

VSE/ESA Objects

This section explains all the functions you can perform on objects only available in a VSE/ESA environment.

- VSE/ESA Members
- VSE/ESA File Maintenance
- VSE/ESA Job Information
- VSE/ESA System Operations

VSE/ESA Members

In the VSE/ESA members maintenance facility, you can perform maintenance functions on VSE/ESA objects (for example: LIST, EDIT, DELETE, COPY, RENAME and BROWSE VSE/ESA members).

If the member consists of job control, you can make use of the Natural ISPF MACRO facility. You can use all types of MACRO statements. Macro expansion is performed at submission time (see the SUBMIT command below). When creating a new member, you can also use the Edit macro feature to automatically create text lines which can then be modified. For details on the MACRO facility, see the section Macro Facility in the Natural ISPF Programmer's Guide).

▶ To enter the VSE/ESA objects maintenance facility

- Select the MEMBERS option from the Natural ISPF Main Menu.

The VSE Members Entry Panel appears:

```

----- VSE MEMBERS - ENTRY PANEL -----
COMMAND ===>

Library/DSN   ===>
Sub library   ===>
Member        ===>
Member type   ===>
Volume        ===>
VSAM catalog  ===>
Password      ===>                ( If password protected )
Scan for      ===>
MSHP protect  ===>
Inline data   ===>
Edit macro    ===>
Node          ===> 33

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso

```

You can specify the VSE/ESA object you wish to maintain in the input fields and enter a function command in the command line.

Meaning of the input fields:

Field	Meaning
Library/DSN	Displays the dataset name last used. You can select any other dataset by overtyping this name, or generate a list of datasets for a specified volume in the same way as described for the Member field below. You can also enter a library name here (standard label), which is the name you are advised to use in direct command syntax.
Sublibrary	VSE/ESA sublibrary.
Member	Name of required member. Leave blank or use strings and wildcards (* and _) to generate a more selective list of member names in the specified library. See the subsection Selection Windows and Wildcards in the section Command Logic. See also the field Member type below.
Member type	Members can be grouped and listed according to a user-defined type specified in this field at creation time.
Volume	Volume serial number (non-VSAM installations). Required only if the dataset has no label definition.
VSAM catalog	Required only if the dataset has no label definition (VSAM installations).
Password	System password if file is protected. Must be specified irrespective of read or write protection (VSAM only).
Scan for	Lists members which contain the string specified here. When you select a member from this list for EDIT or BROWSE, the cursor is placed on the first occurrence of this string in the member. Issue the RFIND command to find the next occurrence.
MSHP protect	Specify YES to bypass MSHP protection; otherwise, leave blank (relevant only for the EDIT function).
Inline data	Specify YES to indicate that the member contains SYSIPT data; otherwise, leave blank (relevant only for EDIT function).
Edit macro	Name of macro object to be used as a model for the member. The specified macro is executed and loaded into the Editor. See the section Macro Facility in the Natural ISPF Programmer's Guide for details. When used with LIST, the list contains all members according to the name criteria that use the specified MACRO as a model.
Node	Select Entire System Server node. Enter a question mark ? and press Enter to open a window in which all node numbers are scrolled with an ACTIVE or INACTIVE status report. If you do not specify a node, the default node is assumed.

Function Commands

The available function commands for VSE/ESA members are as follows:

Command	Parameter Syntax
BROWSE	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id
COPY	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id, object-type object-parms, REP
DELETE	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id
EDIT	library.sublib(member.type) VOL/CAT=n PASSWORD=p MACRO=name NODE=id
EXPORT	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id, target-environment
HOLD	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id
INFO	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id
LIST	library.sublib(*_*) VOL/CAT=n PASSWORD=p SC=string MACRO=name NODE=id
PLAY	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id
PRINT	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id, printer-name CC
RENAME	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id, new-name
SUBMIT	library.sublib(member.type) VOL/CAT=n PASSWORD=p NODE=id1, TARGET=id2

The VOL parameter (non-VSAM) or CAT parameter (VSAM) is required only if the specified dataset has no label definition.

A full description of these commands is contained in the section Command Reference. The object parameters correspond to the input fields on the VSE Members Entry Panel.

Note:

If you issue any of the above function commands from outside the VSE members facility, you must specify the object-type parameter MEM before the object parameters.

Listing VSE/ESA Objects

The following items can be listed using the LIST command and selection criteria in the parameter input fields of the VSE Members Entry Panel:

- Volumes according to prefix;
- File names according to prefix;
- All files on a specified volume; you can optionally narrow the list down by specifying a prefix, suffix or a string for file names with the wildcards * and _ (see description of Member field on page 4);
- Sublibraries in a VSE/ESA file; you can optionally specify a prefix for sublibrary names;
- Members in a sublibrary; you can optionally specify a prefix for member names;
- Members in a sublibrary according to prefix, but which contain a certain character string (Scan for option);
- Versions of a specific member.

If you wish to generate lists using function command syntax in the command line of any screen, you must address the following object types:

Type of List	Object-Type Notation
List of volumes	DV
List of files	FIL
List of sublibraries	SUB
List of members	MEM
List of member versions	VV

Below are some examples of function commands using full command syntax.

