
1 Preface

This chapter contains a brief description of RSOSERVE, explains the structure of the manual and describes the changes made since the last version of RSOSERVE.

1.1 Brief product description

The RSOSERVE utility routine supports the following functions:

- general management of RSO printers
 - management of loop records
 - adapting selected loop records from an NDFILE to an RSOFILE and vice versa
 - management of character image tables
 - management of translation tables
- management of different RSO printers:
 - management of character sets and fonts for all printer types
 - additionally, management of character sets, member files, directories and device records for the 9025 and 9026-RENO printer types (not possible for printers defined with DEVICE-ACCESS=TCP-ACCESS)
 - additionally, management of band IDs for 9645 Printers
- output of the different record types from the RSOFILES and the \$SYSSPOOL.SYSPAR.RSO.030.USER file
- transfer of individual records (band IDs, character images, loops and translation tables) from one RSOFILE to another

The records and tables are stored in the user RSOFILES and/or system RSOFILES, or in the \$SYSSPOOL.SYSPAR.RSO.030.USER file. For details, refer to the individual function masks.

The above functions are supported by RSOSERVE in interactive mode (menu-driven).

RSOSERVE also supports batch mode. Loop records, character images, translation tables and band IDs can be managed in this mode. Batch mode is available for batch jobs or procedures.

1.2 Summary of contents

The manual comprises four chapters and an appendix:

- Chapter "Preface"
Contains a brief description of RSOSERVE, with information on the structure of the manual and the changes made since the last version of RSOSERVE.
- Chapter "General information on RSOSERVE"
Provides information on starting RSOSERVE, on the RSOSERVE file structure and on data security and access rights.
- Chapter "Interactive mode"
Describes management and control of RSO printers using RSOSERVE interactive mode.
- Chapter "Batch mode"
Describes management and control of RSO printers using RSOSERVE batch mode.
- Appendix on "SDF syntax representation"
Describes the syntax representation used for SDF commands in the manual.

Literature references in the text are in abbreviated form. The complete title of each publication referred to can be found in the "References" section at the back of the manual, accompanied by a brief note on how to order manuals. The "References" section is followed by an index.

Note:

The old term "system administration" is still used in this manual for the concept of systems support.

1.3 Target group

This manual address system administration (systems support) of BS2000/OSD systems, the SPOOL administrator (BS2000/OSD-BC V2.0 and higher), the RSO device administrator and users of RSO printers.

1.4 Changes since the last version of the manual

General changes and additions

General adaptation to RSO V3.0A, SPOOL V3.0B, SPSERVE V2.0B and Distributed Print Services V1.0B.

Specific changes and additions

RSOSERVE now permits the import of fonts from a BS2000 file to the file named SYSPAR.RSO.030.USER. Export of fonts to a BS2000 file is also possible.

1.5 README file

Information on any functional changes and additions to the current product version described in this manual can be found in the product-specific README file. You will find the README file on your BS2000 computer under the file name SYSRME.product.version.language. The user ID under which the README file is cataloged can be obtained from your system administrator. You can view the README file using the /SHOW-FILE command or an editor, and print it out on a standard printer using the following command:

```
/PRINT-DOCUMENT FROM-FILE=filename,DOCUMENT-FORMAT=*TEXT(  
LINE-SPACING=BY-EBCDIC-CONTROL)
```

2 General information on RSOSERVE

This chapter describes the following topics:

- starting RSOSERVE
- file structure of RSOSERVE
- measures ensuring that data sensitive to RSOSERVE are adequately protected against unauthorized access

2.1 Starting RSOSERVE

The RSOSERVE utility routine can run either in interactive or batch mode.

The commands START-RSOSERVE and START-PROGRAM are available to start RSOSERVE.

Interactive mode or batch mode?

Before you start RSOSERVE, you must decide whether you want to work in interactive or batch mode.

To make your selection, you must correctly set job switch 1 before calling RSOSERVE.

RSOSERVE prompts for this job switch in order to distinguish between interactive mode and batch mode:

If the switch is set to 'ON', batch mode is activated.

If the switch is set to 'OFF', interactive mode is activated.

You set job switches using the MODIFY-JOB-SWITCHES command.

For example, to start RSOSERVE in batch mode, enter the following command:

```
MOD-JOB-SW ON=1
```

When RSOSERVE is called in interactive mode, the main mask MLORMAIN is displayed on screen (see page 25).

When RSOSERVE is called in batch mode, the character ,*' is displayed on screen.

Commands for starting RSOSERVE

The RSOSERVE utility routine can be started in one of two ways:

- using the command /START-PROGRAM FROM-FILE=\$RSOSERVE (for further details see „Commands“ manual [4])
- using the command /START-RSOSERVE that has the following main operands:

START-RSOSERVE
VERSION = *STD / <text 4..7> ,MONJV = *NONE / <full-filename 1..54 without-gen-vers> ,CPU-LIMIT = *JOB-REST / <integer 1..32767> ,PROGRAM-MODE = *ANY / 24 ,SHARE-SCOPE = *SYSTEM / *NONE

Description of the operands:

VERSION =

Specifies the element version. Permitted only for a program library (element type R or L).

VERSION = *STD

The default value for the highest element version in the case of program libraries is assumed (see manual „LMS“ [10]).

VERSION = <text 4..7>

Explicit specification of the element version.

MONJV = *NONE / <full-filename 1..54 without-gen-vers>

Name of the JV to monitor the program.

The system sets the JV to appropriate values during program execution:

\$R Program is running
 \$T Program terminated normally
 \$A Program terminated abnormally

This operand is available only to users with the JV software product (see also manual „Job Variables“ [9]).

CPU-LIMIT = *JOB-REST / <integer 1..32767 seconds>

Maximum CPU time in seconds that the program may use when executing.

If the job was started without a time limit (CPU-LIMIT=*NO), the program *also runs without a time limit* (entry is ignored)!

If program execution exceeds the specified time, the program is interrupted in the interactive dialog and the message EXC0075 is issued. The user can then request a dump, or abort or continue the program. If the program includes an STXIT routine for reaching the CPU limit, this routine is run and the program is terminated.

In batch mode the program is terminated.

CPU-LIMIT = *JOB-REST

Default:

If the job was started with a time limit, the value defined as the time limit for the program at system generation is used. Otherwise the program runs without a time limit.

PROGRAM-MODE = *ANY / 24

Specifies to which part of the address space (above or below 16 MBytes) RSOSERVE is to be loaded. Relevant only for XS systems.

PROGRAM-MODE = *ANY

RSOSERVE can be loaded above or below 16 MBytes.

PROGRAM-MODE = 24

RSOSERVE is loaded below 16 MBytes. The program is executed in 24-bit addressing mode. External references are interpreted as 24-bit addresses.

SHARE-SCOPE = *SYSTEM / *NONE

Specifies whether and which part of shared code is to be included in the search for modules of the load unit and for unresolved external references.

SHARE-SCOPE = *SYSTEM

Only shared code made available in class-4 memory is included in the search.

SHARE-SCOPE = *NONE

Shared code is not included in the search.

2.2 File structure

The RSO parameter files are distributed over five different files:

- SYSPAR.RSO.030.SYSTEM
- SYSPAR.RSO.030.CORR
- SYSPAR.RSO.030.WORK
- SYSPAR.RSO.030.USER
- SYSPAR.RSO.030

As of RSO V2.4 or higher, the RSO selectable units can be installed at any location using the IMON installation monitor. The files may therefore be located under a user ID other than SYSSPOOL (see also the chapter entitled „The RSO Concept“ in the manual „Remote SPOOL Output“ [14]).

The RSOSERVE utility routine accesses the SYSPAR.RSO.030.USER file, which contains the relevant information for device management.

The records defined by the user for printout are stored in the corresponding RSOFILES (system RSOFILE, user RSOFILES).

The meaning of the different files is described in detail in the chapter „The RSO Concept“ in the manual „Remote SPOOL Output“ [14].

In interactive operation of the RSOSERVE utility routine, the masks are read by FHS from the \$SYSSPOOL.SYSFHS.RSOSERVE.030 file. The link with these files is established by RSOSERVE by way of an automatic link call. The corresponding link name is "MAPLIB". If this link name is already in use by the user when RSOSERVE is called and is assigned to other files, these declarations remain in effect and RSOSERVE is unable to construct the masks. In this case the user must explicitly clear the existing links (REMOVE-FILE-LINK command).

When accessing already existing files, RSOSERVE uses the block size registered in the file catalog. When creating new files, a block size of 4 Kbytes is selected.

2.3 Data security and access rights

This section explains the measures that ensure that sensitive data - as understood by RSOSERVE - is adequately protected against unauthorized access.

System RSOFIL

The system RSOFIL should be assigned a write password or the attribute ACCESS=READ; access must be available to all user IDs (USER-ACCESS=SPECIAL):

```
MODIFY-FILE-ATTRIBUTES $TSOS.RSOFIL,PROTECTION=PARAM(ACCESS=READ, -
    USER-ACCESS=SPECIAL)
```

or

```
MODIFY-FILE-ATTRIBUTES $TSOS.RSOFIL,PROTECTION=PARAM(ACCESS=WRITE, -
    USER-ACCESS=SPECIAL,WRITE-PASSWORD=c' ')
```

If these measures are applied, the following user accesses are possible:

Data type	System administrator	User
BAND-ID	R / W	R
CHARACTER-IMAGE	R / W	R
LOOP	R / W	R
TRANSLATION-TABLE	R / W	R

R (Read) comprises the actions: SHOW, COPY

W (Write) comprises the actions: ADD, MODIFY, REMOVE

Notes

- If the file is protected by ACCESS=READ, the SPOOL administrator likewise only has write access after the file has been reset to ACCESS=WRITE. It should be noted here that other users also have write access to the file until ACCESS=READ is set again.
- If the file is protected by ACCESS=WRITE,WRITE-PASSWORD=c'...', the SPOOL administrator and other user IDs knowing the password only have write access after specifying the password by means of the ADD-PASSWORD command.
- As of RSO V2.4 or higher, the RSO selectable units can be installed at any location using the IMON installation monitor. The system RSOFIL may therefore be located under a user ID other than TSOS (see also the manual „Remote SPOOL Output“ [14]).

\$SYSSPOOL.SYSPAR.RSO.030.USER file

This file should be assigned an execute password (EXEC-PASSWORD); access must be available to all user IDs (USER-ACCESS=SPECIAL):

```
MODIFY-FILE-ATTRIBUTES $SYSSPOOL.SYSPAR.RSO.030.USER,PROTECTION=PARAM -
(Access=WRITE,USER-ACCESS=SPECIAL,EXEC-PASSWORD=c'  ')
```

If these measures are applied, the following user accesses are possible:

Data type	SPOOL admin.	Device admin.	User
FONT	R / W	R	R
CHARACTER-SET	R / W	R / W *	R
MEMBER LINKED TO A FORM	R / W	R / W *	R
Other (device characteristics,...)	R / W	R / W *	-

R (Read) comprises the action: SHOW

W (Write) comprises the actions: ADD, MODIFY, REMOVE and RENAME

– means no access right

* indicates that the device administrator has the two access rights only for the devices which he actually administers; for all other devices he has the status of a nonprivileged user.

\$userid.xxxx.RSOFIL

This name designates a user RSOFIL in which the user stores the definitions of loop records and translation tables (xxxx = up to 28 alphanumeric characters which must be specified in the PRINT-DOCUMENT command in the USER-RESOURCES-FILE operand (for loop records) or in the TRANSLATION-TABLE operand (for translation tables) to enable access to the user RSOFIL). Users themselves are responsible for protecting this file. By default, the file is created with ACCESS=WRITE and USER-ACCESS=OWNER-ONLY.

Character images and band IDs can also be defined in a user RSOFIL. However, they cannot be used by RSO unless they are merged into the system RSOFIL.

Information in PDN and in 9025/9026-RENO

Data type	SPOOL admin.	Device admin.	User
Band ID in PDN	R / W	R / W *	-
Information in 9025/9026-RENO	R / W	R / W *	-

R (Read) comprises the actions: SHOW, LIST, PRINT, EXPORT

W (Write) comprises the actions: ADD, MODIFY, REMOVE, RENAME, SEND, IMPORT and COPY

– means no access right

* indicates that the device administrator has the two access rights only for the devices which he actually administers; for all other devices he has the status of a nonprivileged user.

Symbols in the fields

The action mask fields for **input** are marked in the mask with the character '_'.

The action mask fields for **output** from RSOSERVE are marked in each mask with the character '@'.

Error messages

The last two lines of each mask (in mask MLORMAIN the penultimate two) are for displaying error messages or confirming actions that have been executed. If there is an input error, an error message appears and the cursor will move to the field in question; the user can now correct the input without moving the cursor.

Standard actions

Whatever the options available in the mask, every mask permits the actions END, BACK and (except on levels 0 and 1) LEVELn. Entering END aborts the processing and terminates RSOSERVE. Entering BACK returns the user to the previous mask. The field LEVELn in the top left corner of the screen shows the current level the user is on within the RSOSERVE hierarchy (see the mask overview on page 17). The action LEVELn is available in masks of level $n \geq 2$ and enables the user to call the mask of a lower level. If n is the current level, an appropriate error message is displayed.

If the user returns to the previous mask, its fields are not reinitialized; the values previously entered by the user remain valid. The only exceptions are:

- when the user returns to masks where files are processed explicitly; in these masks, the fields OVERWRITE and ERASE are reset to the default 'N', in order to prevent the user accidentally deleting or overwriting
- when the user returns from a help mask; the action fields are then reset to their default settings.

Selecting an option

An option is selected by entering the name of the option (or a part of it) or the number corresponding to the desired action (from 0 to 3 in the example); pressing <DUE1> enters the option for processing (an exception is the action REMOVE, which is entered by means of <F1>). The names of the actions that the user can specify are brighter to distinguish them from the rest of the screen. In the event of conflict (the entry is not unique), RSOSERVE takes the first element in a command table that is maintained internally for each mask.

Abbreviations

The option and action names can be abbreviated to the point where they remain unique (e.g. "ADD", "AD" or "A" may be entered for "ADD"). Uniqueness is guaranteed so long as no other action having the same combination of initial letters is offered. If this situation does occur, (e.g. "RENAME" and "REMOVE", and "RE" is entered), the first match occurring in the list of possible actions is selected. In this event the user is not notified of the conflict situation.

In the case of compound words formed with a hyphen (e.g. "COPY-ALL"), each part of the word can again be abbreviated to the point where it remains unique. The hyphen *must* remain part of the action name:

```
COPY-ALL | COP-ALL } CO-ALL } C-ALL
COPY-AL | COP-AL } CO-AL } C-AL
COPY-A | COP-A } CO-A } C-A
```

Selecting records

If the user is to select from a list of records (in the example, the records under DEFINED RECORDS), there are one or two ways of making this selection:

- by entering the desired record in the relevant field (always possible; in the example, the field SELECTED RECORD)
- by entering an 'x' before the name of the record in the list of records displayed (sometimes possible).

The user should use the first alternative if only one element is affected by the selected action.

The second alternative is recommended when several elements are to be selected from a list. However, this second alternative is only available for the actions REMOVE, COPY, MIGRATE, MODIFY and SHOW. The processing is handled differently:

- For the actions REMOVE and COPY the marked fields are processed in succession. Processing is aborted if an error occurs.
- For the action MIGRATE the marked fields are processed in succession and the number of processed, overwritten and added records is displayed. Processing is not aborted in the event of an error.
- For the actions MODIFY and SHOW the first element marked is processed and the MODIFY or SHOW mask is displayed. If the user then specifies the action BACK or SAVE (for MODIFY), the previous mask is output again and the 'x' marking the element just processed is deleted. The user can then immediately press the DUE key to process the next element marked with 'x'.

If the user makes an entry in both fields by mistake, the entry in the SELECTED field takes priority.

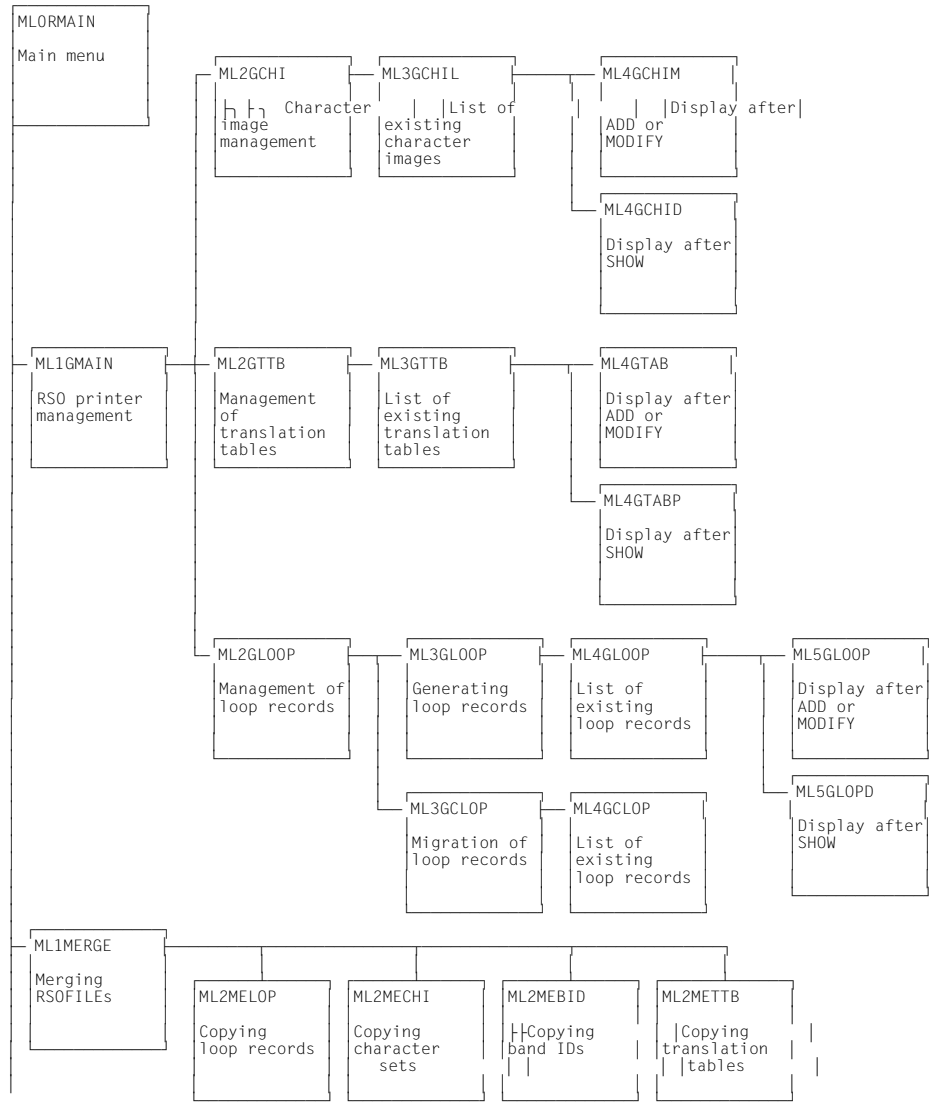
Within masks offering the list option, the individual elements are displayed and processed line by line.

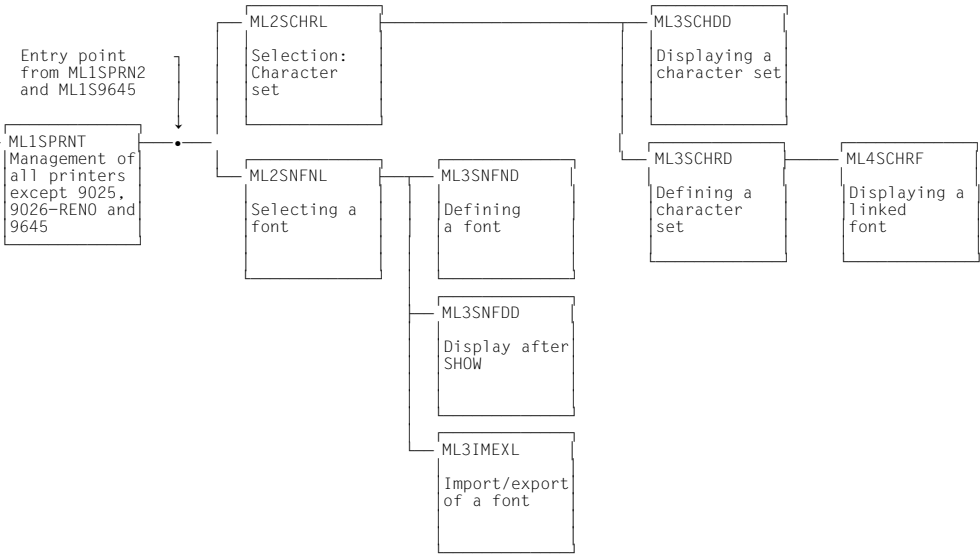
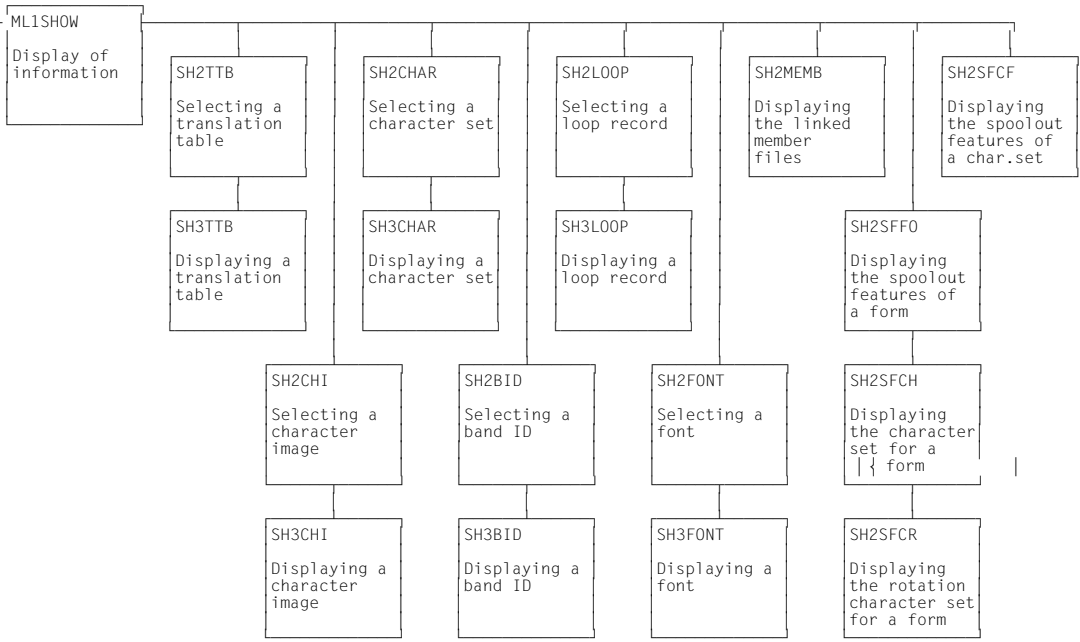
Currency of outputs

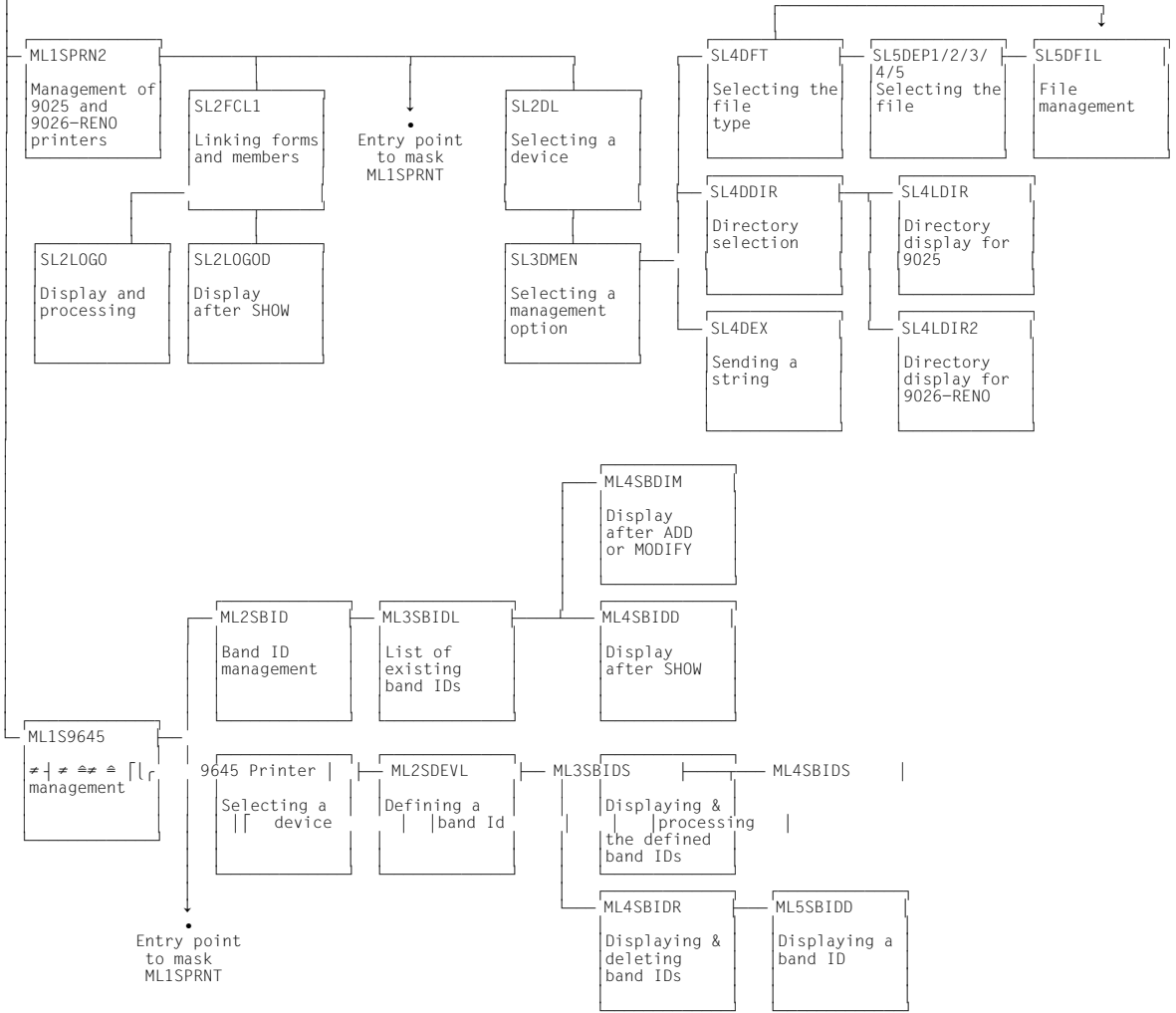
In what are known as "listing screens" (screens displaying extensive data records of a file in list form, e.g. ML3GTTB and ML4GLOOP), the output status may under certain circumstances differ from the actual status. RSOSERVE supports simultaneous access to files opened in SHARED-UPDATE mode. If two users are using the same output file in RSOSERVE, the situation may arise where one user sees data records on his/her screen that the other user has already deleted in the meantime. Updating of the outputs is not performed until the next time the file is accessed.

3.2 Overview of masks

/START-PROGRAM FROM-FILE=RSOSERVE







3.3 Index of masks

Functional classification:

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Functions: RSO printer management	
ML1GMAIN	28
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ML2GTTB	44
ML3GTTB	47
ML4GTAB	52
ML4GTABP	55
ML2GLOOP	57
ML3GLOOP	59
ML4GLOOP	62
ML5GLOOP	67
ML5GLOPD	73
ML3GCLOP	76
ML4GCLOP	79
Functions: Merging RSOFILes	
ML1MERGE	82
ML2MELOP	85
ML2MECHI	88
ML2MEBID	91
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Mask	Page
Functions: Displaying information	
ML1SHOW	97
SH2TTB	101
SH3TTB	104
SH2CHI	106
SH3CHI	109
SH2CHAR	111
SH3CHAR	114
SH2BID	116
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SH2LOOP	121
SH3LOOP	124
SH2FONT	127
SH3FONT	130
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SH2SFFO	134
SH2SFCH	137
SH2SFCR	140
SH2SFCF	143
Functions: Managements of all printers except 9025, 9026-RENO and 9645	
ML1SPRNT	146
ML2SCHRL	149
ML3SCHDD	153
ML3SCHRD	155
ML4SCHRF	158
ML2SNFNL	160
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SL2LOGO	182
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ML1S9645	225
ML2SBID	228
ML3SBIDL	231
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ML4SBIDD	239
ML2SDEVL	242
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ML1SHOW	97
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ML2GLOOP	57
ML2GTTB	44
ML2SBID	228
ML2SCHRL	149
ML2SDEVL	242
ML2SNFNL	160
ML2MEBID	91
ML2MECHI	88
ML2MELOP	85
ML2METTB	94
ML3GCHIL	34
ML3GCLOP	76
ML3GLOOP	59
ML3GTTB	47
ML3IMEXL	170
ML3SBIDL	231
ML3SBIDS	245
ML3SCHDD	153
ML3SCHRD	155
ML3SNFDD	168
ML3SNFND	165
ML4GCHID	42
ML4GCHIM	39
ML4GCLOP	79
ML4GLOOP	62
ML4GTAB	52
ML4GTABP	55
ML4SBIDD	239
ML4SBIDM	236
ML4SCHRF	158
ML4SBIDS	248

Mask	Page
ML5GLOOP	67
ML5GLOPD	73
ML5SBIDD	255
SH2BID	116
SH2CHAR	111
SH2CHI	106
SH2FONT	127
SH2LOOP	121
SH2MEMB	132
SH2SFCF	143
SH2SFCH	137
SH2SFCR	140
SH2SFFO	134
SH2TTB	101
SH3BID	119
SH3CHAR	114
SH3CHI	109
SH3FONT	130
SH3LOOP	124
SH3TTB	104
SL2DL	187
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SL5DEP2	199
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3.4 Mask MLORMAIN: Main RSOSERVE mask

This mask is displayed when the RSOSERVE utility routine is called and provides the following options:

- general RSO printer management
- management of individual printer types
- merging RSOFILES
- display of individual records and definitions

```

Level 0                R S O   S E R V I C E S                    MLORMAIN

   0/END      :  END RSOSERVE.

   1/GENERAL  :  GENERAL ENVIRONMENT  FOR PRINTER MANAGEMENT.

   2/SPECIFIC :  SPECIFIC PRINTER  MANAGEMENT.

   3/MERGE   :  MERGE RSOFILES  MANAGEMENT.

   4/DISPLAY :  DISPLAY  MANAGEMENT.

   ?/HELP    :  HELP.

SELECTED ACTION :  ----- ( number or name of the selected action ).

DEVICE TYPE     :  ----- ( for SELECTED ACTION = 2 ).

ADMINISTRATOR  :  ----- ( for SELECTED ACTION = 2 (optional) )

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
To enter the selected action:  hit <DUE1> key ; except for REMOVE : hit <F1> key

```

The cursor is positioned on the ACTION field.

Notes

- If, after the command /START-PROGRAM FROM-FILE=RSOSERVE or the SDF statement /START-RSOSERVE is entered, the character '*' appears instead of the MLORMAIN mask, user switch 1 is set to 'ON'. The user must return to command mode by pressing <K2> and reset the user switch before being able to execute RSOSERVE.
- If message SRO2003 is displayed after sending the mask, a check must be made as to whether the specified printer type has been entered in the SPOOL parameter file with ADD-SPOOL-DEVICE.

Mask with help texts after the option '?' is selected

```

Level 0                                RSO SERVICES HELP SCREEN                                HL0RMAIN
SELECTED ACTION : Possible actions are :

0/END      : Terminate RSOSERVE.
1/GENERAL  : Manage      : - LOOP
                  - CHARACTER IMAGE
                  - TRANSLATION TABLE

2/SPECIFIC: Manage specific printer environments

                DEVICE TYPE : must be specified. Device type to be processed
                        (max. 9 characters including the ',' character).
                        For example: 9025-
                ADMINISTRATOR: must be specified by the System Administrator
                        when he needs to limit his privileges to another
                        administrator privileges.

3/MERGE    : Merge between RSOFILES.

4/DISPLAY  : Display : - any record of the SYSTEM RSOFILE
                  - fonts and character sets of the
                  SYSPAR.RSO.030.USER file
                  PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ DEVICE TYPE

(selection of the printer type to be managed)

Validity criteria:

4 - 8 alphanumeric characters

➤ ADMINISTRATOR

(RSO device administrator of the specified printer type)

Validity criteria:

1 - 8 alphanumeric characters of the user ID

➤ ACTION (selection options)

Default: 0 (END)

0/END:

No action: RSOSERVE processing is terminated.

Authorization: all users.

1/GENERAL:

General RSO printer management (loop, character image, translation table); the next mask, ML1GMAIN, is displayed. Authorization: all users.

2/SPECIFIC:

Management of individual printer types. The printer type specified in the field DEVICE TYPE determines which mask is displayed next:

mask ML1SPRN2 for the 9025 and 9026-RENO Printers;

mask ML1S9645 for the 9645 Printer;

mask ML1SPRNT for all other printer types.

Authorization: SPOOL administrator or RSO device administrator for a printer of the specified type.

If the SPOOL administrator wishes to call this option with respect to a printer the management of which has been delegated to another RSO device administrator, the latter's user ID must be entered in the ADMINISTRATOR field.

3/MERGE:

Merge RSOFILES function; the next mask to be displayed is ML1MERGE.

Authorization: all users

4/DISPLAY:

General display option: the next mask to be displayed is ML1SHOW.

Authorization: all users.

?/HELP:

The help screen as shown above is displayed.

Authorization: all users.

Output

Error messages

3.5 General RSO printer management

Mask ML1GMAIN: Management of conversion tables (character images and translation tables) and loop records

Mask sequence



```

Level 1                               R S O   S E R V I C E S                     ML1GMAIN

SELECT FUNCTION :

0/END           :  END  RSOSERVE.
1/BACK          :  BACK.
2/CHARACTER-IMAGE : CHARACTER IMAGE  MANAGEMENT.
3/TRANSLATION-TABLE: TRANSLATION TABLE  MANAGEMENT.
4/LOOP          :  LOOP  MANAGEMENT.
?/HELP         :  HELP.

ACTION : ----- (number or name of the selected function).
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```

Level 1                                RSO SERVICES HELP SCREEN                                HL1GMAIN
RSO SERVICES:  RSOFILE MANAGEMENT.

Select one of the following functions :

0/END                :  Terminate RSOSERVE.
1/BACK              :  Return to the previous screen.
2/CHARACTER-IMAGE   :  Process  CHARACTER IMAGE :
                        linked to a DEVICE during ADD-SPOOL-DEVICE
                        command execution:
                        A-S-D...CH-I = xxx          for character image
                        A-S-D...CH-I =(xxx,yyy) for cassette
3/TRANSLATION-TABLE :  Process  TRANSLATION TABLE :
                        linked to a PRINT command:
                        PRINT-FILE....,T-T = (xxxxxxx,image)
                        xxxxxxxx = name of translation table
                        image = :CATID:<user>.<1..28 chars>
4/LOOP              :  Process  LOOP :
                        Manage LOOPS stored in RSOFILE.

                                           PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action; the previous mask is displayed.

2/CHARACTER-IMAGE:

Management and display of character image tables. A character image table is linked to a device during execution of an ADD-SPOOL-DEVICE command:

A-S-D ...,CH-I=xxx for character image table

A-S-D ...,CH-I=(xxx,yyy) for cartridge

If this option is selected, mask ML2GCHI is displayed next for further management/processing of character images.

Note:

The management of character images is permitted for all users, in respect of their user RSOFILES. With the PRINT-DOCUMENT command, however, only the character images stored in the system RSOFILE are interpreted.

3/TRANSLATION TABLE:

Management and display of translation table tables. The translation tables are linked with a PRINT-DOCUMENT command:

```
PRINT-DOCUMENT ...,RESOURCE-DESCRIPTION=*PAR(TRANSLATION-  
TABLE=*PAR(NAME=xxxxxxx,FILE=image))
```

xxxxxxx = name of the translation table

image = name of the user RSOFIL; this specification is optional. If this option is selected, mask ML2GTTB is displayed next for further management/processing of translation tables.

4/LOOP:

Management and display of LOOP records.

?/HELP:

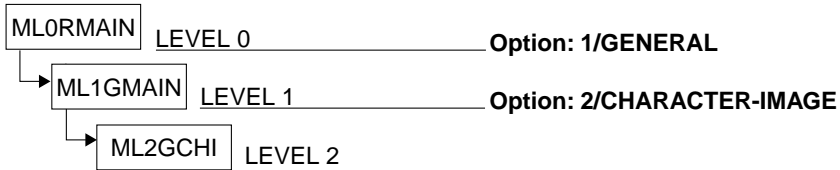
A mask with help texts is displayed.

Output

Error messages

Mask ML2GCHI: Preselecting character images

Mask sequence



```

Level 2                                R S O   S E R V I C E S                                ML2GCHI
                                     CHARACTER IMAGE MANAGEMENT

INPUT FILE NAME:  *STD-----

OUTPUT FILE NAME:  *STD----- (mandatory)
ERASE (Y/N)      :  _ (if CHARACTER IMAGE is duplicated)
OVERWRITE (Y/N) :  _

=====
ACTION :  -----  0/END          2/CONTINUE      ?/HELP
              1/BACK          3/COPY-ALL      Ln/LEVELn

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

In this mask the user can preselect character images to be processed in a further mask by specifying file names (action 2/CONTINUE → next mask ML3GCHIL). By specifying file names, the user defines whether character images are to be copied

- from a user RSOFILE to the system RSOFILE
- from one user RSOFILE to another user RSOFILE
- from the system RSOFILE to a user RSOFILE.

If the action COPY-ALL is selected, however, no subsequent processing in a further mask is required. With this action, all data records are copied from the input file to the output file; no selection of data records in a further mask is required.

The cursor is positioned to the field INPUT FILE NAME provided that no error occurs.

If no name is entered in the mask for INPUT FILE NAME, the file specified under OUTPUT FILE NAME is also regarded as the input file.

The current file of the user is designated as the OUTPUT FILE. This does not mean that this file is opened in OUTPUT mode. The values in the fields ERASE and OVERWRITE are always reset to 'N'.

Mask with help texts after the option '?' is selected

```

Level 2      RSO SERVICES HELP SCREEN:  CHARACTER IMAGE MANAGEMENT  HL2GCHI

INPUT NAME:  Name of an RSOFILE
OUTPUT NAME: Name of an RSOFILE
Name = :CATID:<user>.<1..28 chars>.RSOFILE

ERASE       : set to Y if the output file is to be cleared before use
OVERWRITE   : should be set to Y if records in the output file are to be
              overwritten.

Select one of the following actions .

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /CONTINUE : If the file names are correct, the treatment continues
              and character images can be added, copied, displayed,
              removed, renamed or modified.
3 /COPY-ALL : COPY-ALL existing CHARACTER IMAGES from the INPUT to the
              OUTPUT.
Ln/LEVELn   : Return to level n ( n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► INPUT FILE NAME

(name of the system RSOFILE or a user RSOFILE). With the PRINT-DOCUMENT command, only the character images stored in the system RSOFILE are interpreted.

Validity criteria:

:catid:\$userid.<alphanum-name 1..28>.RSOFILE

Default:

*STD, i.e. the name of the system RSOFILE defined in the IMON tables

► OUTPUT FILE NAME

(name of an existing user RSOFILE or of a user RSOFILE to be created or of the system RSOFILE)

With the PRINT-DOCUMENT command, only the character images stored in the system RSOFILE are interpreted.

Validity criteria:

:catid:\$userid.<alphanum-name 1..28>.RSOFILE

Default:

*STD, i.e. the name of the system RSOFILe defined in the IMON tables

➤ ERASE

(Specifies whether the desired user RSOFILe is to be deleted before use)

Validity criteria:

Only the characters 'Y' or 'N'.

