

FDREPORT

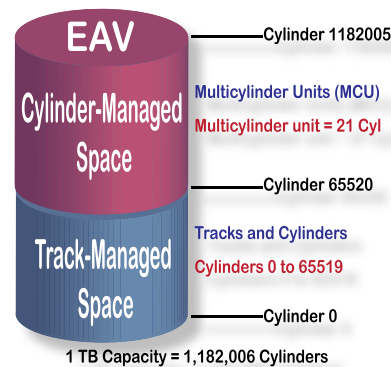
EAV REPORTS

EAV Terminology

Extended Address Volume (EAV) This is a volume with more than 65,536 cylinders. These volumes are referred to as device type 3390 Model A.

EATTR Is a data set attribute that allows a user to control data set allocation to have an Extended Attribute DSCB (Format 8 and Format 9).

Cylinder-managed space The space on the volume that is managed only in multi cylinder units. Cylinder-managed space begins at cylinder address 65,520. Each data set occupies an integral multiple of multi cylinder units. Space requests targeted for the cylinder managed space are rounded up to the next multi cylinder unit. The cylinder managed space exists only on Extended Address Volumes (EAV).



Track-managed space The space on a volume that is managed in tracks and cylinders. Track managed space ends at cylinder address 65,519. Each data set occupies an integral multiple of tracks. Track managed space also exists on all non-Extended Address Volumes.

Breakpoint value (BPV) When a disk space request is this size or more, the system prefers to use the cylinder-managed space for that extent. This applies to each request for primary or secondary space for data sets that are eligible for the cylinder-managed space. If there is not enough cylinder-managed space available, then the system uses the track-managed space or uses both areas. The breakpoint value is expressed in cylinders. When the size of a disk space request is less than the breakpoint value, the system prefers to use the track-managed area, and if there is not enough space available there, then the system uses the cylinder-managed space or uses both areas. This value can be specified in the IGDSMSxx member in parmlib or in the Storage group.

Capacity of Extended Address Volumes Count Key Data (CKD) volumes now support the additional capacity of 1 TB. The 1 TB capacity is an increase in volume size from the previous 223 GB. This support is available for z/OS version 1.12, and later.

NOTE: FDR users require release V5.4/78 or higher to support Extended Address Volumes larger than 223 GB and up to 1 TB.

FDREPORT EAV REPORTS

EAV REPORT #1A:

Display EATTR field and extents of data sets on an Extended Address Volume. It is easy to find out where the data is placed, in the Track-managed space (addresses below 65,520) and/or Cylinder-managed space (addresses equal or greater than 65,520), size (in tracks), and SMS information and the extended attribute. The advantage of reports like this is that you can easily confirm that data sets are allocated as expected in the Track- or Cylinder-managed space. If required you can change the Break Point Value for the Storage Group, or use the EATTR value in the DATACLAS to make data sets eligible for Cylinder-managed space. This job only selects Extended Address Volumes (DEVTYPE 3390-A).

NOTE: FDREPORT allows you to show only the fields you need and in the order you want them, unlike many other reporting utilities.