Example: LIST (1)

The following figure shows an example of a list of all sublibraries in a VSE/ESA library generated using the command:

```
LIST SUB NATPROC.IV131.SYSTEM.LIBRARY(*)

LIST-SUB:NATPROC.IV131.SYSTEM.LIBRARY.* ----- Row 0 of 8 - Columns 010 025
COMMAND===>                                SCROLL===> CSR
  SUBLIB          MEMBERS
** ***** top of list *****
  SAVE            2
  TEST1           7
  UEDTB1          6
  ESX131          5
  ASM             21
  ESX132          6
  NPR133         146
  NPR134         140
** ***** bottom of list *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
```

Meaning of column headings:

Column	Meaning
SUBLIB	Name of sublibrary.
MEMBERS	Number of members in the sublibrary

Use the line command **L** to generate a list of all the members in the sublibrary.

Example: LIST (2)

The following figure shows an example of a list of all members in a sublibrary generated using the command:

LIST MEM NPR131.DEV135(*)

where NPR131 is the standard label library name and DEV135 is the sublibrary name:

```
LIST-MEM:NPR131.DEV135(*) ----- Row 63 of 122 - Columns 018 076
COMMAND====>                                SCROLL====> CSR
MEMBER  TYPE          CREATED  MODIFIED TIME  BLOCKS  SIZE  VV.MM  ATTR
XCOTABE OBJ           19980802  /  /  00:00    5    111    RECT
ESYNMAIN PHASE       19980802  /  /  00:00   20  18756    RECT
MYNODE   PHASE       19980802  /  /  00:00    1    104    RECT
NATPAMS  PHASE       19980802 19981118 08:57    4    3504    RECT
NATPBPI  PHASE       19980802 19980802 10:20    2    1660    RECT
NATPCMDL PHASE       19980802  /  /  00:00   23  22088    RECT
NATPCNTL PHASE       19980802  /  /  00:00    2    1424    RECT
NATPEVTM PHASE       19980802  /  /  00:00    1     510    RECT
NATPLIBR PHASE       19980802  /  /  00:00    5    4190    RECT
NATPSPLA PHASE       19980802 19981019 09:07   10    9016    RECT
NATPSPVT PHASE       19980802  /  /  00:00    3    2358    RECT
NATPVTPH PHASE       19980802  /  /  00:00    2    1164    RECT
NATPVTPR PHASE       19980802  /  /  00:00    5    4304    RECT
NPRINIT  PHASE       19980802  /  /  00:00    3    2326    RECT
NPROPHND PHASE       19980802  /  /  00:00    3    2456    RECT
NTSTRT  PHASE       19980802  /  /  00:00    2    1308    RECT
RDSPLDEF PHASE       19980802  /  /  00:00    1     86     RECT
USERVSEC PHASE       19980802  /  /  00:00    1     85     RECT
XCOMALCF PHASE       19980802  /  /  00:00    1    836     RECT
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
```

Use the RIGHT command, (usually assigned to PF11) to scroll right and display the attributes in the ATTRIBUTES column:

```
LIST-MEM:NPR131.DEV135(*) ----- Row 63 of 122 - Columns 064 122
COMMAND====>                                SCROLL====> CSR
MEMBER  TYPE          ZE  VV.MM  ATTRIBUTES
XCOTABE OBJ           11          RECTYPF
ESYNMAIN PHASE       56          RECTYPU  AMODE24  RMODE24
MYNODE   PHASE       04          RECTYPU  AMODE24  RMODE24
NATPAMS  PHASE       04          RECTYPU  AMODE24  RMODE24
NATPBPI  PHASE       60          RECTYPU  AMODE24  RMODE24
NATPCMDL PHASE       88          RECTYPU  AMODE24  RMODE24
NATPCNTL PHASE       24          RECTYPU  AMODE24  RMODE24
NATPEVTM PHASE       10          RECTYPU  AMODE24  RMODE24
NATPLIBR PHASE       90          RECTYPU  AMODE24  RMODE24
NATPSPLA PHASE       16          RECTYPU  AMODE24  RMODE24
NATPSPVT PHASE       58          RECTYPU  AMODE24  RMODE24
NATPVTPH PHASE       64          RECTYPU  AMODE24  RMODE24
NATPVTPR PHASE       04          RECTYPU  AMODE24  RMODE24
NPRINIT  PHASE       26          RECTYPU  AMODE24  RMODE24
NPROPHND PHASE       56          RECTYPU  AMODE24  RMODE24
NTSTRT  PHASE       08          RECTYPU  AMODE24  RMODE24
RDSPLDEF PHASE       86          RECTYPU  AMODE24  RMODE24
USERVSEC PHASE       85          RECTYPU  AMODE24  RMODE24
XCOMALCF PHASE       36          RECTYPU  AMODE24  RMODE24
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
```

Meaning of the column headings:

Column	Meaning
MEMBER	Member name.
TYPE	Member type.
CREATED	Date the member was created.
MODIFIED TIME	Date and time of last modification.
BLOCKS	Number of blocks occupied by member.
SIZE	Number of records in member.
VV.MM	Version number and modification level of the current version of the member. If this field is not blank, previous versions for this member exist, and Natural ISPF versioning is active when this member is edited.
ATTR	Attributes of objects and phases

The lists appear in Natural ISPF Editor format in BROWSE mode. This means you can use all available Editor BROWSE commands (UP, DOWN, BOTTOM, TOP, FIND, LOCATE).