➤ OVERWRITE

(Specifies whether duplicate records in the output file are to be overwritten)

Validity criteria:

Only the characters 'Y' or 'N'.

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action; the previous mask is displayed.

2/CONTINUE:

Processing continues.

If the file name entries are syntactically valid and it is possible to open the specified files, a list of the existing character images is displayed in the next mask. In the following mask ML3GCHIL the character images can be processed using the actions ADD, COPY, SHOW, REMOVE, RENAME and MODIFY.

3/COPY-ALL:

Copies the character images.

The character images are copied from the input file into the output file according to the value specified for OVERWRITE. If no character image is to be found in the specified input file, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

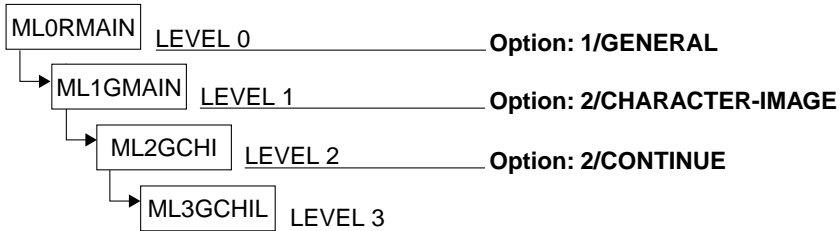
The above mask with help texts is displayed.

Output

Error messages

Mask ML3GCHIL: Character image management

Mask sequence



The names of all character image tables already stored in the output file are output to SYSOUT. This function is open to all users.

```

Level 3                R S O   S E R V I C E S                ML3GCHIL
                                                                PAGE:@@@

CHARACTER IMAGES DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

CH-IMAGE      CH-IMAGE      CH-IMAGE      CH-IMAGE      CH-IMAGE
- @@@         - @@@         - @@@         - @@@         - @@@
- @@@         - @@@         - @@@         - @@@         - @@@
- @@@         - @@@         - @@@         - @@@         - @@@
- @@@         - @@@         - @@@         - @@@         - @@@
- @@@         - @@@         - @@@         - @@@         - @@@
- @@@         - @@@         - @@@         - @@@         - @@@

SELECTED CHARACTER IMAGE : ---  MODEL : --- (for ADD)
NEW CHARACTER IMAGE NAME : --- (for RENAME )

ACTION :-----  0/END          5/COPY          10/LIST-OUTPUT  file
                  1/BACK        6/RENAME        11/LIST-INPUT   file
                  2/ADD         7/SHOW          12/LAST         page
                  3/MODIFY      8/NEXT          13/FIRST        page
                  4/REMOVE      9/PREVIOUS     page            Ln/LEVELn
                                                                ?/HELP
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the SELECTED CHARACTER IMAGE field unless an error occurs. The character image tables are processed and displayed line by line.

If a DMS error occurs at this level, processing returns to the previous level and an appropriate error message is displayed.

The current file of the user is designated as the OUTPUT FILE. This does not mean that this file is opened in OUTPUT mode.

Mask with help texts after the option '?' is selected

```

Level 3          RSO SERVICES HELP SCREEN:  CHARACTER IMAGE LIST          HL3GCHIL
A list of CHARACTER IMAGES already defined is displayed.
Select one of the following functions :
0/END           : Terminate RSOSERVE.
1/BACK         : Return to the previous screen.
2/ADD          : ADD a new CHARACTER IMAGE in the OUTPUT file. (1)
3/MODIFY       : MODIFY a CHARACTER IMAGE in the OUTPUT file. (2)
4/REMOVE       : REMOVE CHARACTER IMAGEs from the OUTPUT file. (2)
                (press F1 to enter action)
5/COPY         : COPY CHARACTER IMAGEs from the INPUT to the OUTPUT file. (2)
6/RENAME       : RENAME a CHARACTER IMAGE in the OUTPUT file. (1)
7/SHOW        : SHOW a CHARACTER IMAGE from the INPUT or the OUTPUT file.(2)
8/NEXT         : Display the NEXT PAGE .
9/PREVIOUS     : Display the PREVIOUS PAGE .
10/LIST-OUTPUT : List CHARACTER IMAGES defined in the OUTPUT file.
11/LIST-INPUT  : List CHARACTER IMAGES defined in the INPUT file.
12/LAST        : Display the LAST page.
13/FIRST       : Display the FIRST page.
Ln/LEVELn     : Return to level n ( n = 0,1,2).

(1) Selection:  only with the selected name.
(2) Selection:  either with the selected name or with the ,X' character in
                the list.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ **Character image tables can be selected in two different ways:**

- by entry in the field **SELECTED CHARACTER IMAGE**

Validity criteria:

1 to 3 alphanumeric characters, no more than 2 consecutive blanks, all '␣' and '_' characters are ignored.

- by selecting a character image name from the list.

An 'x' must be entered in front of the required name.

If both alternatives are specified, the specification in the field **SELECTED CHARACTER IMAGE** takes priority.

The character images marked with 'x' are processed in the order in which they appear in the mask. The process is aborted immediately if an error occurs during processing of one of these character image tables and an error message is output to **SYSOUT**.

➤ **NEW CHARACTER IMAGE NAME**

(name of a character image table for the action **RENAME**)

Validity criteria:

Only for the action **RENAME**.

1 to 3 alphanumeric characters, no more than 2 consecutive blanks, all '␣' and '_' characters are ignored.

➤ **MODEL**(character image to be used as a model)

Validity criteria:

Only for the action ADD.

1 to 3 alphanumeric characters, no more than 2 consecutive blanks, all ' ' and ' _ ' characters are ignored.

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

2/ADD:

Generates and stores a character image table in the output file. The character image table can only be selected by an entry in the field SELECTED CHARACTER IMAGE. If this entry is syntactically valid and the character image is not already present in the output file:

- either the standard character image table is output to SYSOUT
- or, if a valid entry has been made for MODEL and this character image table already exists in the output file, this table is displayed.

The displayed character image table can then be modified before it is stored as a new character image in the output file.

Otherwise an error message is displayed.

3/MODIFY:

Modifies a character image table from the output file.

- If a syntactically valid entry has been made in the field SELECTED CHARACTER IMAGE and the character image table exists in the input or output file, the table is displayed and can be modified.
- If no entry been made made in the field SELECTED CHARACTER IMAGE but at least one character image name has been marked in the mask with an 'x', the marked character images are displayed and can be modified.

Otherwise an error message is displayed.

4/REMOVE:

Deletes character image tables from the output file.

- If a syntactically valid entry has been made in the field SELECTED CHARACTER IMAGE, and the character image table exists in the output file, it is deleted from the output file.
- If no entry has been made in the field SELECTED CHARACTER IMAGE, but an 'x' has been placed before at least one character image name in the mask, the marked character images are deleted from the output file.

If neither a valid entry has been made in the field `SELECTED CHARACTER IMAGE`, nor a character image name marked in the mask, an error message is displayed.

The `REMOVE` option can only be implemented by pressing the F1 key.

5/COPY:

Copies a character image table from the input file to the output file.

- If a syntactically valid entry has been made in the field `SELECTED CHARACTER IMAGE`, and the character image table exists in the input file, it is copied into the output file according to the value specified for `OVERWRITE` in the previous mask.
- If no entry has been made in the field `SELECTED CHARACTER IMAGE` but at least one character image name from the input file has been marked in the mask with an 'x', the marked character images are copied into the output file according to the value specified for `OVERWRITE` in the previous mask.

If neither a valid entry has been made in the field `SELECTED CHARACTER IMAGE`, nor a character image name has been marked in the mask, an error message is displayed.

If the contents of the output file were requested, an error message is similarly displayed.

6/RENAME:

Renames a character image table in the output file.

The character image table can only be selected by an entry in the field `SELECTED CHARACTER IMAGE`. If the entries in the fields `SELECTED CHARACTER IMAGE` and `NEW CHARACTER IMAGE` are syntactically valid, and if the selected character image table exists in the output file, they are given the name specified by `NEW CHARACTER IMAGE` if this does not yet exist in the output file.

7/SHOW:

Displays a character image table from the input or output file.

- If a syntactically valid entry has been made in the field `SELECTED CHARACTER IMAGE` and the character image table exists in the input or output file, it is displayed on the screen.
- If no entry has been made in the field `SELECTED CHARACTER IMAGE` but at least one character image name has been marked in the mask with an 'x', the marked character images are displayed.

Otherwise an error message is displayed.

8/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to `SYSOUT` with a message.

9/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

10/LIST-OUTPUT:

Displays the list of character images already defined in the output file. During processing, the contents of the output file are only displayed if this action is requested. The display begins with the first page of the list.

11/LIST-INPUT:

Displays the list of character images already defined in the input file. During processing, the contents of the input file are only displayed if this action is requested. The display begins with the first page of the list.

12/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

13/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n ($n = 0, 1, 2$). If the current level is level n, a corresponding message is displayed.

?/HELP:

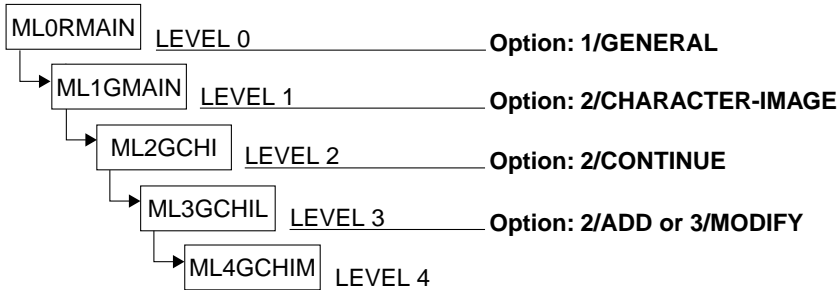
A mask with help texts is displayed.

Output

- Page number
- File type (input or output)
- File name of the input or output file
- List of names of the character image tables in the input or output file.
- Error messages

Mask ML4GCHIM: Saving character image tables

Mask sequence



```

Level 4                                     R S O   S E R V I C E S                                     ML4GCHIM
CHARACTER IMAGE @@@ MANAGEMENT.
      0. 1. 2. 3. 4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0    00 10 20 30 40 50 60 70 80 90 A0 B0 C0 D0 E0 F0
.1    01 11 21 31 41 51 61 71 81 91 A1 B1 C1 D1 E1 F1
.2    02 12 22 32 42 52 62 72 82 92 A2 B2 C2 D2 E2 F2
.3    03 13 23 33 43 53 63 73 83 93 A3 B3 C3 D3 E3 F3
.4    04 14 24 34 44 54 64 74 84 94 A4 B4 C4 D4 E4 F4
.5    05 15 25 35 45 55 65 75 85 95 A5 B5 C5 D5 E5 F5
.6    06 16 26 36 46 56 66 76 86 96 A6 B6 C6 D6 E6 F6
.7    07 17 27 37 47 57 67 77 87 97 A7 B7 C7 D7 E7 F7
.8    08 18 28 38 48 58 68 78 88 98 A8 B8 C8 D8 E8 F8
.9    09 19 29 39 49 59 69 79 89 99 A9 B9 C9 D9 E9 F9
.A    0A 1A 2A 3A 4A 5A 6A 7A 8A 9A AA BA CA DA EA FA
.B    0B 1B 2B 3B 4B 5B 6B 7B 8B 9B AB BB CB DB EB FB
.C    0C 1C 2C 3C 4C 5C 6C 7C 8C 9C AC BC CC DC EC FC
.D    0D 1D 2D 3D 4D 5D 6D 7D 8D 9D AD BD CD DD ED FD
.E    0E 1E 2E 3E 4E 5E 6E 7E 8E 9E AE BE CE DE EE FE
.F    0F 1F 2F 3F 4F 5F 6F 7F 8F 9F AF BF CF DF EF FF

ACTION : ----- 0/END          2/SAVE to OUTPUT file (for ADD/MODIFY)
              1/BACK          ?/HELP          Ln/LEVELn
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

If the specified character image already exists in the output file, this code table is displayed. If it does not exist, and no entry has been made for MODEL, the standard code table is displayed; if the name of a character image that exists in the output file has been entered for MODEL, this code table is output to SYSOUT.

The cursor is on the first code of the character image table unless an error occurs.

Mask with help texts after the option '?' is selected

```

Level 4          RSO SERVICES HELP SCREEN:  TABLE DEFINITION          HL4GCHIM
You have already defined the name of a NEW or EXISTING TABLE .
Select one of the following functions :
0 /END          :  Terminate RSOSERVE.
1 /BACK         :  Return to the previous screen.
2 /SAVE         :  SAVE the TABLE (only for previous action = MODIFY or ADD).
                  Fill in the displayed table.
                  Note : - The table contains 256 positions (00 -> FF).
                        - Each position is a hexadecimal code.

Ln/LEVELn      :  Return to level n (n = 0,1,2,3)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**> CHARACTER-IMAGE TABLE:**

256 hexadecimal codes

Validity criteria:

Each of the 256 codes must consist of a pair of printable hexadecimal characters (0...F).

> ACTION (selection options)

Default: 2 (SAVE)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

2/SAVE:

The character image table is stored in the output file (provided that all the specified codes are valid), and the display returns to the previous mask ML3GCHIL.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

A mask with help texts is displayed.

Output

- Name of the character image table
- Error messages

Mask with help texts after the option '?' is selected

```
Level 4          RSO SERVICES HELP SCREEN: TABLE DEFINITION          HL4GCHID
```

```
You have already defined the name of an EXISTING TABLE . The selected
CHARACTER IMAGE is displayed.
```

```
Select one of the following functions :
```

```
0 /END      : Terminate RSOSERVE.
```

```
1 /BACK     : Return to the previous screen.
```

```
Ln/LEVELn  : Return to level n (n = 0,1,2,3)
```

```
PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

Mask with help texts is displayed.

Output

- Character image table
- Character image name
- Error messages

Mask with help texts after option '?' has been selected

```

Level 2      RSO SERVICES HELP SCREEN:  TRANSLATION TABLE MANAGEMENT  HL2GTTB

INPUT NAME:  Name of an RSOFIL = :CATID:<user>.<1..28 chars>.RSOFIL
OUTPUT NAME: Name of an RSOFIL = :CATID:<user>.<1..28 chars>.RSOFIL
              This name will be used at PRINT-FILE command time
              to indicate the TRANSLATION TABLE location :
                  PRINT-FILE ...T-T=(x,image)
              where x      = translation table name,
                  image = :CATID:<user>.<1..28 chars>
ERASE       : set to Y if the :output file is to be cleared before use
OVERWRITE   : should be set to Y if records in the output file are to be
              overwritten.

Select one of the following actions .

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /CONTINUE : If the file names are correct, the treatment continues
              and translation tables can be added, copied, displayed,
              removed, renamed or modified.
3 /COPY-ALL : COPY-ALL existing TRANSLATION TABLEs from the INPUT to the
              OUTPUT.
Ln/LEVELn   : Return to level n ( n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**► INPUT FILE NAME**

(name of system/user RSOFIL)

Validity criteria:

:CATID:<user>.<alphanum-name 1..28>.RSOFIL

Default:

*STD, i.e. the name of the system RSOFIL defined in the IMON tables

► OUTPUT FILE NAME

(name of a user RSOFIL which exists already or which is to be generated or name of the system RSOFIL)

Validity criteria:

:CATID:<user>.<alphanum-name 1..28>.RSOFIL

Default:

*STD, i.e. the name of the system RSOFIL defined in the IMON tables

► ERASE

(specifies whether the user RSOFIL named is to be deleted before use)

Validity criteria:

Only the characters 'Y' or 'N'.

- OVERWRITE
(specifies whether duplicate records in the output file are to be overwritten)
Validity criteria:
Only the characters 'Y' or 'N'.
- ACTION (selection options)
Default: 1 (BACK)

0/END:
 No action; RSOSERVE is terminated.

1/BACK:
 No action; the previous mask is displayed.

2/CONTINUE:
 Processing continues.
 If the file name entries are syntactically valid and it is possible to open the specified files, a list of the existing translation tables is displayed in the next mask. In the following mask ML3GTTB the translation tables can be processed using the actions ADD, COPY, SHOW, REMOVE, RENAME and MODIFY.

3/COPY-ALL:
 Copies the translation tables.
 The translation tables are copied from the input file into the output file according to the value specified for OVERWRITE. If no translation table is found in the specified input file, a corresponding error message is displayed.

Ln/Level n:
 No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

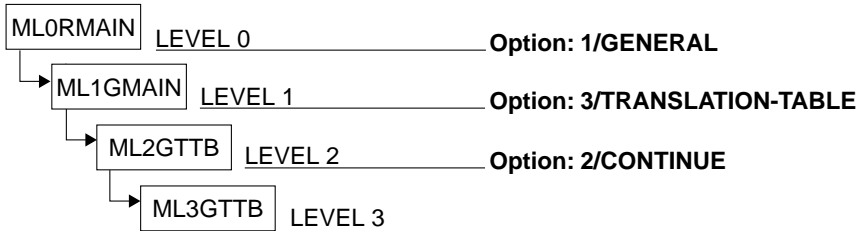
?/HELP:
 The above mask with help texts is displayed.

Output

Error messages

Mask ML3GTTB: Processing defined translation tables

Mask sequence



This mask displays a list of the translation tables contained in the output file which can be processed using the options listed.

```

Level 3                R S O   S E R V I C E S                ML3GTTB
                                                                Page:@@@
TRANSLATION TABLES DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

      NAME          NAME          NAME          NAME          NAME
- @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@
- @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@
- @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@
- @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@
- @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@
- @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@ - @@@@@@@@

SELECTED TRANSLATION TABLE : ----- MODEL : ----- (for ADD)
NEW TRANSLATION TABLE NAME : ----- (for RENAME)

ACTION :----- 0/END          5/COPY          10/LIST-OUTPUT file
                1/BACK       6/RENAME       11/LIST-INPUT  file
                2/ADD        7/SHOW        12/LAST       page
                3/MODIFY     8/NEXT        13/FIRST     page
                4/REMOVE     9/PREVIOUS   Ln/LEVELn
                                   ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field SELECTED TRANSLATION TABLE unless an error occurs. The translation tables are processed and output line by line. If a DMS error occurs, processing is terminated on the current level, an error message is displayed and the previous mask ML2GTTB appears.

The current file of the user is designated as the OUTPUT FILE. This does not mean that this file is opened in OUTPUT mode.

Mask with help texts after option '?' has been selected

```

Level 3                                RSO SERVICES HELP SCREEN.                                HL3GTTB
A list of TRANSLATION TABLES already defined is displayed.
Select one of the following functions :
0 /END      : Terminate RSO SERVE.
1 /BACK     : Return to the previous screen.
2 /ADD      : ADD a translation table in the OUTPUT file. (1)
3 /MODIFY   : MODIFY a translation table in the OUTPUT file. (2)
4 /REMOVE   : REMOVE translation tables from the OUTPUT file. (2)
              (Press F1 to enter action)
5 /COPY     : COPY translation tables from the INPUT to the OUTPUT file.(2)
6 /RENAME   : RENAME a translation table in the OUTPUT file. (1)
7 /SHOW     : SHOW a translation table from the INPUT/OUTPUT file. (2)
8 /NEXT     : Display NEXT page.
9 /PREVIOUS : Display PREVIOUS page
10/LIST-OUTPUT: LIST TRANSLATION TABLES defined in the OUTPUT file.
11/LIST-INPUT : LIST TRANSLATION TABLES defined in the INPUT file.
12/LAST     : Display the LAST page
13/FIRST    : Display the FIRST page
Ln/LEVELn   : Return to level n (n = 0,1,2)

(1) Selection : only with the selected name.
(2) Selection : either with the selected name or with the ,X' character in
              the list.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- Translation tables can be selected in two different ways:
 - By an entry in the field SELECTED TRANSLATION TABLE
Validity criteria:
1 to 8 alphanumeric characters, no more than 7 consecutive blanks, single '␣' and '_' characters are ignored.
 - By selecting a translation table from the list
An 'x' must be entered before the name required.

If both alternatives have been specified by mistake, the entry in **SELECTED TRANSLATION TABLE** takes priority.

The translation tables marked 'x' are processed in the order in which they appear in the screen. The procedure is interrupted immediately and an error message is output to **YSOUT** if an error is encountered while a translation table is being processed.

- **NEW TRANSLATION TABLE NAME**
(name of a translation table for the action **RENAME**)
Validity criteria:
1 to 8 alphanumeric characters, no more than 7 consecutive blanks, single '␣' and '_' characters are ignored.

- ▶ **MODEL**
(translation table to be used as a model for the ADD action)
Validity criteria:
1 to 8 alphanumeric characters, no more than 7 consecutive blanks, single ' ' and ' ' characters are ignored.
- ▶ **ACTION**
(selection options)
Default: 1 (BACK)

0/END:
No action; RSOSERVE is terminated.

1/BACK:
No action; the previous mask, ML2GTTB, is displayed.

2/ADD:
Generates and stores a translation table in the output file.
The translation table can only be selected by an entry in the field SELECTED TRANSLATION TABLE. If this entry is syntactically valid and the translation table is not already present in the output file,
 - either the standard translation table is output to SYSOUT
 - or, if a valid entry has been made for MODEL and this translation table already exists in the indicated file, it is displayed.
The displayed translation table can then be modified before it is stored as a new translation table in the output file.
Otherwise an error message is issued.

3/MODIFY:
Modifies a translation table from the output file.
 - If a syntactically valid entry has been made in the field SELECTED TRANSLATION TABLE and the table exists in the output file, the table is displayed and can be modified.
 - If no entry been made made in the field SELECTED TRANSLATION TABLE but at least one table name has been marked in the mask with an 'x', the marked tables from the output file can be modified.
If neither a valid entry has been made in the field SELECTED TRANSLATION TABLE, nor a table name marked in the mask, an error message is issued.

4/REMOVE:
Deletes translation tables from the output file.
 - If a syntactically valid entry has been made in the field SELECTED TRANSLATION TABLE, and the translation table exists in the output file, it is deleted from the output file.

- If no entry has been made in the field `SELECTED TRANSLATION TABLE`, but an 'x' has been placed before at least one translation table name in the mask, the marked translation tables are deleted from the output file.

If neither a valid entry has been made in the field `SELECTED TRANSLATION TABLE`, nor a translation table name marked in the mask, an error message is issued.

The `REMOVE` option can only be implemented by pressing the F1 key.

5/COPY:

Copies translation table to the output file.

- If a syntactically valid entry has been made in the field `SELECTED TRANSLATION TABLE`, and the table exists in the input file, it is copied to the output file according to the value of the `OVERWRITE` parameter.
- If no entry has been made in `SELECTED TRANSLATION TABLE` but at least one table name has been marked with an 'x' in the mask, the marked tables are copied from the input to the output file in accordance with the value of the `OVERWRITE` parameter.

If no valid entry has been made in `SELECTED TRANSLATION TABLE` and no table name has been marked in the mask, an error message is displayed.

6/RENAME:

Renames a translation table in the output file.

The translation table can only be selected by an entry in the field `SELECTED TRANSLATION TABLE`. If the entries in the fields `SELECTED TRANSLATION TABLE` and `NEW TRANSLATION TABLE` are syntactically valid, and if the translation table exists in the output file, it is given the name specified for `NEW TRANSLATION TABLE` if this does not yet exist in the output file.

Otherwise an error message is issued.

7/SHOW:

Displays a translation table from the input or output file.

- If a syntactically valid entry has been made in the field `SELECTED TRANSLATION TABLE` and the table exists in the current file, it is displayed on the screen.
- If no entry has been made in the field `SELECTED TRANSLATION TABLE` but at least one table name has been marked in the mask with an 'x', the first table thus marked is displayed on the screen.
Otherwise an error message is issued.

8/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to `SYSOUT` with a message.

9/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

10/LIST-OUTPUT:

Displays the translation tables already defined in the output file.

11/LIST-INPUT:

Displays the translation tables already defined in the input file.

12/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

13/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

Mask with help texts is displayed.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the names of the translation tables in the files
- Error messages

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN:  TABLE DEFINITION                HL4GTAB
You have already selected the name of a  NEW or EXISTING TABLE  .
Select one of the following functions  :
0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
2 /SAVE     :  SAVE  the TABLE.
               Fill in the displayed table.
               Note: - The table contains 256 positions (00 -> FF).
                     - Each position is a hexadecimal code.

Ln/LEVELn  :  Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ TRANSLATION TABLE:

256 hexadecimal codes

Validity criteria:

each of the 256 codes must consist of a pair of printable hexadecimal characters (0...F.)

➤ ACTION (selection options)

Default: 2 (SAVE)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML3GTTB, is displayed.

2/SAVE:

The translation table is saved in the output file and the previous mask ML3GTTB is displayed (provided all the codes specified are valid).

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Name of the translation table
- Error messages

Mask with help texts after the option '?' is selected

```
Level 4          RSO SERVICES HELP SCREEN : TABLE DISPLAY          HL4GTABP

You have already selected the name of an EXISTING TABLE . The selected
TRANSLATION TABLE is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
Ln/LEVELn   : Return to level n (n = 0,1,2,3).

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML3GTTB, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

The help mask shown above is displayed.

Output

- Name of the translation table
- Matrix of the translation table
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  LOOP MANAGEMENT                HL3GLOOP

INPUT FILE NAME : Name of an RSOFIL = :CATID:<user>.<1..28 chars>.RSOFIL
OUTPUT FILE NAME : Name of an RSOFIL = :CATID:<user>.<1..28 chars>.RSOFIL
                  This name will be used at PRINT-FILE command time to
                  indicate the LOOP location:
                  PRINT-FILE ...,LOOP=X,U-P-F=image
                  where X   = name of the loop
                  image = :CATID:<user>.<1..28 chars>
ERASE            : set to Y if the output file is to be cleared before use.
OVERWRITE       : Must be set to Y if duplicate LOOP(s) found in the OUTPUT
                  file are to be overwritten.

Select one of the following actions .

0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.
2 /CONTINUE     : If the file names are correct, the treatment continues
                  and loops can be added, copied, displayed, removed,
                  renamed or modified.
3 /COPY-ALL     : COPY-ALL loops from INPUT file to OUTPUT file.
Ln/LEVELn      : Return to level n ( n = 0,1,2).
                  PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ **INPUT FILE NAME**

(name of system RSOFIL or a user RSOFIL)

Validity criteria:

:CATID:<user>.<alphanum-name 1..28>.RSOFIL

Default:

*STD, i.e. the name of the system RSOFIL defined in the IMON tables

➤ **OUTPUT FILE NAME**

(name of a user RSOFIL that already exists or is to be created or name of the system RSOFIL)

Validity criteria:

:CATID:<user>.<alphanum-name 1..28>.RSOFIL

Default:

*STD, i.e. the name of the system RSOFIL defined in the IMON tables

➤ **ERASE**

(specifies whether the user RSOFIL requested is to be erased before use)

Validity criteria:

Only the characters 'Y' or 'N'.

- **OVERWRITE**
(specifies whether duplicate loop records in the output file are to be overwritten)
Validity criteria:
Only the characters 'Y' or 'N'.
- **ACTION** (selection options)
Default: 1 (BACK)

0/END:
No action; RSOSERVE is terminated.

1/BACK:
No action; the previous mask is displayed.

2/CONTINUE:
Processing continues.
If the file name entries are syntactically valid and it is possible to open the specified files, a list of the existing loop records is displayed in the next mask. In the following mask ML4GLOOP the loop records can be processed using the actions ADD, COPY, SHOW, REMOVE, RENAME and MODIFY.

3/COPY-ALL:
Copies the loop records.
The loop records are copied from the input file into the output file according to the value specified for OVERWRITE. If no loop record is to be found in the specified input file, a corresponding error message is displayed.

Ln/Level n:
No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

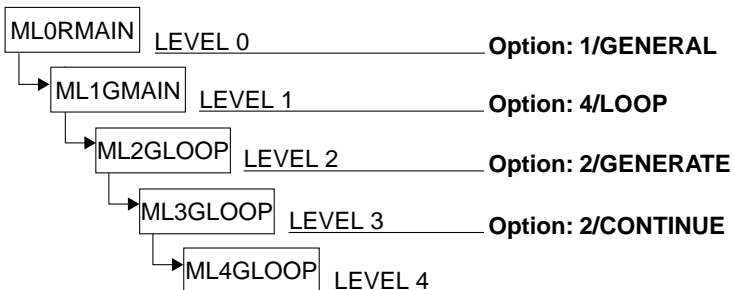
?/HELP:
The above mask with help texts is displayed.

Output

Error messages

Mask ML4GLOOP: Processing defined loop records

Mask sequence



```

Level 4                R S O      S E R V I C E S                ML4GLOOP
                                                                Page:@@@
LOOPS DEFINED IN @@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  LOOP          LOOP          LOOP          LOOP          LOOP
- @@@          - @@@          - @@@          - @@@          - @@@
- @@@          - @@@          - @@@          - @@@          - @@@
- @@@          - @@@          - @@@          - @@@          - @@@
- @@@          - @@@          - @@@          - @@@          - @@@
- @@@          - @@@          - @@@          - @@@          - @@@
- @@@          - @@@          - @@@          - @@@          - @@@

SELECTED LOOP : ---                MODEL : --- (for ADD)
NEW LOOP NAME : --- (for RENAME)

ACTION :-----  0/END            5/COPY                10/LIST-OUTPUT file
                 1/BACK          6/RENAME             11/LIST-INPUT  file
                 2/ADD           7/SHOW              12/LAST       page
                 3/MODIFY        8/NEXT              13/FIRST     page
                 4/REMOVE        9/PREVIOUS         Ln/LEVELn
                                     ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

This mask displays a list of the loop records already available in the output file for processing with the options listed.

The cursor is positioned on the SELECTED LOOP field unless an error occurs. The loop records are processed and output line by line. If a DMS error occurs, processing is terminated on the current level, an error message is displayed and the previous mask ML3GLOOP appears.

The current file of the user is designated as the output file. This does not mean that this file is opened in OUTPUT mode.

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN: LOOP LIST.                HL4GL00P

A list of LOOPS already defined in the specified RSOFILE is displayed.
Select one of the following functions :
0 /END                 : Terminate RSOSERVE.
1 /BACK                : Return to the previous screen.
2 /ADD                 : ADD a loop in the OUTPUT file. (1)
3 /MODIFY              : MODIFY a loop in the OUTPUT file. (2)
4 /REMOVE              : REMOVE loops from the OUTPUT file. (2)
                       : (Press F1 to enter action)
5 /COPY                : COPY loops from the INPUT to the OUTPUT file. (2)
6 /RENAME              : RENAME a loop in the OUTPUT file. (1)
7 /SHOW                : SHOW a loop from the INPUT or the OUTPUT file. (2)
8 /NEXT                : Display NEXT page .
9 /PREVIOUS            : Display PREVIOUS page .
10/LIST-OUTPUT         : LIST LOOPS defined in the OUTPUT file.
11/LIST-INPUT          : LIST LOOPS defined in the INPUT file.
12/LAST                : Display the LAST page
12/FIRST               : Display the FIRST page
Ln/LEVELn              : Return to level n (n = 0,1,2,3).

(1) Selection:        only with the selected name.
(2) Selection:        either with the selected name or with the ,X' character in
                       the list.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► Loop records can be selected in two different ways:

- by an entry in the field SELECTED LOOP

Validity criteria:

- 1 to 3 alphanumeric characters (but not '@' or '\$') no more than two consecutive blanks, single '␣' and '_' characters are ignored.
- by selecting a loop record from the list
- An x must be entered before the name required.

If both alternatives are specified by mistake, the entry in the field SELECTED LOOP takes priority.

The loop records marked 'x' are processed in the order in which they appear in the screen. The procedure is interrupted immediately and an error message is output to SYSOUT if an error is encountered while a loop record is being processed.

► NEW LOOP NAME

(name of a loop record for the action RENAME)

Validity criteria:

(only checked for the action RENAME) 1 to 3 alphanumeric characters (but not '@' or '\$') no more than 2 consecutive blanks, single '␣' and '_' characters are ignored.

- MODEL
(loop record to be used as a model)
Validity criteria:
(only checked for the action ADD) 1 to 3 alphanumeric characters (but not '@' or '\$')
no more than 2 consecutive blanks, single '␣' and '_' characters are ignored.
- ACTION (selection options)
Default: 1 (BACK)

0/END:
 No action; RSOSERVE is terminated.

1/BACK:
 No action; the previous mask, ML3GLOOP, is displayed.

2/ADD:
 Generates and stores a loop record in the output file.
 The loop record can only be selected by an entry in the field SELECTED LOOP.
 If this entry is syntactically valid and the loop record is not already present in the output file,
 - either an empty loop record is output
 - or, if a valid entry has been made for MODEL and this loop record already exists in the indicated file, it is displayed.
 The displayed loop record can then be modified before it is stored as a new loop record in the output file.
 Otherwise an error message is displayed.

3/MODIFY:
 Modifies a loop record from the output file.
 - If a syntactically valid entry has been made in the field SELECTED LOOP and the loop record exists in the output file, the record is displayed and can be modified.
 - If no entry been made made in the field SELECTED LOOP but at least one loop name has been marked in the mask with an 'x', the marked loop records from the output file can be modified.
 If neither a valid entry has been made in the field SELECTED LOOP, nor a loop record marked in the mask, an error message is issued.

4/REMOVE:
 Deletes loop records from the output file.
 - If a syntactically valid entry has been made in the field SELECTED LOOP, and the loop record exists in the output file, it is deleted from the output file.
 - If no entry has been made in the field SELECTED LOOP, but an 'x' has been placed before at least one loop record in the mask, the marked loop records are deleted from the output file.

If neither a valid entry has been made in the field **SELECTED LOOP**, nor a record marked in the mask, an error message is displayed.

The **REMOVE** option can only be implemented by pressing the **F1** key.

5/COPY:

Copies loop record to the output file.

- If the entry in the field **SELECTED LOOP** is syntactically valid, and if the record exists in the input file, it is copied to the output file in accordance with the value of the **OVERWRITE** parameter.
- If no entry has been made in the field **SELECTED LOOP**, but at least one loop record has been marked with an 'x' in the mask, the marked records are copied from the input into the output file in accordance with the value of the **OVERWRITE** parameter.

If a valid entry has not been made in the field **SELECTED LOOP**, and no record has been marked in the mask, an error message is displayed.

6/RENAME:

Renames a loop record in the output file.

The loop record can only be selected by an entry in the field **SELECTED LOOP**. If the entries in the fields **SELECTED LOOP** and **NEW LOOP** are syntactically valid, and if the **SELECTED LOOP** exists in the output file, it is given the name specified for **NEW LOOP**.

Otherwise an error message is displayed.

7/SHOW:

Displays a loop record from the input or output file.

- If a syntactically valid entry has been made in the field **SELECTED LOOP** and the loop record exists in the current file, the record is displayed on the screen.
 - If no entry has been made in the field **SELECTED LOOP** but at least one loop record has been marked in the mask with an 'x', the first loop record thus marked is displayed on the screen.
- Otherwise an error message is displayed.

8/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to **SYSOUT** with a message.

9/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to **SYSOUT** with a message.

10/LIST-OUTPUT:

Displays the loop records already defined in the output file.

11/LIST-INPUT:

Displays the loop records already defined in the input file.

12/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

13/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

Mask with help texts is displayed.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the loop records in the specified RSOFILES
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5                RSO SERVICES HELP SCREEN: LOOP DISPLAY                HL5GL00P

You have already defined the name of a NEW or EXISTING LOOP .

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /SAVE     : SAVE the LOOP.
              Fill in the displayed LOOP.
3 /NEXT     : Display the NEXT page .
4 /PREVIOUS : Display the PREVIOUS page .
Ln/LEVELn  : Return to level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► TOTAL LENGTH:

(of the loop record).

The total length of a loop record consists of an integer value (in inches) and a fraction value in units of 1/120 inch.

Range of values for the total length:

1 inch ≤ total length ≤ 25 inches or 0.

Range of values for the fraction: < 120/120 inch.

The default value is '00 + 000/120', or the value for the model if one has been specified.

► LOOP

(Defines the line spacing and channel number for lines of the loop record).

LINE:

A pair of line numbers of the loop record in question: (001-500) - (001-500) which are interpreted as an interval. If no entry is made for the first line number, the specification is ignored.

A blank entered as the first line number indicates the end of the loop record.

If a blank or '0' is entered as the second line number, then: second number = first number.

LPI:

(lines per inch) Determines the line spacing.

Possible values: 3, 4, 6, 8, 10, 12, 15, 20.

CHANNEL:

Selects the channel number.

Possible values: $01 \leq \text{CHANNEL} \leq 11$.

If '00' is entered in this field, no channel will be positioned on the line interval in question.

► **ACTION** (selection options)

Default: 2 (SAVE)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML4GLOOP, is displayed.

2/SAVE:

Saves the loop records in the output file and returns to the previous mask, ML4GLOOP.

The screen is analyzed until a blank occurs in the first field of the line interval.

The loop record is valid if the following conditions are met:

- Only valid values are specified.
- The specified total length of the loop record equals the length of the loop record that results from the entries for LINE and LPI plus the automatic extension of the loop record (see note).
If 0 is entered as the total length of the loop record, no consistency check will be carried out.
- Channel 1 must be specified at least once in the loop record and no channel can be specified in the last line of the loop record.

3/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Page number
- Name of the loop record
- Error messages

Notes

1. A maximum of 500 screen lines is displayed.
2. The maximum number of loop lines can be determined by multiplying the maximum line spacing by the maximum length of the loop record:
 $20 * 25 = 500$.
3. In order to exclude a particular screen line from loop processing, the entry for this line in the field for the first line of the loop record must be '0' (see example 1).
4. The values for line intervals can overlap. If this happens, the specification made last or that made in a continuation screen has priority (see example).
5. *Automatic extension of a loop record:*

If the action SAVE is selected, the specified values for LINE, LPI and CHANNEL are checked for validity and used to create a loop record. If the length of the loop record as calculated from the values for LINE and LPI is smaller than the length specified for TOTAL LENGTH, RSOSERVE extends the loop record automatically. This is done by adding lines with the lpi value of the last lines specified. The loop record is saved once the value for TOTAL LENGTH has been reached. If the value for TOTAL LENGTH cannot be reached (due to differing line spacings in the loop record or if indivisible fractions are specified), RSOSERVE displays the loop record as completed up to the interruption and users can correct their entries.

The automatic extension of a loop record occurs

- where the total length specified by the user for the loop record to be generated is $\neq 0$
- only at the end of a loop record; open intervals at the beginning or in the middle of a loop record are not padded.

Example 1 (generating loop records)

The following values for the generation of a loop record are entered in mask ML5GLOOP:

```

LOOP EG1 MANAGEMENT.
TOTAL LENGTH: 02 + 080/120
LINE 001 - 002: 06 LPI , CHANNEL 00 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (1)
LINE 003 - : 06 LPI , CHANNEL 01 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (2)
LINE 004 - 010: 06 LPI , CHANNEL 00 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (3)
LINE 000 - 013: 08 LPI , CHANNEL 00 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (4)
LINE 011 - 013: 06 LPI , CHANNEL 04 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (5)
LINE 014 - 020: 08 LPI , CHANNEL 00 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (6)
LINE 016 - 020: 20 LPI , CHANNEL 00 ↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑↑ (7)

```

The entry in field TOTAL LENGTH means that the loop record is to have a total length of 2 plus 2/3 inches. When the action SAVE is selected, RSOSERVE checks that entries 1-7 are consistent with the entry for TOTAL LENGTH.

If a check is not desired, the value for TOTAL LENGTH must be changed to 00 + 000/120.