DISPLAY EATTR FIELD AND EXTENTS										
										DSFLAG1
										ENO
										EOP
										LRG
										EATTR NO - No Extended attributes
										EATTR OPT - Extended attributes are optional
										Data set may exceed 65,535 tracks
DATA SET NAME	VOLSER	UADR	ALLOC	NEX	EXTENT	DESCRIPTORS	STORCLAS	DATACLAS	MGMTCLAS	DSFLAG1
XTRHZB.UST370.TABLES	EU2F0E	2F0E	2	1	00000001-10	00000001-11	EUSCS01			
XTRRLZ.TEST.FDREPORT.RMMVOL	EU2F0E	2F0E	3930	1	00000007-00	00000268-14	EUSCS01			
XTRHES1.VEU2F0E.PS.A0001	EU2F0E	2F0E	1633815	2	00000998-00	00056746-14	EUSCS02			LRG EOP
					00080388-00	00133559-14				
XTRHES1.TSTEAV2.MCU.DATA	EU2F0E	2F0E	1890	1	00066654-00	00066779-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.CPY.DATA	EU2F0E	2F0E	1890	1	00066780-00	00066905-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.CPYL76.DATA	EU2F0E	2F0E	1785	2	00000926-00	00000939-14	EUSCS02	EAVOPT		EOP
					00066906-00	00067010-14				
XTRHES1.TSTEAV2.MCU19A.DATA	EU2F0E	2F0E	315	1	00067011-00	00067031-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEANO.CPY.DATA	EU2F0E	2F0E	165	1	00000940-00	00000950-14	EUSCS02	ENO		
XTRHES1.TSTEAVQQ.DATA	EU2F0E	2F0E	630	1	00067074-00	00067115-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAVZZ.DATA	EU2F0E	2F0E	630	1	00000956-00	00000997-14	EUSCS02			

EAV REPORT #1B:

Report on data sets residing in the Track-managed space.

REPORTING DATA SETS IN TRACK-MANAGED SPACE										
										DSFLAG1
										ENO
										EOP
										LRG
										EATTR NO - No Extended attributes
										EATTR OPT - Extended attributes are optional
										Data set may exceed 65,535 tracks
DATA SET NAME	VOLSER	UADR	ALLOC	NEX	EXTENT	DESCRIPTORS	STORCLAS	DATACLAS	MGMTCLAS	DSFLAG1
XTRHZB.UST370.TABLES	EU2F0E	2F0E	2	1	00000001-10	00000001-11	EUSCS01			
XTRRLZ.TEST.FDREPORT.RMMVOL	EU2F0E	2F0E	3930	1	00000007-00	00000268-14	EUSCS01			
XTRHES1.VEU2F0E.PS.A0001	EU2F0E	2F0E	1633815	2	00000998-00	00056746-14	EUSCS02			LRG EOP
					00080388-00	00133559-14				
XTRHES1.TSTEAV2.CPYL76.DATA	EU2F0E	2F0E	1785	2	00000926-00	00000939-14	EUSCS02	EAVOPT		EOP
					00066906-00	00067010-14				
XTRHES1.TSTEANO.CPY.DATA	EU2F0E	2F0E	165	1	00000940-00	00000950-14	EUSCS02			ENO
XTRHES1.TSTEAVZZ.DATA	EU2F0E	2F0E	630	1	00000956-00	00000997-14	EUSCS02			

EAV REPORT #1C:

Report on data sets residing in the Cylinder-managed space.

REPORTING DATA SETS IN CYLINDER MANAGED SPACE										
										DSFLAG1
										ENO
										EOP
										LRG
										EATTR NO - No Extended attributes
										EATTR OPT - Extended attributes are optional
										Data set may exceed 65,535 tracks
DATA SET NAME	VOLSER	UADR	ALLOC	NEX	EXTENT	DESCRIPTORS	STORCLAS	DATACLAS	MGMTCLAS	DSFLAG1
XTRHES1.TEST.FDREPORT.RMMVOL	EU2F0E	2F0E	4095	1	00065520-00	00065792-14	EUSCS01			
XTRHES1.VEU2F0E.PS.A0001	EU2F0E	2F0E	1633815	2	00000998-00	00056746-14	EUSCS02			LRG EOP
					00080388-00	00133559-14				
XTRHES1.TSTEAV2.MCU.DATA	EU2F0E	2F0E	1890	1	00066654-00	00066779-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.CPY.DATA	EU2F0E	2F0E	1890	1	00066780-00	00066905-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.CPYL76.DATA	EU2F0E	2F0E	1785	2	00000926-00	00000939-14	EUSCS02	EAVOPT		EOP
					00066906-00	00067010-14				
XTRHES1.TSTEAV2.MCU19A.DATA	EU2F0E	2F0E	315	1	00067011-00	00067031-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAVQQ.DATA	EU2F0E	2F0E	630	1	00067074-00	00067115-14	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAVZ1.DATA	EU2F0E	2F0E	630	1	00067116-00	00067157-14	EUSCS02			

NOTE: A data set in both Track-managed space and Cylinder-managed space is always selected and displayed by this job.