Example: LIST (3)

The following figure illustrates a list of members generated using the SCAN= option in the command:

```

LIST MEM IJSYSRS.SYSLIB(D*) SC=FCT

LIST-MEM:IJSYSRS.SYSLIB(D*.) /SC=FCT ----- Row 0 of 9 - Columns 010 059
COMMAND===>                                     SCROLL===> CSR
MEMBER          TYPE          NUM FIRST FOUND
** ***** top of list *****
DFHFCTSO        A              8 TITLE 'DFHFCTSO -
DFHFCTSP        A              8 TITLE 'DFHFCTSP -
DFHSITSP        A              1 FCT=SP,
DFHFCTSO        OBJ           4 PHASE DFHFCTSO,*
DFHFCTSP        OBJ           4 PHASE DFHFCTSP,*
DFHFCTSO        PHASE         1 *DFHFCTSO*   0170U   PIDL
DFHFCTSP        PHASE         1 *DFHFCTSP*   0170U   PIDL
DFHSITSP        PHASE         1 *DFHSITSP*   q0170U   PIDL
DTSFDUMP        PHASE         1 AUXP7      G      MFH
** ***** bottom of list *****

Enter-PF13--PF14--PF15--PF16--PF17--PF18--PF19--PF20--PF21--PF22--PF23--PF24---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left Right Curso
    
```

If you select a member from a list generated with the Scan for option for EDIT or BROWSE, the cursor will be placed on the first occurrence of the string. If you then issue the RFIND command, the cursor is placed on the next occurrence.

Example: INFORMATION

The following information screen is displayed as a result of the command:

```
INFO NPR131.TEST1(UEDTB1.A)
```

Information is shown on member UEDTB1 of Type A in the sublibrary TEST1 in the library NATPROC.IV131.SYSTEM.LIBRARY (standard label name NPR131):

```
----- VSE MEMBER INFO -----
COMMAND ==>

Dsname/Library:  NATPROC.IV131.SYSTEM.LIBRARY
Sub library   :  TEST1
Member       :  UEDTB1
Member type  :  A

Version      :  01.03           Maximum no. of versions : 10_
Modified    :  19980826 10:28.11 Actual no. of versions : 3
Size        :                   32

Enter-PF13--PF14--PF15--PF16--PF17--PF18--PF19--PF20--PF21--PF22--PF23--PF24---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
```

The information fields in this display speak for themselves. Note that you can modify the maximum number of versions field here to override the default value set by the system administrator.

Line Commands

You select a member from a list by typing in a line command in the input field preceding the member name and pressing Enter. Each line command is an abbreviation of a function command (but see the special LIST line command for a member):

Line Command	Corresponding Function Command
B	BROWSE
CP	COPY
D	DELETE
E	EDIT
EX	EXPORT
HL	HOLD
I	INFORMATION
L	LIST versions of the member
PL	PLAY
PR	PRINT
R	RENAME
SB	SUBMIT

Line commands can also be used as valid abbreviations of function commands entered in the command line of any system screen.

Local Commands

In Edit Mode:

If you display a member in Editor format in EDIT mode, you can issue local commands from the Editor command line in addition to Editor commands.

The following local commands are available:

Command	Meaning
DATA YES/NO	Does the edited member contain SYSIPT data? Specify YES or NO.
IMPORT	Imports a PC file or Con-nect document into the member (see the section Useful Features).
MSHP YES/NO	Should MSHP protection be bypassed? Specify YES or NO.
PASSWORD <password>	If the member is password-protected, use this command to enter the valid password in order to update the member. If you enter the PASSWORD command without parameter, a window prompts you for the password. Password input in the window is invisible.
REGENERATE	Available for members written using the Edit macro option. Reexecutes the specified macro object and writes the result in protected lines in the current edit session. Any defined user code remains in place. For details, see the section Macro Facility in the Natural ISPF Programmer's Guide.

In List Mode:

If you display lists of VSE/ESA members in Editor format, you can issue the following local commands in addition to Editor scroll commands: ALL, LAYOUT, RELIST and SORT. For detailed information, see the corresponding subsections in the section Useful Features.

Previous Versions

Previous versions of VSE/ESA members can be listed and retrieved (see the line command **L** for **LIST**). They are separate objects in Natural ISPF, accessible via the VSE Members Entry Panel or using function commands that address object type **VV** from any screen. To activate the versioning feature, you must issue the command **VERSIONS ON** before starting your edit session.

Note that previous versions of VSE/ESA members are kept for the physical dataset name. This means that you cannot use the same dataset name for files on different volumes or VSAM catalogs if you wish to use the versioning feature.

For details on versioning in Natural ISPF, see the subsection **Versioning** in the section **Useful Features**.

Concurrent Editing of VSE/ESA Members

When you save a VSE/ESA member, Natural ISPF checks if the member has been modified by another user or another session while you were editing. If this is the case, you are notified by a message and the **SAVE** operation is not executed.