Explanation of the individual lines:

- (1) 6 lpi is specified as the spacing for the first two lines of the loop record; a channel to effect an implicit line feed is not defined.
- (2) Channel 1 is positioned on the third line of the loop record; the line spacing is still 6 lpi.
- (3) 6 lpi is retained for the next seven lines of the loop record.
- (4) Entering 000 in the field for the first line number causes RSOSERVE to ignore the entire line when analyzing the entries.
- (5) Channel 4 is positioned on lines 11, 12 and 13 of the loop record.
- (6) Line spacing for lines 14 to 20 is set to 8 lpi; no channel is defined within this interval.
- (7) Line spacing for lines 16 to 20 is set to 20 lpi; no channel is defined within this interval. Lines (6) and (7) overlap with respect to the definition of loop lines 16 to 20. Line (6) declares a line spacing of 8 lpi for these lines, while line (7) declares a spacing of 20 lpi. In this situation, the general rule applies that the last entry, or the entry made in a later screen takes priority; consequently the line spacing in the present case is 20 lpi.

The total length of the loop record is calculated as follows:

```

13 lines (001-013) are
set to a spacing of 6 lpi      ↑↑↑↑↑> 13/6 = 260/120
2 lines (014-015) are
set to a spacing of 8 lpi      ↑↑↑↑↑> 2/8 = 30/120
5 lines (016-020) are
set to a spacing of 20 lpi     ↑↑↑↑↑> 5/20 = 30/120
                                ↑↑↑↑↑↑↑↑↑↑
The total length is thus -----> 320/120 inch
    
```

This value equals the entry made for TOTAL LENGTH (2 + 80/120) and need not be completed by RSOSERVE.

Channel 1 is defined for line feed, and no channel is positioned on the last line of the loop record. When the action SAVE is selected, this loop record will be stored in the RSOFIELD.

Example 2 (automatic extension of a loop record)

The following values for the generation of a loop record are entered in mask ML5GLOOP:

```

LOOP EG2 MANAGEMENT.
TOTAL LENGTH : 09 + 000/120
LINE 001 - 002 : 06 LPI , CHANNEL 00 ↑↑↑↑↑↑↑↑↑↑ (1)
LINE 003 -      : 06 LPI , CHANNEL 01 ↑↑↑↑↑↑↑↑↑↑ (2)
    
```

The entry for TOTAL LENGTH: 09 + 000/120 means that the total length of the loop record is to be 9 inches.

- (1) 6 lpi is specified for the first two lines of the loop record; a channel to effect an implicit line feed is not defined.
- (2) Channel 1 is positioned on the third line of the loop record; line spacing remains 6 lpi.

If SAVE is selected to store this loop record in the RSOFIELD, the loop record is automatically extended by the number of lines required to achieve a total length of 9 inches. In this example, RSOSERVE adds to the existing lines 51 lines at 6 lpi without defined channel. In cases where no mathematically "round" value is specified (e.g. 9 + 1/120), so that no complete line extension is possible, the lines extended by RSOSERVE as far as the next lower round figure are displayed, together with a corresponding message.

Mask with help texts after the option '?' is selected

```

Level 5                RSO SERVICES HELP SCREEN: LOOP DISPLAY                HL5GLOPD

You have already given the name of an existing LOOP .

Select one of the following functions :

  0 /END      : Terminate RSOSERVE.
  1 /BACK     : Return to the previous screen.
  3 /NEXT     : Display the NEXT page .
  4 /PREVIOUS : Display the PREVIOUS page .
  Ln/LEVELn  : Return to level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML4GLOOP, is displayed.

3/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Page number
- Name of the loop record
- Total length of the loop record
- Data of the loop record (displayed line by line).

The lines are displayed with the numbers of the first and last lines of the loop record of the same spacing. The output is also subdivided into groups of lines of the same spacing for which a channel definition has been declared.

Example

```
LINE 001-002 :    06 LPI , CHANNEL
LINE 003-    :    06 LPI , CHANNEL 01
LINE 004-010 :    06 LPI , CHANNEL
LINE 011-100 :    08 LPI , CHANNEL
```

If a screen line represents only one line of a loop record, only the first field for the pair of lines is filled with the appropriate information, e.g.:

```
LINE003-:06LPI:CHANNEL01
```

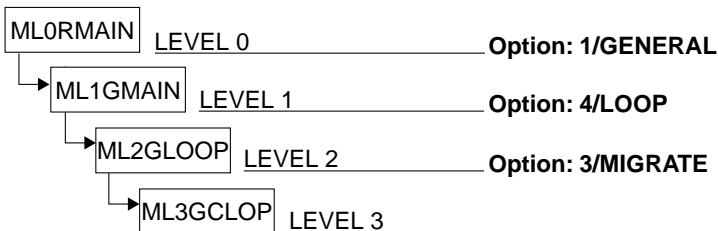
If no channel has been defined for a line, the field in question remains blank, e.g.:

```
LINE011-100:08LPI:CHANNEL
```

- Error messages

Mask ML3GCLOP: Migrating loop records

Mask sequence



```

Level 3                                R S O   S E R V I C E S                                ML3GCLOP

INPUT:      Information on the INPUT file      (NDFILE/RSOFILE).

FILE NAME   : *STD-----
FILE PASSWORD : c'----' or x'-----'

OUTPUT:      Information on the OUTPUT file    (RSOFILE/NDFILE).

FILE NAME   : *STD-----
FILE PASSWORD : c'----' or x'-----'
OVERWRITE (Y/N) : _ (for duplicate loops)

RESULT:  RECORDS PROCESSED : @@@@
         RECORDS OVERWRITTEN: @@@@
         RECORDS ADDED    : @@@@

ACTION :-----  0/END      2/MIGRATE-ALL loops      ?/HELP
              1/BACK      3/MIGRATE one or several loops  Ln/LEVELn

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

This mask can be used to copy loop records

- from an RSOFILE to an NDFILE
- from an NDFILE to an RSOFILE

The cursor is on the field INPUT FILE NAME.

The value in the field OVERWRITE is always reset to 'N'.

Note

When an RSOFILE is structurally adapted to the format of a NDFILE, only loop records which have line spacing that is valid for the NDFILE are copied.

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  LOOP MIGRATION                HL3GCL0P

Select one of the following actions :

0 /END          :  Terminate RSOSERVE.
1 /BACK         :  Return to the previous screen.
2 /MIGRATE-ALL :  MIGRATE all  LOOPS from INPUT file to OUTPUT file.
3 /MIGRATE     :  MIGRATE one or several  LOOPS from INPUT file to OUTPUT file.
Ln/LEVELn     :  Return to level n  (n =  0,1,2).

If action = 2 or 3 is selected, the following information must be given :
- The INPUT file: FILE NAME ( must be NDFILE or RSOFILE file type).
                  PASSWORD (if the file is protected by a password).
- The OUTPUT file: FILE NAME (must be RSOFILE or NDFILE file type).
                  PASSWORD (if the file is protected by a password).
                  OVERWRITE = Y (if duplicate LOOPS should be overwritten).

The LOOPS found in the INPUT file are added to the OUTPUT file depending on
the value specified in the OVERWRITE parameter. Output format is as follow :
RECORDS PROCESSED = number of LOOPS read in input file.
RECORDS OVERWRITTEN = number of LOOPS overwritten in the output file.
RECORDS ADDED     = number of LOOPS created in the output file.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**➤ INPUT FILE NAME:**

NDFILE or RSOFILE to be used as input file.

Validity criteria:

<:catid:><\$userid.>.<alphanum-name 1..28.>RSOFILE or

<:catid:><\$userid.>.<alphanum-name 1..28.>NDFILE

Default:

*STD, i.e. the name of the system RSOFILE defined in the IMON tables

➤ INPUT FILE PASSWORD:

Password for the input file, if it is protected (4 EBCDIC or 8 hexadecimal characters).

➤ OUTPUT FILE NAME:

Name of NDFILE or RSOFILE to be used as output file.

Validity criteria:

<:catid:><\$userid.>.<alphanum-name 1..28.>RSOFILE or

<:catid:><\$userid.>.<alphanum-name 1..28.>NDFILE

Default:

*STD, i.e. the name of the system RSOFILE defined in the IMON tables

➤ OUTPUT FILE PASSWORD:

Password for the output file, if it is protected (4 EBCDIC or 8 hexadecimal characters).

- **OVERWRITE:**
Identical loop records in the output file are to be overwritten (Y).

Note

The passwords for the input or output files are hidden from the user in a blank field. The passwords must be re-entered before every call to actions 2 (MIGRATE-ALL) or 3 (MIGRATE).

- **ACTION** (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

2/MIGRATE-ALL:

All loop records are transferred.

If the file name entries are syntactically valid, all loop records are transferred in accordance with the value of OVERWRITE. Note, however, that some loop records in the RSOFIELD cannot be transferred to the NDFIELD.

3/MIGRATE:

One or more loop records are transferred.

If the file name entries are syntactically valid, one or more loop records from the input file can be selected in the next mask and transferred in accordance with the value of OVERWRITE. Note, however, that some loop records in the RSOFIELD cannot be transferred to the NDFIELD.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Number of records read from the input file
- Number of records overwritten in the output file
- Number of records added to the output file
- Error messages

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN:  LOOPs MIGRATION                HL4GCLOP

A list of L00Ps defined in the input file is displayed.
Select one of the following functions :

0 /END                : Terminate RSOSERVE.
1 /BACK               : Return to the previous screen.
2 /MIGRATE            : Migrate loops which name is preceded by a ,X' from the input
                      file to the output file.
3 /NEXT               : Display NEXT page .
4 /PREVIOUS           : Display PREVIOUS page .
5 /LIST-OUTPUT        : LIST loops defined in the OUTPUT file.
6 /LIST-INPUT         : LIST loops defined in the INPUT file.
7 /LAST               : Display the LAST page .
8 /FIRST              : Display the FIRST page .
Ln/LEVELn             : Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- Loop records are selected from the list by entering x.

- ACTION (selection options)

Default: 2 (MIGRATE)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML3GCLOP, is displayed.

2/MIGRATE:

Transfers the loop records.

The loop records selected with an x are copied from the input file to the output file in accordance with the OVERWRITE parameter value in the previous screen.

If no loop record was selected, a corresponding error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

5/LIST-OUTPUT:

Displays the loop records already defined in the output file, beginning with the first page of the list.

6/LIST-INPUT:

Displays the loop records already defined in the input file, beginning with the first page of the list.

7/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

8/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding message is displayed.

?/HELP:

Mask with help texts is displayed.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the loop records defined in the files
- Error messages

3.6 Merging two RSOFILES

Mask ML1MERGE: Selecting the files

Mask sequence



This mask allows the user to select the record types to be processed and the input and output files. Generation of the system RSOFILE is a function reserved for system administration

```

Level 1                                R S O   S E R V I C E S                                ML1MERGE

INPUT FILENAME : -----

OUTPUT FILENAME : -----

OVERWRITE (Y/N) : _ (if records are duplicated)

-----

ACTION : -----      0/END          2/MERGE
                   1/BACK          ?/HELP

ALL (Y/N) : _

( ) BAND-ID
( ) CHARACTER-IMAGE
( ) LOOP
( ) TRANSLATION-TABLE

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field INPUT FILENAME. The value in the field OVERWRITE is always reset to 'N'.

Mask with help texts after the option '?' is selected

```

Level 1                                RSO SERVICES HELP SCREEN                                HLIMERGE

RSO SERVICES: MERGE RSOFILE MANAGEMENT.
Give information on the RSOFILES used as the INPUT and the OUTPUT files
for copy.

INPUT FILENAME      : Name of an RSOFILE
OUTPUT FILENAME     : Name of another RSOFILE
OVERWRITE           : Must be set to Y if duplicate records found in the
                    : OUTPUT file are to be overwritten.

Select one of the following actions .
0/END               : Terminate RSOSERVE.
1/BACK              : Return to the previous screen.
2/MERGE             : Merge records according to the ALL value.

Specify if all records are to be merged
ALL : can be set to Y with or without a specific record type

Select a record type. (give a ,x' between the ,(,))

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- **INPUT FILENAME**
(name of an existing system RSOFILE)
Validity criteria:
valid BS2000 file name
File name must be different from that of output file.
Default: RSOFILE
- **OUTPUT FILENAME**
(name of an existing RSOFILE or an RSOFILE to be generated)
Validity criteria:
valid BS2000 file name
The new file is created under the calling user ID.
Default: RSOFILE
- **OVERWRITE**
(specifies whether duplicate tables in the output RSOFILE are to be overwritten)
Default: N
Validity criteria:
Only the character 'Y' or 'N'.
- **ACTION** (selection options)
Default: 2 (MERGE)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

2/MERGE:

Merges the records.

The entries in the field ALL and the fields for the individual records determine the extent of this action and the different record types (BAND-ID, CHARACTER-IMAGE, LOOP, TRANSLATION-TABLE).

If all record types are to be taken into account, the value Y must be entered in the field ALL.

Selecting the record types:

Record type BAND-ID: In order to select all band ID records, the value Y must be entered in the field ALL and the field BAND-ID marked with an x.

In order to select individual records, the value 'N' must be entered in the field ALL and the field BAND-ID marked with an x.

Record type CHARACTER-IMAGE: In order to select all character image records, the value Y must be entered in the field ALL and the field CHARACTER-IMAGE marked with an x.

In order to select individual records, the value 'N' must be entered in the field ALL and the field CHARACTER-IMAGE marked with an x.

Record type LOOP: In order to select all loop records, the value Y must be entered in the field ALL, and the field LOOP marked with an x.

In order to select individual records, the value 'N' must be entered in the field ALL and the field LOOP marked with an x.

Record type TRANSLATION-TABLE: In order to select all translation table records, The value Y must be entered in the field ALL, and the field TRANSLATION-TABLE marked with an x.

In order to select individual records, the value 'N' must be entered in the field ALL and the field TRANSLATION-TABLE marked with an x.

Error handling: If the value N is entered in the field ALL and no record type is selected, or if the value N is entered and more than one record type is selected, a corresponding error message is displayed.

?/HELP:

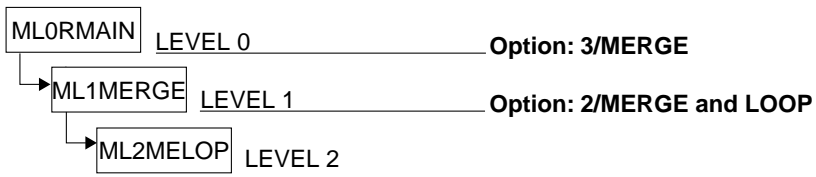
The above mask with help texts is displayed.

Output

Error messages

Mask ML2MELOP: Processing loop records

Mask sequence



```

Level 2                                R S O   S E R V I C E S                                ML2MELOP
                                          Page:@@@

LOOPS DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  NAME      NAME      NAME      NAME      NAME
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@

ACTION :-----  0/END          3/NEXT          page          7/LAST page
                1/BACK          4/PREVIOUS     page          8/FIRST page
                2/COPY          5/LIST-OUTPUT file          Ln/LEVELn
                6/LIST-INPUT  file          ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the first loop record in the list. The loop records are processed and displayed line by line. If the specified input file does not contain any loop records, this mask is not offered.

Mask with help texts after the option '?' is selected

```

Level 2                                RSO SERVICES HELP SCREEN.                HL2MELOP
A list of LOOPS already defined is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.
2 /COPY        : COPY the loops whose name is preceded by
                 a ,X' (in the list) from the input file to the output
                 file.
3 /NEXT        : Display the NEXT page .
4 /PREVIOUS    : Display the PREVIOUS page .
5 /LIST-OUTPUT : LIST LOOPs defined in the OUTPUT file.
6 /LIST-INPUT  : LIST LOOPs defined in the INPUT file.
7 /LAST       : Display the LAST page .
8 /FIRST      : Display the FIRST page .
Ln/LEVELn    : Return to level n (n = 0,1)

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- LOOP record
Selects loop records from the list; an x must be entered in front of the required names.
- ACTION (selection options)
Default: 2 (COPY)
 - 0/END:
No action; RSOSERVE is terminated.
 - 1/BACK:
No action; the previous mask ML1MERGE is displayed.
 - 2/COPY:
Copies loop records.
Selecting this action copies the loop records marked with an x from the input file to the output file, according to the value of the OVERWRITE parameter in the previous mask. Error messages are displayed if the loop records are from the output file or if no loop record has been marked with an x.
 - 3/NEXT:
If there is a continuation list, it is displayed.
Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.
Otherwise the same mask is output to SYSOUT with a message.

5/LIST-OUTPUT:

Displays the loop records already defined in the output file. Display begins with the first page of the list.

6/LIST-INPUT:

Displays the loop records already defined in the input file. Display begins with the first page of the list.

7/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

8/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Mask with help texts is displayed.

Note

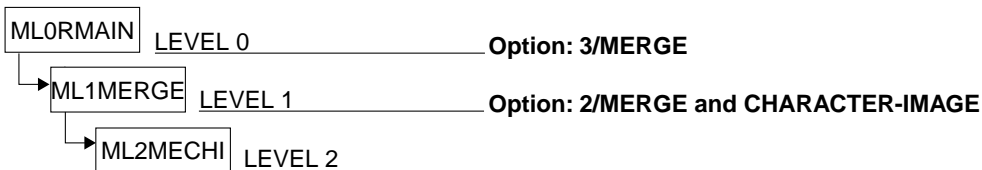
The marked loop records are processed sequentially. Processing is aborted and an error message displayed if a faulty loop record is detected.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the loop records already defined
- Error messages

Mask ML2MECHI: Processing character image records

Mask sequence



```

Level 2                                R S O   S E R V I C E S                                ML2MECHI
                                           Page:@@@

CHARACTER IMAGES DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  NAME      NAME      NAME      NAME      NAME
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@
-  @@@      -  @@@      -  @@@      -  @@@      -  @@@

ACTION :-----  0/END          3/NEXT          page          7/LAST page
                  1/BACK          4/PREVIOUS     page          8/FIRST page
                  2/COPY          5/LIST-OUTPUT file         Ln/LEVELn
                  6/LIST-INPUT  file         ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the first character image record in the list. The records are processed and displayed line by line. If the specified input file does not contain any character image records, this mask is not offered.

Mask with help texts after the option '?' is selected

```

Level 2                                RSO SERVICES HELP SCREEN.                HL2MECHI
A list of CHARACTER IMAGES already defined is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK        : Return to the previous screen.
2 /COPY        : COPY the character images whose name is preceded by
                a ,X' (in the list) from the input file to the output
                file.
3 /NEXT        : Display the NEXT page .
4 /PREVIOUS    : Display the PREVIOUS page .
5 /LIST-OUTPUT : LIST CHARACTER IMAGES defined in the OUTPUT file.
6 /LIST-INPUT  : LIST CHARACTER IMAGES defined in the INPUT file.
7 /LAST        : Display the LAST page .
8 /FIRST       : Display the FIRST page .
Ln/LEVELn     : Return to level n (n = 0,1)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**➤ CHARACTER-IMAGE record**

Selects character image records from the list; the required names must be marked with an x.

➤ ACTION (selection options)

Default: 2 (COPY)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1MERGE, is displayed.

2/COPY:

Copies character image records.

Selecting this action copies the records marked with an x from the input to the output file, according to the value of the OVERWRITE parameter in the previous mask. Error messages are displayed if the marked character image records are from the output file, or if no character image record is marked with an x.

3/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.
Otherwise the same mask is output to SYSOUT with a message.

5/LIST-OUTPUT:

Displays the character image records already defined in the output file. Display begins with the first page of the list.

6/LIST-INPUT:

Displays the character image records already defined in the input file. Display begins with the first page of the list.

7/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

8/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Mask with help texts is displayed.

Note

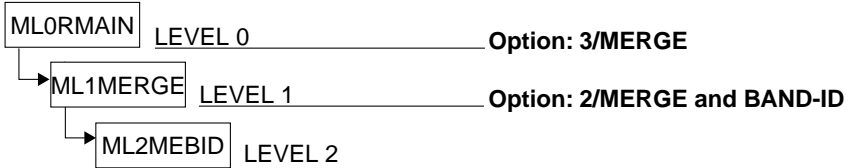
The marked records are processed sequentially. Processing is aborted and an error message displayed if a faulty character image record is detected.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the character image records already defined
- Error messages

Mask ML2MEBID: Processing band ID records

Mask sequence



```

Level 2                                R S O   S E R V I C E S                                ML2MEBID
                                                                                               Page:@@@

BAND IDS DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  NAME      NAME      NAME      NAME      NAME
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@
-  @@@@    -  @@@@    -  @@@@    -  @@@@    -  @@@@

ACTION :-----  0/END          3/NEXT          page          7/LAST page
                  1/BACK          4/PREVIOUS     page          8/FIRST page
                  2/COPY          5/LIST-OUTPUT  file         Ln/LEVELn
                  6/LIST-INPUT  file          ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the first band ID record in the list. The band ID records are processed and displayed line by line. If the specified input file does not contain any band ID records, this mask is not offered.

Mask with help texts after the option '?' is selected

```

Level 2                                RSO SERVICES HELP SCREEN.                                HL2MEBID
A list of BAND-IDS already defined is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK        : Return to the previous screen.

2 /COPY        : COPY the band ids whose name is preceded by a ,X'
                from the INPUT file to the OUTPUT file

3 /NEXT        : Display NEXT page .
4 /PREVIOUS    : Display PREVIOUS page .

5 /LIST-OUTPUT : LIST BAND-IDs defined in the OUTPUT file.
6 /LIST-INPUT  : LIST BAND-IDs defined in the INPUT file.

7 /LAST        : Display the LAST page .
8 /FIRST       : Display the FIRST page .

Ln/LEVELn      : Return to level n (n = 0,1)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- Band ID record
Selects band ID records from the list; an x must be entered in front of the required names.
- ACTION (selection options)
Default: 2 (COPY)
 - 0/END:
No action; RSOSERVE is terminated.
 - 1/BACK:
No action; the previous mask, ML1MERGE, is displayed.
 - 2/COPY:
Copies band ID records.
Selecting this action copies the records marked with an x from the input to the output file, according to the value of the OVERWRITE parameter in the previous mask. Error messages are displayed if the marked band ID records are from the output file, or if no band ID record is marked with an x.
 - 3/NEXT:
If there is a continuation list, it is displayed.
Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

5/LIST-OUTPUT:

Displays the band ID records already defined in the output file. Display begins with the first page of the list.

6/LIST-INPUT:

Displays the band ID records already defined in the input file. Display begins with the first page of the list.

7/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

8/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Mask with help texts is displayed.

Note

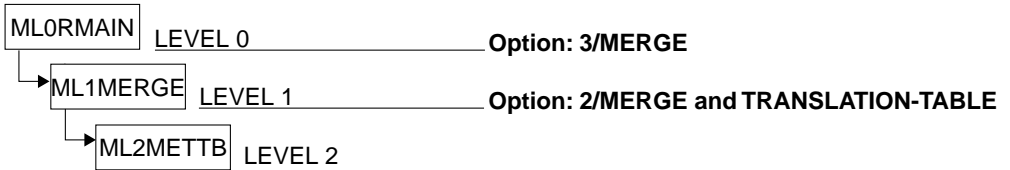
The marked band ID records are processed sequentially. Processing is aborted and an error message displayed if a faulty band ID record is detected.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the band ID records already defined
- Error messages

Mask ML2METTB: Processing translation table records

Mask sequence



```

Level 2                                R S O   S E R V I C E S                                ML2METTB
                                           Page:@@@

TRANSLATION TABLES DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  NAME          NAME          NAME          NAME          NAME
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@
- @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@  - @@@@@@@@@@

ACTION :-----  0/END          3/NEXT          page          7/LAST page
                1/BACK          4/PREVIOUS     page          8/FIRST page
                2/COPY          5/LIST-OUTPUT  file          Ln/LEVELLn
                6/LIST-INPUT   file          ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the first translation table record in the list. The translation table records are processed and displayed line by line. If the specified input file does not contain any translation table records, this mask is not offered.

Mask with help texts after the option '?' is selected

```

Level 2                                RSO SERVICES HELP SCREEN.                HL2METTB
A list of TRANSLATION TABLES already defined is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.
2 /COPY         : COPY the translation tables whose name is preceded by
                  a ,X' (in the list) from the input file to the output
                  file.
3 /NEXT        : Display the NEXT page .
4 /PREVIOUS    : Display the PREVIOUS page .
5 /LIST-OUTPUT : LIST TRANSLATION TABLES defined in the OUTPUT file.
6 /LIST-INPUT  : LIST TRANSLATION TABLES defined in the INPUT file.
7 /LAST       : Display the LAST page .
8 /FIRST      : Display the FIRST page .
Ln/LEVELn    : Return to level n (n = 0,1)

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ Translation table record

Selects translation table records from the list; an x must be entered in front of the required names.

➤ ACTION (selection options)

Default: 2 (COPY)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1MERGE, is displayed.

2/COPY:

Copies translation table records.

Selecting this action copies the records marked with an x from the input to the output file, according to the value of the OVERWRITE parameter in the previous mask. Error messages are displayed if the marked translation table records are from the output file, or if no translation table record is marked with an x.

3/NEXT:

If there is a continuation list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed.

Otherwise the same mask is output to SYSOUT with a message.

5/LIST-OUTPUT:

Displays the translation table records already defined in the output file. Display begins with the first page of the list.

6/LIST-INPUT:

Displays the translation table records already defined in the input file. Display begins with the first page of the list.

7/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

8/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Mask with help texts is displayed.

Note

The marked translation table records are processed sequentially. Processing is aborted and an error message displayed if a faulty translation table record is detected.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the translation table records already defined
- Error messages

3.7 RSOSERVE display functions

Mask ML1SHOW: Selecting the record types

Mask sequence



This mask enables the user to ask for information about all the record types that are processed by RSO (system RSOFILE), or about the font and character set definitions in the file SYSPAR.RSO.030.USER.

In addition, information about character sets and the form can be requested for a printer type from the SPOOL parameter file, along with information about the 2 character sets that can be linked to this form.

```

Level 1                                R S O   S E R V I C E S                                ML1SHOW

SELECT FUNCTION :

0/END                :   END RSOSERVE.
1/BACK               :   BACK.
2/CHARACTER-IMAGE   :   CHARACTER IMAGE  DISPLAY.
3/TRANSLATION-TABLE :   TRANSLATION TABLE DISPLAY.
4/LOOP               :   LOOP  DISPLAY.
5/BAND-ID            :   BAND ID   DISPLAY.
6/CHARACTER-SET     :   CHARACTER SET  DISPLAY.
7/FONT               :   FONT  DISPLAY.
8/MEMBER             :   MEMBER  DISPLAY.
9/SPOOLOUT-FEATURES :   SPOOLOUT FEATURES DISPLAY
?/HELP              :   HELP.

DEVICE TYPE          :   -----   (for ACTION = 6, 7 or 9)
PRINTER NAME        :   -----   (for ACTION = 8)
FORM NAME           :   -----   (for ACTION = 8 or 9)
CHARACTER SET NAME  :   -----   (for ACTION = 9)
ACTION : ----- (number or name of the selected function).

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field DEVICE TYPE.

Mask with help texts after the option '?' is selected

```

Level 1                                RSO SERVICES HELP SCREEN                                HL1SHOW
RSO SERVICES:  DISPLAY MANAGEMENT.

Select one of the following functions :

0/END                :  Terminate RSOSERVE.
1/BACK              :  Return to the previous screen.

2/CHARACTER-IMAGE   :  CHARACTER IMAGE  records display.
3/TRANSLATION-TABLE :  TRANSLATION TABLE records display.
4/LOOP              :  LOOP records display.
5/BAND-ID           :  BAND ID records display.
6/CHARACTER-SET     :  CHARACTER SET records display.
                    :  A device type must be specified.
7/FONT              :  FONT records display.
                    :  A device type must be specified.
8/MEMBER            :  MEMBER records display.
                    :  As the members list is linked to a form, a form
                    :  name and the logical name of the device must
                    :  be specified.
9/SPOOLOUT-FEATURES :  SPOOLOUT FEATURES display

                                           PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- DEVICE TYPE
(printer for which information is required).
- PRINTER NAME
(logical name of the device to which the member link information refers)
- FORM NAME
(form name)
- CHARACTER SET NAME
(character set name)
- ACTION (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

2/CHARACTER-IMAGE:

Outputs the character image records

3/TRANSLATION-TABLE:

Outputs the translation table records

4/LOOP:

Outputs the loop records

5/BAND-ID:

Outputs the band ID records

Note

The RSO subsystem must be loaded for functions 6 to 9 described below.

6/CHARACTER-SET:

Outputs the character sets.

The user receives the list of the character sets defined in the file SYSPAR.RSO.030.USER.

7/FONT:

Outputs the font records.

The user receives the list of the font records defined in the file SYSPAR.RSO.030.USER.

8/MEMBER:

Outputs the member records.

The first (current) device administrator for this device receives the list of the members linked to the form specified.

Otherwise the unauthorized caller receives an error message.

9/SPOOLOUT-FEATURES:

Outputs the spoolout features.

On calling this function users receive a description of printer control for a particular printer type, depending on a selected character set or form. The output may be structured in different ways, according to what users specify; it is possible to specify a printer type and a character set (CHARACTER SET) or a printer type and a form (FORM NAME).

- Specification of printer type and character set

The output comprises all information relating to the character set, including the characteristics of the character set that are stored in the SPOOL parameter file (operand values of the ADD-SPOOL-CHARACTER-SET command). The output also includes the name of a font that is linked to the character set, and the comment field that was specified by the SPOOL administrator in the font definition. The linkage is stored in the SYSPAR.RSO.030.USER file.

- Specification of printer type and form
The output comprises all information relating to the form and the description of the maximum of 2 character sets that can be linked to this form. The output also includes the name of a font that is linked to the character set, and the comment field that was specified by the SPOOL administrator in the font definition. The linkage is stored in the SYSPAR.RSO.030.USER file.

The outputs are accompanied by warning messages for the user if certain operand values not supported by the referenced printer type are displayed.

?/HELP:

The above mask with help texts is displayed.

Output

Error messages

Mask with help texts after the option '?' is selected

```
Level 2      RSO SERVICES HELP SCREEN:  TRANSLATION TABLE LIST      HL2STTB
```

A list of TRANSLATION TABLES already defined in THE SYSTEM RSOFIELD is displayed.

Select one of the following functions :

```
0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /SHOW     : SHOW one of the listed TRANSLATION TABLES.
              Selection with the selected name or with the ,X' character
              in the list
3 /NEXT     : Display the NEXT page .
4 /PREVIOUS : Display the PREVIOUS page .
5 /LAST     : Display the LAST page .
6 /FIRST    : Display the FIRST page .
Ln/LEVELn   : Return to level n ( n = 0,1).
```

PRESS <DUE1> KEY TO LEAVE INFO MODE

Input

► SELECTED TRANSLATION TABLE

(name of the translation table required)

Validity criteria:

1 to 8 alphanumeric characters, no more than 7 consecutive blanks, single '␣' and '!' characters are ignored.

► ACTION (selection options)

Default: 2 (SHOW)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/SHOW:

Outputs a translation table from the system RSOFIELD.

– Specification in the SELECTED TRANSLATION TABLE field:

If the entry in the field SELECTED TRANSLATION TABLE is valid and the table exists in the system RSOFIELD, it is displayed in the following mask.

Otherwise an error message is displayed.

- If there is no entry in the field SELECTED TRANSLATION TABLE, the first translation table marked with an 'X' is displayed. Otherwise an error message is displayed.

3/NEXT:

- If there is a continuation page, it is displayed. Otherwise the same page is output to SYSOUT with a message.

4/PREVIOUS:

- If there is a previous page, it is displayed. Otherwise the same page is output to SYSOUT with a message.

5/LAST:

- The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

6/FIRST:

- The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

- No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

- The above mask with help texts is displayed.

Output

- Page number
- List of the translation tables already defined
- Error messages

Mask with help texts after the option '?' is selected

```
Level 3      RSO SERVICES HELP SCREEN:  TRANSLATION TABLE DISPLAY  HL3STTB
The selected TRANSLATION TABLE is displayed.

Select one of the following functions :
0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
Ln/LEVELn  :  Return to level n (n = 0,1,2)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, SH2TTB, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

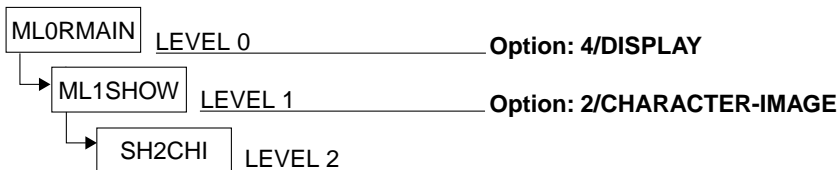
The above mask with help texts is displayed.

Output

- Selected translation table and its contents
- Error messages

Mask SH2CHI: Selecting a character image

Mask sequence



A list of the character image type records entered in the system RSOFILE is displayed.

```

Level 2                      R S O   S E R V I C E S                      SH2CHI
                              CHARACTER IMAGES ALREADY DEFINED IN THE SYSTEM RSOFILE :
                              Page:000

CH-IMAGE                      CH-IMAGE                      CH-IMAGE                      CH-IMAGE                      CH-IMAGE
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@
-  @@@                       -  @@@                       -  @@@                       -  @@@                       -  @@@

SELECTED CHARACTER IMAGE :  ---

ACTION :-----    0/END         3/NEXT         page    6/FIRST         page
                  1/BACK         4/PREVIOUS    page    Ln/LEVELn
                  2/SHOW         5/LAST         page    ?/HELP

```

The cursor is on the field SELECTED CHARACTER IMAGE. If the specified system RSOFILE contains no character images, this mask is not offered.

Mask with help texts after the option '?' is selected

```

Level 2          RSO SERVICES HELP SCREEN: CHARACTER IMAGE LIST          HL2SCH1
A list of CHARACTER IMAGES already defined in THE SYSTEM RSOFILe is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.
2 /SHOW         : SHOW one of the listed CHARACTER IMAGEs.
                 Selection with the selected name or with the ,X' character
                 in the list.
3 /NEXT         : Display the NEXT page .
4 /PREVIOUS     : Display the PREVIOUS page .
5 /LAST         : Display the LAST page .
6 /FIRST        : Display the FIRST page .
Ln/LEVELn      : Return to level n ( n = 0,1).

                                           PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- SELECTED CHARACTER IMAGE
(name of the required character image)

Validity criteria:

1 to 3 alphanumeric characters, no more than 2 consecutive blanks, single '␣' and '!' characters are ignored.

- ACTION (selection options)
Default: 2 (SHOW)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/SHOW:

Outputs a character image from the system RSOFILe.

- Specification in field SELECTED CHARACTER IMAGE:

If the entry in the field SELECTED CHARACTER IMAGE is valid and the table exists in the system RSOFILe, the character image is displayed in the subsequent mask.

Otherwise an error message is issued.

- If there is no entry in the field SELECTED CHARACTER IMAGE, the first character image marked with an 'X' is displayed. Otherwise an error message is displayed.

3/NEXT:

- If there is a continuation page, it is displayed. Otherwise the same page is output to SYSOUT with a message.

4/PREVIOUS:

- If there is a previous page, it is displayed. Otherwise the same page is output to SYSOUT with a message.

5/LAST:

- The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

6/FIRST:

- The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

- No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

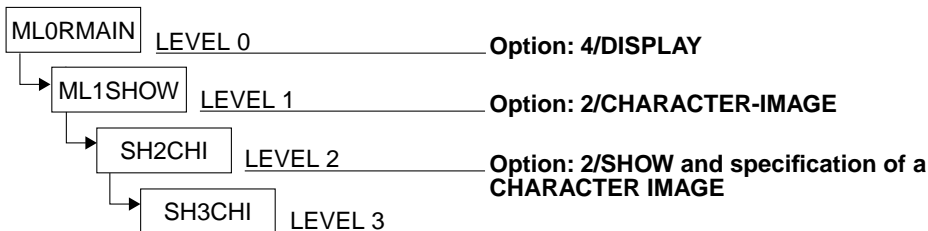
- The above mask with help texts is displayed.

Output

- Page number
- List of the character images already defined
- Error messages

Mask SH3CHI: Displaying a character image table

Mask sequence



The selected table is displayed.

```

Level 3                               R S O   S E R V I C E S                               SH3CHI
CHARACTER IMAGE @@@ DISPLAY.
.0   .0 .1 .2 .3 .4 .5 .6 .7 .8 .9 .A .B .C .D .E .F
.1   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.2   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.3   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.4   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.5   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.6   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.7   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.8   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.9   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.A   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.B   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.C   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.D   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.E   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0
.F   .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0

ACTION : -----  0/END        Ln/LEVELn
                  1/BACK      ?/HELP
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 3                RSO SERVICES HELP SCREEN:  TABLE DISPLAY                HL3SCH1
The selected CHARACTER IMAGE is displayed.

Select one of the following functions :
0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
Ln/LEVELn  :  Return to level n (n = 0,1,2)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, SH2CHI, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

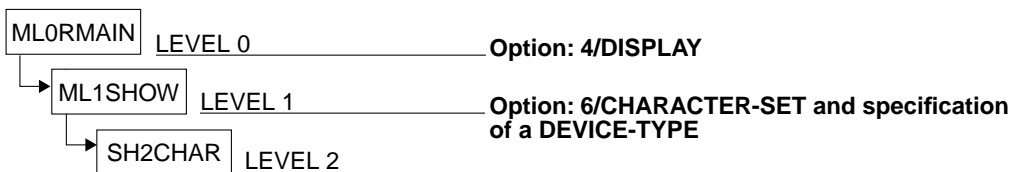
The above mask with help texts is displayed.

Output

- Selected character image and its contents
- Error messages

Mask SH2CHAR: Selecting a character set

Mask sequence



A list of the character sets entered in the file SYSPAR.RSO.030.USER for the selected printer is displayed.

```

Level 2                R S O   S E R V I C E S                SH2CHAR
                                Page:@@@
CHARACTER SETS ALREADY DEFINED IN @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

      NAME      NAME      NAME      NAME      NAME
-----
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@
-  @@@         -  @@@         -  @@@         -  @@@         -  @@@

SELECTED CHARACTER SET : ---

ACTION  :-----  0/END           3/NEXT           page           6/FIRST       page
                    1/BACK           4/PREVIOUS       page           Ln/LEVELn
                    2/SHOW           5/LAST           page           ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field SELECTED CHARACTER SET. If the file contains no character sets, this screen is not offered.

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN:  CHAR SET LIST                HL2SCHAR

A list of the CHAR SETs already defined in the SYSPAR.RSO.030.USER
file is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /SHOW     : SHOW   one of the listed CHARACTER SETS.
              Selection with the selected name or with the ,X' character
              in the list.
3 /NEXT     : Display the  NEXT  page.
4 /PREVIOUS : Display the  PREVIOUS  page.
5 /LAST     : Display the  LAST  page.
6 /FIRST    : Display the  FIRST  page.
Ln/LEVELn   : Return to level n (n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ SELECTED CHARACTER SET

(Name of the selected character set)

Validity criteria:

1 to 3 alphanumeric characters, no more than 2 consecutive blanks, single '␣' and '␣' characters are ignored.

➤ ACTION (selection options)

Default: 2 (SHOW)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/SHOW:

Outputs a character set from the file SYSPAR.RSO.030.USER. If the entry in the field SELECTED CHARACTER SET is valid, and the entry exists in the file, the linked font is displayed. This information comprises the name of the font, its control character sequence and the comment. Otherwise, an error message is displayed.

If the field SELECTED CHARACTER SET does not contain any entry, the font associated with the first character set whose name is preceded by an 'X' (list) is displayed. Otherwise an error message is displayed. An error message is also displayed if the font linked to the character set has been deleted by the SPOOL administrator.

3/NEXT:

If there is a following page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

5/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

6/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Page number
- List of the character sets already defined
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3      RSO SERVICES HELP SCREEN : CHAR SET DISPLAY      HL3SCHAR

The FONT associated to the CHARACTER SET is displayed.
Displayed information includes the FONT name, the FONT escape sequence
and the comment.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
Ln/LEVELn  : Return to level n (n = 0,1,2)

                                           PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, SH2CHAR, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Name of the selected character set
- Name of the font linked to this character set, its control character sequence and the comment.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN:  BAND ID LIST                HL2SBID
A list of BAND IDS already defined in THE SYSTEM RSOFILe is displayed.

