

Utilities

This section covers the following topics:

- Introduction
 - Import / Export Utility
 - Importing Entire Event Management Objects
 - Exporting Selected Objects
 - Using the Import / Export Utility in BATCH Mode
 - Syntax
 - Object Types for Import / Export
 - Message ID Utility
-

Introduction

Entire Event Management provides two utilities:

- Import / Export Utility

This utility allows you to download or upload all or selected objects.

- Message ID Utility

This utility analyzes a data set or the console log according to various user criteria and displays the result in SYSOUT.

Import / Export Utility

The Import / Export Utility can be used to:

- Migrate between different versions of Entire Event Management;
- Save the whole Entire Event Management environment or selected objects in external storage;
- Download Entire Event Management objects (e.g.: Rules) used at one location and upload them for use at another location.

Note:

To use the Import / Export Utility, you must be defined in Entire Event Management as **Administrator**, that is, no profile must be linked to your user ID.

Functional Overview

The Export function transforms the records from the Entire Event Management database into an external format and writes them to external storage.

The Import function reads the exported records from external storage, analyses the external format and transforms it into the Entire Event Management database format.

The use of the external format permits the transformation of data from different systems:

System	Import / Export storage
IBM/MVS etc.	Sequential file or Natural members
BS2000/OSD	

Importing Entire Event Management Objects

The import function loads Entire Event Management objects from storage to your Entire Event Management database.

An object type can be imported, only if it conforms to external data format of Entire Event Management.

Warning:

Use the import function with care. It can add or update definitions to your database. Be sure that the Natural session parameter **DC** is set to (.) (point).

To import one or more Entire Event Management objects:

1. Enter IMPORT in the Command====> line of any screen.
2. Press Enter.
3. The Import Object window opens:

Import Object

```

11:18:58          *** ENTIRE EVENT MANAGEMENT ***          95-04-13
+-----+
!                                     - Import Object -                                     !
!                                                                                       !
! Location      ==> SEQ                                                                !
! Library       ==> _____                                                            !
! Dsname        ==> _____                                                            !
! Volser        ==> _____                                                            !
! Node          ==> _____                                                            !
!                                                                                       !
! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--P !
!       Help      End                                                                    !
!                                                                                       !
+-----+
      5 Authorization
      6 Calendars

      . Exit
      ? Help
      * Commands

Command ==> import_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit Flip                                                                    Menu
    
```

4. Enter values for the input fields as described below:

Fields: Import Object

The input fields in the Import Object window are explained in the following table:

- date and time of the last export run that used the sequential data set and
- type of objects contained in the data set.

The input fields and column headings are explained under the headings Fields: Objects Exported and Column Headings: Objects Exported.

Note:

If you have used a data set (Location SEQ) for export and the export run failed, an error message is displayed, if you attempt import this data set.

PF Keys: Objects Exported

You can perform the following functions from the Objects Exported window using these PF keys:

Key	Name	Function
PF1	Help	Display a help screen for this window.
PF3	End	Return to the Entire Event Management screen.
PF5	Impor	Start the import function.
PF7	Up	Scroll towards the top of the list of exported objects.
PF8	Down	Scroll towards the bottom of the list of exported objects.

Fields: Objects Exported

The input fields in the lower half of the Objects Exported Window are explained in the following table:

Fields	Description	
Initial mode for import	Enter one of the following values:	
	A	Add (default). Adds new objects to Entire Event Management database. Does not overwrite objects with same name.
	S	Scan. Does not import objects, but lists contents of sequential file or member on the screen. For more information, see SCAN Mode.
	U	Update. Overwrites objects with same name.
Stop after ___ errors	Enter number of errors (1-99) permitted before terminating the import. Default is 5.	
Display parsing information	Enter one of the following values:	
	N	No (default).
	Y	Yes. During import a window displays current object type, name, parsed value, format, length and line. For more information, see Parsing Information.

Note:

Object type Rule imports only in mode **A** or **S**, because of its complex structure.
 Object type Message Log also imports only in modes **A** or **S**.

All values entered are checked for their validity.

Column Headings: Objects Exported

The following table explains the column headings for the data listed in the Objects Exported Window:

Column	Description
C	To select an export run, enter an x or X in this field.
Run	Run number of the export = number times the object type has already been exported.
Date	Date of the export run for this object type.
Time	Time of the export run for this object type.
Type	Object type selected by the export function. When the whole environment was exported, this field contains an *.
Name	Object name or name range for objects of the export run. When the whole environment or all objects of a type were exported, the field contains an *.

6. Select an export run for an object or range of objects, by entering an **X** in the line command field (**C** column) preceding the Run number.
7. Enter values for the input fields on the bottom half of the screen as described under the heading Fields: Objects Exported.
8. Press PF5 (Impor) to start the import.

Warning:

Do not press any key while import is running.

9. If you select **Y** for parsing, see the subsection Parsing Information for further information.
10. If import terminates successfully, the Information on Import screen appears with the message Import successful, the number of Objects imported and the Duration of the whole process:

Information on Import (Import successful)

```

16.04.1995  ENTIRE EVENT MANAGEMENT IMPORT/EXPORT UTILITY          17:23:40
Mode ADD           Import successful                               Userid BRY
                  All Objects: 1 total( 1 accepted/ 0 rejected)
                  Objects: 1 total( 1 accepted/ 0 rejected)
                  Duration: 00:00:02
                  Error/warning: 0 / 0

-----
Type              Name              Console   Errors/Warnings   Duration
-----
Last accepted Object type: CONSOLE
Name: KBEADA
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help           End

```

If any errors occurred, this screen appears as described in the subsection Error Handling during Import. For an explanation of all output fields, see Fields: Information on Import - not modifiable, for column headings, see Column Headings: Information on Import.

11. Press PF3 (End) to exit the import function and return to Entire Event Management.

Parsing Information

If you selected **Y** for **Display parsing information** (see Objects Exported Window and Fields: Objects Exported), the Parsing Information window opens at the bottom of the Objects Exported screen during import:

Objects Exported

```

+-----+
!                                     ! 16.04.95  ! ENTIRE EVENT
MANAGEMENT IMPORT EXPORT UTILITY  17:24:28  !
!                                     Objects exported      Userid KBE      !
!-----+-----+-----+-----+-----+-----+-----+
! C Run Date      Time      Type      Name      !
!-----+-----+-----+-----+-----+-----+
! X_  1 16/04/95  14:36:33 *      *      !
!                                     !
!                                     !
!                                     !
!                                     !
!                                     !
!                                     !
!                                     !
!                                     !
!                                     !
!-----+-----+-----+-----+-----+-----+-----+
!                                     !
!      Type: NODE      Name: 29      !
! Keyword: CREATION-TIME=      Value: 13.10.1994 17:35:  ! --PF10--PF11--P !
!      Format: DT Length:      Line: 7      !
!-----+-----+-----+-----+-----+-----+-----+
    
```

Fields: Parsing Information

The output fields in the Parsing Information window are explained in the following table:

Field	Description
Type	Current object type.
Name	Name of current object type.
Keyword	Current keyword.
Value	Value of current keyword.
Format	Format of current keyword.
Length	Length of current keyword.
Line	Current line of this object type in storage.