You can use the **BROWSE** command to inspect the member and you can decide whether to override it with your latest modifications or not. To override it, you can either:

- use the **REPLACE** command for the existing member, or
- delete the existing member and then save the version with your latest changes.

Note:

Checking for concurrent editing of VSE/ESA members is an optional feature of Natural ISPF which may or may not have been activated by your system administrator.

VSE/ESA File Maintenance

The VSE/ESA file maintenance facility provides functions that include **LIST**, **BROWSE**, **RENAME**, **ALLOCATE** and **DELETE** datasets. You can also display dataset information and access sublibraries and members from a list of datasets.

Note:

You can use this facility to access volume information.



To enter the VSE/ESA file maintenance facility

- Select the **VSE FILES** option from the Natural ISPF Main Menu.

The VSE Files Entry Panel appears:

```

-----VSE FILES - ENTRY-PANEL-----
COMMAND ===>

Library/DSN  ===>
Volume      ===>
VSAM catalog ===>
Password    ===>                ( If password protected )
Record format ===>
Record length ===>
Block size  ===>
Node        ===>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Split End   Suspe Rfind Rchan Up    Down  Swap  Left  Right Curso
    
```

You can specify the file you wish to maintain in the input fields and enter a function command in the command line. Meaning of the input fields:

Field	Meaning
Library/DSN	Displays the file name last used. You can select any other dataset by overtyping this name, or generate a selective list of datasets on the specified volume by using strings and wildcards (* and _) as described in the subsection Selection Windows and Wildcards in the section Command Logic. You can also use the library name (standard label) in this field.
Volume	For non-VSAM installations: Required only if the dataset has no label definition. To list volume serial numbers, leave the Library/DSN field blank and use the wildcard * as described above.
VSAM catalog	For VSAM installations: Required only if the dataset has no label definition.
Password	System password if dataset is protected.
Record format*	Required when issuing EDIT or BROWSE for a sequential file.
Record length*	Required when issuing EDIT or BROWSE for a sequential file.
Block size*	Required when issuing EDIT or BROWSE for a sequential file.
Node	Select Entire System Server node. Enter a question mark ? and press Enter to open a window in which all node numbers are scrolled with an ACTIVE or INACTIVE status report. If you do not specify a node, the default node is assumed.

* These parameters are not available as keyword parameters in command syntax and must therefore be entered in the VSE Files Entry Panel. In general, these parameters are also required for the functions PRINT, COPY and EXPORT.

Function Commands

The available function commands are:

Command	Object Parameter Syntax
ALLOCATE	library/dsn VOL/CAT=n
BROWSE*	library/dsn VOL/CAT=n NODE=id
COPY*	library/dsn VOL/CAT=n NODE=id, object-type object-parameters, REP
DELETE	library/dsn VOL/CAT=n NODE=id
EDIT*	library/dsn VOL/CAT=n NODE=id
EXPORT*	library/dsn VOL/CAT=n NODE=id
EXTENTS	library/dsn VOL/CAT=n NODE=id
INFORMATION	library/dsn VOL/CAT=n NODE=id
LIST	(*_*) VOL/CAT=n NODE=id
PRINT*	library/dsn VOL/CAT=n NODE=id, printer-name CC NO
RENAME	library/dsn VOL/CAT=n NODE=id, new-name

* Apply to sequential files only.

The VOL parameter (non-VSAM) or CAT parameter (VSAM) is required only if the specified dataset has no label definition.

A full description of these commands, including the function parameters, is contained in the section Command Reference. The object parameters correspond to the input fields on the VSE Files Entry Panel.

Note:

If you issue any of the above function commands from outside the dataset facility, you must specify the object-type parameter FIL before the object parameters.

Example: ALLOCATE

With the ALLOCATE command, you can allocate a new dataset specified in the dataset name parameter. Natural ISPF provides a special feature here. If you issue the ALLOCATE command for an existing (allocated) dataset, the information for the dataset is displayed in the following format:

```

----- ALLOCATE VSE DATASET -----
COMMAND ==>

Data set name ==> VSE.SYSRES.LIBRARY
Volume Serial      ==> VSERES
or Generic Unit    ==>
Dataset Organization ==> SD
Extent start      ==>                (Leave BLANK for any free space)
Extent size       ==>
Expiration Date   ==> 99365          ('YYDDD')
Node              ==>

Press ENTER to allocate
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso
    
```

You can enter in the name of the dataset to be allocated by overtyping the value in the Data set name field. Modify any other value as required and press Enter to perform the allocation.

Meaning of the fields:

Field	Meaning
Volume Serial	Serial number of the volume on which the dataset is to be allocated.
Generic Unit	If you do not specify a volume, specify the generic identifier from which a volume is to be selected (for example: 3380).
Dataset Organ.	For example: DA Direct access SD Sequential disk UN Unknown or unidentified VS VSAM
Extent start	Specify track number on CKD disks and block number on FBA disks on which extent is to start. If you leave this field blank, any free space is found and allocated.
Extent size	Specify tracks on CKD disks and blocks on FBA disks.
Expiration Date	Date the file will expire. Until this date is reached, each attempt to update or delete the file will cause a console message, requiring an operator reply.
Node	Node number for dataset.