Select one of the following functions :

0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
2 /SHOW     :  SHOW one of the listed BAND IDs.
              Selection with the selected name or with the ,X' character
              in the list.
3 /NEXT     :  Display the NEXT page .
4 /PREVIOUS:  Display the PREVIOUS page .
5 /LAST     :  Display the LAST page.
6 /FIRST    :  Display the FIRST page.
Ln/LEVELn   :  Return to level n ( n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► SELECTED BAND ID

(name of the required band ID record)

Validity criteria:

1 to 4 alphanumeric characters, no more than 3 consecutive blanks, single '␣' and '_' characters are ignored.

► ACTION (selection options)

Default: 2 (SHOW)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/SHOW:

Outputs a band ID from the system RSOFILe.

- If the entry in the field SELECTED BAND-ID is valid and the record exists in the system RSOFILe, the record is displayed in the following mask.
Otherwise an error message is displayed.
- If there is no entry in the field SELECTED BAND ID, the first band ID marked with an 'X' is displayed.
Otherwise an error message is displayed.

3/NEXT:

If there is a following page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

5/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

6/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

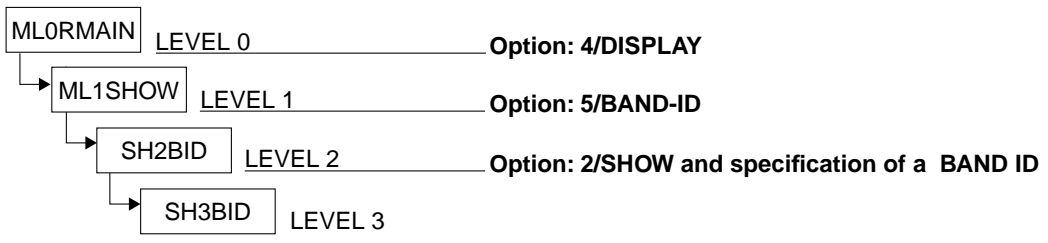
The above mask with help texts is displayed.

Output

- Page number
- List of the band IDs already defined
- Error messages

Mask SH3BID: Displaying a band ID record

Mask sequence



The selected record is displayed.

```

Level 3                                R S O   S E R V I C E S                                SH3BID
BAND ID : @@@@ DISPLAY.
      4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.1  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.2  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.3  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.4  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.5  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.6  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.7  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.8  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.9  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.A  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.B  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.C  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.D  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.E  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@
.F  @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@ @@

IDENTIFIER : @@@
ACTION : -----  0/END          Ln/LEVELn
                  1/BACK        ?/HELP
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 3      RSO SERVICES HELP SCREEN:  BAND ID DISPLAY      HL3SBID

  The selected BAND ID is displayed as well as its identifier.

Select one of the following functions :

0 /END      :  Terminate RSOSERVE
1 /BACK     :  Return to the previous screen.
Ln/LEVELn  :  Return to level n (n = 0,1,2)

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, SH2BID, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Name of the selected band ID, band ID identifier (3 characters), together with the corresponding matrix
- Error messages

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN : LOOP LIST                HL2SLOOP
A list of LOOPS already defined in THE SYSTEM RSOFILe is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /SHOW     : SHOW one of the listed LOOPS.
              Selection with the selected name or with the ,X' character
              in the list.
3 /NEXT     : Display the NEXT page .
4 /PREVIOUS: Display the PREVIOUS page .
5 /LAST     : Display the LAST page .
6 /FIRST    : Display the FIRST page .
Ln/LEVELn   : Return to level n ( n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ **SELECTED LOOP**

(name of the selected loop record)

Validity criteria:

1 to 3 alphanumeric characters (but not '@' or '\$'), no more than 2 consecutive blanks, single '␣' and '_' characters are ignored.

➤ **ACTION** (selection options)

Default: 2 (SHOW)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/SHOW:

Outputs a loop record from the system RSOFILe.

- If the entry in the field SELECTED LOOP is valid, and the loop record exists in the system RSOFILe, it is displayed in the following mask.

Otherwise an error message is displayed.

- If there is no entry in the field SELECTED LOOP, the first loop marked with an 'X' is displayed.

Otherwise an error message is displayed.

3/NEXT:

If there is a following page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

5/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

6/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

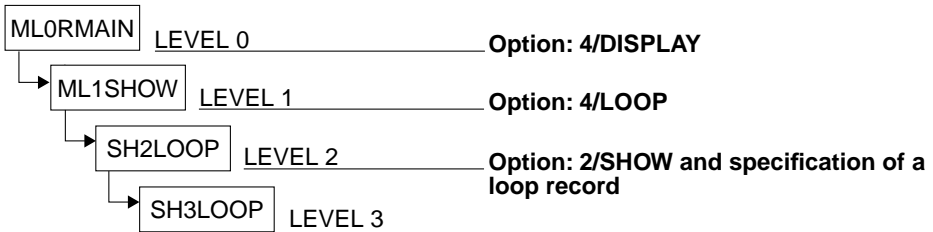
The above mask with help texts is displayed.

Output

- Page number
- List of the loop records already defined in the system RSOFIL
- Error messages

Mask SH3LOOP: Displaying a loop record

Mask sequence



The selected loop record is displayed.

```

Level 3                                R S O   S E R V I C E S                                SH3LOOP
                                           Page:@@@

LOOP @@ DISPLAY.

TOTAL LENGTH:  @@ + @@/@@

LINE @@ - @@   :   @@ LPI , CHANNEL @@
LINE @@ - @@   :   @@ LPI , CHANNEL @@
.
.
.
.

ACTION :  -----  0/END          2/NEXT   page      Ln/LEVELn
              1/BACK          3/PREVIOUS  page      ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN: LOOP DISPLAY                HL3SLOOP

The selected LOOP with its length, fraction and density is displayed.

Select one of the following functions :

  0 /END      : Terminate RSOSERVE.
  1 /BACK     : Return to the previous screen.
  2 /NEXT     : Display the NEXT page.
  3 /PREVIOUS : Display the PREVIOUS page .
  Ln/LEVELn  : Return to level n (n = 0,1,2)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, SH2LOOP, is displayed.

2/NEXT:

If there is a following page, it is displayed.

Otherwise the same page is output to SYSOUT with a message.

3/PREVIOUS:

If there is a previous page, it is displayed.

Otherwise the same page is output to SYSOUT with a message.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

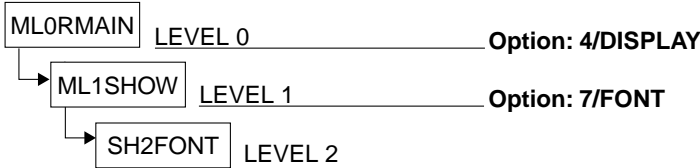
The above mask with help texts is displayed.

Output

- Page number
- Name of the loop record with total length
- Loop data displayed line by line
- Error messages

Mask SH2FONT: Selecting a font

Mask sequence



A list of the fonts entered in the file SYSPAR.RSO.030.USER for the selected printer is displayed.

```

Level 2          R S O   S E R V I C E S          SH2FONT
                                                    Page:@@@

  FONTS ALREADY DEFINED IN @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

                                F O N T   N A M E
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  _ @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

SELECTED FONT : -----

ACTION : -----  0/END          3/NEXT          page      6/FIRST
                  1/BACK        4/PREVIOUS     page      Ln/LEVELn
                  2/SHOW        5/LAST         page      ?/HELP
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field SELECTED FONT. If the file SYSPAR.RSO.030.USER contains no font, this screen is not offered.

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN.                HL2SFONT

A list of the FONTS already defined in the SYSPAR.RSO.030.USER
file is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /SHOW     : SHOW one of the listed FONTS.
              Selection with the selected name or with the ,X' character
              in the list.
              Valid FONT name:  - alphanumeric and blank characters .
                               - name contains at least one alphanumeric
                               character

3 /NEXT     : Display the NEXT page.
4 /PREVIOUS : Display the PREVIOUS page.
5 /LAST     : Display the LAST page.
6 /FIRST    : Display the FIRST page.
Ln/LEVELn   : Return to level n (n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**> SELECTED FONT**

(logical name of the selected font)

Validity criteria:

1 to 54 alphanumeric characters

> ACTION (selection options)

Default: 2 (SHOW)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/SHOW:

Outputs a font from the file SYSPAR.RSO.030.USER.

- If the entry in the field SELECTED FONT is valid, and the font exists in the file, it is displayed in the following mask.

Otherwise an error message is displayed.

- If there is no entry in the field SELECTED FONT, the first font marked with an 'X' is displayed.

Otherwise an error message is displayed.

3/NEXT:

If there is a following page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous page, it is displayed.
Otherwise the same page is output to SYSOUT with a message.

5/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

6/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

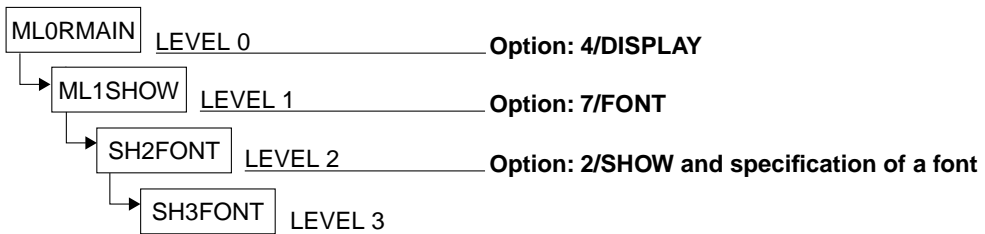
The above mask with help texts is displayed.

Output

- Page number
- List of the fonts already defined
- Error messages

Mask SH3FONT: Displaying a font

Mask sequence



The selected font is displayed.

```

Level 3          R S O  S E R V I C E S          SH3FONT
FONT NAME : @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
COMMENT  : @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
          @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
          0       1       2       3       4       5       6       7
          1       0       0       0       0       0       0       0
001 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
071 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
141 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
211 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
281 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
351 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
421 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
491 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
561 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
631 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
701 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
ACTION : -----  0/END          1/BACK
                ?/HELP        Ln/LEVELn
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 3                RSO SERVICES HELP SCREEN:  FONT DISPLAY                HL3SFONT

The selected FONT with its escape sequence and comment is displayed.

Select one of the following functions :

  0 /END      :  Terminate RSOSERVE.
  1 /BACK     :  Return to the previous screen.
  Ln/LEVELn   :  Return to level n (n = 0,1,2)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

- ACTION (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, SH2FONT, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected font with its control characters and comment
- Error messages

Mask with help texts after the option '?' is selected

```
Level 2                RSO SERVICES HELP SCREEN: MEMBER DISPLAY                HL2SMEMB

The list of members linked to the selected FORM is displayed.

Select one of the following functions :

0 /END                : Terminate RSOSERVE.
1 /BACK               : Return to the previous screen.
Ln/LEVELn             : Return to level n (n = 0,1)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

- ACTION (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

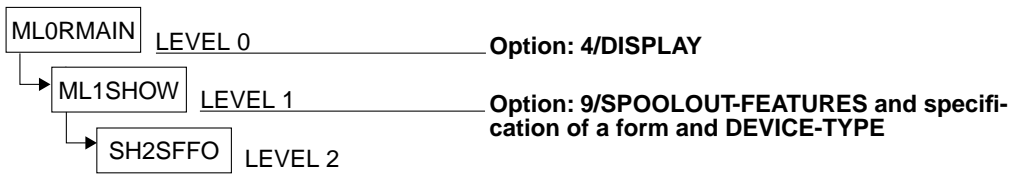
The above mask with help texts is displayed.

Output

- Name of the selected form
- List of the members linked to this form
- Error messages

Mask SH2SFFO: Displaying the spoolout features of a form

Mask sequence



The form entry from the SPOOL.PARAMETERS file for the selected form is displayed.

```

Level 2                R S O   S E R V I C E S                SH2SFF0
SPOOLOUT FEATURES FOR DEVICE TYPE @@@@@@@@ AND FORM @@@@@@:

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

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

ACTION  :-----  0/END      2/NEXT      ?/HELP
                1/BACK     Ln/LEVELn

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 2      RSO SERVICES HELP SCREEN: SPOOLOUT FEATURES      HL2SFF0
```

The SPOOL parameter FORM is displayed.

Select one of the following functions :

```
0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /NEXT     : Display the NEXT page.
Ln/LEVELn  : Return to level n ( n = 0,1).
```

PRESS <DUE1> KEY TO LEAVE INFO MODE

Input**► ACTION (selection options)**

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/NEXT:

The following page is displayed:

The second SPOOLOUT-FEATURES screen contains information about the character set that is defined for the form.

Ln/Level n:

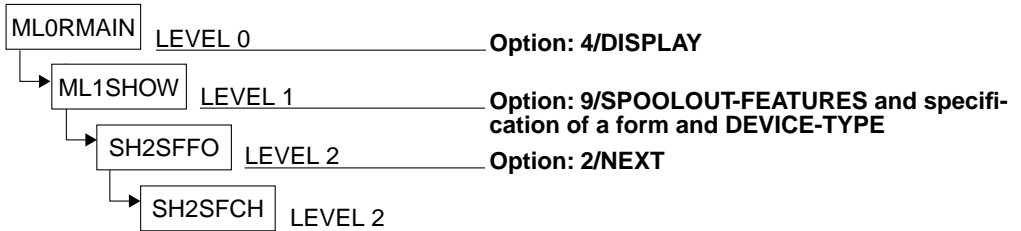
No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Mask SH2SFCH: Displaying the character set for a form

Mask sequence



The features of the character set defined for the form are displayed (if there is one).

```
Level 2             R S O   S E R V I C E S                               SH2SFCH
  SPOOLOUT FEATURES FOR DEVICE TYPE @@@@@@@@ AND FORM @@@@@@:
  CHARACTER SET : @@@
  SPOOL PARAMETER CHARACTERISTICS :
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  SYSPAR.RSO.USER LOGICAL FONT :
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  ACTION :-----   0/END           2/NEXT           Ln/LEVELn
                   1/BACK          3/PREVIOUS      ?/HELP

  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 2      RSO SERVICES HELP SCREEN: SPOOLOUT FEATURES      HL2SFCH
```

The SPOOL PARAMETER characteristics and the LOGICAL FONT are displayed.

Select one of the following functions :

```
0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /NEXT     : Display the NEXT page.
3 /PREVIOUS : Display the PREVIOUS page.
Ln/LEVELn  : Return to level n ( n = 0,1).
```

PRESS <DUE1> KEY TO LEAVE INFO MODE

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

2/NEXT:

The following page is displayed: The third SPOOLOUT-FEATURES screen contains information about the rotation character set that is defined for the form.

3/PREVIOUS:

The previous page is displayed: The first SPOOLOUT-FEATURES screen contains information about the form.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected form and printer type
- Character set entry defined for the form, from the SPOOL.PARAMETERS file
- Name of the logical font that is linked to the character set
- Comment field of the logical font linked to the character set in the file SYSPAR.RSO.030.USER
- Error messages

Example

```

Level 2                          R S O   S E R V I C E S                           SH2SFCH
  SPOOLOUT FEATURES FOR DEVICE TYPE 9022-       AND FORM TOTO  :
CHARACTER SET: STM
SPOOL PARAMETER CHARACTERISTICS:
COLOUR WEIGHT CH-TYPE CH-STYLE UND CPI LPI LANGUAGE NLQ OWNER
BLACK  NORMAL OCR-B   STRAIGHT NO   12   8 NONE        NO

SYSPAR.RSO.USER LOGICAL FONT:
INVERTED
THIS CHARACTER SET CAUSES SETTING OF INVERTED MODE.
I.E. IT ENABLES WHITE-ON-BLACK PRINTING.

ACTION :-----  0/END      2/NEXT      Ln/LEVELn
              1/BACK     3/PREVIOUS  ?/HELP

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

```

Notes

- If no character set exists in the SPOOL.PARAMETERS file, a warning message is issued and the display returns to the mask ML1SHOW.
- If the cpi value for the character set is not supported by the device, a corresponding message is displayed.
- If the comment field for the font in the file SYSPAR.RSO.030.USER is blank, the last two lines of the field "SYSPAR.RSO.USER LOGICAL FONT" remain blank.
- If the character set does not exist in the file SYSPAR.RSO.030.USER, the string "NOT DEFINED" is displayed in the first line of the field "SYSPAR.RSO.USER LOGICAL FONT".

Mask with help texts after the option '?' is selected

```

Level 2      RSO SERVICES HELP SCREEN: SPOOLOUT FEATURES      HL2SF CR
The SPOOL PARAMETER characteristics and the LOGICAL FONT are displayed.

Select one of the following functions :
0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
3 /PREVIOUS : Display the PREVIOUS page.
Ln/LEVELn  : Return to level n ( n = 0,1).

PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

3/PREVIOUS:

The previous page is displayed: The second SPOOLOUT-FEATURES contains information about the character set that is defined for the form.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

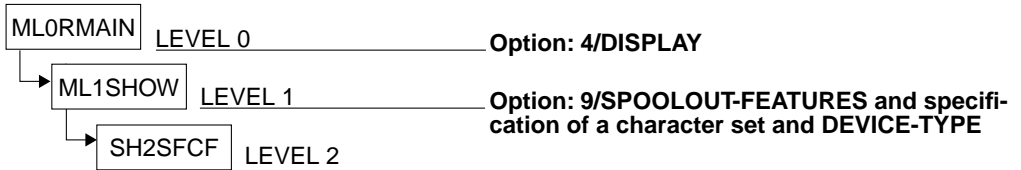
The above mask with help texts is displayed.

Output

- Selected form and printer type
- ROTATION-CHARACTER-SET entry defined for the form, from the SPOOL.PARAMETERS file
- Name of the logical font that is linked to the character set
- Comment field of the logical font linked to the character set in the file SYSPAR.RSO.030.USER
- Error messages

Mask SH2SFCF: Displaying the spoolout features of a character set

Mask sequence



The features of the selected character set are displayed.

```

Level 2                                R S O   S E R V I C E S                                SH2SFCF
SPOOLOUT FEATURES FOR DEVICE TYPE @@@@ and CHARACTER SET @@@:

SPOOL PARAMETER CHARACTERISTICS :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

SYSPAR.RSO.USER LOGICAL FONT :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

ACTION  :-----  0/END                Ln/LEVELn
                  1/BACK               ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 2      RSO SERVICES HELP SCREEN:  SPOOLOUT FEATURES      HL2SFCF

The SPOOLOUT FEATURES are displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
Ln/LEVELn  : Return to level n ( n = 0,1).

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input**> ACTION (selection options)**

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML1SHOW, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected character set and printer type
- Character set entry from the SPOOL.PARAMETERS file
- Name of the logical font that is linked to the character set
- Comment field of the logical font linked to the character set in the file SYSPAR.RSO.030.USER
- Error messages

Example

```

Level 2                R S O   S E R V I C E S                SH2SFCF
  SPOOLOUT FEATURES FOR DEVICE TYPE 9022-      AND CHARACTER SET STM:

SPOOL PARAMETER CHARACTERISTICS:
COLOUR WEIGHT CH-TYPE CH-STYLE UND CPI LPI LANGUAGE NLQ OWNER
BLACK  NORMAL OCR-B   STRAIGHT NO   12   8 NONE   NO

SYSPAR.RSO.USER LOGICAL FONT:
INVERTED
THIS CHARACTER SET CAUSES SETTING OF INVERTED MODE.
I.E. IT ENABLES WHITE-ON-BLACK PRINTING.

ACTION  :-----  O/END                Ln/LEVELn
          1/BACK                ?/HELP

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

```

Notes

- If the cpi value for the character set is not supported by the device, a corresponding message is displayed.
- If the comment field for the font in the file SYSPAR.RSO.030.USER is blank, the last two lines of the field "SYSPAR.RSO.USER LOGICAL FONT" remain blank.
- If the character set does not exist in the file SYSPAR.RSO.030.USER, the string "NOT DEFINED" is displayed in the first line of the field "SYSPAR.RSO.USER LOGICAL FONT".

Mask with help texts after the option '?' is selected

```

Level 1                                RSO SERVICES HELP SCREEN                                HL1SPRNT
                                     @@@@@@@@@@ DEVICE TYPE MANAGEMENT.

Select one of the following functions :

0/END          : Terminate RSOSERVE.

1/BACK        : Return to the previous screen.

2/CHARACTER-SET: Define a CHARACTER SET
                The FONT linked to a new/existing CHARACTER SET
                can be defined/modified.
                Note: To be used at print time the character set
                must also be defined in the
                SPOOL.PARAMETERS file.

3/FONT        : Define a FONT
                The escape sequence linked to a new/existing FONT
                can be defined/modified.

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- ACTION (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, MLORMAIN, is displayed.

2/CHARACTER-SET:

The follow-up mask ML2SCHRL is displayed; the font linked to a new/existing character set can be defined/modified.

Note:

If the character set is also to be valid for printing, it must also be defined in the SPOOL.PARAMETERS file.

3/FONT:

The follow-up mask ML2SNFNL is displayed; the control character sequence linked to a new/existing font can be defined/modified.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected printer type
- Error messages

Mask with help texts after the option '?' is selected

```

Level 2          RSO SERVICES HELP SCREEN:  CHARACTER SET LIST          HL2SCHRL

A list of the CHARACTER SETS already defined and the FONTS linked to
them is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.
2 /ADD          : ADD a new CHARACTER SET.                (1)
3 /MODIFY       : MODIFY an existing CHARACTER SET.       (2)
4 /REMOVE       : REMOVE an existing CHARACTER SET.       (2)
5 /SHOW         : SHOW one of the listed CHARACTER SETs.  (2)
6 /NEXT         : Display the NEXT page.
7 /PREVIOUS     : Display the PREVIOUS page.
8 /LAST         : Display the LAST page.
9 /FIRST        : Display the FIRST page.
Ln/LEVELn      : Return to level n (n = 0,1).

(1) Selection:  with the selected name area.
(2) Selection:  Either with the selected name area or with the ,X' character
                in the list.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- The character set can be selected in one of two ways:
 - The required character set is entered in the field SELECTED CHARACTER SET
The character set entered can be either an existing set or one to be added.
Validity criteria:
1 to 3 alphanumeric characters, no more than 2 consecutive blanks, all '␣' and '␣' characters are ignored.
 - The character set can be selected from the list
An x must be entered before the name of the required character set.

If both alternatives have been specified by mistake, the character set specified for SELECTED CHARACTER SET takes priority.

The character sets marked 'x' are processed in the order in which they appear in the mask. The procedure is interrupted immediately if an error occurs during processing of one of these character sets and an error message is output to SYSOUT.

- **MODEL**
(name of the character set to be used as a model). Only applicable if the action ADD is selected.
Validity criteria:
1 to 3 alphanumeric characters, no more than 2 consecutive blanks, all '␣' and '␣' characters are ignored.

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask is displayed.

2/ADD:

Generates a new character set.

The character set name can only be selected by an entry in the field SELECTED CHARACTER SET. If this entry is syntactically valid and a character set with the same name is not already present in the file SYSPAR.RSO.030.USER, the character set can be generated.

If the name of an existing character set was specified in the field MODEL, the font name linked to this character set is displayed in the following mask, and can be modified before the character set is saved.

Otherwise an error message is displayed.

3/MODIFY:

Modifies an existing character set.

If the entry in the field SELECTED CHARACTER SET is syntactically valid and the character set exists in the file SYSPAR.RSO.030.USER, the font name is displayed in the following mask. If there is no entry in the field SELECTED CHARACTER SET, the first character set marked with an 'x' is displayed. Otherwise an error message is displayed.

4/REMOVE:

Deletes a character set.

- If a syntactically valid entry has been made in the field SELECTED CHARACTER SET, and the character set exists in the file SYSPAR.RSO.030.USER, it is deleted from the file.
- If no character set has been specified in the field SELECTED CHARACTER SET, but an 'x' has been placed before at least one character set name in the mask, the marked forms are deleted from the file.

If neither a name has been entered in the field SELECTED CHARACTER SET, nor a character set name marked in the mask, an error message is displayed.

The REMOVE option can only be implemented by pressing the F1 key.

5/SHOW:

Displays an existing character set.

- If the name specified in the field SELECTED CHARACTER SET is syntactically valid and the character set exists in the file SYSPAR.RSO.030.USER, the name of the font and its control character sequence are displayed in the following mask.
- If there is no entry in the field SELECTED CHARACTER SET, the first character set marked with an 'X' is displayed.

Otherwise an error message is displayed.

6/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

7/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

8/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is displayed in addition.

9/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is displayed in addition.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Page number
- List of the character sets defined, with the names of the linked fonts
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3      RSO SERVICES HELP SCREEN:  CHAR SET DEFINITION      HL3SCHDD
You have already defined the name of a NEW or EXISTING CHARACTER SET.
Select one of the following functions:
0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
Ln/LEVELn   :  Return to level n (n = 0,1,2)

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML2SCHRL, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected printer type
- Name of the selected character set
- Name of the font linked to this character set and its escape sequence and comment
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  CHAR SET DEFINITION      HL3SCHRD
You have already defined the name of a NEW or EXISTING CHARACTER SET.
Select one of the following functions :

0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
2 /SAVE     :  SAVE the CHARACTER SET.
              The CHARACTER SET is linked to the selected FONT.
3 /SHOW    :  SHOW one of the listed FONTS.
              Selection with the selected name or with the ,X' character
              in the list.
4 /NEXT    :  Display the NEXT page.
5 /PREVIOUS :  Display the PREVIOUS page.
6 /LAST    :  Display the LAST page.
7 /FIRST   :  Display the FIRST page.
Ln /LEVELn :  Return to level n (n = 0,1,2).

Notes - Valid FONT name:  1 to 54 characters.
              Valid characters: alphanumeric + blank.
              Name contains at least 1 alphanumeric character
- The FONT must have been previously defined in the SYSPAR.RSO.USER
  file.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- **FONT NAME:**
(name of a font linked to a particular character set).

Validity criteria:

1-54 alphanumeric characters

- **ACTION** (selection options)
Default: 2 (SAVE)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, ML2SCHRL, is displayed.

2/SAVE:

Saves the character set in the file SYSPAR.RSO.030.USER.

- Field SELECTED FONT contains an entry: If the validity test of the font name is positive, and if this font is defined by a link to the name of a character set for the printer type, the character set is saved in the file SYSPAR.RSO.030.USER.

- If there is no entry in the field SELECTED FONT, the valid character set is linked to the first font whose name is marked with an 'X', and is stored in the file SYSPAR.RSO.030.USER.
Otherwise an error message is displayed.

3/SHOW:

Displays a font from the file SYSPAR.RSO.030.USER.

- Field SELECTED FONT contains an entry:
If the entry in the field SELECTED FONT is valid and the table exists in the input file, it is displayed in the following mask.
Otherwise an error message is displayed.
- If there is no entry in the field SELECTED FONT, the first font marked with an 'X' is displayed.
Otherwise an error message is displayed.

4/NEXT:

If there is a following page, it is displayed. Otherwise the same page is output to SYSOUT with a message.

5/PREVIOUS:

If there is a previous page, it is displayed. Otherwise the same page is output to SYSOUT with a message.

6/LAST:

The last page of the list is to be output. If the current page is the last page, a corresponding error message is displayed.

7/FIRST:

The first page of the list is to be output. If the current page is the first page, a corresponding error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

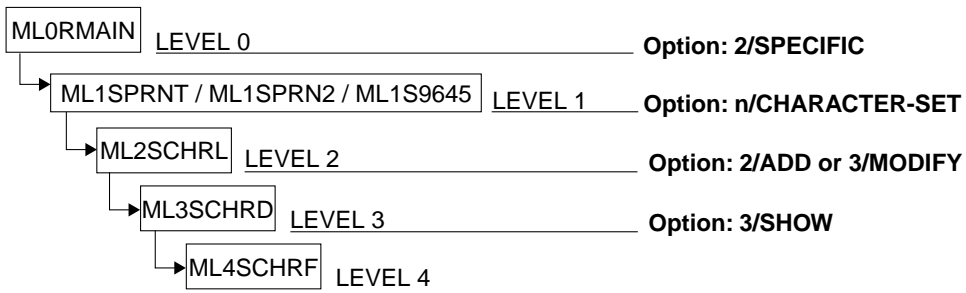
The above mask with help texts is displayed.

Output

- Table of font names
- Page number
- Error messages

Mask ML4SCHRF: Displaying a linked font

Mask sequence



```

Level 4          @@@@ DEVIcE MANAgEMENT                               ML4SCHRF
FONT NAME: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
COMMENT  : @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
          @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
          0          1          2          3          4          5          6          7
          1          0          0          0          0          0          0          0
001 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
071 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
141 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
211 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
281 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
351 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
421 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
491 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
561 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
631 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
701 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
      ACTION : -----          0/END          1/BACK
              ?/HELP          Ln/LEVELn
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 4      RSO SERVICES HELP SCREEN:  CHAR SET DEFINITION      HL4SCHRF
```

The selected FONT with its escape sequence and comment is displayed.

Select one of the following functions:

```
0 /END      :  Terminate RSOSERVE.  
1 /BACK     :  Return to the previous screen.  
Ln/LEVELn  :  Return to level n (n = 0,1,2,3)
```

PRESS <DUE1> KEY TO LEAVE INFO MODE

Input

- ACTION (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML3SCHRD, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

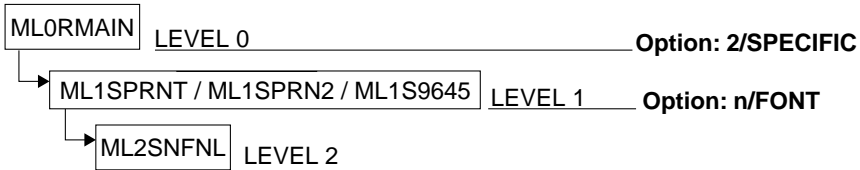
The above mask with help texts is displayed.

Output

- Font name, its control character sequence and comment
- Error messages

Mask ML2SNFNL: Processing fonts

Mask sequence



Only the SPOOL administrator can define, modify , delete, import or export fonts. The SHOW option can be selected by the SPOOL administrator and the RSO device administrator.

```

Level 2          @@@@@@@@ DEVICE  MANAGEMENT.          ML2SNFNL
                                                         Page:@@@

  FONTS ALREADY DEFINED :

                F O N T   N A M E
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
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  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  - @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

SELECTED FONT : -----
MODEL         : -----

ACTION : -----  0/END      4/REMOVE      8/LAST page
                1/BACK     5/SHOW      9/FIRST page  Ln/LEVELn
                2/ADD      6/NEXT page 10/IMPORT    ?/HELP
                3/MODIFY   7/PREVIOUS page 11/EXPORT

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field SELECTED FONT.

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN:  FONT LIST                HL2SNFNL
A list of the FONTS already defined is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the preceding level.
2 /ADD      : ADD a new FONT. (1)
3 /MODIFY   : MODIFY an existing FONT. (2)
4 /REMOVE   : REMOVE an existing FONT. (2)
              (press F1 to enter action)
5 /SHOW     : SHOW one of the listed FONTS. (2)
6 /NEXT     : Display the NEXT page.
7 /PREVIOUS : Display the PREVIOUS page.
8 /LAST     : Display the LAST page.
9 /FIRST    : Display the FIRST page.
10/IMPORT   : IMPORT a font from a BS2000 file.
11/EXPORT   : EXPORT a font to a BS2000 file.
Ln/LEVELn   : Return to level n (n = 0,1).

(1) Selection: With the selected name area.
(2) Selection: Either with the selected name area or with the ,X' character
              in the list.

PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- Fonts can be selected in two different ways:
 - By entering the selected font in the field SELECTED FONT
The logical name of either an existing font or a new one to be added can be specified.
Validity criteria:
1 to 54 alphanumeric characters.

Note

When a new font is specified, the first 13 characters must be identical since they are used in the key.

- By selecting fonts from the list
An x must be entered before the names of the fonts required.

If both alternatives have been marked by mistake, the entry in the SELECTED FONT field takes priority.

The fonts marked 'x' are processed in the order in which they appear in the screen. The procedure is interrupted immediately and an error message is output to SYSOUT if an error is encountered while a font is being processed.

➤ MODEL

(name of the font to be used as a model).

Only applicable if the action ADD is specified.

Validity criteria:

1 to 54 alphanumeric characters.

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask is displayed.

2/ADD:

Generates a new font.

The font name can only be selected by an entry in the field SELECTED FONT. If this entry is syntactically valid and a font with the same name is not already present in the file SYSPAR.RSO.030.USER, the font can be generated.

If the name of an existing font was specified in the field MODEL, the control character sequence used as model is displayed in the following mask, and can be modified before the font is saved.

Otherwise an error message is displayed.

3/MODIFY:

Modifies an existing font.

If a valid font name is entered in the field SELECTED FONT and if the font exists in the file SYSPAR.RSO.030.USER, the selected font is displayed in the following mask and can be modified.

If no font is specified in the field SELECTED FONT, the font marked with an 'x' in the list is displayed.

Otherwise an error message is displayed.

4/REMOVE:

Deletes one or more fonts.

If a syntactically valid entry has been made in the field SELECTED FONT, and the font exists in the file SYSPAR.RSO.030.USER, it is deleted from the file. If no font has been specified in the field SELECTED FONT, but an 'x' has been placed before at least one font name in the mask, the marked fonts are deleted from the file.

If no font is specified, an error message is displayed.

The REMOVE option can only be implemented by pressing the F1 key.

5/SHOW:

Displays an existing font.

If a valid font name is entered in the field SELECTED FONT and if the font exists in the file SYSPAR.RSO.030.USER, the selected font, its control character sequence and comments are displayed in the following mask.

If no font name is specified in the field SELECTED FONT, the font marked with an 'x' in the list is displayed together with its control character sequence.

Otherwise an error message is displayed.

6/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

7/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

8/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is also displayed.

9/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

10/IMPORT:

Imports a font.

Selection of a font name is possible in this action by making an entry in the SELECTED FONT field. If the name entered in the SELECTED FONT field is formally correct but no font of this name exists in the file SYSPAR.RSO.030.USER, the font can be imported from a BS2000 file.

Otherwise an error message is displayed.

11/EXPORT:

Exports a font.

If a valid font name is entered in the SELECTED FONT field and if the font is present in the file SYSPAR.RSO.030.USER, the selected font is exported to a BS2000 file. If no font name is entered in the SELECTED FONT field, the font marked with 'x' in the list is exported.

Otherwise an error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

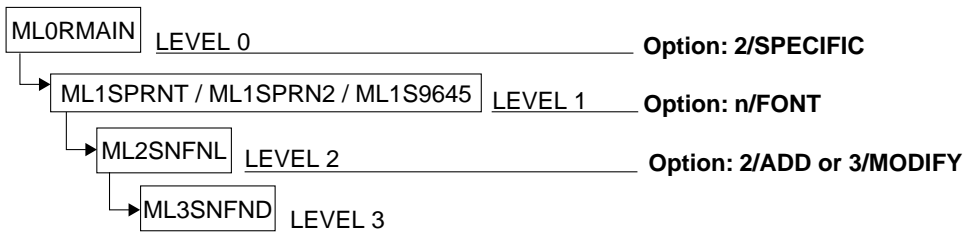
The above mask with help texts is displayed.

Output

- Selected printer type
- List of the defined fonts
- Error messages

Mask ML3SNFND: Saving an escape sequence

Mask sequence



```

Level 3                @@@@@@@@  DEVICE  MANAGEMENT                ML3SNFND
FONT NAME : @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
COMMENT  : -----
          0         1         2         3         4         5         6         7
          1         0         0         0         0         0         0         0
001 -----
071 -----
141 -----
211 -----
281 -----
351 -----
421 -----
491 -----
561 -----
631 -----
701 -----
ACTION : -----      0/END          1/BACK          2/SAVE
                   ?/HELP          Ln/LEVELn
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the first character of the comment field.

Mask with help texts after the option '?' is selected

```

Level 3          RSO SERVICES HELP SCREEN:  FONT DEFINITION          HL3SNFND

You have already defined the name of a NEW or EXISTING FONT .

Select one of the following functions :

0 /END          :  Terminate RSOSERVE.

1 /BACK         :  Return to the previous screen.

2 /SAVE         :  SAVE the FONT (Only for previous action ADD or MODIFY).
                  Enter the ESCAPE sequence linked to the FONT.
                  Enter a comment describing the effect of the ESCAPE sequence.

Note : - The escape sequence may consist of max. 256 characters.
        - Each character is represented either by its hexadecimal code
          or its EBCDIC value.
        - Sequences of EBCDIC values must be between ,(, and ,)'.
        - The string is analyzed up until the first blank character
          which does not appear between ,(, and ,)'.
        - ,)' must be doubled when appearing between ,(, and ,)'.

Ln/LEVELn      :  Return to level n (n = 0,1,2).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ Comment

The user should enter a comment describing the effect of the escape sequence, with a maximum length of 120 characters.

➤ String

(string of 256 characters)

Validity criteria:

A maximum of 256 bytes (hexadecimal values) can be specified. Each code must consist of a pair of printable hexadecimal characters.

EBCDIC characters can also be specified. These must be enclosed in parentheses '()'. If the character ')' is used, it must be entered twice. The maximum length is 256 bytes after conversion into hexadecimal characters.

The string is analyzed up to the first blank or underscore not enclosed in parentheses.

➤ ACTION (selection options)

Default: 2 (SAVE)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, ML2SNFNL, is displayed.

2/SAVE:

If the validity test of the control character sequence is positive, it is saved in the SYSPAR.RSO.030.USER file.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

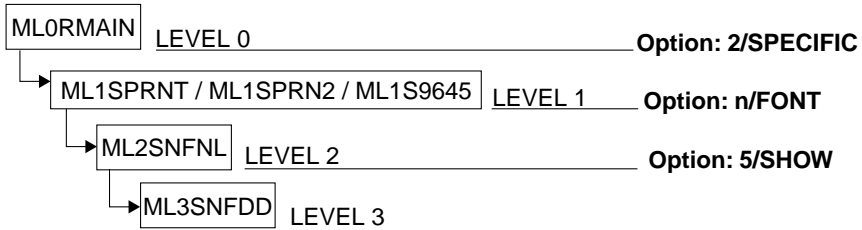
The above mask with help texts is displayed.