Error Handling during Import

If errors or warnings occur during import, some of the possible causes could be, for example:

Syntax Errors

- A value has invalid format.
- A character in a numeric field.
- A keyword was invalid or did not exist.
- The value of a field exceeds valid length.
- A non-existent object type was specified.

Syntax Warning

- Object already exists.

These errors should not occur when importing an **unchanged** exported member.

If you **edit** the exported member online or **create** a new member manually, these errors could occur.

Logical Errors

- Value has correct syntax but does not meet the requirements of Entire Event Management.
- The field has a special range (e.g. only **Y** or **N**).
- Adding an object which already exists in Entire Event Management.

If at least one error occurs within the object, the whole object is rejected. Errors and warnings are counted for single objects during the import. If the error limit is reached, the whole import is terminated.

The Import Utility has the following 3 levels of error severity:

- **Warnings**
Warnings are displayed and cause the object to be rejected, because the object already exists (when import mode is ADD). Warnings do not cause termination of the import. Import continues with the next object within the file.
- **Errors**
Errors cause rejection of the object but do not cause termination of the import. Import continues with the next object within the file if the error limit has not been reached.
- **Fatal errors**
Fatal errors are serious problems which cannot be ignored and cause immediate termination of the import. A fatal error occurs, for example, when it is impossible for the parser to continue at a new point.

Whenever an object is rejected it is saved in the member ERR-MEBR of the SYSNCLIE library. This member contains the rejected objects and the errors which caused the rejection.

If the error limit is reached, the whole import is terminated and the following window opens:

Error limit

```

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OBJECT=.....NODE
KEY=.....38
NAME-L=.....H60-BS2
MAINTENANCE-USERID=.....HKA
MAINTENANCE-TIME=.....16.04.1995.17:26:12
CREATION-TIME=.....+-----+ 17:26:12
END-OBJECT.....!
                ! Error limit was reached during !
Press PF3 to ! the importation process. !
                ! Import will be stopped. !
                !-----+
    
```

After an import with errors, press Enter.

The Information on Import screen appears (example):

Information on Import - Import ended with warnings

```

16.04.1995  ENTIRE EVENT MANAGEMENT IMPORT/EXPORT UTILITY          17:32:31
Mode ADD                               Import ended with warnings      Userid BRY
                                         All Objects: 13 total( 0 accepted/ 13 rejected)
                                         Objects: 13 total( 0 accepted/ 13 rejected)
                                         Duration: 00:00:27
Page: 1                                  Error/warning: 0 / 13
-----
Type           Name           Console   Errors/Warnings           Duration
-----
CONSOLE        ADABAS                               object already exists      00:00:03
CONSOLE        CICS                               object already exists      00:00:01
CONSOLE        COMPLCMD                          object already exists      00:00:01
CONSOLE        COMPLETE                           object already exists      00:00:01

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help           End           Up           Down
    
```

This screen lists the warnings which occurred during the import if the import was not completely successful. The column headings are explained under the heading Column Headings: Information on Import and the output fields under the heading: Fields: Information on Import - not modifiable.

Information on Import - Import failed

16.04.1995	ENTIRE EVENT MANAGEMENT IMPORT/EXPORT UTILITY	17:32:59
Mode ADD	Import failed	Userid BRY
	All Objects: 2 total(1 accepted/ 1 rejected)	
	Objects: 2 total(1 accepted/ 1 rejected)	
	Duration: 00:00:05	
Page: 1	Error/warning: 1 / 0	

Type	Name	Console Errors/Warnings Duration

CONSOLE	KBE456	00:00:02
		wrong length of KW
Last accepted Object type: CONSOLE		
Name: KBE123		
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---		
Help	End	Up Down

This screen lists errors and warnings which occurred during import:

- if at least one error has occurred and the import was not successful, or
- if the error limit was reached and the import was terminated. In this case, the Error limit window opens first. When you press Enter, the screen above appears.

The column headings of the screen above are explained under the heading Column Headings: Information on Import and the output fields under the heading: Fields: Information on Import (not modifiable).

PF Keys: Information on Import

You can perform the following functions from the Information on Import screen using these PF keys:

Key	Name	Function
PF1	Help	Display a help screen for this window.
PF3	End	Return to the Entire Event Management screen.
PF7	Up	Scroll towards the top of the list of errors.
PF8	Down	Scroll towards the bottom of the list of errors.

Fields: Information on Import - not modifiable

The output fields on the Information on Import screen are explained in the following table:

Field	Description	
Mode	Mode in which object type was imported: Add, Scan, Update. For more information, see field description Initial mode for import.	
Import	ended with warnings	At least one object was rejected, because it already exists (when import mode is ADD). Import was not terminated, but continued with the next object within the file.
	failed	Import has failed for at least one object type. There are errors in the list.
	successful	There are no errors or warnings.
All Objects	accepted	Number of all objects (including dependent objects) accepted for import.
	rejected	Number of all objects (including dependent objects) rejected.
	total	Total number of all objects including dependent objects.
Objects	accepted	Number of main objects (without dependent objects) accepted for import.
	rejected	Number of main objects (without dependent objects) rejected. An error message appears for these objects.
	total	Total number of all main objects without dependent objects.
Duration	Total time required to import all object types. Format: HH:II:SS . H = hour, I = minute, S = sec.	
Error/warning	Number of errors and warnings, respectively, which occurred during import. If the error limit was reached, a window opens: Error limit was reached and import is terminated.	
Last accepted object type	Object type of the last accepted object.	
Name	Name of the last accepted object.	
Console	Console of the last accepted object (if it was an Automation Rule).	

Column Headings: Information on Import

If the import was not completely successful or if the error limit was reached, the errors or warnings which occurred are listed in the columns on the Information on Import screen. These are explained below:

Column	Description
Type	Contains the imported failed object type
Name	Shows the specified name of the imported object type
Console	Shows only the specified Console of imported object type Rule.
Errors/ Warnings	Shows a short description of the errors or warnings.
Duration	Time required to import the object type. Format: HH:II:SS . H = hour, I = minute, S = sec.

SCAN Mode

If you entered **S** in the Initial mode for import field, the following screen appears when you press PF5 (Impor):

Note:

The SCAN function does not import objects.

SCAN mode

```

Page      1

OBJECT=.....NODE
KEY=.....17
NAME-L=.....Example
SHORT-DESCRIPTION=.....test17
SHORT-DESCRIPTION=.....first.example
MAINTENANCE-USERID=.....HKA
MAINTENANCE-TIME=.....16.04.1995.17:24:43
CREATION-TIME=.....22.10.1994.13:49:20
END-OBJECT.....

      Press PF3 to exit or any to continue

```

The SCAN function lists the contents of the Natural member or sequential file according to object type. If you started a batch job, the list is written to SYSOUT.

Press Enter until you have listed all the objects in the file or member. When you press Enter after the last object, the Information on Import screen appears.

The SCAN function checks for syntax errors only, not for data integrity violations. All errors are added up and if the error limit is reached, the SCAN is stopped. For further information on error handling, see the subsection Error Handling during Import.

 **To interrupt the import during scanning and return to Entire Event Management**

- Press PF3 (End).