FTP member: **FDREPORT_EAV_EATTR_Field_and_Extents.txt** contains all three of these reports in the three steps of the job.

FDREPORT EAV REPORTS

EAV REPORT #2A:

Report on free/allocated space (as percentages) on Extended Address Volumes (EAV) in Track-managed Space and Cylinder-managed Space. This type of report can be very helpful for monitoring how the Track managed and Cylinder managed space of an EAV are allocated and used.

FCM	Cylinder-managed free tracks percent
UCM	Cylinder-managed used tracks percent
FTM	Track-managed free tracks percent
UTM	Track-managed used tracks percent
%TU	Volume tracks used percent (whole EAV)
%TF	Volume tracks free percent (whole EAV)
CYLVOL	Number of cylinders per volume

VOLSER	DEVTYPE	ALLOCBYTES	FCM	UCM	FTM	UTM	%TF	%TU	CYLVOL
SY3292	3390-A	223257.293M	0	100	0	100	0	100	262668
UP180D	3390-A	64299.814M	71	29	13	87	42	58	131334
SH2510	3390-A	45899.257M	100	0	17	83	19	81	66780
UP180E	3390-A	41787.490M	100	0	24	76	62	38	131334
SH2512	3390-A	24919.807M	85	15	99	1	88	12	262668
SY3296	3390-A	9613.841M	83	17	99	1	91	9	133560
SH2514	3390-A	9351.203M	100	0	83	17	83	17	65667

EAV REPORT #2B:

You can easily change this report into an "ALERT" report to select only volumes where the Track-managed space or Cylinder-managed space allocated is more than 80%.

VOLSER	DEVTYPE	ALLOCBYTES	FCM	UCM	FTM	UTM	%TF	%TU	CYLVOL
SY3292	3390-A	223257.293M	0	100	0	100	0	100	262668
UP180D	3390-A	64299.814M	71	29	13	87	42	58	131334
SH2510	3390-A	45899.257M	100	0	17	83	19	81	66780

EAV REPORT #2C:

Same report as EAV REPORT #2A, but in cylinders instead of percentages.

VOLSER	DEVTYPE	CMFCYL	CYMALCY	TMFCYL	TMALCY	FREECYL	ALLOCYL	CYLVOL
SY3292	3390-A	0	197148	0	65520	0	262668	262668
UP180D	3390-A	46935	18879	8748	56772	55683	75651	131334
SH2510	3390-A	1260	0	11518	54002	12778	54002	66780
UP180E	3390-A	65814	0	16354	49166	82168	49166	131334
SH2512	3390-A	167895	29253	65453	67	233348	29320	262668
SY3296	3390-A	56847	11193	65402	118	122249	11311	133560
SH2514	3390-A	147	0	54518	11002	54665	11002	65667

CMFCYL	Cylinder-managed free cylinders
CYMALCY	Cylinder-managed allocated cylinders
TMFCYL	Track-managed free cylinders
TMALCY	Track-managed allocated cylinders
FREECYL	Volume free cylinders (whole EAV)
ALLOCYL	Volume allocated cylinders (whole EAV)
CYLVOL	Number of cylinders per volume

EAV REPORT #2D:

Same report again, but in gigabytes (GB).

FTP member: [FDREPORT_EAV_Management.txt](#) contains all four of these reports.

