

# VTOC

<b>File</b>	4
<b>Op-Sys</b>	OS/390, VSE/ESA, BS2000/OSD
<b>Statement</b>	FIND
<b>Task</b>	List the VTOC of a specified disk with related information such as volume serial number, dataset name, file size, etc. In BS2000/OSD, this view can be used to display the same information as returned by the system command /FSTAT with the VOL parameter or /SHOW-FILE-ATTRIBUTES with SELECT=BY-ATTRIBUTES(VOLUME=).

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## 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			
VOLSER	A6		D	Required.
DSNAME	A54		D	
FILE-SIZE	N7		D	

## Additional Fields supported for OS/390

Dictionary Field Name	F/L	Mu	DE	Remarks
DSORG	A4		D	
CREATION-DATE	A8		D	
EXPIRATION-DATE	A8		D	
LAST-TTR	B3		D	
EXTENTS	A192		D	
NUMBER-OF-EXTENTS	N3		D	
CYLINDERS-ALLOCATED	N7		D	
UNIT	A4		D	
SERIES	A8		D	
CREATION-DATX	D		D	
EXPIRATION-DATX	D		D	
EXTENT-TYPE	A4		D	
EXTENTS-ARRAY	A192	M/16	D	
LRECL	N5		D	
BLKSIZE	N5		D	
RECFM	A5		D	
ALLOCATION-TYPE	A4			
SECONDARY-QTY	N7			
PERCENT-USED	N3		D	
TRACKS-ALLOCATED	N3		D	
SECURITY	A5			
LAST-REFERENCE	A8		D	
LAST-REFERENCE-DATX	D		D	
UPDATED-SINCE-BACKUP	A3		D	
SMS	A3		D	

## Additional Fields Supported for VSE/ESA

Dictionary Field Name	F/L	Mu	DE	Remarks
DSORG	A4		D	
CREATION-DATE	A8		D	
EXPIRATION-DATE	A8		D	
EXTENTS	A192		D	
NUMBER-OF-EXTENTS	N3		D	
CYLINDERS-ALLOCATED	N7		D	
UNIT	A4		D	
SERIES	A6		D	
CREATION-DATX	D		D	
EXPIRATION-DATX	D		D	
EXTENT-TYPE	A4		D	
EXTENTS-ARRAY	A192	M/16	D	

## Additional Fields Supported for BS2000/OSD

Dictionary Field Name	F/L	Mu	DE	Remarks
SYSTEM-CODE	B2			

## Relevant Error Codes

Code	Text	OS/390	VSE/ESA	BS2000/OSD
500	VSAM error.	X		
530	Access denied by Security Facility.			X
565	Syntax error in dataset name.			X
604	No volumes specified.			X
696	Cannot assign logical unit.		X	
699	Not enough main storage available.	X	X	X
701	DSNAME missing.			X
722	Requested dataset not found.			X
733	User ID does not exist.			X
750	Invalid operand within operand list.			X
781	Unable to obtain storage for work area extension.	X		
782	Error from :1: for :2:, RC :3:, REASON :3:	X		
783	Unable to allocate :1:, RC :2:, REASON :3:	X		
784	Unable to open VTOC on :1:, RC :2:	X		
785	CVAF:1: failed with RC :2: and CVSTAT :3:	X		
799	Entire System Server internal error.			X
899	I-O error during read.	X	X	
996	Volume not online.	X	X	X

## Field Descriptions

Field Name	Type/Length	Operating System
ALLOCATION-TYPE	(A4)	OS/390

Allocation type specified. Possible values:

Value	Explanation
ABS	Absolute
BLK	Block
CYL	Cylinder
TRK	Track

Field Name	Type/Length	Operating System
BLKSIZE	(N5)	OS/390

Block size.

Field Name	Type/Length	Operating System
CREATION-DATE	(A8)	OS/390, VSE/ESA

Dataset creation date in format DD/MM/YY. If no creation date is specified, the field is filled with asterisks \*\*\*\*.

Field Name	Type/Length	Operating System
CREATION-DATX	(D)	OS/390, VSE/ESA

Creation date of file in Natural format.

Field Name	Type/Length	Operating System
CYLINDERS-ALLOCATED	(N7)	OS/390, VSE/ESA

Number of integral cylinders allocated.