Output

- Printer type
- Name of the font
- Error messages

Mask ML3SNFDD: Displaying defined fonts

Mask sequence



```

Level 3                @@@@@@@@  DEVICE  MANAGEMENT                ML3SNFDD
FONT NAME:  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
COMMENT   :  @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
           @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
           0         1         2         3         4         5         6         7
           1         0         0         0         0         0         0         0
001 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
071 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
141 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
211 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
281 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
351 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
421 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
491 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
561 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
631 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
701 @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
ACTION :  -----          0/END          1/BACK
           ?/HELP          Ln/LEVELn
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```

Level 3          RSO SERVICES HELP SCREEN:  FONT DEFINITION          HL3SNFND
You have already defined the name of a NEW or EXISTING FONT .
Select one of the following functions :
0 /END          :  Terminate RSOSERVE.
1 /BACK         :  Return to the previous screen.
2 /SAVE         :  SAVE the FONT (Only for previous action ADD or MODIFY).
                  Enter the ESCAPE sequence linked to the FONT.
                  Enter a comment describing the effect of the ESCAPE sequence.

Note : - The escape sequence may consist of max. 256 characters.
        - Each character is represented either by its hexadecimal code
          or its EBCDIC value.
        - Sequences of EBCDIC values must be between ,(, and ,)'.
        - The string is analyzed up until the first blank character
          which does not appear between ,(, and ,)'.
        - ,)' must be doubled when appearing between ,(, and ,)'.

Ln/LEVELn      :  Return to level n (n = 0,1,2).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, ML2SNFNL, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected printer type
- Name of the font, its control character sequence and comment
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  FILE  MANAGEMENT                HL3IMEXL

You have already selected a font in previous screen, and now you must specify
the host file name information and the overwrite option.
Now select one of the following functions :

0 /END      :  Terminate RSOSERVE.

1 /BACK     :  Return to the preceding level.

2 /SEND     :  SEND a font from a BS2000 file or EXPORT font to a
                BS2000 file.
                (Specify OVERWRITE option).

Ln/LEVELn   :  Return to level n (n = 0,1,2,3,4).

                                                    PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- ▶ **Name**
 (name of the BS2000 file to be used exclusively for import or export)
 Validity criteria:
 <full-filename>
 - ▶ **Overwrite**
 (specifies whether existing fonts of the same name are to be overwritten)
 N: fonts of the same name are not overwritten (default).
 Y: fonts of the same name are overwritten.
 - ▶ **ACTION** (selection options)
 Default: 1 (BACK)
- 0/END:
 No action; RSOSERVE processing is terminated.
- 1/BACK:
 No action; the previous mask, ML2SNFNL, is displayed.

2/SEND:

2/SEND has the following effect, depending on whether the IMPORT or EXPORT action was selected in the mask ML2SNFNL:

IMPORT If the input in the NAME field is valid, the font selected in the mask ML2SNFNL is imported from the BS2000 file to the SYSPAR.RSO.030.USER. Otherwise an error message is displayed.

EXPORT If the input in the NAME field is valid, the font selected in the mask ML2SNFNL is exported from the file SYSPAR.RSO.030.USER to the specified BS2000 file. Otherwise an error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

The above mask with help texts is displayed.

Output

- Selected printer type
- Error messages

3.9 Management of 9025 and 9026-RENO Printers

For a 9025 or 9026-RENO Printer to be managed, it must be activated by a START-PRINTER-OUTPUT command. Device management is only possible if the printer concerned is not busy with a print job.

Procedure for device management:

1. Select the RSO device
2. Select the required action
 - a) Directory management:
Create, delete, print and display directories that are cataloged on the 9025/9026-RENO Printer.
 - b) Print string:
A string of up to 884 characters (RENO commands and data) can be sent from the terminal to the printer and executed. RSOSERVE automatically includes the RENO commands '\[;' (OPEN DOCUMENT) and '\];' (CLOSE DOCUMENT) in the string, where x=CEC (command escape character, see below).
In the event of error, the most severe error is reported to the user.
 - c) Define the device characteristics:
The following values, entered via the 9025/9026-RENO keyboard, must be defined in the SYSPAR.RSO.030 file for each printer.
 - CEC (command escape character):
default escape command character.

The escape command character indicates within a data string that there is a subsequent RENO command.
Default value: X'BC'
 - SEC (special escape character)
Default value: X'1B'
 - EOF (end of file character)
Default value: X'1A'
 - outstanding frame number: default value 2
 - configuration type: default value 1

Note

The device characteristics listed are not at present used by RSO with the exception of the outstanding frame number and the CEC. As of RSO V2.2A, the default escape command character can be redefined to values other than x'BC' in the device definition (ADD-SPOOL-DEVICE in SPSEIVE).

d) File management:

The user must basically specify two items of information for the file management: file type and required action.

– Possible file types:

FONT, language table, MEMBER TEXT, MEMBER SYMBOL, TEXT (commands and data mixed), DIA (forms overlay), PROLOG, EPILOG

– Possible actions:

IMPORT:

To copy a file from the BS2000 processor to the memory of a 9025/9026-RENO Printer. The file must have the following attributes: RECFORM=V, ACCESS-METHOD=SAM or ISAM, BUF-LEN=STD, REC-SIZE=(maximum)256, KEY-POS=5, KEY-LEN=8.

EXPORT:

To copy a file from the 9025/9026-RENO Printer to processor memory. The new file will have the following file attributes:

REC-FORM=V, ACCESS-METHOD=SAM or ISAM, BUF-LEN=STD, REC-SIZE=(maximum)256, KEY-POS=5, KEY-LEN=8.

In the case of an ISAM file, a code is automatically added, initialized with the index value C'00001000', incremented with the index increment C'00001000'.

Note

IMPORT/EXPORT of fonts and language tables is supported only by the 9025 Printer, not by the 9026-RENO.

PRINT:

To print out a file that is cataloged in printer memory.

REMOVE:

To delete a file that is cataloged in printer memory.

COPY:

To copy a file in printer memory and assign a name to the new file.

RENAME:

To rename a file that is cataloged in printer memory. RENAME is the same as COPY followed by REMOVE.

Mask with help texts after the option '?' is selected

```

Level 1                                RSO SERVICE HELP SCREEN                                HL1SPRN2
                                     @@@@@@@@@@ DEVICE TYPE MANAGEMENT.

0/END      : Terminate RSOSERVE.
1/BACK     : Return to the previous screen.
2/MEMBER-LIST: LIST OF MEMBERS linked to a FORM: i.e. a list of file names
             catalogued on the BS2000 system (TEXT MEMBER) or in the printer auxiliary
             memory (SYMBOL) which are temporarily copied into printer memory before
             printing starts.
3/CHARACTER-SET : Define a CHARACTER SET
                 The FONT linked to a new/existing CHARACTER SET
                 can be defined/modified.
                 Note : To be used at print time the character set
                 must also be defined in the
                 SPOOL.PARAMETERS file.
4/DEVICE     : DEVICE MANAGEMENT : i.e. all the operations which need
             a connection with the device (such as file management,directory
             management,...). The device is disabled during this operation.
5/FONT       : Define a FONT
                 The escape sequence linked to a new/existing FONT
                 can be defined/modified.

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ **ACTION** (selection options)

Default: 1 (BACK)

0/END:

RSOSERVE processing is terminated.

1/BACK:

Return to the MLORMAIN mask.

2/MEMBER-LIST:

The list of the members linked to a form name is output to SYSOUT. If this option is selected, the next mask is SL2FCL1 and shows a list of file names which are catalogued on a BS2000 processor (TEXT MEMBER) or in the printer auxiliary memory (SYMBOL) and which are temporarily copied into the printer memory before a print job is executed.

3/CHARACTER-SET:

Defines a character set.

If this option is selected, the next mask is ML2SCHRL, in which fonts can then be linked to a character set name.

4/DEVICE:

Device management.

This includes all operations which need a connection with the device (e.g. file management, directory management). During this process, no other accesses to the RSO device in question are possible. This function is not possible for 9025/9026-RENO Printers defined with DEVICE-ACCESS=TCP-ACCESS.

5/FONT:

Defines a font.

this option is selected, the next mask is ML2SNFNL, in which fonts can then be processed.

?/HELP:

Mask with help texts is displayed.

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN:  FORM LIST                HL2FCL1

A list of FORMS already linked to a list of members is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /ADD      : ADD a new FORM and its list of members. (1)
3 /MODIFY   : MODIFY the list of members linked to an existing FORM. (2)
4 /REMOVE   : REMOVE the list of members linked to an existing FORM. (2)
5 /SHOW     : SHOW the list of members linked to an existing FORM. (2)
6 /NEXT     : Display the NEXT page.
7 /PREVIOUS : Display the PREVIOUS page.
8 /LAST     : Display the LAST page.
9 /FIRST    : Display the FIRST page.
Ln/LEVELn   : Return to level n (n = 0,1).

(1) Selection: with the selected name area.
(2) Selection: Either with the selected name area or with the ,X' character
                in the list.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► SELECTED FORM

(form name)

- Generating a new form

The form name must be entered in the field.

Validity criteria:

1 to 6 alphanumeric characters, no more than 5 consecutive blanks, all '␣' and '_' characters are ignored.

- Selecting a form from the list

An 'x' must be entered before the required form name. Forms marked with an 'x' are processed sequentially. Processing is aborted immediately if an error is found in connection with one of these forms; an error message is displayed in this case.

If both possibilities have been specified by mistake, the entry in the SELECTED FORM field takes priority.

► MODEL

(name of the form to be used as a model).

Only applicable if the action ADD is specified.

Validity criteria:

1 to 6 alphanumeric characters, no more than 5 consecutive blanks, all '␣' and '_' characters are ignored.

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, ML1SPRN2, is displayed.

2/ADD:

Assigns a member list to a form.

If the entry in the field SELECTED FORM is syntactically valid and a form with the same name is not already present in the file SYSPAR.RSO.030.USER, the member list can be generated.

If the name of an existing form was specified in the field MODEL, the list of the member names linked to this form is displayed in the following mask, and can be modified.

Otherwise an error message is displayed.

3/MODIFY:

Modifies a member list linked to a form.

– If the name specified in the field SELECTED FORM is syntactically valid and the form exists in the file SYSPAR.RSO.030.USER, the list of the member names linked to this form is displayed in the following mask and can be modified.

Otherwise an error message is displayed.

– If there is no entry in the field SELECTED FORM, the list of member names linked to the first form marked with an 'X' is displayed and can be modified.
Otherwise an error message is displayed.

4/REMOVE:

Deletes a member list linked to a form.

If a syntactically valid entry has been made in the field SELECTED FORM, and the form exists in the file SYSPAR.RSO.030.USER, the member list linked to the specified form is displayed, and is deleted in the following mask.

If no form has been specified in the field SELECTED FORM, but an 'x' has been placed before at least one form name in the mask, the member lists linked to the marked forms are deleted.

If neither a name has been entered in the field SELECTED FORM, nor a form name marked in the mask, an error message is displayed.

The REMOVE option can only be implemented by pressing the F1 key.

Note:

The REMOVE option deletes the entire member list. An individual element can be deleted by selecting the MODIFY option and overwriting the name of the element with blanks.

5/SHOW:

Displays the member list linked to a form.

The form for displaying the linked member list can only be selected by an entry in the field SELECTED FORM.

- If this entry is syntactically correct and the form exists in the file SYSPAR.RSO.030.USER, the member list linked to this form is displayed. Otherwise an error message is displayed.
- If there is no entry in the field SELECTED FORM, the member list linked to the first form marked with an 'X' is displayed. If no form name is marked with an 'X', an error message is displayed.

6/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

7/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

8/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is also displayed.

9/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- List of the forms already linked to a member list
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  LIST OF MEMBERS          HL2LOGO
                                      LINKED TO A FORM

You have already defined the name of the FORM to which the list is to be
linked. Select one of the following functions :

0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
2 /SAVE     :  SAVE the LIST OF MEMBERS linked to the selected FORM.
              Specify the names of all the MEMBERS (max. 50) which are to be copied
              into the printer memory before printing with the specified FORM starts.
              A member name may consist of max. 8 alphanumeric characters.
              Before printing, each member name linked to the FORM used is searched:
              -first in BS2000 with the standard name RP<printer>.MEMBER.membername
              (where <printer> represents the printer type (9025 or 9026-RENO)
              -then in the printer file linked to the MEMBER SYMBOL previously recorded.
              If this file exists, it is copied into the printer memory and
              catalogued with the name:      MEM-membername (temporary file)
              To use these files, the user must specify in his print file :
              - \SM'membername';          for SYMBOL MEMBER
              - ^MEM-membername;          for TEXT MEMBER
              REMOVE : REMOVE the displayed list of members.
Ln/LEVELn   :  Return to level n (n = 0,1,2).
                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► MEMBER list

(names of the members)

Validity criteria:

- up to 50 names
- 1 to 8 alphanumeric characters

► ACTION (selection options)

Default: 2 (SAVE)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL2FCL1, is output to SYSOUT.

2/SAVE:

Saves the list of members linked to the selected form.

REMOVE:

Deletes the output list of members; the delete option can only be implemented by pressing the F1 key.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Name of the selected form
- Action (SAVE/REMOVE) selected by pressing <DUE1> or <F1>
- Error messages

Note

Before printing, each member linked to a form that exists as a BS2000 file under the name RP<printer>.MEMBER.membername (<printer>=9025/9026-RENO) is automatically copied together with this form to 9025/9026-RENO memory. This temporary file is given the name MEM.membername.

Users can call a member at any place in their print file as follows:

- \SM'<printer> filename'; for symbol member
- \@MEM-membername; for text member

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  LIST OF MEMBERS          HL2LOGOD
                                      LINKED TO A FORM

The list of members linked to the selected FORM is displayed.

Select one of the following functions :

0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
Ln/LEVELn  :  Return to level n (n = 0,1,2).

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL2FCL1, is output to SYSOUT.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Name of the selected form
- List of the members linked to the selected form
- Error messages

Mask with help texts after the option '?' is selected

```

Level 2                RSO SERVICES HELP SCREEN:  DEVICE LIST                HL2DL

A list of all devices under your responsibility is displayed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.

2 /NEXT     : Display the  NEXT  page.
3 /PREVIOUS : Display the  PREVIOUS  page.
4 /LAST     : Display the  LAST  page.
5 /FIRST    : Display the  FIRST  page.

Ln/LEVELn   : Return to level n (n = 0,1).

TO SELECT A DEVICE:  Specify the device to be processed.
                    Each device is identified by a number in front of the
                    device name. You must also enter the device password
                    ( PRINTER SECURITY CODE  ). Default value is ,1'.
                    Note: The selected device is disabled until the user
                    returns to level 2 or 1.

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- DEVICE PASSWORD
(security code for the device, entered at the printer console)
Validity criteria:
A number between 1 and 64000; default value: 1
- SELECTED DEVICE NUMBER
(device number)
The device is selected by entering the device number as listed in the field '#' before the device.
- ACTION (selection options)
No default
0/END:
No action; RSOSERVE processing is terminated.
1/BACK:
No action, the previous mask, ML1SPRN2, is displayed.
2/NEXT:
If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

3/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is also displayed.

5/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- List of devices available to the RSO device administrator
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  DEVICE MANAGEMENT                HL3DMEN

You have already defined the device (currently disabled) to be processed.
Select one of the following subfunctions :

0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
2 /FILE     :  FILE MANAGEMENT.
3 /DIRECTORY :  DIRECTORY MANAGEMENT.
4 /SEND     :  SEND A STRING  of data and printer commands.
Ln/LEVELn  :  Return to level n (n = 0,1,2).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL2DL, is displayed.

2/FILE:

File management; mask SL4DFT is output.

3/DIRECTORY:

Directory management; mask SL4DDIR is output.

4/SEND:

Transmits a string of printer data; mask SL4DEX is output.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Selected device name, processor, station, device type (type: "PRV" for private devices, "PUB" for public devices)
- Command escape character in hexadecimal and EBCDIC form.
- The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN:  FILE MANAGEMENT                HL4DFT
You should now specify the type of file to be processed or a function.
Possible selections are :

0 /END                 :  Terminate RSOSERVE.
1 /BACK                :  Return to the previous screen.
2 /FONT                :  FONT management.
3 /LANGUAGE-TABLE     :  LANGUAGE TABLE management.
4 /TEXT                :  TEXT management.
                       :  File containing data and printer commands.
5 /MEMBER-TEXT        :  MEMBER TEXT management.
                       :  BS2000 file. Access via ^MEM-,\SM cmd.
6 /MEMBER-SYMBOL      :  MEMBER SYMBOL management.
                       :  BS2000 or printer file. Access via ^MEM-,\SM cmd.
7 /DIA                :  DIA management.
                       :  Text file used with DIA param of print cmd.
8 /PROLOG              :  PROLOG management.
                       :  Text file linked to a FORM printed before the file.
9 /EPILOG              :  EPILOG management.
                       :  Text file linked to a FORM printed after the file.
Ln/LEVELn             :  Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**► ACTION (selection options)**

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL3DMEN, is displayed.

2/FONT:

Font management

3/LANGUAGE TABLE:

Language table management

4/TEXT:

Text file management

5/MEMBER-TEXT:

Member text file management

6/MEMBER-SYMBOL:

Member symbol file management

7/DIA:

Forms overlay file management

8/PROLOG:

Prolog file management

9/EPILOG:

Epilog file management

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5                RSO SERVICES HELP SCREEN:  FILE MANAGEMENT          HL5DEP1
                    DIA (forms overlay) SELECTION

You have defined the file type as DIA.
A list of all existing forms overlays is displayed.

Select one of the following functions :
  0 /END      : Terminate RSOSERVE.
  1 /BACK     : Return to the previous screen.
  2 /SELECT   : SELECT an DIA (either one of those displayed or a new one).
                Specify the name of the forms overlay to be processed
                (used in the DIA parameter of the PRINT cmd).
                Selection with the selected name or with the ,X' character
                in the list.
                The name may consist of max. two alphanumeric characters.
                Note: If the specified name is contained in the list, the name of
                the printer file linked to the forms overlay previously
                recorded is displayed on the next screen.
  3 /NEXT     : Display of the NEXT page.
  4 /PREVIOUS: Display of the PREVIOUS page.
  5 /LAST     : Display of the LAST page.
  6 /FIRST    : Display of the FIRST page.
  Ln/LEVELn  : Return to the level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- ▶ **SELECTED DIA**
(name of an existing forms overlay or one to be generated)
Validity criteria:
1 or 2 alphanumeric characters, all '␣' and '_' characters are ignored.
- ▶ Selection of a forms overlay in the list: the name of the forms overlay must be marked with an 'X'.
The value specified in the field SELECTED DIA takes priority.
- ▶ **ACTION** (selection options)
Default: 2 (SELECT)
 - 0/END:
No action; RSOSERVE processing is terminated.
 - 1/BACK:
No action, the previous mask, SL4DFT, is displayed.
 - 2/SELECT:
Selects the forms overlay file to be processed.
 - If a valid forms overlay name is specified in the field SELECTED DIA, the screen for management of the forms overlay file is displayed for this forms overlay. Otherwise an error message is displayed.

- If no name is specified in the field SELECTED DIA, the screen for management of the forms overlay file is displayed for the first forms overlay whose name is marked with an 'X' in the list. If no such name exists, an error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is also displayed.

6/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- List of the defined forms overlays
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5                RSO SERVICES HELP SCREEN:  FILE MANAGEMENT                HL5DEP2
                    SELECTION OF A FORM LINKED TO A PROLOG
You have defined the file type as  PROLOG.
A list of all FORMS to which a prolog has already been linked is displayed.

Select one of the following functions :

    0 /END      :  Terminate RSOSERVE.
    1 /BACK     :  Return to the previous screen.
    2 /SELECT   :  SELECT a FORM (either one of those displayed or a new one).
                   Specify the name of the form to which the prolog is linked.
                   Selection with the selected name or with the ,X' character
                   in the list.
                   The name may consist of max. six alphanumeric characters.
                   If the specified name is contained in the list, the name of
                   the printer file linked to the selected PROLOG is
                   displayed on the next screen.
    3 /NEXT     :  Display of the  NEXT page.
    4 /PREVIOUS:  Display of the  PREVIOUS page.
    5 /LAST     :  Display of the  LAST page.
    6 /FIRST    :  Display of the  FIRST page.
    Ln/LEVELn   :  Return to the level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input**➤ SELECTED FORM**

(name of an existing form or one to be generated)

Validity criteria:

1 to 6 alphanumeric characters, no more than 5 consecutive blanks, all '□' and '␣' characters are ignored.

- Selection of forms in the list: the form name must be marked with an 'X'.
The value specified in the field SELECTED FORM takes priority.

➤ ACTION (selection options)

Default: 2 (SELECT)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL4DFT, is displayed.

2/SELECT:

Selects the form to be processed.

- If a valid form name is specified in the field SELECTED FORM, the screen for management of the prolog file is displayed for this form. Otherwise an error message is displayed.

- If no name is specified in the field SELECTED FORM, the screen for management of the prolog file is displayed for the first form whose name is marked with an 'X' in the list. If no such name exists, an error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is also displayed.

6/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- List of the defined forms
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5                      RSO SERVICES HELP SCREEN:  FILE MANAGEMENT          HL5DEP3
                          SELECTION OF A FORM LINKED TO A EPILOG

You have defined the file type as  EPILOG.
A list of all FORMS to which an EPILOG has already been linked is displayed.

Select one of the following functions:

0/END      :  Terminate RSOSERVE.
1/BACK     :  Return to the previous screen.
2/SELECT   :  SELECT a FORM (either one of those displayed or a new one)
              Specify the name of the form to which the epilog is linked
              Selection with the selected name or with the ,X' character
              in the list.
              The name may consist of max. six alphanumeric characters.
              If the specified name is contained in the list, the name
              of the EPILOG printer file linked to the selected FORM is
              displayed on the next screen.
3/NEXT     :  Display of the  NEXT page.
4/PREVIOUS:  Display of the  PREVIOUS page.
5/LAST     :  Display of the  LAST page.
6/FIRST    :  Display of the  FIRST page.
Ln/LEVELn  :  Return to level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ SELECTED FORM

(name of an existing form or one to be generated)

Validity criteria:

1 to 6 alphanumeric characters, no more than 5 consecutive blanks, all '□' and '␣' characters are ignored.

- Selection of forms in the list: the form name must be marked with an 'X'. The value specified in the field SELECTED FORM takes priority.

➤ ACTION (selection options)

Default: 2 (SELECT)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL4DFT, is displayed.

2/SELECT:

Selects the form to be processed.

- If a valid form name is specified in the field SELECTED FORM, the screen for management of the epilog file is displayed for this form. Otherwise an error message is displayed.

- If no name is specified in the field SELECTED FORM, the screen for management of the epilog file is displayed for the first form whose name is marked with an 'X' in the list. If no such name exists, an error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list. If the current screen is the last, a corresponding message is also displayed.

6/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

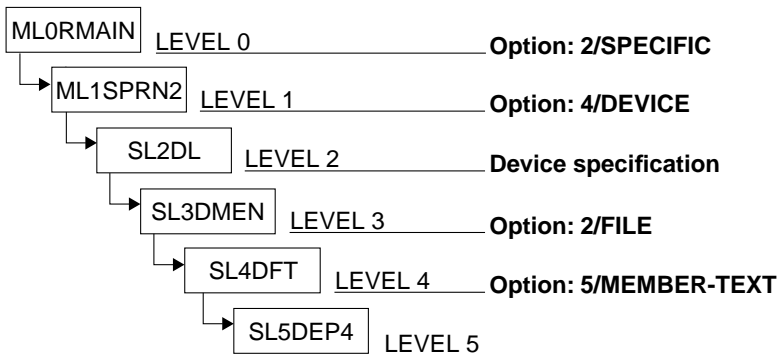
Displays a mask with help texts.

Output

- Page number
- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- List of the defined forms
- Error messages

Mask SL5DEP4: Member text file management

Mask sequence



```

Level 5      @@@@ DEVICE MANAGEMENT:   TEXT FILE MANAGEMENT   SL5DEP4

Selected device.: @@@@          Station.: @@@@          Page:@@
Processor.....: @@@@          Type....: @@@
Escape code.....: x'@@' (@)

LIST OF TEXT   ALREADY DEFINED :

NAME          NAME          NAME          NAME          NAME
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@
- @@@@        - @@@@        - @@@@        - @@@@        - @@@@

SELECTED TEXT : -----

ACTION : -----  0/END      3/NEXT      page      6/FIRST page
                  1/BACK     4/PREVIOUS page      Ln/LEVELn
                  2/SELECT   5/LAST      page      ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

A list of all existing text files is displayed.

The cursor is initially on the SELECTED TEXT field.

The names of the text files are displayed line by line.

Mask with help texts after the option '?' is selected

```

Level 5                RSO SERVICES HELP SCREEN:  FILE MANAGEMENT      HL5DEP4
                    TEXT FILE SELECTION

You have defined the file type as TEXT.
A list of all existing TEXT files is displayed.

Select one of the following functions :

0/END   : Terminate RSOSERVE.
1/BACK  : Return to the previous screen.
2/SELECT : SELECT a TEXT (either one of those displayed or a new one)
          Specify the name of the TEXT to be processed.
          Selection with the selected name or with the ,X' character
          in the list.
          The name may consist of max. eight alphanumeric characters.
          If the specified name is contained in the list, the name of
          the printer file linked to the TEXT previously recorded is
          displayed on the next screen.
3/NEXT  : Display the NEXT page.
4/PREVIOUS: Display the PREVIOUS page.
5/LAST  : Display the LAST page.
6/FIRST : Display the FIRST page.
Ln/LEVELn: Return to level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input➤ **SELECTED TEXT**

(name of an existing text file or one to be generated)

Validity criteria:

1 to 8 alphanumeric characters, all '␣' and '_' characters are ignored.

- Selection of texts in the list: the text name must be marked with an 'X'.
The value specified in the field SELECTED TEXT takes priority.

➤ **ACTION** (selection options)

Default: 2 (SELECT)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL4DFT, is displayed.

2/SELECT:

Selects the text file to be processed.

- If a valid text name is specified in the field SELECTED TEXT, the screen for management of the text file is displayed for this text. Otherwise an error message is displayed.

- If no name is specified in the field SELECTED TEXT, the screen for management of the text file is displayed for the first text whose name is marked with an 'X' in the list. If no such name exists, an error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list.. If the current screen is the last, a corresponding message is also displayed.

6/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Selected device name, processor, station, device type
- List of the defined text files
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5                      RSO SERVICES HELP SCREEN:  FILE MANAGEMENT          HL5DEP5
                          SYMBOL FILE SELECTION

You have defined the file type as SYMBOL .
A list of all existing SYMBOL files is displayed.

Select one of the following functions :

0/END      : Terminate RSOSERVE.
1/BACK     : Return to the previous screen.
2/SELECT   : SELECT a SYMBOL (either one of those displayed or a new one)
              Specify the name of the SYMBOL to be processed.
              Selection with the selected name or with the ,X' character
              in the list.
              The name may consist of max. eight alphanumeric characters.
              If the specified name is contained in the list, the name of
              the printer file linked to the SYMBOL previously recorded is
              displayed on the next screen.
3/NEXT     : Display the NEXT page.
4/PREVIOUS: Display the PREVIOUS page.
5/LAST    : Display the LAST page.
6/FIRST   : Display the FIRST page.
Ln/LEVELn : Return to level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ SELECTED SYMBOL

(name of an existing symbol file or one to be generated)

Validity criteria:

1 to 8 alphanumeric characters, all '␣' and '_' characters are ignored.

- Selection of symbols in the list: the symbol name must be marked with an 'X'. The value specified in the field SELECTED SYMBOL takes priority.

➤ ACTION (selection options)

Default: 2 (SELECT)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL4DF,T is displayed.

2/SELECT:

Selects the SYMBOL file to be processed.

- If a valid symbol name is specified in the field SELECTED SYMBOL, the screen for management of the symbol file is displayed for this symbol. Otherwise an error message is displayed.

- If no name is specified in the field SELECTED SYMBOL, the screen for management of the symbol file is displayed for the first symbol whose name is marked with an 'X' in the list. If no such name exists, an error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list.. If the current screen is the last, a corresponding message is also displayed.

6/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- List of the defined symbol files
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5                RSO SERVICES HELP SCREEN:  FILE MANAGEMENT                HL5DFIL

You have already defined the type of file to be processed. In case of a DIA
file you have specified the name of the forms overlay (to be used in
the DIA parameter of the PRINT cmd). In the case of a PROLOG / EPILOG
file you have specified the name of the linked FORM . In the case of a
MEMBER (text/symbol) you have specified a correct member name.
Now select one of the following functions :

0 /END : Terminate RSOSERVE.
1 /BACK : Return to the previous screen.
2 /IMPORT: IMPORT a BS2000 file (SAM/ISAM,RECFORM=V,BLKSIZE=STD/1 or
STD/2,KEYPOS=5,KEYLEN=8) to the printer memory.
3 /EXPORT: EXPORT a file from printer memory to the BS2000 system
(Specify the FCBTYP and OVERWRITE options).
4 /PRINT: PRINT a printer file.
5 /REMOVE: DELETE a printer file.
6 /COPY : COPY a printer file (=duplicate).
7 /RENAME: RENAME a printer file.
8 /LINK : LINK a DIA/PROLOG/EPILOG/SYMBOL to an existing printer file.
9 /UNLINK: UNLINK a DIA/PROLOG/EPILOG/SYMBOL from an existing printer file.
Ln/LEVELn: Return to level n (n = 0,1,2,3,4).
PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- **PRINTER FILE**
(name of a printer file)
Validity criteria:
 - max. 54 characters
 - no commas, semicolons, blanks or command escape characters
- **HOST-FILE**
(name of a BS2000 file)
Only applicable if the action IMPORT or EXPORT is selected.
Validity criteria:
 - SAM or ISAM file
 - RECFORM=V, BUF-LEN=STD(1/2), KEY-POS=5, KEY-LEN=8.
- **NEW PRINTER FILE**
(name of a printer file)
Only applicable if the action COPY or RENAME is selected.
Validity criteria:
 - max. 54 characters
 - no commas, semicolons, blanks or command escape characters
- **ACTION** (selection options)
Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask is displayed.

2/IMPORT:

If the entries for the printer file and the BS2000 file are syntactically valid, the BS2000 file is copied into the printer memory under the printer file name. If the entries are not valid, an error message is displayed.

3/EXPORT:

If the entries for the printer file and the BS2000 file are syntactically valid, the printer file is copied into the printer memory under the BS2000 file name. File type and overwrite must be specified. Otherwise an error message is displayed.

4/PRINT:

Prints a printer file.

If the file structure or the file name is incorrect, an error message is displayed.

5/REMOVE:

Deletes a printer file.

If the file structure or the file name is incorrect, an error message is displayed.

6/COPY:

Copies a printer file.

If the printer file names are incorrect, if the printer file does not exist, or if a printer file with the new name already exists, an error message is displayed.

7/RENAME:

Renames a printer file.

If the printer file names are incorrect, if the printer file does not exist, or if a printer file with the new name already exists, an error message is displayed.

8/LINK:

Links a forms overlay, a prolog, an epilog or a member to a printer file. The linkage information is saved in a SYSPAR.RSO.030.USER file record. If the printer file does not exist, or if the specified name is incorrect, an error message is displayed.

If a link already exists for the specified forms overlay, prolog, epilog or member file, it is overwritten by the new link.

9/UNLINK:

Cancels the link between a forms overlay, prolog, epilog or member and a printer file. The logical link (the result of the LINK option) is canceled.

The SYSPAR.RSO.030.USER file record containing the linkage information is deleted, but not the file defined in this record.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN:  DIRECTORY MANAGEMENT  HL4DDIR

DIRECTORY NAME :  NAME of the directory to be processed.

                    The name may be max. 52 characters in length and
                    should not contain any commas, semicolons, blanks or
                    the printer command escape characters.

ACTIONS :   0 /END      :  Terminate RSOSERVE.
            1 /BACK    :  Return to the previous screen.

            2 /ADD     :  ADD a new directory (= create directory).
            3 /REMOVE  :  REMOVE an empty directory.
            4 /PRINT   :  PRINT a directory (on the device).
            5 /LIST    :  LIST a directory (on the screen).

Ln/LEVELn   :  Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input► **DIRECTORY-NAME**

(directory name)

Validity criteria:

- max. 52 characters
- no commas, semicolons, blanks or command escape characters

► **ACTION** (selection options)

Default: 5 (LIST)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL3DMEN, is displayed.

2/ADD:

If the entry for DIRECTORY NAME is syntactically valid and the directory does not exist, it is generated. Otherwise an error message is displayed.

3/REMOVE:

If the entry for DIRECTORY NAME is syntactically valid and the directory exists in the printer and is empty, it is deleted. Otherwise an error message is displayed. The REMOVE option can only be implemented by pressing the F1 key.

4/PRINT:

If the entry for DIRECTORY NAME is syntactically valid and the directory exists in the printer, its contents are printed on the device. Otherwise an error message is displayed.

5/LIST:

If the entry for DIRECTORY NAME is syntactically valid and the directory exists in the printer, its contents are displayed on the screen. Otherwise an error message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 5          RSO SERVICES HELP SCREEN:  LIST CONTENTS OF DIRECTORY  HL4LDIR

The contents of a directory are now displayed (11 lines per screen).
The format of the list is the same as that of a printer.

Meaning of the displayed fields:
- Dir/File :   file class: D=directory, F=normal file.
- Font/Symb/Text/Lang :   file type: F=font, L=language table, S=symbol,
                           T=text file.
- Rom/Priv/Curr/Dyna/Defe :   R=ROM, P=privileged, DEFECTIVE=incomplete,
                           C=specifies the font used in the current document,
                           D=dynamically loaded font of an earlier document.
- Prot/Unpr :   file protection: P=protected, U=unprotected.
- Coding type :   type of code, possible values: from A to Z.

Select one of the following functions :
0 /END       :   Terminate RSOSERVE.
1 /BACK      :   Return to the previous screen.
2 /NEXT      :   Display the NEXT page.
                Note: When the last page is displayed, you can return to the
                previous level (4) by entering this action.
Ln/LEVELn    :   Return to level n (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL4DDIR, is displayed.

2/NEXT:

If there is a continuation list, it is displayed. Otherwise the previous mask (SL4DDIR) is output to SYSOUT.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Name and contents of the directory
- Error messages

Mask with help texts after the option '?' is selected

Level 5 RSO SERVICES HELP SCREEN: LIST CONTENTS OF DIRECTORY HL4LDIR2

The contents of a directory are now displayed (11 lines per screen).
The format of the list is the same as that of a printer.

Meaning of the displayed fields:

- FILE TYPE: possible values are Font, Symb, Text, Lang and correspond to Font, Symbol, Text and Language table files.
- ATTRIBUTE TYPES: This field gives a measure of the permanence of the files i.e. whether or not they are kept in printer memory in case of power off. Refer to printer manual for more info.

Select one of the following functions :

0 /END : Terminate RSOSERVE.

1 /BACK : Return to the previous screen.

2 /NEXT : Display the NEXT page.

Note: When the last page is displayed, you can return to the previous level (4) by entering this action.

Ln/LEVELn : Return to level n (n = 0,1,2,3,4).

PRESS <DUE1> KEY TO LEAVE INFO MODE

Input

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, SL4DDIR, is displayed.

2/NEXT:

If there is a continuation list, it is displayed. Otherwise the previous mask (SL4DDIR) is output to SYSOUT.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Name and contents of the directory
- Error messages

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN:  SEND A STRING                HL4DEX

Select one of the following functions :

0 /END      :  Terminate RSOSERVE.

1 /BACK     :  Return to the previous screen.

2 /SEND     :  SEND A STRING  of data.

                The entire string (data and printer commands) entered
                (except blanks at the end) is sent to the device.
                The string will be enclosed between open document and close
                document characters by the program beforehand.
                If one or more errors are detected by the device, only the most
                serious error is displayed on the screen.

Ln/LEVELn   :  Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- String
- ACTION (selection options)
Default: 2 (SEND)
- 0/END:
No action; RSOSERVE processing is terminated.
- 1/BACK:
No action, the previous mask, SL3DMEN, is displayed.
- 2/SEND:
Sends the string to the device.
- Ln/Level n:
No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.
- ?/HELP:
Mask with help texts is displayed.

Output

- Selected device name, processor, station, device type
- Command escape character in hexadecimal and EBCDIC form. The EBCDIC value is not always a displayable character. In this case it is replaced by a blank.
- The command escape character also appears in EBCDIC form at the beginning and end of the string.
- Error messages

Mask with help texts after the option '?' is selected

```

Level 1                                RSO SERVICES HELP SCREEN                                HL1S9645
                                     9645  DEVICE TYPE MANAGEMENT.

Select one of the following functions :

0/END      : Terminate RSOSERVE management.
1/BACK     : Return to the previous screen.
2/BAND-ID  : Define a BAND ID : The code table linked to a new/existing
                                     BAND ID can be created/updated.
3/DEVICE   : Manage a DEVICE : The BAND ID(s) already defined in the
                                     specified RSOFILE can be sent to the device.
                                     Note : The device is disabled during operation.
4/CHARACTER-SET : Define a CHARACTER SET
                                     The FONT linked to a new/existing CHARACTER SET
                                     can be defined/modified.
                                     Note : To be used at print time the character set
                                     must be also defined in the
                                     SPOOL.PARAMETERS file.
5/FONT     : Define a FONT
                                     The escape sequence linked to a new/existing FONT
                                     can be defined/modified.

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- RSOFILE
(specification optional; default: \$RSOFILE)
Validity criteria:
<:catid:><userid.><alphanum-name 1..28.>RSOFILE
- ACTION (selection options)
Default: 1(BACK)

0/END:

No action; RSOSERVE processing is terminated.

1/BACK:

No action, the previous mask, MLORMAIN, is displayed.

2/BAND-ID:

Defines a band ID.

Note

Although management of band IDs can be performed by RSO device administrators in user RSOFILES (creation, modification, etc.), only band IDs contained in the system RSOFILE are used for printing.

3/DEVICE:

Device management.

Option 3 can be used to specify the name of the system RSOFIL.

4/CHARACTER-SET:

Character set definition.

5/FONT:

Font definition.

?/HELP:

Displays a mask with help texts.

Mask with help texts after the option '?' is selected

```

Level 2          RSO SERVICES HELP SCREEN:  BAND ID MANAGEMENT          HL2SBID

INPUT NAME      : Name of an RSOFIELD.
OUTPUT NAME     : Name of an RSOFIELD.
Name = :CATID:<user.><1..28 chars.>RSOFIELD

ERASE           : set to Y if the :CATID:<user.><1..28 chars.>RSOFIELD
                  is to be cleared before use

OVERWRITE       : should be set to Y if records in the output file are to be
                  overwritten

Select one of the following actions.
0 /END          : Terminate RSOSEVERE.
1 /BACK         : Return to previous screen.
2 /CONTINUE     : If the file names are correct, the treatment continues
                  and band ids can be added, copied, displayed,
                  removed, renamed or modified.
3 /COPY-ALL     : COPY-ALL existing BAND IDs from the INPUT to the
                  OUTPUT.
Ln/LEVELn      : Return to level n ( n = 0,1).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► INPUT FILE NAME

Name of an existing RSOFIELD.

Validity criteria:

<:catid:><\$userid.><alphanumeric-name 1..28.>RSOFIELD

Default:

*STD, i.e. the name of the system RSO file defined in the IMON tables

Note

Only band IDs contained in the system RSOFIELD are used for printing.

► OUTPUT FILE NAME

Name of an RSOFIELD (existing or to be generated)

Validity criteria:

<:catid:><\$userid.><alphanumeric-name 1..28.>RSOFIELD

Default:

*STD, i.e. the name of the system RSO file defined in the IMON tables

Note

Only band IDs contained in the system RSOFIELD are used for printing.

- ERASE (Y/N)
Default: N

Y : RSOFIL is deleted before use.
N : RSOFIL is not deleted before use.
- OVERWRITE (Y/N)
Default: N

Y : Duplicate records in the output file are overwritten.
N : Duplicate records in the output file are not overwritten.
- ACTION (selection options)
Default: 1 (BACK)

0/END:
 No action; RSOSERVE is terminated.

1/BACK:
 No action, the previous mask, ML1S9645, is displayed.

2/CONTINUE:
 Processing continues.
 If the file name entries are syntactically valid and it is possible to open the specified files, a list of the existing band IDs is displayed in the next mask. In the following mask ML3SBIDL the band IDs can be processed using the actions ADD, COPY, SHOW, REMOVE, RENAME and MODIFY.

3/COPY-ALL:
 Copies the band IDs.
 The band IDs are copied from the input file into the output file according to the value specified for OVERWRITE. If no band ID is to be found in the specified input file, a corresponding error message is displayed.

Ln/Level n:
 No action; return to mask level n.
 If the current level is level n, a corresponding message is displayed.

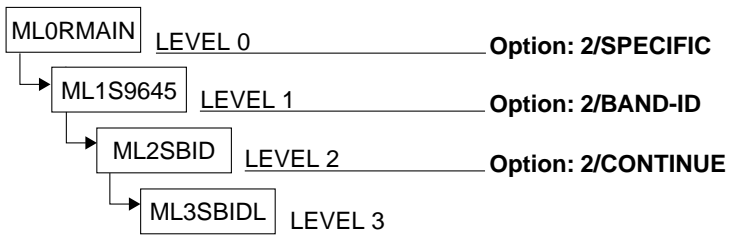
?/HELP:
 The above mask with help texts is displayed.

Output

Error messages

Mask ML3SBIDL: Processing defined band IDs

Mask sequence



```

Level 3                                R S O   S E R V I C E S                                ML3SBIDL
                                          Page:@@

BAND IDS DEFINED IN @@@@@ FILE :
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

  NAME      NAME      NAME      NAME      NAME
  @@@@      @@@@      @@@@      @@@@      @@@@
  - @@@@    - @@@@    - @@@@    - @@@@    - @@@@
  - @@@@    - @@@@    - @@@@    - @@@@    - @@@@
  - @@@@    - @@@@    - @@@@    - @@@@    - @@@@
  - @@@@    - @@@@    - @@@@    - @@@@    - @@@@
  - @@@@    - @@@@    - @@@@    - @@@@    - @@@@
  - @@@@    - @@@@    - @@@@    - @@@@    - @@@@

SELECTED BAND ID : --- MODEL : ---- (for ADD)
NEW BAND ID NAME : --- (for RENAME)

ACTION : -----  0/END          5/COPY          10/LIST-OUTPUT file
                  1/BACK        6/RENAME       11/LIST-INPUT  file
                  2/ADD         7/SHOW         12/LAST        page
                  3/MODIFY      8/NEXT         13/FIRST       page
                  4/REMOVE      9/PREVIOUS    page           Ln/LEVELn
                                          ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is on the field SELECTED BAND ID unless an error occurs.