Additional Tips for Using the Import Function

You should keep in mind the following when importing to an Entire Event Management file:

- If the **object already exists** in the target, it may be rejected, depending on the import mode. Required fields are necessary for an ADDition.
- For ADD or UPDATE, the related object types must be available or the object will be rejected.
- Only **complete objects** can be imported. All required fields must be supplied.
- **Invalid representations** of numbers, date and time fields, etc. must be rejected. This causes the whole object to be rejected.
- The fields MAINTENANCE-TIME and MAINTENANCE-USER are always accepted but are replaced with

MAINTENANCE-USER 'IMPORT' and MAINTENANCE-TIME= (time when the import is performed).

- When you are updating **periodic group** or **multiple fields**, all fields which build the periodic identifier of the new group are compared with all entries of the group in the database. If no entry with same identifier exists, the new group is deleted, otherwise, the already existing group is modified.
- Objects with **invalid keywords** must be rejected.
- The parser always registers if a **keyword** which does not belong to a multiple field or periodic group **occurred more than once** within the object - an error occurs.
- **Numeric values** are accepted with up to 2 decimals. Using more digits is no error.
- The keyword OBJECT must be immediately followed by an equal sign = and the name of the object type. See the subsection Entire Event Management Object Types in Section Concepts and Facilities for an explanation of object types.

Exporting Selected Objects

The export function saves the selected object types in an automatically-generated member or a sequential file.

▶ **To export one or more Entire Event Management objects:**

1. Enter EXPORT in the Command====> line of any screen and press Enter.

The Object Type window opens:

Object Type

```

17:42:55          *** ENTIRE EVENT MANAGEMENT ***          95-04-16
Srv      *          - Main Menu -

Console Services
1 Logical Console
2 Server

Administration
3 Environment
4 Automation
5 Authorization
6 Calendars

. Exit
? Help
* Commands

-----
!           - Select Object Type -           !
!           !                                 !
!  __ ALL  !                                 !
!  __ CALENDAR !                             !
!  __ CONSOLE !                             !
!  __ LAYOUT  !                             !
!  __ MESSAGE-LOG !                         !
!  __ NODE   !                             !
!  __ PROFILE !                             !
!  __ RANGE  !                             !
!  __ RULE   !                             !
!  __ SERVER !                             !
!  __ USER  !                             !
!           !                                 !
-----

Command ===> EXPORT_____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help           Exit  Flip                                     Menu
    
```

Notes:

1. You can bypass this window by entering EXPORT <object-type> in the Command====> line and pressing Enter.
For the object types Message Log and All (export whole environment), see Exporting Message Log and Exporting the Whole Entire Event Management Environment respectively.
2. Each export data set or Natural member contains objects of the selected type. This also applies for execution in batch mode.

- Select an object type with the cursor and press Enter.

A selection window opens (in our example, for CONSOLE):

Select Logical Console

```

17:42:55          *** ENTIRE EVENT MANAGEMENT ***          95-04-16
Srv      *          - Main Menu -

Console Services -----
1 Logical Console      !           - Select Logical Console -           !
2 Server              ! Sel Name      Aut                               !
                    ! * _____ *                               !
Administration        ! ** ***** top of data *****                !
                    ! ___ Adabas      X                               !
                    ! ___ CICS                               !
3 Environment         ! ___ ComplCmd                               !
4 Automation         ! ___ Complete                               !
5 Authorization       ! ___ Exec      X                               !
6 Calendars          ! ___ Netpass                               !
                    ! ___ Network   X                               !
. Exit               ! ___ Operator  X                               !
? Help              ! ___ Process   X                               !
* Commands          -----

NCL0701 Please select Logical Console to work with.
Command ==> _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit  Flip                               Down                               Menu

```

- Select one object (in our example the console Adabas) with the cursor and press Enter.

If you selected the object types: Console (our example), Rule, Server, Profile or User, the following window opens:

Export Related Object Types

```

17:43:38          *** ENTIRE EVENT MANAGEMENT ***          95-04-16
Srv      *          - Main Menu -

Console Services  -----
1 Logical Console  !           - Select Logical Console -           !
2 Server          ! Sel Name      Aut                               !
! *              ! * _____ *                !
! ** ***** top of data *****                !
Administration  +-----+
3 Environment     ! Export                               !
4 Automation     ! Related                               !
5 Authorization  !                               !
6 Calendars      ! Object Types?  N                       !
. Exit           !                               !
? Help          !                               !
* Commands      !                               !
-----+-----
Command ==> _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit  Flip                               Down      Menu
NCL0701 Please select Logical Console to work with.
    
```

The default is N (no).

4. Enter Y to export the related objects too. For a list of the related objects, see the subsection Hierarchy of the Object Types.
5. Press Enter.

The Export Object window opens:

Export Object

```

17:45:44          *** ENTIRE EVENT MANAGEMENT ***          95-04-16
+-----+
!                               - Export Object -                               !
!                               !                                               !
! Location    ==> SEQ           !                                               !
! Library     ==> _____   !                                               !
! Run        ==> 1             !                                               !
! Dsname     ==> _____   !                                               !
! Volser     ==> _____   !                                               !
! Node       ==> _____   !                                               !
!                               !                                               !
!-----+-----
! Object Type ==> Console       !                                               !
! Name        ==> ADABAS       !                                               !
!                               !                                               !
!                               !                                               !
!                               !                                               !
! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--P !
!      Help      End      Expor !                                               !
!                               !                                               !
+-----+
Command ==> _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit  Flip                               Down      Menu
NCL0701 Please select Logical Console to work with.
    
```

6. Enter values for the input fields as described under the heading Fields: Export Object.
7. Press PF5 (Expors) to start the export.

Warning:

Do not press any key while export is running.

During export a window opens briefly, which informs you about the object currently being exported. This window displays name and type of the object.

When export is finished, this is indicated by the message:

Function performed.

PF Keys: Export Objects

You can perform the following functions from the Export Object window using these PF keys:

Key	Name	Function
PF1	Help	Display a help screen for this window.
PF3	End	Return to Entire Event Management.
PF5	Expors	Start the export function.

Fields: Export Object

The input and output fields in the Export Object window are explained in the following table:

Field	Description	
Location	Enter the target location to which to export the object. Possible values:	
	NAT	Natural Source.
	SEQ	Sequential file is the default unit. Use this when exporting a large number of objects.
Library	If Location is NAT, you must enter a target Library for the exported objects. If Location is SEQ, leave this field blank.	
Run	The Import / Export Utility generates a new run number for each export run of each object type. This field is not modifiable .	
Dlname	If Location is SEQ, enter the name of a sequential file:	
	OS/390 VSE/ESA:	The sequential file to which you are exporting must first be allocated and cataloged, as follows: <ul style="list-style-type: none"> ● RECFM=FB,LRECL=240,BLKSIZE=24000,DSORG=PS. If the sequential file already exists, it will be overwritten.
	BS2000/OSD:	For each export, allocation is performed automatically by the Import / Export Utility.
	If Location is NAT, leave this field blank.	
Volser	If Location is SEQ and the operating system is VSE/ESA, you must enter a valid VOLSER. If Location is NAT, leave this field blank.	
Node	If Location is SEQ, you must enter a valid node. If Location is NAT, leave this field blank.	
Object Type	This field contains the selected object type and is not modifiable .	
Depending on the object type selected, one of the following fields appears beneath the Object Type field (if you select Rule, both the Name and Console fields appear). To enter a new value in these fields, just type over the old value:		
Name	If Object Type is Calendar, Console, Layout, Rule, Range or Profile, name selected appears here. Enter a prefix followed by an asterisk * to export a range of objects for this object type, which fulfil the description. You can export all records of this object type, if you enter an asterisk * without a prefix.	
Node	If Object Type is Node, the node number (1 to 255) appears here.	
Key	If Object Type is Server, the server number appears here.	
Userid	If Object Type is User, the User ID appears here.	
Console	If Object Type is Rule, the name of the related console appears here.	

