODULE and ELEMENT. SDCONV was convertinga data entry from PROCEDURE-ELEMEN.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3782 MESSAGE **Error while creating above MODULE contains MODULE rel (SDERR 3782)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between two MODULEs.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3783 MESSAGE **Error while creating above LOCATION contains MODULE rel (SDERR 3783)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a LOCATION and MODULE.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3784 MESSAGE **Error while creating above LOCATION contains FILE rel (SDERR 3784)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a LOCATION and FILE.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3785 MESSAGE **Error while creating above LOCATION contains INFORM-REPORT rel (SDERR 3785)**

CAUSE A System Dictionary error occurred while creating a "contains"relationship between a LOCATION and INFORM-REPORT.

ACTION Notify the Database Administrator if a serious problem issuspected. Note that this error on the relationship could havebeen caused by a previous error on one of the entities involved.If so, correct the error on the entity and reload therelationship.

3800 MESSAGE **No command to REDO (SDERR 3800)**

CAUSE REDO cannot be issued as a first command to SDCONV.

ACTION Do not issue REDO as a first command.

3801 MESSAGE **REDO is not allowed in non-interactive mode (SDERR 3801)**

CAUSE REDO command is not allowed in a non-interactive environment.

ACTION Do not issue REDO in a non-interactive environment.

3802 MESSAGE **Illegal use of REDO (SDERR 3802)**

CAUSE REDO command cannot be used to edit the command into anotherREDO.

ACTION Do not edit the command into another REDO through REDO.

3803 MESSAGE **Command line out of range. Ignored (SDERR 3803)**

CAUSE The +/- REDO subcommand issued results in a line outside of thebounds of the currently edited command.

ACTION Make sure that the number specified with the +/- subcommand iswithin the bounds of the edited command.

3804 MESSAGE **Illegal command after delete. Ignored (SDERR 3804)**

CAUSE Only the 'I' subcommand is allowed after the 'D' subcommand.You issued a series of D's followed by a character other than'I'.

ACTION Issue the subcommand in a correct format.

3805 MESSAGE **String to insert too long to fit (SDERR 3805)**

CAUSE The 'I' subcommand is issued with a string which is too long tofit into the line being edited.

ACTION Break the line with the 'B' subcommand, and then add the string.

3806 MESSAGE **String to append too long to fit (SDERR 3806)**

CAUSE The 'A' subcommand is issued with a string which is too long tofit into the line being edited.

ACTION Break the line with the 'B' subcommand and then append thestring.

3807 MESSAGE **Redo subcommand is followed by unallowed characters (SDERR 3807)**

CAUSE The REDO subcommand that does not take any argument is followedby other characters.

ACTION Make sure that you did not mean to replace corresponding part ofthe command line with the string.

3808 MESSAGE **Move forward/backward can only have a number following it. (SDERR 3808)**

	CAUSE	The +/- REDO subcommand is issued with a non-numeric argument.
	ACTION	If you really meant to issue the +/- subcommand, reissue thesubcommand with a correct number following it.
3850	MESSAGE	**No help on subject !. Displaying general help instead (SDERR 3850)**
	CAUSE	One of the subject names specified with the HELP command is notan SDCONV command key word.
	ACTION	Check the subject name pointed by '^', and see if it ismisspelled.
3851	MESSAGE	**MPE command execution error (SDERR 3851) Error code: nnn**.
	CAUSE	An MPE command is issued with an illegal argument.
	ACTION	Check the command argument, and see if it is correct.
3852	MESSAGE	**No such MPE command (SDERR 3852). Error code: nnn**
	CAUSE	An unknown MPE command is issued.
	ACTION	Make sure that the command issued can be executed through thecommand intrinsic.
3853	MESSAGE	**Error occurred while forming the upshift table (SDERR 3853)**
	CAUSE	NLInfo NL intrinsic call failed.
	ACTION	Notify the System Manager.
3854	MESSAGE	**Error occurred while forming the alpha-numeric table (SDERR 3854)**
	CAUSE	NLInfo NL intrinsic call failed.
	ACTION	Notify the System Manager.
3855	MESSAGE	**Could not open the Dictionary because of invalid scope password (SDERR 3855)**
	CAUSE	Password entered was not valid for scope specified.
	ACTION	Enter correct password.
3856	MESSAGE	**Exceeded maximum number of tries for a valid password. Program aborted (SDERR 3856)**
	CAUSE	You failed to enter the correct password within the number oftries allowed while in the batch mode.
	ACTION	Correct the password.
3899	MESSAGE	**SDCONV version incompatible with that of SD intrinsics (SDERR 3899)**
	CAUSE	The program's version number is different from the intrinsic'sversion.
	ACTION	Notify the Dictionary Administrator.
3900	MESSAGE	**Program aborts due to too many errors (SDERR 3900)**
	CAUSE	The program detected the number of errors specified through therun-option.
	ACTION	Check your input and see where the errors have occurred.
3901	MESSAGE	**$STDINX open error. Program is aborted (SDERR 3901)**
	CAUSE	An error occurred while opening $STDINX.
	ACTION	If the "STDIN = " clause was issued on the RUN command, see ifthe file equated to STDIN actually exists and if the file is notbeing exclusively accessed by some other user. If a seriousproblem is suspected, notify the System Manager.
3902	MESSAGE	**Error while reading from input file. Program aborted (SDERR 3902)**

CAUSE A disc error occurred while reading from the program input file.

ACTION Check the file system error message. Notify the System Managerof the problem if a serious problem is suspected.

3903 MESSAGE **Premature EOF reached on input file. Program aborted (SDERR 3903)**

CAUSE The EOF is found while reading on the input file.

ACTION Edit SDIN file to correct the problem. Be sure to include theEXIT command before the EOF.

3910 MESSAGE **Error while writing to SDLOG. Program aborted (SDERR 3910)**

CAUSE A disc error occurred while writing to SDLOG.

ACTION Check the file system error message given. See if the disc isfull. If a serious problem is suspected, notify the SystemManager.

3911 MESSAGE **Error while closing SDLOG. Program aborted (SDERR 3911)**

CAUSE A disc error while closing SDLOG.

ACTION Check the file system error message. Notify the System Managerif a serious disc error is suspected.

3920 MESSAGE **Error while reading from SDOUT. Program aborted (SDERR 3920)**

CAUSE A disc error occurred while reading from temporary SDOUT tooutput the report onto the $STDLIST.

ACTION Check the file system error message. Notify the System Managerif a serious disc error is suspected.

3921 MESSAGE **Error while writing to SDOUT. Program aborted (SDERR 3921)**

CAUSE A disc error occurred while writing to SDOUT.

ACTION Check the file system error message. Notify the System Managerif a serious disc error is suspected.

3922 MESSAGE **Error while closing SDOUT. Program aborted (SDERR 3922)**

CAUSE A disc error occurred while closing SDOUT.

ACTION Check the file system error message. Notify the System Managerif a serious disc error is suspected.

3930 MESSAGE **Error while opening temporary file SDTMP. Program aborted (SDERR 3930)**

CAUSE A disc error occurred while opening SDCONV temporary file,SDTMP.

ACTION Check the file system error message. Notify the System Managerif a serious error is suspected.

3931 MESSAGE **Error while reading from temporary file SDTMP. Program aborted (SDERR 3931)**

CAUSE A disc error occurred while reading from SDCONV temporary file,SDTMP.

ACTION Check the file system error message. Notify the System Managerif a serious error is suspected.

3932 MESSAGE **Error while writing to temporary file SDTMP. Program aborted (SDERR 3932)**

CAUSE A disc error occurred while writing to SDCONV temporary file,SDTMP.

ACTION Check the file system error message. See if the disc is full.Notify the System Manager if a serious problem is suspected.

3933 MESSAGE **Error while deleting temporary file SDTMP. Program aborted (SDERR 3933)**

CAUSE A disc error occurred while deleting SDCONV temporary file,SDTMP.

ACTION Check the file system error message. Notify the System Managerif a serious error is suspected.

