

# LIB-DIRECTORY

<b>File</b>	3
<b>Op-Sys</b>	OS/390, VSE/ESA, BS2000/OSD
<b>Statement</b>	FIND
<b>Task</b>	This view reads the directory of the specified library and returns the entries record by record.

---

## Common Fields for all Operating Systems

Dictionary Field Name	F/L	Mu	DE	Remarks
ERROR-CODE	N3			
ERROR-TEXT	A58			
NODE	N5		D	
NODE-NAME	A16		D	
SYSTEM-MESSAGE-CODE	A10			
DSNAME	A54		D	Required in OS/390 and BS2000/OSD.
PASSWORD	A8		D	

## Additional Fields Supported for OS/390

Dictionary Field Name	F/L	Mu	DE	Remarks
ALIAS	A8		D	
ALIAS-ORIGINAL	A8		D	
LONG-ALIAS	A3		D	
MEMBER	A10		D	
MEMBER-LONG-NAME	A253		D	Valid only if LONG-ALIAS = 'YES' requested.
MEMBER-TTR	B4		D	
MODULE-ATTRIBUTES	A80		D	
MODULE-LENGTH	N7		D	
NUMBER-OF-OCCURRENCES	N7		D	
OPTIONS	A80		D	
PRODUCT	A1		D	
RECORD	A200		D	
USER-DATA	A120		D	
USER-DATA-LENGTH	N3		D	
VERSION	A2		D	
VOLSER	A6		D	Required only if dataset is not cataloged.

## Additional Fields Supported for VSE/ESA

Dictionary Field Name	F/L	Mu	DE	Remarks
BLOCK-COUNT	N5		D	Number of blocks used by the member or sub-library.
DATE-CHANGED	A6		D	
DATE-CREATED	A6		D	Creation date of member or sub-library in format YYMMDD.
DATX-CHANGED	D		D	
DATX-CREATED	D		D	Creation date of member or sub-library in internal format.
LIBRARY	A8		D	Required.
LIBRARY-BLOCKS-USED	N7		D	Relevant if LIST-SUBLIBS=YES.
LIST-SUBLIBS	A3		D	Not required if SUB-LIBRARY is specified.
MEMBER	A10		D	
MEMBER-COUNT	N5		D	Relevant if LIST-SUBLIBS=YES.
MEMBER-TYPE	A8		D	
MODULE-ATTRIBUTES	A80		D	
RECORD-COUNT	N7		D	
SUB-LIBRARY	A8		D	Not required if LIST-SUBLIBS is specified.
TIME-CHANGED	N7.0			
TIME-CREATED	N7.0			Creation time of member (a numeric value equivalent to HHMMSS).
USER-DATA	A120		D	
USER-DATA-LENGTH	N3		D	
VOLSER	A6		D	Required only if dataset is not known to Entire System Server.
VSAM-CATALOG	A8		D	Required only if VSAM-controlled CA-Librarian file.

## Additional Fields Supported for BS2000/OSD

<b>Dictionary Field Name</b>	<b>F/L</b>	<b>Mu</b>	<b>DE</b>	<b>Remarks</b>
CREATION-DATE	A14		D	
CREATION-TIME	A8		D	
ELEMENT	A64		D	
ELEMENT-TYPE	A8		D	
ELEMENT-VERSION	A24		D	
EXEC-PROTECTION	A5			
MODIF-DATE	A14		D	
MODIF-TIME	A8		D	
PRODUCT	A1		D	
READ-PROTECTION	A5			
STORE-FORM	A1		D	
SYSTEM-CODE	B2			
USER-DATE	A14		D	
USER-DATX	D		D	
USER-TIME	A8		D	
USER-TIMX	T		D	
WRITE-PROTECTION	A5			

## Relevant Error Codes

Code	Text	OS/390	VSE/ESA	BS2000/OSD
500	VSAM error	X		
530	Access denied by Security Facility			X
531	Password missing or incorrect			X
550	File not a PDS	X		
565	Syntax error in dataset name			X
697	Library/Sublib not found		X	
698	Internal CA-Librarian error		X	
699	GETVIS failed	X	X	
701	DSNAME missing			X
733	User ID does not exist			X
772	Requested dataset not found			X
799	Entire System Server internal error			X
878	Volume defined as CA-Dynam/D pool name.		X	
899	I/O error during read	X		
906	DESERV error, R15=xxxxxxx, R0=xxxxxxx	X		
991	Unknown product	X		X
993	OPEN error	X		

## Field Descriptions

Field Name	Type/Length	Operating System
ALIAS	(A8)	OS/390

Possible values:

Value	Explanation
YES	Member name is an alias name.
NO	Member name is an original name.

Field Name	Type/Length	Operating System
ALIAS-ORIGINAL	(A8)	OS/390

If ALIAS=YES, original name of the member (load libraries only).