The band ID records are processed and displayed line by line.

OUTPUT FILE does not mean that the file has been opened in output mode; it signifies the file currently being used by the user.

In the event of a DMS error on this level, processing returns to the previous level. A corresponding error message is displayed.

Mask with help texts after the option '?' is selected

```

Level 3          RSO SERVICES HELP SCREEN:  BAND ID LIST          HL3SBIDL
A list of the BAND IDs already defined is displayed.

Select one of the following functions :
0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.
2 /ADD          : ADD a new BAND ID in the OUTPUT file. (1)
3 /MODIFY       : MODIFY a BAND ID in the OUTPUT file. (2)
4 /REMOVE       : REMOVE BAND IDs from the OUTPUT file. (2)
                 (Press F1 to enter action)
5 /COPY         : COPY BAND IDs from the INPUT to the OUTPUT file.(2)
6 /RENAME       : RENAME a BAND ID in the OUTPUT file. (1)
7 /SHOW        : SHOW a BAND ID from the INPUT or the OUTPUT file.(2)
8 /NEXT        : Display the NEXT page.
9 /PREVIOUS    : Display the PREVIOUS page.
10/LAST        : Display the LAST page.
11/FIRST       : Display the FIRST page.
Ln/LEVELn      : Return to level n ( n = 0,1,2).
                 (1) Selection: only with the selected name area.
                 (2) Selection: with the selected name or with the ,X' character in the list.
                               PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- ▶ Band IDs can be selected in two different ways:
 - By entering the selected band ID in the field SELECTED BAND ID
The band ID specified may be either an existing one or one to be generated.
Validity criteria:
1 to 4 alphanumeric characters, no more than 3 consecutive blanks, single '␣' and '_' characters are ignored.
 - By selecting a band ID from the list.
An 'x' must be entered before the name of the band ID required.

If both alternatives have been marked by mistake, the entry in the field SELECTED BAND ID takes priority.

The band IDs marked with 'x' are processed in the order in which they appear in the mask. The process is aborted immediately if an error occurs during processing of one of these band IDs and an error message is output to SYSOUT.

- ▶ MODEL
(name of the band ID from the indicated file, to be used as a model)
Validity criteria for the MODEL specification:
 - the action ADD must have been selected
 - 1 to 4 alphanumeric characters, no more than 3 consecutive blanks, single '␣' and '_' characters are ignored.

➤ NEW BAND ID NAME

(new name of the band ID for the RENAME action)

Validity criteria for the RENAME specification:

1 to 4 alphanumeric characters, no more than 3 consecutive blanks, single '␣' and '␣' characters are ignored.

➤ ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action, the previous mask, ML2SBID, is displayed.

2/ADD:

Generates a new band ID.

The band ID name can only be selected by an entry in the field SELECTED BAND ID.

If this entry is syntactically valid and a band ID with the same name is not already present in the output file, the band ID can be generated.

If a valid band ID has been specified for MODEL, the code table linked to this band ID is displayed in the following mask, and can be modified before the band ID is saved.

Otherwise an error message is displayed.

3/MODIFY:

Modifies an existing band ID.

If a band ID has been specified in the field SELECTED BAND ID, and this entry is syntactically valid and the band ID exists in the system RSOFIELD, the code table is displayed and can be modified in the following mask. Otherwise an error message is displayed. If no band ID has been specified in the field SELECTED BAND ID, the first band ID marked with an 'x' is displayed in the following screen if the contents of the output file are displayed. If the input file is displayed, an error message is output.

If no name has been specified in the field SELECTED BAND ID and no band ID name has been marked in the mask, an error message is displayed.

4/REMOVE:

Deletes a band ID from the output file.

If a syntactically valid entry has been made in the field SELECTED BAND ID and the band ID exists in the output file, it is deleted from the file. If no band ID has been specified in the field SELECTED BAND ID but at least one band ID has been marked with an 'x' in the mask, the marked band IDs are deleted from the output file.

If the input file is displayed, an error message is output.

If no name has been specified in the field SELECTED BAND ID and no band ID name has been marked in the mask, an error message is displayed.

The REMOVE option can only be implemented by pressing the F1 key.

5/COPY:

Copies a band ID from the input file into the output file.

- If a syntactically valid entry has been made in the field SELECTED BAND ID and the band ID exists in the input file, it is copied into the output file according to the value specified for OVERWRITE.
- If no entry has been made in the field SELECTED BAND ID but at least one band ID from the input file has been marked with an 'x' in the mask, the marked records are copied from the input file into the output file according to the value specified for OVERWRITE. If the output file is displayed, an error message is output.

If neither a valid entry has been made in the field SELECTED BAND ID nor a record marked in the mask, an error message is displayed.

6/RENAME:

Renames a band ID in the output file.

The band ID can only be selected through an entry in the field SELECTED BAND ID. If the entries in the fields SELECTED BAND ID and NEW BAND ID are syntactically valid and the selected band ID exists in the output file, it is renamed using the name specified under NEW BAND ID if this name does not exist in the output file. Otherwise an error message is displayed.

7/SHOW:

Displays a band ID from the input or output file.

- If a syntactically valid entry has been made in the field SELECTED BAND ID and the band ID exists in the current file, it is displayed on the screen.
- If no entry has been made in the field SELECTED BAND ID but at least one band ID has been marked with an 'x' in the mask, the first such marked band ID is displayed on the screen.

Otherwise an error message is displayed.

8/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

9/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

10/LIST-OUTPUT:

Displays the band IDs already defined in the output file. During processing, the contents of the output file are only displayed if LIST OUTPUT has been specified. The output begins with the first page of the list.

11/LIST-INPUT:

Displays the band IDs already defined in the input file. During processing, the contents of the input file are only displayed if LIST INPUT has been specified. The output begins with the first page of the list.

12/LAST:

Displays the last page of a list. If the current page is the last, a corresponding message is displayed.

13/FIRST:

Displays the first page of a list. If the current page is the first, a corresponding message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- File type (input/output)
- Name of the input or output file
- List of the band IDs already defined in the input or output file
- Error messages

Mask with help texts after the option '?' is selected

```
Level 4          RSO SERVICES HELP SCREEN:  BAND ID MANAGEMENT          HL4SBIDM
```

```
Select one of the following functions :
```

```
0 /END       :  Terminate RSOSERVE.
```

```
1 /BACK      :  Return to the previous screen.
```

```
2 /SAVE      :  SAVE the BAND ID. (only for previous action ADD or MODIFY).
                The BAND ID table must be filled in (192 hexadecimal codes).
                The BAND ID identifier must be filled in
                ( max. 3 alphanumeric characters ).
```

```
Ln/LEVELn   :  Return to level n (n = 0,1,2,3).
```

```
PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

- 192 two-digit hexadecimal characters can be specified in the table.
Validity criteria:
Each of the 192 codes must consist of 2 printable hexadecimal characters 0...F;
X'10' must be entered for nonprintable characters.
- IDENTIFIER: identifier of the type band
Validity criteria: 1 to 3 alphanumeric characters.
- ACTION (selection options)
Default: 2 (SAVE)
 - 0/END:
No action; RSOSERVE is terminated.
 - 1/BACK:
No action, the previous mask, ML3SBIDL, is output to SYSOUT.
 - 2/SAVE:
If the codes in the table are syntactically valid, the table is saved as a band ID in the output file.

Note

When the code table is loaded, the 9645 Printer compares the identifier of the type band with the type band installed on the printer at the time of loading. If the two types differ, a printer error results.

Ln/Level n:

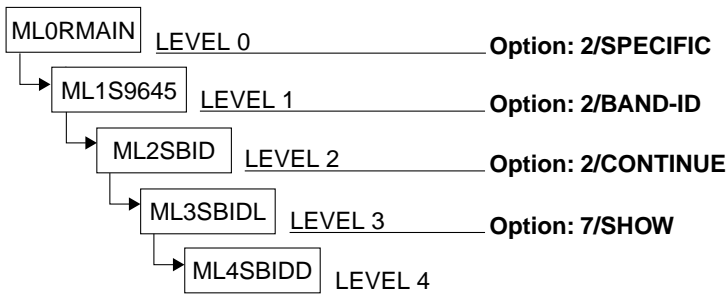
No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Mask ML4SBIDD: Displaying a code table (band ID)

Mask sequence



```

Level 4                               9645 DEVICE MANAGEMENT.                               ML4SBIDD
BAND ID: @@@@ MANAGEMENT.
      4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.1  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.2  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.3  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.4  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.5  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.6  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.7  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.8  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.9  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.A  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.B  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.C  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.D  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.E  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.F  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
IDENTIFIER : @@@.
ACTION : ----- 0/END          Ln/LEVELn
                1/BACK         ?/HELP
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The cursor is positioned on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 4          RSO SERVICES HELP SCREEN:  BAND ID MANAGEMENT  HL4SBIDD
Select one of the following functions :
0 /END          :  Terminate RSOSERVE.
1 /BACK         :  Return to the previous screen.
Ln/LEVELn      :  Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action, the previous mask, ML3SBIDL, is output to SYSOUT.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Selected band ID name, identifier and contents of type band
- Error messages

Note

If a code table is to be loaded, the 9645 Printer compares the identifier of the specified band ID with the identifier of the band installed on the printer. If they are different, a printer error occurs.

Mask with help texts after the option '?' is selected

```

Level 2          RSO SERVICES HELP SCREEN:  DEVICE  LIST          HL2SDEVL
A list of all the devices under your responsibility is displayed.

Select one of the following functions :

1 /BACK         : Return to the previous screen.
2 /NEXT         : Display the NEXT page.

3 /PREVIOUS     : Display the PREVIOUS page.
4 /LAST         : Display the LAST page.
5 /FIRST        : Display the FIRST page.

Ln/LEVELn       : Return to level n (n = 0,1).

TO SELECT A DEVICE : Specify the device to be processed.
                    Each device is identified by a number in front of its name.

                    Note:  - The device is disabled during management.
                           - The device must be in ,A' status (connected).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

➤ SELECTED DEVICE NUMBER

The 9645 device to which the specified (consecutive) number has been assigned in the mask is made available for administrative tasks by pressing the DUE key.

➤ ACTION (selection options)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action, the previous mask, ML1S9645, is displayed.

2/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

3/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/LAST:

Displays the last page of a list.. If the current screen is the last, a corresponding message is also displayed.

5/FIRST:

Displays the first page of a list. If the current screen is the first, a corresponding message is also displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- List of devices that can be administered
- Error messages

Mask with help texts after the option '?' is selected

```

Level 3                RSO SERVICES HELP SCREEN:  DEVICE MANAGEMENT      HL3SBIDS

You have already defined the device (currently disabled) to be processed.

Select one of the following functions :

0 /END      : Terminate RSOSERVE.
1 /BACK     : Return to the previous screen.
2 /SEND     : SEND a BAND ID to the DSR library.
3 /SHOW     : SHOW a BAND ID from the DSR library.
4 /REMOVE   : REMOVE a BAND ID from the DSR library.
              (Press F1 to enter action)

Ln/LEVELn   : Return to level n (n = 0,1,2).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

► **ACTION** (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action, the previous mask, ML2SDEVL, is output to SYSOUT.

2/SEND:

The list of the band IDs in the RSOFIL is displayed in the next screen, where one of the band IDs can be sent to the DSR library (also referred to as a LAM file).

3/SHOW:

The list of the band IDs in the DSR library is displayed in the next screen, where the code table of one of them can be output to SYSOUT.

4/REMOVE:

The list of the band IDs in the DSR library is displayed in the next screen, where one of them can be deleted.

The REMOVE option can only be implemented by pressing the F1 key.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

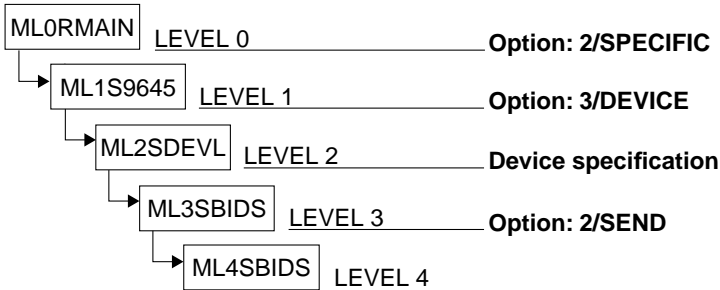
Displays a mask with help texts.

Output

- Device name
- Error messages

Mask ML4SBIDS: Sending a band ID

Mask sequence



```

Level 4              9645 DEVICE MANAGEMENT.              ML4SBIDS
                    SELECTED DEVICE: @@@@@@@@              Page:@@@

BAND IDs ALREADY PRESENT IN THE RSOFILE :

- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@
- @@@@    - @@@@    - @@@@    - @@@@    - @@@@

SELECTED BAND ID : ----

ACTION : -----  0/END          3/NEXT page       6/FIRST page
                  1/BACK         4/PREVIOUS page   Ln/LEVELn
                  2/SEND         5/LAST page      ?/HELP

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

This mask lists the names of all the band IDs in the system RSOFILE. The user can select one and send it to the DSR library of the PDN network to which the printer is assigned. The cursor is initially on the field SELECTED BAND ID. The band ID names are displayed line by line.

Mask with help texts after the option '?' is selected

```

Level 4                RSO SERVICES HELP SCREEN:  SEND BAND ID                HL4SBIDS
A list of the BAND IDs already defined in the SYSTEM RSOFIELD is displayed.

Select one of the following functions :

0 /END                : Terminate RSOSERVE.
1 /BACK               : Return to the previous screen.

2 /SEND               : SEND the SELECTED BAND ID to the device.
                       Selection with the selected name or with the ,X' character
                       in the list.

3 /NEXT               : Display the NEXT page.
4 /PREVIOUS           : Display the PREVIOUS page.
5 /LAST               : Display the LAST page.
6 /FIRST              : Display the FIRST page.

Ln/LEVELn            : Return to level n (n = 0,1,2,3).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- Band IDs can be selected in two different ways:
 - By entering the selected band ID in the field SELECTED BAND ID
Validity criteria:
1 to 4 alphanumeric characters, no more than 3 consecutive blanks, single '␣' and '_' characters are ignored.
 - By selecting a band ID from the list.
An 'x' must be entered before the name of the band ID required.

If both alternatives have been marked by mistake, the entry in the field SELECTED BAND ID takes priority.

The band IDs marked with 'x' are processed in the order in which they appear in the mask. The process is aborted immediately if an error occurs during processing of one of these band IDs and an error message is output.

- ACTION (selection options)
Default: 2 (SEND)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action, the previous mask, ML3SBIDS, is displayed.

2/SEND:

Sends the selected band ID to the DSR library.

- If a syntactically valid entry has been made in the field SELECTED BAND ID and the band ID exists in the system RSOFIL, it is sent to the DSR library.
- If no entry has been made in the field SELECTED BAND ID but at least one band ID has been marked with an 'x' in the mask, all such marked band IDs are sent to the DSR library.

Otherwise an error message is displayed.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list. If the current page is the last, a corresponding message is displayed.

6/FIRST:

Displays the first page of a list. If the current page is the first, a corresponding message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Page number
- Device name
- List of the band IDs already defined in the system RSOFIL
- Error messages

Mask with help texts after the option '?' is selected

```

Level 4          RSO SERVICES HELP SCREEN:  SHOW/DELETE BAND ID   HL4SBIDR
                                     FROM DSR LIBRARY
A list of the BAND IDs already present in the DSR library is displayed.

Select one of the following functions :

0 /END          : Terminate RSOSERVE.
1 /BACK         : Return to the previous screen.

2 /SHOW         : SHOW the SELECTED BAND ID from the device.
  REMOVE        : REMOVE the SELECTED BAND ID from the device.
                  Selection with the selected name or with the ,X' character
                  in the list.

3 /NEXT         : Display the NEXT page.
4 /PREVIOUS    : Display the PREVIOUS page.
5 /LAST        : Display the LAST page.
6 /FIRST       : Display the FIRST page.

Ln/LEVELn      : Return to level n (n = 0,1,2,3).

                                     PRESS <DUE1> KEY TO LEAVE INFO MODE

```

Input

- Band IDs can be selected in two different ways:
 - By entering the selected band ID in the field SELECTED BAND ID
Validity criteria:
1 to 4 alphanumeric characters, no more than 3 consecutive blanks, single '␣' and '_' characters are ignored.
 - By selecting a band ID from the list.
An 'x' must be entered before the name of the band ID required.

If both alternatives have been marked by mistake, the entry in the field SELECTED BAND ID takes priority.

The band IDs marked with 'x' are processed in the order in which they appear in the mask. The process is aborted immediately if an error occurs during processing of one of these band IDs and an error message is output.

- ACTION (selection options)
Default: 2 (SHOW)

0/END:
No action; RSOSERVE is terminated.

1/BACK:
No action, the previous mask, ML3SBIDS, is displayed.

2/SHOW:

Displays a band ID from the DSR library

- If a syntactically valid entry has been made in the field SELECTED BAND ID and the band ID exists in the DSR library, it is displayed in the following mask.
- If no entry has been made in the field SELECTED BAND ID but at least one band ID has been marked with an 'x' in the mask, the first such marked band ID is displayed in the following mask.
Otherwise an error message is displayed.

2/REMOVE:

Deletes a band ID from the DSR library

- If a syntactically valid entry has been made in the field SELECTED BAND ID and the band ID exists in the DSR library, it is deleted from the library. Otherwise an error message is displayed.
- If no entry has been made in the field SELECTED BAND ID but at least one band ID has been marked with an 'x' in the mask, all such marked band IDs are deleted from the DSR library.
Otherwise an error message is displayed.

The REMOVE option can only be implemented by pressing the F1 key.

3/NEXT:

If there is a continuation list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

4/PREVIOUS:

If there is a previous list, it is displayed. Otherwise the same mask is output to SYSOUT with a message.

5/LAST:

Displays the last page of a list. If the current page is the last, a corresponding message is displayed.

6/FIRST:

Displays the first page of a list. If the current page is the first, a corresponding message is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

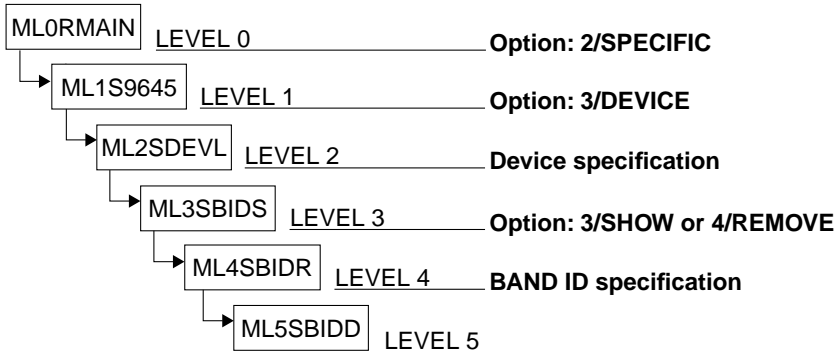
Displays a mask with help texts.

Output

- Page number
- Device name
- List of the band IDs already present in the DSR library
- Error messages

Mask ML5SBIDD: Displaying a band ID

Mask sequence



```

LEVEL 5          9645 DEVICE MANAGEMENT.          ML5SBIDD
BAND ID:  @@@@  MANAGEMENT.
           4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.1  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.2  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.3  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.4  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.5  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.6  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.7  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.8  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.9  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.A  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.B  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.C  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.D  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.E  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
.F  @@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.@@.
IDENTIFIER :  @@@.
ACTION :  -----  0/END          Ln/LEVELn
                1/BACK          ?/HELP
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
  
```

The selected band ID from the DSR library is displayed.

The cursor is on the ACTION field.

Mask with help texts after the option '?' is selected

```
Level 5                RSO SERVICES HELP SCREEN:  BAND ID MANAGEMENT  HL5SBIDD

Select one of the following functions :

0 /END      :  Terminate RSOSERVE.
1 /BACK     :  Return to the previous screen.
Ln/LEVELn  :  Return to level n  (n = 0,1,2,3,4).

                                PRESS <DUE1> KEY TO LEAVE INFO MODE
```

Input

► ACTION (selection options)

Default: 1 (BACK)

0/END:

No action; RSOSERVE is terminated.

1/BACK:

No action; the previous mask, ML4SBIDR, is displayed.

Ln/Level n:

No action; return to mask level n. If the current level is level n, a corresponding error message is displayed.

?/HELP:

Displays a mask with help texts.

Output

- Name, identifier and code table of the selected band ID
- Error messages

4 Batch mode

Batch mode in the RSOSERVE utility routine permits the management of band ID, character image and loop records and translation tables.

How to start RSOSERVE in batch mode is described in section “Starting RSOSERVE” on page 5.

Batch operating modes:

Three different modes are supported: fundamental mode, loop management mode and translation table management mode.

Fundamental mode permits

- the management of band IDs and character images from the system RSOFIL
- access to loop management mode and translation table management mode

If RSOSERVE is operated in procedure mode, the utility routine immediately enters fundamental mode when called.

Loop management mode permits the management of loop records in the system RSOFIL or a user RSOFIL. It is selected via the GENLOOP statement in fundamental mode.

Translation table management mode permits the management of translation tables in the system RSOFIL or a user RSOFIL.

4.1 Fundamental mode

In fundamental mode BAND-IDs and CHARACTER-IMAGEs are generated and managed.

Statement modes in fundamental mode

In fundamental mode there are two statement modes, primary and secondary mode. Primary statements can only be specified in primary mode, secondary statements only in secondary mode; the HALT statement can be specified in both modes. When fundamental mode is selected, it is automatically in primary mode. Generating a new record (ADD-B-I, ADD-C-I) calls secondary mode. Issuing the statement STORE or FORGET switches back to primary mode.

The following overview shows the mode in which each statement can be specified; this is also to be found in the detailed description of each statement.

Primary statements:

ADD-B-I, ADD-C-I, ER-B-I, ER-C-I, GENLOOP, GENTTB, SHOW-B-I, SHOW-C-I.

Secondary statements:

AA:NN, FORGET, STORE.

Statements that can be specified in both primary and secondary mode:

END, HALT.

Statements in fundamental mode

Overview

Statement	Functions
AA:NN	Specifies a code conversion pair for a band ID record or a character image record
ADD-B-I	Starts the generation of a band ID record in the system RSOFIL. (1)
ADD-C-I	Starts the generation of a character image record in the system RSOFIL. (1)
END	Terminates the RSOSERVE utility routine.
ER-B-I	Deletes a band ID record from the system RSOFIL. (1)
ER-C-I	Deletes a character image record from the system RSOFIL. (1)
FORGET	Aborts the generation of a band ID or a character image record.
GENLOOP	Opens loop management mode.
GENTTB	Opens translation table management mode.
HALT	Terminates the RSOSERVE utility routine.
SHOW-B-I	Outputs band ID records from the system RSOFIL to SYSOUT.
SHOW-C-I	Outputs character image records from the system RSOFIL to SYSOUT.
STORE	Terminates the generation of a band ID or a character image record and saves it in the system RSOFIL.

The statements marked with (1) may only be used by privileged users under the TSOS user ID.

AA:NN: Define code conversion pair

Secondary statement.

This statement specifies a code conversion pair for a character image record or a band ID record.

Operation	Operands
AA:NN	

The meaning and permitted values for AA and NN depend on whether the record is a band ID or a character image record.

Band ID

AA:NN represent a band ID data pair.

AA	Input code, i.e. printable character (EBCDIC) to be replaced by the character specified for NN. Range of values: 40...FF.
NN	Output code, i.e. the character printed instead of the character specified for AA. NN = 10 means that the character specified for AA is not a printable character.

Characters for which no band ID data pair is specified cannot be printed.

The STORE statement must follow the last data pair.

Character image

AA	Input code, i.e. the old hexadecimal code.
NN	Output code, i.e. the hexadecimal code to be used in printing instead of the code specified for AA.

A code pair must be specified for every binary combination to be converted.

A STORE statement must follow the last data pair.

ADD-B-I: Generate band ID

Primary statement.

This statement starts the generation of a band ID record in the system RSOFIL. AA:NN statements can then be entered. This must be followed by a STORE statement.

Operation	Operands
ADD-B-I	band-id-name, ID[IDENTIFIER]=idname[, U[UPDATE]]

band-id-name 4 alphanumeric characters designating the name of the band ID to be generated.

IDENTIFIER=idname 3 alphanumeric characters designating the identifier assigned to a 9645 band ID.

UPDATE An existing band ID with the same name is to be overwritten.

ADD-C-I: Generate character image

Primary statement.

This statement starts the generation of a character image record in the system RSOFIL.

AA:NN statements can then be entered. This must be followed by a STORE statement.

Operation	Operands
ADD-C-I	char-im-name[, U[UPDATE]]

char-im-name char-im-name = 3 alphanumeric characters.
Name of the conversion table (CHARACTER-IMAGE) to be generated.

UPDATE An existing conversion table (CHARACTER-IMAGE) with the same name is to be overwritten.

END: Terminate RSOSERVE

This statement can be specified in primary and in secondary mode.
It terminates the RSOSERVE utility routine.
This statement has the same effect as the HALT statement.

Operation	Operands
END	

ER-B-I: Delete band ID record

Primary statement.
This statement deletes a band ID record from the system RSOFIL.

Operation	Operands
ER-B-I	band-id-name

band-id-name band-id-name = 4 alphanumeric characters.
Name of the band ID to be deleted.

ER-C-I: Delete character image record

Primary statement.
This statement deletes a character image record from the system RSOFIL.

Operation	Operands
ER-C-I	char-im-name

char-im-name char-im-name = 3 alphanumeric characters.
Name of the character image to be deleted.

FORGET: Abort generation of record

Secondary statement; switches to primary mode.
This statement aborts the generation of a band ID or character image record, i.e. the record being generated is not saved in the system RSOFIL.

Operation	Operands
F[ORGET]	

GENLOOP: Open loop management mode for batch operation

Primary statement.

This statement opens loop management mode for batch operation.

Operation	Operands
GENLOOP	

GENTTB: Open generation table management mode for batch mode

Primary statement.

This statement opens translation table management mode for batch operation management of translation tables.

Operation	Operands
GENTTB	

HALT: Terminate RSOSERVE utility routine

This statement can be specified in both primary and secondary mode. It terminates the RSOSERVE utility routine.

This statement has the same effect as the statement END.

Operation	Operands
HALT	

SHOW-B-I: Display band ID records

Primary statement.

This statement outputs band ID records from the system RSOFIL to SYSOUT.

Operation	Operands
SHOW-B-I	{ band-id-name } *ALL

band-id-name band-id-name = 4 alphanumeric characters.
Name of the band ID to be output to SYSOUT.

*ALL All band IDs are to be output to SYSOUT.

SHOW-C-I: Display character image records

Primary statement.

This statement outputs character image records from the system RSOFIL to SYSOUT.

Operation	Operands
SHOW-C-I	{ char-im-name } *ALL

char-im-name char-im-name = 3 alphanumeric characters.
Name of the character image to be output to SYSOUT.

*ALL All character image records are to be output to SYSOUT.

STORE: Save generated record

Secondary statement; switches to primary mode.

The STORE statement should be specified at the end of a sequence of AA:NN statements.

This statement terminates the generation of a band ID or character image record.

The record is saved in the system RSOFIL.

Operation	Operands
S[TORE]	

4.2 Loop management mode

In loop management mode, it is possible to create loop records and write them to system RSOFILE (SPOOL administrator) or a corresponding user file \$userid.xxxx.RSOFILE.

Loop records created by the user are stored in a work file. If no work file has been assigned, the records are stored in the output file.

Statement modes in loop management mode

The sequence of statements in loop management mode is subject to certain rules. If a loop record is currently being created or modified, loop management mode is in secondary statement mode; otherwise, it is in primary statement mode. The statements for primary mode operations are primary statements, all others are secondary statements. Some statements are permissible both in primary and in secondary mode ("indifferent" statement mode).

Primary statements:

- (1) BACK, END, HALT
- (2) COPY, DEL[ETE], DISP[LAY], DUP, GENALL, GEN[ERATE], LSWORK, PRINTIN, PRINTOUT, PRINTWORK, REN[AME]
- (2) (3) LOOP, MOD

Secondary statements:

- (4) CHECK, LINE
- (4) (5) STORE
- (5) (6) FORGET

Statements which can be used in either primary or secondary mode:

ASSIGN, CLEAR, CLOSE, ER[ASE], FULLMSG, HELP, LDISP, L[IST]IN, L[IST]OUT, MOVE], NOLDISP, PARTMSG, PSOFF, PSON

- (1) Statements which are also permitted in secondary mode. They terminate secondary mode as if the FORGET statement had been entered.
- (2) Statements which are not permitted in secondary mode.
- (3) These statements switch from primary to secondary mode.
- (4) Statements which are not permitted in primary mode.
- (5) Statements which terminate secondary mode.
- (6) Statements which have no effect if specified in primary mode.

Note

Loop records with a line spacing of 3, 4, 10, 15 or 20 lpi are not transferred to the NDFILE when an RSOFILE is converted to an NDFILE.

Meanings of the job switches

Switches can be set before the utility routine is called by means of the command /MODIFY-JOB-SWITCHES_ON=switch, or while the program is running via the statement PSON_switch. The switch remains on until it is reset.

A switch is reset via MODIFY-JOB-SWITCHES_OFF=switch, or during the program run via the statement PSOFF_switch. Job switches 2 and 3 influence screen displays in loop management mode.

Switching on switch 2 suppresses the display of the loop record (after the CHECK statement) in interactive mode. While loop management mode is running, switch 2 can also be set via the statement NOLDISP and reset using the statement LDISP.

Switching on switch 3 suppresses the display of information following an invalid statement. While loop management mode is running, switch 3 can also be set using the statement PARTMSG and reset using the statement FULLMSG. An error message plus information on the current operating status of the loop management mode are displayed by default if an incorrect statement is entered.

Statements in loop management mode

Overview

Statement	Functions
ASSIGN	Assigns an output file containing loop records, or an input file from which loop records are transferred; assigns a work file.
BACK	Returns control to fundamental mode.
CHECK	Terminates a sequence of LINE statements.
CLEAR	Clears an open work file and reopens it.
CLOSE	Closes an open input, output or work file.
COPY	Copies a loop record into the work file.
DELETE	Deletes a loop record from the work file.
DISPLAY	Displays the layout of a loop record.
DUP	Duplicates a loop record in the work file.
END	Terminates the RSOSERVE utility routine.
ERASE	Deletes one or all loop records from the output file.
FORGET	Aborts creation of a loop record.
FULLMSG	Resets job switch 3.
GENALL	Transfers all loop records from the work file to the output file.
GENERATE	Transfers a loop record from the work file to the output file.
HALT	Terminates the RSOSERVE utility routine.
HELP	Provides an overview of the statements in loop management mode.
LDISP	Resets job switch 2.
LINE	Defines the line spacing and specifies whether and, if so, which channel is to be set in a line.
LISTIN	Outputs the list of loop records in the input file to SYSOUT.
LISTOUT	Outputs the list of loop records in the output file to SYSOUT.
LOOP	Generates a loop record for the output file.
LSWORK	Displays the loop names of the work file on the terminal.
MOD	Fetches a loop record from the work file for modification.
MOVE	Copies one or all loop records of the input file to the output file.
NOLDISP	Sets job switch 2.
PARTMSG	Sets job switch 3.
PRINTIN	Prints a loop record from the input file on SYSLST.
PRINTOUT	Prints a loop record from the output file on SYSLST.

Statement	Functions
PRINTWORK	Prints a loop record from the work file on SYSLST.
PSOFF/PSON	Resets or sets a job switch.
RENAME	Renames the loop record in the work file.
STORE	Stores a loop record in the work file if one is assigned, otherwise in the output file.

ASSIGN: Assign input, output and/or work file

Can be specified in both primary and secondary mode.

This statement is used to assign a file into which the generated loop records are to be written (output file). In addition, a file from which loop records are to be fetched for modification can be assigned (input file). Furthermore (optionally), a work file for loop generation can be assigned. The ASSIGN statement can also be used to reassign files.

Operation	Operands
ASSIGN	$\left\{ \begin{array}{l} \text{INPUT=filename} \\ \text{OUTPUT=filename[,C[LEAR]]} \\ \text{WORK=filename[,C[LEAR]]} \end{array} \right\}$

- INPUT=filename** Specifies the name of a file from which a loop record can be read via the MODEL operand of the LOOP statement. The system RSOFIL or \$userid.xxxx.RSOFIL can be specified as the input file.
- OUTPUT=filename** Specifies the name of a file into which the created loop records are to be written. The system RSOFIL or \$userid.xxxx.RSOFIL can be specified as the input file. The input and output files must be different.
- CLEAR** The contents of the assigned output file are cleared before the file is opened.
- WORK=filename** Opens a work file for loop generation with attributes KEY-POS=5, KEY-LEN=20. If these attributes do not match those of an existing file, the statement is rejected unless CLEAR was also specified.

If a work file is open, all generated loop records are written to the work file and not to the output file. The statements LSWORK, CLEAR, COPY, DEL, RENAME, GENERATE and GENALL can be used only if a work file is open.

CLEAR The contents of the assigned work file are cleared before the file is opened.

BACK: Terminate loop management mode

Primary statement also permitted in secondary mode, the latter being switched to primary mode.

This statement terminates loop management mode and returns control to fundamental mode.

Operation	Operands
BACK	

CHECK: Terminate input of LINE statements

Secondary statement.

This statement is entered after one or more LINE statements. The contents of the loop record are displayed.

Operation	Operands
CHECK	

Note

If no lines are displayed after input of the CHECK statement, switch 2 has been set.

CLEAR: Clear contents of work file

Can be specified in both primary and secondary mode.

This statement clears an open work file and reopens it.

Operation	Operands
CLEAR	

CLOSE: Close open files

Can be specified in both primary and secondary mode.

This statement closes an open input, output or work file. The work file is that belonging to loop management mode; it is closed but not erased.

Operation	Operands
CLOSE	$\left\{ \begin{array}{l} \text{OUTPUT} \\ \text{INPUT} \\ \text{WORK} \end{array} \right\}$

OUTPUT Closes the output file.

INPUT Closes the input file.

WORK Closes the work file.

COPY: Copy loop record into work file

Primary statement.

This statement copies a loop record from the specified file into the work file. The loop record can be renamed in the process.

If the loop record already exists in the work file, it is not overwritten.

Operation	Operands
COPY	$\text{LOOP=lll}[\text{,FILE}=\left\{ \begin{array}{l} \text{O[UTPUT]} \\ \text{I[INPUT]} \end{array} \right\}][\text{,NEWNAME=nnn}]$

LOOP=lll Loop record to be copied.

FILE=OUTPUT The specified loop record is copied from the output file to the work file.

=INPUT The specified loop record is copied from the input file to the work file.

NEWNAME=nnn The loop record is renamed and copied to the work file. The new name of the loop record has a maximum length of 3 alphanumeric characters (and the characters \$, @ and & must not be used).

DELETE: Delete loop record from work file

Primary statement.

This statement deletes a loop record from the work file (if it is open).

Operation	Operands
DEL[ETE]	LOOP=III

LOOP=III Loop record which is to be deleted from the work file.

DISPLAY: Display loop record on terminal

Primary statement.

This statement shows the structure of a specified loop record from a specific file on the terminal.

Operation	Operands
DISPLAY	LOOP=III[, FILE= { O[UTPUT] I[INPUT] W[ORK] }]

LOOP=III Loop record whose structure is to be displayed.

FILE=OUTPUT The specified loop record from the output file is displayed.

=INPUT The specified loop record from the input file is displayed.

=WORK The specified loop record from the work file is displayed.

Note

The format of the terminal output is the same as that for the CHECK statement.

DUP: Duplicate loop record within work file

Primary statement.

This statement duplicates the specified loop record in the work file and assigns a new name to the duplicated record. Any existing loop record with the same name is not overwritten.

Operation	Operands
DUP	LOOP=lll,NEWNAME=nnn

LOOP=lll Loop record in the work file which is to be duplicated.

NEWNAME=nnn The duplicate of the specified loop record in the work file is to be renamed.

The new name of the loop record has up to 3 alphanumeric characters (and the characters \$, @ and & must not be used).

END: Terminate RSOSERVE

Can be specified in both primary and secondary mode.

Terminates the RSOSERVE utility routine.

This statement has the same effect as the HALT statement.

Operation	Operands
END	

ERASE: Delete one or all loop records in output file

Can be specified in both primary and secondary mode.

Deletes one or all loop records in the output file.

Operation	Operands
ERASE	[LOOP=]{ *ALL name }

LOOP=*ALL All loop records in the output file are to be deleted.

=name Name of loop record to be deleted in the output file.

FORGET: Abort generation of loop record

Secondary statement; terminates secondary mode.

With this statement, the user aborts generation of a loop record without the loop record being written to the output file.

Operation	Operands
F[ORGET]	

FULLMSG: Reset job switch 3

Can be specified in both primary and secondary mode.

This statement is issued after the utility routine has been called and serves to reset job switch 3. This means that if an invalid statement is entered during the utility routine an error message is displayed, followed by information on the currently active mode.

Operation	Operands
FULLMSG	

The statement remains effective for the complete duration of the utility routine. FULLMSG is equivalent to the statement PSOFF₃.

GENALL: Transfer all loop records from work file to output file

Primary statement.

This statement transfers all loop records from the work file to the output file.

Operation	Operands
GENALL	[U[PDATE]][,E[RASE]]

UPDATE If loop records with the same name exist in the output file, they are overwritten.

ERASE Successfully transferred loop records are erased from the work file.

GENERATE: Transfer loop record from work file to output file

Primary statement.

This statement transfers one loop record from the work file to the output file and (optionally) renames it.

Operation	Operands
GEN[ERATE]	LOOP=lll[,UPDATE][,NEWNAME=nnn]

LOOP=lll Loop record which is to be transferred from the work file to the output file.

UPDATE If a loop record with the same name exists in the output file, it is overwritten.

NEWNAME=nnn The loop record to be transferred is also renamed. Any loop record with the same name in the file is overwritten only if UPDATE is specified.

HALT: Terminate RSOSERVE utility routine

Primary statement also permitted in secondary mode; switches to primary mode.

This statement terminates not only loop management mode, but also the complete utility routine.

Operation	Operands
HALT	

HELP: Display information on loop management mode

Can be specified in both primary and secondary mode.

This statement provides an overview of loop management mode, its statements, and the names of all open files.

Operation	Operands
HELP	[{ statement } FILE]

statement Returns information on the specified statement to the user (the names of the statements must not be abbreviated).

FILE The names of all open files are displayed. If no file is open, the message "NO FILES OPEN" appears.

HELP without an operand provides an overview of the statements of loop management mode.

LDISP: Reset job switch 2

Can be specified in both primary and secondary mode.
This statement resets job switch 2, i.e. the created loop record is displayed on the terminal after a CHECK statement.

Operation	Operands
LDISP	

The statement remains effective throughout the utility routine. LDISP is equivalent to PSOFF₂.

LINE: Define line feed and line spacing

Secondary statement.
The LINE statement is used to implement any required line skips, i.e. any line feeds to specific channels.
This statement defines which channel is to be set in line nnn. In addition, the line spacing valid as of line nnn can be specified by D=...
LINE statements must immediately follow a LOOP statement.

Operation	Operands
L[INE]	$\text{nnn}, \text{CH} = \left\{ \begin{array}{c} \text{ch} \\ \text{NO} \end{array} \right\}, \text{D} = \left\{ \begin{array}{c} 3 \\ 4 \\ \underline{6} \\ 8 \\ 10 \\ 12 \\ 15 \\ 20 \end{array} \right\}$

nnn Defines the line (1 to 500) for which the statement is entered.

CH=ch	Specifies the channel number (1 to 11), where channel 1 (in the standard loop record) means a feed to the start of a new logical page. Siemens standard: channel 1 is defined in line 3. Channel 12 is reserved for RSO and is always on the last line. In the file to be output, the user can trigger a feed to channel 12.
=NO	Removes a channel indicator from the current line (useful for modifying an existing loop record).
D= 3 / 4 / <u>6</u> / 8 / 10 / 12 / 15 / 20	Specifies a line spacing of 6, 8 or 12 lines/inch. The spacing which is defined for line nnn remains effective for all subsequent lines until a new LINE statement which changes the spacing is encountered.

Notes

- It is not necessary to enter the LINE statements in ascending order of line numbers.
- A channel cannot be defined in the last line.
- Loop records with a line spacing of 3, 4, 10, 15 or 20 lpi are not transferred to the NDFILE when an RSOFILe is converted to an NDFILE.

loopname	Max. 3 alphanumeric characters (no '\$', '@' or '&'). Name of the loop record which is to be defined in the output/work file (together with one or more LINE statements).
LENGTH= <i>l</i>	Length of the form in inches: $1 \leq l \leq 25$. If the operand MODEL is not specified, a value must be entered for LENGTH.
FR= <i>x</i>	Valid only together with the LENGTH operand. Specifies the fractions in units of 1/6 inch to be added to the whole inch value to arrive at the total length of the form; range of values: 1...5. Example: For a form of 24 5/6 inches, LENGTH must be given the value 24 and FR the value 5. LENGTH and FR can therefore only be used to generate form lengths that are a multiple of 1/6 inch. loop records of other lengths can only be generated in RSOSERVE interactive mode.
D= 3 / 4 / <u>6</u> / 8 / 10 / 12 / 15 / 20	Specifies the line spacing of the loop record. The value remains valid until it is changed by a LINE statement.
MODEL=name	Max. 3 alphanumeric characters. Name of an existing loop record to be read. All values contained in this loop record can be modified by LINE statements. If MODEL is specified, a value for D is not necessary. The entries for MODEL and loopname can be identical.
FILE	File from which the loop record specified for MODEL is read.
= WORK	The loop record specified for MODEL is read from the work file.
= OUTPUT	The loop record specified for MODEL is read from the output file.
= <u>INPUT</u>	The loop record specified for MODEL is read from the input file.

LSWORK: Display loop names on terminal

Primary statement.

This statement displays the loop names contained in the work file on the terminal, together with their assigned lengths.

Operation	Operands
LSWORK	

MOD: Fetch loop record from work file for modification

Primary statement; switches to secondary mode.

This statement fetches a loop record from the work file for modification.

Operation	Operands
MOD	LOOP=III

LOOP=III Loop record to be fetched from the work file.

Notes

After the MOD statement, LINE statements are expected, and these should then be terminated using a STORE statement.

The MOD statement has the same function as the statement
 LOOP=III,MODEL=mmm,FILE=WORK.

All subsequent STORE statements within the validity range of the current loop modification automatically receive the UPDATE function (but see the notes on the STORE statement, page 284).

MOVE: Copy loop records from input file to output file

Can be specified in both primary and secondary mode.

This statement copies one or all loop records from the input file to the output file.

Operation	Operands
MOVE	$\text{LOOP}=\left\{ \begin{array}{l} *ALL \\ \text{name1}[, \text{NEWNAME}=\text{name2}] \end{array} \right\} [, \text{UPDATE}]$

LOOP=*ALL Copies all loop records of the input file to the output file.

=name1 Name of the input file loop record to be copied to the output file.

NEWNAME=name2 The loop record is given a new name and copied to the output file. The new name of the loop record is up to 3 characters in length and alphanumeric (and the characters \$, @ and & must not be used).

UPDATE If a loop record with the same name already exists in the output file, it will be overwritten.

NOLDISP: Set job switch 2

Can be entered in both primary and secondary mode.

This statement sets job switch 2, i.e. the created loop record is not displayed on the terminal after a CHECK statement.

Operation	Operands
NOLDISP	

This statement remains effective for the whole duration of the utility routine. NOLDISP is equivalent to the statement PSON_L2.

PARTMSG: Set job switch 3

Can be entered in both primary and secondary mode.

This statement sets job switch 3. After an invalid statement, an error message is displayed, but listing of all permissible statements is suppressed.

Operation	Operands
PARTMSG	

The statement remains effective during the whole duration of the utility routine. PARTMSG is equivalent to the statement PSON_L3.

PRINTIN: Output loop records from input file to SYSLST

Primary statement.

This statement prints either all loop records or one specific record from the input file on the printer (SYSLST).

Operation	Operands
PRINTIN	[LOOP=III]

LOOP=III The specified loop record from the input file is output to SYSLST in output format.

PRINTIN without an operand causes all loop records of the input file to be printed in output format on SYSLST.

PRINTOUT: Output loop records from output file to SYSLST

Primary statement.

This statement prints either all loop records or one specific record from the output file on the printer (SYSLST).

Operation	Operands
PRINTOUT	[LOOP=III]

LOOP=III The specified loop record from the output file is output to SYSLST in output format.

PRINTOUT without an operand causes all loop records of the output file to be printed in output format on SYSLST.

PRINTWORK: Output loop records from work file to SYSLST

Primary statement.

This statement prints either all loop records or one specific record from the work file on SYSLST.

Operation	Operands
PRINTWORK	[LOOP=III]

LOOP=III The specified loop record from the work file is output to SYSLST in output format.

PRINTWORK without an operand causes all loop records of the work file to be printed in output format on SYSLST.

PSOFF: Reset job switch

Can be entered in both primary and secondary mode.

Using this statement, a job switch can be reset during execution of the utility routine.

Operation	Operands
PSOFF	n

n Number of the job switch; only the digits 0 to 9 may be specified.
The statement remains effective for the whole duration of the utility routine.

PSON: Set job switch

Can be entered in both primary and secondary mode.

This statement can be used to set a job switch during execution of the utility routine.

Operation	Operands
PSON	n

n Number of the job switch; only the digits 0 to 9 may be specified. The job switch remains set for the whole duration of the utility routine.

RENAME: Rename loop record in work file

Primary statement.

A loop record in the work file can be renamed with this statement. If the new name already exists, the statement is rejected unless the operand UPDATE is also specified.

Operation	Operands
REN[AME]	LOOP=lll,NEWNAME=nnn[,U[PDATE]]

LOOP=lll Loop record in the work file which is to be renamed.

NEWNAME=nnn Renames the loop record lll to nnn. If the new name already exists, the statement is rejected unless UPDATE is also specified. The new name of the loop record can have up to 3 alphanumeric characters (the characters \$, @ and & must not be used).

UPDATE If the new name already exists in the work file, the record is overwritten.

STORE: Store generated loop record

Secondary statement; terminates secondary mode.

This statement stores a loop record which was created by a LOOP or MOD statement followed by 0 to n LINE statements.

The record is stored in the work file if such a file is assigned; otherwise, it is stored in the output file.

Before being stored, the loop record is supplemented and checked. Any error leads to a message and the operation is aborted.

Operation	Operands
S[TORE]	[NEWNAME=nnn[,U[PDATE]]][,P[RINT]][,D[ISP]]

NEWNAME=nnn The loop record which is to be stored can (optionally) be renamed (see notes). The new name of the loop record has up to 3 alphanumeric characters (the characters \$, @ and & must not be used).

UPDATE If the new name already exists in the file, it is overwritten (see notes).

PRINT The stored loop record is output to SYSLST.

DISP The stored loop record is displayed on SYSOUT.

STORE without an operand stores the generated loop record in the work or output file.

Notes

- If a loop record was modified, rather than created, on the terminal, i.e. the operation was executed with a MOD statement and not with a LOOP statement, then UPDATE is automatically generated. If, however, the work file is re-assigned or simply closed as part of the modification operation, then the implicit UPDATE has no effect. It is also ineffective if NEWNAME is specified. In all of these cases, an explicit UPDATE must be specified.
- If NEWNAME is specified, then the loop record is stored under the new name more rapidly than if the new name had been specified in the preceding LOOP or MOD statement.
- An invalid STORE statement can be corrected as often as necessary, with or without changing the operands.

4.3 Translation table management mode

In TRANSLATION-TABLE-MANAGEMENT mode TRANSLATION TABLEs are generated and managed.

Statement modes in translation table management mode

In translation table management mode there are two statement modes, primary and secondary mode.

Primary statements can only be specified in primary mode, secondary statements only in secondary mode; the statements BACK and HALT can be specified in both modes. When translation table management mode is selected, the user is automatically in primary mode. Generating a new record (ADD-T-T) switches to secondary mode. Specifying one of the statements BACK, HALT, FORGET or STORE switches back to primary mode.

The following overview shows the mode in which each statement can be specified; this is also to be found in the detailed description of each statement.

Primary statements:

ADD-T-T, ASSIGN, CLOSE, ER-T-T, SHOW-T-T.

Secondary statements:

AA:NN, FORGET, STORE.

Statements that can be specified in both primary and secondary mode:

BACK, END, HALT.

Statements in translation table management mode

Overview

Statement	Functions
AA:NN	Specifies a code conversion pair for a translation table.
ADD-T-T	Starts the generation of a translation table record.
ASSIGN	Assigns an input or output file.
BACK	Terminates translation table management mode.
CLOSE	Closes an input or output file.
END	Terminates the RSOSERVE utility routine.
ER-T-T	Deletes a translation table record from the system or user RSOFIL.
FORGET	Aborts the generation of a translation table record.
HALT	Terminates the RSOSERVE utility routine.
SHOW-T-T	Outputs translation table records from the system or user RSOFIL to SYSOUT.
STORE	Terminates the generation of a translation table record and saves the record in the system or user RSOFIL.

AA:NN: Define code conversion pair

Secondary statement.

Specifies a code conversion pair for a translation table record.

Operation	Operands
AA:NN	

AA Input code, i.e. the old hexadecimal code.

NN Output code, i.e. the hexadecimal code to be printed instead of the code specified for AA.

A code pair must be specified for every binary pair to be converted.

The last code pair must be followed by a STORE statement.

ADD-T-T: Generate translation table

Primary statement.

This statement starts the generation of a translation table record in the system or user RSOFILE assigned as output file.

AA:NN statements can then be entered. This must be followed by a STORE statement.

Operation	Operands
ADD-T-T	ttb-name[,U[PDATE]]

ttb-name 8 alphanumeric characters.
Name of the translation table to be generated.

UPDATE An existing translation table with the same name is to be over-
written.

ASSIGN: Assign input or output file

Primary mode.

This statement assigns the input and output files.

Files can also be reassigned.

Operation	Operands
ASSIGN	{ INPUT=filename OUTPUT=filename[,C[LEAR]] }

INPUT=filename System RSOFILE or \$userid.xxxx.RSOFILE.
Name of the file from which the translation tables are to be read.

OUTPUT=filename System RSOFILE or \$userid.xxxx.RSOFILE.
Name of the file to which the translation tables generated are to be
written.

CLEAR The contents of the assigned output file are to be deleted before it
is opened.

BACK: Terminate translation table management mode

Can be entered in both primary and secondary mode.

This statement terminates translation table management mode and switches back to fundamental mode.

Operation	Operands
BACK	

CLOSE: Close opened files

Primary mode.

This statement closes an open input or output file.

Operation	Operands
CLOSE	{ OUTPUT } { INPUT }

OUTPUT Closes the output file.

INPUT Closes the input file.

END: Terminate RSOSERVE

Can be specified in primary and in secondary mode.

This statement terminates the RSOSERVE utility routine.

It has the same effect as the HALT statement.

Operation	Operands
END	

ER-T-T: Delete translation table record

Primary statement.

This statement deletes a translation table record from the system or user RSOFILF assigned as output file.

Operation	Operands
ER-T-T	ttb-name

ttb-name ttb-name = 8 alphanumeric characters.
Name of the translation table to be deleted.

FORGET: Abort generation of record

Secondary statement; switches to primary mode.

This statement aborts the generation of a translation table record, i.e. the record being generated is not saved in the system or user RSOFILF.

Operation	Operands
F[ORGET]	

HALT: Terminate RSOSERVE utility routine

Can be specified in both primary and secondary mode; switches to primary mode if the statement is entered in secondary mode.

This statement terminates the RSOSERVE utility routine.
It has the same effect as the END statement.

Operation	Operands
HALT	

SHOW-T-T: Display translation table records

Primary statement.

This statement outputs translation table records from the specified system or user RSOFIL to SYSOUT.

Operation	Operands
SHOW-T-T	$\left\{ \begin{array}{l} \text{ttb-name} \\ *ALL \end{array} \right\} [, \text{FILE} = \left\{ \begin{array}{l} \text{O[UTPUT]} \\ \text{I[NPUT]} \end{array} \right\}]$

ttb-name	ttb-name = 8 alphanumeric characters. Name of the translation table to be output to SYSOUT.
*ALL	All translation tables are to be output to SYSOUT.
FILE= <u>OUTPUT</u>	The translation table to be output is taken from the output file.
= INPUT	The translation table to be output is taken from the input file.

STORE: Save generated record

Secondary statement; switches to primary mode.

The STORE statement is to be specified at the end of a sequence of AA:NN statements. This statement terminates the generation of a translation table record. The record is saved in the system or user RSOFIL assigned as output file.

Operation	Operands
S[TORE]	

4.4 Batch mode examples

The aim of the examples given below is to illustrate the various possibilities offered by the RSOSERVE utility routine.

Example 1

A loop record is generated and stored in the work file.