CYLMNFRBYT	Cylinder-managed free bytes
CYLMNALTES	Cylinder-managed allocated bytes
TRKMNFRBYT	Track-managed free bytes
TRIMNALTES	Track-managed allocated bytes
FREEBYTES	Volume free bytes (whole EAV)
ALLOCBYTES	Volume allocated bytes (whole EAV)
BYTEVOLUME	Bytes per volume
CYLVOL	Number of cylinders per volume

VOLSER	DEVTYPE	CYLMNFRBYT	CYLMNALTES	TRKMNFRBYT	TRKMNALTES	FREEBYTES	ALLOCBYTES	BYTEVOLUME	CYLVOL
SY3292	3390-A	0.000G	167.568G	0.000G	55.689G	0.000G	223.257G	223.257G	262668
UP180D	3390-A	39.893G	16.046G	7.436G	48.253G	47.329G	64.300G	111.629G	131334
SH2510	3390-A	1.071G	0.000G	9.790G	45.899G	10.861G	45.899G	56.760G	66780
UP180E	3390-A	55.939G	0.000G	13.902G	41.787G	69.841G	41.787G	111.629G	131334
SH2512	3390-A	142.704G	24.864G	55.633G	0.056G	198.337G	24.920G	223.257G	262668

EAV REPORT #3:

Report on data sets with the EATTR=OPT attribute.

FTP member: [FDREPORT_EAV_EATTROPT_Attribute](#)

DATA SET NAME	DEVTYPE	VOLSER	UADR	ALLOC	STORCLAS	DATACLAS	MGMTCLAS	DSFLAG1
XTRHES1.VEU2FOE.PS.A0001	3390-A	EU2FOE	2FOE	1633815	EUSCS02			LRG EOP
XTRHES1.TSTEAV2.MCU.DATA	3390-A	EU2FOE	2FOE	1890	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.CPY.DATA	3390-A	EU2FOE	2FOE	1890	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.CPYL76.DATA	3390-A	EU2FOE	2FOE	1785	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAV2.MCU19A.DATA	3390-A	EU2FOE	2FOE	315	EUSCS02	EAVOPT		EOP
XTRHES1.TSTEAVOQ.DATA	3390-A	EU2FOE	2FOE	630	EUSCS02	EAVOPT		EOP
XTRHES1.EU2FOE.XYZ5.XYZ3.XYZ1.DATA	3390-A	EU2FOE	2FOE	630	EUSCS01	EAVOPT		EOP

FDREPORT EAV REPORTS

EAV REPORT #4:

Report on the Free and Allocated Tracks and Cylinders in the Track-managed and Cylinder-managed space. Volumes are grouped and summarized by the number of cylinders.

FTP member: [FDREPORT_EAV_TRK_CYL_Managed_Space.txt](#) contains both of these reports.

TRACK-MANAGED SPACE REPORT						
VOLSER	UADR	DEVTYPE	TMFCYL	TMALCY	TMTOCY	CYLVOL
SH2514	2514	3390-A	54518	11002	65520	65667
SY3294	3294	3390-A	65018	502	65520	65667
...						
SUBTOTAL -- VLCYLVOL--		65667				
VLVOLSER-----4		VLTMNFY-----250572				
		VLTMALOC-----11508				
SH2510	2510	3390-A	11518	54002	65520	66780
SY3290	3290	3390-A	65518	2	65520	66780
...						
SUBTOTAL -- VLCYLVOL--		66780				
VLVOLSER-----4		VLTMNFY-----208072				
		VLTMALOC-----54008				
...						
FINAL TOTALS --						
VLVOLSER-----37		VLTMNFY-----2176247				
		VLTMALOC-----247993				

TMFCYL	Track-managed free cylinders
TMALCY	Track-managed allocated cylinders
TMTOCY	Track-managed total cylinders
CYLVOL	Number of cylinders per volume