3934 MESSAGE **Error while opening temporary file SDREDO. Program aborted (SDERR 3934)**

	CAUSE	A disc error occurred while opening SDCONV temporary file,SDREDO.
	ACTION	Check the file system error message, and notify the DictionaryAdministrator or the System Manager if a serious error issuspected.
3935	MESSAGE	**Error while reading from temporary file SDREDO. Program aborted (SDERR 3935)**
	CAUSE	A disc error occurred while reading from temporary file SDREDO.SDCONV reads from SDREDO when the user enters 'E' or '^Y' whilein REDO.
	ACTION	Check the file system error message, and notify the DictionaryAdministrator or the System Manager if a serious error issuspected.
3936	MESSAGE	**Error while writing to temporary file SDREDO. Program aborted (SDERR 3936)**
	CAUSE	A disc error occurred while writing to SDCONV temporary file,SDREDO. SDCONV writes to SDREDO when the user issues the REDOcommand.
	ACTION	Check the file system error message, and notify the DictionaryAdministrator or the System Manager if a serious error issuspected.
3937	MESSAGE	**Error while deleting temporary file SDREDO. Program aborted (SDERR 3937)**
	CAUSE	A disc error occurred while deleting SDCONV temporary file,SDREDO.
	ACTION	Check the file system error message, and notify the DictionaryAdministrator or the System Manager if a serious error issuspected.
None.	MESSAGE	**Message catalog (SDCAT.PUB.SYS) open error**
	CAUSE	SDCAT.PUB.SYS message catalog does not exist.
	ACTION	Notify the Dictionary Administrator of the problem.
None.	MESSAGE	**Message catalog (SDCAT.PUB.SYS) access error**
	CAUSE	SDCONV could not access SDCAT.PUB.SYS.
	ACTION	Check and see if SDCAT.PUB.SYS is being exclusively accessed bysome other users. If a serious problem is suspected, notify theSystem Manager and Dictionary Administrator.
None.	MESSAGE	**Message catalog (SDCAT.PUB.SYS) illegally formatted**
	CAUSE	SDCAT.PUB.SYS is not in accordance with the NL message catalogformat.
	ACTION	Notify the Dictionary Administrator of this problem.
None.	MESSAGE	**Message catalog (SDCAT.PUB.SYS) internal error**
	CAUSE	SDCAT.PUB.SYS contains an internal error.
	ACTION	Notify the Dictionary Administrator and System Manager of thisproblem.
None.	MESSAGE	**Message catalog access error: set = sss, msg = mmm, err = eee**
	CAUSE	An error occurred while attempting to access an SDCONVmessage.The message set number is 'sss', message line number is'mmm', and the NL error code is 'eee'.
	ACTION	Check the message catalog (SDCAT.PUB.SYS) and see if the messageis missing. If a serious problem is suspected, notify theSystem Manager.
None	MESSAGE	**Error while writing to $STDLIST. Program is aborted**
	CAUSE	An error is detected while writing to $STDLIST.
	ACTION	If the 'STDLIST = ' clause is used at the RUN command, see ifthe file equated to $STDLIST is filled up. If a serious problemis suspected, notify the System Manager.

E SDCONV Command Abbreviations

SDCONV allows key words to be abbreviated as shown below:

Keyword	Abbreviation
SYSDIC	SD
NAME	N
SCOPE	S
PASSWORD	P
DOMAIN	D
VERSION	V
OPEN-MODE	OM
SHARED-UPDATE	SU
EXCLUSIVE-UPDATE	EU
NAME-MODE	NM
EXTERNAL	EXT
INTERNAL	INT
DICT3000	DT
NAME	N
PASSWORD	P
OPEN-MODE	OM
BACK-REFERENCE	BR
ON	ON
OFF	OFF
SENSITIVITY	SEN
READ	R
MODIFY	M
PRIVATE	PV
SCOPE-OWNER	SO
RESPONSIBLE	RE
IDENTITY-CREATE	IC
LOGON	LO
ALIAS	AL
COBOL	COB
IMAGE	IM
PASCAL	PAS
STANDARD	STD
VPLUS	VP
HPSQL	SQL
PACK-DESCRIPTION	PD
QUIET	Q
VERBOSE	V

Keyword	Abbreviation
MAP	MAP
LOAD	L
HELP	H
SHOW	SH
RESET	R
REDO	REDO
COMMENT	COM
EXIT	E

F SDUTIL Error Messages

The following is a complete list of SDUTIL errors listed in order by error number and error type:

Message Number	Error Type
5501-5574	File System
5575-5599	Initialization
5600-5624	Driver/Validator
5625-5674	Scanner/Parser
5675-5699	From / Merge-To
5700-5724	Help
5725-5749	Redo
5750-5799	Miscellaneous
5800-5824	Merge Options
5825-5849	General Preview/Merge
5850-5874	Merge Security
5875-5899	Merge Structure
5950-5999	Scope Entity
6000-6074	Merge Entity
6075-6099	Scope Relationship
6100-6149	Merge Relationship
6150-6199	Compile
6200-6249	Miscellaneous Warning
6300-6399	Miscellaneous Dictionary

NOTE Some of these messages list an action of "Refer to the associated error." With these messages, SDUTIL will display an additional message related to a System Dictionary intrinsic, the MPE file system, the Pascal Run-Time Library, the Native Language Subsystem, or TurboIMAGE. Refer to the documentation on these subsystems for additional information on the problem.

Some of these messages list an action of "Notify the Dictionary Administrator." In this case, SDUTIL has encountered an error that requires the attention of the Dictionary Administrator or System Manager. If the DA or System Manager needs assistance in solving the problem, they should contact the Hewlett-Packard Response Center.

Some of the messages, as shown in this manual, include an exclamation point (!). When the actual message is displayed, this substitution character will be replaced by appropriate information, such as a file name or subsystem error number.

File System Messages (5501-5574)

5501 MESSAGE **Dictionary cannot be opened (SDERR 5501)**

CAUSE The dictionary could not be opened with the specified FROM or MERGE-TO command.

ACTION Refer to the associated error and correct the indicated problem.

5502 MESSAGE **Dictionary cannot be closed (SDERR 5502)**

CAUSE The dictionary could not be closed.

ACTION Refer to the associated error and correct the indicated problem.

5503 MESSAGE **Unable to open the $STDLIST file (SDERR 5503)**

CAUSE The $STDLIST file could not be opened.

ACTION Refer to the associated error and correct the indicated problem.

5504 MESSAGE **Unable to write the banner message (SDERR 5504)**

CAUSE The banner message could not be written to the $STDLIST file.

ACTION Refer to the associated error and correct the indicated problem.

5505 MESSAGE **Unable to write the command prompt (SDERR 5505)**

CAUSE The command prompt could not be written to the $STDLIST file.

ACTION Refer to the associated error and correct the indicated problem.

5506 MESSAGE **Unable to write the continue prompt (SDERR 5506)**

CAUSE The continue prompt could not be written to the $STDLIST file.

ACTION Refer to the associated error and correct the indicated problem.

5507 MESSAGE **Unable to write a prompt message (SDERR 5507)**

CAUSE A prompt message could not be written to the $STDLIST file.

ACTION Refer to the associated error and correct the indicated problem.

5508 MESSAGE **Unable to write to the $STDLIST file (SDERR 5508)**

CAUSE An output line could not be written to the $STDLIST file.

ACTION Refer to the associated error and correct the indicated problem.

5509 MESSAGE **Unable to open the input file (SDERR 5509)**

CAUSE The input file could not be opened.

ACTION Refer to the associated error and correct the indicated problem.

5510 MESSAGE **Unable to close the input file (SDERR 5510)**

CAUSE The input file could not be closed.

ACTION Refer to the associated error and correct the indicated problem.

5511 MESSAGE **Input file recsize too long. All lines trunc to 80 chars (SDWARN 5511)**

CAUSE The input file has at least one record which is longer than 80 characters. Since all input lines can have a maximum of 80 characters, all lines will be truncated to 80 characters.

ACTION If the commands in the input file do not take up more than 80 characters per line, no action is needed (the record may not be full, or have blanks after 80 characters). If the commands do take up more than 80 characters per line, all characters after 80 will be ignored. Therefore, the expected action(s) will not occur. In this case, the commands must be placed on multiple lines so that no one line contains more than 80 characters (including blanks).

5512 MESSAGE **Unable to read from the input file (SDERR 5512)**

CAUSE SDUTIL could not read from the input file.

ACTION Refer to the associated error and correct the indicated problem.

5513 MESSAGE **The log file is full (SDWARN 5513)**

CAUSE SDUTIL could not write to the log file because it is full. If the log file is a permanent file, the program will try to create a temporary file with the same name as the permanent log file, and use it as the alternate log file. However, if the log file *is* a temporary file, this action will fail and logging will be disabled. In either case, processing will continue.

ACTION No action is necessary.

5514 MESSAGE **Unable to close the log file (SDERR 5514)**

CAUSE The log file could not be closed while exiting the program.