Using Wildcards

You can use wildcards to enter selection criteria for the object. For example, enter AD* in the Name field for Console to export the Console AD and all those beginning with the prefix AD. Enter * in the field to export all Consoles.

Abnormal Termination of Export

Export can terminate abnormally for several reasons:

- You are attempting to export an object type with a related object that is not available.

If Location is NAT:

- You could be attempting to write more than 99 members or to select more than 99 object types (there is no limitation, if Location is SEQ).
- Natural Security is installed, but
 - the Library to which you are exporting is not a STEPLIB to SYSNCLIE;
 - you are not authorized for the Library to which you are exporting.
- The Library to which you are exporting must not contain a member with the prefix EVDIR. This prefix is reserved for internal administration.

Exporting Message Log

▶ To export the object type Message Log

1. Follow steps (1) to (3) (select Message Log) in the subsection Exporting Selected Objects.
2. Press Enter.

The following window opens:

Export Message Log

```

17:46:21                *** ENTIRE EVENT MANAGEMENT ***                95-04-16
+-----+
!                                     - Export Message Log -                                     !
!                                                                                                     !
! Location      ==> SEQ                                                                                                     !
! Run           ==> 1                                                                                                     !
! Dsname        ==> _____                                                                                             !
! Volser        ==> _____                                                                                             !
! Node          ==> ____                                                                                                 !
!-----+-----+
! Object Type  ==> Message Log                                                                                             !
! Console      ==>                                                                                                     !
!                                                                                                     !
! Time from    ==> Date : 16.04.1995   Time : 00:00:00                                                                 !
! Time to      ==> Date : 16.04.1995   Time : 23:59:59                                                                 !
!                                                                                                     !
! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--P !
!           Help      End      Expor                                                                                       !
!                                                                                                     !
+-----+-----+
Command ==> EXPORT
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
           Help      Exit  Flip                                                                                           Menu

```

3. Enter values for the input fields as described in the following.
4. Press PF5 (Expor) to start the export.

During export a window opens briefly, which informs you about the object currently being exported. This window displays name and type of the object.

When export is finished, this is indicated by the message:

Function performed.

Note:

You should export the Message Log in batch mode to avoid encountering any limits.

Fields: Export Message Log

The input and output fields in the Export Message Log window are explained in the following table:

Field	Description	
Location	SEQ sequential file is the target location to which the object type is exported. This field is not modifiable .	
Run	The Import / Export Utility generates a new run number for each export run. This field is not modifiable .	
Dsname	OS/390 VSE/ESA:	The sequential file to which you are exporting must first be allocated and cataloged, as follows: <ul style="list-style-type: none"> ● RECFM=FB,LRECL=240,BLKSIZE=24000,DSORG=PS If the sequential file already exists, it will be overwritten.
	BS2000/OSD:	For each export, allocation is performed automatically by the Import / Export Utility.
Volser / Node	You must enter a valid VOLSER and node.	
Object Type	This field contains the selected object type and is not modifiable .	
Console	You must enter the name of the console for which you want to export logged messages. Enter * for all consoles.	
Time-from	Date	Default is current day. Enter a valid date. Format conforms to Date Format in Field Descriptions: Set Session Parameters in Section Using Entire Event Management).
	Time	Default is 00:00:00 (HH:II:SS). Enter a valid time.
Time-to	Date	Default is current day. Enter a valid date. Format conforms to Date Format in Field Descriptions: Set Session Parameters in Section Using Entire Event Management).
	Time	Default is 23:59:59 (HH:II:SS). Enter a valid time. (Time-from must be earlier than Time-to).

Exporting the Whole Entire Event Management Environment

This function exports the whole Entire Event Management environment of System File 2 to a member or an sequential file.

▶ To export the whole Entire Event Management environment

1. Enter EXPORT ALL in the Command====> line of any screen.
2. Press Enter.

The following window opens:

Export Whole Environment

```

17:47:02                *** ENTIRE EVENT MANAGEMENT ***                95-04-16
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
!                                     - Export whole environment -                                     !
!                                                                                                     !
! Location      ==> SEQ                                                                                   !
! Library       ==> _____                                                                                   !
! Run           ==> 1                                                                                       !
! Dsname        ==> _____                                                                                   !
! Volser        ==> _____                                                                                   !
! Node          ==> ____                                                                                   !
!                                                                                                     !
! Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--P !
!           Help      End      Expor                                                                                   !
!                                                                                                     !
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
      6 Calendars                                     ! ___ RULE                                     !
                                           ! ___ SERVER                                     !
      . Exit                                         ! ___ USER                                     !
      ? Help                                         !                                     !
      * Commands                                     -----+-----+-----+
Command ==> EXPORT
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit  Flip                                     Menu
    
```

3. Enter values for the input fields as described in the following.
4. Press PF5 (Expor) to start the export.

During the export, a window opens briefly, which informs you about the object currently being exported. This window displays name and type of the object.

When the export is finished, this is indicated by the message:

```
Function performed.
```

Note:

You should use the Export Whole Environment option in batch mode and with Location SEQ to avoid encountering any limits.

PF Keys: Export Whole Environment

You can perform the following functions from the Export Whole Environment window using these PF keys:

Key	Name	Function
PF1	Help	Display a help screen for this window.
PF3	End	Return to Entire Event Management.
PF5	Expor	Start the export function.

Fields: Export Whole Environment

The input and output fields in the Export Whole Environment window are explained in the following table:

Field	Description	
Location	Enter the target location to which to export the Entire Event Management. environment. Possible values:	
	NAT	Natural Source.
	SEQ	Sequential file is the default unit.
Library	If Location is NAT, you must enter a target Library for the exported objects. If Location is SEQ, leave this field blank.	
Run	The Import / Export Utility generates a new run number for each export run. This field is not modifiable .	
Dsname	If Location is NAT, leave this field blank. If Location is SEQ:	
	OS/390 VSE/ESA:	The sequential file to which you are exporting must first be allocated and cataloged, as follows: <ul style="list-style-type: none"> ● RECFM=FB,LRECL=240,BLKSIZE=24000,DSORG=PS If the sequential file already exists, it will be overwritten.
	BS2000/OSD:	For each export, allocation is performed automatically by the Import / Export Utility.
Volser	If Location is NAT, leave this field blank. If Location is SEQ and the operating system is VSE/ESA, you must enter a valid VOLSER.	
Node	If Location is NAT, leave this field blank. If Location is SEQ, you must enter a valid node.	

Using the Import / Export Utility in BATCH Mode

This subsection demonstrates the use of the Entire Event Management Import / Export Utility in batch mode. NCLnnn.SRCE provides the JCL examples E-EXSYS2, E-EXSYS3, E-IMSYS2 and E-IMSYS3 which show how to use the export and import functions respectively to transport data from/to Entire Event Management System Files 2 and 3. Replace the symbols in brackets <> according to your installation.