CYLINDER-MANAGED SPACE REPORT						
VOLSER	UADR	DEVTYPE	CMFCYL	CYMALCY	CMTOCY	CYLVOL
SH2514	2514	3390-A	147	0	147	65667
SY3294	3294	3390-A	147	0	147	65667
...						
SUBTOTAL -- VLCYLVOL--		65667				
VLVOLSER-----4		VLCMNFCY-----588				
		VLCMALOC-----0				
SH2510	2510	3390-A	1260	0	1260	66780
SY3290	3290	3390-A	1260	0	1260	66780
...						
SUBTOTAL -- VLCYLVOL--		66780				
VLVOLSER-----4		VLCMNFCY-----5040				
		VLCMALOC-----0				
...						
FINAL TOTALS --						
VLVOLSER-----37		VLCMNFCY-----2480541				
		VLCMALOC-----266217				

CMFCYL	Cylinder-managed free cylinders
CMALCY	Cylinder-managed allocated cylinders
CMTOCY	Cylinder-managed total cylinders
CYLVOL	Number of cylinders per volume

EAV REPORT #5:

Report on and group all EAVs by the number of cylinders per volume.

FTP member: [FDREPORT_EAV_Grouped_by_Cylinder_Size.txt](#)

EAV VOLUMES GROUPED BY # CYLINDERS						
VOLSER	UADR	DEVTYPE	ALLOCBYTES	FREEBYTES	BYTEVOLUME	CYLVOL
SH2514	2514	3390-A	9351.203M	46463.120M	55814.323M	65667
SY3294	3294	3390-A	426.623M	55387.700M	55814.323M	65667
...						
SUBTOTAL -- VLCYLVOL--		65667				
VLVOLSER-----4		VLALOBYT---9780.093M				
		VLFREBYT--213477.200M				
		VLBYTVOL--223257.293M				
SH2510	2510	3390-A	45899.257M	10861.072M	56760.329M	66780
SY3290	3290	3390-A	1.643M	56758.686M	56760.329M	66780
...						
SUBTOTAL -- VLCYLVOL--		66780				
VLVOLSER-----4		VLALOBYT--45903.166M				
		VLFREBYT--181138.148M				
		VLBYTVOL--227041.315M				
...						
SY3296	3296	3390-A	9613.841M	103906.817M	113520.658M	133560
SY3299	3299	3390-A	8436.646M	105084.011M	113520.658M	133560
...						
SUBTOTAL -- VLCYLVOL--		133560				
VLVOLSER-----20		VLALOBYT--18073.436M				
		VLFREBYT---2252.339G				
		VLBYTVOL---2270.413G				
SY3292	3292	3390-A	223257.293M	0.000M	223257.293M	262668
SH2512	2512	3390-A	24919.807M	198337.486M	223257.293M	262668
...						
SUBTOTAL -- VLCYLVOL--		262668				
VLVOLSER-----6		VLALOBYT--248181.633M				
		VLFREBYT---1091.362G				
		VLBYTVOL---1339.543G				
...						
FINAL TOTALS --						
VLVOLSER-----37		VLALOBYT--437041.159M				
		VLFREBYT---3958.100G				
		VLBYTVOL---4395.141G				

These volumes are grouped and subtotaled by cylinders per volume (CYLVOL)

FDREPORT EAV REPORTS

EAV REPORT #6:

Report on data sets larger than 21 cylinders (315 tracks) that reside in Track managed space. You might want to research whether these data sets can be moved from Track-managed space to Cylinder-managed space.

FTP member: [FDREPORT_EAV_Large_Data_Sets_in_Track_Managed_Space.txt](#)