ACTION Refer to the associated error and correct the indicated problem for the next run.

5515 MESSAGE **Unable to open command file SDCMD (SDERR 5515)**

CAUSE The temporary file SDCMD which is used as the command buffer could not be opened. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5517 MESSAGE **Unable to write to command file SDCMD (SDERR 5517)**

CAUSE SDUTIL could not write to the temporary file SDCMD which is used as the command buffer. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5518 MESSAGE **Command file SDCMD is full (SDERR 5518)**

CAUSE SDUTIL could not write to the temporary file SDCMD which is used as the command buffer because it is full. The command being entered has too many lines (> 32000).

ACTION Correct the error causing > 32000 lines to be in the command and reissue the command.

5519 MESSAGE **Unable to open temporary file (SDERR 5519)**

CAUSE A nameless temporary file used by the program could not be opened. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5520 MESSAGE **Unable to rewind temporary file ! (SDERR 5520)**

CAUSE SDUTIL could not reset the file pointer of the specified temporary file to the beginning of the file. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5521 MESSAGE **Unable to reposition name file to record number ! (SDERR 5521)**

CAUSE SDUTIL could not reset the file pointer of the name file to the specified record number. Internal error.

	ACTION	Get the associated file error and notify the Dictionary Administrator.
5522	MESSAGE	**Unable to close temporary file ! (SDERR 5522)**
	CAUSE	SDUTIL could not close the specified temporary file. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5523	MESSAGE	**Unable to read from temporary file ! (SDERR 5523)**
	CAUSE	SDUTIL could not read from the specified temporary file. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5524	MESSAGE	**Temporary file ! is full (SDERR 5524)**
	CAUSE	SDUTIL could not write to the specified temporary file because it is full. Internal error.
	ACTION	Notify the Dictionary Administrator.
5525	MESSAGE	**Unable to write to temporary file ! (SDERR 5525)**
	CAUSE	SDUTIL could not write to the specified temporary file. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5526	MESSAGE	**Unexpected EOF while reading from temp file ! (SDERR 5526)**
	CAUSE	Encountered an unexpected EOF while reading from the specified temporary file. Internal error.
	ACTION	Notify the Dictionary Administrator.
5527	MESSAGE	**Unable to retrieve an MPE file error message (SDERR 5527)**
	CAUSE	A file system error occurred, but the associated message could not be retrieved through the FErrMsg Intrinsic. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5528	MESSAGE	**Unable to open the $STDINX file (SDERR 5528)**
	CAUSE	SDUTIL is unable to open the $STDINX file to read the prompt responses. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5529	MESSAGE	**Unable to close the $STDINX file (SDERR 5529)**
	CAUSE	The $STDINX file could not be closed. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5530	MESSAGE	**Unable to retrieve information about the $STDINX file (SDERR 5530)**
	CAUSE	SDUTIL is unable to retrieve information about the $STDINX file through the FGetInfo Intrinsic. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5531	MESSAGE	**Unable to read from the $STDINX file (SDERR 5531)**
	CAUSE	SDUTIL is unable to read prompt response from $STDINX. Internal error.
	ACTION	Get the associated file error and notify the Dictionary Administrator.
5532	MESSAGE	**Unable to retrieve information about the $STDLIST file (SDERR 5532)**
	CAUSE	SDUTIL is unable to retrieve information about the $STDLIST file through the FGetInfo Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5533 MESSAGE **Unable to retrieve information about the input file (SDERR 5533)**

CAUSE SDUTIL is unable to retrieve information about the input file through the FGetInfo Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5534 MESSAGE **Unable to set the End-Of-File marker in the temporary file (SDERR 5534)**

CAUSE SDUTIL is unable to set the End-Of-File marker in the temporary file through the FControl intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5535 MESSAGE **Unable to open file (SDERR 5535)**

CAUSE A file used by the program could not be opened. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5536 MESSAGE **Unable to retrieve information about file (SDERR 5536)**

CAUSE SDUTIL is unable to retrieve information about a file through the FGetInfo Intrinsic. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5537 MESSAGE **Unable to close file (SDERR 5537)**

CAUSE A file could not be closed. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5538 MESSAGE **Default the output file to $STDLIST (SDWARN 5538)**

CAUSE SDOUT cannot be opened or overwritten so the default for SDOUT will be $STDLIST.

ACTION If you do nothing, the output from the MERGE and PREVIEW commands will be written to $STDLIST. You can, instead, exit the program and use a file equate, directing the output as desired.

5539 MESSAGE **Output file is full (SDERR 5539)**

CAUSE An EOF was reached when writing a record to the output file SDOUT.

ACTION Specify a different file or $STDLIST for SDOUT before rerunning the utility.

5540 MESSAGE **Error while writing record to output file (SDERR 5540)**

CAUSE SDUTIL could not write to the output file SDOUT. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5541 MESSAGE **Command file is full (SDERR 5541)**

CAUSE An EOF was reached when writing a record to the command file SDMCOM.

ACTION Specify a different file for SDMCOM before rerunning the utility.

5542 MESSAGE **Error while writing record to command file (SDERR 5542)**

CAUSE SDUTIL could not write to the output file SDMCOM. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

Initialization Messages (5575-5599)

5575 MESSAGE **Unable to find the Banner message in the catalog (SDERR 5575)**

	CAUSE	The banner message could not be retrieved from the message catalog.
	ACTION	Ask the DA to get a new copy of the catalog with the banner message in it.
5576	MESSAGE	**The number is not a 16 bit integer (SDERR 5576)**
	CAUSE	The indicated number is greater than 32767.
	ACTION	Change the number so it is less than or equal to 32767.
	CAUSE	The indicated number is less than -32768.
	ACTION	Change the number so it is greater than or equal to -32768.
5577	MESSAGE	**Invalid character encountered (SDERR 5577)**
	CAUSE	A character not allowed in a number was found.
	ACTION	Remove the invalid character from the number.
5578	MESSAGE	**Invalid language number specified in the catalog (SDERR 5578)**
	CAUSE	The language number specified in the message catalog is invalid.
	ACTION	Ask the DA to get a new copy of the catalog with a valid language number.
5579	MESSAGE	**Abbreviation for command word ! is missing (SDERR 5579)**
	CAUSE	The abbreviation for the command word at the specified location in the message catalog is missing.
	ACTION	Ask the DA to get a new copy of the catalog with the missing abbreviation present.
5580	MESSAGE	**Command word with abbreviation ! is missing (SDERR 5580)**
	CAUSE	The command word at the specified location in the message catalog is missing.
	ACTION	Ask the DA to get a new copy of the catalog which includes the needed command word.
5581	MESSAGE	**Wild card character is missing (SDERR 5581)**
	CAUSE	A wild card character is missing from the message catalog.
	ACTION	Ask the DA to get a new copy of the catalog which includes the needed wild card character.
5582	MESSAGE	**Language number not configured onto the system (SDERR 5582)**
	CAUSE	The language number specified in the message catalog is not configured onto the system.
	ACTION	Ask the DA to configure the desired language number onto the system or change the language number in the message catalog to one which is already configured on the system.
5583	MESSAGE	**SDUTIL and Dictionary Intrinsics versions not compatible (SDERR 5583)**
	CAUSE	The version of the SDUTIL program and the System Dictionary Intrinsics are not compatible.
	ACTION	Ask the DA to get a new copy of the SDUTIL program that is compatible with the version of the intrinsics that is on the system.
5584	MESSAGE	**Default character is missing (SDERR 5584)**
	CAUSE	A default character is missing from the message catalog.
	ACTION	Ask the DA to get a new copy of the catalog which includes the needed default character.

Driver/Validator Messages (5600-5624)

5600	MESSAGE	**Exceeded maximum number of allowed errors (SDWARN 5600)**

CAUSE The program encountered the number of errors specified as the maximum in the PARM option.

ACTION Correct the error(s) found and either rerun or finish running the job.

5601 MESSAGE **Logging has been disabled (SDWARN 5601)**

CAUSE Logging has been disabled to prevent SDUTIL from overwriting an existing log file.

ACTION If you do nothing, nothing will be logged. You can, instead, exit the program and specify a new file or a file that can be overwritten as the log file.

CAUSE Logging has been disabled because the current log file has filled up and an alternate log file is not available.

ACTION If you do nothing, nothing will be logged. You can, instead, exit the program and specify a new file or a file that can be overwritten as the log file.

CAUSE Logging has been disabled because SDUTIL is unable to write to the log file.