Example: INFORMATION

The following figure is the result of the INFORMATION command issued for a VSE/ESA dataset.

The fields in the information screen reflect the specification of the allocation parameters described for the ALLOCATE command above, with additional information such as current number of cylinders and tracks, as well some information about allocated extents:

```

----- DATA SET INFORMATION -----
COMMAND ===>

DATA SET NAME : VSE.SYSRES.LIBRARY

GENERAL DATA
VOLUME SERIAL      : DOSRES
DEVICE TYPE       : 3380
ORGANIZATION      : SD
RECORD FORMAT     :
RECORD LENGTH     :
BLOCK SIZE        : 8192
ALLOCATION         : 63          CYL    0    TRK
ALLOCATED EXTENTS : 1
SECURITY          :

CREATION DATE     : 19980393
EXPIRATION-DATE  : 31121999

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso

```

To display the file extents, use the command EXTEND or the abbreviation ET. See the following example.

Example: EXTENT

The following figure is the result of the EXTENT command issued for a VSE/ESA dataset:

```

EXTENTS-FIL:MKH.DATA.TEST ----- Columns 001 052
COMMAND===>                                SCROLL===> CSR
VOLSER NR. BEGIN   END     SIZE   RELATIVE
** ***** top of list *****
ESAPU5   1 321-00  327-09  6-10    4815/100
ESAPU5   2 947-00  950-04  3-05    14205/50
** ***** bottom of list *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right TOP

```

The EXTENT fields have the following meaning:

Field	Meaning
Begin	Beginning of extent in cylinder and track number.
End	End of extent in cylinder and track number.
Size	Extent size in cylinder and track.
Relative	Starting track number and total number of tracks.

Example: LIST Data Sets

The following list of datasets is the result of the command:

```
LIST FIL VSE*
```

```
LIST-FIL:VSE* ----- Row 0 of 20 - Columns 053 076
COMMAND====>                                SCROLL====> CSR
  DATA SET NAME                               VOLSER          TYPE    F.NAME
** ***** top of list *****
  VSE.SYSRES.LIBRARY                           VSERES          LIBR    IJSYSRS
                                                VSERES          IJSYSR2
  VSE.POWER.QUEUE.FILE.RAW                     VSERES          IJQFILE
  VSE.SYSTEM.HISTORY.FILE.RAW                  VSERES          IJSYSHF
  VSE.DUMP.LIBRARY                             SYSWK1          LIBR    SYSDUMP
  VSESP.JOB.MANAGER.FILE.RAW                   SYSWK1          VSEJMGR
  VSE.HARDCOPY.FILE.RAW                       SYSWK1          IJSYSCN
  VSE.RECORDER.FILE.RAW                       SYSWK1          IJSYSRC
  VSE.POWER.DATA.FILE.RAW                     SYSWK1          IJDFILE
  VSE.CONTROL.FILE                            IESCNTL
  VSE.TEXT.REPSTORY.FILE.RAW                   IESTRFL
  VSE.TEXT.REPSTORY.WORKFILE.RAW               IESTRWF
  VSE.MESSAGES.ONLINE                          IESMSGSGS
  VSE.ONLINE.PROB.DET.FILE.RAW                 IESPRB
  VSE.MESSAGE.ROUTING.FILE.RAW                IESROUT
  VSE.PRDL.LIBRARY                             PRD1
                                                PRDPRIM
  VSE.PRDL2.LIBRARY                             LIBR    PRD2
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left Right Curso
```

The list lists all datasets starting with VSE/ESA on the node specified in the Main Menu of the current session.

Meaning of the data provided for each dataset (scroll right to display all columns):

Column	Meaning
VOLSER	Volume serial number
TYPE	Library type. Possible values: <blank> No Librarian file. LIBR VSE/ESA Librarian file.
F.NAME	Library name (standard label).
CLASS	Device class, for example: DASD direct access TAPE tape
SERIES	Device series

Example: LIST a VTOC

The following shows an example VTOC generated using the command:

```
LIST FIL * VOL=SYSWK1
```

```
LIST-FIL:*/VOL=SYSWK1 ----- Row 0 of 57 - Columns 046 076
COMMAND===>                                SCROLL===> CSR
DATA SET NAME                                RELAT/SIZE DO X BEGIN
** ***** top of list *****
** VTOC EXTENT **                            4755/15    UN 0  317-
VSE.RECORDER.FILE                            8640/45    UN 0  576-
VSE.POWER.DATA.FILE                          6795/1740  DA 0  453-
VSE.POWER.ACCOUNT.FILE                       8535/60    DA 0  569-
VSESP.JOB.MANAGER.FILE                       8595/15    SD 0  573-
VSE.SYSTEM.HISTORY.FILE                      8685/75    UN 0  579-
Z9999992.VSAMDSPC.T9DB7B95.T8C90C94         975/2205  VS 0   65-
Z9999994.VSAMDSPC.T9DB7B95.TC3F350C         3780/135   VS 0  252-
Z9999992.VSAMDSPC.T9DB7B96.T30EBED4         3915/840   VS 0  261-
VSE.DUMP.LIBRARY                             3180/600   SD 0  212-
ICCF.LIBRARY                                 4770/1785  DA 0  318-
INFO.ANALYSIS.DUMP.MGNT.FILE                 8760/10    SD 0  584-
INFO.ANALYSIS.EXT.RTNS.FILE                  8770/5     SD 0  584-
WORK.HIST.FILE                               900/75     UN 0   60-
VSE.HARDCOPY.FILE.SHR2                       6555/30    UN 0  437-
VSE.HARDCOPY.FILE                            8610/30    UN 0  574-
COM441.VSE.HISTORY                           15/30     UN 0   1-
VTAM.TRACE.FILE                              8775/15    SD 0  585-
VSE.RECORDER.FILE.SHR2                       6585/45    UN 0  439-
VSE.RECORDER.FILE.TFS                        6660/45    UN 0  444-
```