Note:

Be sure that the LFILE assignments correctly reflect your source/target environment. Take particular care to use the correct version of System File 1 when importing objects to System File 2.

During import or export, information about the process is written to SYSOUT. When SYSNCLIE terminates, it writes a final message to SYSOUT to inform you whether the function was terminated successfully or not.

Interface Description

Field	Description	Values	Format	Use
LOCATION	Container for objects being imported or exported.	NAT or SEQ	A3	E/I
LIBRARY	Specifies container, if LOCATION=NAT	<LIBRARY>	A8	E/I
DSNAME	Specifies container, if LOCATION=SEQ	<DSNAME>	A54	E/I
VOLSER	If LOCATION=SEQ	<VOLSER>	A6	E/I
NODE	If LOCATION=SEQ	<NODE>	N3	E/I
OBJECT-TYPE ¹	Entire Event Management object types from System File 2.	CALENDAR CONSOLE LAYOUT NODE PROFILE RANGE RULE SERVER USER	A20	E/I
	From System File 3 !	MESSAGE-LOG		
	Import/export whole environment from System File 2.	*		
NAME	Name of the OBJECT-TYPE.. Use * as wildcard to select range of objects. Leave blank if OBJECT-TYPE = *. If object type is MESSAGE-LOG, enter the name of the console or * for all consoles.	*	A32	E
	Export all objects of one type.	*	A32	E

¹ Required for input when LOCATION=NAT in combination with RUN-NUMBER.

Field	Description	Values	Format	Use
CONSOLE	Required only if OBJECT-TYPE= RULE. Otherwise, leave blank.	<CONSOLE>	A32	E
RELATION	If RELATION=Y, the following OBJECT-TYPES can be exported with their related object types: <ul style="list-style-type: none"> ● RULE ● CONSOLE ● PROFILE ● SERVER ● USER. Default is N.	Y / N	A1	E
PRINT-EXPORT-LIST	See PRINT-EXPORT-LIST.	blank or any character	A1	I
RUN-NUMBER	Required if LOCATION=NAT. Run number for each OBJECT-TYPE.	1 to 99	N2	I
MODE	Import mode: A = Add (default), S = Scan U = Update.	A /S/ U	A2	I
ERROR-LIMIT	Counter for the error limit. Specifies number of errors permitted before terminating import program. Default is 5.	1 to 99	N2	I
USER-ID	User ID to log on to the Entire System Server, indicated by the parameter NODE.		A8	E/I
The following fields are for the object type MESSAGE-LOG only:				
DATE-FROM	Enter a valid date. DATE-FROM must not be later than DATE-TO.	Format as in Session Parameters	A10	E
TIME-FROM	Enter a valid time.	HH:II:SS	A8	E
DATE-TO	Enter a valid date.	Format as in Session Parameters	A10	E
TIME-TO	Enter a valid time. TIME-FROM must be earlier than TIME-TO.	HH:II:SS	A8	E

PRINT-EXPORT-LIST

If this parameter is specified with any value not=blank, an EXPORT-LIST is written to SYSOUT. This list contains information for the selected target environment. An import run is not started.

This list documents the user's selection regarding the target environment for the preceding export run(s) (Location and Library or Location, DSNNAME and Node). The list contains the Run Number, Date, Time, Object Type and Object Name for the previously executed export run in this target environment.

Example JCL for export - OS/390 and BS2000/OSD:

 For example, to export every CONSOLE without related objects to a sequential file:

```
LOGON SYSNCLIE
EXPORT
LOCATION=SEQ;DSNAME=<dataset name>;NODE=<ESY-Node>;%
OBJECT-TYPE=CONSOLE;NAME=*;RELATION=N;%
USER-ID=<user ID>
```

Example JCL for import - OS/390 and BS2000/OSD:

▶ For example, to import all CONSOLEs from a Natural member with RUN-NUMBER=1, in update mode, with a maximum of 5 errors or 10 warnings:

```
LOGON SYSNCLIE
IMPORT
LOCATION=NAT;LIBRARY=SYSNCLIE;RUN-NUMBER=1;%
OBJECT-TYPE=CONSOLE;%
MODE=U;ERROR-LIMIT=5;
```

Syntax

General Information

Each Entire Event Management logical record is represented by one entry in external format. Each record is enclosed in OBJECT=keyword and END-OBJECT. Every record which contains a keyword with an alphanumeric value assignment is closed with a semicolon ; . If a string contains a semicolon, it is doubled ;;.

Example:

```
OBJECT=CONSOLE ;
. . .
END-OBJECT ;
```

encloses a Logical Console definition.

Each field is represented by **keyword + value**.

Example:

```
NAME=Test ;
TIME-TO=235959
SW-ACTIVE=X ;
```

A keyword must be immediately followed by an equal sign =. Everything following the equal sign = until the next keyword is assumed to belong to the field. The equal sign = should not appear in the value itself, but is accepted anyway.

Several keywords and fields may appear on one line.

The sequence of fields within a record is without meaning.

Formats

Name		Description
A N	= alphanumeric = numeric	Unchanged (or in apostrophes ' '). EBCDIC/ASCII digits. Natural Edit mask using e.g.: ZZZ9.99 must be valid input for the Natural VAL function. Maximum 2 digits.
D	= date	Format: YYYYMMDD, where YYYY = year, MM = month, DD = day.
T	= time	Format: HHISS. (hours 0 to 24).
DT	= date and time	Format: YYYYMMDDHHISS (Natural type T).
L	= logical value	Represented in the database by A1 containing X or blank. As external value: Y, N, yes, no, true, false in upper or lower case.

Multiple Fields

Keywords which correspond to multiple fields may appear several times in the external format record.

Example:

```
TREE-SEQUENCE=0001
TREE-SEQUENCE=0002
```

Periodic Groups

Periodic group fields for one object must follow one another.

A group identifier must precede a group entry.

Example:

```
VAR-ASSIGNMENT VAR-NAME=V1 ;VAR-POSITION=4
```

VAR-ASSIGNMENT is the group identifier and defines two subsequent parameters: VAR-NAME and VAR-POSITION.

During input, the internal group counter is incremented if the group identifier occurs.

For multiple fields and groups it is possible that other fields are defined between them, since the import processing keeps track of the highest used index.

Comments

Lines starting with an asterisk * are treated as comments.

Furthermore, line comments can be appended or inserted starting with /*.

The comment must end with /*, if inserted. /* is accepted as the beginning of a comment only at the beginning of a line or following at least one blank space.

Object Types for Import / Export

The following Entire Event Management object types can be exported and imported:

- CONSOLE
- CALENDAR
- LAYOUT

- NODE
- PROFILE
- RANGE
- RULE
- SERVER
- USER
- MESSAGE-LOG

For an explanation of these object types, see the subsection Entire Event Management Object Types in Section Concepts and Facilities.

Abbreviations

Abbreviation	Explanation
+	Required field
D	Contains date only.
DT	Contains date and time.
K	Key Field, required.
M	Multiple field.
PG	Periodic group identifier.
PI	Part of periodic group element 'key' (identifier).
T	Contains time only.

Reserved Keywords

The following reserved keywords appear in all objects:

Keyword	Explanation
OBJECT	Beginning of an object.
END-OBJECT	End of an object.