ACTION If you do nothing, nothing will be logged. You can, instead, exit the program, refer to the associated file error and correct the indicated problem.

5602 MESSAGE **Logging proceeding onto a temporary log file (SDWARN 5602)**

CAUSE The permanent log file has been filled up. Logging has been redirected to a temporary log file with the same name as the permanent log file.

ACTION No action is necessary.

5603 MESSAGE **SDLOG is a temporary file. Save if needed (SDWARN 5603)**

CAUSE The log file was saved as a temporary file.

ACTION If the log file is not needed, no action is necessary. It will remain a temporary file. If the log file is needed, save it.

5604 MESSAGE **Expected End-Of-File NOT found in input file (SDERR 5604)**

CAUSE Unexpected input lines found in the input file after an EXIT command.

ACTION Remove the lines after the EXIT command or move the EXIT command to the end of the file.

(cont.)

5605 MESSAGE **Hit End-Of-File of input file before executed an EXIT (SDERR 5605)**

CAUSE SDUTIL has reached the end of the input file without finding an EXIT command.

ACTION Place an EXIT command at the end of the input file.

5606 MESSAGE **Invalid command (SDERR 5606)**

CAUSE The command entered is not recognized by the program.

ACTION Issue a command that is recognized by the program. Use HELP for a list of valid commands.

5607 MESSAGE **Command not valid when the dictionary is not open (SDERR 5607)**

CAUSE The command entered is not allowed before the dictionary is opened.

ACTION Issue a command that is valid before the dictionary is opened or open the dictionary and then issue the command.

5608 MESSAGE **Command generation has been disabled (SDWARN 5608)**

CAUSE The command file SDMCOM cannot be opened or overwritten, so command generation has been disabled.

ACTION If you want command generation, rerun SDUTIL with a good SDMCOM file. No action is necessary if you do not want command generation.

Scanner/Parser Messages (5625-5674)

5625	MESSAGE	**Missing close quote on a character string (SDERR 5625)**
	CAUSE	There is no closing quote on the character string specified.
	ACTION	Insert a closing quote in the specified location.
5626	MESSAGE	**Invalid character found (SDERR 5626)**
	CAUSE	A character not allowed in the local language was found.
	ACTION	Remove the indicated character from the command string.
5627	MESSAGE	**Name is too long (SDERR 5627)**
	CAUSE	The indicated name is greater than 32 characters.
	ACTION	Change the name so it is less than or equal to 32 characters.
5628	MESSAGE	**Invalid character for an MPE file name (SDERR 5628)**
	CAUSE	The indicated character is not allowed in an MPE filename.
	ACTION	Remove the invalid character from the filename.
5629	MESSAGE	**Text skipped from last error to here (SDWARN 5629)**
	CAUSE	Some of the input string was not processed in order to recover from the preceding error.
	ACTION	No action is necessary.
5630	MESSAGE	**Unexpected token for a value (SDERR 5630)**
	CAUSE	A keyword or option value was expected in the indicated position.
	ACTION	Insert the missing value or change the existing unexpected token into a valid value.
5631	MESSAGE	**Unexpected token: possible missing semicolon or comma (SDERR 5631)**
	CAUSE	The token indicated is not allowed in this position.
	ACTION	Review the command syntax and correct the entered command accordingly.
	CAUSE	A semicolon is expected before the indicated token to separate two keyword clauses.
	ACTION	Insert a semicolon before the indicated token.
	CAUSE	A comma is expected before the indicated token to separate the option value clause from the next option value clause.
	ACTION	Insert a comma before the indicated token.
	CAUSE	The indicated character string contains characters not allowed in a System Dictionary name and so must be placed within a pair of quotes.
	ACTION	Place a pair of quotes around the indicated character string.
	CAUSE	There is a token missing at the indicated position.
	ACTION	Review the command syntax and insert the needed token at the indicated position.
5632	MESSAGE	**Characters found after the end of the command (SDERR 5632)**
	CAUSE	Characters were found after the period ending the command.
	ACTION	Remove the extra characters that follow the period from the command.

5633 MESSAGE **A period was expected here (SDERR 5633)**

CAUSE No period was found to end the command.

ACTION Insert a period in the indicated location.

5634 MESSAGE **Equal expected (SDERR 5634)**

CAUSE An equal sign is expected at the indicated location.

ACTION Insert an equal sign in the indicated location.

5635 MESSAGE **Missing close parenthesis (SDERR 5635)**

CAUSE The closing parenthesis for the CONTROL list is missing.

ACTION Insert a closing parenthesis in the indicated location.

5636 MESSAGE **Bad character(s) after close parenthesis (SDERR 5636)**

CAUSE The character after the closing parenthesis must be either a period or a semicolon.

ACTION Check the command syntax and either remove the unexpected characters or insert the missing expected character.

5637 MESSAGE **Expected a filename (SDERR 5637)**

CAUSE An MPE filename was expected here.

ACTION Insert a valid filename in the specified location.

5638 MESSAGE **Invalid name (SDERR 5638)**

CAUSE The specified name value is invalid.

ACTION Correct the name value so it is valid.

5639 MESSAGE **Invalid name mode (SDERR 5639)**

CAUSE The specified name-mode value is invalid.

ACTION Correct the name-mode value so it is valid.

5640 MESSAGE **Invalid open mode (SDERR 5640)**

CAUSE The specified open-mode value is invalid.

ACTION Correct the open-mode value so it is valid.

5643 MESSAGE **Invalid version status (SDERR 5643)**

CAUSE The specified version status value is invalid.

ACTION Correct the version status value so it is valid.

5644 MESSAGE **Unexpected quoted value (SDERR 5644)**

CAUSE A quoted value is not allowed at the indicated position.

ACTION Specify a value for the indicated position that is not a quoted string.

5645 MESSAGE **Invalid keyword (SDERR 5645)**

CAUSE The indicated keyword is not one of the recognized keywords in the program.

ACTION Change the keyword to one recognized by the program. Use 'HELP command' for the valid keywords for the command.

5646 MESSAGE **Invalid keyword for this command (SDERR 5646)**

CAUSE The indicated keyword is not allowed in the current command.

ACTION Change the keyword to one which is valid for the command. Use 'HELP command' for the valid keywords for the command.

5647 MESSAGE **This keyword has already been specified in the command (SDERR 5647)**

CAUSE The indicated keyword has already been specified in the command.

ACTION Either combine the two clauses into one clause for the command if appropriate or remove the indicated keyword.

5648 MESSAGE **A value is expected (SDERR 5648)**

CAUSE A value is expected in the indicated position.

ACTION Enter an appropriate value at the indicated position.

5650 MESSAGE **There are characters after the REDO command (SDWARN 5650)**

CAUSE There are unexpected characters on the line after the REDO command.

ACTION No action is necessary since the characters will be ignored. The next time you enter a REDO command, do not enter extra characters.

5653 MESSAGE **Expected TRUE or FALSE (SDERR 5653)**

CAUSE A value other than TRUE or FALSE was specified.

ACTION Reenter the command specifying TRUE or FALSE as appropriate.

5656 MESSAGE **Invalid security option (SDERR 5656)**

CAUSE The specified security option is invalid.

ACTION Correct the invalid security option.

5657 MESSAGE **Invalid version conflict option (SDERR 5657)**

CAUSE The specified version conflict option is invalid.

ACTION Correct the invalid version conflict option.

5658 MESSAGE **Invalid name conflict option (SDERR 5658)**

CAUSE The specified name conflict option is invalid.

ACTION Correct the invalid name conflict option.

(cont.)

5659 MESSAGE **Invalid incompatible definition option (SDERR 5659)**

CAUSE The specified incompatible definition option is invalid.

ACTION Correct the invalid incompatible definition option.

5660 MESSAGE **Invalid attribute name (SDERR 5660)**

CAUSE The specified attribute name contains characters which are not valid in a System Dictionary name.

ACTION Reenter the attribute name using only characters which are allowed in System Dictionary names.

From / Merge-To Messages (5675-5699)

5675 MESSAGE **Both source and target open modes modified to new value (SDWARN 5675)**

CAUSE The source and target dictionaries were the same dictionary and were opened exclusively. Changing the open mode of either the source or the target causes it to be changed for both of them when this is the case.

ACTION No action is necessary.

5676 MESSAGE **Source and target both opened in EXCLUSIVE UPDATE mode (SDWARN 5676)**

CAUSE The source and target dictionaries are the same dictionary and exclusive update was specified as the open mode for one of them. This causes both the source and to be opened in exclusive the target update mode.