The list contains all files on volume SYSWK1. You must scroll right to display all the information provided (RIGHT command, usually assigned to PF11).

Meaning of the data provided for each file:

Column	Meaning
DO	File organization type. Possible types are: DA Direct access SD Sequential disk UN Unknown or unidentified VS VSAM
X	Extent number.
RELAT/SIZE	For a CKD disk: starting track/block and size of the space on which the file resides. For an FBA disk: size of file in blocks.
BEGIN	Starting cylinder head or PBN on which the file resides.
END	Ending cylinder head or PBN on which the file resides.
EXP-DATE	Date the file will expire. Until this date is reached, each attempt to update or delete the file will cause a console message, requiring an operator reply.

Example: LIST Volumes

Volumes are separate objects in Natural ISPF, but have no Entry Panel. You can access volume information using the VSE File Entry Panel, or using a function command that addresses object type DV.

The following figure illustrates a list of all volumes generated using the command:

```

LIST DV *

LIST-DV: ----- Row 0 of 14 - Columns 001 044
COMMAND====>                                SCROLL====> PAGE
UNIT VOLSER CLASS SERIES STATUS MOUNT
** ***** top of list *****
225 TFS801 DASD 3380 ONLINE
226 TFS802 DASD 3380 ONLINE
227 TFS803 DASD 3380 ONLINE
228 TFS804 DASD 3380 ONLINE
22A PQA001 DASD 3380 ONLINE
A00 VSERES DASD 3380 ONLINE
A01 SYSWK1 DASD 3380 ONLINE
A02 VSE410 DASD 3380 ONLINE
A03 VSE420 DASD 3380 ONLINE
A04 VSE430 DASD 3380 ONLINE
A05 VSE440 DASD 3380 ONLINE
A08 VSE470 DASD 3380 ONLINE
A14 VSEUC3 DASD 3380 ONLINE
A18 VSERAW DASD 3380 ONLINE
** ***** bottom of list *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up      Down Swap Left Right Curso
    
```

Meaning of the column headings:

Column	Meaning
UNIT	Unit address
VOLSER	Volume serial number
CLASS	Device class, for example: DASD Direct access TAPE Tape
SERIES	Device series
STATUS	Device status. Possible values: CHANGE Device status is changing. OFFLINE Device is offline. ONLINE Device is online.
MOUNT	Device mount status. Possible values: MOUNT PEND Mount is pending. NOT READY Device not ready. REMOVABLE Device is removable (e.g., a tape). RESERVED Device is reserved. RESIDENT Device is resident (e.g., a hard disk).

You can select a volume and list its contents (VTOC) by entering the line command L in the input field preceding the UNIT notation.

Line Commands

When listing datasets, the line commands in the following table are available. When listing volumes, only the L line command is available.

Line Command	Corresponding Function Command	Remarks
A	ALLOCATE	
B	BROWSE	Sequential datasets only.
CP	COPY	Sequential datasets only.
D	DELETE	
E	EDIT	Sequential datasets only.
ET	EXTENTS	
EX	EXPORT	Sequential datasets only.
I	INFORMATION	
L	LIST	From a list of volumes, lists datasets on a volume; from a list of files, lists sublibraries.
PR	PRINT	Sequential datasets only.
R	RENAME	

Line commands can also be used as valid abbreviations for function commands entered in the command line of any screen.

Local Commands

In Edit Mode:

If you display a file in Editor format in EDIT mode, you can issue local commands from the Editor command line in addition to Editor commands.

The following local commands are available:

Command	Meaning
IMPORT	Imports a PC file or Con-nect document into the sequential dataset (see the section Useful Features).
PASSWORD <password>	If the file is password-protected, use this command to enter the valid password in order to update the file. If you enter the PASSWORD command without parameter, a window prompts you for the password. Password input in the window is invisible.

In List Mode:

If you display lists of VSE/ESA files in Editor format, you can issue the following local commands in addition to Editor scroll commands: ALL, LAYOUT, RELIST and SORT. For detailed information, see the corresponding subsections in the section Useful Features.

VSE/ESA Job Information

The job information facility allows you to display job information.

▶ To enter the job information facility

- Select the JOBS option from the Natural ISPF Main Menu.