Common Field Names

K	NAME	A32
+	NAME-L	A32 after upper case translation, <NAME-L> must be identical to <NAME>.

USER COMMENT and MAINTENANCE-ACTIVITY are part of all objects:

<USER COMMENT>		
SHORT-DESCRIPTION	A32	#NSHD=16
<MAINTENANCE-ACTIVITY>		
MAINTENANCE-USERID	A08	
MAINTENANCE-TIME	DT	
CREATION-TIME	DT	

Object Descriptions

This subsection lists all object types and their keywords. For an explanation of these object types, see the subsection Entire Event Management Object Types in Section Concepts and Facilities.

OBJECT=ACTION

K	KEY	A16 hexadecimal representation of B8
+	NAME	A32
+	TYPE	A04 'BOX', 'CMD', 'JOB', 'MSG', 'NAT', 'NET'
	EXEC-NODE	N03
	WAIT-TIME	N05
	WAIT-TIME-UNIT	A08 blank, 'MIN', 'SEC'
	NAT-PROGRAM	A08
	NAT-LIBRARY	A08 must not be blank, if DBID and FNR > 0
	NAT-DBID	N03
	NAT-FNR	N03
M	CMD-COMMAND	A180
	EOR-OWNER	A10
	EOR-NETWORK	A10
	EOR-JOB	A10
	JOB-NODE	N03
	JOB-VOLSER	A06
	JOB-DSNAME	A54
	JOB-MEMBER	A64
	JOB-MEMBER-TYPE	A08
	JOB-LIBRARY	A08
	JOB-SUBLIB	A08
	JOB-VSAM-CATALOG	A08
	JOB-SUBSTITUTE-SYMBOL	A01
	MSG-TEXT	A200
M	MSG-TO-USER	A08 #NU = 5
M	MSG-TO-LOGICAL-CONSOLE	A08 #NLC = 5
M	MSG-TO-PHYSICAL-CONSOLE	N03 #NPC = 5
M	BOX-TEXT	A220 #NB = 7

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=CALENDAR

K	NAME	common
K	OWNER	A10
K	YEAR	N04
+	TABLE	A50 bit string

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=CONSOLE/RANGE

K	CONSOLE	A08
K	RANGE-OF-MSG	A32
	PRIORITY	N03
+	EXCLUDE/INCLUDE	A01 'E' or 'I'
	REPLY	A01
	ME-REPRESENTATION	A09

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=CONSOLE

K	NAME	common
	LIFE-TIME	N05
	LIFE-TIME-UNIT	A08 'DAYS', 'MONTHS', 'WEEKS', 'YEARS'
+	NAME-L	common
	TIME-FROM	T
	TIME-TO	T
	LAYOUT	A32
	CALENDAR	A20
	SW-AU-ACTIVE	A01 ' ' or 'X'
	SW-ME-LOG	A01 ' ' or 'X'

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=EVENT

K	KEY	A12 hexadecimal representation of B6
+	NAME	A32
	LOG	A01 blank '1', '2', '3'
+	LAST-ACTION-KEY	A04 hexadecimal representation of B2
+	LEVEL	A04 hexadecimal representation of B2
	SUBTREE	A01 ' ' or 'X'
	ASSIGNED-TO	A04 hexadecimal representation of B2
	FREQUENCY	N05
PG	VAR-ASSIGNMENT #NVA = 10	
PI	VAR-NAME	A08
PI	VAR-POSITION	N02
M	MSG-ID	A59 #NMI = 1
	MSG-ID-IDX	N03
PG	TOKEN-OR-EXPRESSION #NTOE = 1	
PI,M	TOKEN-AND-EXPRESSION	A14 #NTAE = 2
M	JOB-NAME	A08 #NJN = 4

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=LAYOUT

K	NAME	common
+	NAME-L	common
	SW-DAY-BREAK	A01 ' ' or 'X'
	SW-FROZEN-BREAK	A01 ' ' or 'X'
PG	LAYOUT #NLAY = 99	
PI	SEQUENCE	N02
PI	HEADER	A15
PI	LENGTH	N03

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=NODE

+	NAME-L	A32
K	KEY	N03 1 to 255
	TIME-DIFFERENCE	N02.1

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=PROFILE

K	NAME	common
+	NAME-L	common
K	PRODUCT	A03
K	TYPE	A02 'MA', 'CV', 'SV'
K	OBJECT-NAME	A32
M	CLASS/LEVEL	A03 #NCL = 50

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=RANGE

K	NAME	common
K	KEY	A08 hexadecimal representation of B4
+	NAME-L	common
	REPRESENTATION	A09
	PRIORITY	N03
M	MSG-ID	A59 #NMI = 44
	MSG-ID-IDX	N03
PG	TOKEN-OR-EXPRESSION	#NTOE = 2
PI,M	TOKEN-AND-EXPRESSION	A14 #NTAE = 4
M	JOB-NAME	A08 #NJN = 4
	REPLY-INDICATOR	A01 ' ' or 'X'

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=RULE

K	NAME	common
K	KEY	A08 hexadecimal representation of B4
K	CONSOLE	A08
+	RANGE	A08 hexadecimal representation of B4
+	RANGE-NAME	A32
+	NAME-L	common
	SW-ACTIVE	A01 ' ' or 'X'
	CALENDAR	A20
M,+	TREE-SEQUENCE	A04 #NTS = 100; hex. representation of B2
	TIME-FROM	T
	TIME-TO	T
	TIMEOUT	N05
	TIMEOUT-UNIT	A08 blank, 'MIN', 'SEC'
	LOCKTIME	N05
	LOCKTIME-UNIT	A08 blank, 'MIN', 'SEC'
	LOOP-CRITERION	A01 '1' or '2'
	LOOP-RESUMETIME	N05
	LOOP-RESUMETIME-UNIT	A08 blank, 'MIN', 'SEC'
+	LAST-EVENT-KEY	A04 hexadecimal representation of B2
	REPRESENTATION	A09

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=SERVER

K	KEY	N03 values 1 to 255
M	CONSOLE	A08 #NC = 30
M	MSG-ID	A59 #NC = 88
	MSG-ID-IDX	N03
	DATA-PREFIX	A54
	VOLSER	A06
	MLOG-DBID	N03
	MLOG-FNR	N03
	ACTION-DBID	N03
	ACTION-FNR	N03
	ACTION-LIBRARY	A08
	TOKENIZING-DELIMITERS	A10
	MSGID-EXIT	A08 must start with 'U' or 'Y'
	INIT-EXIT	A08 must start with 'U' or 'Y'
	GETMSG-WAIT-TIME	N05
	GETMSG-WAIT-TIME-UNIT	A08 blank, 'MIN', 'SEC'
	ET-MAX-COUNT	N05 if ne ' ' -> NE <= 0
	ET-MAX-TIME	N05
	ET-MAX-TIME-UNIT	A08 blank, 'MIN', 'SEC'
	UNDEF-TIME-FROM	T
	UNDEF-TIME-TO	T
	SIZE-ARE-QUEUE	N09
	SIZE-ANE-QUEUE	N09
	RULE-TIMEOUT	N05
	RULE-TIMEOUT-UNIT	A08 blank, 'MIN', 'SEC'
	LOCKTIME	N05
	LOCKTIME-UNIT	A08 blank, 'MIN', 'SEC'
	LOOP-CRITERION	A01 '1' or '2'
	LOOP-RESUMETIME	N05
	LOOP-RESUMETIME-UNIT	A08 blank, 'MIN', 'SEC'
	EVENT-LOOP-FREQUENCY	N05
	ACTLOG-PREFIX	A03
	ACTLOG-DB	A01 ' ' or 'X'
	ACTLOG-NODE	N03
	ACTLOG-SYSOUT	A01 ' ' or 'X'
	API-RECEIVER	A16
	RETRY-WAIT-TIME	N05
	RETRY-WAIT-TIME-UNIT	A08 blank, 'MIN', 'SEC'
	SYS3-CLEANUP	T Format HHIIS
	SYS3-CLEANUP-TRACE	A01