ACTION No action is necessary.

5677 MESSAGE **Source and target must be different in customization mode (SDERR 5677)**

CAUSE The source and the target dictionaries cannot be the same dictionary when customization is the open mode specified for either of them.

ACTION Change the dictionary which should not be in customization mode to a different dictionary before reentering the command.

5678 MESSAGE **Both VERSION and STATUS were specified. STATUS is ignored (SDWARN 5678)**

CAUSE Both the VERSION and STATUS keywords cannot be specified in the same command.

ACTION No action is necessary. The specified version will be used and the status ignored. The next time you open the dictionary, specify either a specific version, or a specific status to get the latest version with that status, but not both.

5679 MESSAGE **Quoted passwords cannot extend to multiple lines (SDERR 5679)**

CAUSE If the password is entered with quotes it must be entered on a single line.

ACTION Specify the password so the opening and closing quotes are on the same line.

5680 MESSAGE **Invalid scope password. Remember case counts (SDWARN 5680)**

CAUSE An invalid password has been entered in response to the scope password. Remember that System Dictionary distinguishes between uppercase and lowercase characters in a scope password prompt.

ACTION Specify the correct password for the scope.

5681 MESSAGE **Exceeded maximum tries for a valid scope password (SDERR 5681)**

CAUSE SDUTIL is unable to open the dictionary because the valid scope password was not specified within 3 tries.

ACTION Reenter the From or Merge-To command and specify the correct password for the scope.

5682 MESSAGE **Unexpected End-Of-File on $STDINX (SDERR 5682)**

CAUSE SDUTIL has reached the end of the file on $STDINX when trying to read the scope password. Internal error.

ACTION Notify the Dictionary Administrator.

5683 MESSAGE **Unable to turn the echo facility off (SDERR 5683)**

CAUSE SDUTIL is unable to turn the echo facility off through the FControl Intrinsic when prompting for the scope password. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5684 MESSAGE **Unable to turn the echo facility on (SDERR 5684)**

CAUSE SDUTIL is unable to turn the echo facility on through the FControl Intrinsic after prompting for the scope

password. Internal error.

ACTION Get the associated file error and notify the Dictionary Administrator.

5685 MESSAGE **Keyword ! ignored in customization mode (SDWARN 5685)**

CAUSE You specified customization mode and either the domain, version, or version status keyword, which cannot be used with customization.

ACTION Reenter the command without the incompatible keyword(s) or use a different open mode.

5687 MESSAGE **Unexpected error. Compile failed (SDERR 5687)**

CAUSE An unexpected error occurred while trying to close a newly created compiled dictionary.

ACTION Purge the compiled dictionary and redo the compile. Notify the Dictionary Administrator if a serious error is suspected.

Help Messages (5700-5724)

5700 MESSAGE **Expected a command or a period (SDERR 5700)**

CAUSE The characters after the HELP command must be either a command or a period.

ACTION Remove the unexpected characters and replace them with a command, a period or blanks.

5701 MESSAGE **Expected a period (SDERR 5701)**

CAUSE A period was expected in the indicated position.

ACTION Remove the unexpected characters and replace them with a period or blanks.

Redo Messages (5725-5749)

5725 MESSAGE **Cannot REDO a REDO command (SDERR 5725)**

CAUSE The REDO command cannot be used to edit a command into a REDO command.

ACTION Do not change the command being edited into REDO.

5726 MESSAGE **REDO only allowed when input is interactive (SDERR 5726)**

CAUSE The REDO command is only allowed when the program is run interactively. Input can be coming from $STDIN or from a redirected $STDIN.

ACTION Enter the entire command in the command file or batch job instead of trying to use REDO.

5727 MESSAGE **No command has been entered to REDO (SDERR 5727)**

CAUSE No command has been entered yet.

ACTION Enter a command other than REDO. REDO can then be used to reissue or correct the command entered.

5728 MESSAGE **Must break line before insert/append to prevent line overflow (SDERR 5728)**

CAUSE Together, the existing line and the string to be inserted will not fit on a single input line.

ACTION Break the existing line so the new line and the string to be inserted will fit on a single input line.

5729 MESSAGE **Bad command after delete (ignored) (SDERR 5729)**

CAUSE Unexpected characters were found on the line after the delete command.

ACTION No action is necessary since the characters will be ignored. The next time you enter the delete command, enter only valid characters after it. Delete can consist of a continuous string of one or more D's, or two single D's separated by blanks. The only other command allowed on the same line as a Delete is an Insert. Insert is

allowed after one of the two Delete 'strings'.

5730 MESSAGE **The entire command has been deleted (SDWARN 5730)**

CAUSE The entire command in the redo buffer has been deleted.

ACTION No action is necessary. Since the entire command was deleted, the REDO system returns to the command mode. The original command can be reedited or a new command can be issued.

5731 MESSAGE **Unexpected characters after REDO command (SDERR 5731)**

CAUSE There are unexpected characters on the line after a REDO command. Except for the Delete/Insert combination, only a single REDO command can be entered.

ACTION Reissue the command with only a single command on the line.

5732 MESSAGE + **and** - **NOT allowed in a number (SDERR 5732)**

CAUSE The numbers used to move within the redo buffer cannot involve a + or -.

ACTION Remove the + or - from the number specifying how far to move and simply use the appropriate command to specify direction (+ to move forward and - to move backward).

Miscellaneous Messages (5750-5799)

5750 MESSAGE **Catalog error ! encountered during catalog read (SDERR 5750)**

CAUSE An error was encountered while retrieving information from the message catalog. Internal error.

ACTION Get the catalog error number and notify the Dictionary Administrator.

5751 MESSAGE **Could not find message set ! in the catalog (SDERR 5751)**

CAUSE The indicated message set could not be found in the message catalog.

ACTION Ask the DA to get a new message catalog with the indicated set present.

5752 MESSAGE **Could not find message (set:number) ! in the catalog (SDERR 5752)**

CAUSE SDUTIL is unable to retrieve the indicated message in the indicated message set from the message catalog.

ACTION Ask the DA to get a new message catalog with the indicated message present.

5753 MESSAGE **Error message ! not found in the catalog. Catalog error ! (SDERR 5753)**

CAUSE The indicated error message could not be found in the message catalog.

ACTION Ask the DA to get a new copy of the message catalog with the indicated error message present.

5754 MESSAGE **Native language error (SDERR 5754)**

CAUSE An error was detected during a call to a Native Language Intrinsic. Internal error.

ACTION Notify the Dictionary Administrator.

5755 MESSAGE **Heap overflow. Command is too complex (SDERR 5755)**

CAUSE All of the available heap space in the program has been allocated. The command is too long and/or complex.

ACTION Simplify the command by breaking it into two or more pieces and reissue the pieces.

5756 MESSAGE **Library error ! encountered (SDERR 5756)**

CAUSE A Pascal error was encountered. Internal error.

ACTION Get the Library error number and notify the Dictionary Administrator.

5757 MESSAGE **MPE command is too long (SDERR 5757)**

CAUSE The entered MPE command is too long.

ACTION Limit the MPE command to 256 characters and reenter it.

5758 MESSAGE **Invalid MPE command (SDERR 5758)**

CAUSE The specified MPE command is not a legal MPE command.

ACTION Enter a legal MPE command.

CAUSE The specified MPE command is not allowed to be issued from within this program.

ACTION Enter an MPE command that can be issued through the Command Intrinsic.

5759 MESSAGE **MPE Executor error number ! (SDERR 5759)**

CAUSE An error was encountered while executing the MPE command.

ACTION Use the error number to look up the error for the specified command in the MPE Intrinsics Manual.

5760 MESSAGE **Error while retrieving ! list (SDERR 5760)**

CAUSE An error was encountered in the list intrinsic specified.

ACTION Notify the Dictionary Administrator.

5761 MESSAGE **Unexpected subsystem error (SDERR 5761)**

CAUSE An unexpected subsystem error occurred while compiling, purging or renaming a dictionary.

ACTION Notify the Dictionary Administrator.

5762 MESSAGE **Internal SDUTIL error (SDERR 5762)**

CAUSE An unexpected error occurred within SDUTIL.

ACTION Notify the Dictionary Administrator.

Merge Options Messages (5800-5824)

5800 MESSAGE **Variable length attributes exceed limit of 256 (SDERR 5800)**

CAUSE More than 256 variable length attributes were specified for the COMPARE-VAR-ATTR keyword.