DATA SETS IN TRACK-MANAGED SPACE GE 315 TRKS (21 CYL)										
EXTENT DESCRIPTORS										
DATA SET NAME	VOLSER	UADR	ALLOC	NEX	CCCCCCC-HH	CCCCCCC-HH	STORCLAS	DATACLAS	MGMTCLAS	DSFLAG1
XTRRLZ.TEST.FDREPORT.RMMVOL	EU2F0E	2F0E	3930	1	00000007-00	00000268-14	EUSCS01			
XTRHES1.TEST3.FDREPORT.RMMVOL	EU2F0E	2F0E	4095	1	00000269-00	00000541-14	MOVE002			
XTRHES1.TSTEAVZZ.DATA	EU2F0E	2F0E	630	1	00000956-00	00000997-14	EUSCS02			
SUBTOTAL -- VOL-----EU2F0E										
VLALOBYT--96822.740M VLFREBYT--16697.917M VLBYTVOL--113520.657M										
VALUE SUMMARY OF VLVOLSER SUBTOTAL NUMBER OF VALUES-----1										
VLVOLSER--EU2F0E (1)										
EXTENT DESCRIPTORS										
DATA SET NAME	VOLSER	UADR	ALLOC	NEX	CCCCCCC-HH	CCCCCCC-HH	STORCLAS	DATACLAS	MGMTCLAS	DSFLAG1
XTRHQB.RMMREP.UNLOAD	EU2F4E	2F4E	810	1	00000002-00	00000055-14	EUSCS02			
XTRHES1.EU2F4E.VL001	EU2F4E	2F4E	9825	1	00000056-00	00000710-14	EUSCS01	EAVOPT		
XTRHES1.EU2F4E.VL002	EU2F4E	2F4E	9825	1	00000711-00	00001365-14	EUSCS01	EAVOPT		
XTRHES1.EU2F4E.VL003	EU2F4E	2F4E	9825	1	00001366-00	00002020-14	EUSCS01	EAVOPT		
SUBTOTAL -- VOL-----EU2F4E										
VLALOBYT--65718.850M VLFREBYT--47801.807M VLBYTVOL--113520.657M										
VALUE SUMMARY OF VLVOLSER SUBTOTAL NUMBER OF VALUES-----1										
VLVOLSER--EU2F4E (1)										
FINAL TOTALS --										
VLALOBYT--162541.590M VLFREBYT--64499.724M VLBYTVOL--227041.315M										
VALUE SUMMARY OF VLVOLSER--- TOTAL NUMBER OF VALUES-----2										
VLVOLSER--EU2F0E (1) EU2F4E (1)										

EAV REPORT #7:

Report on tracks allocated by high-level qualifier on EAV's (volumes >54GB) so that the end user can be properly charged. The CAPBYTES field is used instead of BYTESUSED because unused bytes in an allocated track belongs to the allocated data set and cannot be used by another data set.

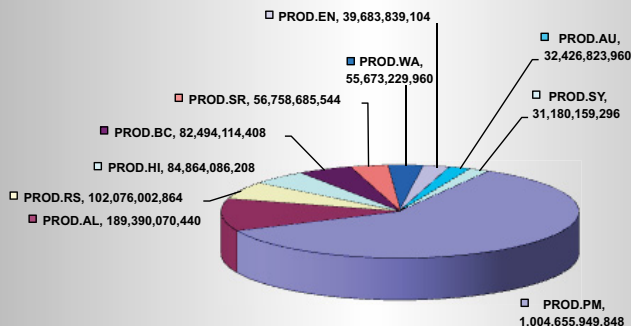
FTP member: [FDREPORT_EAV_Capacity_Bytes_for_ChargeBack.txt](#)

REPORT ON HIGH-LEVEL QUALIFIERS ON EAV VOLUMES TO PROVIDE CHARGEBACK TO USER			
DATA SET NAME	TRACKS		CAPACITY
	ALLOC		IN BYTES
CRL.DISTROS.ZLINUX	510		28898.640K
CRL.USTCHRIS.SUSTINFO	355950		20169.551M
CRL.USTCHRIS2.SUSTINFO	850740		48206.331M
SUBTOTAL -- PREFIX-----CRL.			
SIZE-----2156610 CAPBYTES--122202.149M			
FINAL TOTALS --			
SIZE-----21392749 CAPBYTES---1212.198G			

Subtotal for each prefix

Total for each prefix

Capacity Bytes - PROD. Datasets By 2nd Level Qualifier



If licensed for FDRVIEWS you can receive these type of reports in both table and chart formats.