include <USER COMMENT> and <MAINTENANCE ACTIVITY>

OBJECT=USER

K	USER-ID	A08	
	ADMINISTRATOR	A01	' ' or 'X'
K	LAST-NAME	A32	
	LAST-NAME-L	A32	lower-case representation of LAST-NAME
	INITIAL	A01	
K	FIRST-NAME	A32	
	FIRST-NAME-L	A32	lower-case representation of FIRST-NAME
	TITLE	A24	
	DEPT-NAME	A32	
	DEPT-NR	A10	
M	ADDRESS	A60	#NAD = 3
	CITY	A32	
	POSTAL-CODE	A10	
	COUNTRY	A08	
	PHONE-COUNTRY	N02	
	PHONE	A16	
	PHONE-EXT	A10	
M	HOME-ADDRESS	A60	#NHA = 3
	HOME-CITY	A32	
	HOME-POSTAL-CODE	A10	
	HOME-COUNTRY	A08	
	HOME-PHONE-COUNTRY	N02	
	HOME-PHONE	A16	
M	PRODUCT-PROFILE	A35	#NPP = 10
PG	REPRESENTATION-G	#NREP = 99	
PI	REPRESENTATION	A09	
	DATE-POSITION	N01	'1' = left corner, '2' = right corner
	DATE-FORMAT	A01	'A' = American, 'E' = English, 'G' = German
			'I' = international
	NCL-CMD-PROMPT	A01	' ' or 'X'
	OPERATOR-PROMPT	A01	' ' or 'X'
	NCL-NODE	A08	
	MENU-SELECTION	A01	'A' = alphanumeric codes,
			'N' = numeric codes
	DELETE-CONFIRM	A01	blank, 'Y' = confirm with Y/N,
			'N' = confirm with name
	FLIP/KEY	A01	'F' = action bar, 'K' = PF key display
	ZOOM-PROTECT	A01	' ' or 'X'
	UKEYS-ON	A01	' ' or 'X'
	ENTER-SELECTION	A01	'D' = down, 'S' = stay on current page
	ENTER-CONSOLE	A01	'B' = bottom, 'D' = down,
			'S' = stay on current page
	MODE-USER	A01	'B' = backtracking,
			'M' = back to assigned menu
PG	MAGIC	#NMAG = 10	
PI	MAGIC-CHAR	A01	
PI	MAGIC-FIRST	A01	
PI	MAGIC-VALUE	A32	
PG	PFKEY	#NPFK = 24	
PI	PFKEY-TEXT	A05	
PI	PFKEY-VALUE	A32	
include <USER COMMENT> and <MAINTENANCE ACTIVITY>			

OBJECT=MESSAGE-LOG

MESSAGE-LOG is an object type of System File 3. Its structure does not conform to that of System File 2 object types. The common fields are not used here.

K	NODE-NR	N03
+	TIME	DT
K	TIME-CNT	N17 Format YYYYMMDDHHIISST * 10.000
K	TIME-CNT-COMPLEMENT	N17 999999999999999999 - <TIME-CNT>
K,M	CONSOLE	A08 #NC = 55
+,M	RANGE	A08 #NR = 55; hexadecimal representation of B4
	MSG-TYPE	A01
+	MSG-ID	A09
+	KW-ASSIGN-CHAR	A01
+	KW-DELIM-CHAR	A01
+	KW-MSG-ATTRIBUTES	A250 #NK = 2
	FROZEN-INDICATOR	A01
	RULE-TIME-CNT	N17 Format YYYYMMDDHHIISST * 10.000
	ACTION-KEY	A16 hexadecimal representation of binary B8
	ACTION-TYPE	A03
	ACTION-STATUS	A01
M	ACTION-USER-VARIABLES	A200 #NA = 3
M	STATISTICS	A250 #NS = 4

Hierarchy of the Object Types

The following table shows the relationship between the different object types.

Object Type	Object Type Used	Export	Import
CALENDAR	none	-	-
CONSOLE	RULE	O	O
	CALENDAR	O	R
	CONSOLE-RANGE	O	R
	LAYOUT	O	R
	RANGE	O	R
LAYOUT	none	-	-
NODE	none	-	-
PROFILE	CONSOLE	O	R
	SERVER	O	R
RANGE	none	-	-
RULE	ACTION	R	R
	CALENDAR	O	R
	CONSOLE	O	R
	CONSOLE-RANGE	O	R
	EVENT	R	R
	RANGE	O	R
SERVER	CONSOLE	O	R
	NODE	O	R
USER	PROFILE	O	R
MESSAGE-LOG	CONSOLE	-	R

Object Types Used appearing in **BOLD/ITALICS** **cannot** be selected for export.

Object Types Used in normal print **can** be selected for export.

O = Optional.

These referred object types can be exported together with the main object, but need not exist, when importing the main object.

R = Required

These referred object types are always exported together with the main object and **must exist**, when importing the main object.

Message ID Utility

Overview

The Entire Event Management Message ID Utility analyzes a data set or the console log according to various user criteria and displays the result in SYSOUT.

You can analyze:

- an OS/390 or BS2000/OSD data set
- an PDS member in OS/390
- console log from OS/390 or VSE/ESA

Statistics for the most important IDs are displayed. You can select these IDs depending on your installation. These statistics provide you with a better overview of your daily work and you can formulate an Automation Rule for particularly important message IDs. For further information, see Section Defining an Automation Rule.

Usage

You can only use this utility in batch mode. NCLnnn.SRCE provides JCL examples in E-UTMID and a Natural text member E-UTMIDT, which shows you how to use the function. Replace the the symbols in brackets <> according to your installation.

You can analyze every data set from OS/390 or BS2000/OSD or a PDS member from OS/390 or an OS/390 or VSE/ESA console log. The analysis depends on the user criteria. You can analyze a data set for several different message IDs as follows:

- search for:
 - a Natural mask criterion
 - a special string
 - a combination of both
- search:
 - a range of columns
 - all lines of the data set
 - a range of lines in the data set

After the selection a list is printed in SYSOUT, which displays the message IDs that satisfy the criteria, the number of times each analyzed message ID occurs, their percentage of the total, and a snapshot of the last whole message text where this ID was found.

JCL Description

This utility runs only in batch mode. JCL requires following parameters:

LOGON SYSNCLIE, UTMID--P

The following parameters specify the environment where the text member resides:

Parameter	Description	Format
DBID	Database of the text member.	N3
FNR	File number of the text member.	N3
LIBRARY	Specifies the container for text member.	A8
MEMBER	Specifies the name of the text member. Contains the selection criteria.	A8

Syntax of the Text Member

The parameters for the analysis must reside in a Natural text member which was specified in the JCL description (above).