ACTION Reenter the command with 256 or less variable length attributes.

5801 MESSAGE **Cannot get attribute ! (SDERR 5801)**

CAUSE There was an error retrieving the variable length attribute specified.

ACTION If the attribute does not exist in the source dictionary then reenter the MERGE-OPTIONS command with only variable length attributes which exist in the source dictionary. If it does exist then contact the DA.

5802 MESSAGE **Attribute ! is not variable data type (SDERR 5802)**

CAUSE The attribute indicated was included in the list of variable length attributes to be compared but is not a variable length attribute.

ACTION Remove the attribute from the list before reentering the MERGE-OPTIONS command.

General Preview/Merge Messages (5825-5849)

5825 MESSAGE **Native language difference between source and target (SDWARN 5825)**

CAUSE The source dictionary native language number is not the same as the target dictionary native language number.

ACTION No action is needed. In general, the source and target dictionaries should both have the same native language.

5826 MESSAGE **Scope must be DA for current security option (SDERR 5826)**

CAUSE A security option of COMPLETE was specified along with the source and target dictionaries being opened by the DA.

ACTION Either change the security option to something other than COMPLETE or open the source and target dictionaries with the DA scope.

5827 MESSAGE **Source and target dictionaries are the same. No structure merged (SDWARN 5827)**

CAUSE Since the source and target dictionaries are the same the structure is the same and there is no need to merge the structure.

ACTION No action is necessary.

5828 MESSAGE **Error while getting the internal / external name of version (SDERR 5828)**

CAUSE An error occurred while retrieving the internal or external name of the version specified in either the FROM or MERGE-TO command. Internal error.

ACTION Get the associated SD intrinsic error and notify the DA.

5829 MESSAGE **Error while getting the internal / external name of domain (SDERR 5829)**

CAUSE An error occurred while retrieving the internal or external name of the domain specified in either the FROM or MERGE-TO command. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

(cont.)

5830 MESSAGE **Error while switching to source common domain or version (SDERR 5830)**

CAUSE An error occurred while trying to switch the source dictionary into the common domain or version. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5831 MESSAGE **Error while switching to source local domain or version (SDERR 5831)**

CAUSE An error occurred while trying to switch the source dictionary into the local domain or version. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5832 MESSAGE **Version of specified status does not exist (SDERR 5832)**

CAUSE No version of the status specified in the MERGE-TO command exists.

ACTION Specify either a specific version or a status of which there is a version which exists. Notify the Dictionary Administrator if a serious error is suspected.

5833 MESSAGE **Error while creating version in the common domain (SDERR 5833)**

CAUSE An error occurred while creating a new version in the common domain of the target dictionary.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5834 MESSAGE **Error while getting the internal / external name of common version (SDERR 5834)**

CAUSE An error occurred while retrieving the internal or external name of the common version specified in either

the MERGE-TO command. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

5835 MESSAGE **Error while retrieving version ! (SDERR 5835)**

CAUSE Error while trying to get target version. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5836 MESSAGE **Error while creating new target version (SDERR 5836)**

CAUSE An error occurred while creating a new version in the target dictionary.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5837 MESSAGE **Error while linking target version to common version (SDERR 5837)**

CAUSE An error occurred while trying to link the target version to a version in the common domain.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5838 MESSAGE **Target version is not in test status (SDERR 5838)**

CAUSE The target version for a merge must be in TEST status.

ACTION Either change the status of the version to TEST through SDMAIN or specify a new version or one which is in test status in the MERGE-TO command.

5839 MESSAGE **Target version already linked. Common version ignored (SDWARN 5839)**

CAUSE A common version was specified in the MERGE-TO command but the target version was already linked so no change in linking of version was done.

ACTION No action is necessary.

5840 MESSAGE **Cannot merge a version into itself (SDERR 5840)**

CAUSE The dictionary, domain, and version specified for the source are the same ones specified for the target.

ACTION Reenter either the FROM command, specifying at least one different value for the source, or the MERGE-TO command, specifying at least one different value for the target.

(cont.)

5841 MESSAGE **Merge terminating due to previous failed switch to CUSTOMIZATION open mode (SDERR 5841)**

CAUSE There are structure differences between the source and target dictionaries and the target could not be switched to CUSTOMIZATION.

ACTION Wait until you have exclusive access to the target dictionary before requesting a merge which will require structure updates.

5843 MESSAGE **Error while switching scope (SDERR 5843)**

CAUSE An error occurred while using the SDSwitchScope intrinsic.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5844 MESSAGE **Error while switching to target common domain or version (SDERR 5844)**

CAUSE An error occurred while trying to switch the target dictionary into the common domain or version. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5845 MESSAGE **Error while switching to target local domain or version (SDERR 5845)**

CAUSE An error occurred while trying to switch the target dictionary into the local domain or version. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5846 MESSAGE **Merging done by SDCopyVersion intrinsic. No report generated (SDWARN 5846)**

CAUSE The target version is a new version created by SDUTIL in the same dictionary and domain as the source version. Therefore the SDCopyVersion intrinsic is used to do the merge to save time and no merge report will be generated.

ACTION No action is necessary.

5847 MESSAGE **Error while calling SDCopyVersion intrinsic (SDERR 5847)**

CAUSE An error occurred while calling the SDCopyVersion intrinsic.

ACTION Notify the Dictionary Administrator.

Merge Security Messages (5850-5874)

5850 MESSAGE **Error while modifying scope ! (SDERR 5850)**

CAUSE An error occurred while modifying scope indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5851 MESSAGE **Error while creating scope ! (SDERR 5851)**

CAUSE An error occurred while creating scope indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5852 MESSAGE **Could not get scope rights or password for ! (SDERR 5852)**

CAUSE An error occurred while getting the scope rights or password for the scope indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

Merge Structure Messages (5875-5899)

5875 MESSAGE **Could not get attribute parameters for ! (SDERR 5875)**

CAUSE An error occurred while getting the data type and length for the attribute indicated.

ACTION Notify the Dictionary Administrator.

5876 MESSAGE **Could not get source edit values for attribute ! (SDERR 5876)**

CAUSE An error occurred while getting the source edit values for the attribute indicated.

ACTION Notify the Dictionary Administrator.

5877 MESSAGE **Could not get target edit values for attribute ! (SDERR 5877)**

CAUSE An error occurred while getting the target edit values for the attribute indicated.

ACTION Notify the Dictionary Administrator.

5878 MESSAGE **Error while creating attribute ! (SDERR 5878)**

CAUSE An error occurred while creating attribute indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5879 MESSAGE **Error while modifying attribute ! (SDERR 5879)**

CAUSE An error occurred while modifying the length or edit values of the attribute indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5880 MESSAGE **Error while adding attribute ! to entity type attribute list (SDERR 5880)**

CAUSE An error occurred while adding the attribute indicated to an entity type attribute list.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5881 MESSAGE **Error while creating entity type ! (SDERR 5881)**

CAUSE An error occurred while creating entity type indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5882 MESSAGE **Error while creating relationship class ! (SDERR 5882)**

CAUSE An error occurred while creating relationship class indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5883 MESSAGE **Error while creating relationship type (SDERR 5883)**

CAUSE An error occurred while creating a relationship type.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5884 MESSAGE **Error while adding attribute to rel type attribute list (SDERR 5884)**

CAUSE An error occurred while adding the attribute indicated to a relationship type attribute list.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

5885 MESSAGE **Any required structure changes will terminate the merge process (SDERR 5885)**

CAUSE The target dictionary could not be switched to CUSTOMIZATION open mode to merge the structure.

ACTION If no structure changes are needed then no action is necessary. If, however, there are differences between the structure of the source and target dictionaries, you must wait until you have exclusive access to the target dictionary before merging the dictionary.

5886 MESSAGE **Target dictionary not opened in an update mode (SDERR 5886)**

CAUSE The target dictionary is not opened in an update mode, which is necessary to do a merge.

ACTION Change the target dictionary open mode using the MERGE-TO command.

Scope Entity Messages (5950-5999)

5950 MESSAGE **Error while getting scope owner of entity (SDERR 5950)**

CAUSE An error occurred while getting the scope owner of an entity.

ACTION Notify the Dictionary Administrator.

5951 MESSAGE **Error while getting scope list associated to entity (SDERR 5951)**

CAUSE An error occurred while getting the list of scopes associated to an entity.

ACTION Notify the Dictionary Administrator.