Field Name	Type/Length	Operating System
BLOCK-COUNT	(N5)	VSE/ESA

Number of blocks used by the member.

Field Name	Type/Length	Operating System
CREATION-DATE	(A14)	BS2000/OSD

Creation date of element.

Field Name	Type/Length	Operating System
CREATION-TIME	(A8)	BS2000/OSD

Creation time of element.

Field Name	Type/Length	Operating System
DATE-CHANGED	(A6)	VSE/ESA

Date of last change made to the member in format YYMMDD.

Field Name	Type/Length	Operating System
DATE-CREATED	(A6)	VSE/ESA

Creation date of member in format YYMMDD.

Field Name	Type/Length	Operating System
DATX-CHANGED	(D)	VSE/ESA

Date of last change made to the member in Natural format.

Field Name	Type/Length	Operating System
DATX-CREATED	(D)	VSE/ESA

Creation date of member in Natural format.

Field Name	Type/Length	Operating System
DSNAME	(A54)	OS/390, VSE/ESA, BS2000/OSD

Fully qualified dataset name.

Field Name	Type/Length	Operating System
ELEMENT	(A64)	BS2000/OSD

Name of LMS element.

Field Name	Type/Length	Operating System
ELEMENT-TYPE	(A8)	BS2000/OSD

Type of LMS element.

Field Name	Type/Length	Operating System
ELEMENT-VERSION	(A24)	BS2000/OSD

Version of LMS element.

Field Name	Type/Length	Operating System
EXEC-PROTECTION	(A5)	BS2000/OSD

Protection attributes of element for EXECUTION.

Possible values are **Y** (yes) or **N** (no).

Protection Attribute	Meaning
Byte 0:	Special protection.
Byte 1:	OWNER can access.
Byte 2:	GROUP can access.
Byte 3:	OTHERS can access.
Byte 4:	Password defined.

Field Name	Type/Length	Operating System
LIBRARY	(A8)	VSE/ESA

Name of library.

Field Name	Type/Length	Operating System
LIBRARY-BLOCKS-USED	(N7)	VSE/ESA

Relevant when LIST-SUBLIBS=YES. Number of blocks used by the library.

Field Name	Type/Length	Operating System
LONG-ALIAS	(A3)	OS/390

If set to 'YES', will return member alias names longer than 8 bytes in length (see MEMBER-LONG-NAME). Default is 'NO'.

Field Name	Type/Length	Operating System
MEMBER	(A10)	OS/390, VSE/ESA

Name of member.

Field Name	Type/Length	Operating System
MEMBER-COUNT	(N5)	VSE/ESA

Relevant when LIST-SUBLIBS=YES. Number of members in sublibrary.

Field Name	Type/Length	Operating System
MEMBER-LONG-NAME	(A253)	OS/390

If LONG-ALIAS is set to 'YES', then this field will contain the first 253 bytes of member names, including those members whose name length is less than or equal to 8. If LONG-ALIAS is set to 'NO', then this field is equivalent to MEMBER.

Field Name	Type/Length	Operating System
MEMBER-TTR	(B4)	OS/390

Field Name	Type/Length	Operating System
MEMBER-TYPE	(A8)	VSE/ESA

Member type.

Field Name	Type/Length	Operating System
MODIF-DATE	(A14)	BS2000/OSD

Date of last modification to the element.

Field Name	Type/Length	Operating System
MODIF-TIME	(A8)	BS2000/OSD

Time of last modification to the element.

Field Name	Type/Length	Operating System
MODULE-ATTRIBUTES	(A253)	OS/390, VSE/ESA

The module's attributes in keyword format. The relevant keywords are separated by one blank. Possible values:

<b>OS/390 and z/OS</b>	
<b>Keyword</b>	<b>Explanation</b>
1PAGE	First segment is page aligned.
2PAGE	Second segment is page aligned.
1RMODE31	First segment is RMODE 31.
2RMODE31	Second segment is RMODE 31.
AMODE24	Phase has AMODE 24.
AMODE31	Module/alias is AMODE 31.
AMODE64	Module/alias is AMODE 64 (z/OS only).
AMODEANY	Module/alias is AMODE ANY.
AUTH	APF-authorized.
COMPRESSED	Module is in COMPRESSED format.
FETCHPACK	Module is FETCHOPT PACK.
FETCHPRIME	Module is FETCHOPT PRIME.
FILLx	FILL option is set. The character following 'FILL' is the value.  <b>Note:</b> It may not be printable (a MOVE EDITED would be needed to convert the value to hexadecimal).
LOADONLY	Only loadable.
MAMODE31	If alias, main EP is AMODE 31.
MAMODE64	If alias, main EP is AMODE 64 (z/OS only).
MAMODEANY	If alias, main EP is AMODE ANY.
NOTEXEC	Not executable.
OVLV	Overlay.
PAGE	Module is page aligned.
REFR	Refreshable.
RENT	Reentrant.
REUS	Reusable.
RMODE24	Phase has RMODE 24.
RMODE31	Phase has RMODE 31.
RMODEANY	Module is RMODE ANY.
SCTR	Scatter.
SSI	Module has SSI data.
TEST	Test option (TSO).