The Entire Event Management keywords necessary for the analysis of the data set are described here. Each keyword must be immediately followed by an equal sign =. Keywords must be separated by a delimiter sign (' ' or ; or **space**).

Without the delimiter sign it is not possible to mark the end of one keyword. Every character following the equal sign up until the delimiter is assumed to belong to the keyword value. An equal sign should not appear in the value itself.

Not every keyword must be followed by a value or not all keywords must exist in this text member. The important keywords are NODE=, START-VALUE=, END-VALUE=, MASK= and must always be assigned a value. In BS2000/OSD, you must also assign a value to DSNAME=. In OS/390, if you do not assign a value to this keyword, CONSOLE-LOG is analyzed.

The order of the keywords is not important.

Description of the Keywords

The following keywords are possible:

Field	Description	Values	Fmt
DSNAME	Specifies the container with the analyzed messages. If this field is empty, and NODE specifies an OS/390 operating system, the CONSOLE-LOG will be analyzed.	<DSNAME>	A54
END-VALUE	Enter a positive number. This number specifies the column within the record where the analysis of the message IDs ends.	<END-VALUE>	N3
HIT-LIST-MSG	Enter a positive number, to display first <HIT-LIST-MSG> messages analyzed, starting with the message which occurs most often (to limit the result).	<HIT-LIST-MSG>	N5
MASK	<p>Enter a string which is the criterion for the analysis.</p> <p>You can enter every character for the analysis and you can use the Natural Edit Mask criterion too, but the string must be enclosed twice by single quotation marks: ' ' string ' ', if it appears alone.</p> <p>If the Natural Mask criterion appears in a string, the string must be enclosed in single quotation marks ' ' and the Mask criterion must also be enclosed in ' '.</p> <p>If you use a string which consists of more than one word, enclose this string in ' '. The only restrictions are the length of 50 characters and you only can enter up to 10 masks.</p> <p>During the analysis every word (within the record from START-VALUE to END-VALUE) which is separated by a space will be compared with the mask criterion. As soon as one mask is found, the next record will be analyzed (that means not every mask criterion will be used).</p>	<MASK>	A50
MEMBER	Name for PDS member on OS/390.	<MEMBER>	N3
NODE	Entire System Server Node. Location for storage.	<NODE>	N3
START-VALUE	Enter a positive number. This number specifies the column within the record where the analysis of the message IDs starts.	<START-VALUE>	N3
TIME-FROM	Enter a valid time from which to analyze the records for a special time range. This time must occur within a record of the data set and start in the column indicated by TIME-POSITION.	HHISS	A8
TIME-TO	Enter a valid time until which to analyze the records for a special time range. This time must occur within a record of the data set and start in the column indicated by TIME-POSITION. TIME-TO must be greater than TIME-FROM.	HHISS	A8
TIME-POSITION	Column where the time is located in the record. This field is necessary if TIME-TO and TIME-FROM are specified. Leave this field blank, if no time interval is specified.	<TIME-POSITION>	N3
USER	Required for logon to the Entire System Server indicated by parameter NODE.	<USER-ID>	A8

Output Description

Output Header

- Title displays the container with the records for analysis, this can be a data set name or a PDS member name or CONSOLE-LOG.
- If a time was specified, it occurs in the next line, for example:

```
FROM: 11:11:11 TO: 22:22:22
```

- This line displays the sum of analyzed messages and the sum of all messages found.
- If a number for the HIT-LIST-MSG was specified, it occurs in the next line. The following text appears:

```
RESULT SHOWS THE FIRST nn MESSAGES
```

where *nn* is the number of messages.

Table

- The first column contains the message ID found, which was searched for by the MASK criterion.
- The second column displays the percentages for this message only;
- The third column displays the sum of the percentages from the top until this message;
- The fourth column displays the real counter for this message;
- The last column displays the last message text where this message ID was found. The message text as a substring starts at the column START-VALUE and has a maximum length of 40 characters.

Examples

- The Natural text member contains:

```
DSNAME=NCL.SYS MEMBER=
NODE=148
START-VALUE=56 END-VALUE=70
MASK=ACF
MASK=IE
```

The result is, for example:

ANALYSIS OF MESSAGE IDS IN: NCL.SYS					
SUM OF ANALYZED MESSAGES:			37	SUM OF ALL MESSAGES FOUND:	25
MSG ID	%	SUM %	VALUE	SAMPLE MESSAGE TEXT	
IEE301I	20.00	20.00	5	IEE301I ADA230MM CANCEL	
ACF9C009	16.00	36.00	4	ACF9C009 SAF ENVIRONMENT	
ACF9C004	16.00	52.00	4	ACF9C004 TTT SUBSYSTEM	
ACF9C005	16.00	68.00	4	ACF9C005 SAF CONTROL PT	
IEA989I	12.00	80.00	3	IEA989I SLIP TRAP ID=X22	
ACF9C006	8.00	88.00	2	ACF9C006 SAF CLASS	
ACF9C007	8.00	96.00	2	ACF9C007 SAF ENTITY	
IEF196I	4.00	100.00	1	IEF196I IEF237I JES2 ALL	

- The Natural text member contains:

```

DSNAME=NCL.SYS
NODE=148
TIME-POSITION=26
TIME-FROM=001250 TIME-TO=001252
HIT-LIST-MSG=5
START-VALUE=56 END-VALUE=70
MASK=ACF
MASK=IE

```

The result is, for example:

```

ANALYSIS OF MESSAGE IDS IN:  NCL.SYS
FROM:  00:12:50  TO:  00:12:52
SUM OF ANALYZED MESSAGES:    20  SUM OF ALL MESSAGES FOUND:    18
RESULT SHOWS THE FIRST      5 MESSAGES
-----
MSG ID      %    SUM %    VALUE    SAMPLE MESSAGE TEXT
-----
ACF9C004    22.00  22.00     4    ACF9C004 TTT SUBSYSTEM
ACF9C005    22.00  44.00     4    ACF9C005 SAF CONTROL PT
ACF9C009    22.00  66.00     4    ACF9C009 SAF ENVIRONMENT
ACF9C006    11.00  77.00     2    ACF9C006 SAF CLASS
ACF9C007    11.00  88.00     2    ACF9C007 SAF ENTITY

```

- The Natural text member contains:

```

DSNAME=NCL.SYS
NODE=148
HIT-LIST-MSG=5
START-VALUE=56 END-VALUE=80
MASK='AAANANNN' SAF CLASS'
MASK=IE

```

The result is, for example:

```

ANALYSIS OF MESSAGE ID'S IN:  NCL.SYS
SUM OF ANALYZED MESSAGES:    37  SUM OF ALL MESSAGES FOUND:    11
RESULT SHOWS THE FIRST      5 MESSAGES
-----
MSG ID      %    SUM %    VALUE    SAMPLE MESSAGE TEXT
-----
IEE301I     45    45     5    IEE301I ADA230MM CANCEL
IEA989I     27    72     3    IEA989I SLIP TRAP ID=X22
ACF9C006    18    90     2    ACF9C006 SAF CLASS
IEF196I     9    99     1    IEF196I IEF237I JES2 ALL

```