5952 MESSAGE **Error while retrieving scope entity association (SDERR 5952)**

CAUSE An error occurred while getting a scope entity association.

ACTION Notify the Dictionary Administrator.

5953 MESSAGE **Error while associating scope to entity (SDERR 5953)**

CAUSE An error occurred while associating a scope to an entity.

ACTION Notify the Dictionary Administrator.

5954 MESSAGE **Error while modifying scope owner of entity (SDERR 5954)**

CAUSE An error occurred while modifying the scope owner of an entity.

ACTION Notify the Dictionary Administrator.

Merge Entity Messages (6000-6074)

6000 MESSAGE **Error while getting entity type list (SDERR 6000)**

CAUSE An error occurred while calling SDGetEntTypeList intrinsic. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6001 MESSAGE **Error while getting entity type (SDERR 6001)**

CAUSE An error occurred while calling SDGetEntType intrinsic. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6002 MESSAGE **Error while getting attributes associated to entity type (SDERR 6002)**

CAUSE An error occurred while calling SDGetEntTypeAttrList intrinsic. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6003 MESSAGE **Error while getting source common entity (SDERR 6003)**

CAUSE An error occurred while calling the SDGetEnt intrinsic to get the source common entity. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6004 MESSAGE **Error while modifying entity ! (SDERR 6004)**

CAUSE An error occurred while modifying the entity indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6005 MESSAGE **Error while creating entity ! (SDERR 6005)**

CAUSE An error occurred while creating the entity indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Adminis-

trator if a serious error is suspected.

6006 MESSAGE **Error while getting entity primary name (SDERR 6006)**

CAUSE An error occurred while getting the primary name of an entity. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6007 MESSAGE **Error while retrieving entity from list (SDERR 6007)**

CAUSE An error occurred while calling SDGetEntList intrinsic. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6008 MESSAGE **Error while retrieving synonym from list (SDERR 6008)**

CAUSE An error occurred while calling SDGetSynonymList intrinsic. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6009 MESSAGE **Error while creating synonym (SDERR 6009)**

CAUSE An error occurred while calling SDCreateSynonym intrinsic. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6010 MESSAGE **Error while retrieving variable length attribute value (SDERR 6010)**

CAUSE An error occurred while retrieving the value of a variable length attribute. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6011 MESSAGE **Error while creating variable length attribute value (SDERR 6011)**

CAUSE An error occurred while creating a value for a variable length attribute. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6012 MESSAGE **Error while deleting variable length attribute value (SDERR 6012)**

CAUSE An error occurred while deleting a value for a variable length attribute. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6013 MESSAGE **Error while getting target common entity (SDERR 6013)**

CAUSE An error occurred while calling the SDGetEnt intrinsic to get the target common entity. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6014 MESSAGE **Error while modifying common entity ! (SDERR 6014)**

CAUSE An error occurred while modifying the common entity indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6015 MESSAGE **Error while removing common link from entity ! (SDERR 6015)**

CAUSE An error occurred while removing the common link from the indicated entity.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6016 MESSAGE **Error while linking entity ! to common entity (SDERR 6016)**

CAUSE An error occurred while linking the indicated entity to a common entity.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6017 MESSAGE **Error while modifying different length attribute (SDERR 6017)**

CAUSE An error occurred while modifying the value of a fixed length attribute which has a different length in the source than the target dictionary.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6018 MESSAGE **Current scope cannot modify common entity ! (SDERR 6018)**

CAUSE The logon scope of the target dictionary does not have modify access to the common entity indicated.

ACTION None necessary. An attempt will be made by SDUTIL to modify the local occurrence instead.

6019 MESSAGE **Current scope cannot modify local entity ! (SDERR 6019)**

CAUSE The logon scope of the target dictionary does not have modify access to the local entity indicated.

ACTION Log on to the target dictionary with a scope which gives you modify access to the entities desired.

6020 MESSAGE **Error while creating common entity ! (SDERR 6020)**

CAUSE An error occurred while creating the common entity indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6021 MESSAGE **Error while modifying ID-NUMBER and/or SENSITIVITY for entity ! (SDERR 6021)**

CAUSE An error occurred while modifying the SENSITIVITY and/or ID-NUMBER of the entity indicated.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6022 MESSAGE **Blank is not valid System Dictionary name (SDERR 6022)**

CAUSE A carriage return was entered in response to a prompt for a new name for an entity.

ACTION Respond to the prompt with a valid System Dictionary name.

6023 MESSAGE **Current scope cannot link local entity ! (SDERR 6023)**

CAUSE The current scope is not the owner of the local entity. Therefore, no link can be established to a common entity.

ACTION Log on as the scope which owns the specified entity and redo the merge.

6024 MESSAGE **Error while getting source entity (SDERR 6024)**

CAUSE An error occurred while calling the SDGetEnt intrinsic to get the source entity. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6025 MESSAGE **Error while getting target entity (SDERR 6025)**

CAUSE An error occurred while calling the SDGetEnt intrinsic to get the target entity. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

Scope Relationship Messages (6075-6099)

6075	MESSAGE	**Error while retrieving scope relationship association (SDERR 6075)**
	CAUSE	An error occurred while getting a scope relationship association.
	ACTION	Notify the Dictionary Administrator.
6076	MESSAGE	**Error while getting scope list associated to relationship (SDERR 6076)**
	CAUSE	An error occurred while getting the list of scopes associated to an relationship.
	ACTION	Notify the Dictionary Administrator.
6077	MESSAGE	**Error while associating scope to relationship (SDERR 6077)**
	CAUSE	An error occurred while associating a scope to a relationship.
	ACTION	Notify the Dictionary Administrator.
6078	MESSAGE	**Error while getting scope owner of relationship (SDERR 6078)**
	CAUSE	An error occurred while getting the scope owner of an relationship.
	ACTION	Notify the Dictionary Administrator.
6079	MESSAGE	**Error while modifying scope owner of relationship (SDERR 6079)**
	CAUSE	An error occurred while modifying the scope owner of an relationship.
	ACTION	Notify the Dictionary Administrator.

Merge Relationship Messages (6100-6149)

6100	MESSAGE	**Error while getting relationship class list (SDERR 6100)**
	CAUSE	An error occurred while calling SDGetRelClassList intrinsic. Internal error.
	ACTION	Get the associated SD intrinsic error and notify the Dictionary Administrator.
6101	MESSAGE	**Error while getting relationship type list (SDERR 6101)**
	CAUSE	An error occurred while calling SDGetRelTypeList intrinsic. Internal error.
	ACTION	Get the associated SD intrinsic error and notify the Dictionary Administrator.
6102	MESSAGE	**Error while getting relationship list (SDERR 6102)**
	CAUSE	An error occurred while calling SDGetRelList intrinsic. Internal error.
	ACTION	Get the associated SD intrinsic error and notify the Dictionary Administrator.
6104	MESSAGE	**Error while creating relationship (SDERR 6104)**
	CAUSE	An error occurred while creating a relationship.
	ACTION	Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.
6105	MESSAGE	**Error while modifying relationship (SDERR 6105)**
	CAUSE	An error occurred while modifying a relationship.
	ACTION	Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6106 MESSAGE **Error while retrieving variable length attribute value (SDERR 6106)**

CAUSE An error occurred while retrieving the value of a variable length attribute. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6107 MESSAGE **Error while creating variable length attribute value (SDERR 6107)**

CAUSE An error occurred while creating a value for a variable length attribute. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6108 MESSAGE **Error while getting target common relationship (SDERR 6108)**

CAUSE An error occurred while calling the SDGetRel intrinsic to get the target common relationship. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6109 MESSAGE **Error while modifying common relationship (SDERR 6109)**

CAUSE An error occurred while modifying a common relationship.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6110 MESSAGE **Error while creating common relationship (SDERR 6110)**

CAUSE An error occurred while creating a common relationship.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6111 MESSAGE **Current scope cannot modify common relationship (SDERR 6111)**

CAUSE The logon scope of the target dictionary does not have modify access to a common relationship.

ACTION None necessary. An attempt will be made by SDUTIL to modify the local occurrence instead.

6112 MESSAGE **Current scope cannot modify local relationship (SDERR 6112)**

CAUSE The logon scope of the target dictionary does not have modify access to a local relationship.

ACTION Log on to the target dictionary with a scope which gives you modify access to the entities desired.