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

Fully qualified dataset name when returned as output field. When used as input fields, this field can be used to select further datasets and supports the asterisk notation \* as wildcard selection.

Field Name	Type/Length	Operating System
DSORG	(A4)	OS/390, VSE/ESA

Dataset organization, for example PS for sequential dataset, PO for partitioned dataset, POE for PDSE.

Field Name	Type/Length	Operating System
EXPIRATION-DATE	(A8)	OS/390, VSE/ESA

Dataset expiration date in format DD/MM/YY. If no creation date is specified, the field is filled with asterisks \*\*\*\*.

Field Name	Type/Length	Operating System
EXPIRATION-DATX	(D)	OS/390, VSE/ESA

Expiration date of file in Natural format.

Field Name	Type/Length	Operating System
EXTENTS	(A192)	OS/390, VSE/ESA

Extent information. The field contains 16 entries, each 12 bytes long. Each entry contains the following:

- Low cylinder and head (track) address of extent (binary CCHH)
- High cylinder and head (track) address of extent (binary CCHH)
- Number of cylinders in extent
- Number of additional tracks in extent

Field Name	Type/Length	Operating System
EXTENTS-ARRAY	(A192) M16	OS/390, VSE/ESA

Extent information array of 16 x 16 entries, each 12 bytes long. Each entry contains the following:

- Low cylinder and head (track) address of extent (binary CCHH)
- High cylinder and head (track) address of extent (binary CCHH)
- Number of cylinders in extent
- Number of additional tracks in extent

Field Name	Type/Length	Operating System
EXTENT-TYPE	(A4)	OS/390, VSE/ESA

Possible values:

Value	Explanation
FREE	This entry describes a free extent.
USED	This entry describes a regular data set (default value).
VTOC	Indicates the VTOC extent (OS/390 only).

Field Name	Type/Length	Operating System
FILE-SIZE	(N7)	OS/390, VSE/ESA, BS2000/OSD

Number of tracks currently allocated. (CYLINDERS-ALLOCATED in tracks + TRACKS- ALLOCATED) \* 100. In BS2000/OSD, the number of PAM pages allocated.

Field Name	Type/Length	Operating System
LAST-REFERENCE	(A8)	OS/390

Last reference date in format DD/MM/YY. If the last reference date is null, this field is filled with asterisks \*\*\*\*.

Field Name	Type/Length	Operating System
LAST-REFERENCE-DATX	(D)	OS/390

Last reference date in Natural format.

Field Name	Type/Length	Operating System
LAST-TTR	(B3)	OS/390

Last track.

Field Name	Type/Length	Operating System
LRECL	(N5)	OS/390

Logical record length.

Field Name	Type/Length	Operating System
NUMBER-OF-EXTENTS	(A192)	OS/390, VSE/ESA

Number of extents used. Valid values are 1 - 255.

Field Name	Type/Length	Operating System
PERCENT-USED	(N3)	OS/390

Amount of space used in the dataset as a percentage of total space.

Field Name	Type/Length	Operating System
RECFM	(A5)	OS/390

Record format, for example, FB.

Field Name	Type/Length	Operating System
SECONDARY-QTY	(N7)	OS/390

Secondary allocation.

Field Name	Type/Length	Operating System
SECURITY	(A5)	OS/390

Security status. Possible values:

Value	Explanation
NONE	Not password-protected.
READ	Password-protected for read and write operations.
VSAM	VSAM file.
WRITE	Password-protected for write operations.

Field Name	Type/Length	Operating System
SERIES	(A8)	OS/390, VSE/ESA

Device series for the unit, for example, 3380.

Field Name	Type/Length	Operating System
SMS	(A3)	OS/390

Specifies whether the file is on an SMS-managed unit or device, YES or NO.

Field Name	Type/Length	Operating System
TRACKS-ALLOCATED	(N3)	OS/390

Number of remaining tracks allocated in addition to CYLINDERS-ALLOCATED.

Field Name	Type/Length	Operating System
UNIT	(A4)	OS/390, VSE/ESA

Device number of the unit on which the dataset resides.

Field Name	Type/Length	Operating System
UPDATED-SINCE-BACKUP	(A3)	OS/390

Specifies whether the file has been updated since the last backup, YES or NO.

Field Name	Type/Length	Operating System
VOLSER	(A6)	OS/390, VSE/ESA, BS2000/OSD

Volume serial number.