<b>VSE/ESA</b>	
<b>Keyword</b>	<b>Explanation</b>
AMODEANY	Phase has AMODE ANY.
AMODE24	Phase has AMODE 24.
AMODE31	Phase has AMODE 31.
MSHPBYP	Member is MSHP bypassed.
MSHPCTL	Member is MSHP controlled.
RECTYPEF	Member has fixed record format.
RECTYPEU	Member has undefined record format.
RECTYPEV	Member has variable record format.
RMODEANY	Phase has RMODE ANY.
RMODE24	Phase has RMODE 24.
RMODE31	Phase has RMODE 31.
SYSIPT	Member contains SYSIPT data.

Field Name	Type/Length	Operating System
MODULE-LENGTH	(N7)	OS/390

Length of module in bytes.

Field Name	Type/Length	Operating System
NUMBER-OF-OCCURRENCES	(N7)	OS/390

Number of records which contain the requested string.

Field Name	Type/Length	Operating System
OPTIONS	(A80)	OS/390

Option	Explanation
ARC	Get list of archived members (CA-Librarian access method).

Field Name	Type/Length	Operating System
PASSWORD	(A8)	OS/390, VSE/ESA, BS2000/OSD

Password for protected datasets.

Field Name	Type/Length	Operating System
PRODUCT	(A1)	OS/390, BS2000/OSD

Access method used. Possible options:

Option	Explanation
L	CA-Librarian
M	BS2000/OSD LMS
P	CA-Panvalet

Field Name	Type/Length	Operating System
RECORD	(A200)	OS/390

String for which SCAN is to be performed.

Field Name	Type/Length	Operating System
READ-PROTECTION	(A5)	BS2000/OSD

Protection attributes of element for READ. Possible values are **Y** (yes) or **N** (no).

Protection Attribute	Meaning
Byte 0:	Special protection.
Byte 1:	OWNER can access.
Byte 2:	GROUP can access.
Byte 3:	OTHERS can access.
Byte 4:	Password defined.

Field Name	Type/Length	Operating System
RECORD-COUNT	(N7)	VSE/ESA

Number of records in member.

Field Name	Type/Length	Operating System
STORE-FORM	(A1)	BS2000/OSD

Store form of element. Possible options:

Option	Explanation
D	Delta
V	Full

Field Name	Type/Length	Operating System
SUB-LIBRARY	(A8)	VSE/ESA

Name of sublibrary.

Field Name	Type/Length	Operating System
SUB-LIBS	(A3)	VSE/ESA

Specify YES to return sublibrary names.

Field Name	Type/Length	Operating System
TIME-CHANGED	(N7.0)	VSE/ESA

Time of last change made to the member.

Field Name	Type/Length	Operating System
TIME-CREATED	(N7.0)	VSE/ESA

Creation time of member.

Field Name	Type/Length	Operating System
USER-DATA	(A120)	OS/390, VSE/ESA

User data for the member.

Field Name	Type/Length	Operating System
USER-DATA-LENGTH	(N3)	OS/390, VSE/ESA

Length of user data for the member.

Field Name	Type/Length	Operating System
USER-DATE	(A14)	BS2000/OSD

Date the user specified for the element.

Field Name	Type/Length	Operating System
USER-DATX	(D)	BS2000/OSD

Date the user specified for the element in Natural format.

Field Name	Type/Length	Operating System
USER-TIME	(A8)	BS2000/OSD

Time the user specified for the element.

Field Name	Type/Length	Operating System
USER-TIMX	(T)	BS2000/OSD

Time the user specified for the element in Natural format.

Field Name	Type/Length	Operating System
VERSION	(A2)	OS/390

Version of CA-Panvalet access method.

Field Name	Type/Length	Operating System
VOLSER	(A6)	OS/390, VSE/ESA

Volume serial number.

Field Name	Type/Length	Operating System
VSAM-CATALOG	(A8)	VSE/ESA

Name of the VSAM catalog where the library is kept.

Field Name	Type/Length	Operating System
WRITE-PROTECTION	(A5)	BS2000/OSD

Protection attributes of element for WRITE.  
Possible values are **Y** (yes) or **N** (no).

Protection Attribute	Meaning
Byte 0:	Special protection.
Byte 1:	OWNER can access.
Byte 2:	GROUP can access.
Byte 3:	OTHERS can access.
Byte 4:	Password defined.

## Default Order of Data Returned

In OS/390, members are presented in ascending order. In VSE/ESA, members are presented in ascending order, grouped by member type.