6113 MESSAGE **Error while linking relationship to common relationship (SDERR 6113)**

CAUSE An error occurred while linking a relationship to a common relationship.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6114 MESSAGE **Error while modifying RELATIONSHIP-POSITION and/or SENSITIVITY (SDERR 6114)**

CAUSE An error occurred while modifying the RELATIONSHIP-POSITION and/or SENSITIVITY of the relationship.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6115 MESSAGE **Error while getting attributes associated to relationship type (SDERR 6115)**

CAUSE An error occurred while calling SDGetRelTypeAttrList intrinsic. Internal error.

ACTION Get the associated SD intrinsic error and notify the Dictionary Administrator.

6116 MESSAGE **Current scope cannot link local relationship. (SDERR 6116)**

CAUSE The current scope is not the owner of the relationship. Therefore, no link can be established to a common relationship.

ACTION Log on as the scope which owns the specified relationship and redo the merge.

6117 MESSAGE **Error while getting source relationship. (SDERR 6117)**

CAUSE An error occurred while calling the SDGetRel intrinsic to get the source relationship. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

6118 MESSAGE **Error while getting target relationship. (SDERR 6118)**

CAUSE An error occurred while calling the SDGetRel intrinsic to get the target relationship. Internal error.

ACTION Look at the associated SD intrinsic error message to determine the reason. Notify the Dictionary Administrator if a serious error is suspected.

Compile Messages (6150-6199)

6150 MESSAGE **Source dictionary not opened exclusively (SDERR 6150)**

CAUSE The source dictionary for a compile must be opened in EXCLUSIVE-UPDATE, READ-ALLOW-READ or CUSTOMIZATION.

ACTION Reissue the FROM command with a correct open mode.

6151 MESSAGE **No compiled dictionary specified (SDERR 6151)**

CAUSE No dictionary was specified to compile.

ACTION Issue the COMPILE-TO command before compiling.

6153 MESSAGE **Error while beginning compiled dictionary (SDERR 6153)**

CAUSE An error occurred while beginning the compile process. Internal error.

ACTION Notify the Dictionary Administrator.

6154 MESSAGE **Error while compiling dictionary (SDERR 6154)**

CAUSE An error occurred during the compile process. Internal error.

ACTION Notify the Dictionary Administrator.

Miscellaneous Warning Messages (6200-6249)

6200 MESSAGE **Target version ! already exists (SDWARN 6200)**

CAUSE The version specified in the MERGE-TO command already exists.

ACTION No action is necessary. The VERSION-CONFLICT option will determine how it is handled.

6201 MESSAGE **New version name will be prompted for (SDWARN 6201)**

CAUSE A new version name will be prompted for during the actual merge process.

ACTION No action is necessary.

6202 MESSAGE **Exiting program due to version conflict (SDWARN 6202)**

CAUSE The version specified in the MERGE-TO command already exists and EXIT was specified as the VERSION-CONFLICT option.

ACTION No action is necessary.

6204 MESSAGE **Version skipped due to conflict (SDWARN 6204)**

CAUSE The version specified in the MERGE-TO command already exists and SKIP was the VERSION-CONFLICT option specified.

ACTION No action is necessary.

6205 MESSAGE **Exiting program due to incompatible definition (SDWARN 6205)**

CAUSE A definition has been found which is incompatible and the value of the INCOMPATIBLE-DEFINITION option is EXIT.

ACTION No action is necessary.

6206 MESSAGE **Merge terminating due to name conflict (SDWARN 6206)**

CAUSE An external name conflict has been found while creating a new occurrence and the value of the NAME-CONFLICT option is TERMINATE.

ACTION No action is necessary.

6207 MESSAGE **Exiting program due to name conflict (SDWARN 6207)**

CAUSE An external name conflict has been found while creating a new occurrence and the value of the NAME-CONFLICT option is EXIT.

ACTION No action is necessary.

6208 MESSAGE **Occurrence skipped due to incompatible definition (SDWARN 6208)**

CAUSE A definition has been found which is incompatible and the value of the INCOMPATIBLE-DEFINITION option is SKIP.

ACTION No action is necessary.

6209 MESSAGE **Merge terminating due to incompatible definition (SDWARN 6209)**

CAUSE A definition has been found which is incompatible and the value of the INCOMPATIBLE-DEFINITION option is TERMINATE.

ACTION No action is necessary.

6210 MESSAGE **Name too long. Truncated to 32 characters (SDWARN 6210)**

CAUSE A name entered in response to a new name prompt was longer than 32 characters and was truncated.

ACTION No action is necessary.

6211 MESSAGE **Entity skipped due to name conflict (SDWARN 6211)**

CAUSE An external name conflict has been found while creating a new entity, and the value of the NAME-CONFLICT option is SKIP.

ACTION No action is necessary.

Miscellaneous Dictionary Messages (6300-6399)

6300 MESSAGE **File not a compiled dictionary (SDERR 6300)**

CAUSE The dictionary specified is not a compiled dictionary and must be for the current operation.

ACTION Specify a compiled dictionary.

6301 MESSAGE **Dictionary not a master dictionary (SDERR 6301)**

CAUSE The dictionary specified is not a master dictionary and must be for the current operation.

	ACTION	Specify a master dictionary.
6302	MESSAGE	**File not a dictionary (SDERR 6302)**
	CAUSE	The file specified is not a dictionary.
	ACTION	Specify either a master or compiled dictionary.
6303	MESSAGE	**Remote dictionary not allowed (SDERR 6303)**
	CAUSE	Remote dictionary access is not allowed for the current operation.
	ACTION	Specify a local dictionary.
6304	MESSAGE	**Dictionary file already exists (SDERR 6304)**
	CAUSE	The target file name that you specified for either the compiled dictionary or to rename an existing compiled dictionary to already exists.
	ACTION	Specify a dictionary file name that does not already exist.
6305	MESSAGE	**Exceed maximum compiled dictionary versions (SDERR 6305)**
	CAUSE	Have exceeded the maximum number of versions allowed in a compiled dictionary.
	ACTION	Do not compile any more versions into the compiled dictionary.
6306	MESSAGE	**Version already in compiled dictionary (SDERR 6306)**
	CAUSE	The current version is already in the compiled dictionary being generated.
	ACTION	Either specify a version that is not already in the compiled dictionary, compile the current dictionary as is, or specify a different compiled dictionary.
6307	MESSAGE	**Dictionary name too long (SDERR 6307)**
	CAUSE	The dictionary name specified is longer than six characters.
	ACTION	Specify a dictionary name with one to six characters.

G SDUTIL Command Abbreviations

SDUTIL allows users to abbreviate key words and commands when entering them. These abbreviations provide a short-hand for specifying commands in SDUTIL. Most command words in SDUTIL have an abbreviated form. The following are some major points about abbreviations:

- They consist of from one to five characters
- They are unique within each command set
- They can be localized in the message catalog just like the command words
- They can be used anywhere the equivalent command word can be used

A complete list of SDUTIL abbreviations appears below:

SDUTIL Word	Abbreviation
Boolean	
TRUE	T
FALSE	F
Command	
COMMENT	COM
COMPILE	C
COMPILE-OPTIONS	COP
COMPILE-TO	CT
EXIT	E
FROM	F
HELP	H
MERGE	M
MERGE-OPTIONS	MOP
MERGE-TO	MT
PREVIEW	PREV
PURGE	PUR
REDO	REDO
RENAME	REN
SHOW	SH

SDUTIL Word	Abbreviation
Options	
ACCESSIBLE	A
COMPLETE	C
EXIT	E
MERGE	M
NEW	N
OWNED	O
PROMPT	P
REPLACE	R
SKIP	S
TERMINATE	T
Keyword	
COMMON	C
COMPARE-VAR-ATTR	CVA
COMPLETE-STRUCTURE	CS
DICTIONARY	DICT
DOMAIN	D
INCLUDE-VAR-ATTR	IVA
INCOMPATIBLE-DEFINITION	ID
LINK	L
NAME-CONFLICT	NC
NAME-MODE	NM
OPEN-MODE	OM
PASSWORD	P
SCOPE	S
SECURITY	SEC
STATUS	STAT
STRUCTURE-ONLY	SO
VERSION	V
VERSION-CONFLICT	VC
Open Mode	
READ-ONLY	RO
READ-ALLOW-READ	RAR
SHARED-UPDATE	SU
EXCLUSIVE-UPDATE	EU
CUSTOMIZATION"	CU
Name Mode	
INTERNAL	INT
EXTERNAL	EXT

SDUTIL Word	Abbreviation
Response	
YES	Y
NO	N
Status	
TEST	T
PRODUCTION	P
ARCHIVAL	A