The Jobs Entry Panel appears:

```

----- JOBS - ENTRY PANEL -----
COMMAND ===>

Job Name      ===>
Job Number    ===>
Queue         ===>                ( R,L,P,X          )
Class         ===>                ( Output/Execution class )
Disposition   ===>                ( *,L,D,K )
User          ===>
Destination   ===>
System Id     ===>
Node          ===> 33

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left Right Curso

```

You can specify the job you wish to handle in the input fields and enter a function command in the command line.

The meaning of the input fields is explained in the following table:

Field	Meaning
Job Name	Job name on the job card. Leave blank or use strings and wildcards (* and _) to generate a more selective list of member names in the specified library. See the subsection Selection Windows and Wildcards in the section Command Logic.
Job Number	Job number assigned. Only the combination of job name and number uniquely identifies a submitted job (if more than one copy of the same job is active).
Queue	Job entry system queue. Possible options: L List queue P Punch queue R Reader queue X Transmit queue
Class	Installation-specific job class. Combinations are possible to display a list of jobs of several classes
Disposition	How job is handled in R queue. Possible options: * Active D Delete after processing (job starts automatically). H Hold job (must be started explicitly). K Keep after processing. Starts automatically as D, after run disposition is L. L Leave in queue after processing (must be started explicitly).
User	When using the LIST function, you can restrict the list of jobs by specifying a user ID in this field. You can use the wildcard *. Only the jobs submitted by the specified user(s) are selected for display.
Destination	When using the LIST function, you can restrict the list of jobs by specifying a destination in this field. You can use the wildcard *. Only the jobs for the specified destination(s) are selected for display.
System Id	When using the LIST function, you can restrict the list of jobs by specifying a system ID in this field. You can use the wildcard *. Only the jobs under the specified system(s) are selected for display.
Node	Node ID of machine on which the job ran. Enter a question mark ? and press Enter for a list of available nodes. Leave blank to select the default node.

Function Commands

The available function commands are:

Command	Object Parameter Syntax
BROWSE	job-number job-name NODE=id
CC	job-number job-name NODE=id
CHANGE	job-number job-name NODE=id, NEWCLASS=c NEWDEST=dest COPIES=nnn DISP=disp PRIORITY=p
COPY	job-number job-name NODE=id, object-type object-parms, REP
EXPORT	job-number job-name NODE=id, target-environment
FOLLOW	job-number job-name NODE=id
HOLD	job-number job-name NODE=id
LIST	.*_* QUEUE=q CLASS=c DISP=d USER=userid DEST=dest SYSID=sysid NODE=id
PRINT	job-number job-name NODE=id, printer-name CC NO
PURGE	job-number job-name NODE=id
RELEASE	job-number job-name NODE=id
STATUS	job-number job-name NODE=id

You can specify a job by name, number or both. If you use both, the job number must come first.

A full description of these commands (including the function parameters) is contained in the section Command Reference. The object parameters correspond to the input fields on the Jobs Entry Panel.

Note:

If you issue any of the above function commands from outside the JOBS facility, you must specify the object type DJ before the object parameters.

Below are some examples of function commands using command syntax.

Example: LIST Jobs

The following figure shows the result of the command:

```
LIST DJ * DISP=*
```

The list contains all jobs in the Active queue:

```

LIST-DJ:*/DISP=* ----- Row 0 of 9 - Columns 029 076
COMMAND===>
          JOBNAME  JOBNO  Q  NUM  C  D  PR  STAT FROM      TO      CP  PAGES RECORDS ID  CP
** ***** top of list *****
CICSWMZ2 23871 R    2 * 003          1    0    99 F2  0:
VTAMWMZ 21742 R    3 * 003      SYSA    1    0    16
COMPWMZ 23671 R    4 * 003          1    0   156 F4  3:
ADABAS   23668 R    5 * 003          1    0    48 F5  1:
SQLSTART 21746 R    6 * 003      SYSA    1    0    10 F6  0:
NETPASS  23670 R    8 * 003          1    0    16 F8  0:
NETW531  23669 R    9 * 003          1    0    39
DELACC   23800 R    C * 003          1    0    11 C1  0:
NOM      23700 R    T * 003      PJ     1    0    41 FB  1:
** ***** bottom of list *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso

```

You must scroll right to display all available information items (use the RIGHT command, usually assigned to PF11).

The list appears in Editor format in BROWSE mode.

Meaning of the column headings:

Field	Meaning
JOBNAME	Name of job on job card
JOBNO	Number of job
Q	Job entry system queue
NUM	Number of output dataset, if segmented
C	Job class
D	Disposition
PR	Job priority
STAT	Job status
FROM	Owner of the job, that is, user who issued SUBMIT (corresponds to the USER parameter on the Jobs Entry Panel)
TO	Destination of job.
CP	Number of copies of the job.
PAGES	Number of pages of the job.
RECORDS	Number of records
ID	Partition ID
CPU	CPU time consumed in minutes
IO	Number of I/O operations performed so far.
STEP	Name of step currently executed
PROC	Name of procedure currently executed
REG	Real storage used by address space in Kbytes
SYSID	System ID

This list of submitted jobs is refreshed every time you press Enter.