```

/MODIFY-JOB-SWITCHES ON=1
/START-PROGRAM FROM-FILE=RSOSERVE
% BLS0500 PROGRAM 'RSOSERVE', VERSION 'V02.4Axx' OF '.....' LOADED
% BLS0552 COPYRIGHT (C) SIEMENS NIXDORF INFORMATIONSYSTEMS AG. '1990'.
ALL RIGHTS RESERVED (1)

*GENLOOP
% SR02201 GENERATION OF LOOPS NOW IN EFFECT (2)

*ASSIGN WORK=SDT.WRK
WORK FILE: SDT.WRK (3)

*LOOP S1,LENGTH=7 (4)

*LINE 3,CH=1 (5)

*CHECK (6)

LINE 001 6LPI
LINE 002 6LPI

LINE 003 6LPI CHANNEL 01 (7)

LINE 004 6LPI
LINE 005 6LPI
LINE 006 6LPI
LINE 007 6LPI
LINE 008 6LPI
LINE 009 6LPI
LINE 010 6LPI
LINE 011 6LPI
LINE 012 6LPI
LINE 013 6LPI
LINE 014 6LPI
LINE 015 6LPI
LINE 016 6LPI
LINE 017 6LPI
LINE 018 6LPI
LINE 019 6LPI
LINE 020 6LPI
LINE 021 6LPI
LINE 022 6LPI

```

```

LINE 023 6LPI
LINE 024 6LPI
LINE 025 6LPI
LINE 026 6LPI
LINE 027 6LPI
LINE 028 6LPI
LINE 029 6LPI
LINE 030 6LPI
LINE 031 6LPI
LINE 032 6LPI
LINE 033 6LPI
LINE 034 6LPI
LINE 035 6LPI
LINE 036 6LPI
LINE 037 6LPI
LINE 038 6LPI
LINE 039 6LPI
LINE 040 6LPI
LINE 041 6LPI
LINE 042 6LPI

*STORE
% SR02242 LOOP RECORD WRITTEN TO 'WORK' FILE (8)

*LSWORK
LOOP S1 TOTAL LENGTH: 07 + 000/120 (9)

*CLOSE WORK (10)

CLOSE WORK
% SR02244 FILE 'SDT.WRK' CLOSED (11)

*HALT
% SR02109 END OF LOOP GENERATION MODE
% SR02099 RSOSERVE ENDED
/ (12)

```

- (1) Call the RSOSERVE utility routine; fundamental mode is active. The characters 'xx' represent the exact version number.
- (2) Activate loop management mode.
- (3) Assign the work file.
- (4) Generate loop record S1; the length of the form is 7 inches, the line spacing is 6 lines per inch (default value).
- (5) Set channel 1 in line 3.
- (6) Display and check the contents of the generated loop record.
- (7) Channel 1 was set in line 3.

- (8) Store loop record S1 in the work file.
- (9) Display loop names with the assigned lengths.
- (10) Close the work file.
- (11) The statement is repeated and its execution confirmed.
- (12) Terminate RSOSERVE.

Example 2

A loop record is generated and transferred from the work file to the output file.

```

/MODIFY-JOB-SWITCHES ON=1
/START-PROGRAM FROM-FILE=RSOSERVE
% BLS0500 PROGRAM 'RSOSERVE', VERSION 'V02.4Axx' OF '.....' LOADED
% BLS0552 COPYRIGHT (C) SIEMENS NIXDORF INFORMATIONSYSTEMS AG. '1990'.
ALL RIGHTS RESERVED (1)

*GENLOOP
% SRO2201 GENERATION OF LOOPS NOW IN EFFECT (2)

*ASSIGN WORK=SDT.WRK
WORK FILE: SDT.WRK (3)

*LOOP S2,LENGTH=7,FR=3,D=8 (4)

*L 4,CH=1 (5)

*L 17,D=6 (6)

*L 27,D=8 (7)

*L 50,CH=9 (8)

*L 56,CH=11 (9)

*CHECK
LINE 001 8LPI
LINE 002 8LPI
LINE 003 8LPI
LINE 004 8LPI CHANNEL 01
LINE 005 8LPI
LINE 006 8LPI
LINE 007 8LPI
LINE 008 8LPI
LINE 009 8LPI
LINE 010 8LPI
LINE 011 8LPI
LINE 012 8LPI
LINE 013 8LPI
LINE 014 8LPI

```

LINE 015 8LPI
LINE 016 8LPI
LINE 017 6LPI
LINE 018 6LPI
LINE 019 6LPI
LINE 020 6LPI
LINE 021 6LPI
LINE 022 6LPI
LINE 023 6LPI
LINE 024 6LPI
LINE 025 6LPI
LINE 026 6LPI
LINE 027 8LPI
LINE 028 8LPI
LINE 029 8LPI
LINE 030 8LPI
LINE 031 8LPI
LINE 032 8LPI
LINE 033 8LPI
LINE 034 8LPI
LINE 035 8LPI
LINE 036 8LPI
LINE 037 8LPI
LINE 038 8LPI
LINE 039 8LPI
LINE 040 8LPI
LINE 041 8LPI
LINE 042 8LPI
LINE 043 8LPI
LINE 044 8LPI
LINE 045 8LPI
LINE 046 8LPI
LINE 047 8LPI
LINE 048 8LPI
LINE 049 8LPI
LINE 050 8LPI CHANNEL 09
LINE 051 8LPI
LINE 052 8LPI
LINE 053 8LPI
LINE 054 8LPI
LINE 055 8LPI
LINE 056 8LPI CHANNEL 11
LINE 057 8LPI

CHECK

% SR02237 SPECIFIED LENGTH FOR 'LOOP': 07 INCH, FR=3
AT LAST LINE LOOP LENGTH OVERSTEPPING: 005/120 INCHES

(10)

*L 15,D=6

(11)

*CHECK

LINE 001 8LPI

LINE 002 8LPI

LINE 003 8LPI

LINE 004 8LPI CHANNEL 01

(12)

LINE 005 8LPI

LINE 006 8LPI

LINE 007 8LPI

LINE 008 8LPI

LINE 009 8LPI

LINE 010 8LPI

LINE 011 8LPI

LINE 012 8LPI

LINE 013 8LPI

LINE 014 8LPI

LINE 015 6LPI

LINE 016 6LPI

LINE 017 6LPI

LINE 018 6LPI

LINE 019 6LPI

LINE 020 6LPI

LINE 021 6LPI

LINE 022 6LPI

LINE 023 6LPI

LINE 024 6LPI

LINE 025 6LPI

LINE 026 6LPI

LINE 027 8LPI

LINE 028 8LPI

LINE 029 8LPI

LINE 030 8LPI

LINE 031 8LPI

LINE 032 8LPI

LINE 033 8LPI

LINE 034 8LPI

LINE 035 8LPI

LINE 036 8LPI

LINE 037 8LPI

LINE 038 8LPI

LINE 039 8LPI

LINE 040 8LPI

LINE 041 8LPI

LINE 042 8LPI

LINE 043 8LPI

LINE 044 8LPI

LINE 045 8LPI

LINE 046 8LPI

```

LINE 047 8LPI
LINE 048 8LPI
LINE 049 8LPI

LINE 050 8LPI CHANNEL 09 (13)

LINE 051 8LPI
LINE 052 8LPI
LINE 053 8LPI
LINE 054 8LPI
LINE 055 8LPI

LINE 056 8LPI CHANNEL 11 (14)

*STORE
% SR02242 LOOP RECORD WRITTEN TO 'WORK' FILE (15)

*LSWORK
LOOP S1 TOTAL LENGTH: 07 + 000/120
LOOP S2 TOTAL LENGTH: 07 + 001/002 (16)

*ASSIGN OUTPUT=SDT.RSOFIL
OUTPUT FILE: SDT.RSOFIL
WORK FILE: SDT.WRK (17)

*GENALL
% SR02256 RECORD 'LOOP' 'S1' STORED AS A NEW RECORD
% SR02256 RECORD 'LOOP' 'S2' STORED AS A NEW RECORD
GENALL
% SR02245 NORMAL END OF WORK FILE REACHED (18)

*LISTOUT
LOOP S1 TOTAL LENGTH: 07 + 000/120 LPI: 06
LOOP S2 TOTAL LENGTH: 07 + 001/002 LPI: 08 (19)

*CLOSE OUTPUT
CLOSE OUTPUT
% SR02244 FILE 'SDT.RSOFIL' CLOSED (20)

*CLOSE WORK
CLOSE WORK
% SR02244 FILE 'SDT.WRK' CLOSED (21)

*HALT
% SR02109 END OF LOOP GENERATION MODE
% SR02099 RSOSERVE ENDED
/ (22)

```

- (1) Call RSOSERVE; fundamental mode is active. The characters 'xx' represent the exact version number.
- (2) Activate loop management mode.
- (3) Assign the work file.

- (4) Generate loop record S2; the form length is seven and a half inches (the FR operand extends the length of the form by 1/2 inch), the line spacing is 8 lpi.
- (5) Set channel 1 in line 4.
- (6) Switch to 6 lpi as of line 17.
- (7) Switch back to 8 lpi as of line 27.
- (8) Set channel 9 in line 50.
- (9) Set channel 11 in line 56.
- (10) Display and check the contents of the generated loop record. The specified length of the form and the specified line spacing are not compatible.
- (11) Switching to 6 lpi is brought forward to line 15 after the above message in loop management mode.
- (12) Channel 1 was set in line 4.
- (13) Channel 9 was set in line 50.
- (14) Channel 11 was set in line 56.
- (15) Loop record S2 is stored in the work file.
- (16) The loop names with the assigned lengths from the work file are displayed.
- (17) Assign the output file.
- (18) Transfer loop records from the work file to the output file.
- (19) Loop names of the output file with their assigned lengths are displayed.
- (20) Close the output file.
- (21) Close the work file.
- (22) Terminate RSOSERVE.

Example 3

A loop record is transferred from the input file to the output file with a new name. A loop record without assigned form records is transferred to the output file and displayed on the terminal.

```

/MODIFY-JOB-SWITCHES ON=1
/START-PROGRAM FROM-FILE=RSOSERVE
% BLS0500 PROGRAM 'RSOSERVE', VERSION 'V02.4Ax' OF '.....' LOADED
% BLS0552 COPYRIGHT (C) SIEMENS NIXDORF INFORMATIONSYSTEMS AG. '1990'.
ALL RIGHTS RESERVED (1)

*GENLOOP
% SRO2201 GENERATION OF LOOPS NOW IN EFFECT (2)

*ASSIGN INPUT=$TSOS.RSOFIL
INPUT FILE:          $TSOS.RSOFIL (3)

*ASSIGN OUTPUT=SDT.RSOFIL
INPUT FILE:          $TSOS.RSOFIL
OUTPUT FILE:         SDT.RSOFIL (4)

*LIN LOOP
LOOP BC      TOTAL LENGTH: 11 + 000/120   LPI: 12
LOOP B06    TOTAL LENGTH: 11 + 000/120   LPI: 06
LOOP B08    TOTAL LENGTH: 11 + 000/120   LPI: 08
LOOP B12    TOTAL LENGTH: 11 + 000/120   LPI: 12
LOOP B38    TOTAL LENGTH: 11 + 001/002   LPI: 08
LOOP B6     TOTAL LENGTH: 11 + 000/120   LPI: 06
LOOP B8     TOTAL LENGTH: 11 + 000/120   LPI: 08
LOOP CC     TOTAL LENGTH: 12 + 000/120   LPI: 12
LOOP C06    TOTAL LENGTH: 12 + 000/120   LPI: 06
LOOP C08    TOTAL LENGTH: 12 + 000/120   LPI: 08
LOOP C1     TOTAL LENGTH: 12 + 000/120   LPI: 06
LOOP C12    TOTAL LENGTH: 12 + 000/120   LPI: 12
LOOP C3C    TOTAL LENGTH: 12 + 000/120   LPI: 06
LOOP C6     TOTAL LENGTH: 12 + 000/120   LPI: 06
LOOP C8     TOTAL LENGTH: 12 + 000/120   LPI: 08
LOOP DTI    TOTAL LENGTH: 12 + 000/120   LPI: 12
LOOP L06    TOTAL LENGTH: 11 + 001/002   LPI: 06
LOOP 806    TOTAL LENGTH: 08 + 001/002   LPI: 06
LOOP 808    TOTAL LENGTH: 08 + 001/002   LPI: 08
LOOP 86     TOTAL LENGTH: 08 + 001/002   LPI: 06
LOOP 88     TOTAL LENGTH: 08 + 001/002   LPI: 08
LOOP 9C     TOTAL LENGTH: 09 + 000/120   LPI: 12
LOOP 906    TOTAL LENGTH: 09 + 000/120   LPI: 06
LOOP 908    TOTAL LENGTH: 09 + 000/120   LPI: 08
LOOP 912    TOTAL LENGTH: 09 + 000/120   LPI: 12
LOOP 922    TOTAL LENGTH: 11 + 000/120   LPI: 06
LOOP 96     TOTAL LENGTH: 09 + 000/120   LPI: 06
LOOP 98     TOTAL LENGTH: 09 + 000/120   LPI: 08 (5)

*MOVE LOOP=908,NEWNAME=SI (6)

```

```

*LOUT LOOP
LOOP SI    TOTAL LENGTH: 09 + 000/120    LPI: 08
LOOP S1    TOTAL LENGTH: 07 + 000/120    LPI: 06
LOOP S2    TOTAL LENGTH: 07 + 001/002    LPI: 08                                (7)

*MOVE LOOP=C08                                                                (8)

*LOUT LOOP
LOOP C08   TOTAL LENGTH: 12 + 000/120    LPI: 08
LOOP SI    TOTAL LENGTH: 09 + 000/120    LPI: 08
LOOP S1    TOTAL LENGTH: 07 + 000/120    LPI: 06
LOOP S2    TOTAL LENGTH: 07 + 001/002    LPI: 08                                (9)

*ER LOOP=SI                                                                    (10)

*LOUT
LOOP C08   TOTAL LENGTH: 12 + 000/120    LPI: 08
LOOP S1    TOTAL LENGTH: 07 + 000/120    LPI: 06
LOOP S2    TOTAL LENGTH: 07 + 001/002    LPI: 08                                (11)

*CLOSE INPUT
CLOSE INPUT
%  SR02244 FILE '$TSOS.RSOFIL' CLOSED                                          (12)

*DISP LOOP=C08                                                                (13)

DISP LOOP C08
%  SR02211 NO 'WORK' FILE ASSIGNED                                           (14)

*ASSIGN WORK=SDT.WRK                                                         (15)

OUTPUT FILE:          SDT.RSOFIL
WORK FILE:           SDT.WRK                                                 (16)

*DISP LOOP=C08                                                                (17)

DISP LOOP C08
%  SR02114 RECORD WITH TYPE 'LOOP' DOES NOT EXIST                            (18)

*DISP LOOP=C08,FILE=0
LINE 001  8LPI CHANNEL 02
LINE 002  8LPI
LINE 003  8LPI CHANNEL 01
LINE 004  8LPI
LINE 005  8LPI
LINE 006  8LPI
LINE 007  8LPI
.
.
.
LINE 090  8LPI
LINE 091  8LPI
LINE 092  8LPI

```

```

LINE 093  8LPI
LINE 094  8LPI
LINE 095  8LPI
LINE 096  8LPI

```

(19)

```

*CLOSE WORK
CLOSE WORK
%  SR02244 FILE 'SDT.WRK' CLOSED
*CLOSE OUTPUT
CLOSE OUTPUT
%  SR02244 FILE 'SDT.RSOFIL' CLOSED

```

(20)

```

*HALT
%  SR02109 END OF LOOP GENERATION MODE
%  SR02099 RSOSERVE ENDED
/

```

(21)

- (1) Call RSOSERVE; fundamental mode is active. The characters 'xx' represent the exact version number.
- (2) Activate loop management mode.
- (3) Assign the input file.
- (4) Assign the output file.
- (5) Display a list of the loop records of the input file.
- (6) Transfer loop record 908 from the input file to the output file, renaming it S1 in the process.
- (7) Display a list of the loop records of the output file. (loop records S1 and S2 were generated in the previous examples).
- (8) Transfer loop record C08 from the input file to the output file.
- (9) Display a list of the loop records of the output file.
- (10) Erase loop record S1.
- (11) Display a list of the loop records of the output file.
- (12) Close the input file.
- (13) Display the format of loop record C08.
- (14) Loop management mode requests assignment of a work file, as the DISPLAY statement without the FILE operand displays a loop record from the work file (default value).
- (15) Assign the work file.
- (16) Assigned files are listed.

- (17) Display the format of loop record C08.
- (18) The specified loop record was not found, as it is in the output file and not in the work file (default value).
- (19) Display the format of loop record C08.
- (20) Close all open files.
- (21) Terminate RSOSERVE.

Example 4

A loop record is generated. The loop record is then corrected and transferred to the output file.

```

/MODIFY-JOB-SWITCHES ON=1
/START-PROGRAM FROM-FILE=RSOSERVE
% BLS0500 PROGRAM 'RSOSERVE', VERSION 'V02.4Axx' OF '.....' LOADED
% BLS0552 COPYRIGHT (C) SIEMENS NIXDORF INFORMATIONSYSTEMS AG. '1990'.
ALL RIGHTS RESERVED (1)

*GENLOOP
% SR02201 GENERATION OF LOOPS NOW IN EFFECT (2)

*ASSIGN OUTPUT=SDT.RSOFILE
OUTPUT FILE: SDT.RSOFILE (3)

*ASSIGN WORK=SDT.WRK
OUTPUT FILE: SDT.RSOFILE
WORK FILE: SDT.WRK (4)

*LSWORK (5)

LOOP S1 TOTAL LENGTH: 07 + 000/120
LOOP S2 TOTAL LENGTH: 07 + 001/002 (6)

*LOOP S3,LENGTH=12,D=8,FR=4 (7)

*L 3,CH=1 (8)

*L 17,CH=5 (9)

*L 15,D=6 (10)

*L 30,D=8 (11)

*L 450,D=6
L 450 D 6
% SR02236 SPECIFIED LINE NUMBER GREATER
THAN 'LOOP' LENGTH. LAST LINE: 096 (12)

*L 45,D=6 (13)

*L 61,D=8,CH=1 (14)

```

*L 75,D=6 (15)

*L 90,D=8

L 90 D 8

% SR02236 SPECIFIED LINE NUMBER GREATER
THAN 'LOOP' LENGTH. LAST LINE: 086 (16)

*L 86,CH=11 (17)

*CHECK

LINE 001 8LPI

LINE 002 8LPI

LINE 003 8LPI CHANNEL 01

LINE 004 8LPI

LINE 005 8LPI

LINE 006 8LPI

LINE 007 8LPI

LINE 008 8LPI

.

.

.

LINE 083 6LPI

LINE 084 6LPI

LINE 085 6LPI

LINE 086 6LPI CHANNEL 11

LINE 087 6LPI

CHECK

% SR02237 SPECIFIED LENGTH FOR 'LOOP': 12 INCH, FR=4.
AT LAST LINE LOOP LENGTH OVERSTEPPING: 005/120 INCHES (18)

*L 60,D=8,CH=11 (19)

*CHECK

LINE 001 8LPI

LINE 002 8LPI

LINE 003 8LPI CHANNEL 01 (20)

LINE 004 8LPI

.

.

.

LINE 014 8LPI

LINE 015 6LPI

LINE 016 6LPI

LINE 017 6LPI CHANNEL 05 (21)

.

.

.

LINE 029 6LPI

```

LINE 030  8LPI
LINE 031  8LPI
.
.
.
LINE 044  8LPI
LINE 045  6LPI
LINE 046  6LPI
.
.
.
LINE 059  6LPI
LINE 060  8LPI CHANNEL 01 (22)
LINE 061  8LPI CHANNEL 01
LINE 062  8LPI
.
.
.
LINE 074  8LPI
LINE 075  6LPI
LINE 076  6LPI
.
.
.
LINE 085  6LPI
LINE 086  6LPI CHANNEL 11 (23)
LINE 087  6LPI

*S
% SR02242 LOOP RECORD WRITTEN TO 'WORK' FILE (24)

*LSWORK
LOOP S1   TOTAL LENGTH: 07 + 000/120
LOOP S2   TOTAL LENGTH: 07 + 001/002
LOOP S3   TOTAL LENGTH: 12 + 002/003 (25)

*MOD LOOP=S3 (26)

*L 61,CH=NO (27)

*CHECK
LINE 001  8LPI
LINE 002  8LPI
LINE 003  8LPI CHANNEL 01
LINE 004  8LPI
.
.
.
LINE 058  6LPI

```

```

LINE 059 6LPI
LINE 060 8LPI CHANNEL 11
LINE 061 8LPI
LINE 062 8LPI
.
.
.
LINE 086 6LPI CHANNEL 11
LINE 087 6LPI (28)

*S
% SR02242 LOOP RECORD WRITTEN TO 'WORK' FILE (29)

*GENALL (30)

% SR02105 RECORD OF TYPE 'LOOP' WITH NAME 'S1'
    ALREADY EXISTS. RECORD NOT OVERWRITTEN
% SR02105 RECORD OF TYPE 'LOOP' WITH NAME 'S2'
    ALREADY EXISTS. RECORD NOT OVERWRITTEN
% SR02256 RECORD 'LOOP' 'S3' STORED AS A NEW RECORD
GENALL
% SR02245 NORMAL END OF WORK FILE REACHED (31)

*LOUT LOOP
LOOP C08  TOTAL LENGTH: 12 + 000/120  LPI: 08
LOOP S1  TOTAL LENGTH: 07 + 000/120  LPI: 06
LOOP S2  TOTAL LENGTH: 07 + 001/002  LPI: 08
LOOP S3  TOTAL LENGTH: 12 + 002/003  LPI: 08 (32)

*ER LOOP=C08 (33)

*CLOSE WORK
CLOSE WORK
% SR02244 FILE 'SDT.WRK' CLOSED
*CLOSE OUTPUT
CLOSE OUTPUT
% SR02244 FILE 'SDT.RSOFILE' CLOSED (34)

*HALT
% SR02109 END OF LOOP GENERATION MODE
% SR02099 RSOSERVE ENDED
/ (35)

```

- (1) Call RSOSERVE; fundamental mode is active. The characters 'xx' represent the exact version number.
- (2) Activate loop management mode.
- (3) Assign the output file.
- (4) Assign the work file.
- (5) List the assigned files.

- (6) Display records of the work file.
- (7) Generate loop record S3; the length of the form is twelve and a half inches, the line spacing is 8 lpi.
- (8) Set channel 1 in line 3.
- (9) Set channel 5 in line 17.
- (10) Switch to 6 lpi as of line 15. (The LINE statements need not be entered in ascending order of line numbers.)
- (11) Revert to 8 lpi as of line 30.
- (12) Input error: loop management mode reports that line 450 lies outside the specified form length.
- (13) Switch to 6 lpi as of line 45.
- (14) Set channel 1 in line 61, and switch to 8 lpi.
- (15) Switch to 6 lpi as of line 75.
- (16) Switch to 8 lpi as of line 90; message pointing out that line 86 is the last possible line.
- (17) Set channel 11 in line 86.
- (18) Display and check the contents of the generated loop record. The specified length of the form and the specified line spacing are not compatible.
- (19) The line spacing of 8 lpi is brought forward to line 60, after the above loop management mode message.
- (20) Channel 1 was set in line 3.
- (21) Channel 5 was set in line 17.
- (22) Channel 1 was set in line 60.
- (23) Channel 11 was set in line 86.
- (24) Loop record S3 is to be stored in the work file.
- (25) Output work file records.
- (26) Loop record S3 is fetched for correction.
- (27) In line 61, the feed to channel 1 is revoked.
- (28) The change is checked by means of the CHECK statement.
- (29) The corrected loop record S3 is written into the work file, overwriting the existing loop record.
- (30) Transfer all loop records in the work file to the output file.

- (31) Execution of the GENALL statement is confirmed by a message. loop records S1 and S2 were already in the output file, loop record S3 was saved as a new record.
- (32) Display a list of the records of the output file.
- (33) Erase loop record C08.
- (34) Close all open files.
- (35) Terminate RSOSERVE.

Example 5

```

/MODIFY-JOB-SWITCHES ON=1
/START-PROGRAM FROM-FILE=RSOSERVE
% BLS0500 PROGRAM 'RSOSERVE', VERSION 'V02.4Axx' OF '90-06-21' LOADED.
% BLS0552 COPYRIGHT (C) SIEMENS NIXDORF INFORMATIONSYSTEMS AG. '1990'.
ALL RIGHTS RESERVED (1)

ADD-B-I TOTO, ID=XYZ (2)

C1:C2
F1:40
41:40
98:99 (3)

STORE
% SR02113 RECORD 'BAND-ID' 'TOTO' WRITTEN (4)

