

Cluster Nucleus Session End Statistics

In addition to the end-of-session statistics printed by every Adabas nucleus, the statistics for a cluster nucleus also include external cache and lock statistics.

If you are running the selectable unit Adabas Online System (AOS), all of the statistics shown in the following sample output are displayed.

If you are running only the demo version of AOS delivered with Adabas, the statistics displayed are limited as follows:

Section	Displays statistics only for...
External Cache Statistics	totals, DS, and NI
External Lock Statistics	buffer flush, hold ISN, new data RABN, and global update command sync locks

This chapter covers the following topics:

- General Nucleus Information
- Input/Output Statistics
- Command Statistics
- User Statistics
- Efficiency Statistics
- External Cache Statistics (Cluster Nucleus Only)
- External Lock Statistics (Cluster Nucleus Only)
- Data Set Activity Statistics

General Nucleus Information

The A d a b a s nucleus session

Started 2001-02-13 22:58 and ended 2001-02-13
23:05

Duration 0000:06:59 hours
Wait-time 0000:02:26 hours
Cpu-time 0000:00:53 hours

Input/Output Statistics

I/O Counts (Including Initialization)

READS	WRITES	
ASSO	4710	6913
DATA	1750	2853
WORK	3	7251
PLOG	0	0
CLOG	0	0
Total	6463	17017

Log Reads and Buffer Efficiency

Log. reads	173,393
Buffer eff.	26.8

Distribution of ASSO/DATA I/Os by Volser Number (Excluding Initialization)

Vol-ser	High RABN	Count
WRKMO1 (ASSO)	8082)	11599
WRKMO1 (DATA)	5990)	4603
TOTAL		16202

Command Statistics

Count of Calls Executed and Threads Used

A d a b a s	executed	10,249	calls
	in	8	threads

Distribution of Commands by Source

Source	Number
Remote commands	0
Local commands	10,102
Internal commands	144
Operator commands	3

Distribution of Commands by Thread

Thread	Number
1	2,657
2	1,803
3	1,401
4	1,300
5	1,193
6	977

User Statistics

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7	917
8	1

Total	10,249

Distribution of Commands by File

File	Number

0	4,282
30	5,968

Total	10,250

Distribution of Commands by Type

Cmd-type	Number

A1/4	1,968
CL	44
ET	4,040
N1/2	2,000
OP	43
UC	7
REST	2,148

Total	10,250

User Statistics

There were 43 users participating

Most calls (303) initiated by user USADFMB2

Most I/O-s (331) initiated by user USADFMB2

Most thr.-time (00:00:08) was used by user USADFMB1

Efficiency Statistics

46 Formats had to be translated

0 Formats had to be overwritten

0 Autorestarts were done

0 Throw-backs due to ISN problem

0 Throw-backs due to space problem

143 Bufferflushes were done

Buffer Flush Information

Flush phases	212
Blocks flushed	28,503
Flush I/Os	8,756

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External Cache Statistics (Cluster Nucleus Only)

Flush requests:

Return immediately	52,658
Return after logical flush	0
Return after entire flush	15

Actual High-water Marks for Major Pools (Except the Bufferpool)

AREA	ADARUN PARM	HIGH-WATER-MARK
AB -POOL	NAB= 2000	51712 (0 %)
CQ -POOL	NC = 96000	3840 (4 %)
DUQ -POOL	LDE= 5000	0 (0 %)
FI -POOL	LFP= 20000	6560 (32 %)
HQ -POOL	NH = 16856	588 (3 %)
SC -POOL	LCP= 10000	0 (0 %)
TBI -POOL	LI = 10000	0 (0 %)
TBS -POOL	LQ = 100000	0 (0 %)
UQ -POOL	NU = 500	8844 (6 %)
UQF -POOL	NU = 500	1512 (3 %)
WORK-POOL	LWP= 800000	114296 (14 %)
XID -POOL	XID=	(0 %)

External Cache Statistics (Cluster Nucleus Only)

Cast-out dir :	188
Synchronous :	188
Asynchronous :	0

Unlock cast-out:	212
Synchronous :	132
Asynchronous :	80

Directory reads:	3
Synchronous :	0
Asynchronous :	3

Totals

Reads :	15,006
Synchronous :	15,006
Asynchronous :	0

In cache :	6,245
Not in cache :	8,761
Structure full:	0

Writes :	66,726
Synchronous :	66,726
Asynchronous :	0

Written :	66,726
Not written :	0
Structure full:	0

Validates :	327,623
Block invalid :	0

Cast-out reads :	28,503
Synchronous :	28,503

Address Converter (AC)

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Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

Address Converter (AC)

Reads	:	8
Synchronous	:	8
Asynchronous	:	0
In cache	:	0
Not in cache	:	8
Structure full:	:	0
Writes	:	2,004
Synchronous	:	2,004
Asynchronous	:	0
Written	:	2,004
Not written	:	0
Structure full:	:	0
Validates	:	5,983
Block invalid	:	0
Cast-out reads	:	72
Synchronous	:	72
Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