Example: BROWSE

The command:

```
BROWSE DJ CICS*
```

displays an active help window with a list of all jobs that start with CICS. Select a job by marking it with any character and press Enter to display the job output.

Example: CHANGE

The command:

```
CH DJ MYJOB CLASS=C
```

changes the class of the job MYJOB in a VSE/ESA environment from C to a new class, and/or assigns other job attributes, which are prompted. If there is more than one copy of the job, use the job number parameter.

Line Commands

The following line commands are available from lists of jobs:

Line Command	Corresponding Function Command
B	BROWSE
CC	CC
CH	CHANGE
CP	COPY
EX	EXPORT
FL	FOLLOW
HL	HOLD
PG	PURGE
PR	PRINT
RL	RELEASE
ST	STATUS

You can also use line commands as valid abbreviations for function commands entered in the command line of any screen.

Local Commands

In List Mode:

If you display lists of VSE/ESA jobs in Editor format, you can issue the following local commands in addition to Editor scroll commands: ALL, LAYOUT, RELIST and SORT. For detailed information, see the corresponding subsections in the section Useful Features.

VSE/ESA System Operations

With the system operations facility, you can perform certain monitoring and administrative functions: you can display the system log, active jobs, the console, and you can issue operator commands.

To enter the system operations facility, select the SYSTEM option from the Natural ISPF Main Menu. The System Facilities Menu appears:

```

-----SYSTEM-FACILITIES-----
OPTION  ===>

      1  LOG          - Display system log
      2  VSE ACTIVE  - Display address space information
      3  CONSOLE     - Console display and commands
      4  UNITS       - Display unit information

                                Userid  MBE
                                Time    16:33:21
                                Terminal 1
                                Library  MBE
                                Node

```

The System Facilities Menu provides four options:

- LOG: display system log;
- VSE ACTIVE: display active job information according to selection criteria;
- CONSOLE: display console and issue operator commands.
- UNITS: list units and display unit information.

For descriptions of the LOG, CONSOLE and UNITS options, see the corresponding subsections in the subsection OS/390 System Operations in the section OS/390 Objects in this documentation. The VSE ACTIVE option is described in the following subsection.

Active Jobs Display

You can access active job information by using the System Facilities Menu. Active jobs are also separate Natural ISPF objects with object type DA (see the subsection Function Commands).

If you select the VSE ACTIVE option from the System Facilities Menu, the Active Jobs Entry Panel appears:

```

-----ACTIVE-JOBS--ENTRY-PANEL-----
COMMAND ===>

      Job          ===>
      Node         ===>
    
```

Meaning of the input fields:

Field	Meaning
Job	Job name. Use strings and wildcards (* and _) to generate a more selective list of jobs as described in the subsection Selection Windows and Wildcards in the section Command Logic.
Node	Optional. Specify Entire System Server node.

You can enter selection criteria in the input fields and enter a function command in the command line.

Function Commands

The following function command is available for active jobs:

Command	Object Parameter Syntax
LIST	*_ _* NODE=id

Note:

If you issue this command from outside the active jobs facility, you must specify object type DA before the object parameters in the command syntax.

Below is an example of the LIST command.

Example: LIST Command

The following figure shows a list of active jobs generated using the command:

```

LIST DA *
-----
LIST-DA:* ----- Row 0 of 12 - Columns 001 076
COMMAND===>
          SCROLL===> CSR
  ID JOBNAME  CLASSES STEP      PROC      JOBNO  DP VSIZ RSIZ CPU   IO    RID
** ***** top of list *****
  BG NO NAME                12 1536   0 0:00.00    3
  FB NO NAME                11 2048   0 0:00.00    3
  FA NUC002                ADARUN      00032  10 5120  128 2:05.89 29254
  F9 SMAI040                ADARUN      01150   9 2048   0 0:00.90  1158
  F8 PQACOMPL                PQACOMPL    05077   8 4096 1024 3:45.04 12381 024
  F7 NO NAME                7 1024   0 0:00.07    68
  F6 NO NAME                6 1024   0 0:00.07    68
  F5 NPRNUC                NPRINIT      00035   5 2048   0 2:42.39 44925 005
  F4 NO NAME                4  576  128 0:00.07    68
  F3 VTAMRAW                ISTINCVT     00030   2 3072  424 0:06.98  5444
  F2 NO NAME                3 7424 1024 0:00.00    3
  F1 POWSTART                RAWPOWER POWSTRT6   1  768   64 0:03.86  3678
** ***** bottom of list *****

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up      Down Swap Left  Right Curso
    
```

The list shows all active jobs. Meaning of the column headings:

Column	Meaning
ID	Partition number (ID).
JOBNAME	Job name.
CLASSES	Job class(es) serviced by this partition under the control of VSE/ESA/POWER.
STEP	Name of step currently executed.
PROC	Name of procedure currently executed.
JOBNO	Job number.
DP	Dispatching priority.
VSIZ	Partition size in Kbytes.
RSIZ	Amount of real storage allocated by VSE/ESA to the partition in Kbytes.
CPU	CPU time consumed by address space in minutes.
IO	Number of I/O operations performed so far.
RID	Outstanding operator reply ID associated with the job.

The list is refreshed every time you press Enter.