SHOW-B-I TOTO
      BAND-ID TOTO
      4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0  10 10 10 10 10 10 10 10 10 10 10 10 10
.1  40 10 10 10 10 10 10 10 10 C2 10 10 40
.2  10 10 10 10 10 10 10 10 10 10 10 10 10
.3  10 10 10 10 10 10 10 10 10 10 10 10 10
.4  10 10 10 10 10 10 10 10 10 10 10 10 10
.5  10 10 10 10 10 10 10 10 10 10 10 10 10
.6  10 10 10 10 10 10 10 10 10 10 10 10 10
.7  10 10 10 10 10 10 10 10 10 10 10 10 10
.8  10 10 10 10 10 10 99 10 10 10 10 10 10
.9  10 10 10 10 10 10 10 10 10 10 10 10 10
.A  10 10 10 10 10 10 10 10 10 10 10 10 10
.B  10 10 10 10 10 10 10 10 10 10 10 10 10
.C  10 10 10 10 10 10 10 10 10 10 10 10 10
.D  10 10 10 10 10 10 10 10 10 10 10 10 10
.E  10 10 10 10 10 10 10 10 10 10 10 10 10
.F  10 10 10 10 10 10 10 10 10 10 10 10 10
      IDENTIFIER : XYZ (5)

ER-B-I TOTO (6)

```

```

GENTTB
% SR02202 GENERATION OF TRANSLATION TABLES NOW IN EFFECT (7)

ASSIGN O=AFAC.RSOFILE (8)

ADD-T-T TATA1 (9)

C1:C2
C2:C3
C3:C4
O1:FF
O2:FF (10)

STORE
% SR02113 RECORD 'TRANSLATION-TABLE' 'TATA1' WRITTEN (11)

SHOW-T-T TATA1,FILE=0
    TRANSLATION-TABLE TATA1
    0. 1. 2. 3. 4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0 00 10 20 30 40 50 60 70 80 90 A0 B0 C0 D0 E0 F0
.1 FF 11 21 31 41 51 61 71 81 91 A1 B1 C2 D1 E1 F1
.2 FF 12 22 32 42 52 62 72 82 92 A2 B2 C3 D2 E2 F2
.3 03 13 23 33 43 53 63 73 83 93 A3 B3 C4 D3 E3 F3
.4 04 14 24 34 44 54 64 74 84 94 A4 B4 C4 D4 E4 F4
.5 05 15 25 35 45 55 65 75 85 95 A5 B5 C5 D5 E5 F5
.6 06 16 26 36 46 56 66 76 86 96 A6 B6 C6 D6 E6 F6
.7 07 17 27 37 47 57 67 77 87 97 A7 B7 C7 D7 E7 F7
.8 08 18 28 38 48 58 68 78 88 98 A8 B8 C8 D8 E8 F8
.9 09 19 29 39 49 59 69 79 89 99 A9 B9 C9 D9 E9 F9
.A 0A 1A 2A 3A 4A 5A 6A 7A 8A 9A AA BA CA DA EA FA
.B 0B 1B 2B 3B 4B 5B 6B 7B 8B 9B AB BB CB DB EB FB
.C 0C 1C 2C 3C 4C 5C 6C 7C 8C 9C AC BC CC DC EC FC
.D 0D 1D 2D 3D 4D 5D 6D 7D 8D 9D AD BD CD DD ED FD
.E 0E 1E 2E 3E 4E 5E 6E 7E 8E 9E AE BE CE DE EE FE
.F 0F 1F 2F 3F 4F 5F 6F 7F 8F 9F AF BF CF DF EF FF (12)

CLOSE O
% SR02244 FILE ':9:$STM.AFAC.RSOFILE' CLOSED (13)

ASSIGN I=AFAC.RSOFILE (14)

SHOW-T-T *ALL,FILE=I
    TRANSLATION-TABLE TATA1
    0. 1. 2. 3. 4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0 00 10 20 30 40 50 60 70 80 90 A0 B0 C0 D0 E0 F0
.1 FF 11 21 31 41 51 61 71 81 91 A1 B1 C2 D1 E1 F1
.2 FF 12 22 32 42 52 62 72 82 92 A2 B2 C3 D2 E2 F2
.3 03 13 23 33 43 53 63 73 83 93 A3 B3 C4 D3 E3 F3
.4 04 14 24 34 44 54 64 74 84 94 A4 B4 C4 D4 E4 F4
.5 05 15 25 35 45 55 65 75 85 95 A5 B5 C5 D5 E5 F5
.6 06 16 26 36 46 56 66 76 86 96 A6 B6 C6 D6 E6 F6

```

```
.7 07 17 27 37 47 57 67 77 87 97 A7 B7 C7 D7 E7 F7
.8 08 18 28 38 48 58 68 78 88 98 A8 B8 C8 D8 E8 F8
.9 09 19 29 39 49 59 69 79 89 99 A9 B9 C9 D9 E9 F9
.A 0A 1A 2A 3A 4A 5A 6A 7A 8A 9A AA BA CA DA EA FA
.B 0B 1B 2B 3B 4B 5B 6B 7B 8B 9B AB BB CB DB EB FB
.C 0C 1C 2C 3C 4C 5C 6C 7C 8C 9C AC BC CC DC EC FC
.D 0D 1D 2D 3D 4D 5D 6D 7D 8D 9D AD BD CD DD ED FD
.E 0E 1E 2E 3E 4E 5E 6E 7E 8E 9E AE BE CE DE EE FE
.F 0F 1F 2F 3F 4F 5F 6F 7F 8F 9F AF BF CF DF EF FF (15)
```

```
CLOSE I
% SRO2244 FILE ':9:$STM.AFAC.RSOFILE' CLOSED. (16)
```

```
ASSIGN 0=AFAC.RSOFILE (17)
```

```
ER-T-T TATA1 (18)
```

```
BACK
% SRO2299 END OF TRANSLATION TABLE GENERATION MODE (19)
```

```
ADD-C-I CI1 (20)
```

```
C1:C2
F1:40
41:40
98:99 (21)
```

```
STORE
% SRO2113 RECORD 'CHAR-IM' 'CI1' WRITTEN (22)
```

```
SHOW-C-I CI1
CHAR-IM CI1
0. 1. 2. 3. 4. 5. 6. 7. 8. 9. A. B. C. D. E. F.
.0 00 10 20 30 40 50 60 70 80 90 A0 B0 C0 D0 E0 F0
.1 01 11 21 31 40 51 61 71 81 91 A1 B1 C2 D1 E1 40
.2 02 12 22 32 42 52 62 72 82 92 A2 B2 C2 D2 E2 F2
.3 03 13 23 33 43 53 63 73 83 93 A3 B3 C3 D3 E3 F3
.4 04 14 24 34 44 54 64 74 84 94 A4 B4 C4 D4 E4 F4
.5 05 15 25 35 45 55 65 75 85 95 A5 B5 C5 D5 E5 F5
.6 06 16 26 36 46 56 66 76 86 96 A6 B6 C6 D6 E6 F6
.7 07 17 27 37 47 57 67 77 87 97 A7 B7 C7 D7 E7 F7
.8 08 18 28 38 48 58 68 78 88 98 A8 B8 C8 D8 E8 F8
.9 09 19 29 39 49 59 69 79 89 99 A9 B9 C9 D9 E9 F9
.A 0A 1A 2A 3A 4A 5A 6A 7A 8A 9A AA BA CA DA EA FA
.B 0B 1B 2B 3B 4B 5B 6B 7B 8B 9B AB BB CB DB EB FB
.C 0C 1C 2C 3C 4C 5C 6C 7C 8C 9C AC BC CC DC EC FC
.D 0D 1D 2D 3D 4D 5D 6D 7D 8D 9D AD BD CD DD ED FD
.E 0E 1E 2E 3E 4E 5E 6E 7E 8E 9E AE BE CE DE EE FE
.F 0F 1F 2F 3F 4F 5F 6F 7F 8F 9F AF BF CF DF EF FF (23)
```

```
ER-C-I CI1 (24)
```

```
HALT
%  SR02099 RSOSERVE ENDED
/
```

(25)

- (1) Call RSOSERVE. The characters 'xx' represent the exact version number.
- (2) Start generation of a band ID record.
- (3) Definition of code conversion pairs.
- (4) Save the record in the system RSOFILE.
- (5) Output the band ID to SYSOUT.
- (6) Delete the band ID.
- (7) Call translation table management mode.
- (8) Open file AFAC.RSOFILE as output file.
- (9) Start generation of a translation table record.
- (10) Definition of code conversion pairs.
- (11) Save the record in the output file.
- (12) Output the translation table to SYSOUT.
- (13) Close the output file.
- (14) Open file AFAC.RSOFILE as input file.
- (15) Output the translation table to SYSOUT.
- (16) Close the input file.
- (17) Open file AFAC.RSOFILE as output file.
- (18) Delete the translation table TATA1.
- (19) Terminate translation table management mode and switch to fundamental mode.
- (20) Start generation of a character image record.
- (21) Definition of code conversion pairs.
- (22) Save the record in the system RSOFILE.
- (23) Output the character image to SYSOUT.
- (24) Delete the character image record.
- (25) Terminate RSOSERVE.

5 Appendix

SDF syntax representation

Fig. 1 gives an example of the representation of the syntax of a command in a manual. The command format consists of a field with the command name. All operands with their legal values are then listed. Operand values which introduce structures and the operands dependent on these operands are listed separately.

HELP-SDF	Abbreviation: HP SDF
GUIDANCE-MODE = *NO / *YES	
, SDF-COMMANDS = *NO / *YES	
, ABBREVIATION-RULES = *NO / *YES	
, GUIDED-DIALOG = *YES (...)	
*YES(...)	
SCREEN-STEPS = *NO / *YES	
, SPECIAL-FUNCTIONS = *NO / *YES	
, FUNCTION-KEYS = *NO / *YES	
, NEXT-FIELD = *NO / *YES	
, UNGUIDED-DIALOG = *YES (... / *NO	
*YES(...)	
SPECIAL-FUNCTIONS = *NO / *YES	
, FUNCTION-KEYS = *NO / *YES	

Figure 1: Representation of the syntax of the user command HELP-SDF

This syntax description is valid for SDF V4.0A. The syntax of the SDF command/statement language is explained in the following three tables.

table 1: Notational conventions

The meanings of the special characters and the notation used to describe command and statement formats are explained in Table 1.

table 2: Data types

Variable operand values are represented in SDF by data types. Each data type represents a specific set of values. The number of data types is limited to those described in Table 2.

The description of the data types is valid for the entire set of commands/statements. Therefore only deviations (if any) from the attributes described here are explained in the relevant operand descriptions.

table 3: Suffixes for data types

Data type suffixes define additional rules for data type input. They can be used to extend or limit the set of values. The following short forms are used in this manual for data type suffixes:

cat-id	cat
completion	compl
construction	constr
correction-state	corr
generation	gen
lower-case	low
manual-release	man
odd-possible	odd
path-completion	path-compl
separators	sep
underscore	under
user-id	user
version	vers
wildcards	wild

The description of the 'integer' data type in Table 3 contains a number of items in italics; the italics are not part of the syntax and are only used to make the table easier to read.

The description of the data type suffixes is valid for the entire set of commands/statements. Therefore only deviations (if any) from the attributes described here are explained in the relevant operand descriptions.

Metasyntax

Representation	Meaning	Examples
UPPERCASE LETTERS	Uppercase letters denote keywords (command, statement and operand names and keyword values) and constant operand values. Keywords begin with *	HELP-SDF
UPPERCASE LETTERS in boldface	Uppercase letters printed in boldface denote guaranteed or suggested abbreviations of keywords.	SCREEN-STEPS = *NO
=	The equals sign connects an operand name with the associated operand values.	GUIDANCE-MODE = *YES
< >	Angle brackets denote variables whose range of values is described by data types and suffixes (see Tables 2 and 3).	GUIDANCE-MODE = *NO
<u>Underscoring</u>	Underscoring denotes the default value of an operand.	SYNTAX-FILE = <full-filename 1..54>
/	A slash serves to separate alternative operand values.	GUIDANCE-MODE = *NO
(...)	Parentheses denote operand values that initiate a structure.	NEXT-FIELD = *NO / *YES
[]	Square brackets denote operand values which introduce a structure and are optional. The subsequent structure can be specified without the initiating operand value.	,UNGUIDED-DIALOG = *YES (...)/ *NO
Indentation	Indentation indicates that the operand is dependent on a higher-ranking operand.	SELECT = [*BY-ATTRIBUTES](...)
		GUIDED-DIALOG = *YES (...) *YES(...) SCREEN-STEPS = *NO / *YES

Table 1: Metasyntax (Blatt 1 von 2)

Representation	Meaning	Examples
<p> </p> <p>,</p> <p>list-poss(n):</p> <p>Abbreviation:</p>	<p>A vertical bar identifies related operands within a structure. Its length marks the beginning and end of a structure. A structure may contain further structures. The number of vertical bars preceding an operand corresponds to the depth of the structure..</p> <p>A comma precedes further operands at the same structure level.</p> <p>The entry "list-poss" signifies that a list of operand values can be given at this point. If (n) is present, it means that the list must not have more than n elements. A list of more than one element must be enclosed in parentheses.</p> <p>The name that follows represents a guaranteed alias for the command or statement name.</p>	<p>SUPPORT = *TAPE(...)</p> <pre> *TAPE(...) VOLUME = *ANY(...) *ANY(...) ... </pre> <p>GUIDANCE-MODE = *NO / *YES</p> <p>,SDF-COMMANDS = *NO / *YES</p> <p>list-poss: *SAM / *ISAM</p> <p>list-poss(40): <structured-name 1..30></p> <p>list-poss(256): *OMF / *SYSLST(...) / <full-filename 1..54></p> <p>HELP-SDF Abbreviation: HPSDF</p>

Table 1: Metasyntax (Blatt 2 von 2)

Data types

Data type	Character set	Special rules
alphanum-name	A...Z 0...9 \$, #, @	
cat-id	A...Z 0...9	Not more than 4 characters; must not begin with the string PUB
command-rest	freely selectable	
composed-name	A...Z 0...9 \$, #, @ hyphen period catalog ID	Alphanumeric string that can be split into multiple substrings by means of a period or hyphen. If a file name can also be specified, the string may begin with a catalog ID in the form :cat: (see data type full-filename).
c-string	EBCDIC character	Must be enclosed within single quotes; the letter C may be prefixed; any single quotes occurring within the string must be entered twice.
date	0...9 Structure identifier: hyphen	Input format: yyyy-mm-dd yyyy: year; optionally 2 or 4 digits mm: month dd: day
device	A...Z 0...9 hyphen	Character string, max. 8 characters in length, corresponding to a device available in the system. In interactive prompting, SDF displays the valid operand values. For notes on possible devices, see the relevant operand description.
fixed	+, - 0...9 period	Input format: [sign][digits].[digits] [sign]: + or - [digits]: 0...9 must contain at least one digit, but may contain up to 10 characters (0...9, period) apart from the sign.

Table 2: Data types (Blatt 1 von 6)

Data type	Character set	Special rules
full-filename	A...Z 0...9 \$, #, @ hyphen period	<p>Input format:</p> $[:cat:][\$user.] \left\{ \begin{array}{l} \text{file} \\ \text{file(no)} \\ \text{group} \\ \text{group} \left\{ \begin{array}{l} (*abs) \\ (+rel) \\ (-rel) \end{array} \right\} \end{array} \right\}$ <p>:cat: optional entry of the catalog identifier; character set limited to A...Z and 0...9; maximum of 4 characters; must be enclosed in colons; default value is the catalog identifier assigned to the user ID, as specified in the user catalog.</p> <p>\$user. optional entry of the user ID; character set is A...Z, 0...9, \$, #, @; maximum of 8 characters; first character cannot be a digit; \$ and period are mandatory; default value is the user' s own ID.</p> <p>\$. (special case) system default ID</p> <p>file file or job variable name; may be split into a number of partial names using a period as a delimiter: name₁[.name₂[...]] name_i does not contain a period and must not begin or end with a hyphen; file can have a max. length of 41 characters; it must not begin with a \$ and must include at least one character from the range A...Z.</p>

Table 2: Data types (Blatt 2 von 6)

Data type	Character set	Special rules
full-filename (contd.)		<p>#file (special case) @file (special case) # or @ used as the first character indicates temporary files or job variables, depending on the system parameter.</p> <p>file(no) tape file name no: version number; character set is A...Z, 0...9, \$, #, @. Parentheses must be specified.</p> <p>group name of a file generation group (character set: as for "file")</p> <p>group { (*abs) (+rel) (-rel) }</p> <p>(*abs) absolute generation number (1-9999); * and parentheses must be specified.</p> <p>(+rel) (-rel) relative generation number (0-99); sign and parentheses must be specified.</p>
integer	0...9, +, -	+ or -, if specified, must be the first character.
name	A...Z 0...9 \$, #, @	Must not begin with 0...9.

Table 2: Data types (Blatt 3 von 6)

Data type	Character set	Special rules
partial-filename	A...Z 0...9 \$, #, @ hyphen period	<p>Input format: [:cat:][\$user.][partname.]</p> <p>:cat: see full-filename \$user. see full-filename</p> <p>partname optional entry of the initial part of a name common to a number of files or file generation groups in the form: name₁. [name₂. [...]] name_i (see full-filename). The final character of "partname" must be a period. At least one of the parts :cat:, \$user. or partname must be specified.</p>
posix-filename	A...Z 0...9 special characters	<p>String with a length of up to 255 characters; consists of either one or two periods or of alphanumeric characters and special characters. The special characters must be escaped with a preceding \ (backslash); the / is not allowed. Must be enclosed within single quotes if alternative data types are permitted, separators are used, or the first character is a ? or ! A distinction is made between uppercase and lowercase.</p>
posix-pathname	A...Z 0...9 special characters structure identifier: slash	<p>Input format: [/]part₁/.../part_n where part_i is a posix-filename; max. 1023 characters; must be enclosed within single quotes if alternative data types are permitted, separators are used, or the first character is a ? or !</p>

Table 2: Data types (Blatt 4 von 6)

Data type	Character set	Special rules
product-version	A...Z 0...9 period single quote	Input format: $[[C]'][V][n]n.nann[']$ <div style="text-align: right; margin-right: 50px;"> $\begin{array}{c} \\ \\ \text{correction status} \\ \text{release status} \end{array}$ </div> <p>where n is a digit and a is a letter. The release and correction status must be specified if product-version does not include a suffix (see suffix without-corr and without-man in Table 3). product-version may be enclosed within single quotes (possibly with a preceding C). The specification of the version may begin with the letter V.</p>
structured-name	A...Z 0...9 \$, #, @ hyphen	Alphanumeric string which may comprise a number of substrings separated by a hyphen. First character: A...Z or \$, #, @
text	freely selectable	For the input format, see the relevant operand descriptions.
time	0...9 structure identifier: colon	Time-of-day entry: Input format: $\left. \begin{array}{l} hh:mm:ss \\ hh:mm \\ hh \end{array} \right\}$ hh: hours mm: minutes ss: seconds } Leading zeros may be omitted
vsn	a) A...Z 0...9 b) A...Z 0...9 \$, #, @	a) Input format: pvsid.sequence-no max. 6 characters pvsid: 2-4 characters; PUB may not be entered sequence-no: 1-3 characters b) Max. 6 characters; PUB may be prefixed, but may not be followed by \$, #, @.

Table 2: Data types (Blatt 5 von 6)

Data type	Character set	Special rules
x-string	Hexadecimal: 00...FF	Must be enclosed in single quotes; must be prefixed by the letter X. There may be an odd number of characters.
x-text	Hexadecimal: 00...FF	Must not be enclosed in single quotes; the letter X may not be prefixed. There may be an odd number of characters.

Table 2: Data types (Blatt 6 von 6)

Suffixes for data types

Suffix	Meaning
x..y <i>unit</i>	<p>a) with data type integer: interval specification</p> <p>x minimum value permitted for “integer”. x is an (optionally signed) integer.</p> <p>y maximum value permitted for “integer”. y is an (optionally signed) integer.</p> <p><i>unit</i> with “integer” only: additional units. The following units may be specified:</p> <p><i>days</i> <i>byte</i> <i>hours</i> <i>2Kbyte</i> <i>minutes</i> <i>4Kbyte</i> <i>seconds</i> <i>Mbyte</i></p> <p>b) with the other data types: length specification</p> <p>x minimum length for the operand value; x is an integer.</p> <p>y maximum length for the operand value; y is an integer.</p> <p>x=y the length of the operand value must be precisely x.</p>
with	Extends the specification options for a data type.
-compl	When specifying the data type “date”, SDF expands two-digit year specifications in the form yy-mm-dd to:
	<p>20yy-mm-dd if yy < 60 19yy-mm-dd if yy ≥ 60</p>
-low	Uppercase and lowercase letters are differentiated.
-under	Permits underscores “_” for the data type “name”.

Table 3: Data type suffixes (Blatt 1 von 6)

Suffix	Meaning												
with (contd.)													
-wild(n)	<p>Parts of names may be replaced by the following wildcards. n denotes the maximum input length when using wildcards. Due to the introduction of the data types posix-filename and posix-pathname, SDF accepts wildcards from the UNIX world (referred to below as POSIX wildcards) in addition to the usual BS2000 wildcards. As not all commands currently support POSIX wildcards, their use with data types other than posix-filename and path-filename can lead to semantic errors. However, only POSIX wildcards or only BS2000 wildcards should be used within a search pattern. Only POSIX wildcards are allowed for the data types posix-filename and posix-pathname. If a pattern can be matched more than once in a string, the first match is used.</p>												
	<table border="1"> <thead> <tr> <th>BS2000 wildcards</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>*</td> <td>Replaces an arbitrary (even empty) character string. If the string concerned starts with *, then the * must be entered twice in succession if it is followed by other characters and if the character string entered does not contain at least one other wildcard.</td> </tr> <tr> <td>Terminating period</td> <td>Partially-qualified entry of a name. Corresponds implicitly to the string “.*”, i.e. at least one other character follows the period.</td> </tr> <tr> <td>/</td> <td>Replaces any single character.</td> </tr> <tr> <td><s_x:s_y></td> <td> Replaces a string that meets the following conditions: <ul style="list-style-type: none"> – It is at least as long as the shortest string (s_x or s_y) – It is not longer than the longest string (s_x or s_y) – It lies between s_x and s_y in the alphabetic collating sequence; numbers are sorted after letters (A...Z0...9) – s_x can also be an empty string (which is in the first position in the alphabetic collating sequence) – s_y can also be an empty string, which in this position stands for the string with the highest possible code (contains only the characters X'FF') </td> </tr> <tr> <td><s₁,...></td> <td>Replaces all strings that match any of the character combinations specified by s. s may also be an empty string. Any such string may also be a range specification “s_x:s_y” (see above).</td> </tr> </tbody> </table>	BS2000 wildcards	Meaning	*	Replaces an arbitrary (even empty) character string. If the string concerned starts with *, then the * must be entered twice in succession if it is followed by other characters and if the character string entered does not contain at least one other wildcard.	Terminating period	Partially-qualified entry of a name. Corresponds implicitly to the string “.*”, i.e. at least one other character follows the period.	/	Replaces any single character.	<s _x :s _y >	Replaces a string that meets the following conditions: <ul style="list-style-type: none"> – It is at least as long as the shortest string (s_x or s_y) – It is not longer than the longest string (s_x or s_y) – It lies between s_x and s_y in the alphabetic collating sequence; numbers are sorted after letters (A...Z0...9) – s_x can also be an empty string (which is in the first position in the alphabetic collating sequence) – s_y can also be an empty string, which in this position stands for the string with the highest possible code (contains only the characters X'FF') 	<s ₁ ,...>	Replaces all strings that match any of the character combinations specified by s. s may also be an empty string. Any such string may also be a range specification “s _x :s _y ” (see above).
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Table 3: Data type suffixes (Blatt 2 von 6)

Suffix	Meaning														
with-wild(n) (contd.)	<p>-s</p> <p>Replaces all strings that do not match the specified string s. The minus sign may only appear at the beginning of string s. Within the data types full-filename or partial-filename the negated string -s can be used exactly once, i.e. -s can replace one of the three name components: cat, user or file.</p> <p>Wildcards are not permitted in generation and version specifications for file names. Only the system administration may use wildcards in user IDs. Wildcards cannot be used to replace the delimiters in name components cat (colon) and user (\$ and period).</p> <table border="1"> <thead> <tr> <th>POSIX wildcards</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>*</td> <td>Replaces any single string (including an empty string). An * appearing at the first position must be duplicated if it is followed by other characters and if the entered string does not include at least one further wildcard.</td> </tr> <tr> <td>?</td> <td>Replaces any single character; not permitted as the first character outside single quotes.</td> </tr> <tr> <td>[c_x-c_y]</td> <td>Replaces any single character from the range defined by c_x and c_y, including the limits of the range. c_x and c_y must be normal characters.</td> </tr> <tr> <td>[s]</td> <td>Replaces exactly one character from string s. The expressions [c_x-c_y] and [s] can be combined into [s₁c_x-c_ys₂]</td> </tr> <tr> <td>[!c_x-c_y]</td> <td>Replaces exactly one character not in the range defined by c_x and c_y, including the limits of the range. c_x and c_y must be normal characters. The expressions [!c_x-c_y] and [s] can be combined into [!s₁c_x-c_ys₂]</td> </tr> <tr> <td>[!s]</td> <td>Replaces exactly one character not contained in string s. The expressions [!s] and [!c_x-c_y] can be combined into [!s₁c_x-c_ys₂]</td> </tr> </tbody> </table>	POSIX wildcards	Meaning	*	Replaces any single string (including an empty string). An * appearing at the first position must be duplicated if it is followed by other characters and if the entered string does not include at least one further wildcard.	?	Replaces any single character; not permitted as the first character outside single quotes.	[c _x -c _y]	Replaces any single character from the range defined by c _x and c _y , including the limits of the range. c _x and c _y must be normal characters.	[s]	Replaces exactly one character from string s. The expressions [c _x -c _y] and [s] can be combined into [s ₁ c _x -c _y s ₂]	[!c _x -c _y]	Replaces exactly one character not in the range defined by c _x and c _y , including the limits of the range. c _x and c _y must be normal characters. The expressions [!c _x -c _y] and [s] can be combined into [!s ₁ c _x -c _y s ₂]	[!s]	Replaces exactly one character not contained in string s. The expressions [!s] and [!c _x -c _y] can be combined into [!s ₁ c _x -c _y s ₂]
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Table 3: Data type suffixes (Blatt 3 von 6)

Suffix	Meaning										
with (contd.) -constr	<p>Specification of a constructor (string) that defines how new names are to be constructed from a previously specified selector (i.e. a selection string with wildcards). See also with-wild.</p> <p>The constructor may consist of constant strings and patterns. A pattern (character) is replaced by the string that was selected by the corresponding pattern in the selector.</p> <p>The following wildcards may be used in constructors:</p> <table border="1"> <thead> <tr> <th>Wildcard</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>*</td> <td>Corresponds to the string selected by the wildcard * in the selector.</td> </tr> <tr> <td>Terminating period</td> <td>Corresponds to the partially-qualified specification of a name in the selector; corresponds to the string selected by the terminating period in the selector.</td> </tr> <tr> <td>/ or ?</td> <td>Corresponds to the character selected by the / or ? wildcard in the selector.</td> </tr> <tr> <td><n></td> <td>Corresponds to the string selected by the n-th wildcard in the selector, where n is an integer.</td> </tr> </tbody> </table> <p>Allocation of wildcards to corresponding wildcards in the selector: All wildcards in the selector are numbered from left to right in ascending order (global index). Identical wildcards in the selector are additionally numbered from left to right in ascending order (wildcard-specific index). Wildcards can be specified in the constructor by one of two mutually exclusive methods:</p> <ol style="list-style-type: none"> 1. Wildcards can be specified via the global index: <n> 2. The same wildcard may be specified as in the selector; substitution occurs on the basis of the wildcard-specific index. For example: the second “/” corresponds to the string selected by the second “/” in the selector 	Wildcard	Meaning	*	Corresponds to the string selected by the wildcard * in the selector.	Terminating period	Corresponds to the partially-qualified specification of a name in the selector; corresponds to the string selected by the terminating period in the selector.	/ or ?	Corresponds to the character selected by the / or ? wildcard in the selector.	<n>	Corresponds to the string selected by the n-th wildcard in the selector, where n is an integer.
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Table 3: Data type suffixes (Blatt 4 von 6)

Suffix	Meaning
with-constr (contd.)	<p>The following rules must be observed when specifying a constructor:</p> <ul style="list-style-type: none"> – The constructor must include at least one wildcard of the selector. – If the number of identical wildcards exceeds those in the selector, the index notation must be used. – If the string selected by the wildcard <...> or [...] is to be used in the constructor, the index notation must be selected. – The index notation must be selected if the string identified by the wildcard “*” is to be duplicated. For example: “<n><n>” must be specified instead of “**”. – The wildcard * can also be an empty string. Note that if multiple asterisks appear in sequence (even with further wildcards), only the last asterisk can be a non-empty string, e.g. for “*****” or “**/*”. – Valid names must be produced by the constructor. This must be taken into account when specifying both the constructor and the selector. – Depending on the constructor, identical names may be constructed from different names selected by the selector. For example: “A/*” selects the names “A1” and “A2”; the constructor “B*” generates the same new name “B” in both cases. To prevent this from occurring, all wildcards of the selector should be used at least once in the constructor. – If the selector ends with a period, the constructor must also end with a period (and vice versa).

Table 3: Data type suffixes (Blatt 5 von 6)

Suffix	Meaning																				
with-constr (contd.)	Examples:																				
	<table border="1"> <thead> <tr> <th>Selector</th> <th>Selection</th> <th>Constructor</th> <th>New name</th> </tr> </thead> <tbody> <tr> <td>A/*</td> <td>AB1 AB2 A.B.C</td> <td>D<3><2></td> <td>D1 D2 D.CB</td> </tr> <tr> <td>C.<A:C>/<D,F></td> <td>C.AAD C.ABD C.BAF C.BBF</td> <td>G.<1>.<3>.XY<2></td> <td>G.A.D.XYA G.A.D.XYB G.B.F.XYA G.B.F.XYB</td> </tr> <tr> <td>C.<A:C>/<D,F></td> <td>C.AAD C.ABD C.BAF C.BBF</td> <td>G.<1>.<2>.XY<2></td> <td>G.A.A.XYA G.A.B.XYB G.B.A.XYA G.B.B.XYB</td> </tr> <tr> <td>A//B</td> <td>ACDB ACEB AC.B A.CB</td> <td>G/XY/</td> <td>GCXYD GCXYE GCXY. G.XYC ¹⁾</td> </tr> </tbody> </table>	Selector	Selection	Constructor	New name	A/*	AB1 AB2 A.B.C	D<3><2>	D1 D2 D.CB	C.<A:C>/<D,F>	C.AAD C.ABD C.BAF C.BBF	G.<1>.<3>.XY<2>	G.A.D.XYA G.A.D.XYB G.B.F.XYA G.B.F.XYB	C.<A:C>/<D,F>	C.AAD C.ABD C.BAF C.BBF	G.<1>.<2>.XY<2>	G.A.A.XYA G.A.B.XYB G.B.A.XYA G.B.B.XYB	A//B	ACDB ACEB AC.B A.CB	G/XY/	GCXYD GCXYE GCXY. G.XYC ¹⁾
	Selector	Selection	Constructor	New name																	
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A//B	ACDB ACEB AC.B A.CB	G/XY/	GCXYD GCXYE GCXY. G.XYC ¹⁾																		
1) The period at the end of the name may violate naming conventions (e.g. for fully-qualified file names).																					
without	Restricts the specification options for a data type.																				
-cat	Specification of a catalog ID is not permitted.																				
-corr	Input format: [[C]][V][n].na[] Specifications for the data type product-version must not include the correction status.																				
-gen	Specification of a file generation or file generation group is not permitted.																				
-man	Input format: [[C]][V][n].n[] Specifications for the data type product-version must not include either release or correction status.																				
-odd	The data type x-text permits only an even number of characters.																				
-sep	With the data type "text", specification of the following separators is not permitted: ; = () < > ? (i.e. semicolon, equals sign, left and right parentheses, greater than, less than, and blank).																				
-user	Specification of a user ID is not permitted.																				
-vers	Specification of the version (see "file(no)") is not permitted for tape files.																				

Table 3: Data type suffixes (Blatt 6 von 6)

Related publications

- [1] **BS2000/OSD-BC V2.0A**
DMS Macros
User Guide

Target group

The manual addresses both nonprivileged users and systems support.

Contents

The manual describes the DMS macro interface for the BS2000/OSD basic configuration. There is a brief description of the access method-specific features relevant to programming, followed by a description of the macros in alphabetical order.

- [2] **BS2000/OSD-BC V2.0A**
DMS Introductory Guide
User Guide

Target group

The manual addresses both nonprivileged users and systems support.

Contents

The manual describes file processing in BS2000, focussing on: - file and catalog management - files and data media - file and data protection - OPEN, CLOSE and EOF processing - DMS access methods (SAM, ISAM ...).

- [3] **BS2000/OSD-BC V2.0A**
Introductory Guide to Systems Support
User Guide

Target group

The manual addresses BS2000/OSD systems support and operators.

Contents

The manual contains the following topics on management and monitoring of the BS2000/OSD basic configuration: and monitoring: system introduction, parameter service, job and task control, memory/device/user/file management, assignment of privileges, accounting and operator functions.

- [4] **BS2000/OSD-BC V2.0A**
Commands, Volume 1, A-L
User Guide

Target group

The manual addresses both nonprivileged BS2000/OSD users and systems support.

Contents

This manual contains BS2000/OSD commands ADD-... to LOGOFF (basic configuration and selected products) with the functionality for all privileges. The introduction provides information on command input.

- BS2000/OSD-BC V2.0**
Commands, Volume 2, M-SG
User Guide

Target group

The manual addresses both nonprivileged users and systems support.

Contents

This manual contains BS2000/OSD commands MODIFY-... to SET-... (basic configuration and selected products) with the functionality for all privileges.

- BS2000/OSD-BC V2.0A**
Commands, Volume 3, SH-Z
User Guide

Target group

The manual addresses both nonprivileged users and systems support.

Contents

This manual contains BS2000/OSD commands SHOW-... to WRITE-... (basic configuration and selected products), with the functionality for all privileges. By means of SDF-P users of SHOW commands can make use of output in structured S variables which are described in Volume 4.

- BS2000/OSD-BC V2.0A**
Commands, Volume 4, Output in S Variables
User Guide

Target group

The manual addresses programmers and users who write procedures.

Contents

The manual contains tables of all S variables that are supplied with values by the SHOW commands when structured output is desired. Further chapters: - introduction to working with S variables - SDF-P-BASYS V2.0 A/B

- [5] **BS2000/OSD-BC V2.0A**
Subsystem Management (DSSM/SSCM)
User Guide

Target group

The manual addresses systems support and software consultants of BS2000.

Contents

The following are described: subsystem concept of BS2000, dynamic subsystem management DSSM V3.5, subsystem catalog management SSCM V2.0 and the associated commands and statements.

- [6] **Distributed Print Services V1.0B** (BS2000/OSD)
Printing in Computer Networks
User Guide

Target group

This manual is intended for nonprivileged users, device administrators and systems support of BS2000/OSD.

Contents

The manual provides descriptions of the principles, use and administration of Distributed Print Services, together with the associated commands and operands, for each of these user groups. Possible uses of Distributed Print Services are illustrated by examples.

- [7] **DVS** (TRANSDATA)
User's Guide

Target group

Programmers of application programs in terminal computers

Contents

APS instructions for operating terminal computer peripherals

- [8] **EMDS** (SINIX)
User's Guide

Target group

EMDS users and system administrators

Contents

- Emulation of the 9750 Terminal
- EMDS function menus
- Emulation of printers
- Installation and administration of EMDS

[9] **JV V11.2A (BS2000/OSD)**

Job Variables
User Guide

Target group

The manual addresses both nonprivileged users and systems support.

Contents

The manual describes management and possible uses of job variables. The command descriptions are divided according to function areas. The macro calls are described in a separate chapter.

[10] **LMS (BS2000)
Subroutine Interface**

User Guide

Target group

LMS users and programmers

Contents

Overview of the possible applications, call preparations and a description of the subroutine functions. The subroutine interface is offered for COBOL, C and Assembler. For each of these programming languages, the parameter structure is described and an example provided.

[11] **POSIX (BS2000/OSD)**

POSIX Basics for Users and System Administrators
User Guide

Target group

BS2000 system administrators, POSIX administrators, BS2000 users, users of UNIX/SINIX workstations.

Contents

This manual describes the following: introduction to and working with POSIX; BS2000 software products in a POSIX environment; installing, controlling and exiting the POSIX subsystem; managing POSIX users via BS2000.

[12] **POSIX (BS2000/OSD)**

Commands
User Guide

Target group

This manual addresses all users of the POSIX shell.

Contents

This manual is designed as a work of reference. It describes working with the POSIX shell and the commands of the POSIX shell in alphabetical order.

[13] **PRM V1.0A** (BS2000/OSD)

User Guide

Target group

This manual addresses SPOOL users, systems support and RSO device administrators.

Contents

This manual describes the PRM utility routine for creating and managing print resources for BS2000 SPOOL. Use of PRM is mandatory when working with SPOOL V3.0. The bulk of the manual deals with the description of the two PRM user interfaces: the SDF statements for interactive and batch mode, and the FHS-based menu interface for interactive mode.

[14] **RSO V3.0A** (BS2000/OSD)

Remote SPOOL Output

User Guide

Target group

This manual is directed at nonprivileged users, RSO device administrators and system administrators of BS2000/OSD.

Contents

The manual describes the functions and options of the three user groups with respect to utilizing and controlling decentralized printers (RSO printers) and deals with the technical characteristics of all RSO printers, the RSO-relevant commands and macros.

[15] **SPOOL & Print Messages**

SPOOL V3.0A, RSO V2.4A, SPSEIVE V2.0A, PRM V1.0A, Distributed Print

Services V1.0A

User Guide

Target group

This manual addresses systems support, RSO device administrators and nonprivileged users.

Contents

Messages for SPOOL V3.0A, RSO V2.4A, SPSEIVE V2.0A, PRM V1.0A and Distributed Print Services V1.0A. The English message texts and meaning and response texts are included in the manual. Guaranteed messages are marked.

[16] **SPOOL V3.0A** (BS2000/OSD)

User Guide

Target group

This manual is directed at nonprivileged users, RSO device administrators and systems support.

Contents

The manual describes SPOOL V3.0A operation with the available commands, macros and system exits. The functional extensions to PRM V1.0A (creation and management of print resources) and Distributed Print Services V1.0A (printing in a heterogeneous computer network) are also described. The first chapters contain information on BS2000 high-speed printers and the selection of printer attributes.

[17] **SPOOL** (SINIX)

SPOOL-PC-Server (SPPCS)

User Guide

Target group

SINIX and MS-DOS system administrators

Contents

This manual describes the installation and operation of a printer server with SPPCS on a computer running MS-DOS. The printer server can be run under MS-DOS or the Windows graphical user interface.

[18] **SPSERVE** (BS2000/OSD)

User Guide

Target group

This manual is directed at BS2000/OSD users, systems support, RSO device administrators and cluster managers.

Contents

The manual describes the SPSEVER utility routine with all statements as well as the SPSINF macro. It takes account of all additions to SPOOL V3.0A, RSO V2.4A, Distributed Print Services V1.0A and SPS V3.0A.

[19] **Wprint** (Windows)

Target group

Users who want to print from within Windows applications and system administrators of SINIX, UNIX and BS2000/OSD systems as well as SINIX Spool administrators.

Contents

This manual describes the operation and functions of the Wprint-Server and Wprint-Client components as well as their installation and configuration.

Ordering manuals

The manuals listed above and the corresponding order numbers can be found in the Siemens Nixdorf *List of Publications*. New publications are described in the *Druckschriften-Neuerscheinungen (New Publications)*.

You can arrange to have both of these sent to you regularly by having your name placed on the appropriate mailing list. Please apply to your local office, where you can also order the manuals.

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RSO V3.0A (BS2000/OSD)

RSOSERVE

Target group

This manual is intended for nonprivileged users, RSO device administrators and system administrators of BS2000/OSD.

Contents

The manual describes the RSOSERVE utility routine for RSO printer management. It includes sections dealing with the RSOSERVE file structure, interactive mode and batch mode.

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