Data Storage (DS)

Reads	:	2,775
Synchronous	:	2,775
Asynchronous	:	0
In cache	:	26
Not in cache	:	2,749
Structure full:	:	0
Writes	:	4,972
Synchronous	:	4,972
Asynchronous	:	0
Written	:	4,972
Not written	:	0
Structure full:	:	0
Validates	:	9,965
Block invalid	:	0
Cast-out reads	:	2,921
Synchronous	:	2,921
Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

Data Storage Space Table (DSST)

Reads	:	2
Synchronous	:	2
Asynchronous	:	0
In cache	:	0
Not in cache	:	2
Structure full:		0
Writes	:	2,004
Synchronous	:	2,004
Asynchronous	:	0
Written	:	2,004
Not written	:	0
Structure full:		0
Validates	:	4,490
Block invalid	:	0
Cast-out reads	:	69
Synchronous	:	69
Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

File Control Block (FCB)

Reads	:	5
Synchronous	:	5
Asynchronous	:	0
In cache	:	0
Not in cache	:	5
Structure full:		0
Writes	:	4,970
Synchronous	:	4,970
Asynchronous	:	0
Written	:	4,970
Not written	:	0
Structure full:		0
Validates	:	56,029
Block invalid	:	0
Cast-out reads	:	119
Synchronous	:	119
Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

Normal Index (NI)

Reads	:	12,057
Synchronous	:	12,057
Asynchronous	:	0
In cache	:	6,219
Not in cache	:	5,838
Structure full:	:	0
Writes	:	44,096
Synchronous	:	44,096
Asynchronous	:	0
Written	:	44,096
Not written	:	0
Structure full:	:	0
Validates	:	25,685
Block invalid	:	0
Cast-out reads	:	22,973
Synchronous	:	22,973
Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

Upper Index (UI)

Reads	:	159
Synchronous	:	159
Asynchronous	:	0
In cache	:	0
Not in cache	:	159
Structure full:	:	0
Writes	:	8,680
Synchronous	:	8,680
Asynchronous	:	0
Written	:	8,680
Not written	:	0
Structure full:	:	0
Validates	:	225,471
Block invalid	:	0
Cast-out reads	:	2,349
Synchronous	:	2,349
Asynchronous	:	0
Deletes	:	0
Timeouts	:	0

File Statistics for Files with More than 25% of the Total Cache Statistics

File 30:

Reads	:	14,998
Writes	:	64,710
Validates	:	323,105

External Lock Statistics (Cluster Nucleus Only)**General Control Block (GCB) Lock**

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0
Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

Security Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0
Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

File Space Table (FST) Lock

Obtains - Conditional	:	1
Granted	:	1
Rejected	:	0
Unconditional	:	1
Synchronous	:	2
Asynchronous	:	0
Releases - Issued	:	2
Synchronous	:	2
Asynchronous	:	0

File Lock Table Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	5
Synchronous	:	5
Asynchronous	:	0

Online Save Lock

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Releases - Issued	:	5
Synchronous	:	5
Asynchronous	:	0

Online Save Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0

Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

Buffer Flush Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	152
Synchronous	:	152
Asynchronous	:	0

Releases - Issued	:	152
Synchronous	:	152
Asynchronous	:	0

Global ET Sync Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0

Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

Recovery Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0

Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

Hold ISN Locks

Obtains - Conditional	:	3972
Granted	:	3972
Rejected	:	0
Unconditional	:	0
Synchronous	:	3972
Asynchronous	:	0
Releases - Issued	:	3972
Synchronous	:	3972
Asynchronous	:	0

Unique Descriptor Locks

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0
Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

ETID Locks

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0
Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

New Data RABN Locks

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	1000
Synchronous	:	1000
Asynchronous	:	0
Releases - Issued	:	1000
Synchronous	:	1000
Asynchronous	:	0

Checkpoint Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	4
Synchronous	:	4
Asynchronous	:	0

Data Set Activity Statistics

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Releases - Issued	:	4
Synchronous	:	4
Asynchronous	:	0

ET Data Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0

Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

Global Update Command Sync Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	143
Synchronous	:	143
Asynchronous	:	0

Releases - Issued	:	143
Synchronous	:	143
Asynchronous	:	0

Parameter Lock

Obtains - Conditional	:	0
Granted	:	0
Rejected	:	0
Unconditional	:	0
Synchronous	:	0
Asynchronous	:	0

Releases - Issued	:	0
Synchronous	:	0
Asynchronous	:	0

Data Set Activity Statistics

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.....  
ADAI03 DDWORKR1      3 READS      7251 WRITES  
ADAI03 DDDATAR1     1750 READS     2853 WRITES  
ADAI03 DDASSOR1     4710 READS     6913 WRITES
```